

BUSSETO FOODS PROCESSING, WAREHOUSING, AND DISTRIBUTION FACILITY PROJECT

INITIAL STUDY / NEGATIVE DECLARATION

Development Permit Application No. P20-04211

Plan Amendment and Rezone Application No. P20-04209

*Initial Study prepared in accordance with Section 15164 of the
California Environmental Quality Act (CEQA) Guidelines*

Prepared for

City of Fresno
Planning and Development Department
2600 Fresno Street, 3rd Floor
Fresno, CA 93721

Prepared by

Precision Civil Engineering, Inc.
1234 O Street
Fresno, CA 93721

March 2022





Table of Contents

1	INTRODUCTION	9
1.1	Regulatory Information.....	9
1.2	Document Format.....	10
2	PROJECT DESCRIPTION	11
2.1	Project Title.....	11
2.2	Lead Agency Name and Address.....	11
2.3	Contact Person and Phone Number	11
2.4	Study Prepared By.....	11
2.5	Project Location	11
2.6	Latitude and Longitude	12
2.7	General Plan Designation.....	12
2.8	Zoning	12
2.9	Description of Project	12
2.10	Site and Surrounding Land Uses and Setting	14
2.11	Project Entitlements	15
2.12	Project Construction and Phasing.....	15
2.13	Site Preparation	15
2.14	Project Components	15
2.15	Required Project Approvals	27
2.16	Technical Studies	27
2.17	Consultation with California Native American Tribes	27
3	DETERMINATION.....	29
3.1	Environmental Factors Potentially Affected	29
3.2	Determination.....	30
4	EVALUATION OF ENVIRONMENTAL IMPACTS.....	33
4.1	AESTHETICS.....	33
4.1.1	Environmental Setting.....	34



4.1.2	Impact Assessment.....	34
4.1.3	Mitigation Measures	36
4.2	AGRICULTURE AND FORESTRY RESOURCES	37
4.2.1	Environmental Setting.....	38
4.2.2	Impact Assessment.....	39
4.2.3	Mitigation Measures	41
4.3	AIR QUALITY	42
4.3.1	Environmental Setting.....	42
4.3.2	Regulatory Setting.....	59
4.3.3	Modeling Parameters and Assumptions	66
4.3.4	Impact Assessment.....	75
4.3.5	Mitigation Measures	91
4.4	BIOLOGICAL RESOURCES.....	92
4.4.1	Environmental Setting.....	93
4.4.2	Impact Assessment.....	94
4.4.3	Mitigation Measures	97
4.5	CULTURAL RESOURCES	98
4.5.1	Environmental Setting.....	98
4.5.2	Impact Assessment.....	99
4.5.3	Mitigation Measures	100
4.6	ENERGY	101
4.6.1	Environmental Setting.....	101
4.6.2	Impact Assessment.....	102
4.6.3	Mitigation Measures	103
4.7	GEOLOGY AND SOILS.....	104
4.7.1	Environmental Setting.....	105
4.7.2	Impact Assessment.....	107
4.7.3	Mitigation Measures	110



4.8	GREENHOUSE GAS EMISSIONS	111
4.8.1	Environmental Setting.....	111
4.8.2	Regulatory Setting.....	115
4.8.3	Modeling Parameters and Assumptions	128
4.8.4	Impact Assessment.....	128
4.8.5	Mitigation Measures	140
4.9	HAZARDOUS AND HAZARDOUS MATERIAL.....	141
4.9.1	Environmental Setting.....	142
4.9.2	Impact Assessment.....	143
4.9.3	Mitigation Measures	148
4.10	HYDROLOGY AND WATER QUALITY	149
4.10.1	Environmental Setting.....	150
4.10.2	Impact Assessment.....	151
4.10.3	Mitigation Measures	156
4.11	LAND USE PLANNING	157
4.11.1	Environmental Setting.....	157
4.11.2	Impact Assessment.....	157
4.11.3	Mitigation Measures	160
4.12	MINERAL RESOURCES	161
4.12.1	Environmental Setting.....	161
4.12.2	Impact Assessment.....	161
4.12.3	Mitigation Measures	162
4.13	NOISE	163
4.13.1	Environmental Setting.....	163
4.13.2	Impact Assessment.....	165
4.13.3	Mitigation Measures	169
4.14	POPULATION AND HOUSING	170
4.14.1	Environmental Setting.....	170



4.14.2	Impact Assessment.....	170
4.14.3	Mitigation Measures	171
4.15	PUBLIC SERVICES.....	172
4.15.1	Environmental Setting.....	172
4.15.2	Impact Assessment.....	174
4.15.3	Mitigation Measures	175
4.16	RECREATION.....	176
4.16.1	Environmental Setting.....	176
4.16.2	Impact Assessment.....	176
4.16.3	Mitigation Measures	177
4.17	TRANSPORTATION	178
4.17.1	Environmental Setting.....	178
4.17.2	Impact Assessment.....	179
4.17.3	Mitigation Measures	182
4.18	TRIBAL CULTURAL RESOURCES	183
4.18.1	Environmental Setting.....	184
4.18.2	Impact Assessment.....	185
4.18.3	Mitigation Measures	186
4.19	UTILITIES AND SERVICE SYSTEMS.....	187
4.19.1	Environmental Setting.....	188
4.19.2	Impact Assessment.....	189
4.19.3	Mitigation Measures	193
4.20	WILDFIRE – IF LOCATED IN OR NEAR STATE RESPONSIBILITY OR LANDS CLASSIFIED AS VERY HIGH FIRE HAZARD SEVERITY ZONES	194
4.20.1	Environmental Setting.....	195
4.20.2	Impact Assessment.....	195
4.20.3	Mitigation Measures	196
4.21	MANDATORY FINDINGS OF SIGNIFICANCE	197



4.21.1	Impact Assessment.....	198
5	MITIGATION MONITORING AND REPORTING PROGRAM	199
6	REPORT PREPARATION	200
7	APPENDICES	201
	Appendix A: Air Quality and Greenhouse Gas Analysis Report	202
	Appendix B: Habitat Assessment.....	203
	Appendix C: CHRIS Record Search Results.....	204
	Appendix D: Vehicle Miles Traveled Analysis	205



Figures

Figure 2-1 Project Regional Location.....	18
Figure 2-2 Project Vicinity Map	19
Figure 2-3 General Plan Land Use Designation Map	20
Figure 2-4 Zoning Map	21
Figure 2-5 Site Plan of the proposed Project.....	22
Figure 2-6 Conceptual Elevation of the proposed Project	23
Figure 2-7 Architectural and Structural Plans of proposed Security Kiosk	24
Figure 2-8 Conceptual Floor Plan and Elevation of the proposed Pavilion	25
Figure 2-9 Landscaping of the proposed Project.....	26
Figure 4-1 Farmland Category Map.....	40
Figure 4-2 Project Site with a 1,000 Foot Buffer	87
Figure 4-3 Geologic Map of the Fresno region.....	107
Figure 4-4 GHG Emissions by Economic Sector.....	114

Tables

Table 2-1 Anticipated Truck Traffic Generated by the Project.....	13
Table 2-2 Existing Uses, General Plan Designations, and Zone Districts of Surrounding Properties	14
Table 2-3 Proposed Phasing of Construction	15
Table 4-1 California and National Ambient Air Quality Standards.....	44
Table 4-2 San Joaquin Valley Air Basin Attainment Status	56
Table 4-3 Ambient Air Quality Summary	57
Table 4-4 CalEEMod Land Use Development Summary Table for the Proposed Project.....	68
Table 4-5 Project Construction Schedule	68
Table 4-6 Project Construction Equipment	69
Table 4-7 Construction Vehicle Trips.....	70
Table 4-8 SJVAPCD Significance Threshold.....	75



Table 4-9 Construction Emissions – Unmitigated..... 79

Table 4-10 Summary of Operational Emissions of Criteria Air Pollutants – Unmitigated 79

Table 4-11 Localized Concentrations of PM10, PM2.5, CO, and NOX for Construction..... 84

Table 4-12 Estimated Trucking Numbers 86

Table 4-13 Health Risks from the Proposed Project at the Maximally Exposed Sensitive Receptor 89

Table 4-14 Construction Greenhouse Gas Emissions 132

Table 4-15 Operational Greenhouse Gas Emissions..... 133

Table 4-16 Project Consistency with Applicable 2017 Scoping Plan Greenhouse Gas Reduction Strategies..... 134

Table 4-17 Consistency with the City of Fresno GHG Plan Update 135

Table 4-18 Project Consistency with Applicable SJVAPCD CCAP GHG Reduction Measures..... 137

Table 4-19 Project Consistency with Applicable Fresno COG Goals..... 137

Table 4-20 Safety Zone Land Use Compatibility Standards 146

Table 4-21 Projected Water Use by Sector, 2020 – 2040 152

Table 4-22 Summary of Total Water Demands by Land Use..... 153

Table 4-23 Discussion on Land Use Policies in the General Plan..... 158

Table 4-24 Results from VMT Analysis 181



1 INTRODUCTION

Precision Civil Engineering, Inc. (PCE) has prepared this Initial Study/Negative Declaration (IS/ND) on behalf of the City of Fresno (City) to address the environmental effects of the proposed Busseto Foods Processing, Warehousing, and Distribution Facility Project (Project). This document has been prepared in accordance with the California Environmental Quality Act (CEQA), Public Resources Code Section 21000 et. seq. The City of Fresno is the Lead Agency for this proposed Project. The site and the proposed Project are described in detail in **Section 2 PROJECT DESCRIPTION**.

1.1 Regulatory Information

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

a. The IS shows there is no substantial evidence, in light of the whole record before the agency, that the proposed Project may have a significant effect on the environment, or

b. The IS identified potentially significant effects, but:

1. Revisions in the project plans or proposals made by or agreed to by the applicant before the proposed MND and IS is released for public review would avoid the effects or mitigate the effects to a point where clearly no significant effects would occur is prepared, and

2. There is no substantial evidence, in light of the whole record before the agency, that the proposed Project as revised may have a significant effect on the environment.



1.2 Document Format

This IS/ND contains five (5) chapters plus appendices. **SECTION 1 INTRODUCTION** provides bases of the IS/ND's regulatory information and an overview of the proposed Project. **SECTION 2 PROJECT DESCRIPTION** provides a detailed description of proposed Project components. **SECTION 3 DETERMINATION** concludes that the IS is an ND, identifies the environmental factors potentially affected based on the analyses contained in this IS, and includes with the Lead Agency's determination based upon those analyses. **SECTION 4 EVALUATION OF ENVIRONMENTAL IMPACTS** presents the CEQA checklist and environmental analyses for all impact areas and the mandatory findings of significance. A brief discussion of the reasons why the Project impact is anticipated to be potentially significant, less than significant with mitigation incorporated, less than significant, or why no impacts are expected is included. **SECTION 5 MITIGATION MONITORING AND REPORTING PROGRAM** presents the mitigation measures recommended in the IS/ND for the Project. The Air Quality/Greenhouse Gas Analysis, Biological Resources Evaluation, CHRIS Record Search Results, and VMT Analyses are provided as **Appendix A, Appendix B, Appendix C, and Appendix D** respectively, at the end of this document.



2 PROJECT DESCRIPTION

This section describes the components of the proposed Project in more detail, including project location, project objectives, and required project approvals.

2.1 Project Title

Busseto Foods Processing, Warehousing, and Distribution Facility (Development Permit Application No. P20-04211, Plan Amendment and Rezone Application P20-04209)

2.2 Lead Agency Name and Address

City of Fresno
2600 Fresno Street
Fresno, CA 93721

2.3 Contact Person and Phone Number

Lead Agency

Will Tackett
Planning Manager
(559) 621-8000

Applicant

Armen Devejian
(559) 431-2389
ADE Inc.

2.4 Study Prepared By

Precision Civil Engineering
1234 O Street
Fresno, CA 93721

2.5 Project Location

The Project site is located at 2325 South West Avenue and 995 West Church Avenue on the southeast corner of South West Avenue and West Church Avenue in Fresno, CA, approximately two (2) miles west of State Route-41 (SR-41) and State Route-99 (SR-99) and two (2) miles south of State Route-180 (SR-180) (see [Figure 2-1](#)). The site consists of two (2) parcels that total approximately 18.90-acres. The site is identified as APNs 477-030-20 and 477-030-21 of Fresno County and is a portion of Section 17, Township 14 South, Range 20 East, Mount Diablo Base and Meridian.



2.6 Latitude and Longitude

The centroid of the Project area is 36.713054, -119.824243.

2.7 General Plan Designation

The Project site has a General Plan land use designation of Residential – Medium Density (5.0-12 du/acre) (see [Figure 2-3](#)). Plan Amendment and Rezone Application No. P20-04209 requests to change the existing land use designation to Employment – Light Industrial. According to the Fresno General Plan, the Employment – Light Industrial land use designation is intended to accommodate a diverse range of light industrial uses, including manufacturing and processing, research and development, fabrication, utility equipment and service yards, warehousing, distribution activities, small-scale retail, etc. These areas may serve as buffers for heavy industrial and are generally located in areas with good transportation access.

2.8 Zoning

The Project site is in the RS-5 (*Residential Single-Family, Medium Density/Urban Growth Management*) Zone District (see [Figure 2-4](#)). Plan Amendment and Rezone Application No. P20-04209 requests to change the existing zoning designation to IL (*Light Industrial/Urban Growth Management*). According to the Fresno Municipal Code, the purpose of the IL zone district is to provide a diverse range of light industrial uses, as listed above under General Plan Designation.

2.9 Description of Project

This section describes the components of the proposed Project in more detail, including operations, site preparation, proposed structures, and on- and off-site improvements.

Project Description

The proposed Project includes a General Plan Amendment/Rezone (Plan Amendment/Rezone Application No. P20-04209) and Development Permit (Development Permit Application No. P20-04211) to facilitate the development of a food processing, warehousing, and distribution facility for Busseto Foods, Inc. (Facility), a manufacturer and marketer of Italian-style specialty meats, in the city of Fresno. The Project would allow for the construction of a ± 477,470- square foot (sf.) facility that consists of two (2) stories with a ground floor of approximately 470,730-sf. and second floor for 6,740-sf. in addition to two (2) 121-sf. security kiosks. The Project will allow Busseto Foods, Inc. to consolidate all Fresno based facilities and operations under one roof. A majority of operations including the processing, warehousing, and distribution activities are located on the ground floor with administrative activities located on the second floor. The Project site comprises two (2) parcels totaling approximately ± 18.90-acres located at 2325 South West Avenue and 995 West Church Avenue on the southeast corner of South West Avenue and



West Church Avenue in Fresno, CA (APNs 477-030-20 and 477-030-21). The Project would require a plan amendment and rezone to allow industrial uses.

Hours of Operation

The Facility will operate five (5) days per week, Monday through Friday, from 5:00 am to 10:30 pm. Shifts will comprise one (1) production shift (5:00 am to 2:00 pm) and two (2) slicing and packaging shifts (5:00 am to 1:30 pm and 2:30 pm to 10:30 pm).

Employment

Approximately 160 employees are projected to work at the Facility, including 20-50 temporary/part-time seasonal employees that are projected to work from September to December. Employees are provided with competitive wages, benefits, and amenities. The new campus will provide indoor and outdoor break areas, including a covered pavilion with seating for employees, lactation room for nursing mothers, and medical facilities.

Products

The products produced at the Facility will include four (4) types of dried meat – salami, pancetta, coppa, and prosciutto. The facility will include a large kitchen, refrigeration and freezing cold boxes; rooms for seasoning, storage, washing, cleaning, and unpacking and packing, as well as loading and unloading docks. Nearly one half of the building will be a giant drying room for the prosciutto.

Production of these items involves a non-odor emitting process consisting of fermentation and drying in atmosphere-controlled rooms. No slaughtering or butchering of meat takes place in the facility. Nearly all meat arrives frozen from other locations. It is anticipated that the Facility will produce 500,000 to 600,000 pounds of dried meat per week. The Facility will not have a retail store on site.

Truck Traffic

Truck trips associated with the Facility will consist of shipping, receiving, and freezer activities during weekdays, Monday through Friday, from either 8:00 am to 12:30 pm or 1:00 to 5:00 pm (see [Table 2-1](#)). In total, the Project anticipates between 10 and 13 truck trips per day. In addition to these anticipated trips, the Facility is expected to send and receive UPS and FedEx shipments and deliveries during weekdays, Monday through Friday. Pallet truck deliveries are expected one (1) to two (2) times a month and solid waste collection is expected to occur weekly as required by the City of Fresno.

Table 2-1 Anticipated Truck Traffic Generated by the Project

Truck Types	Truck Schedule	Number of Truck Trips				
		Monday	Tuesday	Wednesday	Thursday	Friday



Shipping	1:00 – 5:00 pm	5	4	5	7	4
Receiving	8:00 am – 12:30 pm	3	3	3	3	3
Freezer	8:00 am – 12:30 pm	3	3	3	3	3
<i>Total Trucks</i>		11	10	11	13	10

Special Events

The Facility will contain training facilities where employees, salespeople, and clients can train, visit, conduct meetings, host clients, and conduct tastings of the product lines. Busseto Foods will host a Job Fair three (3) or four (4) times a year that focuses on Southwest Fresno residents. Busseto Food will also work with the new Fresno Community College campus located nearby for career-oriented opportunities and job placement services on the facility.

2.10 Site and Surrounding Land Uses and Setting

Project Setting

Historically, the Project site has been operated as agricultural land as recently as 2017. Today, the site is vacant with no improvements or structures, other than power-poles and a pump/well. Topography is generally flat. The existing biotic conditions and resources of the Project site can be defined as ruderal and is composed of herbaceous vegetation. There are no shrubs or trees present on the site. West Church Avenue, a two (2)-lane, east-west collector forms the northerly site boundary and South West Avenue, a two (2)-lane, north-west collector forms the westerly site boundary. No street frontage improvements are present (i.e., no curb, gutter, sidewalk, storm-drains, or streetlights) except for existing curb, gutter, and sidewalk located on the north side of West Church Avenue.

Surrounding Land Uses and Setting

The Project site is in an area generally characterized by a mix of existing land uses including industrial (north), open space (south and east), and junk yards (west). Busseto Food’s current operating facilities are located 70 feet north of the Project site at 1090 West Church Avenue and 3.3 miles northwest of the Project site at 1351 N Crystal Ave, Fresno, CA 93728. Busseto plans to consolidate all operations from their current facilities in Fresno to this site. As shown in **Table 2-2**, the surrounding properties are also planned for a mix of uses including employment (north and west), open space (south), and residential (east).

Table 2-2 Existing Uses, General Plan Designations, and Zone Districts of Surrounding Properties

Direction from Project site	Existing Use	General Plan Designation	Zone District
North	Industrial	Employment – Office	O - Office
South	Open Space/Ponding Basin	Open Space – Ponding Basin	OS – Open Space



East	Open Space/Agriculture	Residential – Medium Density	RS – 5
West	Junk Yard	Employment – Business Park	N/A – County

2.11 Project Entitlements

The Project requires planning entitlements, including a plan amendment/rezone and development permit. The Plan Amendment/Rezone Application requests to change the land use designation from Residential – Medium Density to Employment – Light Industrial and zoning designation from RS-5 (*Residential Single-Family, Medium Density*) to IL (*Light Industrial*). The development permit is to approve and entitle the design and layout of the Facility. A parcel merger is also required to merge the two parcels that comprise the Project site.

2.12 Project Construction and Phasing

The Project is anticipated to begin construction in the February 2022 with full buildout by January 2023. The expected phasing is shown below in **Table 2-3**. It is important to note that the phases below are estimates only and are dependent on resources available at the time.

Table 2-3 Proposed Phasing of Construction

Phase	Start	Finish
Site Preparation	February 2022	March 2022
Grading/Excavation	March 2022	April 2022
Draining/Utilities/Trenching	March 2022	April 2022
Foundations/Concrete Pour	April 2022	May 2022
Building Construction	May 2022	January 2023
Paving	November 2022	January 2023

2.13 Site Preparation

The Project site is currently vacant and undeveloped; there are no existing structures on site. Site preparation would include typical grading activities to ensure an adequately graded site for drainage purposes. Part of the preparation would include the removal of any vegetation necessary to accommodate the Project. Other site preparation activities would include minor excavation for the installation of utility infrastructure, for conveyance of water, sewer, stormwater, and irrigation. There are no buildings proposed for demolition as part of this Project.

2.14 Project Components

This section describes the overall components of the Project, such as the proposed buildings, landscape, vehicle and pedestrian circulation, and utilities.



Demolition

As mentioned under **Section 2.13 Site Preparation**, the site is vacant and undeveloped and therefore, there would be no structures demolished as part of the Project.

Site Layout and Elevations

As shown in **Figure 2-5**, the Project proposes the construction of a 477,470-sf. food processing, warehousing, and distribution facility, consisting of two (2) stories with a ground floor of approximately 470,730 sf. and a second floor of 6,740 sf., for a total building area of 477,470-sf. The Project also proposes two (2) 121-sf. security kiosks to be located on West Church Avenue at both points of ingress/egress (see **Figure 2-7**), an outdoor, covered employee pavilion with patio furniture in the northeast corner of the site (see **Figure 2-8**), as well as truck unloading and loading on the western and eastern portions of the site, and a trash enclosure (trash, recycling, and grease) on the eastern portion of the site. Conceptual elevations are shown in **Figure 2-6**. As shown, the Facility would reach a maximum height of \pm 37 feet and the exterior would consist of concrete, stucco, and metal. Exterior lighting is also proposed and will provide safety lighting for the parking lot, walkways, and areas surrounding the Facility's exterior.

The Project is designed and built with state of the art technological and energy efficient products, materials, and methods. The Project design uses Building Energy Modeling to implement bottom-up engineering models that describe the physical and thermal interactions between various components of the building, including the envelope, lighting, equipment and appliances, and heating, ventilating and air conditioning systems. This facility is LEED certified, the most widely used green building rating system, thus the facility consists of healthy, livable, highly efficient and cost saving green buildings.

Site Circulation and Parking

The Project would be accessible by automobiles via two (2) points of ingress/egress along West Church Avenue. An eight (8)-foot wrought iron fence will be installed at both entrances. The proposed site circulation will reduce surface vehicular traffic in Southwest Fresno by consolidating four (4) existing locations into one combined facility/campus. The net effect is the permanent elimination of at least 40 truck trips per week and consequently, improve air quality, reduce noise impact, and elevate livability. All new arriving truck traffic will be required to travel on Jensen Avenue towards West Avenue, then turn northbound on West into the Project site. All new departing truck traffic will be required to exit the site onto West Avenue, turn southbound and travel to Jensen Avenue.

On-site parking would be provided per the Fresno Municipal Code (FMC) standards for parking spaces. The Project proposes 204 total parking spaces, including accessible (six spaces), van accessible (two spaces), and clean air/vanpool (16 spaces, 16 chargers) spaces. Ten (10) bicycle parking spaces are also proposed. Truck access would be provided separate from automobile access via one (1) point of



ingress/egress on South West Avenue. Truck unloading and loading is proposed adjacent to the Facility; truck loading is to be located on the western portion of the site and truck unloading is to be located on the eastern portion of the site, accessible by drive aisles located to the south of the site. Tractor trailers on site during loading and unloading will not be permitted to idle their engines. All trucks must be equipped with electrical refrigeration units that will “plug in” at the loading bays.

Frontage improvements including sidewalk, curb, gutter, and streetlights will be constructed along West Church Avenue and South West Avenue. The project will include the dedication of property for right-of-way purposes along Church Avenue, West Avenue and Teilman Avenues. The project will also be required to install a signal pole with a 150-watt equivalent LED safety light and an oversize street sign to Public Works Standards at the southeast corner of Church Avenue and West Avenue.

Landscaping

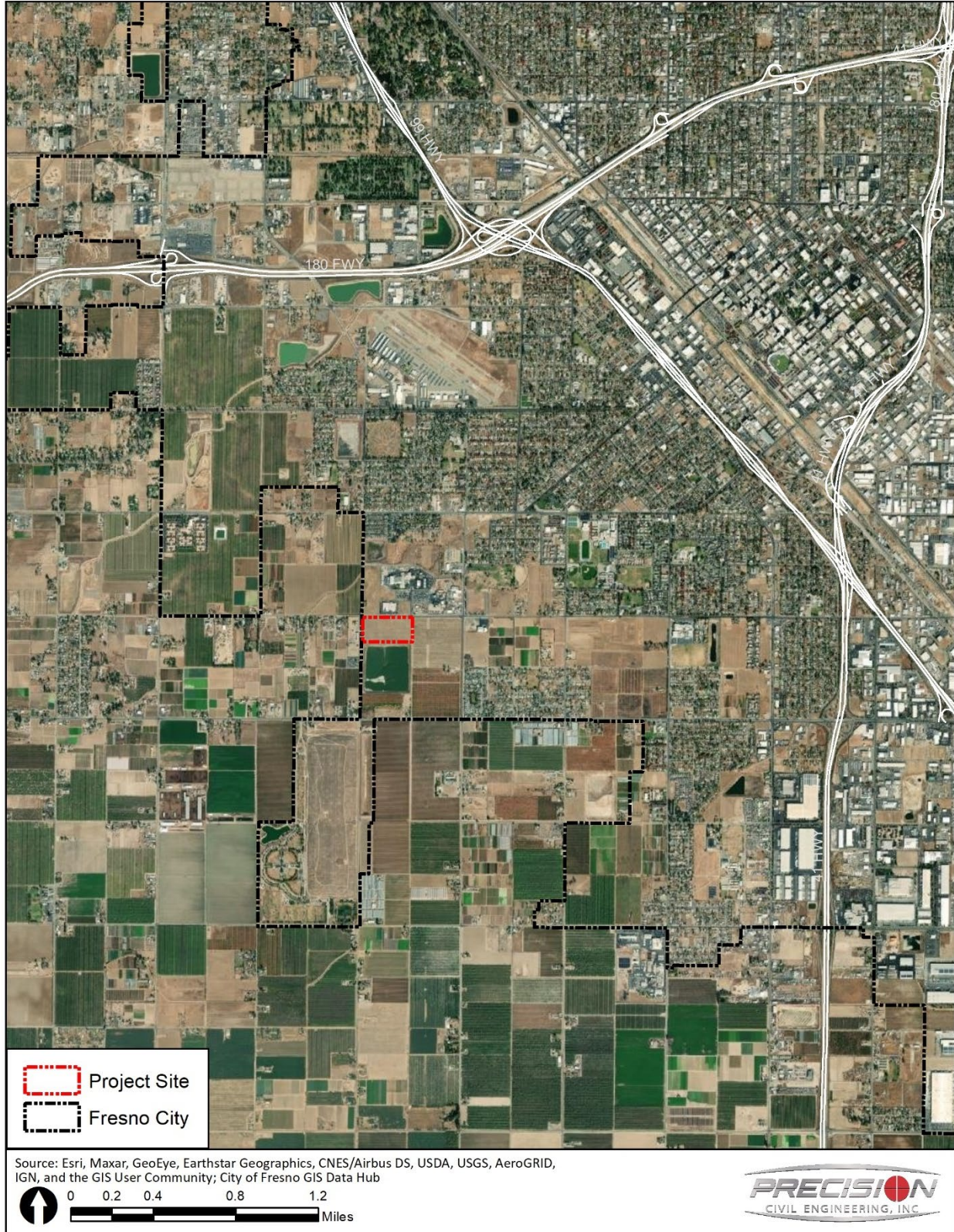
As shown in **Figure 2-8**, the Project would include landscaping along South West Avenue and West Church Avenue in addition to along the front entrance to the Facility, where a variety of shrubs, trees, and ground cover would be planted consistent with the FMC. Garden walls will be incorporated into the landscaping and design along Church Avenue to screen and mitigate the loading docks and bays, and act as visual, noise, and wind barriers. Project landscaping (i.e., small, medium, and large trees) would provide approximately 68% shading for the parking lot.

Utilities

Utilities for the site would consist of water, sewer, electric, cable, gas, and stormwater infrastructure. Minor trenching and digging activities would be required for the installation of necessary pipelines typical of industrial development. All utility plans would be required to be reviewed and approved by the appropriate agency, and/or department to ensure that installation occurs to pertinent codes and regulations. Other infrastructure would include new fire hydrants as required by the City of Fresno Fire Department. Utilities are provided by and managed from a combination of agencies, including the City of Fresno, Fresno Irrigation District (FID), Fresno Metropolitan Flood Control District (FMFCD), and the City’s public utilities department which provides for solid waste collection and sewer collection services. Pacific Gas & Electric (PG&E) provides electricity and natural gas within the city of Fresno.

Energy

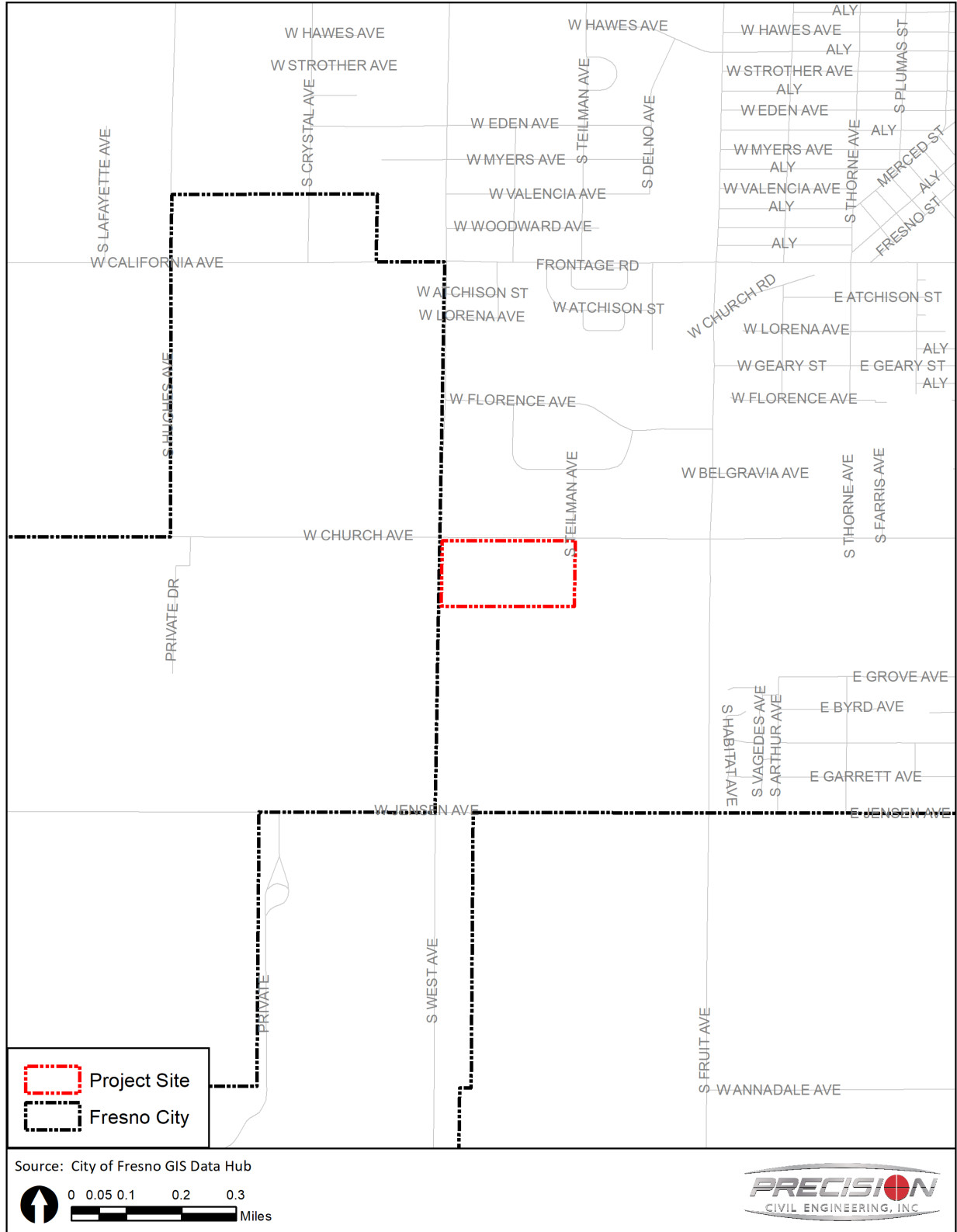
The Project includes several aspects to strive for energy conservation. 100 percent of kitchen equipment, conveyor systems, and operational support equipment (i.e. forklifts, etc.) will be electric and powered by solar energy to the maximum extent possible. Regarding transportation, EV charging stations will be provided, and incentives given to staff who choose to carpool or utilize electric vehicles.



CITY OF FRESNO - BUSSETO FOODS FACILITY PROJECT
INITIAL STUDY

Created 9/10/2021

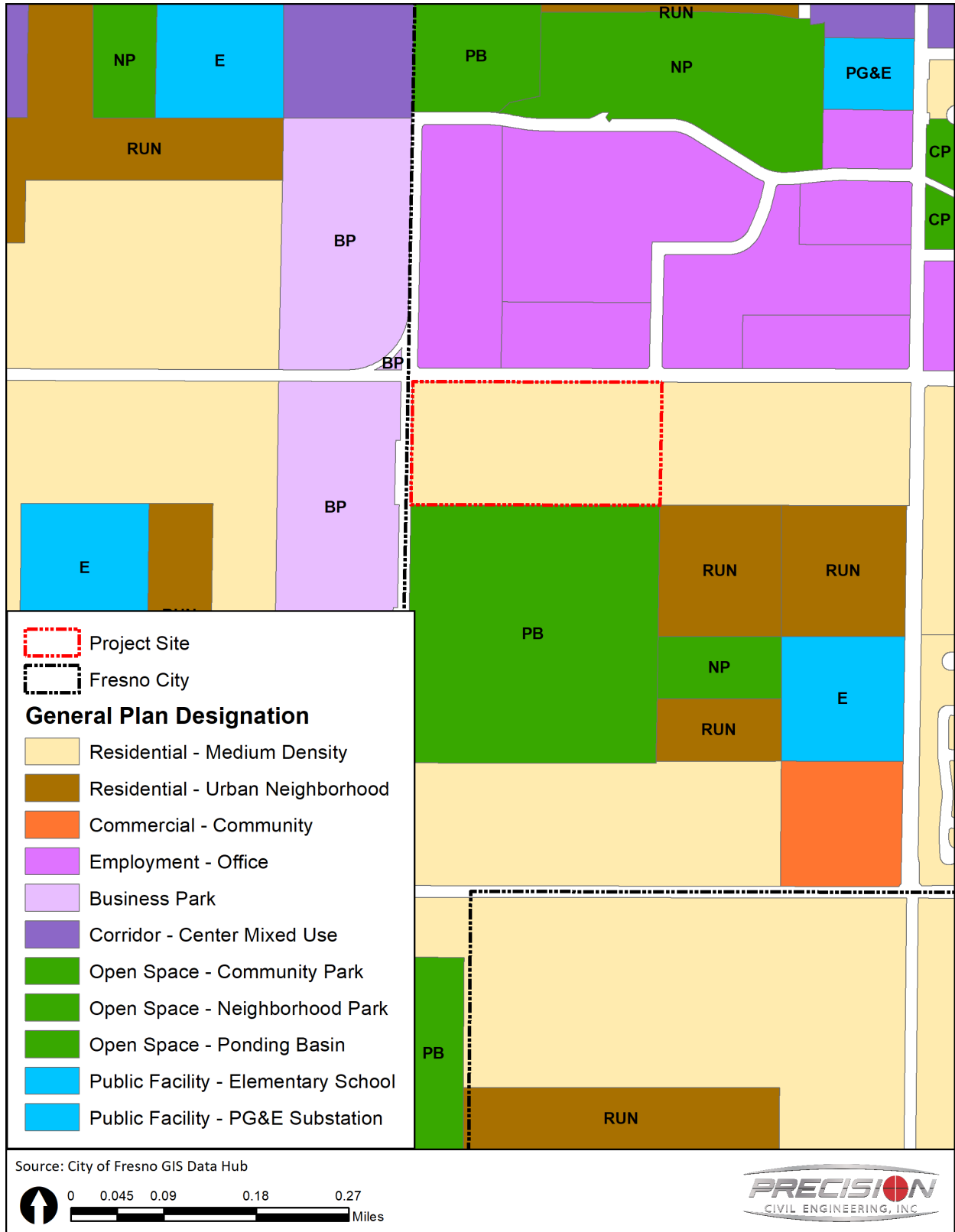
Figure 2-1 Project Regional Location



CITY OF FRESNO - BUSSETO FOODS FACILITY PROJECT
 INITIAL STUDY

Created 9/10/2021

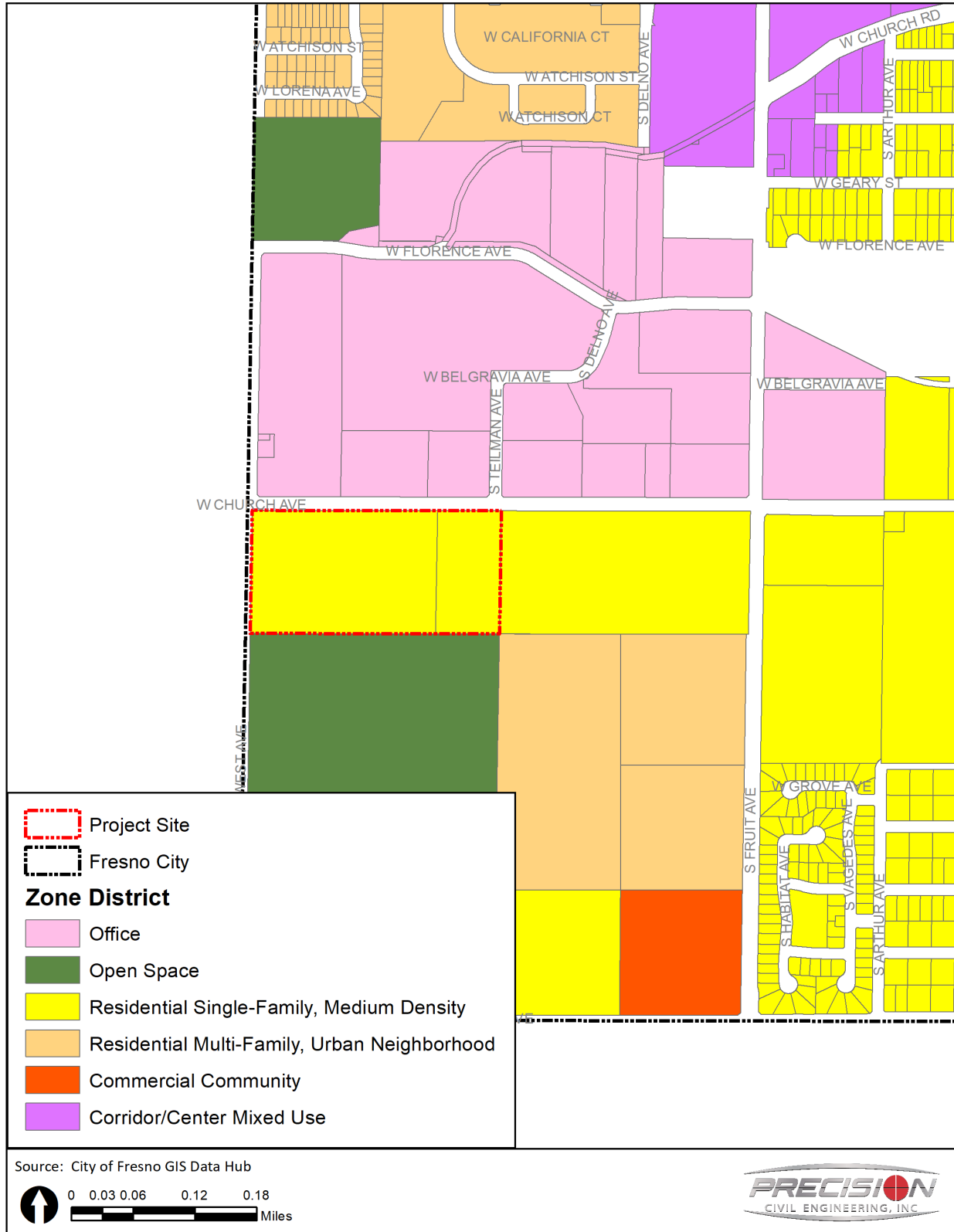
Figure 2-2 Project Vicinity Map



CITY OF FRESNO - BUSSETO FOODS FACILITY PROJECT
 INITIAL STUDY

Created 9/10/2021

Figure 2-3 General Plan Land Use Designation Map



CITY OF FRESNO - BUSSETO FOODS FACILITY PROJECT
 INITIAL STUDY

Created 9/10/2021

Figure 2-4 Zoning Map

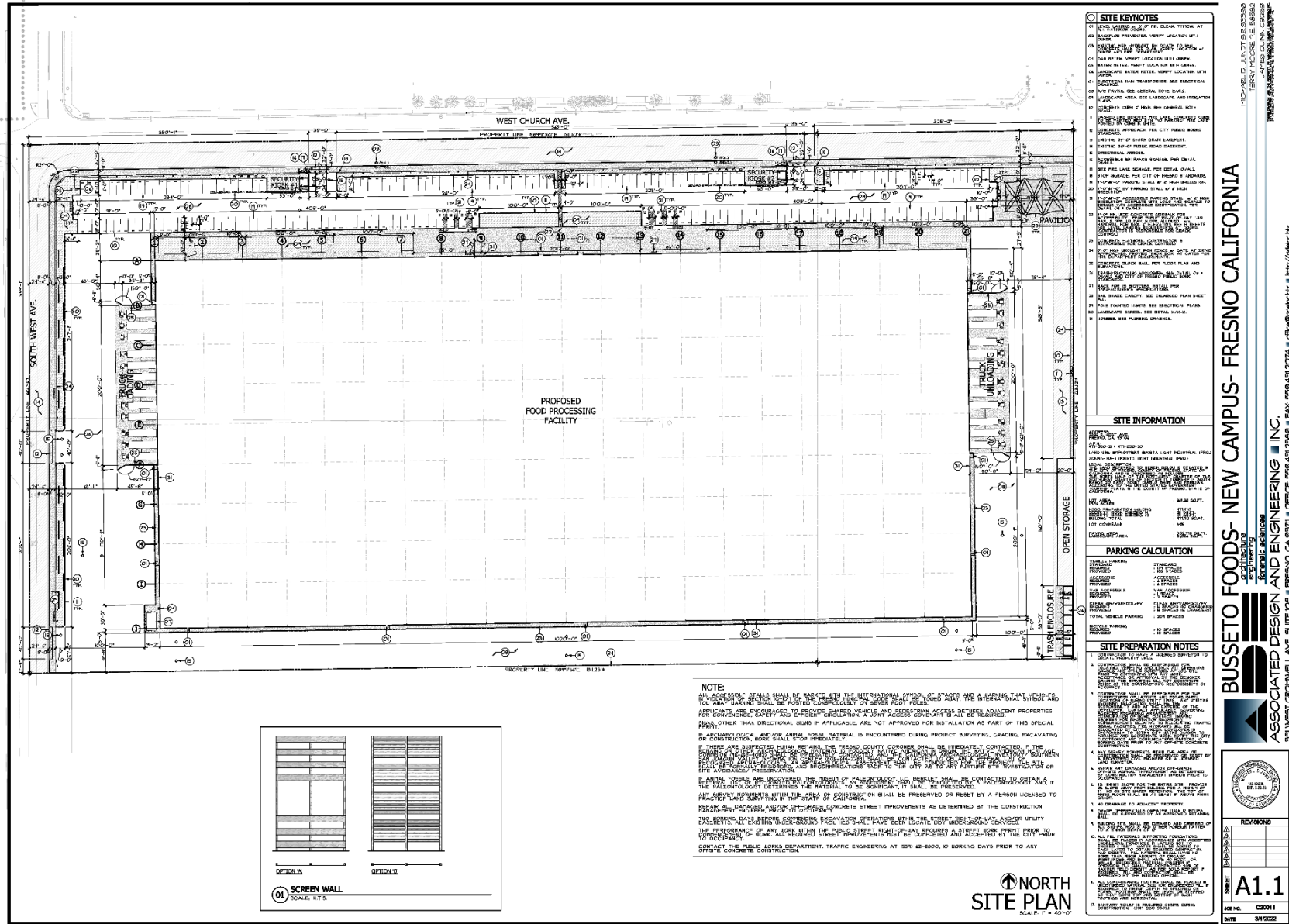


Figure 2-5 Site Plan of the proposed Project

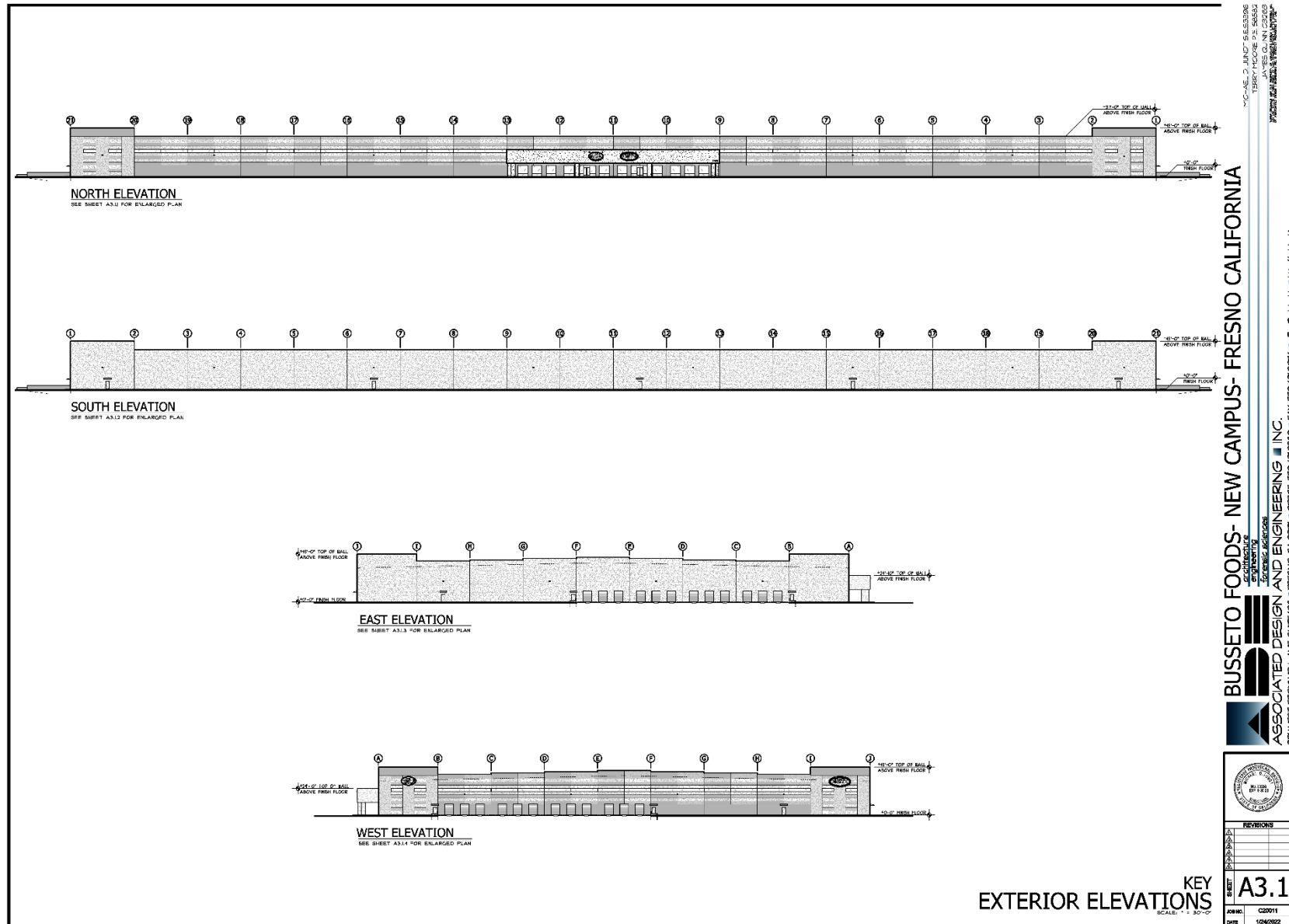
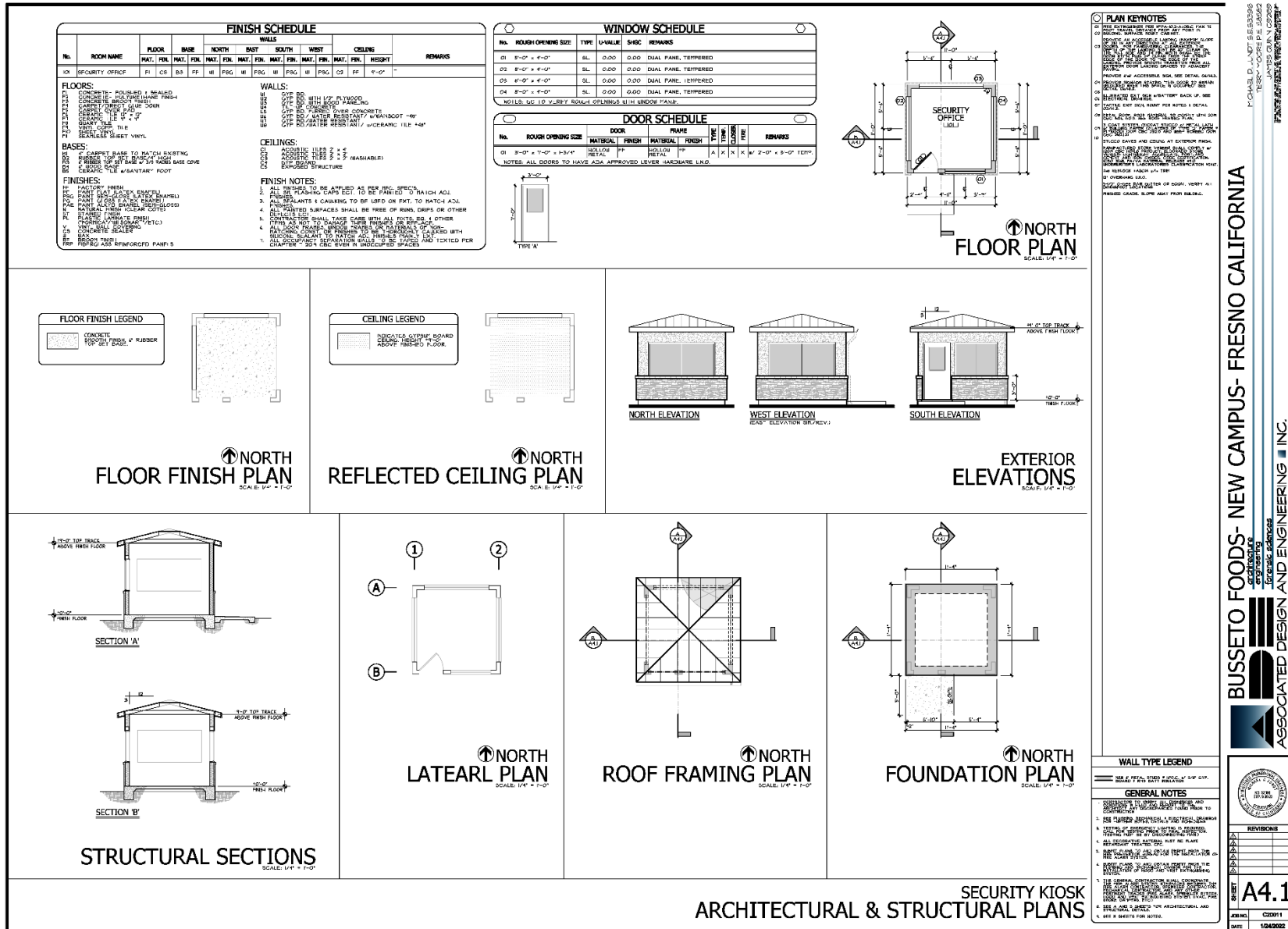


Figure 2-6 Conceptual Elevation of the proposed Project



BUSSETO FOODS- NEW CAMPUS- FRESNO CALIFORNIA
 ASSOCIATED DESIGN AND ENGINEERING INC.
 301 WEST CROWN HILL AVENUE SUITE 100 FRESNO, CA 93711 OFFICE 559.451.2369 FAX 559.451.2374
 www.bussetofoods.com
 www.associateddesignandengineering.com

Figure 2-7 Architectural and Structural Plans of proposed Security Kiosk

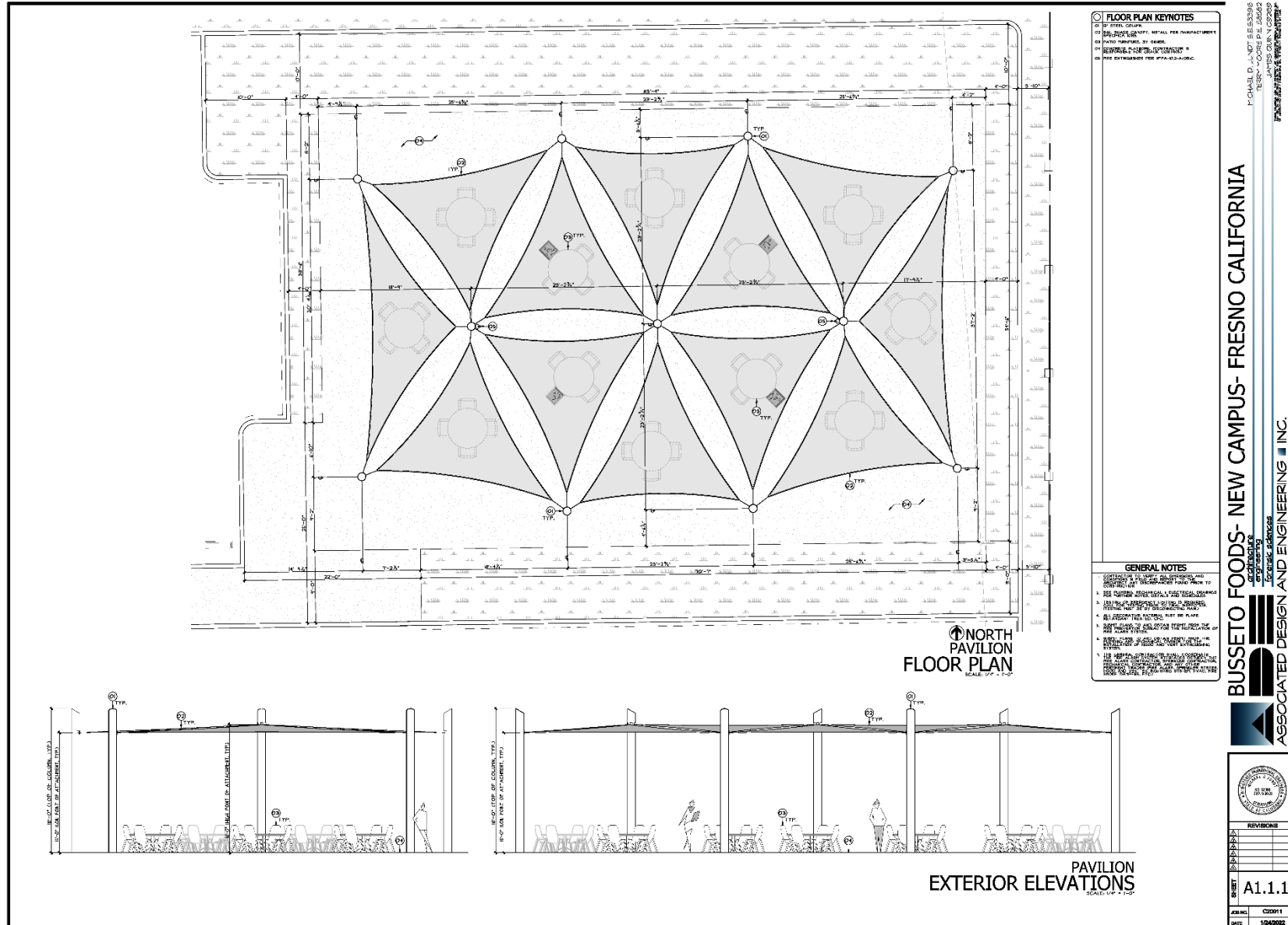


Figure 2-8 Conceptual Floor Plan and Elevation of the proposed Pavilion

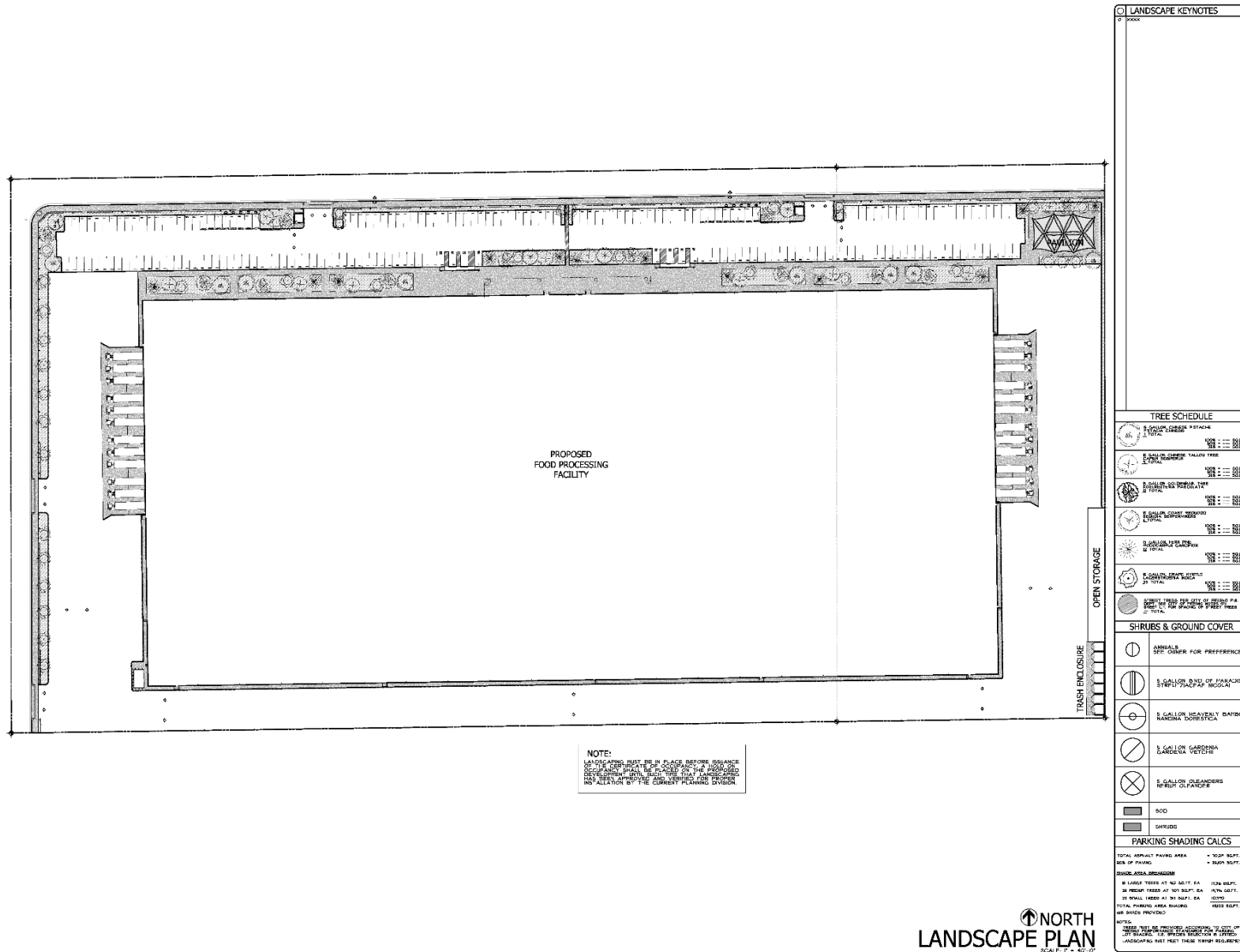


Figure 2-9 Landscaping of the proposed Project



2.15 Required Project Approvals

The City of Fresno requires the following review, permits, and/or approvals for the proposed Project. Other approvals not listed below may be required as identified through the entitlement process. In addition, other agencies may have the authority to issue permits prior to implementation of the Project as listed below.

- General Plan Amendment/Rezone
- Development Permit
- Parcel Merger
- Grading Permit
- Encroachment Permit
- ROW Dedications
- Building Permit
- Sign Permit
- Fresno County Department of Public Health
- San Joaquin Valley Air Pollution Control District
- California Regional Water Quality Control Board

2.16 Technical Studies

The analysis of the Project throughout this Initial Study relied in part on the technical studies listed below prepared for the Project, as well as other sources, including, but not limited to, Environmental Impact Report (EIR) SCH No. 201731012 prepared for the Southwest Fresno Specific Plan. Technical studies conducted for this Project are incorporated throughout the IS and provided in the following appendices.

- **Appendix A:** Air Quality and Greenhouse Gas Analysis Report
- **Appendix B:** Habitat Assessment
- **Appendix C:** CHRIS Record Search
- **Appendix D:** Vehicle Miles Traveled Analysis

2.17 Consultation with California Native American Tribes

The State requires lead agencies to consider the potential effects of proposed projects and consult with California Native American tribes during the local planning process for the purpose of protecting Traditional Tribal Cultural Resources through the California Environmental Quality Act



(CEQA) Guidelines. Pursuant to PRC Section 21080.3.1, the lead agency shall begin consultation with the California Native American tribe that is traditionally and culturally affiliated with the geographical area of the proposed project. Such significant cultural resources are either sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a tribe which is either on or eligible for inclusion in the California Historic Register or local historic register, or, the lead agency, at its discretion, and support by substantial evidence, choose to treat the resources as a Tribal Cultural Resources (PRC Section 21074(a) (1-2)). According to the most recent census data, California is home to 109 currently recognized Indian tribes. Tribes in California currently have nearly 100 separate reservations or Rancherias. Fresno County has a number of Rancherias such as Table Mountain Rancheria, Millerton Rancheria, Big Sandy Rancheria, Cold Springs Rancheria, and Squaw Valley Rancheria. These Rancherias are not located within the city limits.

Conducting consultation early in the CEQA process allows tribal governments, lead agencies, and project proponents to discuss the level of environmental review, identify and address potential adverse impacts to tribal cultural resources, and reduce the potential for delay and conflict in the environmental review process. (See PRC Section 21083.3.2.) Information may also be available from the California Native American Heritage Commission's Sacred Lands File per PRC Section 5097.96 and the California Historical Resources Information System administered by the California Office of Historic Preservation. Please also note that PRC Section 21082.3(c) contains provisions specific to confidentiality.

Pursuant to Senate Bill 18 (SB 18), Native American tribes traditionally and culturally affiliated with the project area, including the Table Mountain Rancheria Tribe and the Dumna Wo Wah Tribe, were invited to consult regarding the project based on a list of contacts provided by the Native American Heritage Commission (NAHC). No Tribes have requested to be notified pursuant to Assembly Bill 52 (AB 52). However, notices were sent on January 21, 2021, to tribes within the region pursuant to SB 18 and AB 52. No responses were received.



3 DETERMINATION

3.1 Environmental Factors Potentially Affected

As indicated by the discussions of existing and baseline conditions, and impact analyses that follow in this Chapter, environmental factors not checked below would have no impacts or less than significant impacts resulting from the project. Environmental factors that are checked below would have potentially significant impacts resulting from the project. Mitigation measures are recommended for each of the potentially significant impacts that would reduce the impact to less than significant.

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

The analyses of environmental impacts in **SECTION 4 EVALUATION OF ENVIRONMENTAL IMPACTS** result in an impact statement, which shall have the following meanings.

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

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

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



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

3.2 Determination

This Project is within the boundaries of the Southwest Fresno Specific Plan and was evaluated using the Southwest Fresno Specific Plan Environmental Impact Report (EIR), certified by the City of Fresno on October 26, 2017. The Southwest Fresno Specific Plan (SWFSP PEIR) was tiered from the Master Environmental Impact Report SCH No. [2012111015] (MEIR) prepared for the Fresno General Plan and certified in December 2014. The SWFSP PEIR incorporated certain mitigation measures originally contained within the MEIR, and through certification of the SFWSP PEIR, those measures were adopted as part of the SWFSP PEIR. On September 30, 2021, the Council certified a Program Environmental Impact Report SCH no. 2019050005 for the Fresno General Plan (GP PEIR) and adopted certain revisions to the Mobility and Transportation Element. Through certification of the GP PEIR, the prior MEIR was superseded as the environmental document for the Fresno General Plan. However, mitigation measures included in the prior MEIR, which were then incorporated into the SWFSP PEIR and adopted as part of the document, remain in effect for the SWFSP area.

The environmental analysis contained in the Initial Study and Negative Declaration is tiered from Environmental Impact Report (EIR) SCH No. 201731012 prepared for the Southwest Fresno Specific Plan. A copy of the EIR may be reviewed at the City of Fresno, Planning and Development Department as noted above (See Lead Agency). The Project has been determined to be a subsequent project that is not fully within the scope of EIR SCH No. 201731012 prepared for the Southwest Fresno Specific Plan.

Pursuant to Public Resources Code Section 21157.1 and California Environmental Quality Act (CEQA) Guidelines Section 15177, this Project has been evaluated with respect to each item on the attached environmental checklist to determine whether this project may cause any additional significant effect on the environment which was not previously examined in the Southwest Fresno Specific Plan EIR. After conducting a review of the adequacy of the Southwest Fresno Specific Plan EIR pursuant to Public Resources Code, Section 21157.6(b)(1), the City of Fresno Planning and Development Department, as Lead Agency, finds that no substantial changes have occurred with respect to the circumstances under which the EIR was certified and that no new information,



which was not known and could not have been known at the time that the EIR was certified as complete, has become available.

This completed environmental impact checklist form and its associated narrative reflect applicable comments of responsible and trustee agencies and research and analysis conducted to examine the interrelationship between the proposed project and the physical environment. The information contained in the Project application and its related environmental assessment application, responses to requests for comment, checklist, initial study narrative, and any attachments thereto, combine to form a record indicating that an initial study has been completed in compliance with the State CEQA Guidelines and the CEQA.

All new development activity and many non-physical projects contribute directly or indirectly toward cumulative impacts on the physical environment. It has been determined that the incremental effect contributed by this Project toward cumulative impacts is not considered substantial or significant in itself, and/or that cumulative impacts accruing from this project may be mitigated to less than significant with application of feasible mitigation measures.

Based upon the evaluation guided by the environmental checklist form, it was determined that there are no foreseeable impacts from the Project that are additional to those identified in the Southwest Fresno Specific Plan EIR, and/or impacts which require mitigation measures not included in the EIR Mitigation Monitoring and Reporting Program. The completed environmental checklist form indicates whether an impact is potentially significant, less than significant with mitigation, or less than significant.

For some categories of potential impacts, the checklist may indicate that a specific adverse environmental effect has been identified which is of sufficient magnitude to be of concern. Such an effect may be inherent in the nature and magnitude of the Project or may be related to the design and characteristics of the individual project. Effects so rated are not sufficient in themselves to require the preparation of an EIR and have been mitigated to the extent feasible. With the Project-specific mitigation imposed, there is no substantial evidence in the record that this Project may have additional significant, direct, indirect, or cumulative effects on the environment that are significant and that were not identified and analyzed in the Southwest Fresno Specific Plan EIR. Both the EIR Mitigation Monitoring and Reporting Program and the Project-specific Mitigation Monitoring and Reporting Program will be imposed on this Project.

The Initial Study has concluded that the Project will not result in any adverse effects which fall within the "Mandatory Findings of Significance" contained in Section 15065 of the CEQA Guidelines. The finding is, therefore, made that the Project will not have a significant adverse effect on the environment.



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

- I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
- I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.
- I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT (EIR) 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 EIR 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.

Approved By:

Will Tackett, Planning Manager
City of Fresno, Planning and Development Department

Date



4 EVALUATION OF ENVIRONMENTAL IMPACTS

4.1 AESTHETICS

Except as provided in Public Resources Code Section 21099, would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Have a substantial adverse effect on a scenic vista?				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 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	



4.1.1 Environmental Setting

The City of Fresno is located within Fresno County in the San Joaquin Valley in central California. The Project site is located in the southwestern area of the City of Fresno, situated on the southeast corner of South West Avenue and West Church Avenue in Fresno, CA, approximately two (2) miles west of SR-41 and SR-99, and two (2) miles south of SR-180. The site is not near a scenic vista or scenic corridor, nor are there any locally designated highways adjacent to the site. According to the California Scenic Highway Program, the nearest eligible State Scenic Highway (SR-168) is approximately eight (8) miles north of the Project site¹. The Project area (i.e., within ½-mile radius of the Project site) generally comprises a mix of existing land uses including industrial (north), open space (south and east), and junk yards (west). Views of large parcels that are vacant and undeveloped can be seen to the north, east, and west from the Project site. Busseto Food's current operating facility is located north of the Project site at 1090 West Church Avenue. The Project site and its surroundings lack tree cover and vegetation along the roads.

4.1.2 Impact Assessment

a) Have a substantial adverse effect on a scenic vista?

No Impact. The Fresno General Plan and the Southwest Fresno Specific Plan do not identify or designate scenic vistas within the City or Sphere of Influence. However, "Vista Points" and "Scenic Corridors" are identified in the General Plan. Vista Points are situated near and along the San Joaquin River, which are more than nine (9) miles north of the Project site. Kearney Boulevard, approximately 1 mile north of the Project site, is on the Local Register of Historic Places and is a designated Scenic Collector per the Fresno General Plan. According to the California Scenic Highway Program, the nearest scenic highway (SR-168) is approximately eight (8) miles northeast of the Project site. Because these scenic vistas are not within view of the subject site and because the Project site is vacant and undeveloped and does not contain any visual features or historic resources,, the Project would not adversely affect scenic vistas or scenic highways, thus there is no impact.

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

¹ Caltrans. California State Scenic Highway System Map. Accessed on October 1, 2021, <https://caltrans.maps.arcgis.com/apps/webappviewer/index.html?id=465dfd3d807c46cc8e8057116f1aaca>



No Impact. According to the California State Scenic Highway Program, there are no officially designated State Scenic Highways in the city of Fresno and the closest eligible scenic highway (SR-168) is approximately eight (8) miles from the Project site. As such, the proposed project would not damage scenic resources within a state scenic highway. The Project site does not contain any structures or trees. As a result, the proposed Project would have no impact on scenic resources.

- c) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?*

Less than Significant Impact. The Project site is within an urbanized area surrounded by light industrial uses and open space. The Project proposes a two (2)-story, 477,470-sf. Facility that would reach a maximum height of 37-ft and its exterior would consist of concrete, stucco, and metal in addition to exterior lighting. Through the entitlement review process, the Project is subject to compliance with applicable zoning and other regulations governing scenic quality including but not limited to the California Building Code, Fresno General Plan, and Fresno Municipal Code (FMC). Per the FMC *Section 15-23 Landscape*, a minimum of 15-foot buffer yard is required for proposed industrial use adjacent to other uses. General Plan objectives and policies on individual projects include streetscape plans for properties fronting streets and site and building design, which would be implemented through the review process. Compliance with these regulations would ensure that the Project would not conflict with regulations governing scenic quality. Therefore, the Project would have a less than significant impact.

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

Less than Significant Impact. Generally, lighting impacts are associated with artificial lighting in evening hours either through interior lighting from windows or exterior lighting (e.g., street lighting, parking lot lighting, landscape lighting, cars, and trucks). Development of the Project site would incrementally increase the amount of light from streetlights, exterior lighting, and vehicular headlights. Such sources could create adverse effects on day or nighttime views in the area.

Project construction would also introduce light and glare resulting from construction activities that could adversely affect day or nighttime views. Although construction activities are anticipated to occur primarily during daylight hours, it is possible that some activities could occur during dusk or early evening hours (Section 10-109 of the FMC permits construction work to take place between 7:00 am and 10:00 pm on any day except Sunday, for work that is accomplished pursuant to a building permit). Construction during these time periods could result in light and glare from construction vehicles or equipment. However, construction would occur primarily during daylight



hours and would be temporary in nature. Once construction is completed, any light and glare from these activities would cease to occur.

The Project would be required to comply with the General Plan and Fresno Municipal Code, which contain specific, enforceable requirements and/or restrictions intended to prevent light and glare impacts. Compliance with Title 24 lighting requirements would reduce impacts related to nighttime light. The lighting requirements cover outdoor spaces including regulations for mounted luminaires (i.e., high efficacy, motion sensor controlled, time clocks, energy management control systems, etc.). As such, conditions imposed on the Project by the City pursuant to Title 24 would reduce light and glare impacts to a less than significant impact.

Further, *Mitigation Measures MEIR AES-1, AE-3, AE-4, and AES-5* identified in Southwest Fresno Specific Plan EIR remain applicable to the Project (which are consistent with the General Plan PEIR Mitigation Measures, noted below), and would mitigate new sources of light or glare that could adversely affect day or nighttime views:

***Mitigation Measure AES-1:** Lighting systems for street and parking areas shall include shields to direct light to the roadway surfaces and parking areas. Vertical shields on the light fixtures shall also be used to direct light away from adjacent light sensitive land uses such as residences. (PEIR Mitigation Measure AES 4.1)*

***Mitigation Measure AES-3:** Lighting systems for non-residential uses, not including public facilities, shall provide shields on the light fixtures and orient the lighting system away from adjacent properties. Low-intensity light fixtures shall also be used if excessive spillover light onto adjacent properties will occur. (PEIR Mitigation Measure AES 4.3)*

***Mitigation Measure AES-4:** Lighting systems for freestanding signs shall not exceed 100-foot Lamberts (FT-L) when adjacent to streets which have an average light intensity of less than 2.0 horizontal footcandles and shall not exceed 500 FT-L when adjacent to streets that have an average light intensity of 2.0 horizontal footcandles or greater. (PEIR Mitigation Measure AES 4.4)*

***Mitigation Measure AES-5:** Materials used on building façades shall be non-reflective. (PEIR Mitigation Measure AES 4.5)*

As a result, the Project would have a less than significant impact.

4.1.3 Mitigation Measures



The proposed Project shall implement and incorporate, as applicable, the aesthetic related mitigation measures as identified in the attached Southwest Fresno Specific Plan EIR Mitigation Monitoring and Reporting Program dated October 15, 2021.

4.2 AGRICULTURE AND FORESTRY RESOURCES

Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?			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



4.2.1 Environmental Setting

The Project site is located within the city limits of Fresno. The City of Fresno GIS Data Viewing Application describes the existing land use of the subject site as open space/agriculture.² The Project site is currently zoned RS-5 – Residential Single-Family, Medium Density, and has a planned land use designation of Residential – Medium Density (5.0-12 du/acre). As such, the site is planned for urbanized uses. The Project site does not contain any agricultural lands or operations nor forestry resources such as forest land or timberland.

The California Department of Conservation manages the Farmland Mapping and Monitoring Program (FMMP) that provides maps and data for analyzing land use impacts to farmland. The FMMP produces the Important Farmland Finder as a resource map that shows quality (soils) and land use information. Agricultural land is rated according to soil quality and irrigation status, in addition to many other physical and chemical characteristics. The highest quality land is called “Prime Farmland.” Maps are updated every two years.

According to the Farmland Monitoring and Mapping Program, California Important Farmland Finder, the Project site is categorized as Prime Farmland in 2018.³ Prime Farmland is defined as *“Farmland with the best combination of physical and chemical features able to sustain long term agricultural production. This land has the soil quality, growing season, and moisture supply needed to produce sustained high yields. Land must have been used for irrigated agricultural production at some time during the four years prior to the mapping date.”*⁴ However, the Project site has not been used for agricultural operations within the past five (5) years as shown in aerial imagery.

The Fresno General Plan Program EIR, adopted in September of 2021, contemplated the conversion of farmland within the Fresno Planning Area, inclusive of the Project site, to non-agricultural uses and determined the impact to be significant and unavoidable, with no feasible mitigation measures available. Objectives and policies regarding farmland in the Fresno General Plan do not apply to the proposed Project since they are targeted at preserving agricultural land outside the City’s Sphere of Influence (SOI). Consequently, the City of Fresno issued a Statement

² City of Fresno. (2021). City of Fresno GIS Data Viewing Application. Accessed on September 16, 2021, <https://cityoffresno.maps.arcgis.com/apps/webappviewer/index.html?id=dbd9813b2fa74382b3096b9613e7470d>

³ California Department of Conservation. (2018). California Important Farmland Finder. Accessed on September 16, 2021, <https://maps.conservation.ca.gov/DLRP/CIFF/>

⁴ California Department of Conservation. “Important Farmland Categories.” Accessed on September 16, 2021, <https://www.conservation.ca.gov/dlrp/fmmp/Pages/Important-Farmland-Categories.aspx>



of Overriding Considerations for this significant and unavoidable impact, demonstrating that the environmental impacts are “acceptable” due to the project benefits and considerations⁵.

The California Land Conservation Act of 1965 (i.e., the Williamson Act) allows local governments to enter contracts with private landowners to restrict parcels of land agricultural or open space uses. In return, property tax assessments of the restricted parcels are lower than full market value. The minimum length of a Williamson Act contract is 10 years and automatically renews upon its anniversary date; as such, the contract length is essentially indefinite. The Project site nor the surrounding properties are subject to the Williamson Act Contract.

4.2.2 Impact Assessment

- 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?*

Less than Significant Impact. According to the FMMP, California Important Farmland Finder, the Project site is located on land that is designated as “Prime Farmland” (See [Figure 4-1](#)). However, the Project site has not been used for agricultural operations within the past five (5) years, which would cause its disqualification as Prime Farmland according to the definition provided by the Department of Conservation: “Land must have been used for irrigated agricultural production at some time during the four years prior to the mapping date.” Additionally, as described in the environmental settings, the Fresno General Plan PEIR contemplated the conversion of farmland within the Fresno Planning Area, inclusive of the Project site, to non-agricultural uses and determined the impact to be significant and unavoidable and issued a Statement of Overriding Considerations. For these reasons, the development of the Project site to a non-agricultural use would have a less than significant impact.

⁵ Council of the City of Fresno. (2020). HEARING to consider the adoption of Plan Amendment Application No. P19-04226 and related Final Program Environmental Impact Report (FPEIR), State Clearinghouse (SCH) # 2019050005.

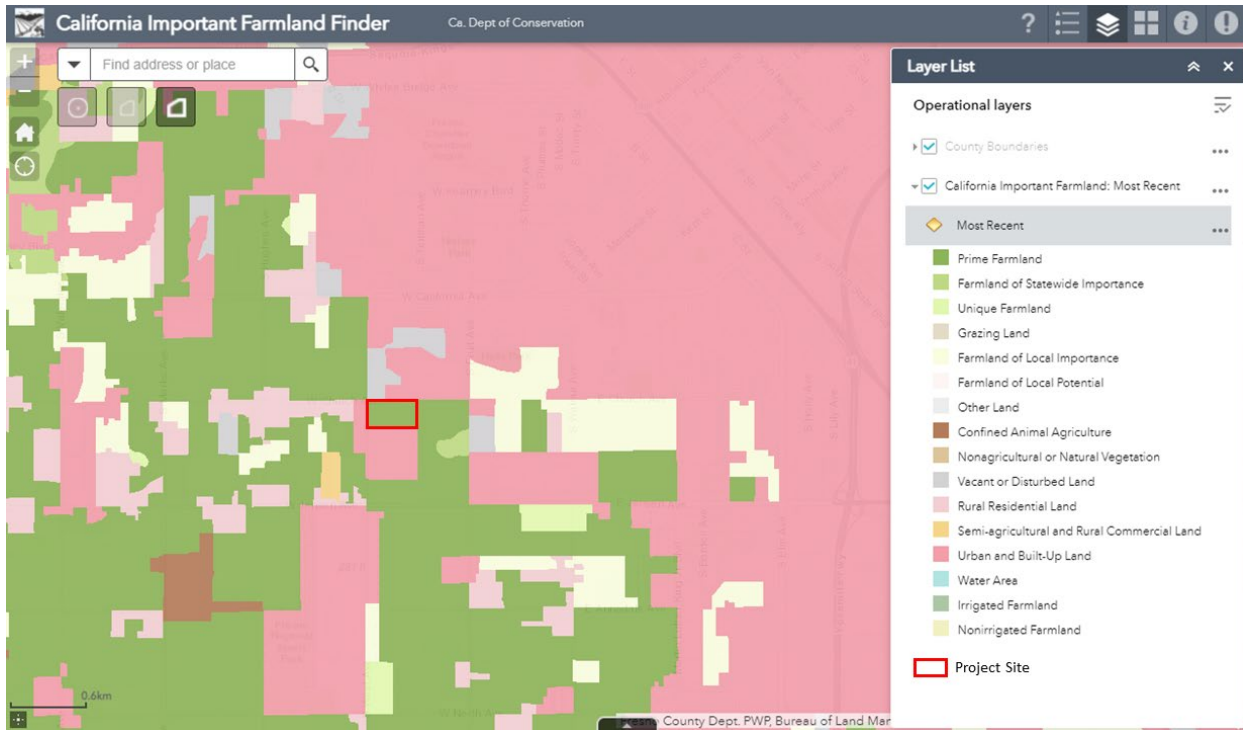


Figure 4-1 Farmland Category Map

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

No Impact. The Project site is not zoned for or located within an area planned for agricultural uses and is not under Williamson Act contract. Thus, the Project would result in no impact.

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

No Impact. The Project site does not contain forest land or timberland and it is not zoned for forestry or timberland uses. As a result, the Project would have no impact.

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

No Impact. The Project site does not contain forest land or timberland and it is not zoned for forestry or timberland uses. As a result, the Project would have no impact.

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



No impact. The project site is in an area planned for urbanized, non-agricultural uses within the city limits of Fresno. Additionally, the site is not zoned or designated for forestry uses, nor is it planned for forestry uses. For these reasons, the proposed Project would have no impact.

4.2.3 Mitigation Measures

None Required.



4.3 AIR QUALITY

Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Conflict with or obstruct implementation of the applicable air quality plan (e.g., by having potential emissions of regulated criterion pollutants which exceed the San Joaquin Valley Air Pollution Control Districts (SJVAPCD) adopted thresholds for these pollutants)?			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 leading to odors) adversely affecting a substantial number of people?				X

4.3.1 Environmental Setting

An Air Quality and Greenhouse Gas Impact Assessment was prepared for the Project by Stantec Consulting Services, Inc. on October 14, 2021. The report and supporting tables are provided in [Appendix A](#). The environmental setting, methodology, and assessment are incorporated herein.

The proposed project is located within the San Joaquin Valley Air Basin (SJVAB). The San Joaquin Valley Air Pollution Control District (SJVAPCD) regulates air quality in eight counties including: Fresno, Kern, (western and central), Kings, Madera, Merced, San Joaquin, Stanislaus, and Tulare.

Air pollution in the SJVAB can be attributed to both human-related (anthropogenic) and natural (non-anthropogenic) activities that produce emissions. Air pollution from significant



anthropogenic activities in the SJVAB includes a variety of industrial-based sources as well as on- and off-road mobile sources.

Activities that tend to increase mobile activity include increases in population, increases in general traffic activity (including automobiles, trucks, aircraft, and rail), urban sprawl (which will increase commuter driving distances), and general local land management practices as they pertain to modes of commuter transportation. These sources, coupled with geographical and meteorological conditions unique to the area, stimulate the formation of unhealthy air.

Climate Topography

The following information is excerpted from the most recent version of the SJVAPCD Guide for Assessing and Mitigating Air Quality Impacts (GAMAQI) adopted in March 2015 (SJVAPCD 2015a).

The SJVAB has an “inland Mediterranean” climate and is characterized by long, hot, dry summers and short, foggy winters. Sunlight can be a catalyst in the formation of some air pollutants (such as ozone); the Basin averages over 260 sunny days per year. The SJVAB is generally shaped like a bowl. It is open in the north and is surrounded by mountain ranges on all other sides. The Sierra Nevada mountains are along the eastern boundary (8,000 to 14,000 feet in elevation), the Coast Ranges are along the western boundary (3,000 feet in elevation), and the Tehachapi Mountains are along the southern boundary (6,000 to 8,000 feet in elevation).

Dominant airflows provide the driving mechanism for transport and dispersion of air pollution. The mountains surrounding the SJVAB form natural horizontal barriers to the dispersion of air contaminants. The wind generally flows south-southeast through the valley, through the Tehachapi Pass and into the Southeast Desert Air Basin portion of Kern County. As the wind moves through the Basin, it mixes with the air pollution generated locally, generally transporting air pollutants from the north to the south in the summer and in a reverse flow in the winter.

Generally, the temperature of air decreases with height, creating a gradient from warmer air near the ground to cooler air at elevation. This gradient of cooler air over warm air is known as the environmental lapse rate. Inversions occur when warm air sits over cooler air, trapping the cooler air near the ground. These inversions trap pollutants from dispersing vertically and the mountains surrounding the San Joaquin Valley trap the pollutants from dispersing horizontally. Strong temperature inversions occur throughout the SJVAB in the summer, fall, and winter. Daytime temperature inversions occur at elevations of 2,000 to 2,500 feet above the San Joaquin Valley floor during the summer and at 500 to 1,000 feet during the winter. The result is a relatively high concentration of air pollution in the valley during inversion episodes. These inversions cause haziness, which in addition to moisture may include suspended dust, a variety of chemical aerosols emitted from vehicles, particulates from wood stoves, and other pollutants. In the winter, these



conditions can lead to carbon monoxide “hotspots” along heavily traveled roads and at busy intersections. During summer’s longer daylight hours, stagnant air, high temperatures, and plentiful sunshine provide the conditions and energy for the photochemical reaction between reactive organic gases (ROG) and oxides of nitrogen (NO_x), which results in the formation of ozone.

Because of the prevailing daytime winds and time-delayed nature of ozone, concentrations are highest in the southern portion of the Basin. Summers are often periods of hazy visibility and occasionally unhealthy air, while winter air quality impacts tend to be localized and can consist of (but are not exclusive to) odors from agricultural operations; soot or smoke around residential, agricultural, and hazard-reduction wood burning; or dust near mineral resource recovery operations.

Criteria Air Pollutants

For the protection of public health and welfare, the Federal Clean Air Act (FCAA) required that the United States Environmental Protection Agency (EPA) establish National Ambient Air Quality Standards (NAAQS) for various pollutants. These pollutants are referred to as "criteria" pollutants because the EPA publishes criteria documents to justify the choice of standards. These standards define the maximum amount of an air pollutant that can be present in ambient air. An ambient air quality standard is generally specified as a concentration averaged over a specific time, such as one hour, eight hours, 24 hours, or one year. The different averaging times and concentrations are meant to protect against different exposure effects. Standards established for the protection of human health are referred to as primary standards; whereas standards established for the prevention of environmental and property damage are called secondary standards. The FCAA allows states to adopt additional or more health-protective standards. The air quality regulatory framework and ambient air quality standards are discussed in greater detail later in this report.

Table 4-1 provides a summary of the California and National Ambient Air Quality Standards.

Table 4-1 California and National Ambient Air Quality Standards

Pollutant	Averaging Time	California Standards	National Standards	
		Concentration	Primary	Secondary
Ozone	1 Hour	0.09 ppm (180 µg/m ³)	—	Same as Primary Standard
	8 Hour	0.070 ppm (137 µg/m ³)	0.070 ppm (137 µg/m ³)	
Respirable Particulate Matter	24 Hour	50 µg/m ³	150 µg/m ³	Same as Primary Standard
	Annual Arithmetic Mean	20 µg/m ³	—	
Fine Particulate Matter	24 Hour	—	35 µg/m ³	Same as Primary Standard
	Annual Arithmetic Mean	12 µg/m ³	12 µg/m ³	
Carbon Monoxide	1 Hour	20 ppm (23 mg/m ³)	35 ppm (40 mg/m ³)	—



Pollutant	Averaging Time	California Standards	National Standards	
		Concentration	Primary	Secondary
	8 Hour	9.0 ppm (10 mg/m ³)	9 ppm (10 mg/m ³)	—
	8 Hour (Lake Tahoe)	6 ppm (7 mg/m ³)	—	—
Nitrogen Dioxide	1 Hour	0.18 ppm (339 µg/m ³)	100 ppb (188 µg/m ³)	—
	Annual Arithmetic Mean	0.030 ppm (57 µg/m ³)	0.053 ppm (100 µg/m ³)	Same as Primary Standard
Sulfur Dioxide	1 Hour	0.25 ppm (655 µg/m ³)	75 ppb (196 µg/m ³)	—
	3 Hour	—	—	0.5 ppm (1,300 µg/m ³)
	24 Hour	0.04 ppm (105 µg/m ³)	0.14 ppm (for certain areas)	—
	Annual Arithmetic Mean	—	0.030 ppm (for certain areas)	—
Lead	30-Day Average	1.5 µg/m ³	—	—
	Calendar Quarter	—	1.5 µg/m ³	Same as Primary Standard
	Rolling 3-Month Average	—	0.15 µg/m ³	
Visibility-Reducing Particles	8 Hour	See Footnote 1	No National Standards	
Sulfates	24 Hour	25 µg/m ³		
Hydrogen Sulfide	1 Hour	0.03 ppm (42 µg/m ³)		
Vinyl Chloride	24 Hour	0.01 ppm (26 µg/m ³)	—	

Notes:

¹ In 1989, the ARB converted both the general statewide 10-mile visibility standard and the Lake Tahoe 30-mile visibility standard to instrumental equivalents, which are "extinction of 0.23 per kilometer" and "extinction of 0.07 per kilometer" for the statewide and Lake Tahoe Air Basin standards, respectively.

µg/m³ = micrograms per cubic meter

mg/m³ = milligrams per cubic meter

Source: CARB 2016c

The following provides a summary discussion of the primary and secondary criteria air pollutants of primary concern. In general, primary pollutants are directly emitted into the atmosphere, and secondary pollutants are formed by chemical reactions in the atmosphere.

Ozone

Ozone (O₃) is a reactive gas consisting of three atoms of oxygen. Ozone occurs in two layers of the atmosphere. The layer surrounding the earth's surface is the troposphere. The troposphere extends to a level about 10 miles up where it meets the second layer, the stratosphere. While ozone in the upper atmosphere protects the earth from harmful ultraviolet radiation, high concentrations of ground-level ozone can adversely affect the human respiratory system.



Ozone, a colorless gas which is odorless at ambient levels, is the chief component of urban smog. Ozone is not directly emitted as a pollutant but is formed in the atmosphere when hydrocarbon and NO_x precursor emissions react in the presence of sunlight. Meteorology and terrain play major roles in ozone formation. Generally, low wind speeds or stagnant air coupled with warm temperatures and cloudless skies provide the optimum conditions for ozone formation. As a result, summer is generally the peak ozone season. Because of the reaction time involved, peak ozone concentrations often occur far downwind of the precursor emissions. Therefore, ozone is a regional pollutant that often impacts a large area (California Air Resources Board [CARB] 2001).

Sources of precursor gases number in the thousands and include common sources such as consumer products, gasoline vapors, chemical solvents, and combustion byproducts of various fuels. Emissions of the ozone precursors ROG and NO_x most commonly originate from motor vehicles, as well as commercial and industrial uses.

Many respiratory ailments, as well as cardiovascular disease, are aggravated by exposure to high ozone levels. High levels of ozone may negatively affect immune systems, making people more susceptible to respiratory illnesses, including bronchitis and pneumonia. Long-term exposure to ozone is linked to aggravation of asthma and is likely to be one of many causes of asthma development. Long-term exposures to higher concentrations of ozone may also be linked to permanent lung damage, such as abnormal lung development in children. People most at risk from breathing air containing ozone include people with asthma, children, older adults, and people who are active outdoors, especially outdoor workers. In addition, people with certain genetic characteristics, and people with reduced intake of certain nutrients, such as vitamins C and E, are at greater risk from ozone exposure (EPA 2021a).

Reactive Organic Gases and Volatile Organic Compounds

Hydrocarbons are organic gases that are formed solely of hydrogen and carbon. There are several subsets of organic gases, including Volatile Organic Compounds (VOCs) and ROGs. ROGs include all hydrocarbons except those exempted by CARB. Therefore, ROGs are a set of organic gases based on state rules and regulations. VOCs are like ROGs in that they include all organic gases except those exempted by federal law.

Both VOCs and ROGs are emitted from incomplete combustion of hydrocarbons or other carbon-based fuels. Combustion engine exhaust, oil refineries, and oil-fueled power plants are the primary sources of hydrocarbons. Another source of hydrocarbons is evaporation from petroleum fuels, solvents, dry cleaning solutions, and paint.

The primary health effects related to hydrocarbons stem from ozone (see discussion above). High levels of hydrocarbons in the atmosphere can interfere with oxygen intake by reducing the amount



of available oxygen through displacement. There are no separate national or California ambient air quality standards for ROG. Carcinogenic forms of ROG, such as benzene, are also considered toxic air contaminants (TACs).

Nitrogen Dioxide and Nitrogen Oxides

Nitrogen dioxide (NO₂) is one of a group of highly reactive gases known as “oxides of nitrogen (NO_x).” NO₂ is the component of greatest interest and the indicator for the larger group of NO_x. It forms quickly from emissions from cars, trucks, and buses, powerplants, and off-road equipment. NO_x is a strong oxidizing agent that reacts in the air to form corrosive nitric acid as well as toxic organic nitrates.

NO_x is emitted from solvents and combustion processes in which fuel is burned at high temperatures. Mobile sources (including on-road and off-road vehicles) and stationary sources such as electric utilities and industrial boilers, constitute a majority of the statewide NO_x emissions. To a lesser extent, area-wide sources, such as residential heaters, gas stoves, and managed burning and disposal, also contribute to total state-wide NO_x emissions (CARB 2010). NO_x is also linked to the formation of ground-level ozone and fine particle pollution (see discussion above for ozone and particulate pollution for additional discussion of health-related impacts).

Direct inhalation of NO_x can cause a wide range of health effects. NO_x can irritate the lungs, cause lung damage, and lower resistance to respiratory infections such as influenza. Short-term exposures (e.g., less than 3 hours) to low levels of NO₂ may lead to changes in airway responsiveness and lung function in individuals with pre-existing respiratory illnesses. These exposures may also increase respiratory illnesses in children. Long-term exposures to NO₂ may lead to increased susceptibility to respiratory infection and may cause irreversible lung damage. Other health effects are an increase in the incidence of chronic bronchitis and lung irritation. Chronic exposure may lead to eye and mucus membrane aggravation, along with pulmonary dysfunction. NO_x can cause fading of textile dyes and additives, deterioration of cotton and nylon, and corrosion of metals due to the production of particulate nitrates. Airborne NO_x can also impair visibility.

NO_x also contributes to a wide range of environmental effects both directly and indirectly when combined with other precursors in acid rain and ozone. Increased nitrogen inputs to terrestrial and wetland systems can lead to changes in plant species composition and diversity. Similarly, direct nitrogen inputs to aquatic ecosystems such as those found in estuarine and coastal waters can lead to eutrophication (a condition that promotes excessive algae growth, which can lead to a severe depletion of dissolved oxygen and increased levels of toxins that are harmful to aquatic life).



Nitrogen, alone or in acid rain, also can acidify soils and surface waters. Acidification of soils causes the loss of essential plant nutrients and increased levels of soluble aluminum, which is toxic to plants. Acidification of surface waters creates low pH conditions and levels of aluminum that are toxic to fish and other aquatic organisms. NO_x also contributes to haze and visibility impairment (EPA 2019a, CARB 2016a).

Particulate Matter

Particulate matter (PM) is a mixture of substances that includes elements such as carbon and metals; compounds such as nitrates, sulfates, and organic compounds; and complex mixtures such as diesel exhaust and soil. $\text{PM}_{2.5}$ includes fine particles with a diameter of 2.5 microns or smaller and is a subset of PM_{10} . These particles come in many sizes and shapes and can be made up of hundreds of different chemicals. Some particles, known as primary particles, are emitted directly from a source, such as construction sites, unpaved roads, fields, smokestacks, or fires. Others form in complicated reactions in the atmosphere of chemicals such as sulfur dioxides and nitrogen oxides that are emitted from power plants, industries, and automobiles. These particles, known as secondary particles, make up most of the fine particle pollution in the country (EPA 2019a, CARB 2016a).

Area-wide sources account for about 65 and 83% of the statewide emissions of directly emitted $\text{PM}_{2.5}$ and PM_{10} , respectively. The major area-wide sources of $\text{PM}_{2.5}$ and PM_{10} are fugitive dust, especially dust from unpaved and paved roads, agricultural operations, and construction and demolition. Sources of PM_{10} include crushing or grinding operations, and dust stirred up by vehicles traveling on roads. Sources of $\text{PM}_{2.5}$ include all types of combustion, including motor vehicles, power plants, residential wood burning, forest fires, agricultural burning, and some industrial processes.

Exhaust emissions from mobile sources contribute only a very small portion of directly emitted $\text{PM}_{2.5}$ and PM_{10} emissions but are a major source of the VOC and NO_x that form secondary particles (CARB 2013).

$\text{PM}_{2.5}$ and PM_{10} particles are small enough to be inhaled and lodged in the deepest parts of the lung where they evade the respiratory system's natural defenses. Health problems begin as the body reacts to these foreign particles. Acute and chronic health effects associated with high particulate levels include the aggravation of chronic respiratory diseases; heart and lung disease; and coughing, bronchitis, and respiratory illnesses in children. Recent mortality studies have shown a statistically significant direct association between mortality and daily concentrations of particulate matter in the air. $\text{PM}_{2.5}$ and PM_{10} can aggravate respiratory disease and cause lung damage, cancer, and premature death.



Sensitive populations, including children, the elderly, exercising adults, and those suffering from chronic lung disease such as asthma or bronchitis are especially vulnerable to the effect of PM₁₀. Non-health-related effects include reduced visibility and soiling of buildings.

Carbon Monoxide

Carbon Monoxide (CO) is an odorless, colorless gas that is highly toxic. CO is emitted by mobile and stationary sources because of incomplete combustion of hydrocarbons or other carbon-based fuels. CO is an odorless, colorless, poisonous gas that is highly reactive.

CO enters the bloodstream and binds more readily to hemoglobin, the oxygen-carrying protein in blood, than oxygen, thereby reducing the oxygen-carrying capacity of blood and reducing oxygen delivery to organs and tissues. The health threat from CO is most serious for those who suffer from cardiovascular disease. Healthy individuals are also affected but only at higher levels of exposure. Exposure to CO can cause chest pain in heart patients, headaches, and reduced mental alertness. At high concentrations, CO can cause heart difficulties in people with chronic diseases and can impair mental abilities. Exposure to elevated CO levels is associated with visual impairment, reduced work capacity, reduced manual dexterity, poor learning ability, difficulty performing complex tasks, and, with prolonged enclosed exposure, death.

Very high levels of CO are not likely to occur outdoors. However, when CO levels are elevated outdoors, they can be of particular concern for people with some types of heart disease. These people already have a reduced ability for getting oxygenated blood to their hearts in situations where the heart needs more oxygen than usual. They are especially vulnerable to the effects of CO when exercising or under increased stress. In these situations, short-term exposure to elevated CO may result in reduced oxygen to the heart accompanied by chest pain also known as angina (EPA 2019a).

Sulfur Dioxide

Sulfur Dioxide (SO₂) is one of a group of highly reactive gases known as “oxides of sulfur (SOX).” It is a colorless, irritating gas with a “rotten egg” smell that is formed primarily by the combustion of sulfur-containing fossil fuels. The largest source of SO₂ in the atmosphere is the burning of fossil fuels by power plants and other industrial facilities. Smaller sources of SO₂ emissions include industrial processes such as extracting metal from ore; natural sources such as volcanoes; and locomotives, ships and other vehicles and heavy equipment that burn fuel with a high sulfur content. State and national ambient air quality standards for SO₂ are designed to protect against exposure to the entire group of sulfur oxides (SOX). SO₂ is the component of greatest concern and is used as the indicator for the larger group of gaseous sulfur oxides.



High concentrations of SO₂ can result in temporary breathing impairment for asthmatic children and adults who are active outdoors. Short-term exposures of asthmatic individuals to elevated SO₂ levels during moderate activity may result in breathing difficulties that can be accompanied by symptoms such as wheezing, chest tightness, or shortness of breath. Other effects that have been associated with longer term exposures to high concentrations of SO₂ in conjunction with high levels of particulate matter include aggravation of existing cardiovascular disease, respiratory illness, and alterations in the lungs' defenses. The subgroups of the population that may be affected under these conditions include individuals with heart or lung disease, as well as the elderly and children.

Together, SO₂ and NO_x are the major precursors to acidic deposition (acid rain), which is associated with the acidification of soils, lakes, and streams and accelerated corrosion of buildings and monuments. SO₂ also is a major precursor to PM_{2.5}, which is a significant health concern, and a main contributor to poor visibility.

Lead

Lead (Pb) is a naturally occurring bluish-gray metal found in small amounts in the earth's crust. Lead can be found in all parts of our environment. Much of it comes from human activities including burning fossil fuels, mining, and manufacturing. Lead has many different uses. It is used in the production of batteries, ammunition, metal products (solder and pipes), and devices to shield X-rays. Because of health concerns, lead from paints and ceramic products, caulking, and pipe solder has been dramatically reduced in recent years. The use of lead as an additive to gasoline was banned in 1996 in the United States.

Exposure to lead occurs mainly through inhalation of air and ingestion of lead in food, water, soil, or dust. The effects of lead are the same regardless of the path of exposure. Lead can affect almost every organ and system in your body. The main target for lead toxicity is the nervous system, both in adults and children. Long-term exposure of adults can result in decreased performance in some tests that measure functions of the nervous system. It may also cause weakness in fingers, wrists, or ankles.

Lead exposure also causes small increases in blood pressure, particularly in middle-aged and older people and can cause anemia. Exposure to high lead levels can severely damage the brain and kidneys in adults or children and ultimately cause death. In pregnant women, high levels of exposure to lead may cause miscarriage. High level exposure in men can damage the organs responsible for sperm production.

Exposure to lead is more dangerous for young and unborn children. Unborn children can be exposed to lead through their mothers. Harmful effects include premature births, smaller babies,



decreased mental ability in the infant, learning difficulties, and reduced growth in young children. These effects are more common if the mother or baby was exposed to high levels of lead. Some of these effects may persist beyond childhood (Agency for Toxic Substances & Disease Registry [ATSDR] 2007).

Hydrogen Sulfide

Hydrogen Sulfide (H₂S) is a colorless gas with the odor of rotten eggs. H₂S occurs naturally and is also produced by human activities. H₂S occurs naturally in crude petroleum, natural gas, volcanic gases, and hot springs. It can also result during bacterial decomposition of sulfur-containing organic substances. Emissions of H₂S associated with human activities including various industrial activities, such as oil and gas production, refining, sewage treatment plants, food processing, and confined animal feeding operations.

Studies in humans suggest that the respiratory tract and nervous system are the most sensitive targets of H₂S toxicity. Exposure to low concentrations of H₂S may cause irritation to the eyes, nose, or throat. It may also cause difficulty in breathing for some asthmatics. Respiratory distress or arrest has been observed in people exposed to very high concentrations of H₂S. Exposure to low concentrations of H₂S may cause headaches, poor memory, tiredness, and balance problems. Brief exposures to high concentrations of H₂S can cause loss of consciousness. In most cases, the person appears to regain consciousness without any other effects. However, in some individuals, there may be permanent or long-term effects such as headaches, poor attention span, poor memory, and poor motor function. H₂S is extremely hazardous in high concentrations, especially in enclosed spaces. In some instances, exposure to high concentrations can cause death (ATSDR 2007b).

Other Pollutants

The State of California has established air quality standards for some pollutants not addressed by Federal standards. The CARB has established State standards for hydrogen sulfide, sulfates, vinyl chloride, and visibility reducing particles. Below is a summary of these pollutants and a description of the pollutants' physical properties, health and other effects, sources, and the extent of the problems.

Sulfates

Sulfates (SO₄) are the fully oxidized ionic form of sulfur. Sulfates occur in combination with metal and/or hydrogen ions. In California, emissions of sulfur compounds occur primarily from the combustion of petroleum-derived fuels (e.g., gasoline and diesel fuel) that contain sulfur. This sulfur is oxidized to SO₂ during the combustion process and subsequently converted to sulfate



compounds in the atmosphere. The conversion of SO₂ to sulfates takes place comparatively rapidly and completely in urban areas of California due to regional meteorological features.

The CARB sulfates standard is designed to prevent aggravation of respiratory symptoms. Effects of sulfate exposure at levels above the standard include a decrease in ventilator function, aggravation of asthmatic symptoms, and an increased risk of cardio-pulmonary disease. Sulfates are particularly effective in degrading visibility, and, because they are usually acidic, can harm ecosystems and damage materials and property.

Visibility Reducing Particles

Visibility Reducing Particles are a mixture of suspended particulate matter consisting of dry solid fragments, solid cores with liquid coatings, and small droplets of liquid. The standard is intended to limit the frequency and severity of visibility impairment due to regional haze and is equivalent to a 10-mile nominal visual range.

Vinyl Chloride

Vinyl Chloride is a colorless gas that does not occur naturally. It is formed when other substances such as trichloroethane, trichloroethylene, and tetrachloro-ethylene are broken down. Vinyl chloride is used to make polyvinyl chloride which is used to make a variety of plastic products, including pipes, wire and cable coatings, and packaging materials.

Odors

Typically, odors are generally regarded as an annoyance rather than a health hazard. However, manifestations of a person's reaction to foul odors can range from the psychological (i.e., irritation, anger, or anxiety) to the physiological, including circulatory and respiratory effects, nausea, vomiting, and headache.

The ability to detect odors varies considerably among the population and overall is quite subjective. Some individuals can smell very minute quantities of specific substances; others may not have the same sensitivity but may have sensitivities to odors of other substances. In addition, people may have different reactions to the same odor and in fact an odor that is offensive to one person may be perfectly acceptable to another (e.g., fast food restaurant). It is important to also note that an unfamiliar odor is more easily detected and is more likely to cause complaints than a familiar one. This is because of the phenomenon known as odor fatigue, in which a person can become desensitized to almost any odor and recognition only occurs with an alteration in the intensity.



Quality and intensity are two properties present in any odor. The quality of an odor indicates the nature of the smell experience. For instance, if a person describes an odor as flowery or sweet, then the person is describing the quality of the odor. Intensity refers to the strength of the odor. For example, a person may use the word strong to describe the intensity of an odor. Odor intensity depends on the odorant concentration in the air. When an odorous sample is progressively diluted, the odorant concentration decreases. As this occurs, the odor intensity weakens and eventually becomes so low that the detection or recognition of the odor is quite difficult. At some point during dilution, the concentration of the odorant reaches a detection threshold. An odorant concentration below the detection threshold means that the concentration in the air is not detectable by the average human.

Neither the state nor the federal governments have adopted rules or regulations for the control of odor sources. The SJVAPCD does not have an individual rule or regulation that specifically addresses odors; however, odors would be subject to SJVAPCD Rule 4102, Nuisance. Any actions related to odors would be based on citizen complaints to local governments and the SJVAPCD.

Toxic Air Contaminants

TACs are air pollutants that may cause or contribute to an increase in mortality or serious illness, or which may pose a hazard to human health. TACs are usually present in minute quantities in the ambient air, but due to their high toxicity, they may pose a threat to public health even at very low concentrations. Because there is no threshold level below which adverse health impacts are not expected to occur, TACs differ from criteria pollutants for which acceptable levels of exposure can be determined and for which state and federal governments have set ambient air quality standards. TACs, therefore, are not considered “criteria pollutants” under either the FCAA or the California Clean Air Act (CCAA) and are thus not subject to National or California ambient air quality standards (NAAQS and CAAQS, respectively). Instead, the EPA and the CARB regulate Hazardous Air Pollutants (HAPs) and TACs, respectively, through statutes and regulations that generally require the use of the maximum or best available control technology (BACT) to limit emissions. In conjunction with District rules, these federal and state statutes and regulations establish the regulatory framework for TACs. At the national levels, the EPA has established National Emission Standards for HAPs (NESHAPs), in accordance with the requirements of the FCAA and subsequent amendments. These are technology-based source-specific regulations that limit allowable emissions of HAPs.

Within California, TACs are regulated primarily through the Tanner Air Toxics Act (Assembly Bill [AB] 1807) and the Air Toxics Hot Spots Information and Assessment Act of 1987 (AB 2588). The Tanner Act sets forth a formal procedure for CARB to designate substances as TACs. The following



provides a summary of the primary TACs of concern within the State of California and related health effects:

Diesel Particulate Matter

Diesel Particulate Matter (DPM) was identified as a TAC by the CARB in August 1998. DPM is emitted from both mobile and stationary sources. In California, on-road diesel-fueled vehicles contribute approximately 42% of the statewide total, with an additional 55% attributed to other mobile sources such as construction and mining equipment, agricultural equipment, and transport refrigeration units. Stationary sources, contributing about 3% of emissions, include shipyards, warehouses, heavy equipment repair yards, and oil and gas production operations. Emissions from these sources are from diesel-fueled internal combustion engines. Stationary sources that report DPM emissions also include heavy construction, manufacturers of asphalt paving materials and blocks, and diesel-fueled electrical generation facilities (CARB 2013).

In October 2000, the CARB issued a report entitled: Risk Reduction Plan to Reduce Particulate Matter Emissions from Diesel-Fueled Engines and Vehicles, which is commonly referred to as the Diesel Risk Reduction Plan (DRRP). The DRRP provides a mechanism for combating the DPM problem. The goal of the DRRP is to reduce concentrations of DPM by 85% by the year 2020, in comparison to year 2000 baseline emissions. The key elements of the DRRP are to clean up existing engines through engine retrofit emission control devices, to adopt stringent standards for new diesel engines, and to lower the sulfur content of diesel fuel to protect new, and very effective, advanced technology emission control devices on diesel engines. When fully implemented, the DRRP will significantly reduce emissions from both old and new diesel fueled motor vehicles and from stationary sources that burn diesel fuel. In addition to these strategies, the CARB continues to promote the use of alternative fuels and electrification. As a result of these actions, DPM concentrations and associated health risks in future years are projected to decline (CARB 2013). In comparison to year 2010 inventory of statewide DPM emissions, CARB estimates that emissions of DPM in 2035 will be reduced by more than 50%.

DPM is typically composed of carbon particles (“soot”, also called black carbon) and numerous organic compounds, including over 40 known cancer-causing organic substances. Examples of these chemicals include polycyclic aromatic hydrocarbons, benzene, formaldehyde, acetaldehyde, acrolein, and 1,3-butadiene. Diesel exhaust also contains gaseous pollutants, including volatile organic compounds and NOx. NOx emissions from diesel engines are important because they can undergo chemical reactions in the atmosphere leading to formation of PM2.5 and ozone.

In California, diesel exhaust particles have been identified as a carcinogen accounting for an estimated 70% of the total known cancer risks in California. DPM is estimated to increase statewide cancer risk by 520 cancers per million residents exposed over an estimated 70-year



lifetime. Non- cancer health effects associated with exposure to DPM include premature death, exacerbated chronic heart and lung disease, including asthma, and decreased lung function in children. Short-term exposure to diesel exhaust can also have immediate health effects. Diesel exhaust can irritate the eyes, nose, throat and lungs, and it can cause coughs, headaches, lightheadedness, and nausea. In studies with human volunteers, diesel exhaust particles made people with allergies more susceptible to the materials to which they are allergic, such as dust and pollen. Exposure to diesel exhaust also causes inflammation in the lungs, which may aggravate chronic respiratory symptoms and increase the frequency or intensity of asthma attacks (CARB 2016b).

Individuals most vulnerable to non-cancer health effects of DPM are children whose lungs are still developing and the elderly who often have chronic health problems. The elderly and people with emphysema, asthma, and chronic heart and lung disease are especially sensitive to DPM (CARB 2016b). In addition to its health effects, DPM significantly contributes to haze and reduced visibility.

Asbestos

Asbestos is the name given to a number of naturally occurring fibrous silicate minerals that have been mined for their useful properties such as thermal insulation, chemical and thermal stability, and high tensile strength. The three most common types of asbestos are chrysotile, amosite, and crocidolite. Chrysotile, also known as white asbestos, is the most common type of asbestos found in buildings. Chrysotile makes up approximately 90 to 95 percent of all asbestos contained in buildings in the United States. Exposure to asbestos is a health threat; exposure to asbestos fibers may result in health issues such as lung cancer, mesothelioma (a rare cancer of the thin membranes lining the lungs, chest, and abdominal cavity), and asbestosis (a non-cancerous lung disease that causes scarring of the lungs). Exposure to asbestos can occur during demolition or remodeling of buildings constructed prior to its ban for use in buildings in 1977. Exposure to naturally occurring asbestos can occur during soil disturbing activities in areas with deposits present.

Valley Fever

Valley Fever is an infection caused by a fungus that lives in the soil. About 10,000 U.S. cases are reported each year, mostly from Arizona and California. Valley fever can be misdiagnosed because its symptoms are like those of other illnesses.

The fungus that causes Valley fever, *Coccidioides*, is found in the southwestern United States, parts of Mexico and Central America, and parts of South America. The fungus grows naturally and is endemic in many areas along the southwestern region of Fresno County. People can get this



infection by breathing in fungal spores from the air, especially when the wind blows the soil with the fungal spores into the air, or the dirt is moved by human activity. About 40% of the people who come into contact with the fungal spores will develop symptoms that may require medical treatment and the symptoms will not go away on their own. Some people may develop a more severe infection, especially those with compromised immune systems (Centers for Disease Control and Prevention [CDC] 2020).

Attainment Status

The United States EPA and CARB designate air basins where ambient air quality standards are exceeded as “nonattainment” areas. If standards are met, the area is designated as an “attainment” area. If there is inadequate or inconclusive data to make a definitive attainment designation, they are considered “unclassified.” National nonattainment areas are further designated as marginal, moderate, serious, severe, or extreme as a function of deviation from standards.

Each standard has a different definition, or “form” of what constitutes attainment, based on specific air quality statistics. For example, the federal 8-hour CO standard is not to be exceeded more than once per year; therefore, an area is in attainment of the CO standard if no more than one 8-hour ambient air monitoring values exceeds the threshold per year. In contrast, the federal annual standard for PM_{2.5} is met if the 3-year average of the annual average PM_{2.5} concentration is less than or equal to the standard.

The current attainment designations for the SJVAB are shown in **Table 4-2**. The SJVAB is designated as nonattainment for ozone, PM₁₀, and PM_{2.5}.

Table 4-2 San Joaquin Valley Air Basin Attainment Status

Pollutant	Designation/Classification	
	Federal Standards	State Standards
Ozone – One hour	No Federal Standard	Nonattainment/Severe
Ozone – Eight Hour	Nonattainment/Extreme	Nonattainment
PM ₁₀	Attainment	Nonattainment
PM _{2.5}	Nonattainment	Nonattainment
Carbon Monoxide	Attainment/Unclassified	Attainment/Unclassified
Nitrogen Dioxide	Attainment/Unclassified	Attainment
Sulfur Dioxide	Attainment/Unclassified	Attainment
Lead	No Designation/Classification	Attainment
Hydrogen Sulfide	No Federal Standard	Unclassified
Sulfates	No Federal Standard	Attainment
Visibility Reducing Particles	No Federal Standard	Unclassified



Vinyl Chloride	No Federal Standard	Attainment
<p>Notes:</p> <p>a See 40 CFR Part 81</p> <p>b See CCR Title 17 Sections 60200-60210</p> <p>c On September 25, 2008, EPA redesignated the San Joaquin Valley to attainment for the PM10 National Ambient Air Quality Standard (NAAQS) and approved the PM10 Maintenance Plan.</p> <p>d The Valley is designated nonattainment for the 1997 PM2.5 NAAQS. EPA designated the Valley as nonattainment for the 2006 PM2.5 NAAQS on November 13, 2009 (effective December 14, 2009).</p> <p>e Though the Valley was initially classified as serious nonattainment for the 1997 8-hour ozone standard, EPA approved Valley reclassification to extreme nonattainment in the Federal Register on May 5, 2010 (effective June 4, 2010).</p> <p>f Effective June 15, 2005, the U.S. Environmental Protection Agency (EPA) revoked the federal 1-hour ozone standard, including associated designations and classifications. EPA had previously classified the SJVAB as extreme nonattainment for this standard. EPA approved the 2004 Extreme Ozone Attainment Demonstration Plan on March 8, 2010 (effective April 7, 2010). Many applicable requirements for extreme 1-hour ozone nonattainment areas continue to apply to the SJVAB.</p> <p>Source: SJVAPCD 2021</p>		

Ambient Air Quality

The local air quality can be evaluated by reviewing relevant air pollution concentrations near the Project. **Table 4-3** summarizes published monitoring data for the most recent three-year period available from the nearest monitoring station at 4706 E. Drummond Street, Fresno, CA approximately 4.62 miles east of the project site. The data shows that during the past few years, the SJVAB has exceeded the ozone and PM10 standards.

Table 4-3 Ambient Air Quality Summary

Air Pollutant	Averaging Time	Item	2017	2018	2019
Ozone	1 Hour	Max 1 Hour (ppm)	0.125	0.119	0.099
		Days > State Standard (0.09 ppm)	8	6	1
	8 Hour	Max 8 Hour (ppm)	0.103	0.097	0.080
		Days > State Standard (0.070 ppm)	31	34	11
		Days > National Standard (0.070 ppm)	29	32	10
		Days > National Standard (0.075 ppm)	17	15	2
Carbon Monoxide	8 Hour	Max 8 Hour (ppm)	X	X	X
		Days > State Standard (9.0 ppm)	X	X	X
		Days > National Standard (9.0 ppm)	X	X	X
Nitrogen dioxide	Annual	Annual Average (ppm)	ID	95	ID
	1 Hour	Max 1 Hour (ppm)	64.7	75.9	42.3
		Days > State Standard (0.18 ppm)	0	0	0
Sulfur dioxide	Annual	Annual Average (ppm)	X	X	X
	24 Hour	Max 24 Hour (ppm)	X	X	X
		Days > State Standard (0.04 ppm)	X	X	X
Inhalable coarse particles (PM10)	Annual (National)	Annual Average ($\mu\text{g}/\text{m}^3$)	44.0	45.8	38.6



	Annual (State)	Annual Average ($\mu\text{g}/\text{m}^3$)	44.2	45.7	39.6
	24 hours	24 Hour ($\mu\text{g}/\text{m}^3$) National	115.6	152.2	175.6
		24 Hour ($\mu\text{g}/\text{m}^3$) State	120.5	154.8	181.3
		Days > State Standard (50 $\mu\text{g}/\text{m}^3$)	17	19	13
		Days > National Standard (150 $\mu\text{g}/\text{m}^3$)	0	0	1
Fine particulate matter (PM2.5)	Annual (National)	Annual Average ($\mu\text{g}/\text{m}^3$)	X	X	X
	Annual (State)	Annual Average ($\mu\text{g}/\text{m}^3$)	X	X	X
	24 Hour	24 Hour ($\mu\text{g}/\text{m}^3$) National	X	X	X
		24 Hour ($\mu\text{g}/\text{m}^3$) State	X	X	X
		Days > National Standard (35 $\mu\text{g}/\text{m}^3$)	X	X	X
Notes: > = exceed ppm = parts per million g/m3 = micrograms per cubic meter a = The Federal 1-hour Ozone Standard was revoked in June 2005; California retained a 1 hour Ozone Standard ID = insufficient data X = No data available because concentrations are no longer monitored max = maximum Bold = exceedance State Standard = CAAQS National Standard = NAAQS Sulfur dioxide is reported on a statewide basis as it is no longer monitored locally Sources: CARB 2018a					

The health impacts of the various air pollutants of concern can be presented in several ways. The clearest in comparison is to the state and federal ozone standards. If concentrations are below the standard, it is safe to say that no health impact would occur to anyone. When concentrations exceed the standard, impacts will vary based on the amount the standard is exceeded. Based on the air quality monitoring data, between 2 and 34 unhealthy ozone air days and up to 19 days with unhealthy PM10 levels.

Unhealthy air quality levels can pose a risk to those most sensitive to air pollution such as the elderly, asthmatics, children, etc. The higher the air pollution levels rise the greater the population it affects.

Local Sources of Air Pollution

The Project's site is located in a predominately urban setting with agricultural and industrial uses surrounding the site and residential uses to the west. The main sources of air pollution are mobile



sources traveling along the nearby roadways that surround the Project site. Nearby sources of air pollution include emissions from vehicles on West Church Avenue and S. West Avenue as well as industrial emissions from industrial sources northeast of the project site.

Sensitive Receptors

Those who are sensitive to air pollution include children, the elderly, and persons with pre-existing respiratory or cardiovascular illness. For purposes of CEQA, the SJVAPCD considers a sensitive receptor a location that houses or attracts children, the elderly, people with illnesses, or others who are especially sensitive to the effects of air pollutants. Examples of sensitive receptors include hospitals, residences, convalescent facilities, and schools.

The project site is located within 1,000 feet from existing sensitive receptors that could be exposed to diesel emission exhaust during the construction and operational periods. The nearest sensitive receptors are residents occupying the single-family houses approximately 450 feet west of the project site.

4.3.2 Regulatory Setting

Air quality within the project area is regulated by several jurisdictions including the U.S. Environmental Protection Agency (EPA), the California Air Resources Board (CARB), and the San Joaquin Valley Air Pollution Control District (SJVAPCD). Each of these jurisdictions develops rules, regulations, and policies to attain the goals or directives imposed upon them through legislation. Although EPA regulations may not be superseded, both state and local regulations may be more stringent.

Federal

U.S. Environmental Protection Agency

At the federal level, the EPA has been charged with implementing national air quality programs. The EPA's air quality mandates are drawn primarily from the FCAA, which was signed into law in 1970. Congress substantially amended the FCAA in 1977 and again in 1990.

Federal Clean Air Act

The FCAA required the EPA to establish NAAQS, and also set deadlines for their attainment. Two types of NAAQS have been established: primary standards, which protect public health, and secondary standards, which protect public welfare from non-health-related adverse effects, such as visibility restrictions. NAAQS are summarized in **Table 4-4**.



National Emission Standards for Hazardous Air Pollutants

Pursuant to the FCAA of 1970, the EPA established the NESHAPs. These are technology-based source-specific regulations that limit allowable emissions of HAPs. Among these sources include asbestos-containing building materials (ACBMs). NESHAPs include requirements pertaining to the inspection, notification, handling, and disposal of ACBMs associated with the demolition and renovation of structures.

State

California Air Resources Board

The CARB is the agency responsible for coordination and oversight of state and local air pollution control programs in California and for implementing the CCAA of 1988. Other CARB duties include monitoring air quality (in conjunction with air monitoring networks maintained by air pollution control districts and air quality management districts), establishing California Ambient Air Quality Standards (CAAQS), which in many cases are more stringent than the NAAQS, and setting emissions standards for new motor vehicles. The emission standards established for motor vehicles differ depending on various factors including the model year, and the type of vehicle, fuel and engine used. The CAAQS are summarized in **Table 4-1**.

California Clean Air Act

The CCAA requires that all air districts in the state endeavor to achieve and maintain CAAQS for O₃, CO, SO₂, and NO₂ by the earliest practical date. The CCAA specifies that districts focus attention on reducing the emissions from transportation and area-wide emission sources, and the act provides districts with authority to regulate indirect sources. Each district plan is required to either (1) achieve a 5% annual reduction, averaged over consecutive 3-year periods, in district-wide emissions of each non-attainment pollutant or its precursors, or (2) to provide for implementation of all feasible measures to reduce emissions. Any planning effort for air quality attainment would thus need to consider both state and federal planning requirements.

California State Implementation Plan

The federal CAA (and its subsequent amendments) requires each state to prepare an air quality control plan referred to as a state implementation plan (SIP). The SIP is a living document that is periodically modified to reflect the latest emissions inventories, plans, and rules and regulations of air basins as reported by the agencies with jurisdiction over them. The CAA Amendments dictate that states containing areas violating the NAAQS revise their SIPs to include extra control measures to reduce air pollution. The SIP includes strategies and control measures to attain the NAAQS by



deadlines established by the CAA. The EPA has the responsibility to review all SIPs to determine if they conform to the requirements of the CAA.

State law makes CARB the lead agency for all purposes related to the SIP. Local air districts and other agencies prepare SIP elements and submit them to CARB for review and approval. CARB then forwards SIP revisions to the EPA for approval and publication in the Federal Register.

Assembly Bills 1807 & 2588 - Toxic Air Contaminants

Within California, TACs are regulated primarily through AB 1807 (Tanner Air Toxics Act) and AB 2588 (Air Toxics Hot Spots Information and Assessment Act of 1987). The Tanner Air Toxics Act sets forth a formal procedure for CARB to designate substances as TACs. This includes research, public participation, and scientific peer review before CARB designates a substance as a TAC.

Existing sources of TACs that are subject to the Air Toxics Hot Spots Information and Assessment Act are required to: (1) prepare a toxic emissions inventory; (2) prepare a risk assessment if emissions are significant; (3) notify the public of significant risk levels; and (4) prepare and implement risk reduction measures.

Assembly Bill 617

In response to AB 617 (C. Garcia, Chapter 136, Statutes of 2017), the CARB established the Community Air Protection Program. The Community Air Protection Program includes community air monitoring and community emissions reduction program's focus is to reduce exposure in communities most impacted by air pollution. The Legislature has appropriated funding to support early actions to address localized air pollution through targeted incentive funding to deploy cleaner technologies in these communities, as well as grants to support community participation in the AB 617 process. AB 617 also includes new requirements for accelerated retrofit of pollution controls on industrial sources, increased penalty fees, and greater transparency and availability of air quality and emissions data, which will help advance air pollution control efforts throughout the State.

Portable Equipment Registration Program

Owners or operators of portable engines and certain other types of equipment can register their units under the CARB's Statewide Portable Equipment Registration Program (PERP). PERP allows registered equipment to be operated throughout California without having to obtain individual permits from local air districts. To qualify, equipment must meet eligibility requirements, including applicable emissions standards.

Naturally Occurring Asbestos Regulations



CARB has adopted two Airborne Toxic Control Measures (ATCMs) which regulates the control of Naturally Occurring Asbestos (NOA) associated with construction, surfacing, grading, mining, and quarrying activities. The NCUAQMD is responsible for enforcing Asbestos ATCMs. There are no known likely areas of NOA in the Project area (USGS 2011).

Regulatory Attainment Designations

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

The EPA designates areas for O₃, CO, and NO₂ as “does not meet the primary standards,” “cannot be classified,” or “better than national standards.” For SO₂, areas are designated as “does not meet the primary standards,” “does not meet the secondary standards,” “cannot be classified,” or “better than national standards.” However, CARB terminology of attainment, nonattainment, and unclassified is more frequently used. The EPA uses the same sub-categories for nonattainment status: serious, severe, and extreme. In 1991, EPA assigned new nonattainment designations to areas that had previously been classified as Group I, II, or III for PM₁₀ based on the likelihood that they would violate national PM₁₀ standards. All other areas are designated “unclassified.”

As discussed previously, the SJVAB is designated as nonattainment for the federal ozone and PM_{2.5} standards. The SJVAB is nonattainment for State ozone, PM₁₀, and PM_{2.5} standards.

Regional

San Joaquin Valley Air Pollution Control District

The SJVAPCD is the agency primarily responsible for ensuring that NAAQS and CAAQS are not exceeded and that air quality conditions are maintained in the SJVAB, within which the proposed project is located. Responsibilities of the SJVAPCD include, but are not limited to, preparing plans for the attainment of ambient air quality standards, adopting and enforcing rules and regulations



concerning sources of air pollution, issuing permits for stationary sources of air pollution, inspecting stationary sources of air pollution and responding to citizen complaints, monitoring ambient air quality and meteorological conditions, and implementing programs and regulations required by the FCAA and the CCAA.

SJVAPCD Rules and Regulations

The SJVAPCD rules and regulations that may apply to projects that will occur during buildout of the project include but are not limited to the following:

Rule 2010 – Permits Required. The purpose of this rule is to require any person constructing, altering, replacing or operating any source operation which emits, may emit, or may reduce emissions to obtain an Authority to Construct or a Permit to Operate. This rule also explains the posting requirements for a Permit to Operate and the illegality of a person willfully altering, defacing, forging, counterfeiting or falsifying any Permit to Operate.

Rule 2201 – New and Modified Stationary Source Review Rule. The purpose of this rule is to provide for the following:

- The review of new and modified Stationary Sources of air pollution and to provide mechanisms including emission trade-offs by which Authorities to Construct such sources may be granted, without interfering with the attainment or maintenance of Ambient Air Quality Standards; and
- No net increase in emissions above specified thresholds from new and modified Stationary Sources of all nonattainment pollutants and their precursors.

Rule 4002 – National Emission Standards for Hazardous Air Pollutants. This rule incorporates the National Emission Standards for Hazardous Air Pollutants from Part 61, Chapter I, Subchapter C, Title 40, Code of Federal Regulations (CFR) and the National Emission Standards for Hazardous Air Pollutants for Source Categories from Part 63, Chapter I, Subchapter C, Title 40, Code of Federal Regulations (CFR).

Rule 4102 – Nuisance. The purpose of this rule is to protect the health and safety of the public and applies to any source operation that emits or may emit air contaminants or other materials.

Rule 4601 – Architectural Coatings. The purpose of this rule is to limit Volatile Organic Compounds (VOC) emissions from architectural coatings. Emissions are reduced by limits on VOC content and providing requirements on coatings storage, cleanup, and labeling.



Rule 4623 – Storage of Organic Liquids. The purpose of this rule is to limit volatile organic compound (VOC) emissions from the storage of organic liquids.

Rule 4624 – Transfer of Organic Liquids. The purpose of this rule is to limit volatile organic compound (VOC) emissions from the transfer of organic liquids.

Rule 4641 – Cutback, Slow Cure, and Emulsified Asphalt, Paving and Maintenance Operations. The purpose of this rule is to limit VOC emissions from asphalt paving and maintenance operations. If asphalt paving will be used, then the paving operations will be subject to Rule 4641.

Regulation VIII – Fugitive PM10 Prohibitions. Rule 8011-8081 are designed to reduce PM10 emissions (predominantly dust/dirt) generated by human activity, including construction and demolition activities, road construction, bulk materials storage, paved and unpaved roads, carryout and track out, etc. All development projects that involve soil disturbance are subject to at least one provision of the Regulation VIII series of rules.

Rule 9510 – Indirect Source Review. This rule reduces the impact of NOx and PM10 emissions from growth on the Air Basin. The rule places application and emission reduction requirements on development projects meeting applicability criteria to reduce emissions through onsite mitigation, offsite District-administered projects, or a combination of the two. This project must comply with Rule 9510 because it would develop more than 2,000 square feet of commercial space.

CEQA

The SJVAPCD has three roles under CEQA:

Lead Agency: responsible for preparing environmental analyses for its own projects (adoption of rules, regulations, or plans) or permit projects filed with the District where the District has primary approval authority over the project.

Responsible Agency: The discretionary authority of a Responsible Agency is more limited than a Lead Agency; having responsibility for mitigating or avoiding only the environmental effects of those parts of the project which it decides to approve, carry out, or finance. The District defers to the Lead Agency for preparation of environmental documents for land use projects that also have discretionary air quality permits unless no document is prepared by the Lead Agency and potentially significant impacts related to the permit are possible. The District comments on documents prepared by Lead Agencies to ensure that District concerns are addressed.

Commenting Agency: The District reviews and comments on air quality analyses prepared by other public agencies (such as the project).



The SJVAPCD also provides guidance and thresholds for CEQA air quality and GHG analyses. The result of this guidance as well as state regulations to control air pollution is an overall improvement in the Air Basin. In particular, the SJVAPCD's 2015 GAMAQI states the following:

1. The District's Air Quality Attainment Plans include measures to promote air quality elements in county and city general plans as one of the primary indirect source programs. The general plan is the primary long-range planning document used by cities and counties to direct development. Since air districts have no authority over land use decisions, it is up to cities and counties to ensure that their general plans help achieve air quality goals. Section 65302.1 of the California Government Code requires cities and counties in the San Joaquin Valley to amend appropriate elements of their general plans to include data, analysis, comprehensive goals, policies, and feasible implementation strategies to improve air quality in their next housing element revisions.
2. The Air Quality Guidelines for General Plans (AQGGP), adopted by the District in 1994 and amended in 2005, is a guidance document containing goals and policy examples that cities and counties may want to incorporate into their General Plans to satisfy Section 65302.1. When adopted in a general plan and implemented, the suggestions in the AQGGP can reduce vehicle trips and miles traveled and improve air quality. The specific suggestions in the AQGGP are voluntary. The District strongly encourages cities and counties to use their land use and transportation planning authority to help achieve air quality goals by adopting the suggested policies and programs.

Local

City of Fresno General Plan

The City of Fresno General Plan was adopted on December 18, 2014, and serves as a forward-looking, comprehensive, and long-range plan. The General Plan includes the following policies related to air quality that are applicable to the proposed project.

Objective RC-4. In cooperation with other jurisdictions and agencies in the San Joaquin Valley Air Basin, take necessary actions to achieve and maintain compliance with State and federal air quality standards for criteria pollutants.

RC-4-a Support Regional Efforts. Support and lead, where appropriate, regional, State and federal programs and actions for the improvement of air quality, especially the SJVAPCD's efforts to monitor and control air pollutants from both stationary and mobile sources and implement Reasonably Available Control Measure in the Ozone Attainment Plan.



RC-4-b Conditions of Approval. Develop and incorporate air quality maintenance requirements, compatible with Air Quality Attainment and Maintenance Plans, as conditions of approval for General Plan amendments, community plans, Specific Plans, neighborhood plans, Concept Plans, and development proposals.

RC-4-c Evaluate Impacts with Models. Continue to require the use of computer models used by the SJVAPCD to evaluate the air quality impacts of plans and projects that require such environmental review by the City.

Community Emissions Reduction Program South Central Fresno

The California legislature developed AB 617 in response to concerns over localized impacts of air pollutions in disadvantaged communities throughout the state. AB 617 is a statewide effort to monitor and reduce air pollution, and improve public health, in communities that experience disproportionate burdens from exposure to air pollutants through new community-focused and community-driven actions. South Central Fresno was prioritized by SJVAPCD and selected by CARB to receive clean air resources newly available under AB 617.

The Community Emission Reduction Program identifies the sources of pollution that are a concern to the community and possible strategies to reduce pollution sources from these areas. The top community sources identified are heavy duty trucks, high polluting and idle cars, residential wood burning, land use/industrial development, illegal burning, and industrial processes (SJVAPCD 2019b).

4.3.3 Modeling Parameters and Assumptions

The following modeling parameters and assumptions were used to generate criteria air pollutant and greenhouse gas (GHG) emissions for the Busseto Development Project.

Criteria Air Pollutant and GHG Model Selection

The California Emissions Estimator Model (CalEEMod) is a statewide land use emissions computer model designed to provide a uniform platform for government agencies, land use planners, and environmental professionals to quantify potential criteria pollutant and greenhouse gas (GHG) emissions associated with both construction and operations from a variety of land use projects. CalEEMod quantifies direct emissions from construction and operation activities (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. Further, CalEEMod identifies mitigation measures to reduce criteria pollutant and GHG emissions along with calculating the benefits achieved from measures chosen by the user.



CalEEMod was developed for the California Air Pollution Control Officers Association (CAPCOA) in collaboration with the California Air Districts. Default data (e.g., emission factors, trip lengths, meteorology, source inventory, etc.) have been provided by the various California Air Districts to account for local requirements and conditions.

CalEEMod is a comprehensive tool for quantifying air quality impacts from land use projects located throughout California. The model can be used for a variety of situations where an air quality analysis is necessary or desirable such as preparing CEQA or National Environmental Policy Act documents, conducting pre-project planning, and, verifying compliance with local air quality rules and regulations, etc.

CalEEMod version 2020.4.0 was used to estimate construction and operational impacts of the proposed project.

Air Pollutants and GHGs Assessed

Criteria Pollutants Assessed

The following criteria air pollutants were assessed in this analysis: reactive organic gases (ROG), oxides of nitrogen (NO_x), particulate matter less than 10 microns in diameter (PM₁₀), and particulate matter less than 2.5 microns in diameter (PM_{2.5}). Note that the proposed project would emit ozone precursors ROG and NO_x. However, the proposed project would not directly emit ozone since it is formed in the atmosphere during the photochemical reaction of ozone precursors.

GHGs Assessed

This analysis was restricted to GHGs identified by AB 32, which include carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), sulfur hexafluoride (SF₆), and nitrogen trifluoride (NF₃). The proposed project would generate a variety of GHGs, including several defined by AB 32 such as CO₂, CH₄, and N₂O.

GHG emissions associated with the proposed project construction, as well as future operations were estimated using CO₂ equivalent (CO₂e) emissions as a proxy for all GHG emissions. Construction GHG emissions were amortized over the lifetime of the proposed project. In order to obtain the CO₂e, an individual GHG is multiplied by its Global Warming Potential (GWP). The GWP designates on a pound for pound basis the potency of the GHG compared to CO₂.

Assumptions

Construction Modeling Assumptions



Land Use

Table 4-4 provides a summary of the land use inputs included in the CalEEMod modeling.

Table 4-4 CalEEMod Land Use Development Summary Table for the Proposed Project

Project Component	CalEEMod Land Use Type	Land Use Unit Amount (Size)	Land Use Size Metric	Total Square Footage (Building Square Footage is Used for Buildings)	Land Use Acreage
Industrial Building	General Heavy Industry	477.47	KSF	477,470	10.96 AC
Parking	Parking Lot	190	Spaces	76,000	1.71 AC
Notes: KSF = 1,000 square feet AC = acre					

Construction Schedule

The proposed project would require various tasks including site preparation, grading, building construction, architectural coatings, and paving. Table 4-5 shows the anticipated construction schedule. The construction schedule utilized in the analysis will represent a “worst-case” analysis scenario since emission factors for construction equipment decrease as the analysis year increases, due to improvements in technology and more stringent regulatory requirements. Therefore, construction emissions would decrease if the construction schedule moved to later years or is phased over multiple years. The duration of construction activity and associated equipment represent a reasonable approximation of the expected construction fleet as required per CEQA guidelines. The site-specific construction fleet may vary due to specific project needs at the time of construction.

Table 4-5 Project Construction Schedule

Construction Task	Start Date	End Date	Workdays
Site Preparation	2/1/2022	2/28/2022	20
Grading/Excavation	3/1/2022	3/31/2022	23
Drainage/Utilities/Trenching	3/1/2022	3/31/2022	23
Foundations/Concrete Pour	4/1/2022	4/30/2022	21
Building Construction	5/1/2022	1/16/2023	186
Paving	11/1/2022	1/16/2023	55
Source: CalEEMod Output (Attachment A). Construction schedule provided by the Project Applicant.			

Construction Equipment

The off-road equipment fleet for construction were generated using default values from CalEEMod. CalEEMod generates construction fleets for construction activities based on the size of



the construction areas. Construction equipment for each construction activity by phase is shown in **Table 4-6**.

Table 4-6 Project Construction Equipment

Construction Task	Equipment Type	Pieces of Equipment	Usage (hours/day)	Horsepower	Load Factor	Fuel Type
Site Preparation	Rubber Tired Dozers	3	8	247	0.40	Diesel
	Tractors/Loaders/Backhoes	4	8	97	0.37	Diesel
Grading/Excavation	Excavators	2	8	158	0.38	Diesel
	Graders	1	8	187	0.41	Diesel
	Rubber Tired Dozers	1	8	247	0.40	Diesel
	Scrapers	2	8	367	0.48	Diesel
	Tractors/Loaders/Backhoes	2	8	97	0.37	Diesel
Drainage/Utilities/Trenching	Excavators	2	8	158	0.38	Diesel
	Graders	1	8	187	0.41	Diesel
	Rubber Tired Dozers	1	8	247	0.40	Diesel
	Scrapers	2	8	367	0.48	Diesel
	Tractors/Loaders/Backhoes	2	8	97	0.37	Diesel
Foundations/Concrete Pour	Pavers	2	8	130	0.42	Diesel
	Paving Equipment	2	8	132	0.36	Diesel
	Rollers	2	8	80	0.38	Diesel
Building Construction	Cranes	1	7	231	0.29	Diesel
	Forklifts	3	8	89	0.20	Diesel
	Generator Sets	1	8	84	0.74	Diesel
	Tractors/Loaders/Backhoes	3	7	97	0.37	Diesel
	Welders	1	8	46	0.45	Diesel
Paving	Pavers	2	8	130	0.42	Diesel
	Paving Equipment	2	8	132	0.36	Diesel
	Rollers	2	8	80	0.38	Diesel

Source: CalEEMod Output (Attachment A)



Vehicle Trips

Off-site construction emissions are caused by motor vehicle exhaust from delivery vehicles, worker traffic, and road dust (PM₁₀ and PM_{2.5}). **Table 4-7** provides a summary of the construction-related vehicle trips. The number of daily worker trips were based on the Project Applicant’s estimation of the average number of daily workers per phase.

CalEEMod default values were used to estimate the number of vendor vehicle trips during the building construction phase. The number of vendor trips during the Building Construction phase is derived from a study conducted by the Sacramento Metropolitan Air Quality Management District (SMAQMD) as per the CalEEMod defaults. The SMAQMD trip survey during construction counted cement and water trucks as vendor trips (instead of counting them as off-road vehicle trips) and these trip rates were incorporated into the calculations for the Building Construction phase. The Project Applicant estimates that during the paving phase of construction, 67 cement trucks would travel to the project site a day. The cement trucks were included as vendor truck trips during the paving phase of construction.

Construction would not require excavation or demolition and, as a result, hauling trips are not required during the grading or demolition phases of construction.

The fleet mix for worker trips is light-duty passenger vehicles to light-duty trucks. The vendor trips fleet mix is composed of a mixture of medium and heavy-duty diesel trucks. CalEEMod default trip lengths for a project in Fresno County and an urban setting were used for the worker (10.8 miles), vendor (7.3 miles), and hauling trips (20 miles).

Table 4-7 Construction Vehicle Trips

Construction Task	Worker Trips per Day	Vendor Trips per Day	Total Haul Truck Trips
Site Preparation	20	0	0
Grading/Excavation	50	0	0
Drainage/Utilities/Trenching	50	0	0
Foundations/Concrete Pour	50	0	0
Building Construction	150	91	0
Paving	40	67	0
Notes: No hauling trucks anticipated as there is no demolition, and all grading will be balanced on the Project site. Source: CalEEMod Output (Attachment A).			



Operational Modeling Assumptions

Operational emissions are those emissions that occur during operation of the proposed project. The sources are summarized below.

Motor Vehicles

Motor vehicle emissions refer to exhaust and road dust emissions from the automobiles that would travel to and from the proposed project site. The trip generation was based on the June 2021 Transportation Impact Analysis (TIA) prepared by JLB Traffic based on the Institute of Engineer's (ITE) trip generation rates for Land Use Code 110, General Light Industry.

Trip Lengths

The CalEEMod default round trip lengths for an urban setting in Fresno County were used in this analysis. Trip lengths are for primary trips. Trip purposes are primary, diverted, and pass-by trips. Diverted trips take a slightly different path than a primary trip. The CalEEMod default rates for percentages of primary, diverted, and pass-by trips were used. The emissions estimate also considers the internal capture rates, consistent with the project-specific trip generation. Internal capture rates account for vehicle trips that visit the project site for the purpose of visiting more than land use within the project.

Vehicle Fleet Mix

The vehicle fleet mix is defined as the mix of motor vehicle classes active during the operation of the proposed project. Emission factors are assigned to the expected vehicle mix as a function of vehicle class, speed, and fuel use (gasoline- and diesel-powered vehicles). CalEEMod default fleet mix was used for this analysis.

Area Sources

Consumer Products

Consumer products are various solvents used in non-industrial applications that emit ROG during their product use. These typically include cleaning supplies, kitchen aerosols, cosmetics, and toiletries. The default CalEEMod values were used for this project.

Architectural Coatings (Painting)

Paints release VOC emissions. The buildings would be repainted on occasion. CalEEMod defaults for the wall painting size and VOC paint concentration were used for this purpose.



Landscaping Emissions

CalEEMod will estimate a total of 180 days for which landscaping equipment would be used to estimate potential emissions for the proposed project.

Indirect Emissions

For GHG emissions, CalEEMod contains calculations to estimate indirect GHG emissions. Indirect emissions are emissions where the location of consumption or activity is different from where actual emissions are generated. For example, electricity would be consumed at the proposed project site; however, emissions associated with producing that electricity are generated off-site at a power plant. Since the electricity can vary greatly based on locations, the user should override these values if they have more specific information regarding their specific water supply and treatment.

Energy Use

Pacific Gas and Electric (PG&E) would provide electricity and natural gas services to the project site. PG&E provides emission factors for the electricity it provides to customers for its energy portfolio that is used to estimate project emissions. The utilities will be required to increase the use of renewable energy sources to 60 percent by 2030. These reductions have been accounted within CalEEMod 2020.4.0 defaults.

The emissions associated with the building electricity and natural gas usage (non-hearth) were estimated based on the land use type and size. The electricity energy use is in units of kilowatt hours per size metric for each land use type. Natural gas use is in units of one thousand British Thermal Units per size metric for each land use type.

Other Indirect Emissions (Water Use, Wastewater Use, and Solid Waste)

CalEEMod includes calculations for indirect GHG emissions for electricity consumptions, water consumption, and solid waste disposal. For water consumption, CalEEMod calculates embedded energy (e.g., treatment, conveyance, distribution) associated with providing each gallon of potable water to the project. For solid waste disposal, GHG emissions are associated with the disposal of solid waste generated by the proposed project into landfills. CalEEMod default data were used for inputs associated with solid waste.

Fugitive Dust

Construction



Fugitive dust would be generated from site grading and other earth-moving activities. Most of this fugitive dust would remain localized and would be deposited near the project site. However, the potential for impacts from fugitive dust exists unless control measures are implemented to reduce the emissions from the project site. Therefore, adherence to Regulation VIII would be required during construction of the proposed project. Regulation VIII would require fugitive dust control measures that are consistent with best management practices (BMPs) established by the SJVAPCD to reduce the proposed project's construction-generated fugitive dust impacts to a less than significant level.

Visible Dust Emissions may not exceed 20% opacity during periods when soil is being disturbed by equipment or by wind at any time. Visible dust emissions opacity of 20% means dust that would obstruct an observer's view of an object by 20%. District inspectors are state certified to evaluate visible emissions. Dust control may be achieved by applying water before/during earthwork and onto unpaved traffic areas, phasing work to limit dust, and setting up wind fences to limit windblown dust.

Soil Stabilization is required at regulated construction sites after normal working hours and on weekends and holidays. This requirement also applies to inactive construction areas such as phased projects where disturbed land is left unattended. Applying water to form a visible crust on the soil and restricting vehicle access are often effective for short-term stabilization of disturbed surface areas. Long-term methods including applying dust suppressants and establishing vegetative cover.

Carryout and Track out occur when materials from emptied or loaded vehicles falls onto a paved surface or shoulder of a public road or when materials adhere to vehicle tires and are deposited onto a paved surface or shoulder of a public road. Should either occur, the material must be cleaned up at least daily, and immediately if it extends more than 50 feet from the exit point onto a paved road. The appropriate clean-up methods require the complete removal and cleanup of mud and dirt from the paved surface and shoulder. Using a blower device or dry sweeping with any mechanical device other than a PM10-efficient street sweeper is a violation. Larger construction sites, or sites with a high amount of traffic on one or more days, must prevent carryout and track out from occurring by installing gravel pads, grizzlies, wheel washers, paved interior roads, or a combination thereof at each exit point from the site. In many cases, cleaning up track out with water is also prohibited as it may lead to plugged storm drains. Prevention is the best method.

Unpaved Access and Haul Roads, as well as unpaved vehicle and equipment traffic areas at construction sites must have dust control. Speed limit signs limiting vehicle speed to 15 mph or less at construction sites must be posted every 500 feet on uncontrolled and unpaved roads.



Storage Piles and Bulk Materials have handling, storage, and transportation requirements that include applying water when handling materials, wetting or covering stored materials, and installing wind barriers to limit VDE. Also, limiting vehicle speeds, loading haul trucks with a freeboard of six inches or greater along with applying water to the top of the load, and covering the cargo compartments are effective measures for reducing VDE and carryout from vehicles transporting bulk materials.

Demolition activities require the application of water to the exterior of the buildings and to unpaved surfaces where materials may fall. A Dust Control Plan will be required for large demolition projects. Consider all structures slated for demolition as possibly being regulated due to potential asbestos, per District Rule 4002 - National Emission Standards for Hazardous Air Pollutants. Contact the District well before starting because a 10 working-day notice will likely be required before a demolition can begin.

Dust Control Plans identify the dust sources and describe the dust control measures that will be implemented before, during, and after any dust generating activity for the duration of the project. Owners or operators are required to submit plans to the District at least 30 days prior to commencing the work for the following:

- Residential developments of ten or more acres of disturbed surface area.
- Non-residential developments of five or more acres of disturbed surface area.
- The relocation of more than 2,500 cubic yards per day of materials on at least three days.

Operations may not commence until the District has approved the Dust Control Plan. A copy of the plan must be on site and available to workers and District employees. All work on the site is subject to the requirements of the approved dust control plan. A failure to abide by the plan by anyone on site may be subject to enforcement action. Owners or operators of construction projects that are at least one acre in size and where a Dust Control Plan is not required, must provide written notification to the District at least 48 hours in advance of any earthmoving activity.

Record Keeping is required to document compliance with the rules and must be kept for each day any dust control measure is used. The District has developed record forms for water application, street sweeping, and “permanent” controls such as applying long term dust palliatives, vegetation, ground cover materials, paving, or other durable materials. Records must be kept for one year after the end of dust generating activities (Title V sources must keep records for five years).

Nuisances are prohibited at all times because District Rule 4102 – Nuisance applies to all construction sources of fugitive dust, whether or not they are exempt from Regulation VIII. It is



important to monitor dust-generating activities and implement appropriate dust control measures to limit the public’s exposure to fugitive dust.

4.3.4 Impact Assessment

Thresholds of Significance

While the final determination of whether a project is significant is within the purview of the Lead Agency pursuant to Section 15064(b) of the CEQA Guidelines, the SJVAPCD recommends that its quantitative air pollution thresholds (shown in **Table 4-8**) be used to determine the significance of project emissions. If the Lead Agency finds that the project has the potential to exceed these air pollution thresholds, the project should be considered to have significant air quality impacts.

Table 4-8 SJVAPCD Significance Threshold

Pollutant	Significance Threshold	
	Construction Emissions (tons/year)	Operational Emission (tons/year)
CO	100	100
NO _x	10	10
ROGs	10	10
SO _x	27	27
PM10	15	15
PM2.5	15	15
Source: SJVAPCD 2015		

The project does not contain sources that would produce substantial quantities of SO₂ emissions during construction and operation. Modeling conducted for the project show that SO₂ emissions are well below the SJVAPCD GAMAQI thresholds, as shown in the modeling results contained in **Appendix A**. No further analysis of SO₂ is required.

- a) *Would the project conflict with or obstruct implementation of the applicable air quality plan (e.g., by having potential emissions of regulated criterion pollutants which exceed the San Joaquin Valley Air Pollution Control Districts (SJVAPCD) adopted thresholds for these pollutants)?*

Less than Significant. The CEQA Guidelines indicate that a significant impact would occur if the Project would conflict with or obstruct implementation of the applicable air quality plan. The GAMAQI does not provide specific guidance on analyzing conformity with the Air Quality Plan (AQP). Therefore, this document proposes the following criteria for determining project consistency with the current AQP’s:



1. Will the project result in an increase in the frequency or severity of existing air quality violations or cause or contribute to new violations, or delay timely attainment of air quality standards or the interim emissions reductions specified in the AQPs? This measure is determined by comparison to the regional and localized thresholds identified by the District or Regional and Local Air Pollutants.
2. Will the project conform to the assumptions in the AQPs?
3. Will the project comply with applicable control measures in the AQPs?

The use of criteria listed above is a standard approach for CEQA analysis of projects in the SJVAPCD's jurisdictions, as well as within other air districts, for the following reasons:

- Significant contribution to existing or new exceedances of the air quality standards would be inconsistent with the goal of attaining the air quality standards.
- Air Quality Plan (AQP) emissions inventories and attainment modeling are based on growth assumptions for the area within the SJVAPCD's jurisdiction.
- AQPs rely on a set or air district-initiated control measures as well as implementation of federal and state measures to reduce emissions within their jurisdictions, with the goal of attaining the air quality standards.

AQPs are plans for reaching attainment of air quality standards. The assumptions, inputs, and control measures are analyzed to determine if the SJVAB can reach attainment for the ambient air quality standards. To show attainment of the standards, the SJVAPCD analyzes the growth projections in the valley, contributing factors in air pollutant emissions and formations, and existing and adopted emissions controls. The SJVAPCD then formulates a control strategy to reach attainment that includes both State and SJVAPCD regulations and other local programs and measures. The applicable AQPs include the 2016 8-Hour Ozone Plan which contains measures to achieve reductions in emissions of ozone precursors and sets plans towards attainment of ambient ozone standards by 2031 and the 2018, 2016, 2015, 2012, and 2008 PM2.5 Plans to address multiple PM2.5 air quality standards and attainment deadlines.

Contribution to Air Quality Violations

A measure of determining if the Project is consistent with the air quality plans is if the Project would not result in an increase in the frequency or severity of existing air quality violations or cause or contribute to new violations or delay timely attainment of air quality standards or the interim emission reductions specified in the air quality plans. Because of the region's nonattainment status for ozone, PM2.5, and PM10, if Project-generated emissions of either of the ozone precursor pollutants (ROG and NOx), PM10, or PM2.5 would exceed the SJVAPCD's



significance thresholds, then the Project would be considered to conflict with the attainment plans.

As shown in Impact AIR-2, emissions of ROG, NO_x, PM₁₀, and PM_{2.5} from construction and operation of the Project would not exceed the SJVAPCD's significance thresholds. As shown in Impact AIR-3, the Project would not expose sensitive receptors to a substantial pollutant concentration. Therefore, the Project would not contribute to air quality violations.

Consistency with Assumptions in AQPs

The primary way of determining consistency with the AQP's assumptions is determining consistency with the applicable General Plan to ensure that the project's population density and land use are consistent with the growth assumptions used in the AQPs for the SJVAB.

As required by California law, city, and county General Plans contain a Land Use Element that details the types and quantities of land uses that the city or county estimates will be needed for future growth and designates locations for land uses to regulate growth. The Fresno County Council of Governments (Fresno County COG) uses the growth projections and land use information in adopted general plans, among other sources to estimate future average daily trips and then vehicles miles traveled (VMT), which are then provided to the SJVAPCD to estimate future emissions in the AQPs. Existing and future pollutant emissions computed in the AQPs are based on land uses from area general plans. AQPs detail the control measures and emission reductions required for reaching attainment of the air standards based on these growth and emission estimates.

The applicable General Plan for the project is the City of Fresno General Plan, which was adopted in December 2014. The Land Use Element of the General Plan designated the site as Residential. As part of the project, the Applicant is proposing a General Plan Amendment to designate the site as Light Industrial. Although the Proposed Project will not be consistent with the land use assumptions within the AQPs for the SJVAB, the change in land use will result in a lower population density than accounted for in the AQPs. Furthermore, since the Proposed Project will consolidate three existing facilities within the City to one warehouse, the Proposed Project will not increase employment to levels that will indirectly increase the City's population. Therefore, despite the General Plan Amendment, the Project would be consistent with the modeling used to prepare the AQPs. The impact would be less than significant.

Control Measures

The AQP contains several control measures, which are enforceable requirements through the adoption of rules and regulations. A detailed description of rules and regulations that apply to this



Project is provided in the Regulatory Setting. The Project would comply with all applicable SJVAPCD rules and regulations. Therefore, the project complies with this criterion and would not conflict with or obstruct implementation of the applicable air quality plan.

Conclusion

The Project would not conflict with or obstruct implementation of the applicable AQPs. Therefore, the Project would have a less than significant impact. No mitigation is required.

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?

Less than Significant. To result in a less than significant impact, the following criteria must be true:

1. Regional analysis: emissions of nonattainment pollutants must be below the SJVAPCD's regional significance thresholds. This is an approach recommended by the SJVAPCD in its GAMAQI.
2. Summary of projections: the project must be consistent with current air AQPs including control measures and regulations. This is an approach consistent with Section 15130(b) of the CEQA Guidelines.
3. Cumulative health impacts: the project must result in less than significant cumulative health effects from the nonattainment pollutants. This approach correlates the significance of the regional analysis with health effects, consistent with the court decision, *Bakersfield Citizens for Local Control v. City of Bakersfield* (2004) 124 Cal.App.4th 1184, 1219-20.

Step 1: Regional Analysis

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

The primary pollutants of concern during Project construction and operation are ROG, NO_x, PM₁₀, and PM_{2.5}. The SJVAPCD GAMAQI adopted in 2015 contains thresholds for ROG and NO_x; SO_x, CO, PM₁₀, and PM_{2.5}.



Ozone is a secondary pollutant that can be formed miles away from the source of emissions through reactions of ROG and NO_x emissions in the presence of sunlight. Therefore, ROG and NO_x are termed ozone precursors. The SJVAB often exceeds the state and national ozone standards. Therefore, if the Project emits a substantial quantity of ozone precursors, the Project may contribute to an exceedance of the ozone standard. The SJVAB also exceeds air quality standards for PM₁₀, and PM_{2.5}; therefore, substantial Project emissions may contribute to an exceedance for these pollutants. The SJVAPCD’s annual emission significance thresholds used for the Project define substantial contribution both operational and construction emissions are provided in **Table 4-9** and **Table 4-10**.

Table 4-9 Construction Emissions – Unmitigated

Construction Year	Emissions (Tons/Year)					
	ROG	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}
2022	0.38	3.50	3.33	<0.01	0.69	0.40
2023	0.02	0.18	0.21	<0.01	0.02	0.01
Significance Thresholds	10	10	100	27	15	15
<i>Any Year Exceed Significance Thresholds?</i>	<i>No</i>	<i>No</i>	<i>No</i>	<i>No</i>	<i>No</i>	<i>No</i>
Notes: Source of Emissions: CalEEMod Output (Attachment A). Source of Thresholds: San Joaquin Valley Air Pollution Control District (Valley Air District). 2015. Guidance for Assessing and Mitigating Air Quality Impacts. February 19. Website: https://www.valleyair.org/transportation/GAMAQI-2015/FINAL-DRAFT-GAMAQI.PDF . Accessed July 19, 2021.						

Operations

Operational emissions occur over the lifetime of the project and from two main sources: areas sources and motor vehicles. The SJVAPCD considers construction and operations emissions separately when making significance determination. The emissions output for project operation at full buildout for 2024 are summarized in **Table 4-10**. As shown in **Table 4-10**, the operational emissions would be less than the thresholds of significance for all criteria air pollutants. The impact is less than significant.

Table 4-10 Summary of Operational Emissions of Criteria Air Pollutants – Unmitigated

Source	Emissions (tons/year)					
	ROG	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}
Area	2.20	<0.01	0.01	0.00	>0.01	>0.01
Energy	0.05	0.48	0.41	>0.01	0.04	0.04
Mobile	1.28	2.16	12.17	0.03	2.73	0.75
Total	3.54	2.65	12.59	0.03	2.77	0.78
Significance Thresholds	10	10	100	27	15	15



Source	Emissions (tons/year)					
	ROG	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}
Exceed Significance Thresholds?	No	No	No	No	No	No
Notes: Emissions were quantified using CalEEMod, version 2020.4.0 based on project details and estimated operating year for the proposed project. Totals may not sum exactly due to rounding. Source: CalEEMod Output (Attachment A).						

If an area is in nonattainment for a criteria pollutant, then the background concentration of that pollutant has historically exceeded the ambient air quality standard. It follows that if a project exceeds the regional threshold for that nonattainment pollutant, then it would result in a cumulatively considerable net increase of that pollutant and result in a significant cumulative impact.

The SJVAB is in nonattainment for PM₁₀, PM_{2.5}, and ozone. Therefore, if the Project exceeds the regional thresholds for PM₁₀, or PM_{2.5}, then it contributes to a cumulatively considerable impact for those pollutants. If the Project exceeds the regional threshold for NO_x or ROG, then it follows that the Project would contribute to a cumulatively considerable impact for ozone.

The criteria pollutant emissions analysis, as shown in above, assessed whether the Project would exceed the SJVAPCD's thresholds of significance. As shown in [Table 4-9](#) and [Table 4-10](#), criteria pollutant emissions would not exceed any threshold of significance during Project construction or operation. Therefore, the combination of unmitigated Project emissions with the criteria pollutants from other sources within the SJVAB would not cumulatively contribute to a significant impact according to this criterion.

Step 2: Plan Approach

Section 15130(b) of the CEQA Guidelines states the following:

The following elements are necessary to an adequate discussion of significant cumulative impacts: 1) Either: (A) A list of past, present, and probable future projects producing related or cumulative impacts, including, if necessary, those projects outside the control of the agency, or (B) A summary of projections contained in an adopted general plan or related planning document, or in a prior environmental document which has been adopted or certified, which described or evaluated regional or area wide conditions contributing to the cumulative impact.

In accordance with CEQA Guidelines 15130(b), this analysis of cumulative impacts is based on a summary of projections analysis. The SJVAB is in nonattainment for ozone and particulate matter (PM₁₀ and PM_{2.5}), which means that concentrations of these pollutants currently exceed the applicable ambient air quality standards.



Cumulative impacts may be analyzed using other plans that evaluate relevant cumulative effects. The geographic scope for cumulative criteria pollution from air quality impacts is the SJVAB, because that is the area in which the air pollutants generated by the sources within the SJVAB circulate and are often trapped. The SJVAPCD is required to prepare and maintain air quality attainment plans and a State Implementation Plan to document the strategies and measures to be undertaken to reach attainment of ambient air quality standards. While the SJVAPCD does not have direct authority over land use decisions, it is recognized that changes in land use and circulation planning would help the SJVAB achieve clean air mandates. The SJVAPCD evaluated emissions from land uses and transportation in the entire SJVAB when it developed its attainment plans.

In accordance with CEQA Guidelines Section 15064, subdivision (h)(3), a lead agency may determine that a project's incremental contribution to a cumulative effect is not cumulatively considerable if the Project complies with the requirements in a previously approved plan or mitigation program.

As discussed in Impact AIR-1, the project is consistent with all applicable control measures in the air quality attainment plans. The Project would be required to comply with any SJVAPCD rules and regulations that may pertain to implementation of the AQPs. Therefore, impacts would be less than significant with regard to compliance with control measures and regulations.

Step 3: Cumulative Health Impacts

The SJVAB is in nonattainment for ozone, PM₁₀, and PM_{2.5}, which means that the background levels of those pollutants are at times higher than the ambient air quality standards. The air quality standards were set to protect public health, including the health of sensitive individuals (such as children, the elderly, and the infirm). Therefore, when the concentration of those pollutants exceeds the standard, it is likely that some sensitive individuals in the population would experience health effects.

Adverse health effects induced by ozone includes short-term effects such as coughing, difficulty breathing, and sore throat as well as long-term effects including inflamed or damaged airways, aggravated lung diseases like asthma or bronchitis, and increased frequency of asthma attacks. O₃ is created through chemical reactions between NO_x, VOCs, and oxygen (EPA, 2021c). Therefore, the health effects related to O₃ are the product of emissions generated by numerous sources throughout the region.

Exposure to particulate matter (PM₁₀ and PM_{2.5}) can affect the lungs and heart and may cause irregular heartbeat, aggravated asthma, and decreased lung function (EPA, 2021b). Direct sources of particulate matter include construction sites, unpaved roads, fields, and fires. Particulate matter



is also formed indirectly as a result of complex reactions of chemicals such as SO_x and NO_x (EPA, 2021b).

The SJVAPCD has acknowledged that while HRAs for localized air toxic impacts are commonly prepared, the currently available modeling tools are not equipped to provide a meaningful analysis of the correlation between an individual development project's criteria air pollutant emissions and specific human health impacts (SJVAPCD, 2015b). The South Coast Air Quality Management District (SCAQMD) states that based on their own modeling in the SCAQMD's *2012 Air Quality Management Plan*, a reduction of 432 tons (864,000 pounds) per day of NO_x and a reduction of 187 tons (374,000 pounds) per day of VOC would reduce O₃ levels at the highest monitored site by only nine parts per billion. As such, the SCAQMD concludes that it is not currently possible to accurately quantify O₃-related health impacts caused by NO_x or VOC emissions from relatively small projects (defined as projects with regional scope) due to photochemistry and regional model limitations (SCAQMD, 2015).

The regional analysis of construction and operational emissions, as shown above indicates that the Project would not exceed the SJVAPCD's significance thresholds, and the Project is consistent with the applicable AQPs. Therefore, the Project's emissions would not have a measurable effect on human health and would not result in significant cumulative health impacts from nonattainment pollutants and impacts would be less than significant.

Conclusion

The proposed Project would not result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard.

Level of Significance Before Mitigation

Less Than Significant Impact.

Mitigation Measures

None are required.

Level of Significance After Mitigation

Less Than Significant Impact.

c) Expose sensitive receptors to substantial pollutant concentrations?

This discussion addresses whether the proposed Project would expose sensitive receptors to Naturally Occurring Asbestos (NOA), construction-generated fugitive dust (PM₁₀), ROG, NO_x, PM_{2.5}, Valley Fever, construction generated DPM and operational health risks from the proposed



facility. A sensitive receptor is a person in a population who is particularly susceptible to health effects due to exposure to an air contaminant. The following are land uses (sensitive sites) where sensitive receptors are typically located:

- Long-term health care facilities
- Rehabilitation centers
- Convalescent centers
- Hospitals
- Retirement homes
- Residences
- Schools, playgrounds and childcare centers

The proposed Project is considered a sensitive receptor once operational, however there are not any nearby sources of TAC near the site and impact to these receptors was not evaluated. The nearest off-site sensitive receptors are the residents adjacent to the project site.

Localized Impacts

Emissions occurring at or near the Project have the potential to create a localized impact also referred to as an air pollutant hotspot. Localized emissions are considered significant if when combined with background emissions, they would result in exceedance of any health-based air quality standard. In locations that already exceed standards for these pollutants, significance is based on a significant impact level (SIL) that represents the amount that is considered a cumulatively considerable contribution to an existing violation of an air quality standard. The pollutants of concern for localized impact in the SJVAB are NO₂ and CO.

The SJVAPCD has provided guidance for screening localized impacts in the GAMAQI that establishes a screening threshold of 100 pounds per day of any criteria pollutant. If a project exceeds 100 pounds per day of any criteria pollutant, then ambient air quality modeling would be necessary. If the Project does not exceed 100 pounds per day of any criteria pollutant, then it can be assumed that it would not cause a violation of an ambient air quality standard.

Construction: Localized Concentrations of PM₁₀, PM_{2.5}, CO, and NO₂

Local construction impacts would be short-term in nature lasting only during the duration of construction. Because of the short duration and limited amount of construction anticipated for the Project, application of best management practices through compliance with Regulation VIII Fugitive Dust Prohibitions to minimize construction emissions, and levels of emissions less than the SJVAPCD's emission significance thresholds, localized construction concentrations are considered less than significant. It should also be noted that the on-site construction emissions would be less than 100 pounds per day for each of the criteria pollutants, as shown in [Table 4-11](#)



below. To present a conservative estimate, on-site emissions for on-road construction vehicles were included in the localized analysis. It should be noted that the estimates below do not include reductions associated with Rule 9510 compliance, which would reduce NO_x and PM₁₀ emissions. Based on the SJVAPCD’s guidance the construction emissions would not cause an ambient air quality standard violation. Impacts would be less than significant.

Table 4-11 Localized Concentrations of PM₁₀, PM_{2.5}, CO, and NO_x for Construction

Emissions Source	Emissions (pounds per day)			
	NO _x	CO	PM ₁₀	PM _{2.5}
2022				
Site Preparation	33.08	19.70	20.68	11.52
Grading/Excavation	38.84	29.04	8.53	4.91
Drainage/Utilities/Trenching	38.84	29.04	8.53	4.91
Foundations/Concrete Pour	11.12	14.58	0.57	0.52
Building Construction	15.62	16.36	0.81	0.76
Paving	3.55	2.21	0.82	0.26
<i>Maximum Localized Emissions (2022)</i>	<i>38.84</i>	<i>29.04</i>	<i>20.68</i>	<i>11.52</i>
2023				
Building Construction	4.11	5.28	1.88	0.53
Paving	2.89	1.96	0.80	0.24
<i>Maximum Localized Emissions (2023)</i>	<i>4.11</i>	<i>5.28</i>	<i>1.88</i>	<i>0.53</i>
Maximum in Any Calendar Year	38.84	29.04	20.68	11.52
Significance Thresholds	100	100	100	100
Any Year Exceed Significance Thresholds?	No	No	No	No
Notes: PM ₁₀ and PM _{2.5} emissions are from the unmitigated output and as a result are more conservative as they do not reflect compliance with Regulation VIII—Fugitive PM ₁₀ Prohibitions. The table only accounts for on-site construction emissions. Source of Emissions: CalEEMod Output (Attachment A). Source of Thresholds: San Joaquin Valley Air Pollution Control District (SJVAPCD). 2015. Guidance for Assessing and Mitigating Air Quality Impacts. February 19. Website: https://www.valleyair.org/transportation/GAMAQI-2015/FINAL-DRAFT-GAMAQI.PDF . Accessed April 16, 2021.				

Operation: Localized Concentrations of PM₁₀, PM_{2.5}, CO, and NO₂

Localized impacts could occur in areas with a single large source of emissions such as a power plant or with multiple sources concentrated in a small area such as a distribution center. Since the proposed project is proposing the development of 477,470 square feet of industrial space for the purpose of drying and curing meat, localized levels of PM₁₀, PM_{2.5}, CO, and NO₂ are not expected to exceed localized impacts.

Construction



ROG

During paving operations, ROG is emitted. The amount emitted is dependent on the amount of ROG (or VOC) in the paving materials. There are three types of asphalt that are typically used in paving: asphalt cements, cutback asphalts, and emulsified asphalts. However, SJVAPCD Rule 4641 prohibits the use of the following types of asphalt: rapid cure cutback asphalt; medium cure cutback asphalt; slow cure asphalt that contains more than one-half (0.5) percent of organic compounds that evaporate at 500 degrees Fahrenheit (°F) or lower; and emulsified asphalt containing organic compounds, in excess of 3 percent by volume, that evaporate at 500°F or lower. An exception to this is medium cure asphalt when the National Weather Service official forecast of the high temperature for the 24-hour period following application is below 50°F.

The acute (short-term) health effects from worker direct exposure to asphalt fumes include irritation of the eyes, nose, and throat. Other effects include respiratory tract symptoms and pulmonary function changes. The studies were based on occupational exposure of fumes. Sensitive receptors are not in the immediate vicinity of the fumes; therefore, they would not be subjected to concentrations high enough to evoke a negative response. In addition, the restrictions that are placed on asphalt in the San Joaquin Valley reduce ROG emissions from asphalt and exposure. The impact to sensitive receptors from ROG during construction is less than significant.

Naturally Occurring Asbestos

According to a map of areas where naturally occurring asbestos in California are likely to occur (U.S. Geological Survey 2011), there are no such areas in the Project area. Therefore, development of the project is not anticipated to expose receptors to naturally occurring asbestos. Impacts would be less than significant.

Fugitive Dust (PM10)

PM10 emissions would not exceed the thresholds of significance, nevertheless, the potential for localized PM10 health impacts is a concern, however, the Project would comply with the SJVAPCD's Regulation VIII incorporating Best Management Practices for reducing fugitive dust, thus potential impacts are reduced to a less than significant level.

Valley Fever

Valley fever, or coccidioidomycosis, is an infection caused by inhalation of the spores of the fungus, *Coccidioides immitis* (*C. immitis*). The spores live in soil and can live for an extended time in harsh environmental conditions. Activities or conditions that increase the amount of fugitive dust



contribute to greater exposure, and they include dust storms, grading, and recreational off-road activities. The San Joaquin Valley is considered an endemic area for Valley fever.

Construction activities would generate fugitive dust that could contain *C. immitis* spores. The Project will minimize the generation of fugitive dust during construction activities by complying with the SJVAPCD’s Regulation VIII. Therefore, this regulation would reduce Valley fever impacts too less than significant.

During operations, dust emissions are anticipated to be negligible, because most of the Project area would be occupied by buildings, pavement, and landscaped areas. This condition would preclude the possibility of the Project from generating fugitive dust that may contribute to Valley fever exposure. Impacts would be less than significant.

Health Risk Assessment

Construction activities have the potential to generate Diesel Particulate Matter (DPM) emissions related to the number and types of equipment typically associated with construction. Off-road, heavy-duty diesel equipment used for site grading, paving, and other construction activities result in the generation of DPM. For construction activity, DPM is the primary air toxic of concern. Particulate exhaust emissions from diesel-fueled engines (i.e., DPM) were identified as a toxic air contaminant (TAC) by the California Air Resources Board (CARB) in 1998. Because of the proximity of sensitive receptors there is the potential for the DPM emissions to result in a health impact. Accordingly, an analysis was prepared to determine if a potential health risk would occur. During operation, the proposed Project will generate DPM emissions from heavy-duty diesel trucks visiting the site for shipping, receiving, garbage, and other miscellaneous trips. **Table 4-12** presents the estimated weekly and annual truck trips generated by the proposed Project.

Table 4-12 Estimated Trucking Numbers

Day of the Week	Truck Type	Number
Monday	Shipping	5
	Receiving	3
	Freezer	3
	Pallet*	2
	Garbage*	1
	Subtotal	14
Tuesday	Shipping	4
	Receiving	3
	Freezer	3
	Subtotal	10
Wednesday	Shipping	5



	Receiving	3
	Freezer	3
	Subtotal	11
Thursday	Shipping	7
	Receiving	3
	Freezer	3
	Subtotal	13
Friday	Shipping	4
	Receiving	3
	Freezer	3
	Subtotal	10
Additional	UPS/FedEx	5
Weekly Total		63
Annual Total		3,276

Source: Busseto Foods, 2021.

An HRA was prepared in accordance with SJVAPCD and OEHHA guidance for the proposed project and is included as [Appendix A](#). To assess the project’s total health risk impacts, impacts from both construction and operations were considered in this HRA. The HRA evaluated DPM (represent as exhaust PM2.5) emissions generated during construction and operation of the proposed project and the related health risk impacts for sensitive receptors located within 1,000 feet of the project boundary over a 70-year period. A project would result in a significant impact if it would individually expose sensitive receptors to TACs resulting in an increased cancer risk greater than 20 in one million or an increased non-cancer risk of greater than 1.0 on the hazard index. It should be noted that the SJVAPCD’s latest threshold of significance for TAC emissions is an increase in cancer risk for the maximally exposed individual of 20 in one million (formerly 10 in one million).

The project site is located within 1,000 feet from existing sensitive receptors that could be exposed to diesel emission exhaust during the construction and operational periods. The nearest sensitive receptors are residents occupying a single-family home approximately 150 feet east of the project site. To estimate the potential cancer risk associated with the proposed project from equipment exhaust (including DPM), a dispersion model was used to translate an emission rate from the source location to concentrations at the receptor locations of interest (i.e., receptors at nearby residences).

Figure 4-2 Project Site with a 1,000 Foot Buffer



The location of the maximally exposure individual receptor (MEIR) is located on West Ave., east of the project site. As discussed above, AERMOD dispersion model was used to predict concentrations of DPM and PM_{2.5} at sensitive receptors within 1,000 feet of the project site, as recommended by the SJVAPCD. To model emissions, a release height of 3 meters was chosen to represent the release height of construction equipment. During construction emissions from off-road construction equipment and on-road vehicle travel were distributed throughout the modeled area source. For operation, emissions from the heavy-duty diesel trucks were calculated through CARB's Emissions Factors 2021 (EMFAC2021) program. Emissions were calculated assuming the trucks would travel one mile, which would conservatively capture the emissions of any trucks near the project site and sensitive receptors within 1,000 feet of the site. During operation, emissions from the trucks were distributed throughout the modeled area source.

The current OEHHA guidance recommends that cancer risks be calculated by age groups to account for different breathing rates and sensitivity to TACs. Specifically, it recommends evaluating the risks for the third trimester of pregnancy to age zero (third trimester exposure), ages zero to less than two (infant exposure), ages two to less than 16 (child exposure), and ages 16 to 70 (adult exposure). Age sensitivity factors (ASFs) associated with the different types of exposure are an ASF of 10 for the third trimester and infant exposure, an ASF of 3 for child exposure, and an ASF of 1 for an adult exposure. Also associated with each exposure type are different breathing rates, expressed as liters per kilograms of body weight per day (L/kg-day). As



recommended, 95th percentile breathing rates are used for the third trimester and infant exposure, and 80th percentile breathing rates are used for child and adult exposure. These age-specific breathing rates are 361 L/kg-day for the third trimester receptor, 1,090 L/kg-day for the infant receptors, 572 L/kg-day for child receptors, and 233 L/kg-day for adult receptors (OEHHA 2015). According to OEHHA, the cancer risk for a residential receptor is assumed to start in the third trimester of life. Consistent with SJVAPCD and OEHHA Guidance, Fraction of Time (FAH) values were also applied to the health risk calculations. Consistent with SJVAPCD guidance, an FAH value of 0.851 was applied to third trimester and infant receptors. FAH values of 0.721 and 0.73 were applied to child and adult receptors, respectively) (SJVAPCD 2014).

Results of the health risk analysis for the emissions are summarized in **Table 4-13**. Construction of the proposed Project will take place over one year. As a result, it was assumed that construction would occur during the third trimester of pregnancy (0.25 years) and the first 0.75 years of the infantile stage of life. The remainder of the 70-year cancer risk, including the remaining 1.25 years of the infantile stage of life, were assumed to occur during operation. The complete HRA prepared for the proposed project, including calculations and AERMOD output data used in the assessment are included in **Appendix A**.

Table 4-13 Health Risks from the Proposed Project at the Maximally Exposed Sensitive Receptor

Health Impact Metric			Carcinogenic Inhalation Health Risk in One Million	Chronic Inhalation Hazard Index
Exposure Age	Phase of Project	Exposure Duration		
Third Trimester	Construction	0.25	1.62	0.028
Infant	Construction	0.75	14.7	0.28
Infant	Operation	1.25	0.02	.00002
Child	Operation	14	0.02	0.0002
Adult	Operation	54	0.16	0.0002
Total Cancer Risk			16.5	-
Threshold			20	1
Exceeds Threshold?			No	No
Notes: Chronic non-cancer hazard index was estimated by dividing the annual DPM concentration (as PM _{2.5} exhaust) by the REL of 5 µg/m ³ . Source: Appendix A .				

Conclusion

Sensitive receptors would not be exposed to substantial pollutant concentrations.

Level of Significance Before Mitigation

Less Than Significant Impact.



Mitigation Measures

None are required.

Level of Significance After Mitigation

Less Than Significant Impact.

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

While offensive odors rarely cause any physical harm, they can still be very unpleasant, leading to considerable distress among the public and often generating citizen complaints to local governments and the SJVAPCD. The occurrence and severity of odor impacts depends on numerous factors, including nature, frequency, and intensity of the source, the wind speed and direction, and the sensitivity of the receptor. The nearest sensitive receptor in the vicinity of the proposed Project site would be the students and faculty at West Hills College, approximately 912 feet south of the Project site, the nearest residential receptor would be the single-family residence located 2,700 feet east of the Project site.

Construction activities associated with the proposed Project could result in short-term odorous emissions from diesel exhaust associated with construction equipment. However, these emissions would be intermittent and would dissipate rapidly from the source. In addition, this diesel-powered equipment would only be present on site temporarily during construction activities. Therefore, construction would not create objectionable odors affecting a substantial number of people, and the impact would be less than significant.

Land uses typically considered associated with odors include wastewater treatment facilities, waste-disposal facilities, or agricultural operations. The proposed Project does not contain land uses typically associated with emitting objectionable odors and is not located within the screening distances to sources of odors recommended by the SJVAPCD. The proposed Project is associated with the drying and curing of meats on the site. However, these processes will occur inside the facility and are not expected to generate odor. Regardless, the proposed Project will be subject to SJVAPCD Rule 4102 which prohibits nuisance discharge from a person or facility, including odor. Therefore, the impact would be less than significant.

Conclusion

The proposed Project would not create objectionable odors affecting a substantial number of people.

Level of Significance Before Mitigation



Less Than Significant Impact.

Mitigation Measures

None are required.

Level of Significance After Mitigation

Less Than Significant Impact.

4.3.5 Mitigation Measures

The proposed Project shall implement and incorporate, as applicable, the air quality related mitigation measures as identified in the attached Southwest Fresno Specific Plan EIR Mitigation Monitoring and Reporting Program dated October 15, 2021.



4.4 BIOLOGICAL RESOURCES

Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish 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 US 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



<p>f) Conflict with provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.</p>				<p>X</p>
---	--	--	--	----------

4.4.1 Environmental Setting

The Project site is currently vacant and undeveloped and has been highly disturbed as a result of periodic grading and discing. The existing biotic conditions and resources of the Project site can be defined as ruderal and is composed of herbaceous vegetation. The site contains little vegetation and there are no trees or water features on site.

Habitat Assessment

Precision Civil Engineering conducted a Habitat Assessment/reconnaissance-level survey and preliminary wetland assessment for the Project site on December 17, 2020, in order to assess the biological resources located on and adjacent to the site in relation to existing laws, regulations, and policies. A Habitat Assessment Report is provided in [Appendix B](#). The assessment utilized data from the California Department of Fish and Wildlife (CDFG) California Natural Diversity Data Base (CNDDDB)⁶, U.S. Fish and Wildlife Service (FWS) special-status species database, FWS National Wetlands Inventory (NWI) GIS database, and the California Native Plant Society (CNPS) electronic inventory database. Major findings of the Habitat Assessment include:

Background Review

- Based on the CNDDDB, there are 17 special-status species that are known to occur or have the potential to occur in the site’s vicinity. Of the 17 special-status species, there are 12 that may occur within a five (5)-mile radius of the Project site. Of the 12 special-status species, only four (4) species are listed with a known location and the remaining eight (8) are listed as located in Fresno.
- There have been previous sightings of the Hoary bat and the San Joaquin pocket mouse within a two (2)-mile radius and northwest of the site.

⁶ The California Department of Fish and Wildlife (CDFG) California Natural Diversity Data Base (CNDDDB) is an inventory of the status and locations of rare plants and animals. The Project site is located in the Fresno South Quad (USGS 75’ topographic quad, Quad Code: 3611947). The Fresno South Quad covers at least a 2.5-mile radius from the Project site.



- Based on the CNPS, no special status plants were identified within the Fresno South quadrangles.

Site Investigation

- The site consists of a disked and graded field and contains very little vegetation; 90% of onsite vegetation consists of ruderal weedy species and tumbleweed.
- Ground faunas were observed along the perimeter of the site.
- Ground squirrel burrows were observed around onsite power-poles, on-site pump/well, and along the southern fence line. Sightings did not occur during the investigation.
- Trees were not noted on the site or adjacent to the site.
- Several American crows and brewer's black birds were observed on site and American white pelicans, gulls, Great blue herons, American coots, and Egrets were observed in the water basin to the south of the site.
- No special-status species were observed on site.
- There are no ponds, standing water, or water features present.

The assessment concludes that the implementation of the proposed Project would not have a substantial adverse effect, either directly or indirectly, on any special-status species or their habitat. Therefore, the Project has low potential to significantly impact the resources on site and no further studies are recommended.

4.4.2 Impact Assessment

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

Less than Significant Impact. Based on the Habitat Assessment and survey conducted by Precision Civil Engineering on December 20, 2021 and December 17, 2021, there are 17 special-status species known to occur or have the potential to occur within the Fresno South Quad wherein the Project site is located. None of these species were observed during the survey conducted on December 17, 2020. In addition, the Habitat Assessment found the site to be highly disturbed due to grading and discing, having very little vegetation. According to the assessment, the existing vegetation can be primarily classified as agricultural habitat with ruderal weedy species less than six (6) inches tall; no trees or water features were present on the site. The assessment thereby assumes that the site could not support wildlife species in nesting, foraging, or escaping from predators as a result of the site's heavy alteration and lack of cover. Thus, based on the conclusions of the assessment, it can be determined that the Project site does not provide essential habitat for special-status species and a less than significant impact would occur because of the Project.



Further, Mitigation Measures *BIO-1.1a*, *BIO-1.1b*, *BIO-1.1c*, and *BIO-1.2* identified in the Southwest Fresno Specific Plan EIR remain applicable to the Project, which would mitigate for special-status species, natural communities, and habitats for special-status species:

***Mitigation Measure BIO-1.1a:** ... conduct botanical surveys to confirm the presence/absence of any special-status plant or wildlife species to determine if the habitat supports any special-status species. ...*

***Mitigation Measure BIO-1.1b:** avoid or consult before the direct or incidental take of any state- or federally listed species.*

***Mitigation Measure BIO-1.1c:** avoid special-status natural communities and vegetation communities that provide suitable habitat for special-status species or take compensatory habitat-based mitigation.*

***Mitigation Measure BIO-1.2:** conduct a Swainson's hawk survey and mitigate for loss of Swainson's hawk foraging habitat accordingly.*

***Note:** Other mitigation measures are listed in [SECTION 5](#).*

The Project has completed mitigation measure *BIO-1.1a* through the Habitat Assessment conducted on December 20, 2021. Based on the Habitat Assessment, the remaining mitigation measures are not applicable to the Project since the Project is not expected to significantly affect special-status species and riparian or wetland habitats in the area. As a result, the Project would have a less than significant impact.

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

No Impact. According to the Habitat Assessment, the California Department of Fish and Wildlife database, and the U.S. Fish and Wildlife Service database, there are no known riparian habitats or other sensitive natural communities identified on the Project site or within the immediate vicinity of the Project. In addition, the site does not contain any water features that would provide habitat for such species. While a basin is located south of the site, the assessment indicated the basin site is heavily impacted with very little vegetation which would not provide essential habitat. For these reasons, it can be determined that the Project site does not provide any riparian habitat and thus, no impact would occur because of the Project.



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

No Impact. Based on the preliminary wetland assessment conducted at the Project site, the site does not contain any of the primary wetland indicators (i.e., hydrophytic vegetation, hydric soils, and surface hydrology). The on-site topography consists of leveled agricultural land with an elevation of 300 ft. The assessment did not find any obligate wetland indicator species on the site, nor on the basin to the south. In addition, no ponds or standing water was found on the Project site and the basin was not found to contain any structures to divert water on the site. Further, the soils at the site were found to be of the Atwater type that is coarse-loamy and cultivated. The soil type is not listed as a hydric soil. For these reasons, it can be determined that the Project site does not contain any of the primary wetland indicators and thus, no impact on state or federally protected wetlands would occur because of the Project.

- d) Would the project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?*

No Impact. Wildlife movement corridors are linear habitats that function to connect two (2) or more areas of significant wildlife habitat. These corridors may function on a local level as links between small habitat patches (e.g., streams in urban settings) or may provide critical connections between regionally significant habitats (e.g., deer movement corridors).

Wildlife corridors typically include vegetation and topography that facilitate the movements of wild animals from one area of suitable habitat to another, in order to fulfill foraging, breeding, and territorial needs. These corridors often provide cover and protection from predators that may be lacking in surrounding habitats. Wildlife corridors generally include riparian zones and similar linear expanses of contiguous habitat.

As previously mentioned, the Project site does not contain habitat that could support wildlife species in nesting, foraging, or escaping from predators. This is based on the existing conditions of the site including the site's heavy alteration and lack of cover, vegetation, or water features. Due to these conditions, it can be determined that the Project would not interfere with wildlife movement and no impact would occur as a result of the Project.

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

No Impact. While the Fresno General Plan calls for the protection of biological resources, the Project site does not indicate the presence of any sensitive habitat or special-status species. In



addition, though the Fresno Municipal Code identifies tree protection policies, it would not apply to the Project since no trees exist on site. Due to the lack of any identified special-status species or habitat for special-status species, the Project would not conflict with any local policies or ordinances protecting biological resources. Thus, the Project would have no impact.

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

No Impact. The Project site is within the PG&E San Joaquin Valley Operation and Maintenance Habitat Conservation Plan (HCP). The HCP covers PG&E's routine operations and maintenance activities and minor new construction, on any PG&E gas and electrical transmission and distribution facilities, easements, private access routes, or lands owned by PG&E. The Project would not conflict or interfere with HCP. The Project is also located in the planning area of the Recovery Plan for Upland Species of the San Joaquin Valley, which addresses recovery goals for several species. The Project would not conflict with the plan since the site does not provide appropriate habitat for the species mentioned and would comply to applicable General Plan policies regarding habitat conservation. The City, County, and Regional Planning Agency do not have any other adopted or approved plans for habitat or natural community conservation. For these reasons, the Project would have no impact.

4.4.3 Mitigation Measures

The proposed Project shall implement and incorporate, as applicable, the biological resources related mitigation measures as identified in the attached Southwest Fresno Specific Plan EIR Mitigation Monitoring and Reporting Program dated October 15, 2021.



4.5 CULTURAL RESOURCES

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

4.5.1 Environmental Setting

Generally, the term ‘cultural resources’ describes property types such as prehistoric and historical archaeological sites, buildings, bridges, roadways, and tribal cultural resources. As defined by CEQA, historical resources include sites, structures, objects, or districts that may have historical, prehistoric, architectural, archaeological, cultural, or scientific importance. Such resources are eligible for listing in the California Register of Historic Resources by the State Historical Resources Commission. According to the Southwest Fresno Specific Plan DEIR, there are 48 historic-era structures or facilities documented in its study area.

In recent history, the Project site has been operated as agricultural land before 2017 and is currently vacant and undeveloped. There are no improvements or structures on-site. Topography is generally flat. The existing biotic conditions and resources of the Project site can be defined as ruderal and is composed of herbaceous vegetation. There are no shrubs or trees present on the site. West Church Avenue, a two (2)-lane, east-west collector forms the northerly site boundary and South West Avenue, a two (2)-lane, north-west collector forms the westerly site boundary.

Record Search

The Southern San Joaquin Information Center (SSJIC) conducted a California Historical Resources Information System (CHRIS) Record Search for the Project site and surrounding area (0.5-mile radius) on October 5, 2020 (Record Search File Number 20-352). The search results do not show any formally recorded prehistoric or historic archeological resources or historic buildings within



the Project area. There is one recorded resource within the 0.5-mile radius, P-10-004337, a historic-era broadcasting station. There are no cultural resources within the Project area, or 0.5-mile radius listed in the National Register of Historic Places, the California Register of Historical Resources, the California Points of Historical Interest, California Inventory of Historic Resources, or the California State Historic Landmarks. In addition, no resources that are known to have value to local cultural groups have been formally reported to the SSJIC. The SSJIC Correspondence is provided in [Appendix C](#).

4.5.2 Impact Assessment

- a) *Cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5?*

Less than Significant Impact. Based on the records search conducted on October 5, 2020, and the site visit/survey on December 17, 2020, there are no known local, state, or federal designated historical resources on the Project site or within the Project area. However, while there is no evidence that historical resources exist on the Project site, there is some possibility that hidden and buried resources may exist on the Project site with no surface evidence. Thus, in the event of the accidental discovery and recognition of previously unknown resources before or during grading activities, the proposed Project shall incorporate Southwest Fresno Specific Plan EIR mitigation measures related to cultural resources including *CUL-1*, *CUL-4*, and *CUL-5* in order to reduce any potentially significant impacts to less than significant.

MEIR Mitigation Measure CUL-1: If previously unknown cultural resources are encountered during grading activities, construction shall stop in the immediate vicinity of the find and an archaeologist shall be consulted to determine whether the resource requires further study. ...

MEIR Mitigation Measure CUL-4: In the event that human remains are unearthed during excavation and grading activities of any future development project, all activity shall cease immediately. ...

Mitigation Measure CUL-5: Implement Fresno General Plan MEIR Mitigation Measures CUL-1, CUL-2, and CUL-4.

- b) *Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?*

Less than Significant Impact. Based on the records search and site visit/survey conducted in 2020, there is no evidence that cultural resources of any type (including historical, archaeological, paleontological, or unique geologic features) exist on the Project site. Nevertheless, there is some



possibility that a non-visible, buried site may exist and may be uncovered during ground disturbing construction activities which would constitute a significant impact. To mitigate the event of the accidental discovery and recognition of previously unknown resources before or during grading activities, the Project shall incorporate Southwest Fresno Specific Plan EIR mitigation measure *CUL-1* and *CUL-4* which would reduce any potentially significant impacts to a less than significant impact.

c) Disturb any human remains, including those interred outside of formal cemeteries?

Less Than Significant Impact. There is no evidence that human remains exist on the Project site. Nevertheless, there is some possibility that a non-visible buried site may exist and may be uncovered during ground disturbing construction activities which would constitute a significant impact. Southwest Fresno Specific Plan EIR imposes Mitigation Measure *CUL-4* on all projects which may cause ground disturbance pursuant to California Code of Regulations Section 15064.5(e), Public Resources Code Section 5097.98, and California Health and Safety Code Section 7050.5. Therefore, if any human remains were discovered, implementation of *CUL-4* would reduce the Project's impact to less than significant.

4.5.3 Mitigation Measures

The proposed Project shall implement and incorporate, as applicable, the cultural resources related mitigation measures as identified in the attached Southwest Fresno Specific Plan EIR Mitigation Monitoring and Reporting Program dated October 15, 2021.



4.6 ENERGY

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

4.6.1 Environmental Setting

Appendix F – Energy Conservation of the CEQA Guidelines requires consideration of energy implications in project decisions, including a discussion of the potential energy impacts with emphasis on avoiding or reducing inefficient, wasteful, and unnecessary consumption of energy resources (Public Resources Code Section 21100(b)(3)). Per Appendix F, a project would be considered inefficient, wasteful, and unnecessary if it violated existing energy standards, had a negative effect on local and regional energy supplies and requirements for additional capacity, had a negative effect on peak and base period demands for electricity and other energy forms, and effected energy resources.

The California Energy Commission updates the Building Energy Efficiency Standards (Title 24, Parts 6 and 11) every three years as part of the California Code of Regulations. The standards were established in 1978 in effort to reduce the state’s energy consumption. They apply for new construction of, and additions and alterations to, residential and nonresidential buildings and relate to various energy efficiencies including but not limited to ventilation, air conditioning, and lighting.⁷ The California Green Building Standards Code (CALGreen), Part 11, Title 24, California

⁷ California Energy Commission. (n/a) 2019 Building Energy Efficiency Standards. Accessed on September 17, 2021, <https://www.energy.ca.gov/programs-and-topics/programs/building-energy-efficiency-standards/2019-building-energy-efficiency>



Code of Regulations, was developed in 2007 to meet the state goals for reducing Greenhouse Gas emissions pursuant to AB32. CALGreen covers five (5) categories: planning and design, energy efficiency, water efficiency and conservation, material and resource efficiency, and indoor environmental quality.⁸ The 2019 Building Energy Efficiency Standards went into effect on January 1, 2020. Additionally, the California Air Resources Board (CARB) oversees air pollution control efforts, regulations, and programs that contribute to reduction of energy consumption. Compliance with these energy efficiency regulations and programs ensure that development will not result in wasteful, inefficient, or unnecessary consumption of energy sources.

4.6.2 Impact Assessment

- a) *Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?*

Less than Significant Impact. The Project proposes the construction of a two-story warehouse building with associated installation of associate site improvements such as parking and utilities infrastructure.

Construction

Construction activities include typical site preparation, grading, paving, architectural coating, and trenching. Demolition would not be required because there are no existing structures. There are no unusual project characteristics or construction processes that would require the use of equipment that would be more energy intensive than is used for comparable activities. The primary source of energy for construction activities are diesel and gasoline, from the transportation of building materials and equipment and construction worker trips. While such activities would consume petroleum-based fuels, such consumption would be temporary and conclude upon completion of construction. All construction equipment and activities shall conform to current emissions standards and related fuel efficiencies.

Operations

Operations include the processing, warehousing, and distribution activities located on the ground floor and administrative activities located on the second floor. Operations would involve heating, cooling, equipment, and vehicle trips. Energy consumption related to operations would be

⁸ California Department of General Services. (2020). 2019 California Green Building Standards Code. Accessed on September 17, 2021, <https://codes.iccsafe.org/content/CGBC2019P3>



associated with natural gas, electricity, and fuel. The Project would be served by PG&E and would not require extensions of energy infrastructure or new energy supplies.

Construction and operations of the Project would be subject to applicable Airborne Toxic Control Measure (CARB) regulations, California Code of Regulations (Title 13, Motor Vehicles), and Title 24 standards that include a broad set of energy conservation requirements (e.g., Lighting Power Density requirements). Energy outputs for short-term construction and long-term operations were estimated using CalEEMod ([Appendix A](#)). Results of the estimation and analysis do not rise to a level of significance. Furthermore, construction of the project would be required to meet applicable state and local regulations and programs described previously to reduce energy waste. Therefore, construction and operation would not result in wasteful, inefficient, or unnecessary consumption of energy resources.

b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

No Impact. As previously mentioned, the construction and operations of the Project would be subject to compliance with applicable CARB regulations, California Code of Regulations, and Title 24 standards that include a broad set of energy conservation requirements in addition to BMPs for water conservation. Applicable state and local regulations and programs would be implemented to reduce energy waste from operation. Therefore, the Project would not conflict with or obstruct any state or local plan for energy efficiency and would have no impact.

4.6.3 Mitigation Measures

None Required.



4.7 GEOLOGY AND SOILS

Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Directly or Indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i. <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.</i>				X
ii. <i>Strong seismic ground shaking?</i>			X	
iii. <i>Seismic-related ground failure, including liquefaction?</i>			X	
iv. <i>Landslides?</i>			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 risks to life or property?				X
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?				X
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?			X	

4.7.1 Environmental Setting

The Project site is in the San Joaquin Valley which is one of the two large valleys comprising the Great Valley Geomorphic Province. The San Joaquin Valley is surrounded by Sierra Nevada (east), Coast Ranges (west), Tehachapi (south), and the Sacramento Valley (north). The Fresno area is set on gently southwest-sloping alluvial fans and plains formed by the San Joaquin and Kings Rivers.

A brief discussion of the likelihood of seismic activities to occur in or affect Fresno is provided below. However, CEQA requires an analysis of the Project’s impacts on the environment, not the environment’s potential impacts on the Project; therefore, shaking, liquefaction, and other seismic activities are less than significant.

Faulting. There are no active faults mapped within the city of Fresno and is not in any Alquist-Priolo Special Studies Zones. The Project site is not located in an Alquist-Priolo Earthquake Fault Zone as established by the Alquist-Priolo Fault Zoning Act (Section 2622 of Chapter 7.5, Division 2 of the California Public Resources Code). The nearest fault to Southwest Fresno inclusive of the project site is the Clovis Fault, 13.5 miles to the northeast, which is a non-active fault. The nearest active faults include Nunez Fault (approximately 50 miles southwest), San Andreas Fault (approximately 65 miles southwest), the Sierra Nevada Fault Zone (approximately 83 miles to the east), and the Owens Valley Fault Zone (approximately 91 miles east).

Subsurface Soils. According to the Geologic Hazards Investigation for the 2025 Fresno General Plan, the uppermost soils in the Fresno area (i.e., 6-12 inches) comprise very loose silty sand, silty sand with trace clay, sandy silt, clayey sand, or clayey gravel. These soils are disturbed, have low strength, and are highly compressible when saturated. Area soils between two (2) to four (4) feet below ground surface (bgs) range from loose/soft to very dense/hard clays, silts, sands, and gravels



with the characteristics of moderately strong and moderately compressible. Three (3) to five (5) feet bgs soils are clays, silts, sands, and gravels that are moderately strong and slightly compressible. A search of the Web Soil Survey by the USDA Natural Resources Conservation Service indicates that the following soils comprise the Project site⁹:

AtA: Atwater sandy loam, moderately deep, 0 to 3 percent slopes, well drained, and very low runoff. The depth to water table is more than 80 inches. The AtA soils account for 95.6% of the project site.

Hc: Hanford sandy loam, 0 to 2 percent slopes, well drained, and very low runoff. The depth to water table is more than 80 inches. The Hc soils account for 4.4% of the project site, located in the northeast corner of the site.

Liquefaction. Liquefaction is a seismic phenomenon in which loose, saturated, fine-grained granular soils behave similarly to a fluid when subjected to high-intensity ground shaking. The potential for liquefaction in the city of Fresno is low to moderate, per the Fresno County Multi-Hazard Mitigation Plan. There has been no observed liquefaction from any historic earthquake. Additionally, ground shaking, seismic settlement, and lateral spreading are not considered to be significant hazards due to the stable area soils as observed in the Geologic Hazards Investigation for the 2025 Fresno General Plan.

Erosion. Wind and flowing water are the primary agents of erosion in the San Joaquin Valley. Two types of areas with moderate to high erosion potential are identified by the Fresno County Multi-Hazard Mitigation Plan: soils in the Sierra Nevada and foothills on slopes over 30 percent and soils in the western San Joaquin Valley and Coast Ranges. However, the Project site is not in these areas and is therefore not subject to the potential for moderate to high erosion.

Ground Subsidence. Ground subsidence is the settling or sinking of surface soil deposits with little or no horizontal motion. Soils with high silt or clay content are subject to subsidence. According to the Southwest Fresno Specific Plan, the Fresno area it not known to be subject to subsidence hazards. Areas with potential for subsidence hazards are in western Fresno County over 20 miles west and southwest from the project area, as mapped in the Multi-Hazard Mitigation Plan.

⁹ United States Department of Agriculture Natural Resources Conservation Service. "Web Soil Survey." Accessed on September 17, 2021, <https://websoilsurvey.sc.egov.usda.gov/App/WebSoilSurvey.aspx>



Figure 4-3 Geologic Map of the Fresno region

Source: California Geological Survey, 1965.

Qf- Granitic sand and silt of Quaternary age, within the last approximately 2.59 million years

4.7.2 Impact Assessment

- a) *Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:*
 - i. *Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.*

No Impact. There are no known active earthquake faults in Fresno, nor is Fresno within an Alquist-Priolo earthquake fault zone as established by the Alquist-Priolo Fault Zoning Act. In addition, the Project does not have any aspect that could result in a fault rupturing. As CEQA requires an analysis of a Project's impact on the environment rather than the environment's impacts on a Project, no impacts would occur. Thus, the Project would not cause rupture of a known earthquake fault and therefore, would have no impact.

- ii. *Strong seismic ground shaking?*

Less than Significant Impact. There are no known active earthquake faults in Fresno and Fresno has historically been subject to low to moderate ground shaking. In addition, the Fresno area is classified by the State as being in a moderate seismic risk zone, Category "C" or "D," depending on



the soils underlying the specific location being categorized and that location's proximity to the nearest known fault lines. The Project site is relatively flat and has stable, native soils and is not in close proximity to any fault lines. In addition, the Project would be required to conform to current seismic protection standards in the California Building Code (CBC), which are intended to minimize potential risks. Therefore, because of the Project's stable soils and distance from active fault lines, and because of the Project's conformance to CBC seismic safety standards, the Project would have a less than significant impact.

iii. Seismic-related ground failure, including liquefaction?

Less than Significant Impact. As previously discussed, Fresno has a low to moderate potential for seismic activities. There are also no geologic hazards or unstable soil conditions known to exist on the Project site. The site is relatively flat with stable soils and no apparent unique or significant landforms. For this reason, liquefaction or seismically induced settlement or bearing loss is considered unlikely, even if there should be a substantial increase in ground water level. Further, development of the site would require compliance with the City's grading and drainage standards. Therefore, because of the Project's relatively flat topography, stability of soils, infrequency of seismic activity, and required compliance with City standards, and because the Project does not have any aspect that could result in seismic-related ground failure, including liquefaction, the Project would result in a less than significant impact.

iv. Landslides?

Less than Significant Impact. The topography of the Project site is relatively flat with stable, native soils, and the site is not susceptible to seismic activities, geologic instability, or landslides. Furthermore, the site is not in the immediate vicinity of rivers or creeks that would be more susceptible to landslides. In addition, the Project does not have any aspect that could result in landslide. Therefore, there would be a less than significant impact as a result of the Project.

b) Result in substantial soil erosion or the loss of topsoil?

Less Than Significant Impact. Development of the Project site would require typical site preparation activities such as grading and trenching which may result in the potential for short-term soil disturbance or erosion impacts. Construction would also involve the use of water which may cause further soil disturbance. Such impacts would be addressed through compliance with regulations set by the State Water Resources Control Board (SWRCB). Namely, the SWRCB requires sites larger than one (1) acre to comply with the General Permit for Discharges of Storm Water Associated with Construction Activity (i.e., General Permit Order No. 2012-0006-DWQ). The General Permit requires the development of a Storm Water Pollution Prevention Plan (SWPPP) by a certified Qualified SWPPP Developer (QSD). The SWPPP estimates the sediment risk associated with construction activities and includes best management practices (BMP) to control erosion.



BMPs specific to erosion control cover erosion, sediment, tracking, and waste management controls. Implementation of the SWPPP minimizes the potential for the Project to result in substantial soil erosion or loss of topsoil. With these provisions in place, impacts to soil and topsoil by the Project would be considered less than significant.

- 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?*

Less than Significant Impact. The site is relatively flat with stable soils and no apparent unique or significant landforms. Furthermore, the Project site is in an area of infrequent and low historic seismic activity of nearby faults. Such factors minimize the potential for other geologic hazards such as landslides, lateral spreading, subsidence, liquefaction, or collapse. Therefore, any development on the native, stable soils is unlikely to become unstable and result in geologic hazards. In addition, the Project does not have any aspect that could result in a landslide, lateral spreading, subsidence, liquefaction, or collapse. As such, the Project would have a less than significant impact.

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

No Impact. The Project site is relatively flat and stable, native soils of the AtA, Atwater sandy loam, and Hc, Hanford sandy loam. Sandy loam soils are not classified as expansive soil, as defined in Table 18-1-B of the Uniform Building Code and would not create substantial direct or indirect risks to life or property. Thus, no impact would occur because of the Project.

- e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?*

No Impact. The Project will not involve the installation of a septic tank or alternative wastewater disposal system. The Project site will be connected to the City's water and sewer systems. Therefore, no impact would occur because of the Project.

- f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?*

Less than Significant Impact. As discussed in the Cultural Resources section above, there are no known paleontological resources or unique geological features known to the City within this area or on this site. Nevertheless, there is some possibility that a non-visible, buried site may exist and may be uncovered during ground disturbing construction activities which would constitute a significant impact. Southwest Specific Plan EIR imposes Mitigation Measure CUL-4 on all projects



which may cause ground disturbance pursuant to California Code of Regulations Section 15064.5(e), Public Resources Code Section 5097.98, and California Health and Safety Code Section 7050.5. Therefore, if any paleontological resources or geologic features were discovered, implementation of CUL-4 would reduce the Project's impact to less than significant.

4.7.3 Mitigation Measures

None Required.



4.8 GREENHOUSE GAS EMISSIONS

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

4.8.1 Environmental Setting

To fully understand global climate change, it is important to recognize the naturally occurring “greenhouse effect” and to define the GHGs that contribute to this phenomenon. Various gases in the earth’s atmosphere, classified as atmospheric GHGs, play a critical role in determining the earth’s surface temperature. Solar radiation enters the earth’s atmosphere from space and a portion of the radiation is absorbed by the earth’s surface. The earth emits this radiation back toward space, but the properties of the radiation change from high-frequency solar radiation to lower-frequency infrared radiation. GHGs, which are transparent to solar radiation, are effective in absorbing infrared radiation. As a result, this radiation that otherwise would have escaped back into space is now retained, resulting in a warming of the atmosphere. This phenomenon is known as the greenhouse effect.

Local

Among the prominent GHGs contributing to the greenhouse effect are carbon dioxide, methane (CH₄), nitrous oxide (N₂O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF₆). Primary GHGs attributed to global climate change, are discussed in the following subsections.

Carbon Dioxide

Carbon dioxide (CO₂) is a colorless, odorless gas. CO₂ is emitted in a number of ways, both naturally and through human activities. The largest source of CO₂ emissions globally is the combustion of fossil fuels such as coal, oil, and gas in power plants, automobiles, industrial facilities, and other



sources. A number of specialized industrial production processes and product uses such as mineral production, metal production, and the use of petroleum-based products can also lead to CO₂ emissions. The atmospheric lifetime of CO₂ is variable because it is so readily exchanged in the atmosphere (EPA 2019b).

Methane

CH₄ is a colorless, odorless gas that is not flammable under most circumstances. CH₄ is the major component of natural gas, about 87% by volume. It is also formed and released to the atmosphere by biological processes occurring in anaerobic environments. CH₄ is emitted from a variety of both human-related and natural sources. Human-related sources include fossil fuel production, animal husbandry (enteric fermentation in livestock and manure management), rice cultivation, biomass burning, and waste management. These activities release significant quantities of methane to the atmosphere. Natural sources of methane include wetlands, gas hydrates, permafrost, termites, oceans, freshwater bodies, non-wetland soils, and other sources such as wildfires. The atmospheric lifetime of CH₄ is about 12 years (EPA 2019b).

Nitrous Oxide

N₂O is a clear, colorless gas with a slightly sweet odor. N₂O is produced by both natural and human-related sources. Primary human-related sources of N₂O are agricultural soil management, animal manure management, sewage treatment, mobile and stationary combustion of fossil fuels, adipic acid production, and nitric acid production. N₂O is also produced naturally from a wide variety of biological sources in soil and water, particularly microbial action in wet tropical forests. The atmospheric lifetime of N₂O is approximately 120 years (EPA 2017b).

Hydrofluorocarbons

HFCs are man-made chemicals, many of which have been developed as alternatives to ozone-depleting substances for industrial, commercial, and consumer products. The only significant emissions of HFCs before 1990 were of the chemical HFC-23, which is generated as a byproduct of the production of HCFC-22 (or Freon 22, used in air conditioning applications). The atmospheric lifetime for HFCs varies from just over a year for HFC-152a to 260 years for HFC-23. Most of the commercially used HFCs have atmospheric lifetimes of less than 15 years (e.g., HFC-134a, which is used in automobile air conditioning and refrigeration, has an atmospheric life of 14 years) (EPA 2017b).

Perfluorocarbons



PFCs are colorless, highly dense, chemically inert, and nontoxic. There are seven PFC gases: perfluoromethane (CF₄), perfluoroethane (C₂F₆), perfluoropropane (C₃F₈), perfluorobutane (C₄F₁₀), perfluorocyclobutane (C₄F₈), perfluoropentane (C₅F₁₂), and perfluorohexane (C₆F₁₄). Natural geological emissions have been responsible for the PFCs that have accumulated in the atmosphere in the past; however, the largest current source is aluminum production, which releases CF₄ and C₂F₆ as byproducts. The estimated atmospheric lifetimes for CF₄ and C₂F₆ are 50,000 and 10,000 years, respectively (EPA 2017b).

Nitrogen Trifluoride

Nitrogen trifluoride (NF₃) is an inorganic, colorless, odorless, toxic, nonflammable gas used as an etchant in microelectronics. NF₃ is predominantly employed in the cleaning of the plasma-enhanced chemical vapor deposition chambers in the production of liquid crystal displays and silicon-based thin film solar cells. In 2009, NF₃ was listed by California as a potential GHG to be listed and regulated under AB 32 (Section 38505 Health and Safety Code).

Sulfur Hexafluoride

SF₆ is an inorganic compound that is colorless, odorless, nontoxic, and generally nonflammable. SF₆ is primarily used as an electrical insulator in high voltage equipment. The electric power industry uses roughly 80% of all SF₆ produced worldwide. Leaks of SF₆ occur from aging equipment and during equipment maintenance and servicing. SF₆ has an atmospheric life of 3,200 years (EPA 2017b).

Black Carbon

Black carbon is the most strongly light-absorbing component of PM emitted from burning fuels such as coal, diesel, and biomass. Black carbon contributes to climate change both directly by absorbing sunlight and indirectly by depositing on snow and by interacting with clouds and affecting cloud formation. Black carbon is considered a short-lived species, which can vary spatially and, consequently, it is very difficult to quantify associated global-warming potentials. The main sources of black carbon in California are wildfires, off-road vehicles (locomotives, marine vessels, tractors, excavators, dozers, etc.), on-road vehicles (cars, trucks, and buses), fireplaces, agricultural waste burning, and prescribed burning (planned burns of forest or wildlands). California has been an international leader in reducing emissions of black carbon, including programs that target reducing PM from diesel engines and burning activities (CARB 2013).

Global Warming Potential



Each GHG differs in its ability to absorb heat in the atmosphere based on the lifetime, or persistence, of the gas molecule in the atmosphere. Often, estimates of GHG emissions are presented in carbon dioxide equivalents (CO₂e), which weight each gas by its global warming potential (GWP).

Expressing GHG emissions in carbon dioxide equivalents takes the contribution of all GHG emissions to the greenhouse effect and converts them to a single unit equivalent to the effect that would occur if only CO₂ were being emitted. Based on a 100-year time horizon, Methane traps over 25 times more heat per molecule than CO₂, and N₂O absorbs roughly 298 times more heat per molecule than CO₂. Additional GHGs with high GWP include NF₃, SF₆, PFCs, and black carbon (Forester, 2007).

Sources of Greenhouse Gas Emissions

On a global scale, GHG emissions are predominantly associated with activities related to energy production; changes in land use, such as deforestation and land clearing; industrial sources; agricultural activities; transportation; waste and wastewater generation; and commercial and residential land uses. World-wide, energy production including the burning of coal, natural gas, and oil for electricity and heat is the largest single source of global GHG emissions.

California's most recent GHG emissions inventory is depicted in [Figure 4-4](#).

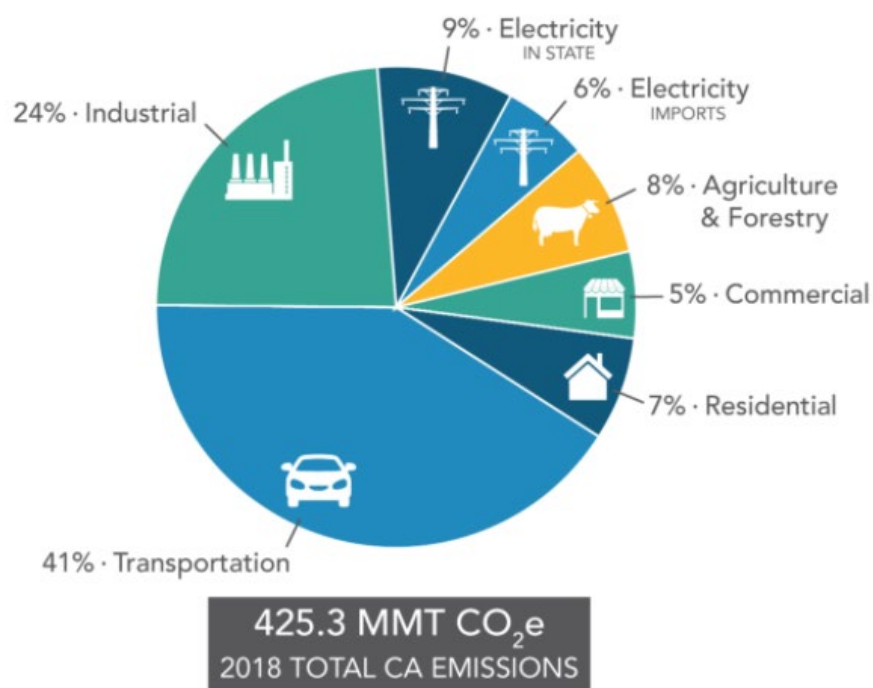


Figure 4-4 GHG Emissions by Economic Sector

Source: CARB 2018



In 2018, GHG emissions within California totaled 425.3 million metric tons (MMT) of CO₂e. Within California, the transportation sector is the largest contributor, accounting for approximately 41% of the total statewide GHG emissions. Emissions associated with industrial uses are the second largest contributor, totaling roughly 24%. Electricity generation totaled roughly 15% (CARB 2018).

Effects of Global Climate Change

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

Within California, climate changes would likely alter the ecological characteristics of many ecosystems throughout the state. Such alterations would likely include increases in surface temperatures and changes in the form, timing, and intensity of precipitation. For instance, historical records are depicting an increasing trend toward earlier snowmelt in the Sierra Nevada. This snowpack is a principal supply of water for the state, providing roughly 50% of state's annual runoff. If this trend continues, some areas of the state may experience an increased danger of floods during the winter months and possible exhaustion of the snowpack during spring and summer months. An earlier snowmelt would also impact the state's energy resources. An early exhaustion of the Sierra snowpack may force electricity producers to switch to more costly or non-renewable forms of electricity generation during spring and summer months. A changing climate may also impact agricultural crop yields, coastal structures, and biodiversity. As a result, resultant changes in climate will likely have detrimental effects on some of California's largest industries, including agriculture, wine, tourism, skiing, recreational and commercial fishing, and forestry.

4.8.2 Regulatory Setting

Federal

U.S. Environmental Protection Agency "Endangerment" and "Cause or Contribute" Findings

On April 2, 2007, in *Massachusetts v. USEPA*, 549 US 497, the Supreme Court found that GHGs are air pollutants covered by the Clean Air Act (CAA). The Court held that the United States Environmental Protection Agency (USEPA) must determine whether emissions of GHGs from new motor vehicles cause or contribute to air pollution, which may reasonably be anticipated to endanger public health or welfare, or whether the science is too uncertain to make a reasoned



decision. In making these decisions, the USEPA is required to follow the language of Section 202(a) of the CAA.

On April 17, 2009, the USEPA Administrator signed proposed “endangerment” and “cause or contribute” findings for GHGs under Section 202(a) of the CAA. The USEPA held a 60-day public comment period, considered public comments, and issued final findings. The USEPA found that six GHGs taken in combination endanger both the public health and the public welfare of current and future generations. The USEPA also found that the combined emissions of these GHGs from new motor vehicles and new motor vehicle engines contribute to the greenhouse effect as air pollution that endangers public health and welfare under CAA Section 202(a).

Clean Vehicles

In collaboration with the National Highway Traffic Safety Administration, the USEPA adopted GHG emission standards for light-duty vehicles in May 2010 and for heavy-duty vehicles in August of 2011. In 2012, the agencies jointly adopted more stringent Phase 2 standards for light duty cars and trucks, which would cover model years 2017 through 2025. In August of 2016, the agencies adopted more stringent Phase 2 standards for medium- and heavy-duty vehicles, which would cover model years 2018 through 2027 for certain trailers and model years 2021 through 2027 for semi-trucks, large pickup trucks, vans, and all types and sizes of buses and work trucks.

Mandatory Greenhouse Gas Reporting Rule

On September 22, 2009, the EPA released its final Greenhouse Gas Reporting Rule (Reporting Rule). The Reporting Rule is a response to the fiscal year 2008 Consolidated Appropriations Act (H.R. 2764; Public Law 110-161), that required the EPA to develop “...mandatory reporting of GHGs above appropriate thresholds in all sectors of the economy....” The Reporting Rule applies to most entities that emit 25,000 metric tons of CO₂e (MTCO₂e) or more per year. Since 2010, facility owners must submit an annual GHG emissions report with detailed calculations of facility GHG emissions. The Reporting Rule also mandates recordkeeping and administrative requirements in order for the EPA to verify annual GHG emissions reports.

New Source Review

The EPA issued a final rule on May 13, 2010, that establishes thresholds for GHGs, which will define when permits under the New Source Review Prevention of Significant Deterioration and Title V Operating Permit programs are required for new and existing industrial facilities. This final rule “tailors” the requirements of these Clean Air Act permitting programs to limit which facilities will be required to obtain Prevention of Significant Deterioration and Title V permits.



The EPA estimates that facilities responsible for nearly 70 percent of the national GHG emissions from stationary sources will be subject to permitting requirements under this rule. This includes the nation's largest GHG emitters—power plants, refineries, and cement production facilities.

Standards of Performance for Greenhouse Gas Emissions for New Stationary Sources: Electric Utility Generating Units

As required by a settlement agreement, the EPA proposed new performance standards for emissions of carbon dioxide for new, affected, fossil fuel-fired electric utility generating units on March 27, 2012. New sources greater than 25 megawatts would be required to meet an output-based standard of 1,000 pounds of carbon dioxide per megawatt-hour, based on the performance of widely used natural gas combined cycle technology.

President Obama and the EPA announced the Clean Power Plan in August of 2015. In 2030, the Clean Power Plan would cut carbon pollution from power plants by 32 percent below 2005 levels and increase renewable energy generation percent to nearly 20 percent of all power supplied. By comparison, in 2015, renewable energy accounted for about 13% of electricity generation. However, on February 9, 2016, the U.S. Supreme Court stayed implementation of the Clean Power Plan pending judicial review and on March 28, 2017, the Executive Order on Energy Independence (EO 13783) was signed and called for a review of the Clean Power Plan (USEPA 2018a). On October 16, 2017, the EPA issued the proposed rule Repeal of Carbon Pollution Emission Guidelines for Existing Stationary Sources: Electric Utility Generating Units an Energy Independence (EPA 2017).

Cap-and-Trade

Cap-and-Trade refers to a policy tool where emissions are limited to a certain amount and can be traded or provides flexibility on how the emitter can comply. There is no federalGHG Cap-and-Trade program currently; however, some states have joined to create initiatives to provide a mechanism for Cap-and-Trade.

The Regional Greenhouse Gas Initiative is an effort to reduce GHGs among the states of Connecticut, Delaware, Maine, Maryland, Massachusetts, New Hampshire, New York, Rhode Island, and Vermont. Each state caps carbon dioxide emissions from power plants, auctions carbon dioxide emission allowances, and invests the proceeds in strategic energy programs that further reduce emissions, save consumers money, create jobs, and build a clean energy economy. The Initiative began in 2008.

The Western Climate Initiative partner jurisdictions have developed a comprehensive initiative to reduce regional GHG emissions to 15 percent below 2005 levels by 2020. The partners are



California, British Columbia, Manitoba, Ontario, and Quebec. Currently only California and Quebec are participating in the Cap-and-Trade program (C2ES 2015).

Paris Climate Agreement

The Paris Climate Agreement is an international treaty on climate change adopted on December 12, 2015. The goal of the agreement is to limit global warming to 1.5 degrees Celsius as compared to pre-industrial levels. Countries will aim to reach global peaking of GHG emissions as soon as possible to achieve a climate neutral world by mid-century. To achieve these reductions, the Paris Climate Agreement works on a 5-year cycle of increasingly ambitious climate action carries out by countries. Therefore, by 2020, countries were required to submit their plans for climate action, known as nationally determined contributions. Additionally, the Agreement provides a framework for financial, technical, and capacity building support to those countries who need it. Developed countries will take a lead in providing financial assistance to other countries since large scale investments are required for GHG mitigation and climate adaptation (United Nations [UN]).

The United States joined 190 other countries in the Paris Climate Agreement under the Obama administration in September 2016. Under the Trump administration, the President announced his intention to withdraw from the Agreement in June 2017 and formally notified the United Nations in November 2019. However, the Agreement requires a year-long waiting period before a formal withdrawal will be recognized. As a result, the United States officially withdrew from the Agreement in November 2020. However, on January 20, 2021, President Biden accepted and rejoined the Paris Climate Agreement.

State

Assembly Bill 32

The California State Legislature enacted Assembly Bill (AB) 32, the California Global Warming Solutions Act of 2006. AB 32 requires that GHGs emitted in California be reduced to 1990 levels by the year 2020. “Greenhouse gases” as defined under AB 32 include CO₂, methane (CH₄), nitrogen oxides (NO_x), hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride. Since AB 32 was enacted, a seventh chemical, nitrogen trifluoride, has also been added to the list of GHGs. The California Air Resources Board (CARB) is the state agency charged with monitoring and regulating sources of GHGs. AB 32 states the following:

Global warming poses a serious threat to the economic well-being, public health, natural resources, and the environment of California. The potential adverse impacts of global warming include the exacerbation of air quality problems, a reduction in the quality and supply of water to the state from the Sierra snowpack, a rise in sea levels resulting in the



displacement of thousands of coastal businesses and residences, damage to marine ecosystems and the natural environment, and an increase in the incidences of infectious diseases, asthma, and other human health-related problems.

CARB approved the 1990 GHG emissions level of 427 million metric tons of carbon dioxide equivalent (MMTCO_{2e}) on December 6, 2007 (CARB 2007). Therefore, to meet the state's target, emissions generated in California in 2020 are required to be equal to or less than 427 MMTCO_{2e}. Emissions in 2020 in a business as usual (BAU) scenario were estimated to be 596 MMTCO_{2e}, which do not account for reductions from AB 32 regulations (CARB 2008). At that rate, a 28 percent reduction was required to achieve the 427 MMTCO_{2e} 1990 inventory. In October 2010, CARB prepared an updated 2020 forecast to account for the effects of the 2008 recession and slower forecasted growth. The 2020 inventory without the benefits of adopted regulation is now estimated at 545 MMTCO_{2e}. Therefore, under the updated forecast, a 21.7 percent reduction from BAU is required to achieve 1990 levels (CARB 2010).

Progress in Achieving Assembly Bill 32 Targets and Remaining Reductions Required

The state has made steady progress in implementing AB 32 and achieving targets included in EO S-3-05. The progress is evident in updated emission inventories prepared by CARB, which showed that the state inventory dropped below 1990 levels for the first time in 2016 (CARB 2018). CARB's Climate Change Scoping Plan (Scoping Plan) (subsequently amended by the 2017 update) includes projections indicating that the state would meet or exceed the 2020 target with adopted regulations (CARB 2017).

CARB 2008 Scoping Plan

The Scoping Plan contains measures designed to reduce the state's emissions to 1990 levels by the year 2020 to comply with AB 32 (CARB 2008). The Scoping Plan identifies recommended measures for multiple GHG emission sectors and the associated emission reductions needed to achieve the year 2020 emissions target—each sector has a different emission reduction target. Most of the measures target the transportation and electricity sectors. As stated in the Scoping Plan, the key elements of the strategy for achieving the 2020 GHG target include the following:

- Expanding and strengthening existing energy efficiency programs as well as building and appliance standards.
- Achieving a statewide renewables energy mix of 33 percent.
- Developing a California Cap-and-Trade Program that links with other Western Climate Initiative partner programs to create a regional market system.
- Establishing targets for transportation related GHG emissions for regions throughout California and pursuing policies and incentives to achieve those targets.



- Adopting and implementing measures pursuant to existing state laws and policies, including California’s clean car standards, goods movement measures, and the Low Carbon Fuel Standard; and
- Creating targeted fees, including a public goods charge on water use, fees on high global warming potential gases, and a fee to fund the administrative costs of the State’s long-term commitment to AB 32 implementation.

In addition, the Scoping Plan differentiates between “capped” and “uncapped” strategies. Capped strategies are subject to the proposed Cap-and-Trade Program. The Scoping Plan states that the inclusion of these emissions within the Cap-and-Trade Program would help ensure that the year 2020 emission targets are met despite some degree of uncertainty in the emission reduction estimates for any individual measure. Implementation of the capped strategies is calculated to achieve a sufficient number of reductions by 2020 to achieve the emission target contained in AB 32. Uncapped strategies that will not be subject to the cap-and-trade emissions caps, and requirements are provided as a margin of safety by accounting for additional GHG emission reductions.

Cap-and-Trade Program

The Cap-and-Trade Program is a key element of the Scoping Plan. It sets a statewide limit on sources responsible for 85 percent of California’s GHG emissions and establishes a price signal needed to drive long-term investment in cleaner fuels and more efficient use of energy. The program is designed to provide covered entities the flexibility to seek out and implement the lowest cost options to reduce emissions. The program conducted its first auction in November 2012. Compliance obligations began for power plants and large industrial sources in January 2013. Other significant milestones include linkage to Quebec’s Cap-and-Trade system in January 2014 and starting the compliance obligation for distributors of transportation fuels, natural gas, and other fuels in January 2015.

The Cap-and-Trade Program provides a firm cap, ensuring that the 2020 statewide emission limit would not be exceeded. An inherent feature of the Cap-and-Trade Program is that it does not guarantee GHG emissions reductions in any discrete location or by any particular source. Rather, GHG emissions reductions are guaranteed only on an accumulative basis.

The Cap-and-Trade Program works with other direct regulatory measures and provides an economic incentive to reduce emissions. If California’s direct regulatory measures reduce GHG emissions more than expected, then the Cap-and-Trade Program would be responsible for relatively fewer emissions reductions. If California’s direct regulatory measures reduce GHG emissions less than expected, then the Cap-and-Trade Program would be responsible for relatively



more emissions reductions. Thus, the Cap-and-Trade Program assures that California would meet its 2020 GHG emissions reduction mandate.

CARB approved the First Update to the Scoping Plan (Update) on May 22, 2014. The Update identified the next steps for California’s climate change strategy. The Update shows how California continues on its path to meet the near-term 2020 GHG limit, but also sets a path toward long-term, deep GHG emission reductions. The report established a broad framework for continued emission reductions beyond 2020, on the path to 80 percent below 1990 levels by 2050.

Assembly Bill 398

The Governor signed AB 398 on July 25, 2017, to extend the Cap-and-Trade Program to 2030. The legislation includes provisions to ensure that offsets used by sources are limited to 4 percent of their compliance obligation from 2021 to 2025 and 6 percent of their compliance obligation from 2026 through 2030. AB 398 also prevents air districts from adopting or implementing emission reduction rules from stationary sources that are also subject to the Cap-and-Trade Program (CARB 2017).

Senate Bill 32

Senate Bill (SB) 32 was signed into law on September 8, 2016. SB 32 gives CARB the statutory responsibility to include the 2030 target previously contained in EO B-30-15 in the 2017 Scoping Plan Update. SB 32 states that “In adopting rules and regulations to achieve the maximum technologically feasible and cost-effective greenhouse gas emissions reductions authorized by this division, the state [air resources] board shall ensure that statewide greenhouse gas emissions are reduced to at least 40 percent below the statewide greenhouse gas emissions limit no later than December 31, 2030.”

2017 Climate Change Scoping Plan Update

The 2017 Climate Change Scoping Plan Update was adopted on December 14, 2017, amending the 2008 Scoping Plan and addresses the SB 32 targets. The major elements of the framework proposed to achieve the 2030 target are as follows:

1. SB 350
 - a. Achieve 50 percent Renewables Portfolio Standard (RPS) by 2030.
 - b. Doubling of energy efficiency savings by 2030.
2. Low Carbon Fuel Standard



- a. Increased stringency (reducing carbon intensity 18 percent by 2030, up from 10 percent in 2020).
3. Mobile Source Strategy (Cleaner Technology and Fuels Scenario)
 - a. Maintaining existing GHG standards for light- and heavy-duty vehicles.
 - b. Put 4.2 million zero-emission vehicles on the roads.
 - c. Increase zero-emission vehicles buses and delivery and other trucks.
4. Sustainable Freight Action Plan
 - a. Improve freight system efficiency.
 - b. Maximize use of near-zero emission vehicles and equipment powered by renewable energy.
 - c. Deploy over 100,000 zero-emission trucks and equipment by 2030.
5. Short-Lived Climate Pollutant Reduction Strategy
 - a. Reduce emissions of methane and hydrofluorocarbons 40 percent below 2013 levels by 2030.
 - b. Reduce emissions of black carbon 50 percent below 2013 levels by 2030.
6. SB 375 Sustainable Communities Strategies
 - a. Increased stringency of 2035 targets.
7. Post-2020 Cap-and-Trade Program
 - a. Declining caps, continued linkage with Québec, and linkage to Ontario, Canada.
 - b. CARB will look for opportunities to strengthen the program to support more air quality co-benefits, including specific program design elements. In Fall 2016, CARB staff described potential future amendments including reducing the offset usage limit, redesigning the allocation strategy to reduce free allocation to support increased technology and energy investment at covered entities and reducing allocation if the covered entity increases criteria or toxics emissions over some baseline.
8. 20 percent reduction in GHG emissions from the refinery sector.
9. Develop Integrated Natural and Working Lands Action Plan to secure California's land base as a net carbon sink.



Many of the measures included in the 2017 Climate Change Scoping Plan Update are implemented on a statewide level and do not specifically apply to the Project. However, the short-lived climate pollutants would be applicable to the Program through the use of cleaner construction equipment.

Senate Bill 375: The Sustainable Communities and Climate Protection Act of 2008

SB 375 was signed into law on September 30, 2008. According to SB 375, the transportation sector is the largest contributor of GHG emissions, which emits more than 40 percent of the total GHG emissions in California. SB 375 states, “Without improved land use and transportation policy, California will not be able to achieve the goals of AB 32.” SB 375 does the following: (1) requires metropolitan planning organizations to include sustainable community strategies in their regional transportation plans for reducing GHG emissions, (2) aligns planning for transportation and housing, and (3) creates specified incentives for the implementation of the strategies.

CARB has prepared the Proposed Update to the SB 375 Greenhouse Gas Emission Reduction Targets.

Assembly Bill 1493: Pavley Regulations and Fuel Efficiency Standards

AB 1493, enacted on July 22, 2002, required CARB to develop and adopt regulations and fuel efficiency standards that reduce GHGs emitted by passenger vehicles and light duty trucks. Implementation of the regulation was delayed by lawsuits filed by automakers and by USEPA’s denial of an implementation waiver. USEPA subsequently granted the requested waiver in 2009, which was upheld by the by the U.S. District Court for the District of Columbia in 2011.

The standards were phased in during the 2009 through 2016 model years. When fully phased in, the near-term (2009–2012) standards resulted in an approximately 22 percent reduction compared with the 2002 fleet, and the mid-term (2013–2016) standards resulted in about a 30 percent reduction. Several technologies stand out as providing significant reductions in emissions at favorable costs. These include discrete variable valve lift or camless valve actuation to optimize valve operation, rather than relying on fixed valve timing and lift as has historically been done; turbocharging to boost power and allow for engine downsizing; improved multi-speed transmissions; and improved air conditioning systems that operate optimally, leak less, and/or use an alternative refrigerant.

The second phase of the implementation for AB 1493 was incorporated into Amendments to the Low-Emission Vehicle Program, referred to as LEV III or the Advanced Clean Cars program. The Advanced Clean Cars program combines the control of smog-causing pollutants and GHG emissions into a single coordinated package of requirements for model years 2017 through 2025. The regulation would reduce GHGs from new cars by 34 percent from 2016 levels by 2025. The



rules would reduce pollutants from gasoline and diesel-powered cars and would deliver increasing numbers of zero-emission technologies, such as full battery electric cars, newly emerging plug-in hybrid electric vehicles, and hydrogen fuel cell cars. The regulations would also ensure that adequate fueling infrastructure is available for the increasing numbers of hydrogen fuel cell vehicles planned for deployment in California.

Senate Bill 1368: Emission Performance Standards

In 2006, the State Legislature adopted SB 1368, which was subsequently signed into law by the governor. SB 1368 directs the California Public Utilities Commission to adopt a performance standard for GHG emissions for the future power purchases of California utilities. SB 1368 seeks to limit carbon emissions associated with electrical energy consumed in California by forbidding procurement arrangements for energy longer than 5 years from resources that exceed the emissions of a relatively clean, combined cycle natural gas power plant.

Because of the carbon content of its fuel source, a coal-fired plant cannot meet this standard because such plants emit roughly twice as much carbon as natural gas, combined cycle plants. Accordingly, the new law effectively prevents California's utilities from investing in, otherwise financially supporting, or purchasing power from new coal plants located in or out of the state. The California Public Utilities Commission adopted the regulations required by SB 1368 on August 29, 2007. The regulations implementing SB 1368 establish a standard for baseload generation owned by, or under long-term contract to publicly owned utilities, of 1,100 pounds of CO₂ per megawatt-hour (MWh).

Senate Bill 1078: Renewable Electricity Standards

On September 12, 2002, Governor Gray Davis signed SB 1078, requiring California to generate 20 percent of its electricity from renewable energy by 2017. SB 107 changed the due date to 2010 instead of 2017. On November 17, 2008, Governor Arnold Schwarzenegger signed EO S-14-08, which established an RPS target for California requiring that all retail sellers of electricity serve 33 percent of their load with renewable energy by 2020. Governor Schwarzenegger signed EO S-21-09, which directed CARB to adopt a regulation by July 31, 2010, requiring the state's load serving entities to meet a 33 percent renewable energy target by 2020. CARB approved the Renewable Electricity Standard on September 23, 2010, by Resolution 10-23. In 2011, the State Legislature adopted this higher standard in SB X1-2. Renewable sources of electricity include wind, small hydropower, solar, geothermal, biomass, and biogas.

Senate Bill 350: Clean Energy and Pollution Reduction Act of 2015



The legislature approved and the governor then signed SB 350 on October 7, 2015, which reaffirms California's commitment to reducing its GHG emissions and addressing climate change. Key provisions include an increase in the RPS, higher energy efficiency requirements for buildings, initial strategies towards a regional electricity grid, and improved infrastructure for electric vehicle charging stations.

Senate Bill 100: California Renewables Portfolio Standard Program.

The Governor approved SB 100 on September 10, 2018. The legislation revised the RPS goals to achieve the 50 percent renewable resources target by December 31, 2026, and to achieve a 60 percent target by December 31, 2030. The bill would require that retail sellers and local publicly owned electric utilities procure a minimum quantity of electricity products from eligible renewable energy resources so that the total kilowatt hours of those products sold to their retail end-use customers achieve 44 percent of retail sales by December 31, 2024; 52 percent by December 31, 2027; and 60 percent by December 31, 2030.

Senate Bill X7-7: The Water Conservation Act of 2009

SB X7-7 directs urban retail water suppliers to set individual 2020 per capita water use targets and to begin implementing conservation measures to achieve those goals. Meeting this statewide goal of 20 percent decrease in demand will result in a reduction of almost 2 million acre-feet of urban water use in 2020.

Executive Order S-3-05

On June 1, 2005, former California Governor Arnold Schwarzenegger announced EO S-3-05, which announced the following reduction targets for GHG emissions:

- By 2010, reduce GHG emissions to 2000 levels.
- By 2020, reduce GHG emissions to 1990 levels.
- By 2050, reduce GHG emissions to 80 percent below 1990 levels.

The 2050 reduction goal represents what some scientists believe is necessary to reach levels that would stabilize the climate. The 2020 goal was established to be a mid-term target. Because this is an EO, the goals are not legally enforceable for local governments or the private sector.

Executive Order B-30-15

On April 29, 2015, Governor Edmund G. Brown Jr. issued EO B-30-15 to establish a California GHG reduction target of 40 percent below 1990 levels by 2030. The Governor's EO aligns California's GHG reduction targets with those of leading international governments ahead of the United



Nations Climate Change Conference in Paris in late 2015. The EO sets a new interim statewide GHG emission reduction target to reduce GHG emissions to 40 percent below 1990 levels by 2030 in order to ensure that California meets its target of reducing GHG emissions to 80 percent below 1990 levels by 2050 and directs CARB to update the Climate Change Scoping Plan to express the 2030 target in terms of MMTCO_{2e}. The EO also requires the state's climate adaptation plan to be updated every 3 years and for the state to continue its climate change research program, among other provisions. As with EO S-3-05, this EO is not legally enforceable against local governments and the private sector. Legislation that would update AB 32 to provide post-2020 targets was signed by the Governor in 2016. SB 32 includes a 2030 mandate matching the requirements of the EO.

Executive Order S-01-07: Low Carbon Fuel Standard

The governor signed EO S 01-07 on January 18, 2007. The order mandates that a statewide goal shall be established to reduce the carbon intensity of California's transportation fuels by at least 10 percent by 2020. In particular, the EO established a Low Carbon Fuel Standard (LCFS) and directed the Secretary for Environmental Protection to coordinate the actions of the California Energy Commission, CARB, the University of California, and other agencies to develop and propose protocols for measuring the "life-cycle carbon intensity" of transportation fuels. This analysis supporting development of the protocols was included in the State Implementation Plan for alternative fuels (State Alternative Fuels Plan adopted by California Energy Commission on December 24, 2007) and was submitted to CARB for consideration as an "early action" item under AB 32. CARB adopted the Low Carbon Fuel Standard on April 23, 2009.

The LCFS was subject to legal challenge in 2011. Ultimately, CARB was required to bring a new LCFS regulation for consideration in February 2015. The proposed LCFS regulation was required to contain revisions to the 2010 LCFS as well as new provisions designed to foster investments in the production of the low-carbon fuels, offer additional flexibility to regulated parties, update critical technical information, simplify and streamline program operations, and enhance enforcement. The Office of Administrative Law approved the regulation on November 16, 2015. The regulation was last amended in 2018.

Executive Order S-13-08

EO S-13-08 states that "climate change in California during the next century is expected to shift precipitation patterns, accelerate sea level rise and increase temperatures, thereby posing a serious threat to California's economy, to the health and welfare of its population and to its natural resources." Pursuant to the requirements in the EO, the 2009 California Climate Adaptation Strategy was adopted, which is the "... first statewide, multi-sector, region-specific, and information-based climate change adaptation strategy in the United States." Objectives include



analyzing risks of climate change in California, identifying and exploring strategies to adapt to climate change, and specifying a direction for future research.

Executive Order B-55-18

EO B-55-18 issued by Governor Brown on September 10, 2018, establishes a new statewide goal to achieve carbon neutrality as soon as possible, but no later than 2045, and to achieve and maintain net negative emissions thereafter. The EO directs CARB to work with relevant state agencies to develop a framework for implementation and accounting that tracks progress toward this goal.

California Energy Code

Compliance with the California Energy Code (Title 24, Part 6, of the California Code of Regulations [CCR], California’s Energy Efficiency Standards) and Title 20, Public Utilities and Energy, standards must occur for all new buildings constructed in California. These efficiency standards apply to new construction of both residential and nonresidential (i.e., maintenance buildings and pump station buildings associated with the Program) buildings, and they regulate energy consumed for heating, cooling, ventilation, water heating, and lighting. The building efficiency standards are enforced through the local building permit processes, and local government agencies may adopt and enforce energy standards for new buildings provided that these standards meet or exceed those provided in the Title 24 guidelines.

Regional

San Joaquin Valley Air Pollution Control District

On December 17, 2009, the San Joaquin Valley Air Pollution Control District (SJVAPCD) Governing Board adopted “Guidance for Valley Land-use Agencies in Addressing GHG Emission Impacts for New Projects under CEQA,” and the policy “District Policy—Addressing GHG Emission Impacts for Stationary Source Projects Under CEQA When Serving as the Lead Agency.” SJVAPCD concluded that the existing science is inadequate to support quantification of the impacts that project **specific** GHG emissions have on global climate change. SJVAPCD found the effects of project-specific emissions to be cumulative, and without mitigation, their incremental contribution to global climate change could be considered cumulatively considerable. SJVAPCD found that this cumulative impact is best addressed by requiring all projects to reduce their GHG emissions, whether through project design elements or mitigation.

City of Fresno



The City of Fresno adopted its first GHG Plan in December 2014. The GHG Plan established a target of reducing per capita GHG emissions in the city by 21.7 percent below 2020 business-as-usual (BAU) levels by 2020 and includes GHG reduction measures designed to achieve the reduction target. The GHG Plan is considered a “Qualified Plan,” according to CEQA Guidelines §15183.5.2. Since adoption of the GHG Plan, two significant regulations/decisions have been established. First, on September 28, 2016, Governor Brown signed SB 32 into law that sets a Statewide goal of reducing GHG emissions to 40 percent below 1990 levels by 2030. Additionally, on November 30, 2015, the California Supreme Court published its decision on the Newhall Ranch Specific Plan invalidating the EIR for a variety of reasons, including the use of 29 percent below BAU as a threshold to determine significance of GHG emissions under CEQA without any supporting evidence.

The GHG Plan Update adopted with the General Plan Update in August 2020 ensures conformity with the mandates of California Supreme Court in the Newhall Ranch case and the State of California’s latest GHG regulations. The GHG Plan Update re-evaluated the City’s GHG reduction targets and existing reduction strategies from the 2014 GHG Plan. New goals and supporting measures were included to reflect and ensure compliance with changes in the local and State policies and regulations such as SB 32 and California’s 2017 Climate Change Scoping Plan. The City’s GHG inventory, based on the most recent data available for the year 2016 was evaluated and the future growth in emissions for the BAU and adjusted BAU (ABAU) scenarios (the ABAU scenario considers the State policies) for the years 2020, 2030, and 2035 are projected. The 2020 and 2030 forecast years are consistent with the goals identified in AB 32 and SB 32, which identify Statewide GHG reduction targets by 2020 and 2030. The 2035 forecast year correspond to the City’s General Plan horizon year and would allow the City to develop long-term strategies to continue GHG reductions.

4.8.3 Modeling Parameters and Assumptions

See Section 4.3.3.

4.8.4 Impact Assessment

The CEQA Guidelines define a significant effect on the environment as “a substantial, or potentially substantial, adverse change in the environment.” To determine if a project would have a significant impact on GHGs, the type, level, and impact of emissions generated by the project must be evaluated.

The following GHG significance thresholds are contained in Appendix G of the CEQA Guidelines:



- a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment; or
- b) Conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases.

This section discusses potential impacts concerning greenhouse gases associated with the proposed project and provides mitigation measures where necessary.

Thresholds

The State CEQA Guidelines indicate that a project would normally have a significant adverse GHG impact if the project would:

- *Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment; or*
- *Conflict with an applicable plan, policy or regulation adopted for the purpose of reduction the emissions of greenhouse gases.*

The SJVAPCD's Guidance for Valley Land-use Agencies in Addressing GHG Emission Impacts for New Projects under CEQA presents a tiered approach to analyzing project significance with respect to GHG emissions. Project GHG emissions are considered less than significant if they can meet any of the following conditions, evaluated in the order presented:

- *Project is exempt from CEQA requirements.*
- *Project complies with an approved GHG emission reduction plan or GHG mitigation program.*
- *Project implements Best Performance Standards (BPS); or*
- *Project demonstrates that specific GHG emissions would be reduced or mitigated by at least 29 percent compared to Business-as-Usual (BAU), including GHG emission reductions achieved since the 2002-2004 baseline period.*

On November 20, 2015, the California Supreme Court (Court) issued its decision on the Center for Biological Diversity v. California Department of Fish and Wildlife on the Newhall Ranch project case. The Court determined that there is not substantial evidence to link a specific project's achievement of CARB's Scoping Plan's statewide average reduction below BAU to the conclusion that the project's reduction would meet AB 32's 2020 goals. Furthermore, since the release of SJVAPCD's guidance, SB32 has been issued that requires the state to further reduce GHG emissions beyond the goals laid out in AB32. As a result, the 29 percent reduction in emissions as compared to a BAU standard are outdated and were not used for this analysis.

CEQA Guidelines 15064.4 provides guidance for determining the significance of impacts from GHGs as follows:



(a) The determination of the significance of greenhouse gas emissions calls for a careful judgment by the lead agency consistent with the provisions in section 15064. A lead agency shall make a good-faith effort, based to the extent possible on scientific and factual data, to describe, calculate or estimate the amount of greenhouse gas emissions resulting from a project. A lead agency shall have discretion to determine, in the context of a particular project, whether to:

- (1) Quantify greenhouse gas emissions resulting from a project; and/or*
- (2) Rely on a qualitative analysis or performance-based standards.*

(b) In determining the significance of a project's greenhouse gas emissions, the lead agency should focus its analysis on the reasonably foreseeable incremental contribution of the project's emissions to the effects of climate change. A project's incremental contribution may be cumulatively considerable even if it appears relatively small compared to statewide, national or global emissions. The agency's analysis should consider a timeframe that is appropriate for the project. The agency's analysis also must reasonably reflect evolving scientific knowledge and state regulatory schemes. A lead agency should consider the following factors, among others, when determining the significance of impacts from greenhouse gas emissions on the environment:

- (1) The extent to which the project may increase or reduce greenhouse gas emissions as compared to the existing environmental setting.*
- (2) Whether the project emissions exceed a threshold of significance that the lead agency determines applies to the project.*

(3) The extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of greenhouse gas emissions (see, e.g., section 15183.5(b)). Such requirements must be adopted by the relevant public agency through a public review process and must reduce or mitigate the project's incremental contribution of greenhouse gas emissions. If there is substantial evidence that the possible effects of a particular project are still cumulatively considerable notwithstanding compliance with the adopted regulations or requirements, an EIR must be prepared for the project. In determining the significance of impacts, the lead agency may consider a project's consistency with the State's long-term climate goals or strategies, provided that substantial evidence supports the agency's analysis of how those goals or strategies address the project's incremental contribution to climate change and its conclusion that the project's incremental contribution is not cumulatively considerable.

(c) A lead agency may use a model or methodology to estimate greenhouse gas emissions resulting from a project. The lead agency has discretion to select the model or methodology it considers most appropriate to enable decision makers to intelligently take into account the project's incremental



contribution to climate change. The lead agency must support its selection of a model or methodology with substantial evidence. The lead agency should explain the limitations of the particular model or methodology selected for use.

Project Threshold

San Joaquin Valley Air Pollution Control District

On December 17, 2009, the San Joaquin Valley Air Pollution Control District (SJVAPCD) Governing Board adopted “Guidance for Valley Land-use Agencies in Addressing GHG Emission Impacts for New Projects under CEQA,” and the policy “District Policy—Addressing GHG Emission Impacts for Stationary Source Projects Under CEQA When Serving as the Lead Agency.” SJVAPCD concluded that the existing science is inadequate to support quantification of the impacts that project specific GHG emissions have on global climate change. SJVAPCD found the effects of project-specific emissions to be cumulative, and without mitigation, their incremental contribution to global climate change could be considered cumulatively considerable. SJVAPCD found that this cumulative impact is best addressed by requiring all projects to reduce their GHG emissions, whether through project design elements or mitigation.

City of Fresno

The City of Fresno adopted its first Greenhouse Gas Reduction Plan (GHG Plan) in December 2014. The GHG Plan established a target of reducing per capita GHG emissions in the city by 21.7 percent below 2020 business-as-usual (BAU) levels by 2020 and includes GHG reduction measures designed to achieve the reduction target as well as strategies that will continue to provide GHG reductions for 2035 and 2050 (City of Fresno, 2014). The GHG Plan is considered a “Qualified Plan,” according to CEQA Guidelines §15183.5.2 Since adoption of the GHG Plan, two significant regulations/decisions have been established. First, on September 28, 2016, Governor Brown signed SB 32 into law that sets a Statewide goal of reducing GHG emissions to 40 percent below 1990 levels by 2030. Additionally, on November 30, 2015, the California Supreme Court published its decision on the Newhall Ranch Specific Plan invalidating the EIR for a variety of reasons, including the use of 29 percent below BAU as a threshold to determine significance of GHG emissions under CEQA without any supporting evidence.

The GHG Plan Update adopted with the General Plan Update in August 2020 ensures conformity with the mandates of California Supreme Court in the Newhall Ranch case and the State of California’s latest GHG regulations. The GHG Plan Update re-evaluated the City’s GHG reduction targets and existing reduction strategies from the 2014 GHG Plan. New goals and supporting measures were included to reflect and ensure compliance with changes in the local and State policies and regulations such as SB 32 and California’s 2017 Climate Change Scoping Plan. The



City’s GHG inventory, based on the most recent data available for the year 2016 was evaluated and the future growth in emissions for the BAU and adjusted BAU (ABAU) scenarios (the ABAU scenario considers the State policies) for the years 2020, 2030, and 2035 are projected. The 2020 and 2030 forecast years are consistent with the goals identified in AB 32 and SB 32, which identify Statewide GHG reduction targets by 2020 and 2030. The 2035 forecast year correspond to the City’s General Plan horizon year and would allow the City to develop long-term strategies to continue GHG reductions.

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

The following emissions estimate is consistent with CEQA Guidelines 15064.4. CalEEMod was used to estimate the Project’s GHG emissions. Modeling assumptions are described in 4.3.3 Modeling Parameters and Assumptions.

Constructions Emission Inventory

Construction GHGs would be emitted by the off-road construction equipment and vehicle travel by workers and material deliveries to the project site. The estimated construction GHG emissions are shown in **Table 4-14**. Because construction GHG emissions are temporary and reduction measures are limited, a common professional practice is to amortize the construction emissions over the life of the project. A commercial project is conservatively assumed to have a life of 30 years.

Table 4-14 Construction Greenhouse Gas Emissions

Construction Year	MTCO₂e
2022	732
2023	48
Total	780
Amortized over 30 years ¹	26

Notes:

1. GHG emissions are amortized over the 30-year life of the proposed project.

Source: Stantec 2021, CalEEMod 2020.4.0.

Operational Emission Inventory

Operational or long-term emissions occur over the life of the project. Sources of emissions may include motor vehicles and trucks, energy usage, water usage, waste generation, and area sources, such as landscaping activities and residential woodburning. Operational GHG emissions associated with the project were estimated using CalEEMod 2020.4.0.

Operational GHG emissions are shown in **Table 4-15**.



Table 4-15 Operational Greenhouse Gas Emissions

Source	Emissions (MTCO ₂ e per year)
Area	0.01
Energy	917
Mobile	2,690
Waste	298
Water	206
Amortized Construction Emissions	26
Total	4,137

Source: Stantec 2021, CalEEMod 2020.4.0 (Appendix A).

The proposed project’s GHG impact is determined by its consistency with applicable statewide and regional GHG reduction plans. As shown in Impact GHG-2, the proposed project would be consistent with the CARB’s 2017 Scoping Plan, City of Fresno CAP, Fresno County COG’s RTP/SCS, and the City’s General Plan goals that aim to reduce air quality and energy (which in turn reduce GHG emissions), as such the Project will comply with applicable reduction plans and GHG emissions are less than significant.

The proposed project would not generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment; the impact is less than significant.

Level of Significance Before Mitigation

Less Than Significant Impact.

Mitigation Measures

No mitigation is necessary.

Level of Significance After Mitigation

Less Than Significant Impact.

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

The proposed project would have a significant impact with respect to GHG emissions and global climate change if it would substantially conflict with the provisions of Section 15064.4(b) of the CEQA Guidelines.

Pursuant to Appendix G of the CEQA Guidelines, a significant GHG impact is identified if the project could conflict with applicable GHG reduction plans, policies, or regulations. Development projects would be subject to complying with SB 32, Fresno COG’s RTP/SCS, and the City’s applicable goals.



SB 32 is a statewide reduction goal aimed at reducing emissions to 40% below 1990 levels by 2030. CARB’s 2017 Scoping Plan sets a framework for the State to meet the reduction targets of SB 32.

Consistency with the Final 2017 Scoping Plan Update

CARB issued the Final 2017 Scoping Plan Update in November 2017 and establishes emissions reduction strategies necessary to meet SB 32’s 2030 reduction goals. **Table 4-16** identifies the Scoping Plan policies that are applicable to the proposed project. As shown, the proposed project would be consistent with the Scoping Plan.

Table 4-16 Project Consistency with Applicable 2017 Scoping Plan Greenhouse Gas Reduction Strategies

Measure Name	Measure Description	Consistency Determination
SB 350 50% Renewable Mandate.	Utilities subject to the legislation will be required to increase their renewable energy mix from 33% in 2020 to 50% in 2030.	Consistent. The proposed project will purchase electricity from a utility subject to the SB 350 Renewable Mandate. In addition, the proposed project would be required to adhere to the latest Title 24 and CALGreen building standards for non-residential buildings.
Low Carbon Fuel Standard	This measure requires fuel providers to meet an 18 percent reduction in carbon content by 2030.	Consistent. Vehicles accessing the proposed project site will use fuel containing lower carbon content as the fuel standard is implemented.
Mobile Source Strategy (Cleaner Technology and Fuels Scenario)	Vehicle manufacturers will be required to meet existing regulations mandated by the LEV III and Heavy-Duty Vehicle programs. The strategy includes a goal of having 4.2 million ZEVs on the road by 2030 and increasing numbers of ZEV trucks and buses.	Consistent. Future employees can be expected to purchase increasing numbers of more fuel efficient and zero emission cars and trucks each year. The 2019 CALGreen Code non-residential development to include future charging vehicle spaces. The site is expected to receive deliveries and ship their product with an increasing numbers of ZEV delivery trucks as they become more commercially available and as CARB’s Advanced Clean Truck Regulation takes effect.
Short-Lived Climate Pollutant (SLCP) Reduction Strategy	The strategy requires the reduction of SLCPs by 40 percent from 2013 levels by 2030 and the reduction of black carbon by 50 percent from 2013 levels by 2030.	Consistent. Black carbon is created from the burning of fuels such as coal, diesel, and biomass. The proposed Project may indirectly emit black carbon from diesel heavy duty truck trips to and from the site. However, the site is expected to receive deliveries and ship their product with an increasing numbers of ZEV delivery trucks as they become more commercially available and as CARB’s Advanced Clean Truck Regulation takes effect. As a result, the proposed Project will reduce its SLCP and black carbon pollution by 2030.



Measure Name	Measure Description	Consistency Determination
SB 375 Sustainable Communities Strategies	Requires Regional Transportation Plans to include a sustainable communities' strategy for reduction of per capita vehicle miles traveled.	Consistent. The Project Applicant currently operates three facilities across the City. The facility at 1351 N. Crystal lies over three miles from the 1090 W. Church and 2413 S. Fruit Avenue facilities. Consolidating the manufacturing in a single facility will reduce the vehicle miles traveled throughout Fresno from employees, deliveries, and shipping trips.
Post-2020 Cap-and-Trade Program	The Post 2020 Cap-and-Trade Program continues the existing program for another 10 years. The Cap-and-Trade Program applies to large industrial sources such as power plants, refineries, and cement manufacturers.	Consistent. The post-2020 Cap-and-Trade Program indirectly affects people who use the products and services produced by the regulated industrial sources when increased cost of products or services (such as electricity and fuel) are transferred to the consumers. The Cap-and-Trade Program covers the GHG emissions associated with electricity consumed in California, whether generated in-state or imported. Accordingly, GHG emissions associated with CEQA projects' electricity usage are covered by the Cap- and-Trade Program. The Cap-and-Trade Program also covers fuel suppliers (natural gas and propane fuel providers and transportation fuel providers) to address emissions from such fuels and from combustion of other fossil fuels not directly covered at large sources in the program's first compliance period.

Source of Measures: CARB, 2017

Source of Consistency Determination: Stantec Consulting Services Inc, 2021

Based on this evaluation, this analysis finds the project would be consistent with all feasible and applicable strategies recommended in the 2017 Scoping Plan Update.

Consistency with the City of Fresno GHG Plan Update

The City of Fresno adopted the GHG Plan Update in 2020. The GHG Plan Update includes a project consistency checklist that provides a platform and framework to track the GHG reduction strategies for individual projects. The Checklist serves to further the City of Fresno's sustainability goals and policies by encouraging more sustainable development and aim to conserve and reduce the consumption of resources. Individual projects that meet the Checklist will be deemed to be consistent with the Fresno GHG Plan Update and will be determined to have a less than significant contribution to cumulative GHG emissions. As shown in **Table 4-17**, the proposed project would be consistent with the GHG Plan Update.

Table 4-17 Consistency with the City of Fresno GHG Plan Update

Check List Item	Project Consistency
Strategy 1: Land Use and Transportation Demand Management	



<p>Does the project provide complete streets for all roadway improvements? (Complete streets are roadways that include curb, gutter, and sidewalks on both sides of the street. For local and collector streets, adequate roadway width is provided to accommodate two-way vehicle traffic and bicycles and arterial streets include striping for bike lanes.)</p>	<p>Not Applicable. The Project will develop a warehouse on a greenfield site and will not develop or upgrade any public roadways. The Project will not interfere with any roadway improvements.</p>
<p>Is the project a large employer (over 100 employees) and if so, will the project comply with SJVAPCD Rule 9410 and provide an Employer Trips Reduction Implementation Plan that will include trip reduction methods such as increasing transit use, carpooling, vanpooling, bicycling, or other measures?</p>	<p>Not Applicable. The Project is not required to provide an Employer Trip Reduction Implementation Plan per SJVAPCD Rule 9410. Pursuant to Rule 9410, employees who do not report to work between 6 am and 10 am and seasonal employees employed less than 16 consecutive weeks are excluded from the 100 Eligible Employee threshold.¹⁰</p>
<p>Strategy 2: Energy Conservation and Renewable Energy</p>	
<p>Does the project meet the mandatory energy efficiency measures of the California Green Building Standards Code (CALGreen)? If the Project exceeds mandatory CALGreen measures, then provide the tier number that the project will meet in explanation.</p>	<p>Consistent. The Project is required under CALGreen to meet the mandatory energy efficiency measures for non-residential projects.</p>
<p>For commercial projects, does it achieve net zero electricity? Mark NA if project will be permitted before 2030.</p>	<p>Not Applicable. The Project is not required to achieve net zero electricity as it will be permitted and operational prior to 2030.</p>
<p>Does the project include onsite energy generation using renewable energy? If no, mark NA.</p>	<p>Not Applicable. The Project is not required to include onsite energy generation using renewable energy.</p>
<p>Strategy 3: Water Conservation</p>	
<p>Does the project meet the mandatory indoor water use measures of the CALGreen Code? If the project exceeds CALGreen mandatory measures provides methods in excess of requirements in the explanation.</p>	<p>Consistent. The Project is required under CALGreen to meet the mandatory indoor water use measures for non-residential projects.</p>
<p>Does the project meet the mandatory outdoor water use measures in the CALGreen Code? If the project exceeds CALGreen mandatory measures provides methods in excess of requirements in the explanation.</p>	<p>Consistent. The Project is required under CALGreen to meet the mandatory outdoor water use measures for non-residential projects.</p>
<p>Strategy 4: Solid Waste Diversion and Recycling</p>	
<p>When completed will the project implement techniques for solid waste diversion and reduction (i.e., recycling, composting, waste to energy technology, waste separation)?</p>	<p>Consistent. The Project will be serviced by a waste collection service that will be required under state law to meet waste diversion goals. The facility will implement standard recycling practices and will have separate recycling collection bins.</p>
<p>During construction will the project recycle construction and demolition waste?</p>	<p>Consistent. The Project will not require any demolition or grading that will require the hauling of construction waste. However, construction will comply with all applicable county and city codes related to construction and solid waste managements.</p>

¹⁰ San Joaquin Valley Air Pollution Control District. The eTRIP Rule - Rule 9410: Employer Based Trip Reduction. Accessed on December 28, 2021, http://www.valleyair.org/Programs/Rule9410TripReduction/eTRIP_main.htm#who_is_subject



Consistency with SJVAPCD CCAP

The SJVAPCD has adopted a CCAP, which includes suggested BPS for proposed residential development projects. Appendix J of the SJVAPCD Final Staff Report for the CCAP contains GHG reduction measures. Most measures in the Report are applicable to mixed-use and residential developments, however some of these measures can also be applied to commercial developments. The proposed project’s consistency with these measures is included in **Table 4-18** below. As shown in the table, the project would be consistent with applicable CCAP measures.

Table 4-18 Project Consistency with Applicable SJVAPCD CCAP GHG Reduction Measures

Measure Name	Measure Description	Project Consistency
Additional GHG Emission Reduction Measures Requiring Additional Investigation		
11- Vehicle Idling	Limit idling for commercial vehicles, including delivery and construction vehicles.	Consistent. CARB limits idling of diesel vehicles to 5 minutes. The Project will comply as applicable. As part of operations, tractor trailers on site during loading and unloading will not be permitted to idle their engines. All trucks will be equipped with electrical refrigeration units that will “plug in” at the loading bays.
16-Energy Efficient Appliances	Install energy efficient heating and cooling systems, appliances and equipment, and control systems.	Consistent. The Project will be designed to be compliant with the 2019 California Building Standards and the California Energy Commission’s regulations on nonresidential buildings.
20 - Tree Plants	Protect existing trees and encourage the planting of new trees. Adopt a tree protection and replacement ordinance, e.g., requiring that trees larger than a specified diameter that are removed to accommodate development must be replaced at a set ratio.	Consistent. Development of the Project will not result in the destruction or removal of any trees on the site. The Project will plant 81 new trees along the north and west side of the site, according to the landscape plan submitted for the Project.

Source: Stantec 2021. SJVAPCD, 2009.

Consistency with Fresno COG RTP/SCS

The Fresno COG’s 2018 RTP/SCS includes a series of goals for the region that would reduce GHG emissions based on the land use consistency and the reduction of vehicle trips. The proposed project’s consistency with these measures is included in **Table 4-19** below. As shown in the table, the project would be consistent with applicable Fresno COG measures.

Table 4-19 Project Consistency with Applicable Fresno COG Goals

Goals	Consistency
An efficient, safe, integrated, multimodal transportation system.	Consistent. The Proposed Project will consolidate three warehouses across the City into one warehouse. This will create a more efficient system for the Applicant as well as the City’s transportation network as city-wide vehicle and truck travel associated with Busseto Foods will be reduced. The



Goals	Consistency
	Project also provides sidewalk and shade trees, increasing the walkability of the neighborhood.
Coordinate planning that is consistent with efforts that affect the region.	Not Applicable. This goal is aimed at local and regional jurisdictions. The Project will not interfere with this goal.
A multimodal regional transportation network compatible with adopted land use plans and consistent with the intent of SB 375.	Not Applicable. This goal is aimed at local and regional jurisdictions. The Project will not interfere with this goal.
Support cooperative efforts between local, state, federal agencies, and the public to plan, develop and manage our transportation system.	Not Applicable. This goal is aimed at local and regional jurisdictions. The Project will not interfere with this goal.
Attainment and maintenance of the California and National Ambient Air Quality Standards (criteria pollutants) as set by the Environmental Protection Agency and the California Air Resources Board.	Consistent. The proposed Project's construction and operational air pollutant emissions will fall below SJVAPCD thresholds and as a result will be consistent with the Air Basin's attainment plans and will not result in a significant impact for a pollutant in which the area is in nonattainment for.
Achieve a safe transportation system for all motorized and non-motorized users on all public roads in Fresno County.	Consistent. The Proposed Project will consolidate three warehouses across the City into one warehouse. This will create a more efficient system for the Applicant as well as the City's transportation network as city-wide vehicle and truck travel associated with Busseto Foods will be reduced. A reduction in total vehicle trips will lead to a safer network with less risk of collision or accidents.
An integrated and efficient highways, streets and roads network.	Not Applicable. This goal is aimed at local and regional jurisdictions. The Project will not interfere with this goal.
Utilize a partnership of federal, State, regional, local, community, and industry stakeholders to move freight on a safe, integrated, modern, efficient, and resilient system that contributes to the Fresno Region's economy, jobs, and healthy, livable communities.	Not Applicable. This goal is aimed at local and regional jurisdictions. The Project will not interfere with this goal.
Efficient use of available transportation funding.	Not Applicable. This goal is aimed at local and regional jurisdictions. The Project will not interfere with this goal.
Maintain highways, roads, and bridges in a state of good repair for all users.	Not Applicable. This goal is aimed at local and regional jurisdictions. The Project will not interfere with this goal.
An efficient and fiscally responsible public transportation mobility system.	Not Applicable. This goal is aimed at local and regional jurisdictions. The Project will not interfere with this goal.



Goals	Consistency
A quality, convenient, safe and reliable public transportation service.	Not Applicable. This goal is aimed at local and regional jurisdictions. The Project will not interfere with this goal.
An efficient and effective public transportation system.	Not Applicable. This goal is aimed at local and regional jurisdictions. The Project will not interfere with this goal.
Public transit services with a positive public image in communities served.	Not Applicable. This goal is aimed at local and regional jurisdictions. The Project will not interfere with this goal.
An integrated multimodal transportation system which facilitates the movement of people.	Not Applicable. This goal is aimed at local and regional jurisdictions. The Project will not interfere with this goal.
A coordinated policy for public transportation that complements land use and air quality/climate change policies.	Not Applicable. This goal is aimed at local and regional jurisdictions. The Project will not interfere with this goal.
Achieve or maintain transit network in a state of good repair.	Not Applicable. This goal is aimed at local and regional jurisdictions. The Project will not interfere with this goal.
A fully functional and integrated air service and airport system that is complementary to the regional transportation system.	Not Applicable. This goal is aimed at local and regional jurisdictions. The Project will not interfere with this goal.
Maximize bicycling and walking through their recognition and integration as valid and healthy transportation modes in transportation planning activities	Not Applicable. This goal is aimed at local and regional jurisdictions. The Project will not interfere with this goal.
Safe, convenient, and continuous routes for bicyclists and pedestrians of all types which interface with and complement a multimodal transportation system	Not Applicable. This goal is aimed at local and regional jurisdictions. The Project will not interfere with this goal.
Improved bicycle and pedestrian safety through education, engineering and enforcement.	Not Applicable. This goal is aimed at local and regional jurisdictions. The Project will not interfere with this goal.
Increased development of the regional bikeways system, related facilities, and pedestrian facilities by maximizing funding opportunities.	Not Applicable. This goal is aimed at local and regional jurisdictions. The Project will not interfere with this goal.
A safe, efficient and convenient rail system which serves the passenger and freight needs of the region and which is integrated with and complementary to the total transportation system	Not Applicable. This goal is aimed at local and regional jurisdictions. The Project will not interfere with this goal.
A transportation system that efficiently and effectively transports goods throughout Fresno County	Not Applicable. This goal is aimed at local and regional jurisdictions. The Project will not interfere with this goal.

Source: Stantec 2021. Fresno COG 2018.

Conclusion

The Project proposes to consolidate the three existing facilities in the City of Fresno into one manufacturing warehouse. Under current operations, Busseto utilizes a leased freezer to store raw materials, a production plant where the product is stuffed, dried, sliced, and packaged, and a third facility where finished product is stored and shipped out to customers. The new warehouse facility will hold the freezer operations as well as the storage, shipping, and receiving operations that are currently done at 1351 N. Crystal (located over three miles north of the Fruit and Church facilities). This will reduce shuttle truck activities and vehicle miles traveled between the three facilities.



As analyzed above, the proposed Project would not conflict with the goals and objectives of CARB's 2017 Scoping Plan, or any other State or regional plan, policy, or regulation of an agency adopted for the purpose of reducing GHG emissions. In addition, the Project will be required to adhere to Title 24 and California Building Standards. As such, the proposed project would not conflict with an applicable plan; therefore, impacts would be considered less than significant.

Level of Significance Before Mitigation

Less Than Significant Impact.

Mitigation Measures

No mitigation is necessary.

Level of Significance After Mitigation

Less Than Significant Impact.

4.8.5 Mitigation Measures

The proposed Project shall implement and incorporate, as applicable, the greenhouse gas emissions related mitigation measures as identified in the attached Southwest Fresno Specific Plan EIR Mitigation Monitoring and Reporting Program dated October 15, 2021.



4.9 HAZARDOUS AND HAZARDOUS MATERIAL

Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?			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 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	
---	--	--	---	--

4.9.1 Environmental Setting

For the purposes of this section, the term “hazardous materials” refers to “injurious substances,” which include flammable liquids and gases, poisons, corrosives, explosives, oxidizers, radioactive materials, and medical supplies and waste. These materials are either generated or used by various commercial and industrial activities. Hazardous wastes are injurious substances that have been or will be disposed. Potential hazards arise from the transport of hazardous materials, including leakage and accidents involving transporting vehicles. There also are hazards associated with the use and storage of these materials and wastes. Hazardous materials are grouped into the following four categories based on their properties:

- Toxic: causes human health effect
- Ignitable: has the ability to burn
- Corrosive: causes severe burns or damage to materials
- Reactive: causes explosions or generates toxic gases

“Hazardous wastes” are defined in California Health and Safety Code Section 25141(b) as wastes that: “...because of their quantity, concentration, or physical, chemical, or infectious characteristics, [may either] cause or significantly contribute to an increase in mortality or an increase in serious illness or pose a substantial present or potential hazard to human health or the environment when improperly treated, stored, transported, disposed of, or otherwise managed.” A hazardous waste is any hazardous material that is discarded, abandoned, or slated to be recycled. If improperly handled, hazardous materials and hazardous waste can result in public health hazards if released into the soil or groundwater or through airborne releases in vapors, fumes, or dust. Soil and groundwater having concentrations of hazardous constituents higher than specific regulatory levels must be handled and disposed of as hazardous waste when excavated or pumped from an aquifer. The California Code of Regulations, Title 22, Sections 66261.20-24 contains technical descriptions of toxic characteristics that could cause soil or groundwater to be classified as hazardous waste.

Hazardous waste generators may include industries, businesses, public and private institutions, and households. Federal, state, and local agencies maintain comprehensive databases that identify the location of facilities using large quantities of hazardous materials, as well as facilities generating hazardous waste. Some of these facilities use certain classes of hazardous materials that require risk management plans to protect surrounding land uses. The release of hazardous



materials would be subject to existing federal, State, and local regulations and is similar to the transport, use, and disposal of hazardous materials.

Record Search

The California Department of Toxic Substance Control's EnviroStor database and the State Water Resources Control Board's GeoTracker database include hazardous release and contamination sites. A search of each database was conducted on September 20, 2021. The search revealed no hazardous material release sites on the Project site. The closest hazardous site is a three (3)-acre cleanup program site, an abandoned salvage yard, which is approximately 2,080 feet northeast from the Project site. Further, no hazardous release or contamination has been observed or tracked on Busseto's existing facilities.

Hazardous Materials Business Plan

Facilities that use and/or store hazardous materials and/or hazardous wastes are required to meet the requirements set forth in the California Health and Safety Code (HSC), Division 20, Chapter 6.95, and the California Code of Regulations (CCR), Title 22, Division 4.5. In Fresno County, businesses that handle hazardous materials and/or hazardous waste are required to submit a Hazardous Materials Business Plan (HMBP) to the Fresno County Department of Public Health, pursuant to HSC, Division 20, Chapter 6.95. Fresno County Department of Public Health reviewed the proposed Project and has conditioned the Project to submit an HMBP in order to provide for safe storage and use of chemicals.

4.9.2 Impact Assessment

- a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?*

Less than Significant Impact. The Project would consist of food processing, warehousing, distribution, and administrative activities to produce food products for sale and consumption. The products produced at the Facility will include four (4) types of dried meat – salami, pancetta, coppa, and prosciutto. The food processing involves a non-odor emitting process consisting of fermentation and drying in atmosphere-controlled rooms. It is anticipated that the Facility will produce 500,000 to 600,000 pounds of dried meat per week. Because of the use and product, it is not expected that the Project would routinely transport, use, or dispose of hazardous materials. However, the Project is subject to review by Fresno County Department of Public Health and has been conditioned to submit an HMBP. Therefore, if the Facility does handle hazardous materials and/or hazardous waste, compliance with the HMBP as approved by the County will reduce any impacts to less than significant. Potential impacts during construction of the Project could result



from the use of fuels and lubricants for construction equipment. However, these impacts would be short-term and temporary, and would be reduced to less than significant levels through compliance with local, state, and federal regulations in addition to standard equipment operating practices. For these reasons, the Project would have a less than significant impact.

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?

Less than Significant Impact. As described under criterion a) above, it is not anticipated that the Project itself will involve any operations that would require routine transport, use, or disposal of hazardous materials and therefore is not anticipated to create a significant hazard to the public or the environment through release of hazardous materials. In the case that the Project does involve hazardous materials, the HMBP as approved by the County would ensure safe storage and use of such materials. While potential impacts could occur through construction-related transport and disposal of hazardous materials, such impacts would be short-term and temporary, and would be reduced to less than significant levels through compliance with local, state, and federal regulations in addition to standard equipment operating practices. Therefore, the Project would not be expected to cause the release of hazardous materials into the environment and thus, a less than significant impact would occur.

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

Less than Significant Impact. There are no proposed schools within one-quarter mile of the subject site. The nearest existing schools are Sunset Elementary (approximately \pm 0.70 miles) and Edison High School (approximately \pm 0.75 miles), both of which are further than one-quarter mile of the Project site. Based on the layout of the Project site, trucks would utilize South West Avenue for arrival and departure from the site. And because of the regional nature of the Project's operations, it can be assumed that trips generated from the Project would utilize Jensen Avenue to reach state facilities (i.e., SR-41, SR-99, and SR-180). Neither school are located on this tentative route. Further, as described under criteria a) and b) above, the proposed Project is not anticipated to emit hazardous emissions or handle hazardous materials, substances, or waste that would pose a risk or threat to the school or surrounding area. Therefore, the Project would have a less than significant impact.



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?

No Impact. According to EnviroStor and GeoTracker, the Project is not located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5. Therefore, the Project would not create a significant hazard to the public or the environment. For these reasons, there would be no impact.

e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?

Less than Significant Impact. The nearest public and public use airport is the Fresno-Chandler Executive Airport approximately ± one (1)-mile north of the subject site. The Fresno-Chandler Executive Airport is owned and operated by the City of Fresno and has one (1) runway that is 3,626 feet long and 75 feet wide. The Federal Aviation Administration designates the airport as a general aviation reliever airport for Fresno Yosemite International Airport and it is used primarily for general aviation, including general aviation businesses offering services such as fueling, aircraft maintenance, restoration, flight instruction, charter services, and rentals.¹¹

According to the Fresno County Airport Land Use Compatibility Plan (ALUC Plan)¹², the Project site is located within the Traffic Pattern Zone (TPZ) of the Airport Influence Area (AIA). Because it is within the AIA, the Project shall be reviewed by the Fresno County Airport Land Use Commission (ALUC) in order to determine land use compatibility and receive a finding of consistency. The Project was reviewed by the ALUC on Monday, October 4, 2021. The ALUC approved a conditional finding of consistency contingent upon approval of airspace analysis under Part 77 from the FAA.

The ALUC Plan has set “safety zone land use compatibility standards” that restrict the development of land uses that could pose hazards to the public or to vulnerable populations in case of an aircraft accident. According to these standards (**Table 4-20**), the proposed Project would be required to provide an airport disclosure notice. Because the proposed Project is not

¹¹ Federal Aviation Administration. (September 2014). Fresno Chandler Executive Airport Land Use Compatibility Plan. Accessed on September 20, 2021, https://www.fresnocog.org/wp-content/uploads/2016/02/ALUC_Chandler_Executive_Airport_Compatibility_Land_Use_Plan_Update_10-06-14.pdf

¹² Fresno Council of Governments. (December 2018). Fresno County Airport Land Use Compatibility Plan. Accessed on September 20, 2021, <https://www.fresnocog.org/wp-content/uploads/2019/01/fresno-draft-ALUCP-12-04-17c.pdf>



greater than 100 feet, the airspace review and analysis regarding the 14 CFR Part 77 surfaces and the 50-foot penetration buffer do not apply.

Table 4-20 Safety Zone Land Use Compatibility Standards

Zone	TPZ
Dwelling Units per Acre	No limit
Maximum Non-Residential Intensity	<ul style="list-style-type: none"> • 300 persons per acre • No limit in areas designated as Urban on Exhibit C1, Fresno-Chandler Executive Airport
Required Open Land	10%
Prohibited Uses	<ul style="list-style-type: none"> • Hazards to flight (i.e., physical (tall objects), visual, and electronic forms of interference with the safety of aircraft operations. Land use development, such as golf courses and certain types of crops that may cause the attraction of birds to increase is also prohibited). • Outdoor stadiums and similar uses with very high intensity standards
Other Development Conditions	<ul style="list-style-type: none"> • Airport disclosure notice required • Airspace review required for objects > 100 feet tall • New structures are prohibited on existing terrain that penetrates 14 CFR Part 77 surfaces • New structures require additional airspace analysis required within the 50-foot terrain penetration buffer

Overall, the Project is required to be reviewed by the Fresno County ALUC and provide an airport disclosure notice in compliance with the safety zone land use compatibility standards for the TPZ. Additionally, the Project would implement the Fresno General Plan objective NS-5 policies NS-5-a to NS-5-e. Therefore, through compliance with the ALUCP and General Plan, the Project would not result in a safety hazard for people residing or working in the area and impacts would be less than significant.

NS-5 Protect the safety, health, and welfare of persons and property on the ground and in aircraft by minimizing exposure to airport-related hazards.

NS-5-a Land Use and Height. Incorporate and enforce all applicable Airport Land Use Compatibility Plans (ALUCPs) through land use designations, zoning, and development



standards to support the continued viability and flight operations of Fresno's airports and to protect public safety, health, and general welfare.

- *Limit land uses in airport safety zones to those uses listed in the applicable ALUCPs as compatible uses, and regulate compatibility in terms of location, height, and noise.*
- *Ensure that development, including public infrastructure projects, within the airport approach and departure zones complies with Part 77 of the Federal Aviation Administration Regulations (Objects Affecting Navigable Airspace), particularly in terms of height.*

***NS-5-b Airport Safety Hazards.** Ensure that new development, including public infrastructure projects, does not create safety hazards such as glare from direct or reflective sources, smoke, electrical interference, hazardous chemicals, fuel storage, or from wildlife, in violation of adopted safety standards.*

***NS-5-c Avigation Easements.** Employ avigation easements in order to secure and protect airspace required for unimpeded operation of publicly owned airports.*

***NS-5-d Disclosure.** As a condition of approval for residential development projects, require sellers to prepare and provide State Department of Real Estate Disclosure statements to property buyers notifying of noise and safety issues related to airport operations.*

***NS-5-e Planned Expansion.** Allow for the orderly expansion and improvement of publicly owned airports, while minimizing adverse environmental impacts associated with these facilities.*

- *Periodically update airport facility master plans in accordance with FAA regulations.*
- *Require land use within the boundaries of the Fresno-Yosemite International Airport and Chandler Downtown Airport to conform to designations and policies specified in adopted City of Fresno compatible land use plans.*
- *Provide local jurisdictions surrounding the City's publicly owned airports with specific guidelines for effectively dealing with the presence and operation of these airports.*

f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

Less than Significant Impact. The Project would not involve any new or altered infrastructure associated with evacuation, emergency response, and emergency access routes within the City or



County of Fresno. Construction of frontage improvements may require lane closure; however, these activities would be short-term and access through West Church Avenue and South West Avenue would be maintained through standard traffic control. Following construction, these streets would continue to provide access to the site. Furthermore, the Project would be subject to compliance with applicable standards for on-site emergency access including turn radii and fire access. Therefore, the Project would have a less than significant impact.

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

Less than Significant Impact. According to the Fresno General Plan, wildfire threats to Fresno are minimal because the city is largely urbanized or working agricultural land and lacks steep topographies. Although the city is proximate to high and very high fire hazard designated area, the urbanized area is categorized as little or no threat or moderate fire hazard which is attributed to its paved areas. Furthermore, the Project site is not identified by the California Department of Forestry and Fire Protection (Cal Fire) as a Very High Fire Hazard Severity Zone (VHFHSZ) within the Local Responsibility Area.¹³ In addition, the Project proposes a construction of a single structure that would be occupied by humans; as such, the structure shall be constructed in adherence to the Wildland Urban Interface Codes and Standards of the California Building Code Chapter 7A. Compliance with such regulations would ensure that the Project meets standards to help prevent loss, injury, or death involving wildland fires. For these reasons, the Project would have a less than significant impact.

4.9.3 Mitigation Measures

The proposed Project shall implement and incorporate, as applicable, the hazardous and hazardous materials related mitigation measures as identified in the attached Southwest Fresno Specific Plan EIR Mitigation Monitoring and Reporting Program dated October 15, 2021.

¹³ California Department of Forestry and Fire Protection. FHSZ Viewer. Accessed on September 21, 2021, <https://egis.fire.ca.gov/FHSZ/>.



4.10 HYDROLOGY AND WATER QUALITY

Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?			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. <i>Result in a substantial erosion or siltation on- or off-site;</i>			X	
ii. <i>Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site:</i>			X	
iii. <i>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</i>			X	



iv. <i>Impede or redirect flood flows?</i>			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	

4.10.1 Environmental Setting

The Project site is within city limits and thus, will be required to connect to water and stormwater services. The City and responsible agencies have reviewed the Project to determine adequate capacity in these systems and ensure compliance with applicable connection and discharge requirements. Requirements for the Project are as follows:

- *Install water service and meter boxes and pay Water Capacity Fee for installation.*
- *Construct private facilities to discharge storm water runoff, including temporary facilities for South West Avenue until permanent drainage service is available.*

Overall, the review of the Project by the City and responsible agencies indicates that the Project would not require or result in the relocation or construction of new or expanded facilities and as such, would not cause significant environmental effects. Through compliance with the applicable connection requirements, a less than significant impact would occur as a result of the Project.

Water

The City of Fresno Water Division manages and operates the City of Fresno’s water system. Fresno meets its demand for domestic water from a combination of groundwater, treated surface water, and reclaimed water sources. Groundwater is accessed from the Kings River Sub-basin of the San Joaquin Valley Groundwater Basin in addition to the Northeast Surface Water Treatment Facility and Southeast Surface Water Treatment Facility. Surface water is used to replace lost groundwater through Fresno’s recharge program at the City-owned Leaky Acres, Nielsen Recharge Facility, and smaller facilities in southeast Fresno.

Stormwater

The Fresno Metropolitan Flood Control District (FMFCD) manages stormwater runoff in Fresno. The major elements of the FMFCD’s flood control system include dams, reservoirs, and detention basins. The FMFCD is responsible for reviewing development proposals to assess drainage and



flood control impacts and needs, in addition to determining applicable requirements and modifications needed in order to implement the Storm Drainage and Flood Control Master Plan.

4.10.2 Impact Assessment

- a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?*

Less than Significant Impact. Because the Project site is greater than one (1) acre in size, the developer is required to prepare a SWPPP ([Section 4.7](#)) in compliance with the General Permit for Discharges of Storm Water Associated with Construction Activity (i.e., General Permit Order No. 2012-0006-DWQ). The SWPPP estimates the sediment risk associated with construction activities and includes best management practices (BMP) to control erosion. BMPs specific to erosion control cover erosion, sediment, tracking, and waste management controls. Implementation of the SWPPP minimizes the potential for the Project to result in substantial soil erosion or loss of topsoil. These provisions minimize the potential for the Project to violate any waste discharge requirements or otherwise substantially degrade surface or ground water quality. Further, runoff resulting from the Project would be managed by the FMFCD in compliance with the Storm Drainage and Flood Control Master Plan in addition to approved grading and drainage plans. Thus, compliance with existing regulations including the General Construction Permit, BMPs, and Storm Drainage and Flood Control Master Plan would reduce potential impacts related to water quality and waste discharge to less than significant levels.

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

Less than Significant Impact. The City's long-term water resource planning for existing and future demand is addressed in the City's 2020 Urban Water Management Plan (UWMP).¹⁴ According to the UWMP, water demand in the city has decreased over the past several decades and is expected to grow at a slower rate than the anticipated population growth. This trend is captured by the daily per capita water use, measured as gallons per capita per day (GPCD). For 2020, water use averaged 198 GPCD based on 121,993 metered consumptions (AF) of water production. Of note, this GPCD

¹⁴ City of Fresno (2021). 2020 Urban Water Management Plan. Accessed October 6, 2021, https://www.fresno.gov/publicutilities/wp-content/uploads/sites/16/2021/06/Fresno-2020-UWMP_Public-Draft_2021-06-29.pdf



is below the 2020 daily per capita water use target of 247 GPCD, which the UWMP attributes to conservation efforts implemented by the City.

According to the UWMP, the City’s per capita water usage is projected to continue to decline through 2045 due to more water efficiency in future construction and passive conservation pursuant to requirements of the California Plumbing Code (e.g., use of higher efficiency appliances, water efficient landscaping, etc.). Projected water use for single-family residential and industrial sectors is included in **Table 4-21**. Single-family residential water use is the largest use type, accounting for almost 50 percent of potable water use whereas industrial water use is the smallest use type, accounting for less than five (5) percent of potable water use.

Table 4-21 Projected Water Use by Sector, 2020 – 2040

Use Type	Water Use by Volume (AF)		
	2020	2030	2040
<i>Single-Family</i>	81,200	87,000	92,100
<i>Industrial</i>	6,600	6,400	6,900

Source: City of Fresno, Urban Water Management Plan, 2020

As mentioned above, the City of Fresno Water Division manages and operates the City of Fresno’s water system. Fresno meets its demand for domestic water from a combination of groundwater, treated surface water, and reclaimed water sources. Groundwater is accessed from the Kings River Sub-basin of the San Joaquin Valley Groundwater Basin in addition to the three surface water treatment facilities, which provide half of all potable water demands in the City’s service area. Surface water is used to replace lost groundwater through Fresno’s recharge program at the City-owned Leaky Acres, Nielsen Recharge Facility, and smaller facilities in southeast Fresno.

Regarding water supply reliability, the City manages its surface water and groundwater supply by maximizing water for potable use and intentional recharge during wet and normal years and relies on groundwater during dry years. To optimize water supply reliability and resiliency, the City is currently undergoing an update of its Metro Plan which will identify projects and programs. Generally, the City’s approach is to maximize local supplies and improve the storage of the groundwater basin through recharge, recycled water usage, and conservation.

The UWMP projects normal water year, single dry water year, and five-year consecutive drought period supplies based on historic water allocations, sustainable yields, and utilization of recycled water. Based on these projections, the UWMP found that groundwater supplies remain reliable in all hydrologic conditions, attributing the stability to intentional recharge. The projections also show that the City will have greater than 100,000 AF available supply in normal years after meeting demands. In a single dry year, surface water supplies will be reduced but the City would still be able to meet all potable demands. Lastly, for five-year consecutive drought periods, the City is



projected to meet all demands with its existing supplies with reduced groundwater recharge in year three (3) and four (4) to accommodate reduced surface water allocations. Based on these projections, it can be inferred that future development, such as the proposed Project, will not negatively impact the City’s ability to provide water assuming adherence to requirements and recommendations from the City’s water resources planning efforts.

According to the UWMP, the Project site is located in the Southwest Pressure Zone and there is an active City well located near the northeast corner of West Church Avenue and South West Avenue across from the Project site. There are also existing 12-inch public water mains and public fire hydrants in both West Church Avenue and South West Avenue to which the Project can connect. As previously discussed, the Project has been reviewed by the City and is required to install water service and meter boxes to connect to the existing City facilities and pay the Water Capacity Fee for installation. Collectively, these facilities will convey water to and from the Project.

Potable water demands for the Project were estimated using land-use-based unit water demand factors last updated for the City in 2018. The Project site has an existing General Plan land use designation of Residential – Medium Density and proposes a change to Employment – Light Industrial. According to the land-use-based unit water demand factors for the City of Fresno, the medium low density land use has an annual average (ac-ft/yr/acre) of 3.14, compared to 1.84 for the light industrial land use. **Table 4-22** summarizes the total water demands to be expected by land use, indicating that a single-family residential (medium low density) land use would generate approximately 41% greater demand for water than the light industrial land use. Given the significant reduction in water demand from what is planned, it can be determined that the City’s water supply will be adequate to support anticipated demands from the Project.

Table 4-22 Summary of Total Water Demands by Land Use

Land Use	Area (ac)	Annual Average (Ac-Ft/Yr/Acre)	Annual Average (AFY)
<i>Existing</i>			
Medium Low Density	18.9	3.14	59.346
<i>Proposed</i>			
Light Industrial	18.9	1.84	34.776

Source: City of Fresno, 2018 Water Demand Factors by Land Use Classification

Overall, based on the information collected from the UWMP and the City of Fresno, the proposed Project would generate significantly less water demand than would otherwise occur with the existing land use. As a result, it can be presumed that the existing and planned water distribution system and supplies should be adequate to serve the Project, and the Project would thereby not interfere substantially with groundwater recharge or impede sustainable groundwater management of the basin. In addition, adherence to connection requirements and recommendations pursuant to the City’s water supply planning efforts (i.e., compliance with



California Plumbing Code, efficient appliances, efficient landscaping, etc.) should not negatively impact the City's water provision. For these reasons, a less than significant impact would occur as a result of the Project.

c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or through the addition of impervious surfaces, in a manner which would:

i. Result in substantial erosion or siltation on- or off-site?

Less than Significant Impact. Erosion is a natural process in which soil is moved from place to place by wind or from flowing water. The effects of erosion within the Project Area can be accelerated by ground-disturbing activities associated with development. Siltation is the settling of sediment to the bed of a stream or lake which increases the turbidity of water. Turbid water can have harmful effects to aquatic life by clogging fish gills, reducing spawning habitat, and suppress aquatic vegetation growth.

Implementation of the proposed Project would result in the development of agricultural lands. Bare soils, common within farmlands, are more susceptible to erosion than an already developed urban land, thus it is expected erosion would occur on-site. During construction activities, and in compliance with the Project's Stormwater Pollution Prevention Plan (SWPPP), construction-related erosion controls and BMPs would be implemented to reduce potential impacts related to erosion and siltation. These BMPs would include, but are not limited to, covering and/or binding soil surfaces to prevent soil from being detached and transported by water or wind, and the use of barriers such as straw bales and sandbags to control sediment. Together, the controls and BMPs are intended to limit soil transportation and erosion.

In addition, the Project would increase impervious surfaces by installing paving, concrete pads, and sidewalks. In order to adequately discharge and capture stormwater runoff, the Project has been conditioned by the FMFCD to construct private facilities including temporary facilities for South West Avenue until permanent drainage service is available. In addition, the proposed drainage pattern is required to be constructed per regulations of the Storm Drainage and Flood Control Master Plan and will be reviewed by the FMFCD to ensure proper drainage. Consequently, this review and approval by the FMFCD and compliance with standard requirements would mean that the Project would result in a less than significant impact.

ii. Substantially increase the rate or amount of surface runoff in a manner, which would result in flooding on- or off-site?

Less than Significant Impact. The FMFCD has reviewed the Project and has required construction of private facilities including temporary drainage facilities for South West Avenue until permanent drainage service is available. Such facilities are required to comply with the Storm Drainage and



Flood Control Master Plan and Project-specific grading and drainage plans are subject to review by the FMFCD prior to the final development approval. Therefore, provision of private facilities and temporary facilities as approved by the FMFCD would ensure that surface runoff is controlled in a manner which would not result in flooding on- or off-site. For this reason, a less than significant impact would occur because of the Project.

iii. Create or contribute runoff water, which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?

Less than Significant Impact. As previously mentioned, the FMFCD has reviewed the Project and has required construction of private facilities including temporary drainage facilities for South West Avenue until permanent drainage service is available. Such facilities are required to comply with the Storm Drainage and Flood Control Master Plan and Project-specific grading and drainage plans are subject to review by the FMFCD prior to the final development approval. Therefore, provision of private facilities and temporary facilities as approved by the FMFCD would ensure that surface runoff is controlled in a manner which would not result in the creation or contribution of runoff water that would exceed the capacity of existing or planned stormwater drainage services or provide substantial additional sources of polluted runoff. For this reason, a less than significant impact would occur because of the Project.

iv. Impede or redirect flood flows?

Less than Significant Impact. Although the construction of the proposed Project would increase impervious surfaces, the Project would not alter drainage patterns because Project-specific grading and drainage plans are required to be reviewed by the FMFCD before development approval. Further, the Project is subject to construction of master plan facilities in addition to temporary facilities in order to adequately serve the Project. As a result, the Project would not impede or redirect flood flows and a less than significant impact would occur as a result.

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

Less than Significant Impact. The Project site is not in a flood hazard, tsunami, or seiche zone (i.e., standing waves on river, reservoirs, ponds, and lakes); there are no oceans, rivers, reservoirs, ponds, or lakes on or within the site and its vicinity. The Project site is designated as Zone X on the most recent Flood Insurance Rate Map (FIRM) No. 06019C2105H dated February 18, 2009. Zone X is an area of minimal flood hazards with a 0.2 percent-annual-chance of flood (i.e., 500-year flood). In addition, the Project area as well as the City of Fresno as a whole has historically been subject to low to moderate ground shaking and has a relatively low probability of shaking. As such, seiches are unlikely to form due to the low seismic energy produced in the area. Therefore, as a



low-risk area, a less than significant impact as it relates to the risk release of pollutants due to project inundations would occur as a result of the Project.

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

Less than Significant Impact. A groundwater sustainability plan was adopted for the Kings Groundwater Sub-basin on November 21, 2019, by the North Kings Groundwater Sustainability Agency, of which the City of Fresno is a member.¹⁵ The proposed Project is required to comply with the adopted plan (North Kings Groundwater) to meet the 2040 sustainability deadline for the basin. As mentioned above, surface water will largely be the source of supply in wet hydrologic periods, groundwater will be used in a managed manner in normal hydrologic periods and relied upon more in very dry periods. Through 30 years of diligent water resource planning and construction of surface water treatment facilities, inclusive of the Southeast Surface water Treatment Facility (which is a project within the sustainability plan), the City has largely attained the balanced use of groundwater supplies well ahead of the legislative requirement of 2040, thus making the City compliant with the North Kings Groundwater Sustainability Plan goals. For these reasons, a less than significant impact would occur because of the Project.

4.10.3 Mitigation Measures

None Required.

¹⁵ North Kings Groundwater Sustainability Agency (2020). Groundwater Sustainability Plan. Accessed October 6, 2021, <https://northkingsgsa.org/groundwater-sustainability-plan/>



4.11 LAND USE PLANNING

Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Physically divide an established community?			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	

4.11.1 Environmental Setting

The Project site is within the city limits of Fresno and has a planned land use designation of Residential – Medium Density and is in the RS-5 – Residential Single-Family, Medium Density Zone District. Plan Amendment and Rezone Application No. P20-04209 requests to change the existing land use designation to Employment – Light Industrial and the existing zoning designation to IL – Light Industrial.

The Project site is located in an area generally characterized by a mix of existing land uses including industrial (north), open space – ponding basin (south), open space - agriculture (east), and junk yard (west). Aside from the surrounding parcels with existing operations, the Project area is characterized by several large parcels that are vacant and undeveloped. In addition, there are limited street frontage improvements present (i.e., curb, gutter, sidewalk, storm-drains, or streetlights) along West Church Avenue or South West Avenue, with the exception of some improvements located on West Church Avenue and South West Avenue north of the Project site.

Implementation of the Project would introduce a new industrial use that is generally consistent with the existing land uses in the Project area. In addition, the Project would improve vehicular roadways and pedestrian and bicycle paths and lanes through street frontage improvements.

4.11.2 Impact Assessment

- a) *Physically divide an established community.*



Less than Significant Impact. Typically, physical division of an established community would occur if a project created a physical barrier that impeded access within the community, or new incompatible uses inconsistent with the planned or existing land uses. A typical example is the introduction of new, intersecting roadways.

The Project site is an undeveloped, vacant property within an area that is characterized by several large parcels that are also undeveloped and vacant. In the immediate vicinity of the Project, existing land uses include industrial (north), open space (south and east), and junk yards (west). Further, the operator of the proposed Facility, Busseto Food, has an existing facility located north of the site across West Church Avenue. The surrounding properties are planned for a mix of uses including employment (north and west), open space (south), and residential (east). The Project would include a plan amendment and rezone to allow for light industrial uses. Such uses would be consistent and therefore compatible with the existing uses surrounding the Project site.

The existing roadway infrastructure that serves the Project site and surrounding properties includes West Church Avenue and South West Avenue. Implementation of the Project would improve these roadways and introduce additional pedestrian and bicycle paths and lanes through required street frontage improvements. Thus, new, intersecting roadways that physically divide an established community would not result from the Project.

As such, the Project does not represent a significant change in the surrounding area as it will develop a vacant and undeveloped site with light industrial uses that are consistent and compatible with existing uses surrounding the Project site. In addition, the Project does not include new roadways. For these reasons, the Project would not result in the physical divide of an established community and would thereby have a less than significant impact.

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?

Less than Significant Impact. Although zoning and land use designation changes are proposed, policy conflicts are environmental impacts only when they would result in direct physical impacts or where those conflicts relate to avoiding or mitigating environmental impacts. As such, associated physical environmental impacts are discussed in this document under specific topical sections, such as Biological Resources, Cultural Resources, and Tribal Cultural Resources; however, a discussion of certain land use plans, policies, and regulations that are applicable to the proposed Project are included below. **Table 4-23** provides a comparison of the Project's characteristics with all applicable policies included in the General Plan as they relate to land use issues. As discussed below, the proposed Project is generally consistent with the General Plan.

Table 4-23 Discussion on Land Use Policies in the General Plan



General Plan Policy	Project Consistency
<p><i>Policy LU-7-b Business and Industrial Parks.</i> Promote business and industrial park sites that are of sufficient size, unified in design, and diversified in activity to attract a full range of business types needed for economic growth.</p>	<p>The Project site is located across from one of the current operating facilities located at 1090 West Church Avenue. Currently, Busseto Foods operates at 1090 West Church, has a Distribution Center and offices at 1351 North Crystal Avenue, and leases freezers at 2413 South Fruit Avenue. The proposed Project seeks to develop a new Facility of sufficient size and design that will encompass all existing activities of Busseto Foods. Thus, the Project is consistent with Policy LU-7-b in that it promotes development of an industrial site that is sufficient in size, unified in design, and diversified in activity to meet current and future business needs for growth.</p>
<p><i>Policy LU-7-c Efficiency of Industrial Uses.</i> Promote industrial land use clusters to maximize the operational efficiency of similar activities.</p>	<p>As previously mentioned, the proposed Project would develop a Facility that encompasses all existing activities of Busseto Foods under one (1) roof. In addition, the proposed use is generally consistent with industrial uses to the north of the site. Thus, the Project is consistent with Policy LU-7-c in that it would maximize the operational efficiency of an existing industrial land use cluster.</p>
<p><i>Policy LU-7-e Shared Parking for Industrial Uses.</i> Promote use of shared surface parking and other arrangements necessary to meet industrial needs with updated parking regulations.</p>	<p>Through the entitlement and development approval process, the Project has been reviewed and conditioned by the City to comply with all applicable regulations and standards including those within the Development Code. As currently configured, the Project does not have an opportunity for shared surface parking but has been conditioned to meet parking regulations applicable to industrial uses.</p>

The project is also located within the Southwest Fresno Specific Plan area (SWSP). Although there are policies related to industrial uses that the project may not be strictly in compliance with, the non-compliance with not result in a significant environmental impact due to the conflict with the land use plan, policy, or regulation adopted. The major concerns related to industrial uses in the SWSP are related to air quality and traffic. As demonstrated in this document, the environmental impacts from this project on air quality are below all thresholds, and the Vehicle Miles Traveled (VMT) for this project are below the VMT that would be associated with a residential development on the site.

Further, through the entitlement process, the Project is reviewed for compliance with applicable regulations inclusive of those adopted for the purpose of avoiding or mitigating environmental effects. Overall, the entitlement process would ensure that the Project complies with the General Plan, Municipal Code, and any other applicable policies. As such, the Project would have a less than significant impact.



4.11.3 Mitigation Measures

None required.



4.12 MINERAL RESOURCES

Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?				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

4.12.1 Environmental Setting

The California Geological Survey (CGS) classifies and designates areas within California that contain or potentially contain significant mineral resources. Lands are classified into Aggregate and Mineral Resource Zones (MRZs), which identify known or inferred significant mineral resources. According to the California Department of Conservation, CGS’s Surface Mining and Reclamation Act (SMARA) Mineral Lands Classification (MLC) data portal, the nearest mineral resource areas to the city of Fresno are in the San Joaquin and Kings River areas which are classified as Mineral Resource Zone (MRZ)-3. The Project site is more than nine (9) miles south of the San Joaquin River and more than 17 miles west of the Kings River.

4.12.2 Impact Assessment

- 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?*

No Impact. The Project site is not located in an area designated for mineral resource preservation or recovery. Therefore, the Project would not 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. Therefore, no impact would occur as a result of the Project.



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?

No Impact. As described above, the Project site is not located in an area designated for mineral resource preservation or recovery and as a result, the Project would not 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. Further, the site is not delineated on the General Plan, a Specific Plan, or other land use plan as a locally important mineral resource recovery site, thus it would not result in the loss of availability of a locally important mineral resource. Therefore, no impact would occur as a result of the Project.

4.12.3 Mitigation Measures

None required.



4.13 NOISE

Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity 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	

4.13.1 Environmental Setting

In general, there are two (2) types of noise sources: 1) mobile source and 2) stationary sounds. Mobile source noises are typically associated with transportation including automobiles, trains, and aircraft. Stationary sounds are sources that do not move such as machinery or construction sites. Two (2) noise generating activities of the Project would include construction (short-term, temporary) and operational (long-term) noise.

The Fresno General Plan Noise Element and Fresno Municipal Code (FMC) outlines policies and regulations to mitigate health effects of noise in the community and prevent exposures to excessive noise levels. In particular, General Plan Policy *NS-1-a* establishes a maximum average noise level of 70 dBA L_{dn} or CNEL at industrial uses and Policy *NS-1-j* establishes the significance



threshold for a significant increase generated by a project as an increase of 3 dB L_{dn} or CNEL or more above the established, acceptable ambient noise levels.

Section 10-102 of the FMC also sets an ambient base noise level of 70 dBA for industrial uses. Section 10-106 prohibits any noise that exceeds the ambient noise level at receiving residential properties by more than 5 dB, while Section 10-107 prohibits any noise which “disturbs or unduly annoys” people within schools, hospitals, or churches. Regarding construction-related noise impacts, Section 10-109 of the FMC permits construction work to take place between 7:00 am and 10:00 pm on any day except Sunday, for work that is accomplished pursuant to a building permit.

Sensitive land uses include residential, schools, churches, nursing homes, hospitals, and open space/recreation areas. Commercial, farmland, and industrial areas are not considered noise sensitive and generally have higher tolerances for exterior and interior noise levels. The nearest sensitive receptor to the Project site is a single-family residence located approximately 500 ft. west of the Project site.

Noise Monitoring

Ambient noise monitoring was conducted in the Project area by PlaceWorks in May 2017 for technical analyses to be included in the Southwest Fresno Specific Plan EIR.¹⁶ PlaceWorks conducted long-term (24-hour) and short-term (15-minute) measurements. Of the measurements conducted, Short-Term (ST) Measurement Location – 4 (ST-4) was the closest measurement to the Project site. ST-4 was located approximately 300-feet northeast of the existing Busseto Foods Facility and approximately 390-feet north of the proposed Facility. According to the Southwest Fresno Specific Plan EIR:

“Short-term noise monitoring Location 4 was located on the property of Foster Poultry Farms, along Teilman Avenue approximately 375 feet north of Church Avenue. Fifteen minutes of noise measurements were taken beginning at 4:10 p.m. on Wednesday, May 17, 2017, at which time the air temperature was 79°F with 26 percent RH, and winds were light, at approximately 3-5 mph. The noise environment of this site was primarily controlled by industrial noise (i.e., workpiece noise, machinery ‘hum’, truck movements), parking lot noise, and by roadway noise along Church Avenue.” (Page 4.11-18)

¹⁶ City of Fresno (2017). Southwest Fresno Specific Plan Environmental Impact Report. Accessed October 6, 2021, <https://www.fresno.gov/darm/wp-content/uploads/sites/10/2016/10/SouthwestFresnoSpecificPlanPublicReviewDEIR.pdf>



The results of the short-term noise measurement at ST-4 were: 54 L_{\min} , 60 L_{eq} , and 76 L_{\max} .

FHWA Highway Traffic Noise Prediction Model

PlaceWorks estimated traffic noise levels using the FHWA Highway Traffic Noise Prediction Model for technical analyses to be included in the Southwest Fresno Specific Plan EIR in 2017. Specifically, the model was used to estimate the noise level increases on roadways over existing conditions at 50 feet from the centerline of roadways studied. In regard to the proposed Project, the most applicable roadway segment studied was West Church Avenue, from South West Avenue to South Walnut Avenue. This particular segment was found to have an existing dBA CNEL of 60.9, with an estimated increase of 7.4 based on the buildout of the Southwest Fresno Plan Area. This increase was found to result in a potentially significant impact for which the EIR considered a number of mitigation measures. However, the EIR concluded there were no feasible mitigation measures available that would reduce noise impacts to a less than significant level and as such, the traffic noise impact is significant and unavoidable.

4.13.2 Impact Assessment

- 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 in other applicable local, state, or federal standards?*

Less than Significant Impact. Noise generating activities of the Project would include traffic noise and stationery-source noise, such as operations and construction as described below. Overall, the Project would result in a less than significant impact in regard to noise.

Traffic Noise

Development of the Project would increase traffic along West Church Avenue and South West Avenue. As defined by the General Plan, a substantial increase would be a noise increase greater than 3 dBA over existing conditions. Traffic noise levels for the roads surrounding the Project site were estimated for the Southwest Fresno Specific Plan EIR using the FHWA Highway Traffic Noise Prediction Model, inclusive of West Church Avenue, from South West Avenue to South Walnut Avenue.¹⁷ The model indicated an increase that was found to result in a potentially significant impact for which the EIR considered mitigation measures. Although the ITE trip generation for

¹⁷ City of Fresno (2017). Southwest Fresno Specific Plan Environmental Impact Report. Accessed October 6, 2021, <https://www.fresno.gov/darm/wp-content/uploads/sites/10/2016/10/SouthwestFresnoSpecificPlanPublicReviewDEIR.pdf>



“General Light Industrial” uses is higher than the previously analyzed Single-Family land use, the proposed project only anticipates between 10 and 13 truck trips per day and approximately 160 employees are projected to work at the Facility.

Truck trips associated with the Facility will consist of shipping, receiving, and freezer activities during weekdays, Monday through Friday, from either 8:00 am to 12:30 pm or 1:00 to 5:00 pm. In total, the Project anticipates between 10 and 13 truck trips per day. In addition to these anticipated trips, the Facility is expected to send and receive UPS and FedEx shipments and deliveries during weekdays, Monday through Friday. Pallet truck deliveries are expected one (1) to two (2) times a month and solid waste collection is expected to occur weekly as required by the City of Fresno.

Based on this, the worst-case scenario is that this facility would generate less than 400 trips per day $((160+13+20) * 2)$. This is much lower than the 1,520 average daily trips that would be associated with the development of 160 single family homes.

Overall, the EIR concluded there were no feasible mitigation measures available that would reduce traffic noise impacts to a less than significant level, and as a result, the impact is significant and unavoidable.

Stationary-Source Noise

Operations: Stationary-source noise would result from Project operations, including the production of dried cured meats and shipping and receiving activities. The production of dried cured meats involves a lengthy process of fermentation and air-drying. The raw, uncured meat products are shipped to the Facility on a weekly basis where they are stored until production begins. Production consists of slicing, grinding, and/or stuffing the meats and then air drying. Equipment used includes large grinders, stuffers, slicers, and drying racks. The Facility will utilize slicing lines and auto-filling equipment for the meats. The drying room will have regulated temperatures and humidity appropriate for air drying. The Facility will operate five (5) days per week, Monday through Friday, from 5:00 am to 10:30 pm. Shifts will comprise one (1) production shift (5:00 am to 2:00 pm) and two (2) slicing and packaging shifts (5:00 am to 1:30 pm and 2:30 pm to 10:30 pm). Based on the extent of the anticipated Facility operations, additional stationary noise sources can be expected from the mechanical equipment, refrigeration and HVAC systems. Such noise sources can be expected to be intermittent and generally localized within the Facility.



Based on a study prepared by the International Journal of Public Health¹⁸, the noise associated with slicing and packaging of cured meats within this type of facility is in the range of 85-90 dBA.

As mentioned above, Section 10-102 of the FMC sets an ambient base noise level of 70 dBA for industrial uses. The building is proposed to be constructed as a concrete tilt-up building. A 150 mm precast concrete panel would provide at least 50 dB reduction of sound levels¹⁹, thus reducing interior noise levels to well below the 70dBA threshold.

Additional noise can be attributed to the loading docks. However, as discussed above and the project description, daily truck traffic to the site will be minimal, and based on state law, truck idling for more than 5 minutes is prohibited. In addition, the business, as part of their normal operation, has committed to tractor trailers on site during loading and unloading not being permitted to idle their engines. All trucks will be equipped with electrical refrigeration units that will “plug in” at the loading bays. This combined with the block wall along the property line, will reduce impacts to less than significant. The Project would also be subject to compliance with the General Plan Noise Element and FMC requirements to ensure that the ambient noise level does not increase at receiving residential properties by more than 5 dB.

As mentioned above, the Project proposes a non-residential use abutting a residential zone district, the Project will be required to comply with FMC *Section 15-2008(B)*, “**Common Property Lines**. A six-foot-high screen wall shall be provided on the interior lot lines where any non-residential use abuts a residential district and where multi-family development of four or more units abuts a single-family residential district. Walls shall step down to three feet in height along interior property lines within front yards.” In addition, the Project is subject to compliance with the Uniform Building Code, which contains sound transmission control requirements including noise insulation standards. Therefore, compliance with applicable regulations would ensure that stationary-source noise does not increase to a level of significance and as a result, a less than significant impact would occur.

Construction: Stationary-source noise would result from construction activities through the use of construction equipment for grading the site and building the proposed structures. The Project is anticipated to begin construction in February 2022 with full buildout by January 2023. Construction phases would include standard construction activities such as site preparation, grading/excavation, draining/utilities/trenching, foundations/concrete pour, building

¹⁸ <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7504514/>

¹⁹ <https://www.nationalprecast.com.au/wp-content/uploads/2015/10/Acoustic-properties-of-precast-concrete.pdf>



construction, and paving. These activities would be temporary and would generally take place Monday through Friday between 7:00 am and 7:00 pm, as permitted by FMC Section 10-109. Overall, Project construction is not expected to result in a significant impact because the noise would be generated during daylight hours and not during evening or more noise-sensitive time periods; and the increase in noise would cease upon completion of the Project. For these reasons, a less than significant impact would occur.

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

Less than Significant Impact. Ground borne vibration may result from operations and/or construction, depending on the use of equipment (e.g., pile drivers, bulldozers, jackhammers, etc.), distance to affected structures, and soil type. Depending on the method, equipment-generated vibrations could spread through the ground and effect nearby buildings. It is not anticipated that the Project would generate excessive ground borne vibration or ground borne noise levels, given the type of improvements and operations associated with the development, which include meat slicing and griding, as described above. Further, construction or operation of the Project would not involve equipment that would generate substantial groundborne vibration of ground borne noise levels. As discussed under criteria a), project-generated stationary noise sources including construction and operational activities would not exceed standards of the General Plan or the FMC. Further, there are no sensitive receptors (e.g., residences and schools) that are adjacent to the Project site or within 50-100-ft. The nearest sensitive receptor is a single-family residence located approximately 500-ft. west of the Project site. Thus, the Project would result in a less than significant impact.

c) 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 expose people be residing or working in the project area to excessive noise levels?

Less than Significant Impact. The nearest public airport/public use airport is the Fresno-Chandler Executive Airport approximately \pm one (1)-mile north of the Project site. The Project site is located within the Fresno-Chandler Executive Airport, Airport Influence Area (AIA) but is outside of the airport's 60 dBA CNEL and 65 dBA CNEL noise contours. Because the Project is within the AIA, it is subject to the Fresno County Airport Land Use Compatibility (ALUC) Plan and is required to be reviewed by the Fresno County Airport Land Use Commission (ALUC). The Project was reviewed by the ALUC on Monday, October 4, 2021. The ALUC approved a conditional finding of consistency contingent upon approval of airspace analysis under Part 77 from the FAA. In addition, as discussed above, the Project would be required to comply with regulations set by the General Plan and FMC regarding noise. For these reasons, it can be determined that the Project would not expose people



residing or working in the area to excessive noise levels and as a result, the Project would have a less than significant impact.

4.13.3 Mitigation Measures

The proposed Project shall implement and incorporate, as applicable, the noise related mitigation measures as identified in the attached Southwest Fresno Specific Plan EIR Mitigation Monitoring and Reporting Program dated October 15, 2021.



4.14 POPULATION AND HOUSING

Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Induce substantial unplanned population growth in an area, either directly (for example, by 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

4.14.1 Environmental Setting

CEQA Guidelines Section 15126.2(d) requires that a CEQA document discuss the ways in which the proposed Project could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment. The CEQA Guidelines provide the example of a major expansion of a wastewater treatment plant that may allow for more construction within the service area. The CEQA Guidelines also note that the evaluation of growth inducement should consider the characteristics of a project that may encourage or facilitate other activities that could significantly affect the environment. Direct and Indirect Growth Inducement consists of activities that directly facilitate population growth, such as construction of new dwelling units.

4.14.2 Impact Assessment

- 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)?*

Less than Significant Impact. The Project does not represent a significant change in the surrounding area as it will develop a vacant and undeveloped property with a use that is compatible with the existing land uses within the area. While the Project would generate



employment, it would not be at a level that could induce population growth. In addition, employees who currently work at the existing Busseto Facility across West Church Avenue would be transferred to the Project site. For these reasons, the Project would not induce substantial unplanned population growth directly or indirectly and would therefore have a less than significant impact.

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

Less than Significant Impact. The Project site is vacant and undeveloped, with no improvements, people, or housing on site. Thus, development of the Project site would not result in the physical displacement of people or housing. However, because the Project proposes a change in land use and zoning that would reduce residential density, the Project is subject to Senate Bill (SB) 330 (Housing Crisis Act of 2019) and the City is required to upzone an equivalent amount of residential density elsewhere within the city of Fresno (i.e., achieve a “no net loss”). This requirement is subject to review and approval by the City prior to development approval. Thus, through compliance with SB 330, a less than significant impact would occur as a result of the Project.

4.14.3 Mitigation Measures

None required.



4.15 PUBLIC SERVICES

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

4.15.1 Environmental Setting

The Project is located within Fresno city limits and thus, would be subject to fees for the construction, acquisition, and improvements for such services. These services and fees include:

Fire Protection Services

Fire Protection Services in the city are provided by the Fresno Fire Department (FFD). The FFD operates a total of 24 fire stations/companies that serve a 336-square-mile area. To facilitate adequate service ratios, response times, or other performance objectives for fire protection services, all development in the city of Fresno is required to be located within three (3) miles of an existing fire station. There are three (3) fire stations within a three (3)-mile radius of the proposed Project, including Station 3, Station 7, and Station 19. To address impacts to fire protection services, the City of Fresno has implemented the Fire Facilities Fee pursuant to Section



12-4.901 of the FMC, which requires developers to pay the “fair share” of construction and acquisition costs for improvements to fire department facilities. A Fire Facilities Impact Fee has been assessed for the proposed Project based on the Facility size.

Police Protection Services

Police Protection Services in the city are provided by the Fresno Police Department (FPD). The FPD is divided into five (5) policing districts. The Project falls within the Southwest Policing District and the nearest police station to the proposed Project is located approximately two (2) miles northeast of the site at 1211 Fresno Street., Fresno, CA 93706. According to the FPD Annual Report for 2020, Southwest officers received over 71,000 calls for service in 2020. The City uses a minimum level of service of two (2) officers per 1,000 residents. To address impacts to police protection services, the City of Fresno has implemented the Police Facilities Fee pursuant to Section 12-4.801 of the FMC, which requires developers to pay the “fair share” of construction and acquisition costs for improvements to police protection services and facilities. A Police Facilities Fee has been assessed for the proposed Project based on the Facility size.

Schools

Educational services within the Project area are primarily served by Fresno Unified School District. Schools within a one (1)-mile radius of the Project site include Sunset Elementary, Edison Computech, and Edison High School. Funding for schools and school facilities impacts is outlined in Education Code Section 17620 and Government Code Section 65995 et. seq., which governs the amount of fees that can be levied against new development. These fees are used to construct new or expanded school facilities. Payment of fees authorized by the statute is deemed “full and complete mitigation.” A School Impact Fee has been assessed for the proposed Project based on the Developer Fee rates in place at the time payment is due.

Parks and Recreation

Park and Recreation Facilities are overseen by the Fresno Parks and Recreation Department, Parks, After School, Recreation, and Community Services (PARCS). The City’s service standard for parks is at least three (3) acres of public parkland per 1,000 residents. Similar to other public services, the City had established the Park Facilities Fee which requires developers to pay the “fair share” of construction and acquisition for improvements to park facilities. However, this fee is only applicable to residential development and therefore would not be required for the Project.



4.15.2 Impact Assessment

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

i. *Fire protection?*

Less than Significant Impact. The Project site is within the city limits and therefore would be served by the FFD. There are three (3) fire stations within a three (3)-mile radius of the proposed Project, including Station 3, Station 7, and Station 19. The Project's proximity to existing stations would support adequate service ratios, response times, and other performance objectives for fire protection services. In addition, the FFD reviewed the Project for requirements related to water supply, fire hydrants, and fire apparatus access to the building(s) on site. According to FFD's review, there are existing 12-inch public water mains and public fire hydrants in both South West Avenue and West Church Avenue. In addition to these existing facilities, FFD requires the Project to have private fire hydrants, fire sprinklers, FFD connections, and a fire pump room to adequately serve the Project. Further, the Project is subject to the Fire Facilities Fee for construction and acquisition costs for improvements to fire department facilities. For these reasons, it can be determined that the Project can be served by existing facilities and would not result in the need for new or altered facilities and as a result, a less than significant impact would occur.

ii. *Police protection?*

Less than Significant Impact. The Project site is within the city limits and therefore would be served by the FPD. The Project site is within the Southwest Policing District and the nearest police station to the proposed Project is located approximately two (2) miles northeast of the site. The Southwest Policing District reviewed the Project and did not provide any comments. Because the Project would not result in a net increase in the area population, it can be presumed that the Project would have little to no impact on the FPD's service ratio minimum for police officers to residents. Further, the Project is subject to the Police Facilities Fee for construction and acquisition costs for improvements to police protection services and facilities. For these reasons, it can be determined that the Project can be served by existing facilities and would not result in the need for new or altered facilities and as a result, a less than significant impact would occur.

iii. *Schools?*

No Impact. The Project proposes an industrial use and would therefore not result in an increase in the area population. Thus, because of the nature of the Project, there would be no increased demand for schools as a result of the Project. Further, the Project is subject to applicable School Impact Fees to mitigate any impacts. For these reasons, it can be determined that the Project



would not result in the need for new or altered facilities and as a result, no impact would occur as a result of the Project.

iv. Parks?

No Impact. Park and recreational facilities are typically impacted by an increase in use from proposed residential development. The Project proposes an industrial use and would not result in a net increase in the area population. Thus, because of the nature of the Project, there would be no increased demand for recreational facilities as a result of the Project that would impact the City's service standard. Therefore, no impact would occur as a result of the Project.

v. Other public facilities?

No Impact. As previously discussed, the Project would not result in an increase in residents that would require other public services such as libraries or post offices. Thus, the Project would not result in the need for new or altered facilities to provide other public services and no impact would occur as a result of the Project.

4.15.3 Mitigation Measures

The proposed Project shall implement and incorporate, as applicable, the public services and recreation related mitigation measures as identified in the attached Southwest Fresno Specific Plan EIR Mitigation Monitoring and Reporting Program dated October 15, 2021.



4.16 RECREATION

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

4.16.1 Environmental Setting

Park and Recreation Facilities are overseen by the Fresno Parks and Recreation Department, Parks, After School, Recreation, and Community Services (PARCS). The City’s service standard for parks is at least three (3) acres of public parkland per 1,000 residents. Similar to other public services, the City had established the Park Facilities Fee which requires developers to pay the “fair share” of construction and acquisition for improvements to park facilities. However, this fee is only applicable to residential development and therefore would not be required for the Project.

4.16.2 Impact Assessment

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

No Impact. Park and recreational facilities are typically impacted by an increase in use from proposed residential development. The Project proposes an industrial use and would not result in a net increase in the area population. Thus, the Project would not increase the use of existing neighborhood and regional parks or other recreational facilities. Because the Project would not increase the use of such facilities, it can be presumed that the Project would not result in or accelerate the substantial physical deterioration of such facilities. Therefore, no impact would occur as a result of the Project.



b) Include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?

No Impact. The Project proposes an industrial use that does not include recreational facilities or require the construction or expansion of recreational facilities. Therefore, no impact would occur as a result of the Project.

4.16.3 Mitigation Measures

The proposed Project shall implement and incorporate, as applicable, the public services and recreation related mitigation measures as identified in the attached Southwest Fresno Specific Plan EIR Mitigation Monitoring and Reporting Program dated October 15, 2021.



4.17 TRANSPORTATION

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

4.17.1 Environmental Setting

The Project site is bound to the north and west by collector roadways, West Church Avenue and South West Avenue. West Church Avenue is a two (2)-lane east-west collector and South West Avenue is a two (2)-lane north-west collector. Traffic volumes on these roadways were collected by Fehr and Peers, spanning a three (3)-year period between June 2014 and May 2017. According to this data, West Church Avenue has an average daily roadway volume of 2,600 and South West Avenue has an average daily roadway volume of 900. At present, no fixed-route transit service, bicycle facilities, or pedestrian facilities serve the Project site.

Vehicle Miles Traveled (VMT) Analysis

A Vehicle Miles Traveled (VMT) Analysis was conducted for the Project by JLB Traffic Engineering, Inc. on June 10, 2021 ([Appendix D](#)). Because the Project proposes a General Plan Amendment and Rezone, a quantitative VMT analysis is required pursuant to the City of Fresno VMT Thresholds adopted in June 2020. JLB Traffic Engineering therefore conducted a quantitative analysis



prepared utilizing the Fresno Council of Governments (COG) Activity Based Model (ABM). The results of the analysis indicated the Project has an average VMT per employee of 17.60, which is within the City of Fresno's threshold for commercial non-retail uses of 22.30 VMT per employee. The analysis concluded there are no impacts to VMT associated with this Project.

4.17.2 Impact Assessment

- a) Conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities?*

Less than Significant Impact. The Project would be required to comply with all project level requirements implemented by a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities. Based on Engineering comments prepared for the project, frontage improvements including sidewalk, curb, gutter, and streetlights will be constructed along West Church Avenue and South West Avenue. The project will include the dedication of property for right-of-way purposes along Church Avenue, West Avenue and Teilman Avenues. The project will also be required to install a signal pole with a 150-watt equivalent LED safety light and an oversize street sign to Public Works Standards at the southeast corner of Church Avenue and West Avenue., . The Project is also required to submit improvement plans, including roadway improvements, for review and approval by the City Engineer to ensure improvements will be consistent with City standards and plans. These City standards and plans include the Fresno Municipal Code, the Fresno General Plan, the Active Transportation Plan, and Public Works Standards and Specifications. Therefore, through compliance with the programs, plans, ordinances, and policies addressing the circulation system (inclusive of transit, roadway, bicycle, and pedestrian facilities), a less than significant impact would occur because of the Project.

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

Less than Significant Impact. Senate Bill (SB) 743 requires that relevant CEQA analysis of transportation impacts be conducted using a metric known as vehicle miles traveled (VMT) instead of Level of Service (LOS). VMT measures how much actual auto travel (additional miles driven) a proposed project would create on California roads. If the project adds excessive car travel onto our roads, the project may cause a significant transportation impact.

The State CEQA Guidelines were amended to implement SB 743, by adding Section 15064.3. Among its provisions, Section 15064.3 confirms that, except with respect to transportation projects, a project's effect on automobile delay shall not constitute a significant environmental impact. Therefore, LOS measures of impacts on traffic facilities are no longer a relevant CEQA criteria for transportation impacts.



CEQA Guidelines Section 15064.3(b)(4) states that “[a] lead agency has discretion to evaluate a project’s vehicle miles traveled, including whether to express the change in absolute terms, per capita, per household or in any other measure. A lead agency may use models to estimate a project’s vehicle miles traveled and may revise those estimates to reflect professional judgment based on substantial evidence. Any assumptions used to estimate used to estimate vehicle miles traveled and any revision to model outputs should be documented and explained in the environmental document prepared for the project. The standard of adequacy in Section 15151 shall apply to the analysis described in this section.”

On June 25, 2020, the City of Fresno adopted CEQA Guidelines for Vehicle Miles Traveled Thresholds, dated June 25, 2020, pursuant to Senate Bill 743 to be effective of July 1, 2020. The thresholds described therein are referred to herein as the City of Fresno VMT Thresholds. The City of Fresno VMT Thresholds document was prepared and adopted consistent with the requirements of CEQA Guidelines Sections 15064.3 and 15064.7. The December 2018 Technical Advisory on Evaluating Transportation Impacts in CEQA (Technical Advisory) published by the Governor’s Office of Planning and Research (OPR), was utilized as a reference and guidance document in the preparation of the Fresno VMT Thresholds.

The City of Fresno VMT Thresholds adopted a screening standard and criteria that can be used to screen out qualified projects that meet the adopted criteria from needing to prepare a detailed VMT analysis.

For a General Plan Amendment or Rezone: The City of Fresno VMT Thresholds Section 3.1 regarding Development Projects states that if a project constitutes a General Plan Amendment or a Rezone, none of the screening criteria may apply, and that the City must evaluate such projects on a case-by-case basis. Here the Project includes both a General Plan Amendment and a Rezone and does not meet the screening criteria. As such, a quantitative VMT analysis is required.

For projects that are not screened out, a quantitative analysis of VMT impacts must be prepared and compared against the adopted VMT thresholds of significance. The Fresno VMT Thresholds document includes thresholds of significance for development projects, transportation projects, and land use plans. These thresholds of significance were developed using the County of Fresno as the applicable region, and the required reduction of VMT (as adopted in the Fresno VMT Thresholds) corresponds to Fresno County’s contribution to the statewide GHG emission reduction target. In order to reach the statewide GHG reduction target of 15%, Fresno County must reduce its GHG emissions by 13%. The method of reducing GHG by 13% is to reduce VMT by 13% as well.

The City’s adopted thresholds for development projects correspond to the regional thresholds set by the Fresno Council of Governments (COG). For residential and non-residential (except retail)



development projects, the adopted threshold of significance is a 13% reduction, which means that projects that generate VMT in excess of a 13% reduction from the existing regional VMT per capita or per employee would have a significant environmental impact. Projects that reduce VMT by more than 13% are less than significant. For retail projects, the adopted threshold is any net increase in VMT per employee compared to existing VMT per employee.

Quantitative assessments of the VMT generated by a development project are determined using the COG Activity Based Model (ABM), which is a tour-based model.

A quantitative VMT analysis was prepared by JLB Traffic Engineering, Inc. on June 10, 2021, utilizing the Fresno COG Activity Based Model (ABM). The complete results are in [Appendix D](#). To conduct the Project-specific VMT analysis, the Project’s trip generation, anticipated maximum number of employees, and square footage were used. Based on the results, the Project has an average VMT per employee of 17.60 which is within the City’s VMT threshold for commercial non-retail uses of 22.30 VMT per employee ([Table 4-24](#)). The VMT Analysis concludes there are no impacts to VMT associated with the Project because the Project’s anticipated VMT is less than the City’s VMT thresholds.

Table 4-24 Results from VMT Analysis

<i>Project Components</i>	<i>Fresno COG plus Project VMT Results</i>	<i>City of Fresno VMT Threshold</i>	<i>Significant VMT Impact?</i>
Commercial Non-Retail	17.60 /employee	22.30 / employee	No
<i>Source:</i> Fresno COG ABM, City of Fresno CEQA Guidelines for VMT Thresholds for the City of Fresno			

In conclusion, the Project will result in a less than significant impact concerning consistency with CEQA Guidelines section 15064.3(b).

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

Less than Significant Impact. The Project design does not contain any geometric design features that would create hazards. Implementation of the Project would require the improvement and expansion of the roadway network serving the Project site. As discussed under criterion a) above, the Project is subject to standard frontage improvements including curb, gutter, sidewalk, which would be designed pursuant to applicable federal, state, and local design standards. Compliance with such standards would ensure that any traffic hazards are minimized. Further, the Project proposes the development of a vacant site that is in an area generally characterized by a mix of existing land uses including industrial (north), open space (south and east), and junk yards (west). The surrounding properties are also planned for a mix of uses including employment (north and west), open space (south), and residential (east). Therefore, the Project does not propose an incompatible use as it is consistent with the existing development in the area and is similar in



nature to the surrounding uses. As a result, implementation of the Project would result in a less than significant impact related to hazards due to roadway design features or incompatible uses

d) Result in inadequate emergency access?

Less than Significant Impact. The Project does not involve a change to any emergency response plan. In addition, the City's Engineering Department and Fire Department have reviewed the Project and imposed standard conditions to ensure adequate site access including emergency access. In the case that Project construction requires lane closures, access through West Church Avenue and South West Avenue would be maintained through standard traffic control and therefore, potential lane closures would not affect emergency evacuation plans. Thus, a less than significant impact would occur because of the Project.

4.17.3 Mitigation Measures

The proposed Project shall implement and incorporate, as applicable, the transportation and traffic related mitigation measures as identified in the attached Southwest Fresno Specific Plan EIR Mitigation Monitoring and Reporting Program dated October 15, 2021.



4.18 TRIBAL CULTURAL RESOURCES

<p>Would the project: Cause a substantial adverse change in the significance of a tribal cultural resource, defined in PRC 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:</p>	<p>Potentially Significant Impact</p>	<p>Less than Significant with Mitigation Incorporated</p>	<p>Less than Significant Impact</p>	<p>No Impact</p>
<p>a) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in PRC section 5020.1(k), or</p>			<p>X</p>	
<p>b) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of PRC section 5024.1. In applying the criteria set forth in subdivision (c) of PRC section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.</p>			<p>X</p>	



4.18.1 Environmental Setting

Generally, the term ‘cultural resources’ describes property types such as prehistoric and historical archaeological sites, buildings, bridges, roadways, and tribal cultural resources. As defined by CEQA, cultural resources are considered “historical resources” that meet criteria in Section 15064.5(a) of the CEQA Guidelines. If a Lead Agency determines that a project may have a significant effect on a historical resource, then the project is determined to have a significant impact on the environment. No further environmental review is required if a cultural resource is not found to be a historical resource.

Assembly Bill 52 (AB 52) requires consultation with California Native American tribes during the CEQA process to determine potential effects of proposed projects on a tribal cultural resource. Pursuant to Public Resources Code (PRC) Section 21080.3.1, the lead agency shall begin consultation with the California Native American tribe that is traditionally and culturally affiliated with the geographical area of the proposed project. Such significant cultural resources are either sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a tribe which is either on or eligible for inclusion in the California Historic Register or local historic register, or, the lead agency, at its discretion, and support by substantial evidence, choose to treat the resources as a Tribal Cultural Resources (PRC Section 21074(a) (1-2)). According to the most recent census data, California is home to 109 currently recognized Indian tribes. Tribes in California currently have nearly 100 separate reservations or Rancherias.

Conducting consultation early in the CEQA process allows tribal governments, lead agencies, and project proponents to discuss the level of environmental review, identify and address potential adverse impacts to tribal cultural resources, and reduce the potential for delay and conflict in the environmental review process. (See PRC Section 21083.3.2.) Information may also be available from the California Native American Heritage Commission’s Sacred Lands File per PRC Section 5097.96 and the California Historical Resources Information System administered by the California Office of Historic Preservation. Please also note that PRC Section 21082.3(c) contains provisions specific to confidentiality.

Pursuant to Senate Bill 18 (SB 18), Native American tribes traditionally and culturally affiliated with the project area were invited to consult regarding the project based on a list of contacts provided by the Native American Heritage Commission (NAHC). This list includes tribes that requested notification pursuant to Assembly Bill 52 (AB 52). The City of Fresno mailed notices of the proposed project to each of these tribes, including the Table Mountain Rancheria Tribe and the Dumna Wo Wah Tribe, on January 1, 2021, which included the required 90-day time period for tribes to request consultation. The contacted tribes declined consultation.



Record Search

The Southern San Joaquin Valley Information Center (SJVIC) conducted a California Historical Resources Information System (CHRIS) Record Search for the Project site and surrounding area (0.25-mile radius) on October 5, 2020 (SJVIC File Number 20-352). The search results do not show any formally recorded prehistoric or historic archeological resources or historic buildings within the Project area or within the immediate vicinity of the Project area (i.e., 0.25-mile radius). In addition, no resources that are known to have value to local cultural groups have been formally reported to the SJVIC. The SJVIC Correspondence is provided in [Appendix C](#).

4.18.2 Impact Assessment

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

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

Less than Significant Impact. As discussed in Section 4.5, the Project site does not contain any property or site features that are eligible for listing in the California Register of Historical Sources, or in a local register of historical resources as defined in PRC Section 5020.1(k). Nevertheless, there is some possibility that a non-visible, buried site may exist and may be uncovered during ground disturbing construction activities which would constitute a significant impact. Implementation of Mitigation Measures as described in [Section 4.5](#) would reduce any impacts to less than significant.

- b) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.*

Less than Significant Impact. The Project site has not been determined by the City of Fresno to be a significant resource pursuant to Public Resources Code Section 5024.1 and to-date, no substantial information has been provided to the City to indicate otherwise. Further, the Project site, inclusive of site features, is not listed in the California Register of Historical Sources. However, there is some possibility that a non-visible, buried site may exist and may be uncovered during



ground disturbing construction activities which would constitute a significant impact. Implementation of Mitigation Measures as described in [Section 4.5](#) and below would reduce any impacts to less than significant.

MEIR Mitigation Measure CUL-5: Implement MEIR Mitigation Measures CUL-1, CUL-2, and CUL-4.

4.18.3 Mitigation Measures

None required.



4.19 UTILITIES AND SERVICE SYSTEMS

Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effect?			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	



4.19.1 Environmental Setting

The Project site is within city limits and thus, will be required to connect to water, sewer, stormwater, and wastewater services. Natural gas, electricity, and telecommunications are provided by private companies. Each utility system is described below.

Water

The City of Fresno Water Division manages and operates the City of Fresno's water system. Fresno meets its demand for domestic water from a combination of groundwater, treated surface water, and reclaimed water sources. Groundwater is accessed from the Kings River Sub-basin of the San Joaquin Valley Groundwater Basin in addition to the Northeast Surface Water Treatment Facility and Southeast Surface Water Treatment Facility. Surface water is used to replace lost groundwater through Fresno's recharge program at the City-owned Leaky Acres, Nielsen Recharge Facility, and smaller facilities in southeast Fresno.

Wastewater

The City of Fresno Wastewater Management Division (WMD) is responsible for the collection, conveyance, treatment, and reclamation of wastewater generated in the Fresno-Clovis metropolitan area. Wastewater treatment and disposal is handled through the City-operated Regional Sewer Agency for the Fresno-Clovis Regional Wastewater Reclamation Facility (RWRF) North Fresno Wastewater Reclamation Facility (North Facility) via a wastewater collection system that consists of gravity sewer pipes, manholes, lift stations, junction structures, and force mains.

Solid Waste

Solid waste in the city is collected by a private contractor, Mid Valley Disposal.

Stormwater

The Fresno Metropolitan Flood Control District (FMFCD) manages stormwater runoff in Fresno. The major elements of the FMFCD's flood control system include dams, reservoirs, and detention basins. The FMFCD is responsible for reviewing development proposals to assess drainage and flood control impacts and needs, in addition to determining applicable requirements and modifications needed in order to implement the Storm Drainage and Flood Control Master Plan.

Natural Gas and Electricity

PG&E, the natural gas and electric service provider for the area, incrementally expands and updates its service system as needed to serve its users.



Telecommunications

Accordingly, telecommunications providers in the area incrementally expand and update their service systems in response to usage and demand.

4.19.2 Impact Assessment

- 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?*

Less than Significant Impact. The Project site is within city limits and thus, will be required to connect to water, stormwater, solid waste, and wastewater services. Natural gas, electricity, and telecommunications are provided by private companies. The City and responsible agencies have reviewed the Project to determine adequate capacity in these systems and ensure compliance with applicable connection requirements. Requirements for the Project are as follows:

- *Install water service and meter boxes and pay Water Capacity Fee for installation.*
- *Install a sewer house branch to connect to nearby 10-inch sewer main located in South West Avenue and pay Sewer Connection Charges.*
- *Install 60 trash enclosures with a service frequency of three (3) times a week to collect the estimated solid waste to be generated by the Project: 607 cubic yards of food waste, 712 cubic yards of recycle, and 712 cubic yards of refuse.*
- *Construct private facilities to discharge storm water runoff, including temporary facilities for South West Avenue until permanent drainage service is available.*

In addition to connections to water, stormwater, solid waste, and wastewater services, the Project will be served by PG&E for natural gas and electricity and by the appropriate telecommunications provider for the Project area. Overall, the review of the Project by the City and responsible agencies indicates that the Project would not require or result in the relocation or construction of new or expanded facilities and as such, would not cause significant environmental effects. Through compliance with the applicable connection requirements, a less than significant impact would occur as a result of the Project.

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

Less than Significant Impact. As discussed in detail in [Section 4.10](#), the City's long-term water resource planning is addressed in the City's 2020 UWMP. According to the UWMP, the City's per capita water usage is projected to continue to decline through 2045 due to more water efficiency



in future construction and passive conservation pursuant to requirements of the California Plumbing Code (e.g., use of higher efficiency appliances, water efficient landscaping, etc.).

In addition, the City manages its surface water and groundwater supply by maximizing water for potable use and intentional recharge during wet and normal years and relies on groundwater during dry years. To optimize water supply reliability and resiliency, the City is currently undergoing an update of its Metro Plan which will identify projects and programs. Generally, the City's approach is to maximize local supplies and improve the storage of the groundwater basin through recharge, recycled water usage, and conservation.

The UWMP projects normal water year, single dry water year, and five-year consecutive drought period supplies based on historic water allocations, sustainable yields, and utilization of recycled water. Based on these projections, the UWMP found that groundwater supplies remain reliable in all hydrologic conditions, attributing the stability to intentional recharge. The projections also show that the City will have greater than 100,000 AF available supply in normal years after meeting demands. In a single dry year, surface water supplies will be reduced but the City would still be able to meet all potable demands. Lastly, for five-year consecutive drought periods, the City is projected to meet all demands with its existing supplies with reduced groundwater recharge in year three (3) and four (4) to accommodate reduced surface water allocations. Based on these projections, it can be inferred that future development, such as the proposed Project, will not negatively impact the City's ability to provide water assuming adherence to requirements and recommendations from the City's water resources planning efforts.

According to the UWMP, the Project site is located in the Southwest Pressure Zone and there is an active City well located near the northeast corner of West Church Avenue and South West Avenue across from the Project site. There are also existing 12-inch public water mains and public fire hydrants in both West Church Avenue and South West Avenue to which the Project can connect. As previously discussed, the Project has been reviewed by the City and is required to install water service and meter boxes to connect to the existing City facilities and pay the Water Capacity Fee for installation. Collectively, these facilities will convey water to and from the Project.

Potable water demands for the Project were estimated using land-use-based unit water demand factors last updated for the City in 2018. The Project site has an existing General Plan land use designation of Residential – Medium Density and proposes a change to Employment – Light Industrial. According to the land-use-based unit water demand factors for the City of Fresno, the medium low density land use has an annual average (ac-ft/yr/acre) of 3.14, compared to 1.84 for the light industrial land use. **Table 4-22** summarizes the total water demands to be expected by land use, indicating that a single-family residential (medium low density) land use would generate approximately 41% greater demand for water than the light industrial land use. Given the



significant reduction in water demand, it can be presumed that the City's water supply should be adequate to support anticipated demands from the Project.

Overall, based on the information collected from the UWMP and the City of Fresno, the proposed Project would generate significantly less water demand than would otherwise occur with the existing land use. As a result, it can be presumed that the existing and planned water distribution system should be adequate to serve the Project during normal, dry, and multiple dry years. In addition, adherence to connection requirements and recommendations pursuant to the City's water supply planning efforts (i.e., compliance with California Plumbing Code, efficient appliances, efficient landscaping, etc.) should not negatively impact the City's water provision. For these reasons, a less than significant impact would occur as a result of the Project.

- 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?*

Less than Significant Impact. The City's long-term wastewater planning is addressed in the City's Wastewater Collection System Master Plan (Master Plan) (2015 update). According to the Master Plan, the City manages and maintains more than 1,500 miles of gravity sewer lines up to 84-inches in diameter, 15 active lift stations, and associated force mains. Wastewater generated in the sewer service area is conveyed to the Regional Wastewater Reclamation Facility (RWRF) or the North Fresno Wastewater Reclamation Facility (North Facility). As of 2020, the RWRF has a capacity of 91.5 mgd (millions of gallons per day) and the North Facility has a capacity of 0.17 mgd (daily average flow). Expansion of these facilities is planned for 2025 or later, based on capacity levels.

Land uses are important to determine adequate sizing and capacity for pipes and facilities, and to maintain effective sanitary sewer system facilities. According to the Master Plan, residential customers in Fresno account for approximately 63 percent of the current flow (40.2 mgd) and industrial customers account for 17 percent (11.3 mgd). Land use assumptions for wastewater generation rates were based on the full build-out conditions under the General Plan. Accordingly, the Southwest Fresno Specific Plan EIR estimated the rates within the Southwest Fresno Specific Plan Area (inclusive of the Project site) based on the Master Plan. Specifically, the Master Plan indicates the medium low density land use is expected to generate 12.4 mgd compared to 1.3 mgd for the light industrial land use classification.

According to the Master Plan, the Project site is within an "area of change" (i.e., West Growth Area) wherein new development will contribute to a net increase in wastewater flows into the collection system. The Master Plan identifies new 8-inch to 15-inch diameter sewers to serve these new planned development areas. These collection system improvements are expected by the



Master Plan to be driven by future development and when fully implemented, the improvements will allow wastewater conveyance to the treatment plants during build out conditions.

The Project site is also located adjacent to an existing sewer service area served by an existing 10-inch sewer main located in South West Avenue to which the Project can connect. And, as previously discussed, the Project has been reviewed by the City and is required to install a sewer house branch to connect to the existing sewer main and pay the Sewer Connection Charges for installation. Collectively, these facilities will convey wastewater generated from the Project.

Overall, based on the information collected from the Master Plan and the City of Fresno, the proposed Project would generate significantly less wastewater than would otherwise occur with the existing land use of medium density residential. As a result, it can be presumed that the existing and planned wastewater collection system should be of adequate capacity to serve the Project. In addition, adherence to connection and fee requirements should not negatively impact the City's capacity to serve the Project's projected demand, especially with the anticipated reduction associated with the proposed land use change. For these reasons, a less than significant impact would occur as a result of the Project.

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?

Less than Significant Impact. As described above, the estimated solid waste to be generated by the Project includes 607 cubic yards of food waste, 712 cubic yards of recycle, and 712 cubic yards of refuse. Based on this estimated amount, the Project is required by the City to install 60 trash enclosures with a service frequency of three (3) times a week for collection. The Fresno General Plan Public Utilities and Services Element contains policies addressing waste collection and service in compliance with the Solid Waste Management Act. Policies in the Resources Conservation and Resilience Element address waste reduction. These policies are designed to reduce the potential environmental effects associated with solid waste disposal. Compliance with the applicable measures and policies would serve to reduce impacts of solid waste by promoting regular collection and encouraging the recycling of materials. As a result, a less than significant impact would occur as a result of the Project.

e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?

Less than Significant Impact. As described under criteria d), Project activities that generate solid waste would be handled, transported, and disposed of in accordance with all applicable statutes and regulations related to solid waste. Therefore, a less than significant impact would occur as a result of the Project.



4.19.3 Mitigation Measures

The proposed Project shall implement and incorporate, as applicable, the utilities and service systems related mitigation measures as identified in the attached Southwest Fresno Specific Plan EIR Mitigation Monitoring and Reporting Program dated October 15, 2021.



4.20 WILDFIRE – IF LOCATED IN OR NEAR STATE RESPONSIBILITY OR LANDS CLASSIFIED AS VERY HIGH FIRE HAZARD SEVERITY ZONES

Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?				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 or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?				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



4.20.1 Environmental Setting

In general, Fresno is categorized as having little or no threat or moderate fire hazard, which can be attributed to its impervious surface areas. The area along the San Joaquin River bluff is an exception, as it is prone to wildfires due to steep terrain and native vegetation. The Project site comprises a relatively flat property within the city limits in an area planned for and developed with urban uses, including industrial, business park, and residential uses, and is approximately nine (9) miles south of the San Joaquin River. In addition, the site nor the City of Fresno are identified by the California Department of Forestry and Fire Protection (Cal Fire) as being in a “Very High Fire Hazard Severity Zone” (VHFHSZ). Rather, the city inclusive of the Project site are located in an “area of local responsibility” that is considered to be an area of low fire risk.²⁰

4.20.2 Impact Assessment

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

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

No Impact. The Project would not impair access to the existing roadway network. Safe and convenient vehicular and pedestrian circulation would be provided in addition to adequate access for emergency vehicles. Circulation and emergency vehicle access have been reviewed by the City and it has been determined that the Project would be suitable for such circulation and access. Therefore, the Project would not substantially impair any emergency response plan and no impact would occur as a result of the Project.

- 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?*

No Impact. The Project site is located on a relatively flat property with minimal slope and is not in an area that is subject to strong prevailing winds or other factors that would exacerbate wildfire risks. Further, the Project site is within an “area of local responsibility” and is not identified by Cal Fire to be in a VHFHSZ. For these reasons, no impact would occur as a result of this Project.

²⁰ Cal Fire, “FHSZ Viewer.” Accessed on July 28, 2021, <https://egis.fire.ca.gov/FHSZ/>



- *Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?*

No Impact. The Project is located within city limits in an area planned for future development. As a result of ongoing development, infrastructure such as roads and utilities will be installed and maintained accordingly. The Project itself will result in installation and maintenance of new infrastructure that has been reviewed and/or conditioned by the City of Fresno. Such infrastructure would not exacerbate fire risk or result in temporary or ongoing impacts to the environment and no impact would occur as a result of the Project.

- *Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?*

No Impact. The Project site is located on a relatively flat property with minimal slope and is not subject to downslope, downstream flooding, or landslides. Therefore, the Project would not expose people or structures to significant risks and no impact would occur as a result of the Project.

4.20.3 Mitigation Measures

None required.



4.21 MANDATORY FINDINGS OF SIGNIFICANCE

Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
<p>a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number, or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?</p>			X	
<p>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)?</p>			X	
<p>c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?</p>			X	



4.21.1 Impact Assessment

- 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 an endangered, rare, or threatened species, or eliminate important examples of the major periods of California history or prehistory?*

Less than Significant Impact. The analyses of environmental issues contained in this Initial Study indicate that the Project is not expected to have substantial impact on the environment or on any resources identified in the Initial Study. Standard requirements that will be implemented through the entitlement process and the attached mitigation monitoring and reporting program have been incorporated in the project to reduce all potentially significant impacts to less than significant. Therefore, the Project would have a less than significant impact.

- b) *Does the project have impacts that are individually limited, but cumulatively considerable? (“Cumulatively considerable” means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)*

Less than Significant Impact. CEQA Guidelines Section 15064(i) states that a Lead Agency shall consider whether the cumulative impact of a project is significant and whether the effects of the project are cumulatively considerable. The assessment of the significance of the cumulative effects of a project must, therefore, be conducted in connection with the effects of past projects, other current projects, and probable future projects. Due to the nature of the Project and consistency with environmental policies, incremental contributions to impacts are considered less than cumulatively considerable. All Project-related impacts were determined to be less than significant. The Project would not contribute substantially to adverse cumulative conditions, or create any substantial indirect impacts (i.e., increase in population could lead to an increased need for housing, increase in traffic, air pollutants, etc.). As such, Project impacts are not considered to be cumulatively considerable given the insignificance of project induced impacts. The impact is therefore less than significant.

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

Less than Significant Impact. The analyses of environmental issues contained in this Initial Study indicate that the project is not expected to have substantial impact on human beings, either directly or indirectly. Standard requirements and conditions have been incorporated in the project to reduce all potentially significant impacts to less than significant. Therefore, the Project would have a less than significant impact.



5 MITIGATION MONITORING AND REPORTING PROGRAM

The proposed Project shall implement and incorporate, as applicable, mitigation measures as identified in the attached Southwest Fresno Specific Plan EIR Mitigation Monitoring and Reporting Program dated October 15, 2021.

MITIGATION MONITORING AND REPORTING PROGRAM OCTOBER 2021

This mitigation measure monitoring and reporting checklist was prepared pursuant to California Environmental Quality Act (CEQA) Guidelines Section 15097 and Section 21081.6 of the Public Resources Code (PRC). It was certified as part of the Fresno City Council’s approval of the EIR for the Southwest Fresno Specific Plan (SCH No. 201731012).

Mitigation Measures that have been incorporated from the Fresno General Plan Master Environmental Impact Report (MEIR) are numbered with “MEIR” as a prefix.

The timing of implementing each mitigation measure is identified in in the checklist, as well as identifies the entity responsible for verifying that the mitigation measures applied to a project are performed. Project applicants are responsible for providing evidence that mitigation measures are implemented. As lead agency, the City of Fresno is responsible for verifying that mitigation is performed/completed.

Mitigation Measure	Timing of Implementation	Agency/Department Responsible for Verification
AESTHETICS		
MEIR AES-1: Lighting systems for street and parking areas shall include shields to direct light to the roadway surfaces and parking areas. Vertical shields on the light fixtures shall also be used to direct light away from adjacent light sensitive land uses such as residences.	Prior to issuance of electrical permits	City of Fresno Development and Resource Management Department
MEIR AES-2: Lighting systems for public facilities such as active play areas shall provide adequate illumination for the activity; however, low-intensity light fixtures and shields shall be used to minimize spillover light onto adjacent properties.	Prior to issuance of electrical permits	City of Fresno Development and Resource Management Department
MEIR AES-3: Lighting systems for non-residential uses, not including public facilities, shall provide shields on the light fixtures and orient the lighting system away from adjacent properties. Low-intensity light fixtures shall also be used if excessive spillover light onto adjacent properties will occur.	Prior to issuance of electrical permits	City of Fresno Development and Resource Management Department
MEIR AES-4: Lighting systems for freestanding signs shall not exceed 100 foot-Lamberts (FT-L) when adjacent to streets which have an average light intensity of less than 2.0 horizontal footcandles and shall not exceed 500 FT-L when adjacent to streets that have an average light intensity of 2.0 horizontal footcandles or greater.	Prior to issuance of sign permits	City of Fresno Development and Resource Management Department
MEIR AES-5: Materials used on building façades shall be non-reflective.	Prior to issuance of building permits	City of Fresno Development and Resource Management Department

Mitigation Measure	Timing of Implementation	Agency/Department Responsible for Verification
AIR QUALITY		
<p>AQ-1: Prior to the issuance of building permits for new development projects within the Plan Area, the project applicant shall show on the building plans that all major appliances (dishwashers, refrigerators, clothes washers, and dryers) to be provided/installed are Energy Star-certified appliances or appliances of equivalent energy efficiency. Installation of Energy Star-certified or equivalent appliances shall be verified by the City of Fresno Development and Resource Management Department prior to the issuance of a certificate of occupancy.</p>	<p>Prior to issuance of building permits</p>	<p>City of Fresno Development and Resource Management Department</p>
<p>AQ-2a: In order to contribute in minimizing exhaust emission from construction equipment, prior to issuance of grading, demolition or building permits whichever occurs first, the property owner/developer shall provide a list of all construction equipment proposed to be used on the project site for projects that are subject to the California Environmental Quality Act (i.e., non-exempt projects). This list may be provided on the building plans. The construction equipment list shall state the make, model, and equipment identification number of all the equipment.</p>	<p>Prior to issuance of grading, demolition, or building permits, whichever occurs first</p>	<p>City of Fresno Development and Resource Management Department</p>
<p>AQ-2b: During construction activities, for projects that are subject to the California Environmental Quality Act (i.e., non-exempt projects), the construction contractors shall ensure that the equipment shall be properly serviced and maintained in accordance with the manufacturer’s recommendations; and, that all nonessential idling of construction equipment is restricted to five minutes or less in compliance with Section 2449 of the California Code of Regulations, Title 13, Article 4.8, Chapter 9.</p>	<p>Prior to commencement of and during construction activities</p>	<p>City of Fresno Development and Resource Management</p>
<p>AQ-2c: In order to reduce VOC emissions from construction activities, prior to issuance of a building permit for projects that are subject to the California Environmental Quality Act (i.e., non-exempt projects), the property owner/developer shall require the construction contractor and provide a note on construction plans indicating that:</p> <ul style="list-style-type: none"> ▪ All coatings and solvents will have a volatile organic compound (VOC) content lower than required under Rule 4601 (i.e., super compliant paints). ▪ All architectural coatings shall be applied either by (1) using a high-volume, low-pressure spray method operated at an air pressure between 0.1 and 10 pounds per square inch gauge to achieve a 65 percent application efficiency; or (2) manual application using a paintbrush, hand-roller, trowel, spatula, dauber, rag, or sponge, to achieve a 100 percent application efficiency. <p>The construction contractor shall also use pre-coated/natural colored building materials, where feasible.</p>	<p>Prior to issuance of building permits</p>	<p>City of Fresno Development and Resource Management Department</p>
<p>AQ-3: Implement Mitigation Measure AQ-1.</p>	<p>Prior to issuance of building permits</p>	<p>City of Fresno Development and Resource Management Department</p>
<p>AQ-4a: Implement Mitigation Measures AQ-2a through AQ-2c to further reduce construction-related criteria air pollutant emissions.</p>	<p>Prior to issuance of building permits, commencement of and during construction activities</p>	<p>City of Fresno Development and Resource Management Department</p>

Mitigation Measure	Timing of Implementation	Agency/Department Responsible for Verification
<p>AQ-4b: In order to reduce fugitive dust particulate matter emissions during construction activities, prior to issuance of grading, demolition or building permits, whichever occurs first, for projects subject to the California Environmental Quality Act (i.e., non-exempt projects), but that would be outside the purview of San Joaquin Valley Air Pollution Control District’s (SJVAPCD) Regulation VIII, the property owner/developer shall submit a dust control plan consistent with SJVAPCD Regulation VIII requirements that includes, but not limited to the following measures during ground-disturbing activities to further reduce PM₁₀ and PM_{2.5} emissions:</p> <ul style="list-style-type: none"> ▪ Disturbed areas (including storage piles) that are not being actively utilized for construction purposes shall be effectively stabilized using water, chemical stabilizer/suppressant, or covered with a tarp or other suitable cover (e.g., revegetated). ▪ On-site unpaved roads and off-site unpaved access roads shall be effectively stabilized using water or chemical stabilizer/suppressant. Land clearing, grubbing, scraping, excavation, land leveling, grading, cut and fill, and demolition activities shall be effectively controlled utilizing application of water or by presoaking. ▪ Material shall be covered, or effectively wetted to limit visible dust emissions, and at least 6 inches of freeboard space from the top of the container shall be maintained when materials are transported off-site. ▪ Operations shall limit or expeditiously remove the accumulation of mud or dirt from adjacent public streets at the end of each workday. (The use of dry rotary brushes is expressly prohibited except where preceded or accompanied by sufficient wetting to limit the visible dust emissions. Use of blower devices is expressly forbidden.) ▪ Following the addition of materials to or the removal of materials from the surface of outdoor storage piles, said piles shall be effectively stabilized of fugitive dust emissions utilizing sufficient water or chemical stabilizer/suppressant. ▪ Within urban areas, trackout shall be immediately removed when it extends 50 or more feet from the site and at the end of each workday. ▪ Any site with 150 or more vehicle trips per day shall prevent carryout and trackout. ▪ Limit traffic speeds on unpaved roads to 15 mph. ▪ Install sandbags or other erosion control measures to prevent silt runoff to public roadways from sites with a slope greater than 1 percent. ▪ Install wheel washers for all exiting trucks or wash off all trucks and equipment leaving the Plan Area. ▪ Adhere to Regulation VIII’s 20 percent opacity limitation, as applicable. 	<p>Prior to issuance of grading, demolition, or building permits, whichever occurs first</p>	<p>City of Fresno Development and Resource Management Department</p>
<p>AQ-7: AQ-7: Implement Mitigation Measures AQ-2a through AQ-4b of the Draft EIR.</p>	<p>Prior to issuance of grading, demolition, or building permits, whichever occurs first</p>	<p>City of Fresno Development and Resource Management Department</p>

Mitigation Measure	Timing of Implementation	Agency/Department Responsible for Verification
BIOLOGICAL RESOURCES		
<p>BIO-1.1a: Construction of a proposed project should avoid, where possible, vegetation communities that provide suitable habitat for a special-status species known to occur within the Plan Area. If construction within potentially suitable habitat must occur, a qualified botanist should conduct botanical surveys to confirm the presence/absence of any special-status plant or wildlife species to determine if the habitat supports any special-status species. The surveys should be completed using the reporting and data collection guidelines outlined in the <i>Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities</i>⁶⁶ and a report of findings should be submitted to the City and the Department of Fish and Wildlife (CDFW) before the onset of any initial ground-disturbing activity or construction associated with each phase of project implementation. If a special-status species is determined to occupy any portion of a project site, then any occurrence should be avoided whenever possible by delineating and observing a disturbance-free buffer zone of a minimum of 50 feet from the outer-edge of the special-status plant populations(s) or specific habitat type(s) required by special status plant species. If the buffer zone(s) cannot be maintained, appropriate minimization measures and mitigation measures should be prepared in consultation with CDFW on a case-by-case basis.</p>	<p>Prior to commencement of construction activities</p>	<p>City of Fresno Development and Resource Management Department</p>
<p>BIO-1.1b: Direct or incidental take of any State- or federally-listed species should be avoided to the greatest extent feasible. If construction of a proposed project will result in the direct or incidental take of a listed species, consultation with the resources agencies and/or additional permitting may be required. Agency consultation through the CDFW 2081 and USFWS Section 7 or Section 10 permitting processes must take place prior to any action that may result in the direct or incidental take of a listed species. Specific mitigation measures for direct or incidental impacts to a listed species will be determined on a case-by-case basis through agency consultation.</p>	<p>Prior to commencement of construction activities</p>	<p>City of Fresno Development and Resource Management Department</p>
<p>BIO-1.1c: Development within the Plan Area should avoid, where possible, special-status natural communities and vegetation communities that provide suitable habitat for special-status species. If a proposed project will result in the loss of a special-status natural community or suitable habitat for special-status species, compensatory habitat-based mitigation is required under CEQA and CESA. Mitigation will consist of preserving on-site habitat, restoring similar habitat, or purchasing off-site credits from an approved mitigation bank. Compensatory mitigation will be determined through consultation with the City and/or resource agencies. An appropriate mitigation strategy and ratio will be agreed upon by the developer and lead agency to reduce project impacts to special-status natural communities to a less than significant level. Agreed-upon mitigation ratios will depend on the quality of the habitat and presence/absence of a special-status species. The specific mitigation for project level impacts will be determined on a case-by-case basis.</p>	<p>Prior to commencement of construction activities</p>	<p>City of Fresno Development and Resource Management Department</p>

Mitigation Measure	Timing of Implementation	Agency/Department Responsible for Verification
<p>BIO-1.2: A qualified biologist knowledgeable of the species should conduct a Swainson’s hawk survey of the project site and the surrounding 0.5-mile-radius area, in substantial compliance with the <i>Recommended Timing and Methodology for Swainson’s Hawk Nesting Surveys in California’s Central Valley</i> (Swainson’s Hawk Technical Advisory Committee 2000) during the normal bird breeding season (1 February through 15 September) prior to the start of any initial ground-disturbing activity or construction associated with each phase of project implementation, to the extent feasible. Additional pre-construction Swainson’s hawk surveys should take place no more than 10 days prior to the start of ground-disturbing activities. To mitigate for the loss of Swainson’s hawk foraging habitat, the project applicant should provide Habitat Management (HM) lands to the California Department of Fish and Wildlife (CDFW) based on the following ratios, if feasible:</p> <ul style="list-style-type: none"> ■ If the project(s) is located within 1 mile of an active nest tree, the applicant should provide a minimum of 1 acre of HM lands for each 1 acre of urban development authorized. ■ If the project(s) is located within 5 miles of an active nest tree but greater than 1 mile from the nest tree, the applicant should provide a minimum of 0.75 acres of HM lands for each 1 acre of urban development authorized. ■ If the project(s) is located within 10 miles of an active nest tree but greater than 5 miles from the nest tree, the applicant should provide a minimum of 0.5 acres of HM lands for each 1 acre of urban development authorized. 	<p>Prior to commencement of and during construction activities</p>	<p>City of Fresno Development and Resource Management Department</p>
<p>The project applicant should provide for the long-term management of the HM lands by funding a management endowment, the interest of which should be used for managing the HM lands. The rate per HM acre should be established through consultation with CDFW. In addition to fee title acquisition of grassland habitat, mitigation could occur by the purchase of conservation or suitable agricultural easements. Suitable agricultural easements would include areas limited to production of crops such as alfalfa, dry land and irrigated pasture, and cereal grain crops. Vineyards, orchards, cotton fields, and other dense vegetation do not provide adequate foraging habitat.</p>		
<p>BIO -1.3: No less than 14 days and no more than 30 days prior to commencement of construction activities the project proponent should retain a USFWS- and CDFW-approved biologist to conduct pre-construction surveys in potential habitat periphery of the Plan Area that has not been fragmented by agricultural-residential or urban development. The survey, reporting, and activities during construction should be in substantial compliance with the requirements contained in the <i>U.S. Fish and Wildlife Service Standardized Recommendations for Protection of the San Joaquin Kit Fox Prior to or During Ground Disturbance</i>.⁶⁶ As described in the standardized recommendations, if a natal/pupping den is discovered within the Plan Area or within 200-feet of the project boundary, the USFWS and CDFW should be immediately notified and under no circumstances should the den be disturbed or destroyed without prior authorization. If the preconstruction/preactivity survey reveals an active natal pupping or new information, the project applicant should contact the USFWS immediately to obtain the necessary take authorization/permit.</p>	<p>Prior to commencement of and during construction activities</p>	<p>City of Fresno Development and Resource Management Department</p>

Mitigation Measure	Timing of Implementation	Agency/Department Responsible for Verification
<p>BIO-1.4: Conduct Preconstruction Surveys for Special-status Bats and Implement Avoidance Measures. Any medium or larger (≥ 12-inch diameter) trees or snags selected for removal should be inspected by a qualified biologist for presence of potential day-roosting habitat (e.g., cavities exfoliating bark, or basal hollows) for special-status bats or a maternity colony. If feasible, cavities should be examined for roosting bats using a portable camera probe or similar technology. No more than two weeks before the onset of any initial ground-disturbing activity or construction associated with each phase of project implementation, a qualified bat biologist should conduct pre-construction surveys of all buildings with potential for roosting habitat for supporting special-status bats or a maternity colony should be inspected by a qualified biologist for evidence of roosting colonies. If suitable roosting habitat is present and/or bat sign is observed, but no bats are detected, an evening exit count and acoustic survey using a full spectrum acoustic detector should be conducted by a qualified bat biologist to determine if bats are present and what species are present. If present, roosts (including day roosts, winter hibernacula, and maternity colonies) and a 100- to 300-foot disturbance-free buffer surrounding each roost should be flagged and avoided, as determined by a qualified bat biologist. The 100- to 300-foot disturbance-free buffer should be maintained until the qualified bat biologist can determine that bats no longer use the roost.</p> <p>If avoidance is not possible, a qualified bat biologist should develop a Bat Eviction Plan in consultation with CDFW for written approval prior to implementation. The Bat Eviction Plan should include exclusion methods, roost removal procedures, and monitoring efforts to ensure that all bats have exited the roost prior to all ground-disturbing activities and are unable to re-enter the roost. In addition, replacement habitat appropriate for the species' roost requirements should be created prior to the roost removal. The qualified bat biologist, in consultation with CDFW, should facilitate the removal of roosting bats outside of the winter hibernation (1 November to 28 February) and maternity roosting (15 March to 31 August) periods through the following means:</p> <ol style="list-style-type: none"> 1. Implementing eviction during a period of warm (nighttime low > 50°F), dry weather, when bats are expected to be active. 2. Opening the roosting area to allow airflow through the cavity or building (air flow disturbance). 3. Waiting a minimum of three nights of warm weather, as defined above, for roosting bats to respond to air flow disturbance, thereby allowing bats to leave during nighttime hours when predation risk is relatively low and chances of finding a new roost is greater than in the daytime. 4. Conducting a follow-up survey prior to roost removal to ensure that bats have vacated the roost. Disturbing roosts at dusk just prior to roost removal the same evening to allow bats to escape during nighttime hours. 	<p>Prior to commencement of and during construction activities</p>	<p>City of Fresno Development and Resource Management Department</p>

Mitigation Measure	Timing of Implementation	Agency/Department Responsible for Verification
<p>BIO-1.5: Conduct Focused American Badger Surveys and Avoid or Minimize Impacts to American Badger Dens. No more than 30 days before the start of construction activities, a qualified biologist should conduct pre-construction surveys for American badgers within suitable habitat. If a potentially active den is found in a construction area, the den openings may be monitored with tracking medium or an infrared-beam camera for three consecutive nights to determine current use. Potential (inactive) dens within the limits of disturbance should be blocked with a one-way door or excavated to prevent use during construction. Blocking with one-way doors is preferable to excavation where feasible; potential dens blocked with doors will be made available to badgers after construction. If American badgers or active dens are detected during these surveys, the following should be implemented:</p> <ul style="list-style-type: none"> ▪ If present, occupied badger dens should be flagged, and ground-disturbing activities avoided, within 50 feet of the occupied den during the nonbreeding season (1 July through 14 February). Flagging that is highly visible by construction crews should encircle the occupied den at the appropriate buffer distance, and should not prevent access to the den by badgers. Dens determined to be occupied during the breeding season (15 February through 30 June) should be flagged, and ground-disturbing activities avoided, within 200 feet to protect adults and nursing young. Buffers may be modified by the qualified biologist, provided the badgers are protected, and should not be removed until the qualified biologist has determined that the den is no longer in use. ▪ If avoidance of an active non-maternity den is not feasible, the qualified biologist should consult with CDFW to determine whether the badger(s) may be evicted. Relocation methods may be implemented by first incrementally blocking the den over a three-day period, followed by slowly excavating the den (either by hand or with mechanized equipment under the direct supervision of a qualified biologist, removing no more than 4 inches at a time) before or after the rearing season (15 February through 30 June). Any passive relocation of American badgers should occur only under the direction of a qualified biologist. 	<p>Prior to commencement of and during construction activities</p>	<p>City of Fresno Development and Resource Management Department</p>
<p>BIO-1.6: Conduct a Preconstruction Survey for Burrowing Owl and Implement Avoidance Measures. A qualified biologist(s) knowledgeable of the species should conduct a focused, preconstruction survey during the peak breeding season for burrowing owls (15 April to 15 July) prior to the start of ground-disturbing activities for the project to determine if burrowing owls are present on the project site and within 250 feet where access allows. The survey should be conducted in substantial compliance with the California Burrowing Owl Consortium's <i>Survey Protocol and Mitigation Guidelines</i> (CBOC, 1997), or other survey and mitigation protocols recommended by the CDFW, to the extent feasible. All areas of suitable habitat proposed for ground disturbance will be surveyed. If burrowing owls are detected, buffers and mitigation per the <i>Survey Protocol and Mitigation Guidelines</i> will be implemented.</p> <p>If burrowing owl(s) are found to occupy the site and avoidance is not possible, a qualified biologist knowledgeable of the species should conduct burrow exclusion during the non-breeding season, before breeding behavior is exhibited and after the burrow is confirmed empty by site surveillance and/or scoping. Burrow closure should be implemented only where there are adjacent natural burrows and non-impacted sufficient habitat for burrowing owls to occupy with permanent protection mechanisms in place. Ongoing surveillance should be conducted during any</p>	<p>Prior to commencement of and during construction activities</p>	<p>City of Fresno Development and Resource Management Department</p>

Mitigation Measure	Timing of Implementation	Agency/Department Responsible for Verification
<p>initial ground- disturbing activity or construction associated with each phase of project implementation to monitor colonization of the area by burrowing owls.</p>		
<p>BIO-1.7: Conduct Pre-construction Surveys for Western Pond Turtle, and Move Individuals to Safety. Prior to construction, a qualified biologist (i.e., a biologist approved by CDFW and that holds a Scientific Collecting Permit to handle western pond turtles) should conduct focused surveys during the western pond turtle egg-laying season (March through August) to determine if western pond turtles are present within 0.25-mile of aquatic and riparian habitat, where accessible. If any pond turtles are detected during these surveys, or during construction in an area where individuals could be affected, they should be allowed to move out on their own volition. If this is not feasible, they should be moved to the nearest suitable habitat immediately upstream or downstream from the project site. The candidate sites for relocation should be identified before construction and should be selected based on the size and type of habitat present, the potential for negative interactions with resident species, and the species’ range. If any western pond turtle nests with eggs are found, the nests should remain undisturbed until the eggs have hatched.</p>	<p>Prior to commencement of and during construction activities</p>	<p>City of Fresno Development and Resource Management Department</p>
<p>BIO-1.8. Proposed projects within the Plan Area should avoid, if possible, construction within the general nesting season of February through August for avian species protected under Fish and Game Code 3500 and the Migratory Bird Treaty Act (MBTA), if it is determined that suitable nesting habitat occurs on a project site. If construction cannot avoid the nesting season, a pre-construction clearance survey must be conducted by a qualified wildlife biologist no more than 10 days prior to the start of any initial ground-disturbing activity or construction associated with each phase of project implementation to determine if any nesting birds or nesting activity is observed on or within 500 feet of a project site. If an active nest is observed during the survey, a biological monitor must be on site to ensure that no proposed project activities would impact the active nest. A suitable buffer will be established around the active nest until the nestlings have fledged and the nest is no longer active. Project activities may continue in the vicinity of the nest only at the discretion of the biological monitor. Once construction begins, a qualified wildlife biologist should continuously monitor nests to detect behavioral changes resulting from project-related activities.</p>	<p>Prior to commencement of and during construction activities</p>	<p>City of Fresno Development and Resource Management Department</p>
<p>If continuous monitoring of nests by a qualified wildlife biologist is not feasible, a disturbance-free buffer zone of a minimum of 250 feet should be delineated around active nests of non-listed bird species and a disturbance-free buffer zone of a minimum of 500 feet should be delineated around active nests of non-listed raptors, or suitable buffer distance approved by the biological monitor. These buffers should be maintained until the breeding season has ended or until a qualified wildlife biologist can determine that the bird species or raptors have fledged and are no longer reliant upon the nest or parental care for survival. Variance from these buffers should be considered only after consultation with a qualified wildlife biologist and CDFW.</p>		
<p>BIO-2.1a: Impacts to riparian habitat should be avoided by delineating a 200-foot disturbance free buffer from the high water mark of a waterbody or waterway or from the outside edge of the riparian habitat and for areas with no riparian vegetation, a minimum 100-foot disturbance-free buffer should be delineated around the high water mark of a waterbody or waterway.</p>	<p>Prior to commencement of construction activities</p>	<p>City of Fresno Development and Resource Management Department</p>
<p>If avoidance is not possible, a compensatory habitat-based mitigation should be required to reduce project impacts. Compensatory mitigation must involve the preservation or restoration or</p>		

the purchase of off-site mitigation credits for impacts to riparian habitat and/or a special-status natural community. Mitigation must be conducted in-kind or within an approved mitigation bank in

Mitigation Measure	Timing of Implementation	Agency/Department Responsible for Verification
<p>the region. The specific mitigation ratio for habitat based mitigation should be determined on an acre-for-acre basis through consultation with the appropriate agency (i.e., CDFW or USFWS).</p>		
<p>BIO-2.1b: Project impacts that occur to riparian habitat may also result in significant impacts to streambeds or waterways protected under Section 1600 of Fish and Wildlife Code and Section 404 of the CWA. In accordance with Fish & Game Code Section 1600 et seq., consultation with CDFW and/or USACE should be initiated to determine the appropriate mitigation strategy and regulatory permitting to reduce impacts prior to commencing any activity that may (a) substantially divert or obstruct the natural flow of any river, stream, or lake; (b) substantially change or use any material from the bed, bank, or channel of any river, stream, or lake (including the removal of riparian vegetation); or (c) deposit debris, waste or other materials that could pass into any river, stream, or lake.</p>	<p>Prior to commencement of construction activities</p>	<p>City of Fresno Development and Resource Management Department</p>
<p>BIO-2.1c: Project-related impacts to riparian habitat or a special-status natural community may result in direct or incidental impacts to special-status species associated with riparian or wetland habitats. Project impacts to special-status species associated with riparian habitat shall be mitigated through agency consultation, development of a mitigation strategy, and/or issuing incidental take permits for the specific special-status species, as determined by the CDFW and/or USFWS.</p>		
<p>BIO-3a: If a proposed project will result in the significant alteration or fill of a federally protected wetland, in accordance with Fish & Game Code Section 1600 et seq., consultation with CDFW and/or USACE should be initiated to determine the appropriate mitigation strategy and regulatory permitting to reduce impacts prior to commencing any activity that may (a) substantially divert or obstruct the natural flow of any river, stream, or lake; (b) substantially change or use any material from the bed, bank, or channel of any river, stream, or lake (including the removal of riparian vegetation) (c) deposit debris, waste or other materials that could pass into any river, stream, or lake. In addition, a formal wetland delineation conducted according to USACE accepted methodology is required for each project to determine the extent of wetlands on a project site. The delineation should be used to determine if federal permitting and mitigation strategy are required to reduce project impacts. Acquisition of permits from USACE for the fill of wetlands and approval of wetland mitigation plan would ensure a “no net loss” of wetland habitat within the Plan Area by the appropriate regulatory agencies (e.g., USACE, Regional Water Quality Control Board (RWQCB) and the California Department of Fish and Wildlife (CDFW)). Appropriate wetland mitigation/creation should be implemented in a ratio according to the size of the impacted wetland.</p>	<p>Prior to commencement of construction activities</p>	<p>City of Fresno Development and Resource Management Department</p>
<p>BIO-3b: In addition to regulatory agency permitting, Best Management Practices identified from a list provided by the USACE shall be incorporated into the design and construction phase of the project to ensure that no pollutants or siltation drain into a federally protected wetland. Project design features such as fencing, appropriate drainage and incorporating detention basins shall assist in ensuring project-related impacts to wetland habitat are minimized to the greatest extent feasible.</p>	<p>Implementation of temporary construction-related BMPs shall occur prior to commencement of and during construction activities; implementation of long-term operational BMPs shall occur prior to issuance of occupancy permits</p>	<p>City of Fresno Development and Resource Management Department</p>

Mitigation Measure	Timing of Implementation	Agency/Department Responsible for Verification
CULTURAL RESOURCES		
<p>MEIR CUL-1: If previously unknown cultural resources are encountered during grading activities, construction shall stop in the immediate vicinity of the find and an archaeologist shall be consulted to determine whether the resource requires further study. The qualified archaeologist shall make recommendations to the City on the measures that shall be implemented to protect the discovered resources, including but not limited to excavation of the finds and evaluation of the finds in accordance with Section 15064.5 of the CEQA Guidelines and the City’s Historic Preservation Ordinance.</p> <p>If the resources are determined to be unique historical resources as defined under Section 15064.5 of the CEQA Guidelines, measures shall be identified by the archaeologist and recommended to the Lead Agency. Appropriate measures for significant resources could include avoidance or capping; incorporation of the site in green space, parks, or open space; or data recovery excavations of the finds.</p> <p>No further grading shall occur in the area of the discovery until the Lead Agency approves the measures to protect these resources. Any historical artifacts recovered as a result of mitigation shall be provided to a City-approved institution or person who is capable of providing long-term preservation to allow future scientific study.</p>	<p>During construction activities</p>	<p>City of Fresno Development and Resource Management Department</p>
<p>MEIR CUL-2: Subsequent to a preliminary City review of the project grading plans, if there is evidence that a project will include excavation or construction activities within previously undisturbed soils, a field survey and literature search for prehistoric archaeological resources shall be conducted. The following procedures shall be followed.</p> <p>If prehistoric resources are not found during either the field survey or a literature search, excavation and/or construction activities can commence. In the event that buried prehistoric archaeological resources are discovered during excavation and/or construction activities, construction shall stop in the immediate vicinity of the find and a qualified archaeologist shall be consulted to determine whether the resource requires further study. The qualified archaeologist shall make recommendations to the City on the measures that shall be implemented to protect the discovered resources, including but not limited to excavation of the finds and evaluation of the finds in accordance with Section 15064.5 of the CEQA Guidelines. If the resources are determined to be unique prehistoric archaeological resources as defined under Section 15064.5 of the CEQA Guidelines, mitigation measures shall be identified by the monitor and recommended to the Lead Agency. Appropriate measures for significant resources could include avoidance or capping, incorporation of the site in green space, parks, or open space, or data recovery excavations of the finds. No further grading shall occur in the area of the discovery until the Lead Agency approves the measures to protect these resources. Any prehistoric archaeological artifacts recovered as a result of mitigation shall be provided to a City-approved institution or person who is capable of providing long-term preservation to allow future scientific study.</p> <p>If prehistoric resources are found during the field survey or literature review, the resources shall be inventoried using appropriate State record forms and submit the forms to the Southern San Joaquin Valley Information Center. The resources shall be evaluated for significance. If the resources are found to be significant, measures shall be identified by the qualified archaeologist.</p>	<p>Subsequent to a preliminary City review of the project grading plans and during construction activities</p>	<p>City of Fresno Development and Resource Management Department</p>

Mitigation Measure	Timing of Implementation	Agency/Department Responsible for Verification
<p>Similar to above, appropriate mitigation measures for significant resources could include avoidance or capping, incorporation of the site in green space, parks, or open space, or data recovery excavations of the finds. In addition, appropriate mitigation for excavation and construction activities in the vicinity of the resources found during the field survey or literature review shall include an archaeological monitor. The monitoring period shall be determined by the qualified archaeologist. If additional prehistoric archaeological resources are found during excavation and/or construction activities, the procedure identified above for the discovery of unknown resources shall be followed.</p>	<p>Subsequent to a preliminary City review of the project grading plans and during construction activities</p>	<p>City of Fresno Development and Resource Management Department</p>
<p>MEIR CUL-3: Subsequent to a preliminary City review of the project grading plans, if there is evidence that a project will include excavation or construction activities within previously undisturbed soils, a field survey and literature search for unique paleontological/geological resources shall be conducted. The following procedures shall be followed:</p> <p>If unique paleontological/geological resources are not found during either the field survey or a literature search, excavation and/or construction activities can commence. In the event that unique paleontological/geological resources are discovered during excavation and/or construction activities, construction shall stop in the immediate vicinity of the find and a qualified paleontologist shall be consulted to determine whether the resource requires further study. The qualified paleontologist shall make recommendations to the City on the measures that shall be implemented to protect the discovered resources, including but not limited to, excavation of the finds and evaluation of the finds. If the resources are determined to be significant, mitigation measures shall be identified by the monitor and recommended to the Lead Agency. Appropriate mitigation measures for significant resources could include avoidance or capping; incorporation of the site in green space, parks, or open space; or data recovery excavations of the finds. No further grading shall occur in the area of the discovery until the Lead Agency approves the measures to protect these resources. Any paleontological/geological resources recovered as a result of mitigation shall be provided to a City-approved institution or person who is capable of providing long-term preservation to allow future scientific study.</p> <p>If unique paleontological/geological resources are found during the field survey or literature review, the resources shall be inventoried and evaluated for significance. If the resources are found to be significant, mitigation measures shall be identified by the qualified paleontologist. Similar to above, appropriate mitigation measures for significant resources could include avoidance or capping; incorporation of the site in green space, parks, or open space; or data recovery excavations of the finds. In addition, appropriate mitigation for excavation and construction activities in the vicinity of the resources found during the field survey or literature review shall include a paleontological monitor. The monitoring period shall be determined by the qualified paleontologist. If additional paleontological/geological resources are found during excavation and/or construction activities, the procedure identified above for the discovery of unknown resources shall be followed.</p>	<p>During construction activities</p>	<p>City of Fresno Development and Resource Management Department</p>
<p>MEIR CUL-4: In the event that human remains are unearthed during excavation and grading activities of any future development project, all activity shall cease immediately. Pursuant to Health and Safety Code (HSC) Section 7050.5, no further disturbance shall occur until the County Coroner has made the necessary findings as to origin and disposition pursuant to PRC Section 5097.98(a). If the remains are determined to be of Native American descent, the coroner shall</p>	<p>During construction activities</p>	<p>City of Fresno Development and Resource Management Department</p>

Mitigation Measure	Timing of Implementation	Agency/Department Responsible for Verification
<p>within 24 hours notify the Native American Heritage Commission (NAHC). The NAHC shall then contact the most likely descendent of the deceased Native American, who shall then serve as the consultant on how to proceed with the remains. Pursuant to PRC Section 5097.98(b), upon the discovery of Native American remains, the landowner shall ensure that the immediate vicinity, according to generally accepted cultural or archaeological standards or practices, where the Native American human remains are located is not damaged or disturbed by further development activity until the landowner has discussed and conferred with the most likely descendants regarding their recommendations, if applicable, taking into account the possibility of multiple human remains. The landowner shall discuss and confer with the descendants all reasonable options regarding the descendants’ preferences for treatment. Applicable regulations and procedures described above, along with implementation of Mitigation Measure CUL-4, would ensure that any human remains discovered during construction would be handled appropriately.</p>		
<p>CUL-5: Implement Fresno General Plan MEIR Mitigation Measures CUL-1, CUL-2, and CUL-4.</p>	<p>See Mitigation Measures MEIR CUL-1, MEIR CUL-2, and MEIR CUL-4.</p>	
<p>GREENHOUSE GAS (GHG) EMISSIONS</p>		
<p>GHG-1: Implement Mitigation Measure AQ-2b as follows:</p> <p>Mitigation Measure AQ-2b: During construction activities, for projects that are subject to the California Environmental Quality Act (i.e., non-exempt projects), the construction contractors shall ensure that the equipment shall be properly serviced and maintained in accordance with the manufacturer’s recommendations; and, that all nonessential idling of construction equipment is restricted to five minutes or less in compliance with Section 2449 of the California Code of Regulations, Title 13, Article 4.8, Chapter 9.</p>	<p>See Mitigation Measure AQ-2b.</p>	
<p>HAZARDOUS AND HAZARDOUS MATERIALS</p>		
<p>HAZ-3: Implementation of Mitigation Measures HAZ-4a through HAZ-4h, described later in the section under Impact HAZ-4, would reduce potential impacts to schools.</p> <p>In addition, as stated in the discussions of Impacts HAZ-1 and HAZ-2, compliance with existing federal, State, and local regulations, procedures, and policies would avoid potential impacts associated with hazardous materials handling, use, and storage in the Plan Area. Compliance with these regulations, procedures, and policies would ensure that hazardous materials are properly handled, thereby reducing potential risks to nearby schools.</p>	<p>See Mitigation Measures HAZ-4a through HAZ-4h.</p>	
<p>HAZ-4a: Prior to the issuance of a grading permit, the property owners and/or developers of properties shall ensure that a Phase I ESA (performed in accordance with the current ASTM Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process [E 1527]) shall be conducted for each individual property prior to development or redevelopment to ascertain the presence or absence of Recognized Environmental Conditions (RECs), Historical Recognized Environmental Condition (HRECs), and Potential Environmental Concerns (PECs) relevant to the property under consideration. The findings and conclusions of the Phase I ESA shall become the basis for potential recommendations for follow-up investigation, if found to be warranted.</p>	<p>Prior to issuance of grading permit</p>	<p>City of Fresno Development and Resource Management Department</p>

Mitigation Measure	Timing of Implementation	Agency/Department Responsible for Verification
<p>HAZ-4b: In the event that the findings and conclusions of the Phase I ESA for a property result in evidence of RECs, HRECs and/or PECs warranting further investigation, the property owners and/or developers of properties shall ensure that a Phase II ESA shall be conducted to determine the presence or absence of a significant impact to the subject site from hazardous materials. The Phase II ESA may include but may not be limited to the following: (1) Collection and laboratory analysis of soils and/or groundwater samples to ascertain the presence or absence of significant concentrations of constituents of concern; (2) Collection and laboratory analysis of soil vapors and/or indoor air to ascertain the presence or absence of significant concentrations of volatile constituents of concern; and/or (3) Geophysical surveys to ascertain the presence or absence of subsurface features of concern such as USTs, drywells, drains, plumbing, and septic systems. The findings and conclusions of the Phase II ESA shall become the basis for potential recommendations for follow-up investigation, site characterization, and/or remedial activities, if found to be warranted.</p>	Prior to issuance of grading permit	City of Fresno Development and Resource Management Department
<p>HAZ-4c: In the event the findings and conclusions of the Phase II ESA reveal the presence of significant concentrations of hazardous materials warranting further investigation, the property owners and/or developers of properties shall ensure that site characterization shall be conducted in the form of additional Phase II ESAs in order to characterize the source and maximum extent of impacts from constituents of concern. The findings and conclusions of the site characterization shall become the basis for formation of a remedial action plan and/or risk assessment.</p>	Prior to issuance of grading permit	City of Fresno Development and Resource Management Department
<p>HAZ-4d: If the findings and conclusions of the Phase II ESA(s), site characterization and/or risk assessment demonstrate the presence of concentrations of hazardous materials exceeding regulatory threshold levels, prior to the issuance of a grading permit, property owners and/or developers of properties shall complete site remediation and potential risk assessment with oversight from the applicable regulatory agency including, but not limited to, the Cal-EPA Department of Toxic Substances Control (DTSC) or Regional Water Quality Control Board (RWQCB), and Fresno County Environmental Health Division (FCEHD). Potential remediation could include the removal or treatment of water and/or soil. If removal occurs, hazardous materials shall be transported and disposed at a hazardous materials permitted facility.</p>	Prior to issuance of grading permit	City of Fresno Development and Resource Management Department and Fresno County Department of Environmental Health Services
<p>HAZ-4e: Prior to the issuance of a building permit for an individual property within the Plan Area with residual environmental contamination, the agency with primary regulatory oversight of environmental conditions at such property ("Oversight Agency") shall have determined that the proposed land use for that property, including proposed development features and design, does not present an unacceptable risk to human health, if applicable, through the use of an Environmental Site Management Plan (ESMP) that could include institutional controls, site-specific mitigation measures, a risk management plan, and deed restrictions based upon applicable risk-based cleanup standards. Remedial action plans, risk management plans and health and safety plans shall be required as determined by the Oversight Agency for a given property under applicable environmental laws, if not already completed, to prevent an unacceptable risk to human health, including workers during and after construction, from exposure to residual contamination in soil and groundwater in connection with remediation and site development activities and the proposed land use.</p>	Prior to issuance of building permit	City of Fresno Development and Resource Management Department

Mitigation Measure	Timing of Implementation	Agency/Department Responsible for Verification
<p>HAZ-4f: For those sites with potential residual volatile organic compounds (VOCs) in soil, soil gas, or groundwater that are planned for redevelopment with an overlying occupied building, a vapor intrusion assessment shall be performed by a licensed environmental professional. If the results of the vapor intrusion assessment indicate the potential for significant vapor intrusion into the proposed building, the project design shall include vapor controls or source removal, as appropriate, in accordance with Regional Water Quality Control Board (RWQCB), the Department of Toxic Substances Control (DTSC) or the Fresno County Environmental Health Division (FCEHD) requirements. Soil vapor mitigations or controls could include passive venting and/or active venting. The vapor intrusion assessment as associated vapor controls or source removal can be incorporated into the ESMP (Mitigation Measure HAZ4-4e).</p>	<p>Prior to commencement of and during construction activities</p>	<p>City of Fresno Development and Resource Management Department</p>
<p>HAZ-4g: In the event of planned renovation or demolition of residential and/or commercial structures on the subject site, prior to the issuance of demolition permits, asbestos and lead based paint (LBP) surveys shall be conducted in order to determine the presence or absence of asbestos-containing materials (ACM) and/or LBP. Removal of friable ACM, and non-friable ACMs that have the potential to become friable, during demolition and/or renovation shall conform to the standards set forth by the National Emissions Standards for Hazardous Air Pollutants (NESHAPs).</p> <p>The San Joaquin Valley Unified Air Pollution Control District (SJVUAPCD) is the responsible agency on the local level to enforce the National Emission Standards for Hazardous Air Pollutants (NESHAPs) and shall be notified by the property owners and/or developers of properties (or their designee(s)) prior to any demolition and/or renovation activities. If asbestos-containing materials are left in place, an Operations and Maintenance Program (O&M Program) shall be developed for the management of asbestos containing materials.</p>	<p>Prior to issuance of demolition permit</p>	<p>City of Fresno Development and Resource Management Department and the San Joaquin Valley Air Pollution Control District</p>
<p>HAZ-4h: Prior to the import of a soil to a particular property within the Plan Area as part of that property’s site development, such soils shall be sampled for toxic or hazardous materials to determine if concentrations exceed applicable Environmental Screening Levels for the proposed land use at such a property, in accordance with Regional Water Quality Control Board (RWQCB), the Department of Toxic Substances Control (DTSC) or the Fresno County Environmental Health Division (FCEHD) requirements, prior to importing to such a property.</p>	<p>Prior to soil import</p>	<p>City of Fresno Development and Resource Management Department</p>
<p>NOISE</p>		
<p>NOISE-2a: Prior to issuance of grading and construction permits, applicants for individual development projects that involve vibration-intensive construction activities—such as pile drivers, jack hammers, and vibratory rollers—within 50 feet of off-site structures, shall prepare and submit to the City of Fresno an acoustical study to evaluate potential construction-related vibration damage impacts. The vibration assessment shall be prepared by a qualified acoustical engineer and be based on the Federal Transit Administration (FTA) vibration-induced architectural damage criterion. If the acoustical study determines a potential exceedance of the FTA thresholds, measures shall be identified that ensure vibration levels are reduced to below the thresholds. Measures to reduce vibration levels can include use of less-vibration-intensive equipment (e.g., drilled piles and static rollers) and/or construction techniques (e.g., non-explosive rock blasting and use of hand tools) and preparation of a pre-construction survey report to assess the condition of the affected sensitive structure. Identified measures shall be included on all construction and building documents and submitted for verification to the City.</p>	<p>Prior to issuance of grading and construction permits</p>	<p>City of Fresno Development and Resource Management Department</p>

Mitigation Measure	Timing of Implementation	Agency/Department Responsible for Verification
<p>NOISE-2b: Prior to issuance of grading and construction permits, applicants for individual development projects that involve vibration-intensive construction activities—such as pile drivers, jack hammers, and vibratory rollers—within 100 feet of sensitive receptors (e.g., residences and schools) shall prepare and submit to the City of Fresno an acoustical study to evaluate potential construction-related vibration annoyance impacts. The study shall be prepared by a qualified acoustical engineer and shall identify measures to reduce impacts to habitable structures to below the Federal Transit Administration (FTA) vibration-induced annoyance criterion. If construction-related vibration is determined in the acoustical study to be perceptible at vibration-sensitive uses, additional requirements, such as use of less-vibration-intensive equipment or construction techniques, shall be implemented during construction (e.g., drilled piles, static rollers, and non-explosive rock blasting). Identified measures shall be included on all construction and building documents and submitted for verification to the City.</p>	<p>Prior to issuance of grading and construction permits</p>	<p>City of Fresno Development and Resource Management Department</p>
<p>NOISE-4a: As required by the City of Fresno Municipal Code, construction activity shall be limited to the hours between 7:00 a.m. and 10:00 p.m. on weekdays and Saturdays, and shall require a permit issued by the City.</p>	<p>Prior to issuance of construction permits and during construction activities</p>	<p>City of Fresno Development and Resource Management Department</p>
<p>NOISE-4b: Prior to the issuance of demolition, grading, and/or construction permits, applicants for individual development projects within 500 feet of noise-sensitive receptors (e.g., residences, hospitals, schools) shall conduct a project-level construction noise analysis to evaluate potential impacts on sensitive receptors. The analysis shall be conducted once the final construction equipment list that will be used for demolition and grading activities is determined. The project-level noise analysis shall be prepared, reviewed, and approved by the City of Fresno Development and Resource Management Director. If the analysis determines that demolition and construction activities would result in an impact to identified noise-sensitive receptors, then specific measures to attenuate the noise impact shall be outlined in the analysis and reviewed and approved by the City of Fresno Development and Resource Management Director. Specific measures may include, but are not limited to, the following best management practices:</p> <ul style="list-style-type: none"> ▪ Post a construction site notice near the construction site access point or in an area that is clearly visible to the public. The notice shall include the following: job site address; permit number, name, and phone number of the contractor and owner; dates and duration of construction activities; construction hours allowed; and the City of Fresno Community Development Director and construction contractor phone numbers where noise complaints can be reported and logged. ▪ Consider the installation of temporary sound barriers for construction activities immediately adjacent to occupied noise-sensitive structures. ▪ Restrict haul routes and construction-related traffic to the least noise-sensitive times of the day. ▪ Reduce non-essential idling of construction equipment to no more than five minutes. ▪ Ensure that all construction equipment is monitored and properly maintained in accordance with the manufacturer’s recommendations to minimize noise. ▪ Fit all construction equipment with properly-operating mufflers, air intake silencers, and engine shrouds, no less effective than as originally equipped by the manufacturer, to minimize noise emissions. ▪ If construction equipment is equipped with back-up alarm shut offs, switch off back-up alarms and replace with human spotters, as feasible. 	<p>Prior to issuance of demolition, grading /or construction permits</p>	<p>City of Fresno Development and Resource Management Department</p>

Mitigation Measure	Timing of Implementation	Agency/Department Responsible for Verification
<ul style="list-style-type: none"> ▪ Stationary equipment (such as generators and air compressors) and equipment maintenance and staging areas shall be located as far from existing noise-sensitive land uses, as feasible. ▪ To the extent feasible, use acoustic enclosures, shields, or shrouds for stationary equipment such as compressors and pumps. ▪ Shut off generators when generators are not needed. ▪ Coordinate deliveries to reduce the potential of trucks waiting to unload and idling for long periods of time. ▪ Grade surface irregularities on construction sites to prevent potholes from causing vehicular noise. ▪ Minimize the use of impact devices such as jackhammers, pavement breakers, and hoe rams. Where possible, use concrete crushers or pavement saws rather than hoe rams for tasks such as concrete or asphalt demolition and removal. <p>The final noise-reduction measures to be implemented and their associated details shall be determined by the construction-level noise analysis. The final noise-reduction measures shall be included on all construction and building documents and/or construction management plans and submitted for verification to the City; implemented by the construction contractor through the duration of the construction phase; and discussed at the pre-demolition, -grade, and/or - construction meetings.</p>		
PUBLIC SERVICES AND RECREATION		
<p>MEIR PS-5: As future school facilities are planned, the school districts shall evaluate if specific environmental effects would occur. Typical impacts from school facilities include noise, traffic, and lighting. Typical mitigation to reduce potential impacts includes:</p> <ul style="list-style-type: none"> ▪ Noise: Barriers and setbacks placed on school sites. ▪ Traffic: Traffic devices for circulation. <p>Lighting: Provision of hoods and deflectors on lighting fixtures for stadium lights.</p>	Prior to issuance of construction permits	City of Fresno Development and Resource Management Department
<p>PS-7: As new development occurs in the Plan Area, the City shall periodically (every 5 years) monitor residential population growth compared to development of new parklands for the purpose of evaluating the strength of this Plan to meet the ratio of 3 acres of parkland per 1,000 population. If the ratio is not met, the City shall explore additional ways to increase the amount of dedicated parkland in the Plan Area, including but not limited to designating additional lands for parkland development.</p>	At 5-year intervals during implementation of the proposed Plan, through the year 2042	City of Fresno Development and Resource Management Department
<p>PS-8: Implement Mitigation Measure PS-7.</p>	See Mitigation Measure PS-7.	
TRANSPORTATION AND TRAFFIC		
<p>TRANS-7.1: Provide transportation improvements consistent with General Plan Policy MT-1-j in the Plan Area that would encourage non-vehicular transportation and reduce auto traffic levels. These improvements shall be consistent with the goals and policies in the proposed Plan, which require the implementation of complete streets, bikeways, trails, sidewalks, and enhanced transit service to support transit use, biking, and walking as viable modes of travel. By supporting and encouraging these non-auto modes in lieu of auto travel, future traffic levels would be reduced.</p> <p>The City of Fresno shall also apply General Plan Policy MT-1-o, which allows LOS E or F conditions outside of identified multimodal districts if provisions are made to sufficiently improve the overall transportation system and promote non-vehicular transportation. With the application of General</p>	Ongoing	City of Fresno Public Works Department

Mitigation Measure	Timing of Implementation	Agency/Department Responsible for Verification
<p>Plan policy MT-1-o, the LOS F conditions on Church Avenue and LOS E conditions on North Avenue would be considered acceptable.</p>	Ongoing	Caltrans, Fresno Council of Governments, City of Fresno Public Works Department
<p>NS-7.2: Development within the proposed Plan shall pay its regional transportation mitigation fee (RTMF) towards funding improvements to the regional highways and streets system. The City of Fresno shall coordinate with Caltrans and the Fresno Council of Governments to recommend the following intersection and ramp improvements at the SR-99/Jensen Avenue interchange and SR-41/North Avenue interchange be incorporated into the RTMF program and any applicable future City of Fresno fee update applicable to roadway facilities and/or traffic signals:</p> <ul style="list-style-type: none"> ▪ SR-99 Southbound Off-Ramp/Jensen Avenue intersection: <ul style="list-style-type: none"> – Widen the SR-99 southbound off-ramp to add an additional left-turn pocket. – Restripe the existing shared through-left turn lane on the SR-99 southbound off-ramp as a dedicated through lane. – The resulting lane configuration on the southbound off-ramp is: two left-turn lanes, one through lane, and one right-turn lane. – Add an overlap phase for the northbound right-turn movement. – Prohibit westbound U-turn movement to allow the northbound right-turn overlap. – Widen the eastbound approach to stripe a third through lane; add a third receiving lane on the east leg that traps into the SR-99 southbound on-ramp. ▪ SR-99 Northbound Off-Ramp/Jensen Avenue intersection: <ul style="list-style-type: none"> – Change the lane configurations on the northbound off-ramp to a dedicated left-turn pocket and shared through-right turn lane. – Add an overlap phase for the southbound right-turn movement. – Prohibit eastbound U-turn movement to allow the southbound right-turn overlap. – Widen the westbound approach to stripe a third through lane; add a third receiving lane on the west leg that traps into the SR-99 northbound on-ramp. – Change the phasing for the northbound and southbound approaches to protected left-turn movements and separate. ▪ SR-41 Southbound Off-Ramp/North Avenue intersection: <ul style="list-style-type: none"> – Widen the SR-41 southbound off-ramp to add a left-turn pocket. – Change the lane configurations on the southbound off-ramp to convert the existing shared through-left turn lane to a shared right turn-through-left turn lane. – Extend the right-turn pocket on the off-ramp to accommodate right-turn queue length shown in Table 4.14-16. – The resulting lane configuration on the southbound off-ramp is: one left-turn lane, one shared right turn-through-left turn lane, and one right-turn lane. – Widen the eastbound approach to add a third through lane that traps into the eastbound left-turn onto the SR-41 northbound on-ramp. 	<p>Note: State Route 99 and State Route 41 are under Caltrans' jurisdiction, and the implementation and timing of Mitigation Measure TRANS-7.2 is not fully under the City's control.</p>	
<p>In addition to addressing intersection operations, the changes identified above also address freeway off-ramp queuing impacts identified in Impact TRANS-7.3 below. With the implementation of the changes listed above, the operations at these three intersections would be improved to LOS D or better during both the AM and PM peak hours, as shown in Table 4.14-16 below (refer to Appendix H for calculations).</p>		

Mitigation Measure	Timing of Implementation	Agency/Department Responsible for Verification
<p>While these changes would improve traffic operations to an acceptable LOS, these improvements require alterations to signals operated by Caltrans as well as physical expansion of intersections and ramps that are under Caltrans jurisdiction. Since these improvements are not within the City of Fresno’s jurisdiction to control, it cannot be guaranteed that these improvements will be implemented.</p> <p>In addition to the three intersections at the SR-99/Jensen Avenue and SR-41/North Avenue interchanges that operate at LOS E or LOS F under cumulative conditions, the following improvements would address unacceptable LOS E operations at the SR-99/Fresno Street interchange:</p> <ul style="list-style-type: none"> ▪ SR-99 Southbound Ramps/Fresno Street intersection: <ul style="list-style-type: none"> - Widen the SR-99 southbound frontage road to add an additional right-turn pocket. - Restripe the existing through lane as a shared through-left turn lane on the SR-99 southbound off-ramp. - The resulting lane configuration on the southbound off-ramp is: one left-turn lane, one shared through left-turn lane, and two right-turn lanes. <p>SR-99 Northbound Ramps/Fresno Street intersection:</p> <ul style="list-style-type: none"> - Add a through lane to the westbound approach on Fresno Street that traps into the left-turn onto the SR-99 southbound on-ramp. - Adding the third through lane on Fresno Street would require removing the existing raised median and prohibiting eastbound left-turns at the Fresno Street/E Street intersection. <p>With the implementation of the changes listed above, the operations at these two intersections would be improved to LOS D or better during both the AM and PM peak hours, as shown in Table 4.14-17 below (refer to Appendix H for calculations).</p> <p>While the intersection and ramp changes at the SR-99/Fresno Street interchange would improve intersection LOS, physical constraints on the SR-99 southbound frontage road would make the proposed widening of the southbound approach infeasible.</p>		
<p>TRANS-7.3: Development within the proposed Plan shall pay its regional transportation mitigation fee (RTMF) towards funding improvements to the regional highways and streets system. In addition to the recommended improvements listed in Mitigation Measure TRANS-7.2, the City of Fresno shall coordinate with Caltrans and the Fresno Council of Governments to recommend the following intersection and ramp improvements at the SR-41/Jensen Avenue interchange be incorporated into the RTMF program and any applicable future City of Fresno fee update applicable to roadway facilities and/or traffic signals:</p> <ul style="list-style-type: none"> ▪ SR-41 Southbound Off-Ramp/Jensen Avenue intersection: <ul style="list-style-type: none"> - Change the existing shared left-right turn lane on the SR-41 southbound off-ramp as a dedicated right-turn lane SR-99 southbound off-ramp - The resulting lane configuration on the southbound off-ramp is: one left-turn lane and two right-turn lanes 	<p>Ongoing</p> <p>Note: State Route 41 is under Caltrans’ jurisdiction, and the implementation and timing of Mitigation Measure TRANS-7.3 is not fully under the City’s control.</p>	<p>Caltrans, Fresno Council of Governments, City of Fresno Public Works Department</p>

Mitigation Measure	Timing of Implementation	Agency/Department Responsible for Verification
<p>– Add a southbound right-turn phase to run concurrently with the eastbound through phase by taking green time from the westbound through phase</p> <p>The implementation of the changes to the SR-41 southbound off-ramp at Jensen Avenue listed above would reduce queuing on the SR-41 southbound off-ramp. These changes in combination with the improvements to the SR-99/Jensen Avenue, SR-41/North Avenue, and SR-99/Fresno Street interchange listed in Mitigation Measure TRANS-7.2, would reduce freeway off-ramp queuing under cumulative conditions.</p> <p>Table 4.14-18 in Chapter 4.14 presents the estimated freeway off-ramp queues with the improvements presented in Mitigation Measure TRANS-7.2 and TRANS-7.3 (refer to Appendix H for calculations). While these changes would reduce the 95th percentile queues on freeway off-ramps to within the available storage on the off-ramp, these improvements require alterations to signals operated by Caltrans as well as physical expansion of intersections and ramps that are under Caltrans jurisdiction. Since these improvements are not within the City of Fresno’s jurisdiction to control, it cannot be guaranteed that these improvements will be implemented.</p>		
UTILITIES AND SERVICE SYSTEMS		
<p>MEIR USS-1: The City shall develop and implement a wastewater master plan update.</p>	<p>Prior to wastewater conveyance and treatment demand exceeding capacity</p>	<p>City of Fresno Public Utilities Department</p>
<p>MEIR USS-2: Prior to exceeding existing wastewater treatment capacity, the City shall evaluate the wastewater system and shall not approve additional development that contributes wastewater to the wastewater treatment facility that could exceed capacity until additional capacity is provided. By approximately the year 2025, the City shall construct the following improvements.</p> <ul style="list-style-type: none"> ▪ Construct an approximately 70 MGD expansion of the Regional Wastewater Treatment Facility and obtain revised waste discharge permits as the generation of wastewater is increased. ▪ Construct an approximately 0.49 MGD expansion of the North Facility and obtain revised waste discharge permits as the generation of wastewater is increased. 	<p>Prior to exceeding existing wastewater treatment capacity</p>	<p>City of Fresno Public Utilities Department</p>
<p>MEIR USS-3: Prior to exceeding existing wastewater treatment capacity, the City shall evaluate the wastewater system and shall not approve additional development that contributes wastewater to the wastewater treatment facility that could exceed capacity until additional capacity is provided. After approximately the year 2025, the City shall construct the following improvements.</p> <ul style="list-style-type: none"> ▪ Construct an approximately 24 MGD Wastewater Treatment Facility within the Southeast Development Area and obtain revised waste discharge permits as the generation of wastewater is increased. ▪ Construct an approximately 9.6 MGD expansion of the Regional Wastewater Treatment Facility and obtain revised waste discharge permits as the generation of wastewater is increased. 	<p>Prior to exceeding existing wastewater treatment capacity</p>	<p>City of Fresno Public Utilities Department</p>
<p>MEIR USS-4: A Traffic Control/Traffic Management Plan to address traffic impacts during construction of water and sewer facilities shall be prepared and implemented subject to approval by the City prior to construction. The plan shall identify hours of construction and for deliveries, include haul routes, identify access and parking restrictions, plan for notifications, identify pavement markings and signage, and plan for coordination with emergency service providers and schools.</p>	<p>Prior to construction of water and sewer facilities</p>	<p>City of Fresno Public Works Department</p>

Mitigation Measure	Timing of Implementation	Agency/Department Responsible for Verification
<p>MEIR USS-5: Prior to exceeding existing water supply capacity, the City shall evaluate the water supply system and shall not approve additional development that demand additional water until additional capacity is provided. By approximately the year 2025, the following capacity improvements shall be provided.</p> <ul style="list-style-type: none"> ▪ Construct an approximately 80 million gallon per day (MGD) surface water treatment facility near the intersection of Armstrong and Olive Avenues, in accordance with Chapter 9 and Figure 9-1 of the City of Fresno Metropolitan Water Resources Management Plan Update Phase 2 Report, January 2012 (2012 Metro Plan Update). ▪ Construct an approximately 30 MGD expansion of the existing northeast surface water treatment facility for a total capacity of 60 MGD, in accordance with Chapter 9 and Figure 9-1 of the 2012 Metro Plan Update. ▪ Construct an approximately 20 MGD surface water treatment facility in the southwest portion of the City, in accordance with Chapter 9 and Figure 9- 1 of the 2012 Metro Plan Update. 	<p>Prior to exceeding existing water supply capacity</p>	<p>City of Fresno Public Utilities Department</p>
<p>MEIR USS-6: Prior to exceeding capacity within the existing wastewater collection system facilities, the City shall evaluate the wastewater collection system and shall not approve additional development that would generate additional wastewater and exceed the capacity of a facility until additional capacity is provided. By approximately the year 2025, the following capacity improvements shall be provided.</p> <ul style="list-style-type: none"> ▪ Orange Avenue Trunk Sewer: This facility shall be improved between Dakota and Jensen Avenues. Approximately 37,240 feet of new sewer main shall be installed and approximately 5,760 feet of existing sewer main shall be rehabilitated. The size of the new sewer main shall range from 27-inches to 42-inches in diameter. The associated project designations in the 2006 Wastewater Master Plan are RS03A, RL02, C01-REP, C02-REP, C03-REP, C04-REP, C05-REP, C06-REL and C07-REP. ▪ Marks Avenue Trunk Sewer: This facility shall be improved between Clinton Avenue and Kearney Boulevard. Approximately 12,150 feet of new sewer main shall be installed. The size of the new sewer main shall range from 33 inches to 60 inches in diameter. The associated project designations in the 2006 Wastewater Master Plan are CM1-REP and CM2-REP. ▪ North Avenue Trunk Sewer: This facility shall be improved between Polk and Fruit Avenues and also between Orange and Maple Avenues. Approximately 25,700 feet of new sewer main shall be installed. The size of the new sewer main shall range from 48 inches to 66 inches in diameter. The associated project designations in the 2006 Wastewater Master Plan are CN1-REL1 and CN3-REL1. ▪ Ashlan Avenue Trunk Sewer: This facility shall be improved between Hughes and West Avenues and also between Fruit and Blackstone Avenues. Approximately 9,260 feet of new sewer main shall be installed. The size of the new sewer main shall range from 24 inches to 36 inches in diameter. The associated project designations in the 2006 Wastewater Master Plan are CA1-REL and CA2-REP. 	<p>Prior to exceeding capacity within the existing wastewater collection system facilities</p>	<p>City of Fresno Public Utilities Department</p>

Mitigation Measure	Timing of Implementation	Agency/Department Responsible for Verification
<p>MEIR USS-7: Prior to exceeding capacity within the existing 28 pipeline segment shown on Figures 1 and 2 in Appendix J-1 of the Fresno General Plan MEIR, the City shall evaluate the wastewater collection system and shall not approve additional development that would generate additional wastewater and exceed the capacity of one of the 28 pipeline segments until additional capacity is provided.</p>	<p>Prior to exceeding capacity within the existing 28 pipeline segments shown on Figures 1 and 2 in Appendix J-1 of the Fresno General Plan MEIR</p>	<p>City of Fresno Public Utilities Department</p>
<p>MEIR USS-8: Prior to exceeding capacity within the existing water conveyance facilities, the City shall evaluate the water conveyance system and shall not approve additional development that would demand additional water and exceed the capacity of a facility until additional capacity is provided. The following capacity improvements shall be provided by approximately 2025.</p> <ul style="list-style-type: none"> ▪ Construct 65 new groundwater wells, in accordance with Chapter 9 and Figure 9-1 of the 2012 Metro Plan Update. ▪ Construct a 2.0 million gallon potable water reservoir (Reservoir T2) near the intersection of Clovis and California Avenues, in accordance with Chapter 9 and Figure 9-1 of the 2012 Metro Plan Update. ▪ Construct a 3.0 million gallon potable water reservoir (Reservoir T3) near the intersection of Temperance and Dakota Avenues, in accordance with Chapter 9 and Figure 9-1 of the 2012 Metro Plan Update. ▪ Construct a 3.0 million gallon potable water reservoir (Reservoir T4) in the Downtown Planning Area, in accordance with Chapter 9 and Figure 9-1 of the 2012 Metro Plan Update. Construct a 4.0 million gallon potable water reservoir (Reservoir T5) near the intersection of Ashlan and Chestnut Avenues, in accordance with Chapter 9 and Figure 9-1 of the 2012 Metro Plan Update. ▪ Construct a 4.0 million gallon potable water reservoir (Reservoir T6) near the intersection of Ashlan Avenue and Highway 99, in accordance with Chapter 9 and Figure 9-1 of the 2012 Metro Plan Update. ▪ Construct 50.3 miles of regional water transmission mains ranging in size from 24-inch to 48-inch, in accordance with Chapter 9 and Figure 9-1 of the 2012 Metro Plan Update. ▪ Construct 95.9 miles of 16-inch transmission grid mains, in accordance with Chapter 9 and Figure 9-1 of the 2012 Metro Plan Update. 	<p>Prior to exceeding capacity within the existing water conveyance facilities</p>	<p>City of Fresno Public Utilities Department</p>
<p>MEIR USS-9: Prior to exceeding capacity within the existing water conveyance facilities, the City shall evaluate the water conveyance system and shall not approve additional development that would demand additional water and exceed the capacity of a facility until additional capacity is provided. The following capacity improvements shall be provided after approximately the year 2025 and additional water conveyance facilities shall be provided prior to exceedance of capacity within the water conveyance facilities to accommodate full buildout of the General Plan Update.</p>	<p>Prior to exceeding capacity within the existing water conveyance facilities</p>	<p>City of Fresno Public Utilities Department</p>
<p>UTIL-3: Implement MEIR Mitigation Measures USS-1 through USS-3.</p>	<p>See Mitigation Measures MEIR USS-1 through MEIR USS-3.</p>	
<p>UTIL-4: Implement MEIR Mitigation Measures USS-1 through USS-9.</p>	<p>See Mitigation Measures MEIR USS-1 through MEIR USS-9.</p>	
<p>MEIR USS-22: Prior to exceeding landfill capacity, the City shall evaluate additional landfill locations and shall not approve additional development that could contribute solid waste to a landfill that is at capacity until additional capacity is provided.</p>	<p>Prior to exceeding landfill capacity</p>	<p>City of Fresno Public Utilities Department</p>



6 REPORT PREPARATION

Names of Persons Who Prepared or Participated in the Initial Study:

Lead Agency - City of Fresno

Planning and Development Department
2600 Fresno Street, 3rd Floor
Fresno, CA 93721

Initial Study Consultant - Precision Civil Engineering, Inc.

1234 O Street
Fresno, CA 93721
(559) 449-4500

Contacts:

Bonique Emerson, AICP, Vice President of Planning

bemerson@precisioneng.net

Shin Tu, Associate Planner

stu@precisioneng.net

Technical Studies, Traffic - JLB Traffic Engineering, Inc.

516 W. Shaw Ave., Ste. 103
Fresno, CA 93704
(559) 570-8991

Technical Studies, Air Quality - Stantec Consulting Services, Inc.

6780 North West Avenue, Suite 103
Fresno, CA 93711

Contact:

Elena Nuño, Principal Air Quality Scientist/Project Manager

(559) 355-0580



7 APPENDICES



Appendix A: Air Quality and Greenhouse Gas Analysis Report

Prepared by Stantec Consulting Services, Inc. dated October 14, 2021.



**Air Quality and Greenhouse Gas Impact
Assessment**

Busseto Foods Project

October 14, 2021

Prepared for:

Precision Civil Engineering
1234 O Street
Fresno, CA 93721
Contact: Bonique Emerson, AICP,
Planning Division Manager
559.449.4500

Prepared by:

Stantec Consulting Services Inc.
6780 North West Avenue, Suite 103
Fresno, CA 93711
Contact: Elena Nuño, Principal Air
Quality Scientist/Project Manager
559.355.0580

Table of Contents

ABBREVIATIONS	III
1.0 EXECUTIVE SUMMARY	1.1
1.1 PROJECT UNDERSTANDING	1.1
1.2 SUMMARY OF ANALYSIS	1.1
2.0 INTRODUCTION	2.2
2.1 PURPOSE OF ANALYSIS	2.2
2.2 PROJECT DESCRIPTION	2.2
2.2.1 Surrounding Land Uses and Existing Conditions	2.2
3.0 AIR QUALITY	3.1
3.1 ENVIRONMENTAL SETTING	3.1
3.1.1 Climate Topography	3.1
3.1.2 Criteria Air Pollutants	3.2
3.1.3 Odors	3.11
3.1.4 Toxic Air Contaminants	3.11
3.1.5 Valley Fever	3.14
3.1.6 Attainment Status	3.14
3.1.7 Ambient Air Quality	3.15
3.1.8 Local Sources of Air Pollution	3.17
3.1.9 Sensitive Receptors	3.17
3.2 REGULATORY SETTING	3.18
3.2.1 Federal	3.18
3.2.2 State	3.18
3.2.3 Regional	3.21
3.2.4 Local	3.24
4.0 GREENHOUSE GAS	4.1
4.1 ENVIRONMENTAL SETTING	4.1
4.1.1 Local	4.1
4.1.2 Global Warming Potential	4.3
4.1.3 Sources of Greenhouse Gas Emissions	4.3
4.1.4 Effects of Global Climate Change	4.5
4.2 REGULATORY SETTING	4.5
4.2.1 Federal	4.5
4.2.2 State	4.8
4.2.3 Regional	4.17
5.0 MODELING PARAMETERS AND ASSUMPTIONS	5.1
5.1 CRITERIA AIR POLLUTANT AND GHG MODEL SELECTION	5.1
5.2 AIR POLLUTANTS AND GHGS ASSESSED	5.1
5.2.1 Criteria Pollutants Assessed	5.1
5.2.2 GHGs Assessed	5.2



AIR QUALITY AND GREENHOUSE GAS IMPACT ASSESSMENT

5.3	ASSUMPTIONS	5.2
6.0	AIR QUALITY IMPACT ANALYSIS	6.1
6.1	CEQA GUIDELINES.....	6.1
6.2	AIR IMPACT ANALYSIS.....	6.2
7.0	GREENHOUSE GAS IMPACT ANALYSIS	7.1
7.1	CEQA GUIDELINES.....	7.1
7.2	GHG IMPACT ANALYSIS	7.4
8.0	REFERENCES.....	8.1

LIST OF TABLES

Table 1: California and National Ambient Air Quality Standards.....	3.3
Table 2: San Joaquin Valley Air Basin Attainment Status.....	3.15
Table 3: Ambient Air Quality Summary	3.16
Table 4: CalEEMod Land Use Development Summary Table for the Proposed Project	5.3
Table 5: Project Construction Schedule	5.4
Table 6: Project Construction Equipment	5.4
Table 7: Construction Vehicle Trips	5.6
Table 8: SJVAPCD Significance Thresholds	6.2
Table 9: Construction Emissions – Unmitigated	6.6
Table 10: Summary of Operational Emissions of Criteria Air Pollutants – Unmitigated.....	6.7
Table 11: Localized Concentrations of PM10, PM2.5, CO, and NO _x for Construction	6.12
Table 12: Estimated Trucking Numbers	6.14
Table 13: Health Risks from the Proposed Project at the Maximally Exposed Sensitive Receptor.....	6.18
Table 14: Construction Greenhouse Gas Emissions	7.5
Table 16: Project Consistency with Applicable SJVAPCD CCAP GHG Reduction Measures.....	7.10
Table 17: Project Consistency with Applicable Tulare COG Goals.....	7.10

LIST OF FIGURES

Figure 1: Project Site.....	2.3
Figure 2: GHG Emissions by Economic Sector.....	4.4
Figure 3: Project Site with Sensitive Receptors within 1,000 Feet . Error! Bookmark not defined.	
Figure 4: Project Site with a 1,000 Foot Buffer.....	6.16

LIST OF APPENDICES

Appendix A: Criteria Air Pollutant and Greenhouse Gas Emissions

Appendix B: Health Risk Assessment



ABBREVIATIONS

µg/m ³	Micrograms Per Cubic Meter
AB	Assembly Bill
ACBMs	Asbestos-Containing Building Materials
ATCMs	Airborne Toxic Control Measures
AQGGP	Air Quality Guidelines for General Plans
AQI	Air Quality Index
AQP	Air Quality Plan
BACT	Best Available Control Technology
BAU	Business-As-Usual
BPS	Best Performance Standards
CAAQS	California Ambient Air Quality Standards
CalEEMod	California Emissions Estimator Model
CalEPA	California Environmental Protection Agency
CAPCOA	California Air Pollution Control Officers Association
CARB	California Air Resources Board
CCAA	California Clean Air Act
CEQA	California Environmental Quality Act
CF ₄	Perfluoromethane
CH ₄	Methane
CO	Carbon Monoxide
CO ₂	Carbon Dioxide
C ₂ F ₆	Perfluoroethane
C ₃ F ₈	Perfluoropropane
C ₄ F ₁₀	Perfluorobutane
C ₄ F ₈	Perfluorocyclobutane
C ₅ F ₁₂	Perfluoropentane
C ₆ F ₁₄	Perfluorohexane
DPM	Diesel Particulate Matter
DRRP	Diesel Risk Reduction Plan
EO	Executive Order
EPA	United States Environmental Protection Agency
FCAA	Federal Clean Air Act
GAMAQI	Guidance for Assessing and Mitigating Air Quality Impacts
GHG	Greenhouse Gases
GWP	Global Warming Potential
HAP	Hazardous Air Pollutants
HFC	Hydrofluorocarbons
H ₂ S	Hydrogen Sulfide
LCFS	Low Carbon Fuel Standard



AIR QUALITY AND GREENHOUSE GAS IMPACT ASSESSMENT

LOS	Level of Service
MMT	Million Metric Tons
MMTCO _{2e}	Million Metric Tons of Carbon Dioxide Equivalents
MTCO _{2e}	Metric Tons of Carbon Dioxide Equivalents
NAAQS	National Ambient Air Quality Standards
NESHAP	National Emissions Standards for Hazardous Air Pollutants
NF ₃	Nitrogen Trifluoride
N ₂ O	Nitrous Oxide
NOA	Naturally Occurring Asbestos
NOX	Oxides of Nitrogen
NO ₂	Nitrogen Dioxide
O ₃	Ozone
OAL	Office of Administrative Law
Pb	Lead
PEIR	Program Environmental Impact Report
PERP	Portable Equipment Registration Program
PFCs	Perfluorocarbons
PG&E	Pacific Gas and Electric Company
PM	Particulate Matter
PM _{2.5}	Fine particulate matter; particulate matter 2.5 microns or smaller
PM ₁₀	Particulate matter; particulate matter 10 microns or smaller
ppb	parts per billion
ppm	parts per million
ROG	Reactive Organic Gases
RPS	Renewable Portfolio Standard
RTP	Regional Transportation Plan
SB	Senate Bill
SCS	Sustainable Communities Strategy
SF ₆	Sulfur Hexafluoride
SIL	Significant Impact Level
SJVAB	San Joaquin Valley Air Basin
SJVAPCD	San Joaquin Valley Air Pollution Control District
SO ₂	Sulfur Dioxide
SO ₄	Sulfates
SOX	Sulfur Oxides
TAC	Toxic Air Contaminants
VMT	Vehicle Miles Traveled
VOC	Volatile Organic Compounds



1.0 EXECUTIVE SUMMARY

The following air quality, greenhouse gas, and energy impact analysis was prepared to evaluate whether construction and operation of the Lombardi Development in Porterville, California would cause significant impacts with respect to air quality, greenhouse gas, and energy in the Project area. This assessment was conducted within the context of the California Environmental Quality Act (CEQA) (California Public Resources Code Sections 21000, et seq.).

1.1 PROJECT UNDERSTANDING

Busseto Foods proposes to construct and operate a new 477,470 square foot industrial warehouse project (Project) for the purpose of manufacturing dried, cured meats. The project includes merging two parcels and a General Plan Amendment from Residential to Light Industrial. Currently, Busseto Foods owns and operates three facilities around Fresno, the proposed Project will combine all operations under one roof.

1.2 SUMMARY OF ANALYSIS

- Impact AIR-1:** The Project would not conflict with or obstruct implementation of the applicable air quality plan. **Less Than Significant Impact.**
- Impact AIR-2:** The Project would not result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or state ambient air quality standard. **Less Than Significant Impact.**
- Impact AIR-3:** The Project would not expose sensitive receptors to substantial pollutant concentrations. **Less Than Significant Impact.**
- Impact AIR-4:** The Project would not result in other emissions (such as those leading to odors) affecting a substantial number of people. **Less Than Significant Impact.**
- Impact GHG-1:** The Project would not generate direct and indirect greenhouse gas emissions that would result in a significant impact on the environment. **Less Than Significant Impact.**
- Impact GHG-2:** The Project would not conflict with any applicable plan, policy or regulation of an agency adopted to reduce the emissions of greenhouse gases. **Less Than Significant Impact.**



2.0 INTRODUCTION

2.1 PURPOSE OF ANALYSIS

The purpose of this Air Quality and Greenhouse Gas Impact Assessment Technical Study (Study) is to analyze potential air quality and greenhouse gas (GHG) impacts that could occur from the construction and operation of the Busseto Foods Project. This assessment was conducted within the context of the California Environmental Quality Act (CEQA).

2.2 PROJECT DESCRIPTION

The Project proposes to construct and operate a new industrial building within the City of Fresno. Busseto Foods currently operates at three facilities within Fresno: 1090 W. Church, 1351 N. Crystal, and 2413 S. Fruit Avenue. The Project will develop a 477,470 square foot industrial building along West Church, across from the existing facility. The Project will house all operations and remove the need for three separate facilities. The proposed project includes the following components:

- Construction of a 477,470 square foot industrial building
- General Plan Amendment from Residential to Light Industrial
- Merging of two parcels into the Project site

2.2.1 Surrounding Land Uses and Existing Conditions

The Project site is currently in use with primarily agricultural activities. The proposed site is surrounded by the following land uses:

- North: Existing Busseto Foods facility.
- South: Ponding Basin.
- East: Vacant, farmed property.
- West: Auto dismantling facility.



AIR QUALITY AND GREENHOUSE GAS IMPACT ASSESSMENT

Introduction
October 14, 2021

Figure 1: Project Site



3.0 AIR QUALITY

3.1 ENVIRONMENTAL SETTING

The proposed project is located within the San Joaquin Valley Air Basin (SJVAB). The San Joaquin Valley Air Pollution Control District (SJVAPCD) regulates air quality in eight counties including: Fresno, Kern, (western and central), Kings, Madera, Merced, San Joaquin, Stanislaus, and Tulare.

Air pollution in the SJVAB can be attributed to both human-related (anthropogenic) and natural (non-anthropogenic) activities that produce emissions. Air pollution from significant anthropogenic activities in the SJVAB includes a variety of industrial-based sources as well as on- and off-road mobile sources.

Activities that tend to increase mobile activity include increases in population, increases in general traffic activity (including automobiles, trucks, aircraft, and rail), urban sprawl (which will increase commuter driving distances), and general local land management practices as they pertain to modes of commuter transportation. These sources, coupled with geographical and meteorological conditions unique to the area, stimulate the formation of unhealthy air.

3.1.1 Climate Topography

The following information is excerpted from the most recent version of the SJVAPCD Guide for Assessing, and Mitigating Air Quality Impacts (GAMAQI) adopted in March 2015 (SJVAPCD 2015a).

The SJVAB has an “inland Mediterranean” climate and is characterized by long, hot, dry summers and short, foggy winters. Sunlight can be a catalyst in the formation of some air pollutants (such as ozone); the Basin averages over 260 sunny days per year. The SJVAB is generally shaped like a bowl. It is open in the north and is surrounded by mountain ranges on all other sides. The Sierra Nevada mountains are along the eastern boundary (8,000 to 14,000 feet in elevation), the Coast Ranges are along the western boundary (3,000 feet in elevation), and the Tehachapi Mountains are along the southern boundary (6,000 to 8,000 feet in elevation).

Dominant airflows provide the driving mechanism for transport and dispersion of air pollution. The mountains surrounding the SJVAB form natural horizontal barriers to the dispersion of air contaminants. The wind generally flows south-southeast through the valley, through the Tehachapi Pass and into the Southeast Desert Air Basin portion of Kern County. As the wind moves through the Basin, it mixes with the air pollution



AIR QUALITY AND GREENHOUSE GAS IMPACT ASSESSMENT

Air Quality
October 14, 2021

generated locally, generally transporting air pollutants from the north to the south in the summer and in a reverse flow in the winter.

Generally, the temperature of air decreases with height, creating a gradient from warmer air near the ground to cooler air at elevation. This gradient of cooler air over warm air is known as the environmental lapse rate. Inversions occur when warm air sits over cooler air, trapping the cooler air near the ground. These inversions trap pollutants from dispersing vertically and the mountains surrounding the San Joaquin Valley trap the pollutants from dispersing horizontally. Strong temperature inversions occur throughout the SJVAB in the summer, fall, and winter. Daytime temperature inversions occur at elevations of 2,000 to 2,500 feet above the San Joaquin Valley floor during the summer and at 500 to 1,000 feet during the winter. The result is a relatively high concentration of air pollution in the valley during inversion episodes. These inversions cause haziness, which in addition to moisture may include suspended dust, a variety of chemical aerosols emitted from vehicles, particulates from wood stoves, and other pollutants. In the winter, these conditions can lead to carbon monoxide “hotspots” along heavily traveled roads and at busy intersections. During summer’s longer daylight hours, stagnant air, high temperatures, and plentiful sunshine provide the conditions and energy for the photochemical reaction between reactive organic gases (ROG) and oxides of nitrogen (NO_x), which results in the formation of ozone.

Because of the prevailing daytime winds and time-delayed nature of ozone, concentrations are highest in the southern portion of the Basin. Summers are often periods of hazy visibility and occasionally unhealthy air, while winter air quality impacts tend to be localized and can consist of (but are not exclusive to) odors from agricultural operations; soot or smoke around residential, agricultural, and hazard-reduction wood burning; or dust near mineral resource recovery operations.

3.1.2 Criteria Air Pollutants

For the protection of public health and welfare, the Federal Clean Air Act (FCAA) required that the United States Environmental Protection Agency (EPA) establish National Ambient Air Quality Standards (NAAQS) for various pollutants. These pollutants are referred to as "criteria" pollutants because the EPA publishes criteria documents to justify the choice of standards. These standards define the maximum amount of an air pollutant that can be present in ambient air. An ambient air quality standard is generally specified as a concentration averaged over a specific time, such as one hour, eight hours, 24 hours, or one year. The different averaging times and concentrations are meant to protect against different exposure effects. Standards established for the protection of human health are referred to as primary standards; whereas standards established for the prevention of environmental and property damage are called secondary standards. The FCAA allows states to adopt additional or more health-protective standards. The air quality regulatory framework and ambient air



AIR QUALITY AND GREENHOUSE GAS IMPACT ASSESSMENT

Air Quality
October 14, 2021

quality standards are discussed in greater detail later in this report. Table 1 provides a summary of the California and National Ambient Air Quality Standards.

Table 1: California and National Ambient Air Quality Standards

Pollutant	Averaging Time	California Standards	National Standards	
		Concentration	Primary	Secondary
Ozone	1 Hour	0.09 ppm (180 µg/m ³)	—	Same as Primary Standard
	8 Hour	0.070 ppm (137 µg/m ³)	0.070 ppm (137 µg/m ³)	
Respirable Particulate Matter	24 Hour	50 µg/m ³	150 µg/m ³	Same as Primary Standard
	Annual Arithmetic Mean	20 µg/m ³	—	
Fine Particulate Matter	24 Hour	—	35 µg/m ³	Same as Primary Standard
	Annual Arithmetic Mean	12 µg/m ³	12 µg/m ³	
Carbon Monoxide	1 Hour	20 ppm (23 mg/m ³)	35 ppm (40 mg/m ³)	—
	8 Hour	9.0 ppm (10 mg/m ³)	9 ppm (10 mg/m ³)	—
	8 Hour (Lake Tahoe)	6 ppm (7 mg/m ³)	—	—
Nitrogen Dioxide	1 Hour	0.18 ppm (339 µg/m ³)	100 ppb (188 µg/m ³)	—
	Annual Arithmetic Mean	0.030 ppm (57 µg/m ³)	0.053 ppm (100 µg/m ³)	Same as Primary Standard
Sulfur Dioxide	1 Hour	0.25 ppm (655 µg/m ³)	75 ppb (196 µg/m ³)	—
	3 Hour	—	—	0.5 ppm (1,300 µg/m ³)
	24 Hour	0.04 ppm (105 µg/m ³)	0.14 ppm (for certain areas)	—
	Annual Arithmetic Mean	—	0.030 ppm (for certain areas)	—
Lead	30-Day Average	1.5 µg/m ³	—	Same as Primary Standard
	Calendar Quarter	—	1.5 µg/m ³	
	Rolling 3-Month Average	—	0.15 µg/m ³	
Visibility-Reducing Particles	8 Hour	See Footnote 1	No National Standards	
Sulfates	24 Hour	25 µg/m ³		
Hydrogen Sulfide	1 Hour	0.03 ppm (42 µg/m ³)		
Vinyl Chloride	24 Hour	0.01 ppm (26 µg/m ³)	—	



AIR QUALITY AND GREENHOUSE GAS IMPACT ASSESSMENT

Air Quality
October 14, 2021

Pollutant	Averaging Time	California Standards	National Standards	
		Concentration	Primary	Secondary

Notes:

¹ In 1989, the ARB converted both the general statewide 10-mile visibility standard and the Lake Tahoe 30-mile visibility standard to instrumental equivalents, which are "extinction of 0.23 per kilometer" and "extinction of 0.07 per kilometer" for the statewide and Lake Tahoe Air Basin standards, respectively.

µg/m³ = micrograms per cubic meter

mg/m³ = milligrams per cubic meter

Source: CARB 2016c

The following provides a summary discussion of the primary and secondary criteria air pollutants of primary concern. In general, primary pollutants are directed emitted into the atmosphere, and secondary pollutants are formed by chemical reactions in the atmosphere.

Ozone

Ozone (O₃) is a reactive gas consisting of three atoms of oxygen. Ozone occurs in two layers of the atmosphere. The layer surrounding the earth's surface is the troposphere. The troposphere extends to a level about 10 miles up where it meets the second layer, the stratosphere. While ozone in the upper atmosphere protects the earth from harmful ultraviolet radiation, high concentrations of ground-level ozone can adversely affect the human respiratory system.

Ozone, a colorless gas which is odorless at ambient levels, is the chief component of urban smog. Ozone is not directly emitted as a pollutant but is formed in the atmosphere when hydrocarbon and NO_x precursor emissions react in the presence of sunlight. Meteorology and terrain play major roles in ozone formation. Generally, low wind speeds or stagnant air coupled with warm temperatures and cloudless skies provide the optimum conditions for ozone formation. As a result, summer is generally the peak ozone season. Because of the reaction time involved, peak ozone concentrations often occur far downwind of the precursor emissions. Therefore, ozone is a regional pollutant that often impacts a large area (California Air Resources Board [CARB] 2001).

Sources of precursor gases number in the thousands and include common sources such as consumer products, gasoline vapors, chemical solvents, and combustion byproducts of various fuels. Emissions of the ozone precursors ROG and NO_x most commonly originate from motor vehicles, as well as commercial and industrial uses.

Many respiratory ailments, as well as cardiovascular disease, are aggravated by exposure to high ozone levels. High levels of ozone may negatively affect immune systems, making people more susceptible to respiratory illnesses, including bronchitis and pneumonia. Long-term exposure to ozone is linked to aggravation of asthma and is



AIR QUALITY AND GREENHOUSE GAS IMPACT ASSESSMENT

Air Quality
October 14, 2021

likely to be one of many causes of asthma development. Long-term exposures to higher concentrations of ozone may also be linked to permanent lung damage, such as abnormal lung development in children. People most at risk from breathing air containing ozone include people with asthma, children, older adults, and people who are active outdoors, especially outdoor workers. In addition, people with certain genetic characteristics, and people with reduced intake of certain nutrients, such as vitamins C and E, are at greater risk from ozone exposure (EPA 2021a).

Reactive Organic Gases and Volatile Organic Compounds

Hydrocarbons are organic gases that are formed solely of hydrogen and carbon. There are several subsets of organic gases, including Volatile Organic Compounds (VOCs) and ROG. ROG include all hydrocarbons except those exempted by CARB. Therefore, ROG are a set of organic gases based on state rules and regulations. VOCs are like ROG in that they include all organic gases except those exempted by federal law.

Both VOCs and ROG are emitted from incomplete combustion of hydrocarbons or other carbon-based fuels. Combustion engine exhaust, oil refineries, and oil-fueled power plants are the primary sources of hydrocarbons. Another source of hydrocarbons is evaporation from petroleum fuels, solvents, dry cleaning solutions, and paint.

The primary health effects related to hydrocarbons stem from ozone (see discussion above). High levels of hydrocarbons in the atmosphere can interfere with oxygen intake by reducing the amount of available oxygen through displacement. There are no separate national or California ambient air quality standards for ROG. Carcinogenic forms of ROG, such as benzene, are also considered toxic air contaminants (TACs).

Nitrogen Dioxide and Nitrogen Oxides

Nitrogen dioxide (NO₂) is one of a group of highly reactive gases known as “oxides of nitrogen (NO_x).” NO₂ is the component of greatest interest and the indicator for the larger group of NO_x. It forms quickly from emissions from cars, trucks, and buses, powerplants, and off-road equipment. NO_x is a strong oxidizing agent that reacts in the air to form corrosive nitric acid as well as toxic organic nitrates.

NO_x is emitted from solvents and combustion processes in which fuel is burned at high temperatures. Mobile sources (including on-road and off-road vehicles) and stationary sources such as electric utilities and industrial boilers, constitute a majority of the statewide NO_x emissions. To a lesser extent, area-wide sources, such as residential heaters, gas stoves, and managed burning and disposal, also contribute to total statewide NO_x emissions (CARB 2010). NO_x is also linked to the formation of ground-level ozone and fine particle pollution (see discussion above for ozone and particulate pollution for additional discussion of health-related impacts).



AIR QUALITY AND GREENHOUSE GAS IMPACT ASSESSMENT

Air Quality
October 14, 2021

Direct inhalation of NO_x can cause a wide range of health effects. NO_x can irritate the lungs, cause lung damage, and lower resistance to respiratory infections such as influenza. Short-term exposures (e.g., less than 3 hours) to low levels of NO₂ may lead to changes in airway responsiveness and lung function in individuals with pre-existing respiratory illnesses. These exposures may also increase respiratory illnesses in children. Long-term exposures to NO₂ may lead to increased susceptibility to respiratory infection and may cause irreversible lung damage. Other health effects are an increase in the incidence of chronic bronchitis and lung irritation. Chronic exposure may lead to eye and mucus membrane aggravation, along with pulmonary dysfunction. NO_x can cause fading of textile dyes and additives, deterioration of cotton and nylon, and corrosion of metals due to the production of particulate nitrates. Airborne NO_x can also impair visibility.

NO_x also contributes to a wide range of environmental effects both directly and indirectly when combined with other precursors in acid rain and ozone. Increased nitrogen inputs to terrestrial and wetland systems can lead to changes in plant species composition and diversity. Similarly, direct nitrogen inputs to aquatic ecosystems such as those found in estuarine and coastal waters can lead to eutrophication (a condition that promotes excessive algae growth, which can lead to a severe depletion of dissolved oxygen and increased levels of toxins that are harmful to aquatic life).

Nitrogen, alone or in acid rain, also can acidify soils and surface waters. Acidification of soils causes the loss of essential plant nutrients and increased levels of soluble aluminum, which is toxic to plants. Acidification of surface waters creates low pH conditions and levels of aluminum that are toxic to fish and other aquatic organisms. NO_x also contributes to haze and visibility impairment (EPA 2019a, CARB 2016a).

Particulate Matter

Particulate matter (PM) is a mixture of substances that includes elements such as carbon and metals; compounds such as nitrates, sulfates, and organic compounds; and complex mixtures such as diesel exhaust and soil. PM_{2.5} includes fine particles with a diameter of 2.5 microns or smaller and is a subset of PM₁₀. These particles come in many sizes and shapes and can be made up of hundreds of different chemicals. Some particles, known as primary particles, are emitted directly from a source, such as construction sites, unpaved roads, fields, smokestacks, or fires. Others form in complicated reactions in the atmosphere of chemicals such as sulfur dioxides and nitrogen oxides that are emitted from power plants, industries, and automobiles. These particles, known as secondary particles, make up most of the fine particle pollution in the country (EPA 2019a, CARB 2016a).

Area-wide sources account for about 65 and 83% of the statewide emissions of directly emitted PM_{2.5} and PM₁₀, respectively. The major area-wide sources of PM_{2.5} and



AIR QUALITY AND GREENHOUSE GAS IMPACT ASSESSMENT

Air Quality
October 14, 2021

PM10 are fugitive dust, especially dust from unpaved and paved roads, agricultural operations, and construction and demolition. Sources of PM10 include crushing or grinding operations, and dust stirred up by vehicles traveling on roads. Sources of PM2.5 include all types of combustion, including motor vehicles, power plants, residential wood burning, forest fires, agricultural burning, and some industrial processes.

Exhaust emissions from mobile sources contribute only a very small portion of directly emitted PM2.5 and PM10 emissions but are a major source of the VOC and NO_x that form secondary particles (CARB 2013).

PM2.5 and PM10 particles are small enough to be inhaled and lodged in the deepest parts of the lung where they evade the respiratory system's natural defenses. Health problems begin as the body reacts to these foreign particles. Acute and chronic health effects associated with high particulate levels include the aggravation of chronic respiratory diseases; heart and lung disease; and coughing, bronchitis, and respiratory illnesses in children. Recent mortality studies have shown a statistically significant direct association between mortality and daily concentrations of particulate matter in the air. PM2.5 and PM10 can aggravate respiratory disease and cause lung damage, cancer, and premature death.

Sensitive populations, including children, the elderly, exercising adults, and those suffering from chronic lung disease such as asthma or bronchitis are especially vulnerable to the effect of PM10. Non-health-related effects include reduced visibility and soiling of buildings.

Carbon Monoxide

Carbon Monoxide (CO) is an odorless, colorless gas that is highly toxic. CO is emitted by mobile and stationary sources because of incomplete combustion of hydrocarbons or other carbon-based fuels. CO is an odorless, colorless, poisonous gas that is highly reactive.

CO enters the bloodstream and binds more readily to hemoglobin, the oxygen-carrying protein in blood, than oxygen, thereby reducing the oxygen-carrying capacity of blood and reducing oxygen delivery to organs and tissues. The health threat from CO is most serious for those who suffer from cardiovascular disease. Healthy individuals are also affected but only at higher levels of exposure. Exposure to CO can cause chest pain in heart patients, headaches, and reduced mental alertness. At high concentrations, CO can cause heart difficulties in people with chronic diseases and can impair mental abilities. Exposure to elevated CO levels is associated with visual impairment, reduced work capacity, reduced manual dexterity, poor learning ability, difficulty performing complex tasks, and, with prolonged enclosed exposure, death.



AIR QUALITY AND GREENHOUSE GAS IMPACT ASSESSMENT

Air Quality
October 14, 2021

Very high levels of CO are not likely to occur outdoors. However, when CO levels are elevated outdoors, they can be of particular concern for people with some types of heart disease. These people already have a reduced ability for getting oxygenated blood to their hearts in situations where the heart needs more oxygen than usual. They are especially vulnerable to the effects of CO when exercising or under increased stress. In these situations, short-term exposure to elevated CO may result in reduced oxygen to the heart accompanied by chest pain also known as angina (EPA 2019a).

Sulfur Dioxide

Sulfur Dioxide (SO₂) is one of a group of highly reactive gases known as “oxides of sulfur (SO_x).” It is a colorless, irritating gas with a “rotten egg” smell that is formed primarily by the combustion of sulfur-containing fossil fuels. The largest source of SO₂ in the atmosphere is the burning of fossil fuels by power plants and other industrial facilities. Smaller sources of SO₂ emissions include industrial processes such as extracting metal from ore; natural sources such as volcanoes; and locomotives, ships and other vehicles and heavy equipment that burn fuel with a high sulfur content. State and national ambient air quality standards for SO₂ are designed to protect against exposure to the entire group of sulfur oxides (SO_x). SO₂ is the component of greatest concern and is used as the indicator for the larger group of gaseous sulfur oxides.

High concentrations of SO₂ can result in temporary breathing impairment for asthmatic children and adults who are active outdoors. Short-term exposures of asthmatic individuals to elevated SO₂ levels during moderate activity may result in breathing difficulties that can be accompanied by symptoms such as wheezing, chest tightness, or shortness of breath. Other effects that have been associated with longer term exposures to high concentrations of SO₂ in conjunction with high levels of particulate matter include aggravation of existing cardiovascular disease, respiratory illness, and alterations in the lungs’ defenses. The subgroups of the population that may be affected under these conditions include individuals with heart or lung disease, as well as the elderly and children.

Together, SO₂ and NO_x are the major precursors to acidic deposition (acid rain), which is associated with the acidification of soils, lakes, and streams and accelerated corrosion of buildings and monuments. SO₂ also is a major precursor to PM_{2.5}, which is a significant health concern, and a main contributor to poor visibility.

Lead

Lead (Pb) is a naturally occurring bluish-gray metal found in small amounts in the earth's crust. Lead can be found in all parts of our environment. Much of it comes from human activities including burning fossil fuels, mining, and manufacturing. Lead has many different uses. It is used in the production of batteries, ammunition, metal



AIR QUALITY AND GREENHOUSE GAS IMPACT ASSESSMENT

Air Quality
October 14, 2021

products (solder and pipes), and devices to shield X-rays. Because of health concerns, lead from paints and ceramic products, caulking, and pipe solder has been dramatically reduced in recent years. The use of lead as an additive to gasoline was banned in 1996 in the United States.

Exposure to lead occurs mainly through inhalation of air and ingestion of lead in food, water, soil, or dust. The effects of lead are the same regardless of the path of exposure. Lead can affect almost every organ and system in your body. The main target for lead toxicity is the nervous system, both in adults and children. Long-term exposure of adults can result in decreased performance in some tests that measure functions of the nervous system. It may also cause weakness in fingers, wrists, or ankles.

Lead exposure also causes small increases in blood pressure, particularly in middle-aged and older people and can cause anemia. Exposure to high lead levels can severely damage the brain and kidneys in adults or children and ultimately cause death. In pregnant women, high levels of exposure to lead may cause miscarriage. High level exposure in men can damage the organs responsible for sperm production.

Exposure to lead is more dangerous for young and unborn children. Unborn children can be exposed to lead through their mothers. Harmful effects include premature births, smaller babies, decreased mental ability in the infant, learning difficulties, and reduced growth in young children. These effects are more common if the mother or baby was exposed to high levels of lead. Some of these effects may persist beyond childhood (Agency for Toxic Substances & Disease Registry [ATSDR] 2007).

Hydrogen Sulfide

Hydrogen Sulfide (H₂S) is a colorless gas with the odor of rotten eggs. H₂S occurs naturally and is also produced by human activities. H₂S occurs naturally in crude petroleum, natural gas, volcanic gases, and hot springs. It can also result during bacterial decomposition of sulfur-containing organic substances. Emissions of H₂S associated with human activities including various industrial activities, such as oil and gas production, refining, sewage treatment plants, food processing, and confined animal feeding operations.

Studies in humans suggest that the respiratory tract and nervous system are the most sensitive targets of H₂S toxicity. Exposure to low concentrations of H₂S may cause irritation to the eyes, nose, or throat. It may also cause difficulty in breathing for some asthmatics. Respiratory distress or arrest has been observed in people exposed to very high concentrations of H₂S. Exposure to low concentrations of H₂S may cause headaches, poor memory, tiredness, and balance problems. Brief exposures to high concentrations of H₂S can cause loss of consciousness. In most cases, the person appears to regain consciousness without any other effects. However, in some



AIR QUALITY AND GREENHOUSE GAS IMPACT ASSESSMENT

Air Quality
October 14, 2021

individuals, there may be permanent or long-term effects such as headaches, poor attention span, poor memory, and poor motor function. H₂S is extremely hazardous in high concentrations, especially in enclosed spaces. In some instances, exposure to high concentrations can cause death (ATSDR 2007b).

Other Pollutants

The State of California has established air quality standards for some pollutants not addressed by Federal standards. The CARB has established State standards for hydrogen sulfide, sulfates, vinyl chloride, and visibility reducing particles. Below is a summary of these pollutants and a description of the pollutants' physical properties, health and other effects, sources, and the extent of the problems.

Sulfates

Sulfates (SO₄) are the fully oxidized ionic form of sulfur. Sulfates occur in combination with metal and/or hydrogen ions. In California, emissions of sulfur compounds occur primarily from the combustion of petroleum-derived fuels (e.g., gasoline and diesel fuel) that contain sulfur. This sulfur is oxidized to SO₂ during the combustion process and subsequently converted to sulfate compounds in the atmosphere. The conversion of SO₂ to sulfates takes place comparatively rapidly and completely in urban areas of California due to regional meteorological features.

The CARB sulfates standard is designed to prevent aggravation of respiratory symptoms. Effects of sulfate exposure at levels above the standard include a decrease in ventilator function, aggravation of asthmatic symptoms, and an increased risk of cardio-pulmonary disease. Sulfates are particularly effective in degrading visibility, and, because they are usually acidic, can harm ecosystems and damage materials and property.

Visibility Reducing Particles

Visibility Reducing Particles are a mixture of suspended particulate matter consisting of dry solid fragments, solid cores with liquid coatings, and small droplets of liquid. The standard is intended to limit the frequency and severity of visibility impairment due to regional haze and is equivalent to a 10-mile nominal visual range.

Vinyl Chloride

Vinyl Chloride is a colorless gas that does not occur naturally. It is formed when other substances such as trichloroethane, trichloroethylene, and tetrachloro-ethylene are broken down. Vinyl chloride is used to make polyvinyl chloride which is used to make a variety of plastic products, including pipes, wire and cable coatings, and packaging materials.



3.1.3 Odors

Typically, odors are generally regarded as an annoyance rather than a health hazard. However, manifestations of a person's reaction to foul odors can range from the psychological (i.e. irritation, anger, or anxiety) to the physiological, including circulatory and respiratory effects, nausea, vomiting, and headache.

The ability to detect odors varies considerably among the population and overall is quite subjective. Some individuals can smell very minute quantities of specific substances; others may not have the same sensitivity but may have sensitivities to odors of other substances. In addition, people may have different reactions to the same odor and in fact an odor that is offensive to one person may be perfectly acceptable to another (e.g., fast food restaurant). It is important to also note that an unfamiliar odor is more easily detected and is more likely to cause complaints than a familiar one. This is because of the phenomenon known as odor fatigue, in which a person can become desensitized to almost any odor and recognition only occurs with an alteration in the intensity.

Quality and intensity are two properties present in any odor. The quality of an odor indicates the nature of the smell experience. For instance, if a person describes an odor as flowery or sweet, then the person is describing the quality of the odor. Intensity refers to the strength of the odor. For example, a person may use the word strong to describe the intensity of an odor. Odor intensity depends on the odorant concentration in the air. When an odorous sample is progressively diluted, the odorant concentration decreases. As this occurs, the odor intensity weakens and eventually becomes so low that the detection or recognition of the odor is quite difficult. At some point during dilution, the concentration of the odorant reaches a detection threshold. An odorant concentration below the detection threshold means that the concentration in the air is not detectable by the average human.

Neither the state nor the federal governments have adopted rules or regulations for the control of odor sources. The SJVAPCD does not have an individual rule or regulation that specifically addresses odors; however, odors would be subject to SJVAPCD Rule 4102, Nuisance. Any actions related to odors would be based on citizen complaints to local governments and the SJVAPCD.

3.1.4 Toxic Air Contaminants

TACs are air pollutants that may cause or contribute to an increase in mortality or serious illness, or which may pose a hazard to human health. TACs are usually present in minute quantities in the ambient air, but due to their high toxicity, they may pose a threat to public health even at very low concentrations. Because there is no threshold level below which adverse health impacts are not expected to occur, TACs differ from criteria pollutants for which acceptable levels of exposure can be determined and for



AIR QUALITY AND GREENHOUSE GAS IMPACT ASSESSMENT

Air Quality
October 14, 2021

which state and federal governments have set ambient air quality standards. TACs, therefore, are not considered “criteria pollutants” under either the FCAA or the California Clean Air Act (CCAA) and are thus not subject to National or California ambient air quality standards (NAAQS and CAAQS, respectively). Instead, the EPA and the CARB regulate Hazardous Air Pollutants (HAPs) and TACs, respectively, through statutes and regulations that generally require the use of the maximum or best available control technology (BACT) to limit emissions. In conjunction with District rules, these federal and state statutes and regulations establish the regulatory framework for TACs. At the national levels, the EPA has established National Emission Standards for HAPs (NESHAPs), in accordance with the requirements of the FCAA and subsequent amendments. These are technology-based source-specific regulations that limit allowable emissions of HAPs.

Within California, TACs are regulated primarily through the Tanner Air Toxics Act (Assembly Bill [AB] 1807) and the Air Toxics Hot Spots Information and Assessment Act of 1987 (AB 2588). The Tanner Act sets forth a formal procedure for CARB to designate substances as TACs. The following provides a summary of the primary TACs of concern within the State of California and related health effects:

Diesel Particulate Matter

Diesel Particulate Matter (DPM) was identified as a TAC by the CARB in August 1998. DPM is emitted from both mobile and stationary sources. In California, on-road diesel-fueled vehicles contribute approximately 42% of the statewide total, with an additional 55% attributed to other mobile sources such as construction and mining equipment, agricultural equipment, and transport refrigeration units. Stationary sources, contributing about 3% of emissions, include shipyards, warehouses, heavy equipment repair yards, and oil and gas production operations. Emissions from these sources are from diesel-fueled internal combustion engines. Stationary sources that report DPM emissions also include heavy construction, manufacturers of asphalt paving materials and blocks, and diesel-fueled electrical generation facilities (CARB 2013).

In October 2000, the CARB issued a report entitled: Risk Reduction Plan to Reduce Particulate Matter Emissions from Diesel-Fueled Engines and Vehicles, which is commonly referred to as the Diesel Risk Reduction Plan (DRRP). The DRRP provides a mechanism for combating the DPM problem. The goal of the DRRP is to reduce concentrations of DPM by 85% by the year 2020, in comparison to year 2000 baseline emissions. The key elements of the DRRP are to clean up existing engines through engine retrofit emission control devices, to adopt stringent standards for new diesel engines, and to lower the sulfur content of diesel fuel to protect new, and very effective, advanced technology emission control devices on diesel engines. When fully implemented, the DRPP will significantly reduce emissions from both old and new diesel fueled motor vehicles and from stationary sources that burn diesel fuel. In addition to



AIR QUALITY AND GREENHOUSE GAS IMPACT ASSESSMENT

Air Quality
October 14, 2021

these strategies, the CARB continues to promote the use of alternative fuels and electrification. As a result of these actions, DPM concentrations and associated health risks in future years are projected to decline (CARB 2013). In comparison to year 2010 inventory of statewide DPM emissions, CARB estimates that emissions of DPM in 2035 will be reduced by more than 50%.

DPM is typically composed of carbon particles (“soot”, also called black carbon) and numerous organic compounds, including over 40 known cancer-causing organic substances. Examples of these chemicals include polycyclic aromatic hydrocarbons, benzene, formaldehyde, acetaldehyde, acrolein, and 1,3-butadiene. Diesel exhaust also contains gaseous pollutants, including volatile organic compounds and NOx. NOx emissions from diesel engines are important because they can undergo chemical reactions in the atmosphere leading to formation of PM2.5 and ozone.

In California, diesel exhaust particles have been identified as a carcinogen accounting for an estimated 70% of the total known cancer risks in California. DPM is estimated to increase statewide cancer risk by 520 cancers per million residents exposed over an estimated 70-year lifetime. Non-cancer health effects associated with exposure to DPM include premature death, exacerbated chronic heart and lung disease, including asthma, and decreased lung function in children. Short-term exposure to diesel exhaust can also have immediate health effects. Diesel exhaust can irritate the eyes, nose, throat and lungs, and it can cause coughs, headaches, lightheadedness, and nausea. In studies with human volunteers, diesel exhaust particles made people with allergies more susceptible to the materials to which they are allergic, such as dust and pollen. Exposure to diesel exhaust also causes inflammation in the lungs, which may aggravate chronic respiratory symptoms and increase the frequency or intensity of asthma attacks (CARB 2016b).

Individuals most vulnerable to non-cancer health effects of DPM are children whose lungs are still developing and the elderly who often have chronic health problems. The elderly and people with emphysema, asthma, and chronic heart and lung disease are especially sensitive to DPM (CARB 2016b). In addition to its health effects, DPM significantly contributes to haze and reduced visibility.

Asbestos

Asbestos is the name given to a number of naturally occurring fibrous silicate minerals that have been mined for their useful properties such as thermal insulation, chemical and thermal stability, and high tensile strength. The three most common types of asbestos are chrysotile, amosite, and crocidolite. Chrysotile, also known as white asbestos, is the most common type of asbestos found in buildings. Chrysotile makes up approximately 90 to 95 percent of all asbestos contained in buildings in the United States. Exposure to asbestos is a health threat; exposure to asbestos fibers may result



in health issues such as lung cancer, mesothelioma (a rare cancer of the thin membranes lining the lungs, chest, and abdominal cavity), and asbestosis (a non-cancerous lung disease that causes scarring of the lungs). Exposure to asbestos can occur during demolition or remodeling of buildings constructed prior to its ban for use in buildings in 1977. Exposure to naturally occurring asbestos can occur during soil disturbing activities in areas with deposits present.

3.1.5 Valley Fever

Valley Fever is an infection caused by a fungus that lives in the soil. About 10,000 U.S. cases are reported each year, mostly from Arizona and California. Valley fever can be misdiagnosed because its symptoms are like those of other illnesses.

The fungus that causes Valley fever, *Coccidioides*, is found in the southwestern United States, parts of Mexico and Central America, and parts of South America. The fungus grows naturally and is endemic in many areas along the southwestern region of Tulare County. People can get this infection by breathing in fungal spores from the air, especially when the wind blows the soil with the fungal spores into the air or the dirt is moved by human activity. About 40% of the people who come into contact with the fungal spores will develop symptoms that may require medical treatment and the symptoms will not go away on their own. Some people may develop a more severe infection, especially those with compromised immune systems (Centers for Disease Control and Prevention [CDC] 2020).

3.1.6 Attainment Status

The United States EPA and CARB designate air basins where ambient air quality standards are exceeded as “nonattainment” areas. If standards are met, the area is designated as an “attainment” area. If there is inadequate or inconclusive data to make a definitive attainment designation, they are considered “unclassified.” National nonattainment areas are further designated as marginal, moderate, serious, severe, or extreme as a function of deviation from standards.

Each standard has a different definition, or “form” of what constitutes attainment, based on specific air quality statistics. For example, the federal 8-hour CO standard is not to be exceeded more than once per year; therefore, an area is in attainment of the CO standard if no more than one 8-hour ambient air monitoring values exceeds the threshold per year. In contrast, the federal annual standard for PM_{2.5} is met if the 3-year average of the annual average PM_{2.5} concentration is less than or equal to the standard.

The current attainment designations for the SJVAB are shown in Table 2. The SJVAB is designated as nonattainment for ozone, PM₁₀, and PM_{2.5}.



AIR QUALITY AND GREENHOUSE GAS IMPACT ASSESSMENT

Air Quality
October 14, 2021

Table 2: San Joaquin Valley Air Basin Attainment Status

Pollutant	Designation/Classification	
	Federal Standards ^a	State Standards ^b
Ozone – One hour	No Federal Standard ^f	Nonattainment/Severe
Ozone – Eight Hour	Nonattainment/Extreme ^e	Nonattainment
PM ₁₀	Attainment ^c	Nonattainment
PM _{2.5}	Nonattainment ^d	Nonattainment
Carbon Monoxide	Attainment/Unclassified	Attainment/Unclassified
Nitrogen Dioxide	Attainment/Unclassified	Attainment
Sulfur Dioxide	Attainment/Unclassified	Attainment
Lead	No Designation/Classification	Attainment
Hydrogen Sulfide	No Federal Standard	Unclassified
Sulfates	No Federal Standard	Attainment
Visibility Reducing Particles	No Federal Standard	Unclassified
Vinyl Chloride	No Federal Standard	Attainment

Notes:
a See 40 CFR Part 81
b See CCR Title 17 Sections 60200-60210
c On September 25, 2008, EPA redesignated the San Joaquin Valley to attainment for the PM10 National Ambient Air Quality Standard (NAAQS) and approved the PM10 Maintenance Plan.
d The Valley is designated nonattainment for the 1997 PM2.5 NAAQS. EPA designated the Valley as nonattainment for the 2006 PM2.5 NAAQS on November 13, 2009 (effective December 14, 2009).
e Though the Valley was initially classified as serious nonattainment for the 1997 8-hour ozone standard, EPA approved Valley reclassification to extreme nonattainment in the Federal Register on May 5, 2010 (effective June 4, 2010).
f Effective June 15, 2005, the U.S. Environmental Protection Agency (EPA) revoked the federal 1-hour ozone standard, including associated designations and classifications. EPA had previously classified the SJVAB as extreme nonattainment for this standard. EPA approved the 2004 Extreme Ozone Attainment Demonstration Plan on March 8, 2010 (effective April 7, 2010). Many applicable requirements for extreme 1-hour ozone nonattainment areas continue to apply to the SJVAB.
Source: SJVAPCD 2021

3.1.7 Ambient Air Quality

The local air quality can be evaluated by reviewing relevant air pollution concentrations near the Project. Table 3 summarizes published monitoring data for the most recent three-year period available from the nearest monitoring station at 4706 E. Drummond Street, Fresno, CA approximately 4.62 miles east of the project site. The data shows that during the past few years, the SJVAB has exceeded the ozone and PM10 standards.



AIR QUALITY AND GREENHOUSE GAS IMPACT ASSESSMENT

Air Quality
October 14, 2021

Table 3: Ambient Air Quality Summary

Air Pollutant	Averaging Time	Item	2017	2018	2019
Ozone	1 Hour ^a	Max 1 Hour (ppm)	0.125	0.119	0.099
		Days > State Standard (0.09 ppm)	8	6	1
	8 Hour	Max 8 Hour (ppm)	0.103	0.097	0.080
		Days > State Standard (0.070 ppm)	31	34	11
		Days > National Standard (0.070 ppm)	29	32	10
		Days > National Standard (0.075 ppm)	17	15	2
Carbon Monoxide	8 Hour	Max 8 Hour (ppm)	X	X	X
		Days > State Standard (9.0 ppm)	X	X	X
		Days > National Standard (9.0 ppm)	X	X	X
Nitrogen dioxide	Annual	Annual Average (ppm)	ID	95	ID
	1 Hour	Max 1 Hour (ppm)	64.7	75.9	42.3
		Days > State Standard (0.18 ppm)	0	0	0
Sulfur dioxide	Annual	Annual Average (ppm)	X	X	X
	24 Hour	Max 24 Hour (ppm)	X	X	X
		Days > State Standard (0.04 ppm)	X	X	X
Inhalable coarse particles (PM10)	Annual (National)	Annual Average ($\mu\text{g}/\text{m}^3$)	44.0	45.8	38.6
	Annual (State)	Annual Average ($\mu\text{g}/\text{m}^3$)	44.2	45.7	39.6
	24 hour	24 Hour ($\mu\text{g}/\text{m}^3$) National	115.6	152.2	175.6
		24 Hour ($\mu\text{g}/\text{m}^3$) State	120.5	154.8	181.3
		Days > State Standard (50 $\mu\text{g}/\text{m}^3$)	17	19	13
		Days > National Standard (150 $\mu\text{g}/\text{m}^3$)	0	0	1
Fine particulate matter (PM2.5)	Annual (National)	Annual Average ($\mu\text{g}/\text{m}^3$)	X	X	X
	Annual (State)	Annual Average ($\mu\text{g}/\text{m}^3$)	X	X	X
	24 Hour	24 Hour ($\mu\text{g}/\text{m}^3$) National	X	X	X
		24 Hour ($\mu\text{g}/\text{m}^3$) State	X	X	X



AIR QUALITY AND GREENHOUSE GAS IMPACT ASSESSMENT

Air Quality
October 14, 2021

		Days > National Standard (35 µg/m ³)	X	X	X
<p>Notes: > = exceed ppm = parts per million g/m³ = micrograms per cubic meter a = The Federal 1 hour Ozone Standard was revoked in June 2005; California retained a 1 hour Ozone Standard ID = insufficient data X = No data available because concentrations are no longer monitored max = maximum Bold = exceedance State Standard = CAAQS National Standard = NAAQS Sulfur dioxide is reported on a statewide basis as it is no longer monitored locally Sources: CARB 2018a</p>					

The health impacts of the various air pollutants of concern can be presented in several ways. The clearest in comparison is to the state and federal ozone standards. If concentrations are below the standard, it is safe to say that no health impact would occur to anyone. When concentrations exceed the standard, impacts will vary based on the amount the standard is exceeded. Based on the air quality monitoring data, between 2 and 34 unhealthy ozone air days and up to 19 days with unhealthy PM10 levels.

Unhealthy air quality levels can pose a risk to those most sensitive to air pollution such as the elderly, asthmatics, children, etc. The higher the air pollution levels rise the greater the population it affects.

3.1.8 Local Sources of Air Pollution

The Project's site is located in a predominately urban setting with agricultural and industrial uses surrounding the site and residential uses to the west. The main sources of air pollution are mobile sources traveling along the nearby roadways that surround the Project site. Nearby sources of air pollution include emissions from vehicles on West Church Avenue and S. West Avenue as well as industrial emissions from industrial sources northeast of the project site.

3.1.9 Sensitive Receptors

Those who are sensitive to air pollution include children, the elderly, and persons with pre-existing respiratory or cardiovascular illness. For purposes of CEQA, the SJVAPCD considers a sensitive receptor a location that houses or attracts children, the elderly, people with illnesses, or others who are especially sensitive to the effects of air pollutants. Examples of sensitive receptors include hospitals, residences, convalescent facilities, and schools.

The project site is located within 1,000 feet from existing sensitive receptors that could be exposed to diesel emission exhaust during the construction and operational periods.



AIR QUALITY AND GREENHOUSE GAS IMPACT ASSESSMENT

Air Quality
October 14, 2021

The nearest sensitive receptors are residents occupying the single-family houses approximately 450 feet west of the project site.

3.2 REGULATORY SETTING

Air quality within the project area is regulated by several jurisdictions including the U.S. Environmental Protection Agency (EPA), the California Air Resources Board (CARB), and the San Joaquin Valley Air Pollution Control District (SJVAPCD). Each of these jurisdictions develops rules, regulations, and policies to attain the goals or directives imposed upon them through legislation. Although EPA regulations may not be superseded, both state and local regulations may be more stringent.

3.2.1 Federal

U.S. Environmental Protection Agency

At the federal level, the EPA has been charged with implementing national air quality programs. The EPA's air quality mandates are drawn primarily from the FCAA, which was signed into law in 1970. Congress substantially amended the FCAA in 1977 and again in 1990.

Federal Clean Air Act

The FCAA required the EPA to establish NAAQS, and also set deadlines for their attainment. Two types of NAAQS have been established: primary standards, which protect public health, and secondary standards, which protect public welfare from non-health-related adverse effects, such as visibility restrictions. NAAQS are summarized in Table 4.

National Emission Standards for Hazardous Air Pollutants

Pursuant to the FCAA of 1970, the EPA established the NESHAPs. These are technology-based source-specific regulations that limit allowable emissions of HAPs. Among these sources include asbestos-containing building materials (ACBMs). NESHAPs include requirements pertaining to the inspection, notification, handling, and disposal of ACBMs associated with the demolition and renovation of structures.

3.2.2 State

California Air Resources Board

The CARB is the agency responsible for coordination and oversight of state and local air pollution control programs in California and for implementing the CCAA of 1988. Other CARB duties include monitoring air quality (in conjunction with air monitoring



AIR QUALITY AND GREENHOUSE GAS IMPACT ASSESSMENT

Air Quality
October 14, 2021

networks maintained by air pollution control districts and air quality management districts), establishing California Ambient Air Quality Standards (CAAQS), which in many cases are more stringent than the NAAQS, and setting emissions standards for new motor vehicles. The emission standards established for motor vehicles differ depending on various factors including the model year, and the type of vehicle, fuel and engine used. The CAAQS are summarized in Table 1.

California Clean Air Act

The CCAA requires that all air districts in the state endeavor to achieve and maintain CAAQS for O₃, CO, SO₂, and NO₂ by the earliest practical date. The CCAA specifies that districts focus attention on reducing the emissions from transportation and area-wide emission sources, and the act provides districts with authority to regulate indirect sources. Each district plan is required to either (1) achieve a 5% annual reduction, averaged over consecutive 3-year periods, in district-wide emissions of each non-attainment pollutant or its precursors, or (2) to provide for implementation of all feasible measures to reduce emissions. Any planning effort for air quality attainment would thus need to consider both state and federal planning requirements.

California State Implementation Plan

The federal CAA (and its subsequent amendments) requires each state to prepare an air quality control plan referred to as a state implementation plan (SIP). The SIP is a living document that is periodically modified to reflect the latest emissions inventories, plans, and rules and regulations of air basins as reported by the agencies with jurisdiction over them. The CAA Amendments dictate that states containing areas violating the NAAQS revise their SIPs to include extra control measures to reduce air pollution. The SIP includes strategies and control measures to attain the NAAQS by deadlines established by the CAA. The EPA has the responsibility to review all SIPs to determine if they conform to the requirements of the CAA.

State law makes CARB the lead agency for all purposes related to the SIP. Local air districts and other agencies prepare SIP elements and submit them to CARB for review and approval. CARB then forwards SIP revisions to the EPA for approval and publication in the Federal Register.

Assembly Bills 1807 & 2588 - Toxic Air Contaminants

Within California, TACs are regulated primarily through AB 1807 (Tanner Air Toxics Act) and AB 2588 (Air Toxics Hot Spots Information and Assessment Act of 1987). The Tanner Air Toxics Act sets forth a formal procedure for CARB to designate substances as TACs. This includes research, public participation, and scientific peer review before CARB designates a substance as a TAC.



AIR QUALITY AND GREENHOUSE GAS IMPACT ASSESSMENT

Air Quality
October 14, 2021

Existing sources of TACs that are subject to the Air Toxics Hot Spots Information and Assessment Act are required to: (1) prepare a toxic emissions inventory; (2) prepare a risk assessment if emissions are significant; (3) notify the public of significant risk levels; and (4) prepare and implement risk reduction measures.

Assembly Bill 617

In response to AB 617 (C. Garcia, Chapter 136, Statutes of 2017), the CARB established the Community Air Protection Program. The Community Air Protection Program includes community air monitoring and community emissions reduction program's focus is to reduce exposure in communities most impacted by air pollution. The Legislature has appropriated funding to support early actions to address localized air pollution through targeted incentive funding to deploy cleaner technologies in these communities, as well as grants to support community participation in the AB 617 process. AB 617 also includes new requirements for accelerated retrofit of pollution controls on industrial sources, increased penalty fees, and greater transparency and availability of air quality and emissions data, which will help advance air pollution control efforts throughout the State.

Portable Equipment Registration Program

Owners or operators of portable engines and certain other types of equipment can register their units under the CARB's Statewide Portable Equipment Registration Program (PERP). PERP allows registered equipment to be operated throughout California without having to obtain individual permits from local air districts. To qualify, equipment must meet eligibility requirements, including applicable emissions standards.

Naturally-Occurring Asbestos Regulations

CARB has adopted two Airborne Toxic Control Measures (ATCMs) which regulates the control of Naturally Occurring Asbestos (NOA) associated with construction, surfacing, grading, mining, and quarrying activities. The NCUAQMD is responsible for enforcing Asbestos ATCMs. There are no known likely areas of NOA in the Project area (USGS 2011).

Regulatory Attainment Designations

Under the CCAA, CARB is required to designate areas of the state as attainment, nonattainment, or unclassified with respect to applicable standards. An "attainment" designation for an area signifies that pollutant concentrations did not violate the applicable standard in that area. A "nonattainment" designation indicates that a pollutant concentration violated the applicable standard at least once, excluding those occasions when a violation was caused by an exceptional event, as defined in the criteria. Depending on the frequency and severity of pollutants exceeding applicable standards,



AIR QUALITY AND GREENHOUSE GAS IMPACT ASSESSMENT

Air Quality
October 14, 2021

the nonattainment designation can be further classified as serious nonattainment, severe nonattainment, or extreme nonattainment, with extreme nonattainment being the most severe of the classifications. An “unclassified” designation signifies that the data does not support either an attainment or nonattainment designation. The CCAA divides districts into moderate, serious, and severe air pollution categories, with increasingly stringent control requirements mandated for each category.

The EPA designates areas for O₃, CO, and NO₂ as “does not meet the primary standards,” “cannot be classified,” or “better than national standards.” For SO₂, areas are designated as “does not meet the primary standards,” “does not meet the secondary standards,” “cannot be classified,” or “better than national standards.” However, CARB terminology of attainment, nonattainment, and unclassified is more frequently used. The EPA uses the same sub-categories for nonattainment status: serious, severe, and extreme. In 1991, EPA assigned new nonattainment designations to areas that had previously been classified as Group I, II, or III for PM₁₀ based on the likelihood that they would violate national PM₁₀ standards. All other areas are designated “unclassified.”

As discussed previously, the SJVAB is designated as nonattainment for the federal ozone and PM_{2.5} standards. The SJVAB is nonattainment for State ozone, PM₁₀, and PM_{2.5} standards.

3.2.3 Regional

San Joaquin Valley Air Pollution Control District

The SJVAPCD is the agency primarily responsible for ensuring that NAAQS and CAAQS are not exceeded and that air quality conditions are maintained in the SJVAB, within which the proposed project is located. Responsibilities of the SJVAPCD include, but are not limited to, preparing plans for the attainment of ambient air quality standards, adopting and enforcing rules and regulations concerning sources of air pollution, issuing permits for stationary sources of air pollution, inspecting stationary sources of air pollution and responding to citizen complaints, monitoring ambient air quality and meteorological conditions, and implementing programs and regulations required by the FCAA and the CCAA.

SJVAPCD Rules and Regulations

The SJVAPCD rules and regulations that may apply to projects that will occur during buildout of the project include but are not limited to the following:

Rule 2010 – Permits Required. The purpose of this rule is to require any person constructing, altering, replacing or operating any source operation which emits, may emit, or may reduce emissions to obtain an Authority to Construct or a Permit to Operate. This rule also explains the posting requirements for a Permit to Operate and



AIR QUALITY AND GREENHOUSE GAS IMPACT ASSESSMENT

Air Quality
October 14, 2021

the illegality of a person willfully altering, defacing, forging, counterfeiting or falsifying any Permit to Operate.

Rule 2201 – New and Modified Stationary Source Review Rule. The purpose of this rule is to provide for the following:

- The review of new and modified Stationary Sources of air pollution and to provide mechanisms including emission trade-offs by which Authorities to Construct such sources may be granted, without interfering with the attainment or maintenance of Ambient Air Quality Standards; and
- No net increase in emissions above specified thresholds from new and modified Stationary Sources of all nonattainment pollutants and their precursors.

Rule 4002 – National Emission Standards for Hazardous Air Pollutants. This rule incorporates the National Emission Standards for Hazardous Air Pollutants from Part 61, Chapter I, Subchapter C, Title 40, Code of Federal Regulations (CFR) and the National Emission Standards for Hazardous Air Pollutants for Source Categories from Part 63, Chapter I, Subchapter C, Title 40, Code of Federal Regulations (CFR).

Rule 4102 – Nuisance. The purpose of this rule is to protect the health and safety of the public and applies to any source operation that emits or may emit air contaminants or other materials.

Rule 4601 – Architectural Coatings. The purpose of this rule is to limit Volatile Organic Compounds (VOC) emissions from architectural coatings. Emissions are reduced by limits on VOC content and providing requirements on coatings storage, cleanup, and labeling.

Rule 4623 – Storage of Organic Liquids. The purpose of this rule is to limit volatile organic compound (VOC) emissions from the storage of organic liquids.

Rule 4624 – Transfer of Organic Liquids. The purpose of this rule is to limit volatile organic compound (VOC) emissions from the transfer of organic liquids.

Rule 4641 – Cutback, Slow Cure, and Emulsified Asphalt, Paving and Maintenance Operations. The purpose of this rule is to limit VOC emissions from asphalt paving and maintenance operations. If asphalt paving will be used, then the paving operations will be subject to Rule 4641.

Regulation VIII – Fugitive PM10 Prohibitions. Rule 8011-8081 are designed to reduce PM10 emissions (predominantly dust/dirt) generated by human activity, including construction and demolition activities, road construction, bulk materials storage, paved and unpaved roads, carryout and trackout, etc. All development projects



AIR QUALITY AND GREENHOUSE GAS IMPACT ASSESSMENT

Air Quality
October 14, 2021

that involve soil disturbance are subject to at least one provision of the Regulation VIII series of rules.

Rule 9510 – Indirect Source Review. This rule reduces the impact of NOx and PM10 emissions from growth on the Air Basin. The rule places application and emission reduction requirements on development projects meeting applicability criteria to reduce emissions through onsite mitigation, offsite District -administered projects, or a combination of the two. This project must comply with Rule 9510 because it would develop more than 2,000 square feet of commercial space.

CEQA

The SJVAPCD has three roles under CEQA:

Lead Agency: responsible for preparing environmental analyses for its own projects (adoption of rules, regulations, or plans) or permit projects filed with the District where the District has primary approval authority over the project.

Responsible Agency: The discretionary authority of a Responsible Agency is more limited than a Lead Agency; having responsibility for mitigating or avoiding only the environmental effects of those parts of the project which it decides to approve, carry out, or finance. The District defers to the Lead Agency for preparation of environmental documents for land use projects that also have discretionary air quality permits unless no document is prepared by the Lead Agency and potentially significant impacts related to the permit are possible. The District comments on documents prepared by Lead Agencies to ensure that District concerns are addressed.

Commenting Agency: The District reviews and comments on air quality analyses prepared by other public agencies (such as the project).

The SJVAPCD also provides guidance and thresholds for CEQA air quality and GHG analyses. The result of this guidance as well as state regulations to control air pollution is an overall improvement in the Air Basin. In particular, the SJVAPCD's 2015 GAMAQI states the following:

1. The District's Air Quality Attainment Plans include measures to promote air quality elements in county and city general plans as one of the primary indirect source programs. The general plan is the primary long-range planning document used by cities and counties to direct development. Since air districts have no authority over land use decisions, it is up to cities and counties to ensure that their general plans help achieve air quality goals. Section 65302.1 of the California Government Code requires cities and counties in the San Joaquin Valley to amend appropriate elements of their general plans to include data,



analysis, comprehensive goals, policies, and feasible implementation strategies to improve air quality in their next housing element revisions.

2. The Air Quality Guidelines for General Plans (AQGGP), adopted by the District in 1994 and amended in 2005, is a guidance document containing goals and policy examples that cities and counties may want to incorporate into their General Plans to satisfy Section 65302.1. When adopted in a general plan and implemented, the suggestions in the AQGGP can reduce vehicle trips and miles traveled and improve air quality. The specific suggestions in the AQGGP are voluntary. The District strongly encourages cities and counties to use their land use and transportation planning authority to help achieve air quality goals by adopting the suggested policies and programs.

3.2.4 Local

City of Fresno General Plan

The City of Fresno General Plan was adopted on December 18, 2014 and serves as a forward-looking, comprehensive, and long-range plan. The General Plan includes the following policies related to air quality that are applicable to the proposed project.

Objective RC-4. In cooperation with other jurisdictions and agencies in the San Joaquin Valley Air Basin, take necessary actions to achieve and maintain compliance with State and federal air quality standards for criteria pollutants.

RC-4-a Support Regional Efforts. Support and lead, where appropriate, regional, State and federal programs and actions for the improvement of air quality, especially the SJVAPCD's efforts to monitor and control air pollutants from both stationary and mobile sources and implement Reasonably Available Control Measure in the Ozone Attainment Plan.

RC-4-b Conditions of Approval. Develop and incorporate air quality maintenance requirements, compatible with Air Quality Attainment and Maintenance Plans, as conditions of approval for General Plan amendments, community plans, Specific Plans, neighborhood plans, Concept Plans, and development proposals.

RC-4-c Evaluate Impacts with Models. Continue to require the use of computer models used by the SJVAPCD to evaluate the air quality impacts of plans and projects that require such environmental review by the City.



AIR QUALITY AND GREENHOUSE GAS IMPACT ASSESSMENT

Air Quality
October 14, 2021

Community Emissions Reduction Program South Central Fresno

The California legislature developed AB 617 in response to concerns over localized impacts of air pollutions in disadvantaged communities throughout the state. AB 617 is a statewide effort to monitor and reduce air pollution, and improve public health, in communities that experience disproportionate burdens from exposure to air pollutants through new community-focused and community-driven actions. South Central Fresno was prioritized by SJVAPCD and selected by CARB to receive clean air resources newly available under AB 617.

The Community Emission Reduction Program identifies the sources of pollution that are a concern to the community and possible strategies to reduce pollution sources from these areas. The top community sources identified are heavy duty trucks, high polluting and idle cars, residential wood burning, land use/industrial development, illegal burning, and industrial processes (SJVAPCD 2019b).



4.0 GREENHOUSE GAS

4.1 ENVIRONMENTAL SETTING

To fully understand global climate change, it is important to recognize the naturally occurring “greenhouse effect” and to define the GHGs that contribute to this phenomenon. Various gases in the earth’s atmosphere, classified as atmospheric GHGs, play a critical role in determining the earth’s surface temperature. Solar radiation enters the earth’s atmosphere from space and a portion of the radiation is absorbed by the earth’s surface. The earth emits this radiation back toward space, but the properties of the radiation change from high-frequency solar radiation to lower-frequency infrared radiation. GHGs, which are transparent to solar radiation, are effective in absorbing infrared radiation. As a result, this radiation that otherwise would have escaped back into space is now retained, resulting in a warming of the atmosphere. This phenomenon is known as the greenhouse effect.

4.1.1 Local

Among the prominent GHGs contributing to the greenhouse effect are carbon dioxide, methane (CH₄), nitrous oxide (N₂O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF₆). Primary GHGs attributed to global climate change, are discussed in the following subsections.

Carbon Dioxide

Carbon dioxide (CO₂) is a colorless, odorless gas. CO₂ is emitted in a number of ways, both naturally and through human activities. The largest source of CO₂ emissions globally is the combustion of fossil fuels such as coal, oil, and gas in power plants, automobiles, industrial facilities, and other sources. A number of specialized industrial production processes and product uses such as mineral production, metal production, and the use of petroleum-based products can also lead to CO₂ emissions. The atmospheric lifetime of CO₂ is variable because it is so readily exchanged in the atmosphere (EPA 2019b).

Methane

CH₄ is a colorless, odorless gas that is not flammable under most circumstances. CH₄ is the major component of natural gas, about 87% by volume. It is also formed and released to the atmosphere by biological processes occurring in anaerobic environments. CH₄ is emitted from a variety of both human-related and natural sources. Human-related sources include fossil fuel production, animal husbandry (enteric fermentation in livestock and manure management), rice cultivation, biomass burning,



AIR QUALITY AND GREENHOUSE GAS IMPACT ASSESSMENT

Greenhouse Gas
October 14, 2021

and waste management. These activities release significant quantities of methane to the atmosphere. Natural sources of methane include wetlands, gas hydrates, permafrost, termites, oceans, freshwater bodies, non-wetland soils, and other sources such as wildfires. The atmospheric lifetime of CH₄ is about 12 years (EPA 2019b).

Nitrous Oxide

N₂O is a clear, colorless gas with a slightly sweet odor. N₂O is produced by both natural and human-related sources. Primary human-related sources of N₂O are agricultural soil management, animal manure management, sewage treatment, mobile and stationary combustion of fossil fuels, adipic acid production, and nitric acid production. N₂O is also produced naturally from a wide variety of biological sources in soil and water, particularly microbial action in wet tropical forests. The atmospheric lifetime of N₂O is approximately 120 years (EPA 2017b).

Hydrofluorocarbons

HFCs are man-made chemicals, many of which have been developed as alternatives to ozone-depleting substances for industrial, commercial, and consumer products. The only significant emissions of HFCs before 1990 were of the chemical HFC-23, which is generated as a byproduct of the production of HCFC-22 (or Freon 22, used in air conditioning applications). The atmospheric lifetime for HFCs varies from just over a year for HFC-152a to 260 years for HFC-23. Most of the commercially used HFCs have atmospheric lifetimes of less than 15 years (e.g., HFC-134a, which is used in automobile air conditioning and refrigeration, has an atmospheric life of 14 years) (EPA 2017b).

Perfluorocarbons

PFCs are colorless, highly dense, chemically inert, and nontoxic. There are seven PFC gases: perfluoromethane (CF₄), perfluoroethane (C₂F₆), perfluoropropane (C₃F₈), perfluorobutane (C₄F₁₀), perfluorocyclobutane (C₄F₈), perfluoropentane (C₅F₁₂), and perfluorohexane (C₆F₁₄). Natural geological emissions have been responsible for the PFCs that have accumulated in the atmosphere in the past; however, the largest current source is aluminum production, which releases CF₄ and C₂F₆ as byproducts. The estimated atmospheric lifetimes for CF₄ and C₂F₆ are 50,000 and 10,000 years, respectively (EPA 2017b).

Nitrogen Trifluoride

Nitrogen trifluoride (NF₃) is an inorganic, colorless, odorless, toxic, nonflammable gas used as an etchant in microelectronics. NF₃ is predominantly employed in the cleaning of the plasma-enhanced chemical vapor deposition chambers in the production of liquid crystal displays and silicon-based thin film solar cells. In 2009, NF₃ was listed by



AIR QUALITY AND GREENHOUSE GAS IMPACT ASSESSMENT

Greenhouse Gas
October 14, 2021

California as a potential GHG to be listed and regulated under AB 32 (Section 38505 Health and Safety Code).

Sulfur Hexafluoride

SF₆ is an inorganic compound that is colorless, odorless, nontoxic, and generally nonflammable. SF₆ is primarily used as an electrical insulator in high voltage equipment. The electric power industry uses roughly 80% of all SF₆ produced worldwide. Leaks of SF₆ occur from aging equipment and during equipment maintenance and servicing. SF₆ has an atmospheric life of 3,200 years (EPA 2017b).

Black Carbon

Black carbon is the most strongly light-absorbing component of PM emitted from burning fuels such as coal, diesel, and biomass. Black carbon contributes to climate change both directly by absorbing sunlight and indirectly by depositing on snow and by interacting with clouds and affecting cloud formation. Black carbon is considered a short-lived species, which can vary spatially and, consequently, it is very difficult to quantify associated global-warming potentials. The main sources of black carbon in California are wildfires, off-road vehicles (locomotives, marine vessels, tractors, excavators, dozers, etc.), on-road vehicles (cars, trucks, and buses), fireplaces, agricultural waste burning, and prescribed burning (planned burns of forest or wildlands). California has been an international leader in reducing emissions of black carbon, including programs that target reducing PM from diesel engines and burning activities (CARB 2013).

4.1.2 Global Warming Potential

Each GHG differs in its ability to absorb heat in the atmosphere based on the lifetime, or persistence, of the gas molecule in the atmosphere. Often, estimates of GHG emissions are presented in carbon dioxide equivalents (CO₂e), which weight each gas by its global warming potential (GWP).

Expressing GHG emissions in carbon dioxide equivalents takes the contribution of all GHG emissions to the greenhouse effect and converts them to a single unit equivalent to the effect that would occur if only CO₂ were being emitted. Based on a 100-year time horizon, Methane traps over 25 times more heat per molecule than CO₂, and N₂O absorbs roughly 298 times more heat per molecule than CO₂. Additional GHGs with high GWP include NF₃, SF₆, PFCs, and black carbon (Forester, 2007).

4.1.3 Sources of Greenhouse Gas Emissions

On a global scale, GHG emissions are predominantly associated with activities related to energy production; changes in land use, such as deforestation and land clearing;



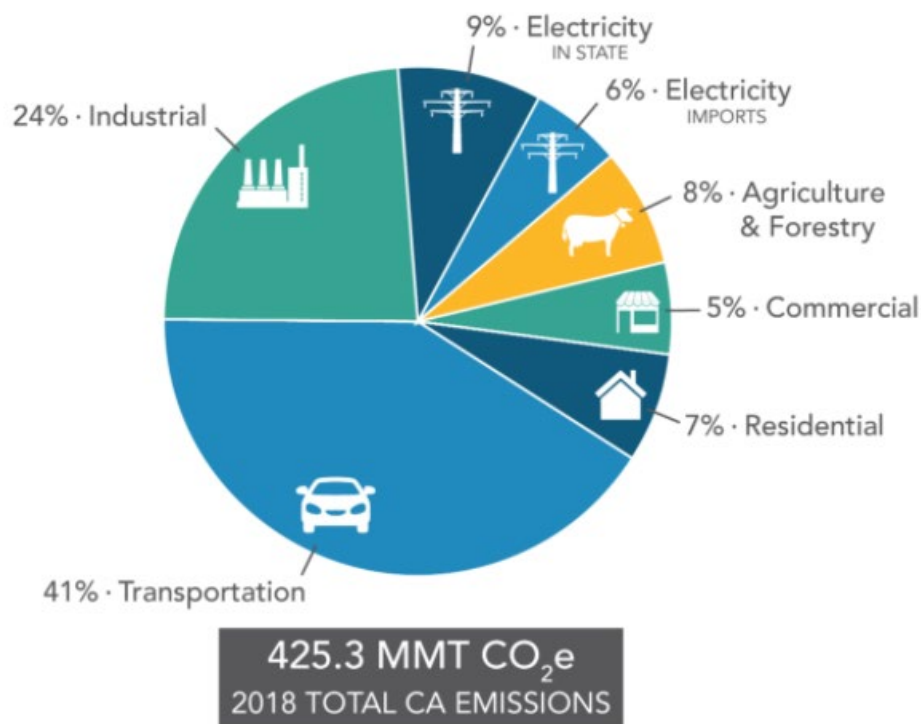
AIR QUALITY AND GREENHOUSE GAS IMPACT ASSESSMENT

Greenhouse Gas
October 14, 2021

industrial sources; agricultural activities; transportation; waste and wastewater generation; and commercial and residential land uses. World-wide, energy production including the burning of coal, natural gas, and oil for electricity and heat is the largest single source of global GHG emissions.

California's most recent GHG emissions inventory is depicted in Figure 2.

Figure 2: GHG Emissions by Economic Sector



Source: CARB 2018

In 2018, GHG emissions within California totaled 425.3 million metric tons (MMT) of CO₂e. Within California, the transportation sector is the largest contributor, accounting for approximately 41% of the total statewide GHG emissions. Emissions associated with industrial uses are the second largest contributor, totaling roughly 24%. Electricity generation totaled roughly 15% (CARB 2018).



4.1.4 Effects of Global Climate Change

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

Within California, climate changes would likely alter the ecological characteristics of many ecosystems throughout the state. Such alterations would likely include increases in surface temperatures and changes in the form, timing, and intensity of precipitation. For instance, historical records are depicting an increasing trend toward earlier snowmelt in the Sierra Nevada. This snowpack is a principal supply of water for the state, providing roughly 50% of state's annual runoff. If this trend continues, some areas of the state may experience an increased danger of floods during the winter months and possible exhaustion of the snowpack during spring and summer months. An earlier snowmelt would also impact the state's energy resources. An early exhaustion of the Sierra snowpack may force electricity producers to switch to more costly or non-renewable forms of electricity generation during spring and summer months. A changing climate may also impact agricultural crop yields, coastal structures, and biodiversity. As a result, resultant changes in climate will likely have detrimental effects on some of California's largest industries, including agriculture, wine, tourism, skiing, recreational and commercial fishing, and forestry.

4.2 REGULATORY SETTING

4.2.1 Federal

U.S. Environmental Protection Agency "Endangerment" and "Cause or Contribute" Findings

On April 2, 2007, in *Massachusetts v. USEPA*, 549 US 497, the Supreme Court found that GHGs are air pollutants covered by the Clean Air Act (CAA). The Court held that the United States Environmental Protection Agency (USEPA) must determine whether emissions of GHGs from new motor vehicles cause or contribute to air pollution, which may reasonably be anticipated to endanger public health or welfare, or whether the science is too uncertain to make a reasoned decision. In making these decisions, the USEPA is required to follow the language of Section 202(a) of the CAA.

On April 17, 2009, the USEPA Administrator signed proposed "endangerment" and "cause or contribute" findings for GHGs under Section 202(a) of the CAA. The USEPA



AIR QUALITY AND GREENHOUSE GAS IMPACT ASSESSMENT

Greenhouse Gas
October 14, 2021

held a 60-day public comment period, considered public comments, and issued final findings. The USEPA found that six GHGs taken in combination endanger both the public health and the public welfare of current and future generations. The USEPA also found that the combined emissions of these GHGs from new motor vehicles and new motor vehicle engines contribute to the greenhouse effect as air pollution that endangers public health and welfare under CAA Section 202(a).

Clean Vehicles

In collaboration with the National Highway Traffic Safety Administration, the USEPA adopted GHG emission standards for light-duty vehicles in May 2010 and for heavy-duty vehicles in August of 2011. In 2012, the agencies jointly adopted more stringent Phase 2 standards for light duty cars and trucks, which would cover model years 2017 through 2025. In August of 2016, the agencies adopted more stringent Phase 2 standards for medium- and heavy-duty vehicles, which would cover model years 2018 through 2027 for certain trailers and model years 2021 through 2027 for semi-trucks, large pickup trucks, vans, and all types and sizes of buses and work trucks.

Mandatory Greenhouse Gas Reporting Rule

On September 22, 2009, the EPA released its final Greenhouse Gas Reporting Rule (Reporting Rule). The Reporting Rule is a response to the fiscal year 2008 Consolidated Appropriations Act (H.R. 2764; Public Law 110-161), that required the EPA to develop "...mandatory reporting of GHGs above appropriate thresholds in all sectors of the economy...." The Reporting Rule applies to most entities that emit 25,000 metric tons of CO₂e (MTCO₂e) or more per year. Since 2010, facility owners must submit an annual GHG emissions report with detailed calculations of facility GHG emissions. The Reporting Rule also mandates recordkeeping and administrative requirements in order for the EPA to verify annual GHG emissions reports.

New Source Review

The EPA issued a final rule on May 13, 2010 that establishes thresholds for GHGs, which will define when permits under the New Source Review Prevention of Significant Deterioration and Title V Operating Permit programs are required for new and existing industrial facilities. This final rule "tailors" the requirements of these Clean Air Act permitting programs to limit which facilities will be required to obtain Prevention of Significant Deterioration and Title V permits.

The EPA estimates that facilities responsible for nearly 70 percent of the national GHG emissions from stationary sources will be subject to permitting requirements under this rule. This includes the nation's largest GHG emitters—power plants, refineries, and cement production facilities.



AIR QUALITY AND GREENHOUSE GAS IMPACT ASSESSMENT

Greenhouse Gas
October 14, 2021

Standards of Performance for Greenhouse Gas Emissions for New Stationary Sources: Electric Utility Generating Units

As required by a settlement agreement, the EPA proposed new performance standards for emissions of carbon dioxide for new, affected, fossil fuel-fired electric utility generating units on March 27, 2012. New sources greater than 25 megawatts would be required to meet an output based standard of 1,000 pounds of carbon dioxide per megawatt-hour, based on the performance of widely used natural gas combined cycle technology.

President Obama and the EPA announced the Clean Power Plan in August of 2015. In 2030, the Clean Power Plan would cut carbon pollution from power plants by 32 percent below 2005 levels and increase renewable energy generation percent to nearly 20 percent of all power supplied. By comparison, in 2015, renewable energy accounted for about 13% of electricity generation. However, on February 9, 2016, the U.S. Supreme Court stayed implementation of the Clean Power Plan pending judicial review and on March 28, 2017, the Executive Order on Energy Independence (EO 13783) was signed and called for a review of the Clean Power Plan (USEPA 2018a). On October 16, 2017, the EPA issued the proposed rule Repeal of Carbon Pollution Emission Guidelines for Existing Stationary Sources: Electric Utility Generating Units an Energy Independence (EPA 2017).

Cap-and-Trade

Cap-and-Trade refers to a policy tool where emissions are limited to a certain amount and can be traded or provides flexibility on how the emitter can comply. There is no federal GHG Cap-and-Trade program currently; however, some states have joined to create initiatives to provide a mechanism for Cap-and-Trade.

The Regional Greenhouse Gas Initiative is an effort to reduce GHGs among the states of Connecticut, Delaware, Maine, Maryland, Massachusetts, New Hampshire, New York, Rhode Island, and Vermont. Each state caps carbon dioxide emissions from power plants, auctions carbon dioxide emission allowances, and invests the proceeds in strategic energy programs that further reduce emissions, save consumers money, create jobs, and build a clean energy economy. The Initiative began in 2008.

The Western Climate Initiative partner jurisdictions have developed a comprehensive initiative to reduce regional GHG emissions to 15 percent below 2005 levels by 2020. The partners are California, British Columbia, Manitoba, Ontario, and Quebec. Currently only California and Quebec are participating in the Cap-and-Trade program (C2ES 2015).



AIR QUALITY AND GREENHOUSE GAS IMPACT ASSESSMENT

Greenhouse Gas
October 14, 2021

Paris Climate Agreement

The Paris Climate Agreement is an international treaty on climate change adopted on December 12, 2015. The goal of the agreement is to limit global warming to 1.5 degrees Celsius as compared to pre-industrial levels. Countries will aim to reach global peaking of GHG emissions as soon as possible to achieve a climate neutral world by mid-century. To achieve these reductions, the Paris Climate Agreement works on a 5-year cycle of increasingly ambitious climate action carries out by countries. Therefore, by 2020, countries were required to submit their plans for climate action, known as nationally determined contributions. Additionally, the Agreement provides a framework for financial, technical, and capacity building support to those countries who need it. Developed countries will take a lead in providing financial assistance to other countries since large scale investments are required for GHG mitigation and climate adaptation (United Nations [UN]).

The United States joined 190 other countries in the Paris Climate Agreement under the Obama administration in September 2016. Under the Trump administration, the President announced his intention to withdraw from the Agreement in June 2017 and formally notified the United Nations in November 2019. However, the Agreement requires a year-long waiting period before a formal withdrawal will be recognized. As a result, the United States officially withdrew from the Agreement in November 2020. However, on January 20, 2021, President Biden accepted and rejoined the Paris Climate Agreement.

4.2.2 State

Assembly Bill 32

The California State Legislature enacted Assembly Bill (AB) 32, the California Global Warming Solutions Act of 2006. AB 32 requires that GHGs emitted in California be reduced to 1990 levels by the year 2020. “Greenhouse gases” as defined under AB 32 include CO₂, methane (CH₄), nitrogen oxides (NO_x), hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride. Since AB 32 was enacted, a seventh chemical, nitrogen trifluoride, has also been added to the list of GHGs. The California Air Resources Board (CARB) is the state agency charged with monitoring and regulating sources of GHGs. AB 32 states the following:

Global warming poses a serious threat to the economic well-being, public health, natural resources, and the environment of California. The potential adverse impacts of global warming include the exacerbation of air quality problems, a reduction in the quality and supply of water to the state from the Sierra snowpack, a rise in sea levels resulting in the displacement of thousands of coastal businesses and residences, damage to marine ecosystems and the



AIR QUALITY AND GREENHOUSE GAS IMPACT ASSESSMENT

Greenhouse Gas
October 14, 2021

natural environment, and an increase in the incidences of infectious diseases, asthma, and other human health-related problems.

CARB approved the 1990 GHG emissions level of 427 million metric tons of carbon dioxide equivalent (MMTCO_{2e}) on December 6, 2007 (CARB 2007). Therefore, to meet the state's target, emissions generated in California in 2020 are required to be equal to or less than 427 MMTCO_{2e}. Emissions in 2020 in a business as usual (BAU) scenario were estimated to be 596 MMTCO_{2e}, which do not account for reductions from AB 32 regulations (CARB 2008). At that rate, a 28 percent reduction was required to achieve the 427 MMTCO_{2e} 1990 inventory. In October 2010, CARB prepared an updated 2020 forecast to account for the effects of the 2008 recession and slower forecasted growth. The 2020 inventory without the benefits of adopted regulation is now estimated at 545 MMTCO_{2e}. Therefore, under the updated forecast, a 21.7 percent reduction from BAU is required to achieve 1990 levels (CARB 2010).

Progress in Achieving Assembly Bill 32 Targets and Remaining Reductions Required

The state has made steady progress in implementing AB 32 and achieving targets included in EO S-3-05. The progress is evident in updated emission inventories prepared by CARB, which showed that the state inventory dropped below 1990 levels for the first time in 2016 (CARB 2018). CARB's Climate Change Scoping Plan (Scoping Plan) (subsequently amended by the 2017 update) includes projections indicating that the state would meet or exceed the 2020 target with adopted regulations (CARB 2017).

CARB 2008 Scoping Plan

The Scoping Plan contains measures designed to reduce the state's emissions to 1990 levels by the year 2020 to comply with AB 32 (CARB 2008). The Scoping Plan identifies recommended measures for multiple GHG emission sectors and the associated emission reductions needed to achieve the year 2020 emissions target—each sector has a different emission reduction target. Most of the measures target the transportation and electricity sectors. As stated in the Scoping Plan, the key elements of the strategy for achieving the 2020 GHG target include the following:

- Expanding and strengthening existing energy efficiency programs as well as building and appliance standards;
- Achieving a statewide renewables energy mix of 33 percent;
- Developing a California Cap-and-Trade Program that links with other Western Climate Initiative partner programs to create a regional market system;
- Establishing targets for transportation-related GHG emissions for regions throughout California and pursuing policies and incentives to achieve those targets;



AIR QUALITY AND GREENHOUSE GAS IMPACT ASSESSMENT

Greenhouse Gas
October 14, 2021

- Adopting and implementing measures pursuant to existing state laws and policies, including California’s clean car standards, goods movement measures, and the Low Carbon Fuel Standard; and
- Creating targeted fees, including a public goods charge on water use, fees on high global warming potential gases, and a fee to fund the administrative costs of the State’s long-term commitment to AB 32 implementation.

In addition, the Scoping Plan differentiates between “capped” and “uncapped” strategies. Capped strategies are subject to the proposed Cap-and-Trade Program. The Scoping Plan states that the inclusion of these emissions within the Cap-and-Trade Program would help ensure that the year 2020 emission targets are met despite some degree of uncertainty in the emission reduction estimates for any individual measure. Implementation of the capped strategies is calculated to achieve a sufficient amount of reductions by 2020 to achieve the emission target contained in AB 32. Uncapped strategies that will not be subject to the cap-and-trade emissions caps, and requirements are provided as a margin of safety by accounting for additional GHG emission reductions.

Cap-and-Trade Program

The Cap-and-Trade Program is a key element of the Scoping Plan. It sets a statewide limit on sources responsible for 85 percent of California’s GHG emissions and establishes a price signal needed to drive long-term investment in cleaner fuels and more efficient use of energy. The program is designed to provide covered entities the flexibility to seek out and implement the lowest cost options to reduce emissions. The program conducted its first auction in November 2012. Compliance obligations began for power plants and large industrial sources in January 2013. Other significant milestones include linkage to Quebec’s Cap-and-Trade system in January 2014 and starting the compliance obligation for distributors of transportation fuels, natural gas, and other fuels in January 2015.

The Cap-and-Trade Program provides a firm cap, ensuring that the 2020 statewide emission limit would not be exceeded. An inherent feature of the Cap-and-Trade Program is that it does not guarantee GHG emissions reductions in any discrete location or by any particular source. Rather, GHG emissions reductions are guaranteed only on an accumulative basis.

The Cap-and-Trade Program works with other direct regulatory measures and provides an economic incentive to reduce emissions. If California’s direct regulatory measures reduce GHG emissions more than expected, then the Cap-and-Trade Program would be responsible for relatively fewer emissions reductions. If California’s direct regulatory measures reduce GHG emissions less than expected, then the Cap-and-Trade Program



AIR QUALITY AND GREENHOUSE GAS IMPACT ASSESSMENT

Greenhouse Gas
October 14, 2021

would be responsible for relatively more emissions reductions. Thus, the Cap-and-Trade Program assures that California would meet its 2020 GHG emissions reduction mandate.

CARB approved the First Update to the Scoping Plan (Update) on May 22, 2014. The Update identified the next steps for California's climate change strategy. The Update shows how California continues on its path to meet the near-term 2020 GHG limit, but also sets a path toward long-term, deep GHG emission reductions. The report established a broad framework for continued emission reductions beyond 2020, on the path to 80 percent below 1990 levels by 2050.

Assembly Bill 398

The Governor signed AB 398 on July 25, 2017, to extend the Cap-and-Trade Program to 2030. The legislation includes provisions to ensure that offsets used by sources are limited to 4 percent of their compliance obligation from 2021 to 2025 and 6 percent of their compliance obligation from 2026 through 2030. AB 398 also prevents air districts from adopting or implementing emission reduction rules from stationary sources that are also subject to the Cap-and-Trade Program (CARB 2017).

Senate Bill 32

Senate Bill (SB) 32 was signed into law on September 8, 2016. SB 32 gives CARB the statutory responsibility to include the 2030 target previously contained in EO B-30-15 in the 2017 Scoping Plan Update. SB 32 states that "In adopting rules and regulations to achieve the maximum technologically feasible and cost-effective greenhouse gas emissions reductions authorized by this division, the state [air resources] board shall ensure that statewide greenhouse gas emissions are reduced to at least 40 percent below the statewide greenhouse gas emissions limit no later than December 31, 2030."

2017 Climate Change Scoping Plan Update

The 2017 Climate Change Scoping Plan Update was adopted on December 14, 2017 amending the 2008 Scoping Plan and addresses the SB 32 targets. The major elements of the framework proposed to achieve the 2030 target are as follows:

1. SB 350
 - a. Achieve 50 percent Renewables Portfolio Standard (RPS) by 2030.
 - b. Doubling of energy efficiency savings by 2030.
2. Low Carbon Fuel Standard



AIR QUALITY AND GREENHOUSE GAS IMPACT ASSESSMENT

Greenhouse Gas

October 14, 2021

- a. Increased stringency (reducing carbon intensity 18 percent by 2030, up from 10 percent in 2020).
3. Mobile Source Strategy (Cleaner Technology and Fuels Scenario)
 - a. Maintaining existing GHG standards for light- and heavy-duty vehicles.
 - b. Put 4.2 million zero-emission vehicles on the roads.
 - c. Increase zero-emission vehicles buses and delivery and other trucks.
4. Sustainable Freight Action Plan
 - a. Improve freight system efficiency.
 - b. Maximize use of near-zero emission vehicles and equipment powered by renewable energy.
 - c. Deploy over 100,000 zero-emission trucks and equipment by 2030.
5. Short-Lived Climate Pollutant Reduction Strategy
 - a. Reduce emissions of methane and hydrofluorocarbons 40 percent below 2013 levels by 2030.
 - b. Reduce emissions of black carbon 50 percent below 2013 levels by 2030.
6. SB 375 Sustainable Communities Strategies
 - a. Increased stringency of 2035 targets.
7. Post-2020 Cap-and-Trade Program
 - a. Declining caps, continued linkage with Québec, and linkage to Ontario, Canada.
 - b. CARB will look for opportunities to strengthen the program to support more air quality co-benefits, including specific program design elements. In Fall 2016, CARB staff described potential future amendments including reducing the offset usage limit, redesigning the allocation strategy to reduce free allocation to support increased technology and energy investment at covered entities and reducing allocation if the covered entity increases criteria or toxics emissions over some baseline.
8. 20 percent reduction in GHG emissions from the refinery sector.



AIR QUALITY AND GREENHOUSE GAS IMPACT ASSESSMENT

Greenhouse Gas
October 14, 2021

9. Develop Integrated Natural and Working Lands Action Plan to secure California's land base as a net carbon sink.

Many of the measures included in the 2017 Climate Change Scoping Plan Update are implemented on a statewide level and do not specifically apply to the Project. However, the short-lived climate pollutants would be applicable to the Program through the use of cleaner construction equipment.

Senate Bill 375: The Sustainable Communities and Climate Protection Act of 2008

SB 375 was signed into law on September 30, 2008. According to SB 375, the transportation sector is the largest contributor of GHG emissions, which emits more than 40 percent of the total GHG emissions in California. SB 375 states, "Without improved land use and transportation policy, California will not be able to achieve the goals of AB 32." SB 375 does the following: (1) requires metropolitan planning organizations to include sustainable community strategies in their regional transportation plans for reducing GHG emissions, (2) aligns planning for transportation and housing, and (3) creates specified incentives for the implementation of the strategies.

CARB has prepared the Proposed Update to the SB 375 Greenhouse Gas Emission Reduction Targets.

Assembly Bill 1493: Pavley Regulations and Fuel Efficiency Standards

AB 1493, enacted on July 22, 2002, required CARB to develop and adopt regulations and fuel efficiency standards that reduce GHGs emitted by passenger vehicles and light duty trucks. Implementation of the regulation was delayed by lawsuits filed by automakers and by USEPA's denial of an implementation waiver. USEPA subsequently granted the requested waiver in 2009, which was upheld by the U.S. District Court for the District of Columbia in 2011.

The standards were phased in during the 2009 through 2016 model years. When fully phased in, the near-term (2009–2012) standards resulted in an approximately 22 percent reduction compared with the 2002 fleet, and the mid-term (2013–2016) standards resulted in about a 30 percent reduction. Several technologies stand out as providing significant reductions in emissions at favorable costs. These include discrete variable valve lift or camless valve actuation to optimize valve operation, rather than relying on fixed valve timing and lift as has historically been done; turbocharging to boost power and allow for engine downsizing; improved multi-speed transmissions; and improved air conditioning systems that operate optimally, leak less, and/or use an alternative refrigerant.



AIR QUALITY AND GREENHOUSE GAS IMPACT ASSESSMENT

Greenhouse Gas
October 14, 2021

The second phase of the implementation for AB 1493 was incorporated into Amendments to the Low-Emission Vehicle Program, referred to as LEV III or the Advanced Clean Cars program. The Advanced Clean Cars program combines the control of smog-causing pollutants and GHG emissions into a single coordinated package of requirements for model years 2017 through 2025. The regulation would reduce GHGs from new cars by 34 percent from 2016 levels by 2025. The rules would reduce pollutants from gasoline and diesel-powered cars and would deliver increasing numbers of zero-emission technologies, such as full battery electric cars, newly emerging plug-in hybrid electric vehicles, and hydrogen fuel cell cars. The regulations would also ensure that adequate fueling infrastructure is available for the increasing numbers of hydrogen fuel cell vehicles planned for deployment in California.

Senate Bill 1368: Emission Performance Standards

In 2006, the State Legislature adopted SB 1368, which was subsequently signed into law by the governor. SB 1368 directs the California Public Utilities Commission to adopt a performance standard for GHG emissions for the future power purchases of California utilities. SB 1368 seeks to limit carbon emissions associated with electrical energy consumed in California by forbidding procurement arrangements for energy longer than 5 years from resources that exceed the emissions of a relatively clean, combined cycle natural gas power plant.

Because of the carbon content of its fuel source, a coal-fired plant cannot meet this standard because such plants emit roughly twice as much carbon as natural gas, combined cycle plants. Accordingly, the new law effectively prevents California's utilities from investing in, otherwise financially supporting, or purchasing power from new coal plants located in or out of the state. The California Public Utilities Commission adopted the regulations required by SB 1368 on August 29, 2007. The regulations implementing SB 1368 establish a standard for baseload generation owned by, or under long-term contract to publicly owned utilities, of 1,100 pounds of CO₂ per megawatt-hour (MWh).

Senate Bill 1078: Renewable Electricity Standards

On September 12, 2002, Governor Gray Davis signed SB 1078, requiring California to generate 20 percent of its electricity from renewable energy by 2017. SB 107 changed the due date to 2010 instead of 2017. On November 17, 2008, Governor Arnold Schwarzenegger signed EO S-14-08, which established an RPS target for California requiring that all retail sellers of electricity serve 33 percent of their load with renewable energy by 2020. Governor Schwarzenegger signed EO S-21-09, which directed CARB to adopt a regulation by July 31, 2010, requiring the state's load serving entities to meet a 33 percent renewable energy target by 2020. CARB approved the Renewable Electricity Standard on September 23, 2010, by Resolution 10-23. In 2011, the State



AIR QUALITY AND GREENHOUSE GAS IMPACT ASSESSMENT

Greenhouse Gas
October 14, 2021

Legislature adopted this higher standard in SB X1-2. Renewable sources of electricity include wind, small hydropower, solar, geothermal, biomass, and biogas.

Senate Bill 350: Clean Energy and Pollution Reduction Act of 2015

The legislature approved and the governor then signed SB 350 on October 7, 2015, which reaffirms California's commitment to reducing its GHG emissions and addressing climate change. Key provisions include an increase in the RPS, higher energy efficiency requirements for buildings, initial strategies towards a regional electricity grid, and improved infrastructure for electric vehicle charging stations.

Senate Bill 100: California Renewables Portfolio Standard Program.

The Governor approved SB 100 on September 10, 2018. The legislation revised the RPS goals to achieve the 50 percent renewable resources target by December 31, 2026, and to achieve a 60 percent target by December 31, 2030. The bill would require that retail sellers and local publicly owned electric utilities procure a minimum quantity of electricity products from eligible renewable energy resources so that the total kilowatt hours of those products sold to their retail end-use customers achieve 44 percent of retail sales by December 31, 2024; 52 percent by December 31, 2027; and 60 percent by December 31, 2030.

Senate Bill X7-7: The Water Conservation Act of 2009

SB X7-7 directs urban retail water suppliers to set individual 2020 per capita water use targets and to begin implementing conservation measures to achieve those goals. Meeting this statewide goal of 20 percent decrease in demand will result in a reduction of almost 2 million acre-feet of urban water use in 2020.

Executive Order S-3-05

On June 1, 2005, former California Governor Arnold Schwarzenegger announced EO S-3-05, which announced the following reduction targets for GHG emissions:

- By 2010, reduce GHG emissions to 2000 levels.
- By 2020, reduce GHG emissions to 1990 levels.
- By 2050, reduce GHG emissions to 80 percent below 1990 levels.

The 2050 reduction goal represents what some scientists believe is necessary to reach levels that would stabilize the climate. The 2020 goal was established to be a mid-term target. Because this is an EO, the goals are not legally enforceable for local governments or the private sector.



AIR QUALITY AND GREENHOUSE GAS IMPACT ASSESSMENT

Greenhouse Gas
October 14, 2021

Executive Order B-30-15

On April 29, 2015, Governor Edmund G. Brown Jr. issued EO B-30-15 to establish a California GHG reduction target of 40 percent below 1990 levels by 2030. The Governor's EO aligns California's GHG reduction targets with those of leading international governments ahead of the United Nations Climate Change Conference in Paris in late 2015. The EO sets a new interim statewide GHG emission reduction target to reduce GHG emissions to 40 percent below 1990 levels by 2030 in order to ensure that California meets its target of reducing GHG emissions to 80 percent below 1990 levels by 2050, and directs CARB to update the Climate Change Scoping Plan to express the 2030 target in terms of MMTCO₂e. The EO also requires the state's climate adaptation plan to be updated every 3 years and for the state to continue its climate change research program, among other provisions. As with EO S-3-05, this EO is not legally enforceable against local governments and the private sector. Legislation that would update AB 32 to provide post-2020 targets was signed by the Governor in 2016. SB 32 includes a 2030 mandate matching the requirements of the EO.

Executive Order S-01-07: Low Carbon Fuel Standard

The governor signed EO S 01-07 on January 18, 2007. The order mandates that a statewide goal shall be established to reduce the carbon intensity of California's transportation fuels by at least 10 percent by 2020. In particular, the EO established a Low Carbon Fuel Standard (LCFS) and directed the Secretary for Environmental Protection to coordinate the actions of the California Energy Commission, CARB, the University of California, and other agencies to develop and propose protocols for measuring the "life-cycle carbon intensity" of transportation fuels. This analysis supporting development of the protocols was included in the State Implementation Plan for alternative fuels (State Alternative Fuels Plan adopted by California Energy Commission on December 24, 2007) and was submitted to CARB for consideration as an "early action" item under AB 32. CARB adopted the Low Carbon Fuel Standard on April 23, 2009.

The LCFS was subject to legal challenge in 2011. Ultimately, CARB was required to bring a new LCFS regulation for consideration in February 2015. The proposed LCFS regulation was required to contain revisions to the 2010 LCFS as well as new provisions designed to foster investments in the production of the low-carbon fuels, offer additional flexibility to regulated parties, update critical technical information, simplify and streamline program operations, and enhance enforcement. The Office of Administrative Law approved the regulation on November 16, 2015. The regulation was last amended in 2018.



AIR QUALITY AND GREENHOUSE GAS IMPACT ASSESSMENT

Greenhouse Gas
October 14, 2021

Executive Order S-13-08

EO S-13-08 states that “climate change in California during the next century is expected to shift precipitation patterns, accelerate sea level rise and increase temperatures, thereby posing a serious threat to California’s economy, to the health and welfare of its population and to its natural resources.” Pursuant to the requirements in the EO, the 2009 California Climate Adaptation Strategy was adopted, which is the “... first statewide, multi-sector, region-specific, and information-based climate change adaptation strategy in the United States.” Objectives include analyzing risks of climate change in California, identifying and exploring strategies to adapt to climate change, and specifying a direction for future research.

Executive Order B-55-18

EO B-55-18 issued by Governor Brown on September 10, 2018, establishes a new statewide goal to achieve carbon neutrality as soon as possible, but no later than 2045, and to achieve and maintain net negative emissions thereafter. The EO directs CARB to work with relevant state agencies to develop a framework for implementation and accounting that tracks progress toward this goal.

California Energy Code

Compliance with the California Energy Code (Title 24, Part 6, of the California Code of Regulations [CCR], California’s Energy Efficiency Standards) and Title 20, Public Utilities and Energy, standards must occur for all new buildings constructed in California. These efficiency standards apply to new construction of both residential and nonresidential (i.e., maintenance buildings and pump station buildings associated with the Program) buildings, and they regulate energy consumed for heating, cooling, ventilation, water heating, and lighting. The building efficiency standards are enforced through the local building permit processes, and local government agencies may adopt and enforce energy standards for new buildings provided that these standards meet or exceed those provided in the Title 24 guidelines.

4.2.3 Regional

San Joaquin Valley Air Pollution Control District

On December 17, 2009, the San Joaquin Valley Air Pollution Control District (SJVAPCD) Governing Board adopted “Guidance for Valley Land-use Agencies in Addressing GHG Emission Impacts for New Projects under CEQA,” and the policy “District Policy—Addressing GHG Emission Impacts for Stationary Source Projects Under CEQA When Serving as the Lead Agency.” SJVAPCD concluded that the existing science is inadequate to support quantification of the impacts that project-



AIR QUALITY AND GREENHOUSE GAS IMPACT ASSESSMENT

Greenhouse Gas
October 14, 2021

specific GHG emissions have on global climate change. SJVAPCD found the effects of project-specific emissions to be cumulative, and without mitigation, their incremental contribution to global climate change could be considered cumulatively considerable. SJVAPCD found that this cumulative impact is best addressed by requiring all projects to reduce their GHG emissions, whether through project design elements or mitigation.

City of Fresno

The City of Fresno adopted its first GHG Plan in December 2014. The GHG Plan established a target of reducing per capita GHG emissions in the city by 21.7 percent below 2020 business-as-usual (BAU) levels by 2020 and includes GHG reduction measures designed to achieve the reduction target. The GHG Plan is considered a “Qualified Plan,” according to CEQA Guidelines §15183.5.2 Since adoption of the GHG Plan, two significant regulations/decisions have been established. First, on September 28, 2016, Governor Brown signed SB 32 into law that sets a Statewide goal of reducing GHG emissions to 40 percent below 1990 levels by 2030. Additionally, on November 30, 2015, the California Supreme Court published its decision on the Newhall Ranch Specific Plan invalidating the EIR for a variety of reasons, including the use of 29 percent below BAU as a threshold to determine significance of GHG emissions under CEQA without any supporting evidence.

The GHG Plan Update adopted with the General Plan Update in August 2020 ensures conformity with the mandates of California Supreme Court in the Newhall Ranch case and the State of California’s latest GHG regulations. The GHG Plan Update re-evaluated the City’s GHG reduction targets and existing reduction strategies from the 2014 GHG Plan. New goals and supporting measures were included to reflect and ensure compliance with changes in the local and State policies and regulations such as SB 32 and California’s 2017 Climate Change Scoping Plan. The City’s GHG inventory, based on the most recent data available for the year 2016 was evaluated and the future growth in emissions for the BAU and adjusted BAU (ABAU) scenarios (the ABAU scenario considers the State policies) for the years 2020, 2030, and 2035 are projected. The 2020 and 2030 forecast years are consistent with the goals identified in AB 32 and SB 32, which identify Statewide GHG reduction targets by 2020 and 2030. The 2035 forecast year correspond to the City’s General Plan horizon year and would allow the City to develop long-term strategies to continue GHG reductions.



5.0 MODELING PARAMETERS AND ASSUMPTIONS

The following modeling parameters and assumptions were used to generate criteria air pollutant and greenhouse gas (GHG) emissions for the Lombardi Development Project.

5.1 CRITERIA AIR POLLUTANT AND GHG MODEL SELECTION

The California Emissions Estimator Model (CalEEMod) is a statewide land use emissions computer model designed to provide a uniform platform for government agencies, land use planners, and environmental professionals to quantify potential criteria pollutant and greenhouse gas (GHG) emissions associated with both construction and operations from a variety of land use projects. CalEEMod quantifies direct emissions from construction and operation activities (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. Further, CalEEMod identifies mitigation measures to reduce criteria pollutant and GHG emissions along with calculating the benefits achieved from measures chosen by the user.

CalEEMod was developed for the California Air Pollution Control Officers Association (CAPCOA) in collaboration with the California Air Districts. Default data (e.g., emission factors, trip lengths, meteorology, source inventory, etc.) have been provided by the various California Air Districts to account for local requirements and conditions.

CalEEMod is a comprehensive tool for quantifying air quality impacts from land use projects located throughout California. The model can be used for a variety of situations where an air quality analysis is necessary or desirable such as preparing CEQA or National Environmental Policy Act documents, conducting pre-project planning, and, verifying compliance with local air quality rules and regulations, etc.

CalEEMod version 2020.4.0 was used to estimate construction and operational impacts of the proposed project.

5.2 AIR POLLUTANTS AND GHGS ASSESSED

5.2.1 Criteria Pollutants Assessed

The following criteria air pollutants were assessed in this analysis: reactive organic gases (ROG), oxides of nitrogen (NO_x), particulate matter less than 10 microns in diameter (PM₁₀), and particulate matter less than 2.5 microns in diameter (PM_{2.5}). Note that the proposed project would emit ozone precursors ROG and NO_x. However, the



AIR QUALITY AND GREENHOUSE GAS IMPACT ASSESSMENT

Modeling Parameters and Assumptions
October 14, 2021

proposed project would not directly emit ozone since it is formed in the atmosphere during the photochemical reaction of ozone precursors.

5.2.2 GHGs Assessed

This analysis was restricted to GHGs identified by AB 32, which include carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), sulfur hexafluoride (SF₆), and nitrogen trifluoride (NF₃). The proposed project would generate a variety of GHGs, including several defined by AB 32 such as CO₂, CH₄, and N₂O.

Certain GHGs defined by AB 32 would not be emitted by the project. HFCs, PFCs, SF₆, and NF₃ are typically used in industrial applications, none of which would be used for typical multifamily residential operations. Therefore, it is not anticipated that the proposed project would emit those GHGs.

GHG emissions associated with the proposed project construction, as well as future operations were estimated using CO₂ equivalent (CO₂e) emissions as a proxy for all GHG emissions. Construction GHG emissions were amortized over the lifetime of the proposed project. In order to obtain the CO₂e, an individual GHG is multiplied by its Global Warming Potential (GWP). The GWP designates on a pound for pound basis the potency of the GHG compared to CO₂.

5.3 ASSUMPTIONS

5.3.1 Construction Modeling Assumptions

Land Use

Table 4 provides a summary of the land use inputs included in the CalEEMod modeling.



AIR QUALITY AND GREENHOUSE GAS IMPACT ASSESSMENT

Modeling Parameters and Assumptions
 October 14, 2021

Table 4: CalEEMod Land Use Development Summary Table for the Proposed Project

Project Component	CalEEMod Land Use Type	Land Use Unit Amount (Size)	Land Use Size Metric	Total Square Footage (Building Square Footage is Used for Buildings)	Land Use Acreage
Industrial Building	General Heavy Industry	477.47	KSF	477,470	10.96 AC
Parking	Parking Lot	190	Spaces	76,000	1.71 AC
Notes: KSF = 1,000 square feet AC = acre					

Construction Schedule

The proposed project would require various tasks including site preparation, grading, building construction, architectural coatings, and paving. Table 5 shows the anticipated construction schedule. The construction schedule utilized in the analysis will represent a “worst-case” analysis scenario since emission factors for construction equipment decrease as the analysis year increases, due to improvements in technology and more stringent regulatory requirements. Therefore, construction emissions would decrease if the construction schedule moved to later years or is phased over multiple years. The duration of construction activity and associated equipment represent a reasonable approximation of the expected construction fleet as required per CEQA guidelines. The site-specific construction fleet may vary due to specific project needs at the time of construction.



AIR QUALITY AND GREENHOUSE GAS IMPACT ASSESSMENT

Modeling Parameters and Assumptions
October 14, 2021

Table 5: Project Construction Schedule

Construction Task	Start Date	End Date	Workdays
Site Preparation	2/1/2022	2/28/2022	20
Grading/Excavation	3/1/2022	3/31/2022	23
Drainage/Utilities/Trenching	3/1/2022	3/31/2022	23
Foundations/Concrete Pour	4/1/2022	4/30/2022	21
Building Construction	5/1/2022	1/16/2023	186
Paving	11/1/2022	1/16/2023	55

Source: CalEEMod Output (Attachment A). Construction schedule provided by the Project Applicant.

Construction Equipment

The off-road equipment fleet for construction were generated using default values from CalEEMod. CalEEMod generates construction fleets for construction activities based on the size of the construction areas. Construction equipment for each construction activity by phase is shown in Table 6.

Table 6: Project Construction Equipment

Construction Task	Equipment Type	Pieces of Equipment	Usage (hours/day)	Horsepower	Load Factor	Fuel Type
Site Preparation	Rubber Tired Dozers	3	8	247	0.40	Diesel
	Tractors/Loaders/Backhoes	4	8	97	0.37	Diesel
Grading/Excavation	Excavators	2	8	158	0.38	Diesel
	Graders	1	8	187	0.41	Diesel
	Rubber Tired Dozers	1	8	247	0.40	Diesel
	Scrapers	2	8	367	0.48	Diesel
	Tractors/Loaders/Backhoes	2	8	97	0.37	Diesel
Drainage/Utilities/Trenching	Excavators	2	8	158	0.38	Diesel
	Graders	1	8	187	0.41	Diesel
	Rubber Tired Dozers	1	8	247	0.40	Diesel
	Scrapers	2	8	367	0.48	Diesel
	Tractors/Loaders/Backhoes	2	8	97	0.37	Diesel
Foundations/Concrete Pour	Pavers	2	8	130	0.42	Diesel
	Paving Equipment	2	8	132	0.36	Diesel
	Rollers	2	8	80	0.38	Diesel



AIR QUALITY AND GREENHOUSE GAS IMPACT ASSESSMENT

Modeling Parameters and Assumptions

October 14, 2021

Construction Task	Equipment Type	Pieces of Equipment	Usage (hours/day)	Horsepower	Load Factor	Fuel Type
Building Construction	Cranes	1	7	231	0.29	Diesel
	Forklifts	3	8	89	0.20	Diesel
	Generator Sets	1	8	84	0.74	Diesel
	Tractors/Loaders/Backhoes	3	7	97	0.37	Diesel
	Welders	1	8	46	0.45	Diesel
Paving	Pavers	2	8	130	0.42	Diesel
	Paving Equipment	2	8	132	0.36	Diesel
	Rollers	2	8	80	0.38	Diesel

Source: CalEEMod Output (Attachment A)

Vehicle Trips

Off-site construction emissions are caused by motor vehicle exhaust from delivery vehicles, worker traffic, and road dust (PM₁₀ and PM_{2.5}). Table 7 provides a summary of the construction-related vehicle trips. The number of daily worker trips were based on the Project Applicant's estimation of the average number of daily workers per phase.

CalEEMod default values were used to estimate the number of vendor vehicle trips during the building construction phase. The number of vendor trips during the Building Construction phase is derived from a study conducted by the Sacramento Metropolitan Air Quality Management District (SMAQMD) as per the CalEEMod defaults. The SMAQMD trip survey during construction counted cement and water trucks as vendor trips (instead of counting them as off-road vehicle trips) and these trip rates were incorporated into the calculations for the Building Construction phase. The Project Applicant estimates that during the paving phase of construction, 67 cement trucks would travel to the project site a day. The cement trucks were included as vendor truck trips during the paving phase of construction.

Construction would not require excavation or demolition and, as a result, hauling trips are not required during the grading or demolition phases of construction.

The fleet mix for worker trips is light-duty passenger vehicles to light-duty trucks. The vendor trips fleet mix is composed of a mixture of medium and heavy-duty diesel trucks. CalEEMod default trip lengths for a project in Fresno County and an urban setting were used for the worker (10.8 miles), vendor (7.3 miles), and hauling trips (20 miles).



AIR QUALITY AND GREENHOUSE GAS IMPACT ASSESSMENT

Modeling Parameters and Assumptions
October 14, 2021

Table 7: Construction Vehicle Trips

Construction Task	Worker Trips per Day	Vendor Trips per Day	Total Haul Truck Trips
Site Preparation	20	0	0
Grading/Excavation	50	0	0
Drainage/Utilities/Trenching	50	0	0
Foundations/Concrete Pour	50	0	0
Building Construction	150	91	0
Paving	40	67	0
Notes: No hauling trucks anticipated as there is no demolition and all grading will be balanced on the Project site. Source: CalEEMod Output (Attachment A).			

5.3.2 Construction Modeling Assumptions

Operational emissions are those emissions that occur during operation of the proposed project. The sources are summarized below.

Motor Vehicles

Motor vehicle emissions refer to exhaust and road dust emissions from the automobiles that would travel to and from the proposed project site. The trip generation was based on the June 2021 Transportation Impact Analysis (TIA) prepared by JLB Traffic based on the Institute of Engineer’s (ITE) trip generation rates for Land Use Code 110, General Light Industry.

Trip Lengths

The CalEEMod default round trip lengths for an urban setting in Fresno County were used in this analysis. Trip lengths are for primary trips. Trip purpose are primary, diverted, and pass-by trips. Diverted trips take a slightly different path than a primary trip. The CalEEMod default rates for percentages of primary, diverted, and pass-by trips were used. The emissions estimate also considers the internal capture rates, consistent with the project-specific trip generation. Internal capture rates account for vehicle trips that visit the project site for the purpose of visiting more than land use within the project.

Vehicle Fleet Mix

The vehicle fleet mix is defined as the mix of motor vehicle classes active during the operation of the proposed project. Emission factors are assigned to the expected vehicle mix as a function of vehicle class, speed, and fuel use (gasoline- and diesel-powered vehicles). CalEEMod default fleet mix was used for this analysis.



AIR QUALITY AND GREENHOUSE GAS IMPACT ASSESSMENT

Modeling Parameters and Assumptions
October 14, 2021

Area Sources

Consumer Products

Consumer products are various solvents used in non-industrial applications that emit ROG during their product use. These typically include cleaning supplies, kitchen aerosols, cosmetics, and toiletries. The default CalEEMod values were used for this project.

Architectural Coatings (Painting)

Paints release VOC emissions. The buildings would be repainted on occasion. CalEEMod defaults for the wall painting size and VOC paint concentration were used for this purpose.

Landscaping Emissions

CalEEMod will estimate a total of 180 days for which landscaping equipment would be used to estimate potential emissions for the proposed project.

Indirect Emissions

For GHG emissions, CalEEMod contains calculations to estimate indirect GHG emissions. Indirect emissions are emissions where the location of consumption or activity is different from where actual emissions are generated. For example, electricity would be consumed at the proposed project site; however, emissions associated with producing that electricity are generated off-site at a power plant. Since the electricity can vary greatly based on locations, the user should override these values if they have more specific information regarding their specific water supply and treatment.

Energy Use

Pacific Gas and Electric (PG&E) would provide electricity and natural gas services to the project site. PG&E provides emission factors for the electricity it provides to customers for its energy portfolio that is used to estimate project emissions. The utilities will be required to increase the use of renewable energy sources to 60 percent by 2030. These reductions have been accounted within CalEEMod 2020.4.0 defaults.

The emissions associated with the building electricity and natural gas usage (non-hearth) were estimated based on the land use type and size. The electricity energy use is in units of kilowatt hours per size metric for each land use type. Natural gas use is in units of one thousand British Thermal Units per size metric for each land use type.



AIR QUALITY AND GREENHOUSE GAS IMPACT ASSESSMENT

Modeling Parameters and Assumptions
October 14, 2021

Other Indirect Emissions (Water Use, Wastewater Use, and Solid Waste)

CalEEMod includes calculations for indirect GHG emissions for electricity consumptions, water consumption, and solid waste disposal. For water consumption, CalEEMod calculates embedded energy (e.g., treatment, conveyance, distribution) associated with providing each gallon of potable water to the project. For solid waste disposal, GHG emissions are associated with the disposal of solid waste generated by the proposed project into landfills. CalEEMod default data were used for inputs associated with solid waste.

Fugitive Dust

Construction

Fugitive dust would be generated from site grading and other earth-moving activities. Most of this fugitive dust would remain localized and would be deposited near the project site. However, the potential for impacts from fugitive dust exists unless control measures are implemented to reduce the emissions from the project site. Therefore, adherence to Regulation VIII would be required during construction of the proposed project. Regulation VIII would require fugitive dust control measures that are consistent with best management practices (BMPs) established by the SJVAPCD to reduce the proposed project's construction-generated fugitive dust impacts to a less than significant level.

Visible Dust Emissions may not exceed 20% opacity during periods when soil is being disturbed by equipment or by wind at any time. Visible dust emissions opacity of 20% means dust that would obstruct an observer's view of an object by 20%. District inspectors are state certified to evaluate visible emissions. Dust control may be achieved by applying water before/during earthwork and onto unpaved traffic areas, phasing work to limit dust, and setting up wind fences to limit wind blown dust.

Soil Stabilization is required at regulated construction sites after normal working hours and on weekends and holidays. This requirement also applies to inactive construction areas such as phased projects where disturbed land is left unattended. Applying water to form a visible crust on the soil and restricting vehicle access are often effective for short-term stabilization of disturbed surface areas. Long-term methods including applying dust suppressants and establishing vegetative cover.

Carryout and Trackout occur when materials from emptied or loaded vehicles falls onto a paved surface or shoulder of a public road or when materials adhere to vehicle tires and are deposited onto a paved surface or shoulder of a public road. Should either occur, the material must be cleaned up at least daily, and immediately if it extends more than 50 feet from the exit point onto a paved road. The appropriate clean-up methods require the complete removal and cleanup of mud and dirt from the paved surface and



AIR QUALITY AND GREENHOUSE GAS IMPACT ASSESSMENT

Modeling Parameters and Assumptions
October 14, 2021

shoulder. Using a blower device or dry sweeping with any mechanical device other than a PM10-efficient street sweeper is a violation. Larger construction sites, or sites with a high amount of traffic on one or more days, must prevent carryout and trackout from occurring by installing gravel pads, grizzlies, wheel washers, paved interior roads, or a combination thereof at each exit point from the site. In many cases, cleaning up trackout with water is also prohibited as it may lead to plugged storm drains. Prevention is the best method.

Unpaved Access and Haul Roads, as well as unpaved vehicle and equipment traffic areas at construction sites must have dust control. Speed limit signs limiting vehicle speed to 15 mph or less at construction sites must be posted every 500 feet on uncontrolled and unpaved roads.

Storage Piles and Bulk Materials have handling, storage, and transportation requirements that include applying water when handling materials, wetting or covering stored materials, and installing wind barriers to limit VDE. Also, limiting vehicle speeds, loading haul trucks with a freeboard of six inches or greater along with applying water to the top of the load, and covering the cargo compartments are effective measures for reducing VDE and carryout from vehicles transporting bulk materials.

Demolition activities require the application of water to the exterior of the buildings and to unpaved surfaces where materials may fall. A Dust Control Plan will be required for large demolition projects. Consider all structures slated for demolition as possibly being regulated due to potential asbestos, per District Rule 4002 - National Emission Standards for Hazardous Air Pollutants. Contact the District well before starting because a 10 working-day notice will likely be required before a demolition can begin.

Dust Control Plans identify the dust sources and describe the dust control measures that will be implemented before, during, and after any dust generating activity for the duration of the project. Owners or operators are required to submit plans to the District at least 30 days prior to commencing the work for the following:

- Residential developments of ten or more acres of disturbed surface area.
- Non-residential developments of five or more acres of disturbed surface area.
- The relocation of more than 2,500 cubic yards per day of materials on at least three days.

Operations may not commence until the District has approved the Dust Control Plan. A copy of the plan must be on site and available to workers and District employees. All work on the site is subject to the requirements of the approved dust control plan. A failure to abide by the plan by anyone on site may be subject to enforcement action. Owners or operators of construction projects that are at least one acre in size and



AIR QUALITY AND GREENHOUSE GAS IMPACT ASSESSMENT

Modeling Parameters and Assumptions

October 14, 2021

where a Dust Control Plan is not required, must provide written notification to the District at least 48 hours in advance of any earthmoving activity.

Record Keeping is required to document compliance with the rules and must be kept for each day any dust control measure is used. The District has developed record forms for water application, street sweeping, and “permanent” controls such as applying long term dust palliatives, vegetation, ground cover materials, paving, or other durable materials. Records must be kept for one year after the end of dust generating activities (Title V sources must keep records for five years).

Nuisances are prohibited at all times because District Rule 4102 – Nuisance applies to all construction sources of fugitive dust, whether or not they are exempt from Regulation VIII. It is important to monitor dust-generating activities and implement appropriate dust control measures to limit the public’s exposure to fugitive dust.



6.0 AIR QUALITY IMPACT ANALYSIS

This section calculates the expected emissions from construction and operation of the proposed project as necessary requisite for assessing the regulatory significance of proposed Project emissions on a regional and localized level.

6.1 CEQA GUIDELINES

According to the CEQA Guidelines' Appendix G Environmental Checklist, the following questions are analyzed and evaluated to determine whether impacts to air quality are significant environmental effects.

Where available, the significance criteria established by the applicable air quality management or air pollution district may be relied upon to make the following determinations.

Where the Project:

- a) Conflict with or obstruct implementation of the applicable air quality plan?
- b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?
- c) Expose sensitive receptors to substantial pollutant concentrations?
- d) Result in other emissions (such as those leading to odors) affecting a substantial number of people?

6.1.1 Thresholds of Significance

While the final determination of whether a project is significant is within the purview of the Lead Agency pursuant to Section 15064(b) of the CEQA Guidelines, the SJVAPCD recommends that its quantitative air pollution thresholds (shown in Table 8) be used to determine the significance of project emissions. If the Lead Agency finds that the project has the potential to exceed these air pollution thresholds, the project should be considered to have significant air quality impacts.



AIR QUALITY AND GREENHOUSE GAS IMPACT ASSESSMENT

Air Quality Impact Analysis
October 14, 2021

Table 8: SJVAPCD Significance Thresholds

Pollutant	Significance Threshold	
	Construction Emissions (tons/year)	Operational Emission (tons/year)
CO	100	100
NO _x	10	10
ROGs	10	10
SO _x	27	27
PM10	15	15
PM2.5	15	15

Source: SJVAPCD 2015

The project does not contain sources that would produce substantial quantities of SO₂ emissions during construction and operation. Modeling conducted for the project show that SO₂ emissions are well below the SJVAPCD GAMAQI thresholds, as shown in the modeling results contained in Appendix A. No further analysis of SO₂ is required.

6.2 AIR IMPACT ANALYSIS

Impact AIR-1	Conflict with or obstruct implementation of the applicable air quality plan?
---------------------	---

Impact Analysis

The CEQA Guidelines indicate that a significant impact would occur if the Project would conflict with or obstruct implementation of the applicable air quality plan. The GAMAQI does not provide specific guidance on analyzing conformity with the Air Quality Plan (AQP). Therefore, this document proposes the following criteria for determining project consistency with the current AQP's:

1. Will the project result in an increase in the frequency or severity of existing air quality violations or cause or contribute to new violations, or delay timely attainment of air quality standards or the interim emissions reductions specified in the AQPs? This measure is determined by comparison to the regional and localized thresholds identified by the District or Regional and Local Air Pollutants.
2. Will the project conform to the assumptions in the AQPs?
3. Will the project comply with applicable control measures in the AQPs?



AIR QUALITY AND GREENHOUSE GAS IMPACT ASSESSMENT

Air Quality Impact Analysis
October 14, 2021

The use of criteria listed above is a standard approach for CEQA analysis of projects in the SJVAPCD's jurisdictions, as well as within other air districts, for the following reasons:

- Significant contribution to existing or new exceedances of the air quality standards would be inconsistent with the goal of attaining the air quality standards.
- Air Quality Plan (AQP) emissions inventories and attainment modeling are based on growth assumptions for the area within the SJVAPCD's jurisdiction.
- AQPs rely on a set or air district-initiated control measures as well as implementation of federal and state measures to reduce emissions within their jurisdictions, with the goal of attaining the air quality standards.

AQPs are plans for reaching attainment of air quality standards. The assumptions, inputs, and control measures are analyzed to determine if the SJVAB can reach attainment for the ambient air quality standards. To show attainment of the standards, the SJVAPCD analyzes the growth projections in the valley, contributing factors in air pollutant emissions and formations, and existing and adopted emissions controls. The SJVAPCD then formulates a control strategy to reach attainment that includes both State and SJVAPCD regulations and other local programs and measures. The applicable AQPs include the 2016 8-Hour Ozone Plan which contains measures to achieve reductions in emissions of ozone precursors and sets plans towards attainment of ambient ozone standards by 2031 and the 2018, 2016, 2015, 2012, and 2008 PM2.5 Plans to address multiple PM2.5 air quality standards and attainment deadlines.

Contribution to Air Quality Violations

A measure of determining if the Project is consistent with the air quality plans is if the Project would not result in an increase in the frequency or severity of existing air quality violations or cause or contribute to new violations or delay timely attainment of air quality standards or the interim emission reductions specified in the air quality plans. Because of the region's nonattainment status for ozone, PM2.5, and PM10, if Project-generated emissions of either of the ozone precursor pollutants (ROG and NO_x), PM10, or PM2.5 would exceed the SJVAPCD's significance thresholds, then the Project would be considered to conflict with the attainment plans.

As shown in Impact AIR-2, emissions of ROG, NO_x, PM10, and PM2.5 from construction and operation of the Project would not exceed the SJVAPCD's significance thresholds. As shown in Impact AIR-3, the Project would not expose sensitive receptors to a substantial pollutant concentration. Therefore, the Project would not contribute to air quality violations.



AIR QUALITY AND GREENHOUSE GAS IMPACT ASSESSMENT

Air Quality Impact Analysis
October 14, 2021

Consistency with Assumptions in AQPs

The primary way of determining consistency with the AQP's assumptions is determining consistency with the applicable General Plan to ensure that the project's population density and land use are consistent with the growth assumptions used in the AQPs for the SJVAB.

As required by California law, city, and county General Plans contain a Land Use Element that details the types and quantities of land uses that the city or county estimates will be needed for future growth and designates locations for land uses to regulate growth. The Fresno County Council of Governments (Fresno County COG) uses the growth projections and land use information in adopted general plans, among other sources to estimate future average daily trips and then vehicles miles traveled (VMT), which are then provided to the SJVAPCD to estimate future emissions in the AQPs. Existing and future pollutant emissions computed in the AQPs are based on land uses from area general plans. AQPs detail the control measures and emission reductions required for reaching attainment of the air standards based on these growth and emission estimates.

The applicable General Plan for the project is the City of Fresno General Plan, which was adopted in December 2014. The Land Use Element of the General Plan designated the site as Residential. As part of the project, the Applicant is proposing a General Plan Amendment to designate the site as Light Industrial. Although the Proposed Project will not be consistent with the land use assumptions within the AQPs for the SJVAB, the change in land use will result in a lower population density than accounted for in the AQPs. Furthermore, since the Proposed Project will consolidate three existing facilities within the City to one warehouse, the Proposed Project will not increase employment to levels that will indirectly increase the City's population. Therefore, despite the General Plan Amendment, the Project would be consistent with the modeling used to prepare the AQPs. The impact would be less than significant.

Control Measures

The AQP contains several control measures, which are enforceable requirements through the adoption of rules and regulations. A detailed description of rules and regulations that apply to this Project is provided in the Regulatory Setting. The Project would comply with all applicable SJVAPCD rules and regulations. Therefore, the project complies with this criterion and would not conflict with or obstruct implementation of the applicable air quality plan.

Conclusion

The Project would not conflict with or obstruct implementation of the applicable AQPs.



AIR QUALITY AND GREENHOUSE GAS IMPACT ASSESSMENT

Air Quality Impact Analysis
October 14, 2021

Level of Significance Before Mitigation

Less Than Significant Impact.

Mitigation Measures

None are required.

Level of Significance After Mitigation

Less Than Significant Impact.

Impact AIR-2	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?
---------------------	---

Impact Analysis

To result in a less than significant impact, the following criteria must be true:

1. Regional analysis: emissions of nonattainment pollutants must be below the SJVAPCD's regional significance thresholds. This is an approach recommended by the SJVAPCD in its GAMAQI.
2. Summary of projections: the project must be consistent with current air AQPs including control measures and regulations. This is an approach consistent with Section 15130(b) of the CEQA Guidelines.
3. Cumulative health impacts: the project must result in less than significant cumulative health effects from the nonattainment pollutants. This approach correlates the significance of the regional analysis with health effects, consistent with the court decision, *Bakersfield Citizens for Local Control v. City of Bakersfield* (2004) 124 Cal.App.4th 1184, 1219-20.

Step 1: Regional Analysis

Air pollutant emissions have regional effects and localized effects. This analysis assesses the regional effects of the Project's criteria pollutant emissions in comparison to SJVAPCD thresholds of significance for short-term construction activities and long-term operation of the project. Localized emissions from Project construction and operation are also assessed using concentration-based thresholds that determine if the



AIR QUALITY AND GREENHOUSE GAS IMPACT ASSESSMENT

Air Quality Impact Analysis
October 14, 2021

Project would result in a localized exceedance of any ambient air quality standards or would make a cumulatively considerable contribution to an existing exceedance.

The primary pollutants of concern during Project construction and operation are ROG, NO_x, PM₁₀, and PM_{2.5}. The SJVAPCD GAMAQI adopted in 2015 contains thresholds for ROG and NO_x; SO_x, CO, PM₁₀, and PM_{2.5}.

Ozone is a secondary pollutant that can be formed miles away from the source of emissions through reactions of ROG and NO_x emissions in the presence of sunlight. Therefore, ROG and NO_x are termed ozone precursors. The SJVAB often exceeds the state and national ozone standards. Therefore, if the Project emits a substantial quantity of ozone precursors, the Project may contribute to an exceedance of the ozone standard. The SJVAB also exceeds air quality standards for PM₁₀, and PM_{2.5}; therefore, substantial Project emissions may contribute to an exceedance for these pollutants. The SJVAPCD's annual emission significance thresholds used for the Project define substantial contribution both operational and construction emissions are provided in Table 9.

Construction Emissions

Construction emissions associated with the Project are shown in Table 9. For assumptions in estimating the emissions, please refer to Modeling Parameters and Assumptions. As shown in Table 9, the emissions are below the significance thresholds and, therefore, are less than significant on a Project basis.

Table 9: Construction Emissions – Unmitigated

Construction Year	Emissions (Tons/Year)					
	ROG	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}
2022	0.38	3.50	3.33	<0.01	0.69	0.40
2023	0.02	0.18	0.21	<0.01	0.02	0.01
Significance Thresholds	10	10	100	27	15	15
<i>Any Year Exceed Significance Thresholds?</i>	<i>No</i>	<i>No</i>	<i>No</i>	<i>No</i>	<i>No</i>	<i>No</i>
Notes: Source of Emissions: CalEEMod Output (Attachment A). Source of Thresholds: San Joaquin Valley Air Pollution Control District (Valley Air District). 2015. Guidance for Assessing and Mitigating Air Quality Impacts. February 19. Website: https://www.valleyair.org/transportation/GAMAQI-2015/FINAL-DRAFT-GAMAQI.PDF . Accessed July 19, 2021.						



AIR QUALITY AND GREENHOUSE GAS IMPACT ASSESSMENT

Air Quality Impact Analysis
October 14, 2021

Operations

Operational emissions occur over the lifetime of the project and from two main sources: areas sources and motor vehicles. The SJVAPCD considers construction and operations emissions separately when making significance determination. The emissions output for project operation at full buildout for 2024 are summarized in Table 10. As shown in Table 10, the operational emissions would be less than the thresholds of significance for all criteria air pollutants. The impact is less than significant.

Table 10: Summary of Operational Emissions of Criteria Air Pollutants – Unmitigated

Source	Emissions (tons/year)					
	ROG	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}
Area	2.20	<0.01	0.01	0.00	>0.01	>0.01
Energy	0.05	0.48	0.41	>0.01	0.04	0.04
Mobile	1.28	2.16	12.17	0.03	2.73	0.75
Total	3.54	2.65	12.59	0.03	2.77	0.78
Significance Thresholds	10	10	100	27	15	15
Exceed Significance Thresholds?	No	No	No	No	No	No
Notes: Emissions were quantified using CalEEMod, version 2020.4.0 based on project details and estimated operating year for the proposed project. Totals may not sum exactly due to rounding. Source: CalEEMod Output (Attachment A).						

If an area is in nonattainment for a criteria pollutant, then the background concentration of that pollutant has historically exceeded the ambient air quality standard. It follows that if a project exceeds the regional threshold for that nonattainment pollutant, then it would result in a cumulatively considerable net increase of that pollutant and result in a significant cumulative impact.

The SJVAB is in nonattainment for PM₁₀, PM_{2.5}, and ozone. Therefore, if the Project exceeds the regional thresholds for PM₁₀, or PM_{2.5}, then it contributes to a cumulatively considerable impact for those pollutants. If the Project exceeds the regional threshold for NO_x or ROG, then it follows that the Project would contribute to a cumulatively considerable impact for ozone.

The criteria pollutant emissions analysis, as shown in above, assessed whether the Project would exceed the SJVAPCD's thresholds of significance. As shown in Table 9 and Table 10, criteria pollutant emissions would not exceed any threshold of significance during Project construction or operation. Therefore, the combination of



AIR QUALITY AND GREENHOUSE GAS IMPACT ASSESSMENT

Air Quality Impact Analysis
October 14, 2021

unmitigated Project emissions with the criteria pollutants from other sources within the SJVAB would not cumulatively contribute to a significant impact according to this criterion.

Step 2: Plan Approach

Section 15130(b) of the CEQA Guidelines states the following:

The following elements are necessary to an adequate discussion of significant cumulative impacts: 1) Either: (A) A list of past, present, and probable future projects producing related or cumulative impacts, including, if necessary, those projects outside the control of the agency, or (B) A summary of projections contained in an adopted general plan or related planning document, or in a prior environmental document which has been adopted or certified, which described or evaluated regional or area wide conditions contributing to the cumulative impact.

In accordance with CEQA Guidelines 15130(b), this analysis of cumulative impacts is based on a summary of projections analysis. The SJVAB is in nonattainment for ozone and particulate matter (PM₁₀ and PM_{2.5}), which means that concentrations of these pollutants currently exceed the applicable ambient air quality standards.

Cumulative impacts may be analyzed using other plans that evaluate relevant cumulative effects. The geographic scope for cumulative criteria pollution from air quality impacts is the SJVAB, because that is the area in which the air pollutants generated by the sources within the SJVAB circulate and are often trapped. The SJVAPCD is required to prepare and maintain air quality attainment plans and a State Implementation Plan to document the strategies and measures to be undertaken to reach attainment of ambient air quality standards. While the SJVAPCD does not have direct authority over land use decisions, it is recognized that changes in land use and circulation planning would help the SJVAB achieve clean air mandates. The SJVAPCD evaluated emissions from land uses and transportation in the entire SJVAB when it developed its attainment plans.

In accordance with CEQA Guidelines Section 15064, subdivision (h)(3), a lead agency may determine that a project's incremental contribution to a cumulative effect is not cumulatively considerable if the Project complies with the requirements in a previously approved plan or mitigation program.

As discussed in Impact AIR-1, the project is consistent with all applicable control measures in the air quality attainment plans. The Project would be required to comply with any SJVAPCD rules and regulations that may pertain to implementation of the AQPs. Therefore, impacts would be less than significant with regard to compliance with control measures and regulations.



AIR QUALITY AND GREENHOUSE GAS IMPACT ASSESSMENT

Air Quality Impact Analysis
October 14, 2021

Step 3: Cumulative Health Impacts

The SJVAB is in nonattainment for ozone, PM10, and PM2.5, which means that the background levels of those pollutants are at times higher than the ambient air quality standards. The air quality standards were set to protect public health, including the health of sensitive individuals (such as children, the elderly, and the infirm). Therefore, when the concentration of those pollutants exceeds the standard, it is likely that some sensitive individuals in the population would experience health effects.

Adverse health effects induced by ozone includes short-term effects such as coughing, difficulty breathing, and sore throat as well as long-term effects including inflamed or damaged airways, aggravated lung diseases like asthma or bronchitis, and increased frequency of asthma attacks. O₃ is created through chemical reactions between NO_x, VOCs, and oxygen (EPA, 2021c). Therefore, the health effects related to O₃ are the product of emissions generated by numerous sources throughout the region.

Exposure to particulate matter (PM10 and PM2.5) can affect the lungs and heart and may cause irregular heartbeat, aggravated asthma, and decreased lung function (EPA, 2021b). Direct sources of particulate matter include construction sites, unpaved roads, fields, and fires. Particulate matter is also formed indirectly as a result of complex reactions of chemicals such as SO_x and NO_x (EPA, 2021b).

The SJVAPCD has acknowledged that while HRAs for localized air toxic impacts are commonly prepared, the currently available modeling tools are not equipped to provide a meaningful analysis of the correlation between an individual development project's criteria air pollutant emissions and specific human health impacts (SJVAPCD, 2015b). The South Coast Air Quality Management District (SCAQMD) states that based on their own modeling in the SCAQMD's *2012 Air Quality Management Plan*, a reduction of 432 tons (864,000 pounds) per day of NO_x and a reduction of 187 tons (374,000 pounds) per day of VOC would reduce O₃ levels at the highest monitored site by only nine parts per billion. As such, the SCAQMD concludes that it is not currently possible to accurately quantify O₃-related health impacts caused by NO_x or VOC emissions from relatively small projects (defined as projects with regional scope) due to photochemistry and regional model limitations (SCAQMD, 2015).

The regional analysis of construction and operational emissions, as shown above indicates that the Project would not exceed the SJVAPCD's significance thresholds, and the Project is consistent with the applicable AQPs. Therefore, the Project's emissions would not have a measurable effect on human health and would not result in significant cumulative health impacts from nonattainment pollutants and impacts would be less than significant.



AIR QUALITY AND GREENHOUSE GAS IMPACT ASSESSMENT

Air Quality Impact Analysis
October 14, 2021

Conclusion

The proposed Project would not result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard.

Level of Significance Before Mitigation

Less Than Significant Impact.

Mitigation Measures

None are required.

Level of Significance After Mitigation

Less Than Significant Impact.

Impact AIR-3	Expose sensitive receptors to substantial pollutant concentrations?
---------------------	--

Impact Analysis

This discussion addresses whether the proposed Project would expose sensitive receptors to Naturally Occurring Asbestos (NOA), construction-generated fugitive dust (PM₁₀), ROG, NO_x, PM_{2.5}, Valley Fever, construction generated DPM and operational health risks from the proposed service station. A sensitive receptor is a person in a population who is particularly susceptible to health effects due to exposure to an air contaminant. The following are land uses (sensitive sites) where sensitive receptors are typically located:

- Long-term health care facilities
- Rehabilitation centers
- Convalescent centers
- Hospitals
- Retirement homes
- Residences
- Schools, playgrounds and childcare centers

The proposed Project is considered a sensitive receptor once operational, however there are not any nearby sources of TAC near the site and impact to these receptors



AIR QUALITY AND GREENHOUSE GAS IMPACT ASSESSMENT

Air Quality Impact Analysis
October 14, 2021

was not evaluated. The nearest off-site sensitive receptors are the residents adjacent to the project site.

Localized Impacts

Emissions occurring at or near the Project have the potential to create a localized impact also referred to as an air pollutant hotspot. Localized emissions are considered significant if when combined with background emissions, they would result in exceedance of any health-based air quality standard. In locations that already exceed standards for these pollutants, significance is based on a significant impact level (SIL) that represents the amount that is considered a cumulatively considerable contribution to an existing violation of an air quality standard. The pollutants of concern for localized impact in the SJVAB are NO₂ and CO.

The SJVAPCD has provided guidance for screening localized impacts in the GAMAQI that establishes a screening threshold of 100 pounds per day of any criteria pollutant. If a project exceeds 100 pounds per day of any criteria pollutant, then ambient air quality modeling would be necessary. If the Project does not exceed 100 pounds per day of any criteria pollutant, then it can be assumed that it would not cause a violation of an ambient air quality standard.

Construction: Localized Concentrations of PM₁₀, PM_{2.5}, CO, and NO₂

Local construction impacts would be short-term in nature lasting only during the duration of construction. Because of the short duration and limited amount of construction anticipated for the Project, application of best management practices through compliance with Regulation VIII Fugitive Dust Prohibitions to minimize construction emissions, and levels of emissions less than the SJVAPCD's emission significance thresholds, localized construction concentrations are considered less than significant. It should also be noted that the on-site construction emissions would be less than 100 pounds per day for each of the criteria pollutants, as shown in Table 12 below. To present a conservative estimate, on-site emissions for on-road construction vehicles were included in the localized analysis. It should be noted that the estimates below do not include reductions associated with Rule 9510 compliance, which would reduce NO_x and PM₁₀ emissions. Based on the SJVAPCD's guidance the construction emissions would not cause an ambient air quality standard violation. Impacts would be less than significant.



AIR QUALITY AND GREENHOUSE GAS IMPACT ASSESSMENT

Air Quality Impact Analysis
October 14, 2021

Table 11: Localized Concentrations of PM₁₀, PM_{2.5}, CO, and NO_x for Construction

Emissions Source	Emissions (pounds per day)			
	NO _x	CO	PM ₁₀	PM _{2.5}
2022				
Site Preparation	33.08	19.70	20.68	11.52
Grading/Excavation	38.84	29.04	8.53	4.91
Drainage/Utilities/Trenching	38.84	29.04	8.53	4.91
Foundations/Concrete Pour	11.12	14.58	0.57	0.52
Building Construction	15.62	16.36	0.81	0.76
Paving	3.55	2.21	0.82	0.26
<i>Maximum Localized Emissions (2022)</i>	<i>38.84</i>	<i>29.04</i>	<i>20.68</i>	<i>11.52</i>
2023				
Building Construction	4.11	5.28	1.88	0.53
Paving	2.89	1.96	0.80	0.24
<i>Maximum Localized Emissions (2023)</i>	<i>4.11</i>	<i>5.28</i>	<i>1.88</i>	<i>0.53</i>
Maximum in Any Calendar Year	38.84	29.04	20.68	11.52
Significance Thresholds	100	100	100	100
Any Year Exceed Significance Thresholds?	No	No	No	No
Notes: PM ₁₀ and PM _{2.5} emissions are from the unmitigated output and as a result are more conservative as they do not reflect compliance with Regulation VIII—Fugitive PM ₁₀ Prohibitions. The table only accounts for on-site construction emissions. Source of Emissions: CalEEMod Output (Attachment A). Source of Thresholds: San Joaquin Valley Air Pollution Control District (SJVAPCD). 2015. Guidance for Assessing and Mitigating Air Quality Impacts. February 19. Website: https://www.valleyair.org/transportation/GAMAQI-2015/FINAL-DRAFT-GAMAQI.PDF . Accessed April 16, 2021.				

Operation: Localized Concentrations of PM₁₀, PM_{2.5}, CO, and NO₂

Localized impacts could occur in areas with a single large source of emissions such as a power plant or with multiple sources concentrated in a small area such as a distribution center. Since the proposed project is proposing the development of 477,470 square feet of industrial space for the purpose of drying and curing meat, localized levels of PM₁₀, PM_{2.5}, CO, and NO₂ are not expected to exceed localized impacts.



AIR QUALITY AND GREENHOUSE GAS IMPACT ASSESSMENT

Air Quality Impact Analysis
October 14, 2021

Construction

ROG

During paving operations, ROG is emitted. The amount emitted is dependent on the amount of ROG (or VOC) in the paving materials. There are three types of asphalt that are typically used in paving: asphalt cements, cutback asphalts, and emulsified asphalts. However, SJVAPCD Rule 4641 prohibits the use of the following types of asphalt: rapid cure cutback asphalt; medium cure cutback asphalt; slow cure asphalt that contains more than one-half (0.5) percent of organic compounds that evaporate at 500 degrees Fahrenheit (°F) or lower; and emulsified asphalt containing organic compounds, in excess of 3 percent by volume, that evaporate at 500°F or lower. An exception to this is medium cure asphalt when the National Weather Service official forecast of the high temperature for the 24-hour period following application is below 50°F.

The acute (short-term) health effects from worker direct exposure to asphalt fumes include irritation of the eyes, nose, and throat. Other effects include respiratory tract symptoms and pulmonary function changes. The studies were based on occupational exposure of fumes. Sensitive receptors are not in the immediate vicinity of the fumes; therefore, they would not be subjected to concentrations high enough to evoke a negative response. In addition, the restrictions that are placed on asphalt in the San Joaquin Valley reduce ROG emissions from asphalt and exposure. The impact to sensitive receptors from ROG during construction is less than significant.

Naturally-Occurring Asbestos

According to a map of areas where naturally occurring asbestos in California are likely to occur (U.S. Geological Survey 2011), there are no such areas in the Project area. Therefore, development of the project is not anticipated to expose receptors to naturally occurring asbestos. Impacts would be less than significant.

Fugitive Dust (PM10)

PM10 emissions would not exceed the thresholds of significance, nevertheless, the potential for localized PM10 health impacts are a concern, however, the Project would comply with the SJVAPCD's Regulation VIII incorporating Best Management Practices for reducing fugitive dust, thus potential impacts are reduced to a less than significant level.

Valley Fever

Valley fever, or coccidioidomycosis, is an infection caused by inhalation of the spores of the fungus, *Coccidioides immitis* (*C. immitis*). The spores live in soil and can live for an



AIR QUALITY AND GREENHOUSE GAS IMPACT ASSESSMENT

Air Quality Impact Analysis
October 14, 2021

extended time in harsh environmental conditions. Activities or conditions that increase the amount of fugitive dust contribute to greater exposure, and they include dust storms, grading, and recreational off-road activities. The San Joaquin Valley is considered an endemic area for Valley fever.

Construction activities would generate fugitive dust that could contain *C. immitis* spores. The Project will minimize the generation of fugitive dust during construction activities by complying with the SJVAPCD's Regulation VIII. Therefore, this regulation would reduce Valley fever impacts to less than significant.

During operations, dust emissions are anticipated to be negligible, because most of the Project area would be occupied by buildings, pavement, and landscaped areas. This condition would preclude the possibility of the Project from generating fugitive dust that may contribute to Valley fever exposure. Impacts would be less than significant.

Health Risk Assessment

Construction activities have the potential to generate Diesel Particulate Matter (DPM) emissions related to the number and types of equipment typically associated with construction. Off-road, heavy-duty diesel equipment used for site grading, paving, and other construction activities result in the generation of DPM. For construction activity, DPM is the primary air toxic of concern. Particulate exhaust emissions from diesel-fueled engines (i.e., DPM) were identified as a toxic air contaminant (TAC) by the California Air Resources Board (CARB) in 1998. Because of the proximity of sensitive receptors there is the potential for the DPM emissions to result in a health impact. Accordingly, an analysis was prepared to determine if a potential health risk would occur. During operation, the proposed Project will generate DPM emissions from heavy-duty diesel trucks visiting the site for shipping, receiving, garbage, and other miscellaneous trips. Table 13 presents the estimated weekly and annual truck trips generated by the proposed Project.

Table 12: Estimated Trucking Numbers

Day of the Week	Truck Type	Number
Monday	Shipping	5
	Receiving	3
	Freezer	3
	Pallet*	2
	Garbage*	1
	Subtotal	14
Tuesday	Shipping	4
	Receiving	3



AIR QUALITY AND GREENHOUSE GAS IMPACT ASSESSMENT

Air Quality Impact Analysis
October 14, 2021

	Freezer	3
	Subtotal	10
Wednesday	Shipping	5
	Receiving	3
	Freezer	3
	Subtotal	11
Thursday	Shipping	7
	Receiving	3
	Freezer	3
	Subtotal	13
Friday	Shipping	4
	Receiving	3
	Freezer	3
	Subtotal	10
Additional	UPS/Fedex	5
Weekly Total		63
Annual Total		3,276

Source: Busseto Foods, 2021.

An HRA was prepared in accordance with SJVAPCD and OEHHA guidance for the proposed project and is included as Appendix B. To assess the project's total health risk impacts, impacts from both construction and operations were considered in this HRA. The HRA evaluated DPM (represent as exhaust PM2.5) emissions generated during construction and operation of the proposed project and the related health risk impacts for sensitive receptors located within 1,000 feet of the project boundary over a 70-year period. A project would result in a significant impact if it would individually expose sensitive receptors to TACs resulting in an increased cancer risk greater than 20 in one million or an increased non-cancer risk of greater than 1.0 on the hazard index. It should be noted that the SJVAPCD's latest threshold of significance for TAC emissions is an increase in cancer risk for the maximally exposed individual of 20 in one million (formerly 10 in one million).

The project site is located within 1,000 feet from existing sensitive receptors that could be exposed to diesel emission exhaust during the construction and operational periods. The nearest sensitive receptors are residents occupying a single-family home approximately 150 feet east of the project site. To estimate the potential cancer risk associated with the proposed project from equipment exhaust (including DPM), a dispersion model was used to translate an emission rate from the source location to concentrations at the receptor locations of interest (i.e., receptors at nearby residences).



AIR QUALITY AND GREENHOUSE GAS IMPACT ASSESSMENT

Air Quality Impact Analysis
October 14, 2021

Figure 3: Project Site with a 1,000 Foot Buffer



The location of the maximally exposure individual receptor (MEIR) is located on West Ave., east of the project site. As discussed above, AERMOD dispersion model was used to predict concentrations of DPM and PM_{2.5} at sensitive receptors within 1,000 feet of the project site, as recommended by the SJVAPCD. To model emissions, a release height of 3 meters was chosen to represent the release height of construction equipment. During construction emissions from off-road construction equipment and on-road vehicle travel were distributed throughout the modeled area source. For operation, emissions from the heavy-duty diesel trucks were calculated through CARB's Emissions Factors 2021 (EMFAC2021) program. Emissions were calculated assuming the trucks would travel one mile, which would conservatively capture the emissions of any trucks near the project site and sensitive receptors within 1,000 feet of the site. During operation, emissions from the trucks were distributed throughout the modeled area source.

The current OEHHA guidance recommends that cancer risks be calculated by age groups to account for different breathing rates and sensitivity to TACs. Specifically, it



AIR QUALITY AND GREENHOUSE GAS IMPACT ASSESSMENT

Air Quality Impact Analysis
October 14, 2021

recommends evaluating the risks for the third trimester of pregnancy to age zero (third trimester exposure), ages zero to less than two (infant exposure), ages two to less than 16 (child exposure), and ages 16 to 70 (adult exposure). Age sensitivity factors (ASFs) associated with the different types of exposure are an ASF of 10 for the third trimester and infant exposure, an ASF of 3 for child exposure, and an ASF of 1 for an adult exposure. Also associated with each exposure type are different breathing rates, expressed as liters per kilograms of body weight per day (L/kg-day). As recommended, 95th percentile breathing rates are used for the third trimester and infant exposure, and 80th percentile breathing rates are used for child and adult exposure. These age-specific breathing rates are 361 L/kg-day for the third trimester receptor, 1,090 L/kg-day for the infant receptors, 572 L/kg-day for child receptors, and 233 L/kg-day for adult receptors (OEHHA 2015). According to OEHHA, the cancer risk for a residential receptor is assumed to start in the third trimester of life. Consistent with SJVAPCD and OEHHA Guidance, Fraction of Time (FAH) values were also applied to the health risk calculations. Consistent with SJVAPCD guidance, an FAH value of 0.851 was applied to third trimester and infant receptors. FAH values of 0.721 and 0.73 were applied to child and adult receptors, respectively) (SJVAPCD 2014).

Results of the health risk analysis for the emissions are summarized in Table 13. Construction of the proposed Project will take place over one year. As a result, it was assumed that construction would occur during the third trimester of pregnancy (0.25 years) and the first 0.75 years of the infantile stage of life. The remainder of the 70-year cancer risk, including the remaining 1.25 years of the infantile stage of life, were assumed to occur during operation. The complete HRA prepared for the proposed project, including calculations and AERMOD output data used in the assessment are included in Appendix B.



AIR QUALITY AND GREENHOUSE GAS IMPACT ASSESSMENT

Air Quality Impact Analysis
 October 14, 2021

Table 13: Health Risks from the Proposed Project at the Maximally Exposed Sensitive Receptor

Health Impact Metric			Carcinogenic Inhalation Health Risk in One Million	Chronic Inhalation Hazard Index
Exposure Age	Phase of Project	Exposure Duration		
Third Trimester	Construction	0.25	1.62	0.028
Infant	Construction	0.75	14.7	0.28
Infant	Operation	1.25	0.02	.00002
Child	Operation	14	0.02	0.0002
Adult	Operation	54	0.16	0.0002
Total Cancer Risk			16.5	-
Threshold			20	1
Exceeds Threshold?			No	No
Notes: Chronic non-cancer hazard index was estimated by dividing the annual DPM concentration (as PM _{2.5} exhaust) by the REL of 5 µg/m ³ . Source: Appendix B.				

Conclusion

Sensitive receptors would not be exposed to substantial pollutant concentrations.

Level of Significance Before Mitigation

Less Than Significant Impact.

Mitigation Measures

None.

Level of Significance After Mitigation

Less Than Significant Impact.

Impact AIR-4 Result in other emissions (such as those leading to odors) affecting a substantial number of people?

Impact Analysis

While offensive odors rarely cause any physical harm, they can still be very unpleasant, leading to considerable distress among the public and often generating citizen complaints to local governments and the SJVAPCD. The occurrence and severity of odor impacts depends on numerous factors, including nature, frequency, and intensity of the source, the wind speed and direction, and the sensitivity of the receptor. The nearest sensitive receptor in the vicinity of the proposed Project site would be the



AIR QUALITY AND GREENHOUSE GAS IMPACT ASSESSMENT

Air Quality Impact Analysis
October 14, 2021

students and faculty at West Hills College, approximately 912 feet south of the Project site, the nearest residential receptor would be the single-family residence located 2,700 feet east of the Project site.

Construction activities associated with the proposed Project could result in short-term odorous emissions from diesel exhaust associated with construction equipment. However, these emissions would be intermittent and would dissipate rapidly from the source. In addition, this diesel-powered equipment would only be present on site temporarily during construction activities. Therefore, construction would not create objectionable odors affecting a substantial number of people, and the impact would be less than significant.

Land uses typically considered associated with odors include wastewater treatment facilities, waste-disposal facilities, or agricultural operations. The proposed Project does not contain land uses typically associated with emitting objectionable odors and is not located within the screening distances to sources of odors recommended by the SJVAPCD. The proposed Project is associated with the drying and curing of meats on the site. However, these processes will occur inside the facility and are not expected to generate odor. Regardless, the proposed Project will be subject to SJVAPCD Rule 4102 which prohibits nuisance discharge from a person or facility, including odor. Therefore, the impact would be less than significant.

Conclusion

The proposed Project would not create objectionable odors affecting a substantial number of people.

Level of Significance Before Mitigation

Less Than Significant Impact.

Mitigation Measures

None.

Level of Significance After Mitigation

Less Than Significant Impact.



7.0 GREENHOUSE GAS IMPACT ANALYSIS

7.1 CEQA GUIDELINES

The CEQA Guidelines define a significant effect on the environment as “a substantial, or potentially substantial, adverse change in the environment.” To determine if a project would have a significant impact on GHGs, the type, level, and impact of emissions generated by the project must be evaluated.

The following GHG significance thresholds are contained in Appendix G of the CEQA Guidelines:

- a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment; or
- b) Conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases.

This section discusses potential impacts concerning greenhouse gases associated with the proposed project and provides mitigation measures where necessary.

7.1.1 Thresholds

The State CEQA Guidelines indicate that a project would normally have a significant adverse GHG impact if the project would:

- Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment; or
- Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases.

The SJVAPCD’s Guidance for Valley Land-use Agencies in Addressing GHG Emission Impacts for New Projects under CEQA presents a tiered approach to analyzing project significance with respect to GHG emissions. Project GHG emissions are considered less than significant if they can meet any of the following conditions, evaluated in the order presented:

- Project is exempt from CEQA requirements;
- Project complies with an approved GHG emission reduction plan or GHG mitigation program;
- Project implements Best Performance Standards (BPS); or



AIR QUALITY AND GREENHOUSE GAS IMPACT ASSESSMENT

Greenhouse Gas Impact Analysis
October 14, 2021

- Project demonstrates that specific GHG emissions would be reduced or mitigated by at least 29 percent compared to Business-as-Usual (BAU), including GHG emission reductions achieved since the 2002-2004 baseline period.

On November 20, 2015, the California Supreme Court (Court) issued its decision on the Center for Biological Diversity v. California Department of Fish and Wildlife on the Newhall Ranch project case. The Court determined that there is not substantial evidence to link a specific project's achievement of CARB's Scoping Plan's statewide average reduction below BAU to the conclusion that the project's reduction would meet AB 32's 2020 goals. Furthermore, since the release of SJVAPCD's guidance, SB32 has been issued that requires the state to further reduce GHG emissions beyond the goals laid out in AB32. As a result, the 29 percent reduction in emissions as compared to a BAU standard are outdated and were not used for this analysis.

CEQA Guidelines 15064.4 provides guidance for determining the significance of impacts from GHGs as follows:

(a) The determination of the significance of greenhouse gas emissions calls for a careful judgment by the lead agency consistent with the provisions in section 15064. A lead agency shall make a good-faith effort, based to the extent possible on scientific and factual data, to describe, calculate or estimate the amount of greenhouse gas emissions resulting from a project. A lead agency shall have discretion to determine, in the context of a particular project, whether to:

(1) Quantify greenhouse gas emissions resulting from a project; and/or

(2) Rely on a qualitative analysis or performance-based standards.

(b) In determining the significance of a project's greenhouse gas emissions, the lead agency should focus its analysis on the reasonably foreseeable incremental contribution of the project's emissions to the effects of climate change. A project's incremental contribution may be cumulatively considerable even if it appears relatively small compared to statewide, national or global emissions. The agency's analysis should consider a timeframe that is appropriate for the project. The agency's analysis also must reasonably reflect evolving scientific knowledge and state regulatory schemes. A lead agency should consider the following factors, among others, when determining the significance of impacts from greenhouse gas emissions on the environment:

(1) The extent to which the project may increase or reduce greenhouse gas emissions as compared to the existing environmental setting;

(2) Whether the project emissions exceed a threshold of significance that the lead agency determines applies to the project.



AIR QUALITY AND GREENHOUSE GAS IMPACT ASSESSMENT

Greenhouse Gas Impact Analysis
October 14, 2021

(3) The extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of greenhouse gas emissions (see, e.g., section 15183.5(b)). Such requirements must be adopted by the relevant public agency through a public review process and must reduce or mitigate the project's incremental contribution of greenhouse gas emissions. If there is substantial evidence that the possible effects of a particular project are still cumulatively considerable notwithstanding compliance with the adopted regulations or requirements, an EIR must be prepared for the project. In determining the significance of impacts, the lead agency may consider a project's consistency with the State's long-term climate goals or strategies, provided that substantial evidence supports the agency's analysis of how those goals or strategies address the project's incremental contribution to climate change and its conclusion that the project's incremental contribution is not cumulatively considerable.

(c) A lead agency may use a model or methodology to estimate greenhouse gas emissions resulting from a project. The lead agency has discretion to select the model or methodology it considers most appropriate to enable decision makers to intelligently take into account the project's incremental contribution to climate change. The lead agency must support its selection of a model or methodology with substantial evidence. The lead agency should explain the limitations of the particular model or methodology selected for use.

Project Threshold

San Joaquin Valley Air Pollution Control District

On December 17, 2009, the San Joaquin Valley Air Pollution Control District (SJVAPCD) Governing Board adopted "Guidance for Valley Land-use Agencies in Addressing GHG Emission Impacts for New Projects under CEQA," and the policy "District Policy—Addressing GHG Emission Impacts for Stationary Source Projects Under CEQA When Serving as the Lead Agency." SJVAPCD concluded that the existing science is inadequate to support quantification of the impacts that project-specific GHG emissions have on global climate change. SJVAPCD found the effects of project-specific emissions to be cumulative, and without mitigation, their incremental contribution to global climate change could be considered cumulatively considerable. SJVAPCD found that this cumulative impact is best addressed by requiring all projects to reduce their GHG emissions, whether through project design elements or mitigation.

City of Fresno

The City of Fresno adopted its first Greenhouse Gas Reduction Plan (GHG Plan) in December 2014. The GHG Plan established a target of reducing per capita GHG emissions in the city by 21.7 percent below 2020 business-as-usual (BAU) levels by



AIR QUALITY AND GREENHOUSE GAS IMPACT ASSESSMENT

Greenhouse Gas Impact Analysis
October 14, 2021

2020 and includes GHG reduction measures designed to achieve the reduction target as well as strategies that will continue to provide GHG reductions for 2035 and 2050 (City of Fresno, 2014). The GHG Plan is considered a “Qualified Plan,” according to CEQA Guidelines §15183.5.2 Since adoption of the GHG Plan, two significant regulations/decisions have been established. First, on September 28, 2016, Governor Brown signed SB 32 into law that sets a Statewide goal of reducing GHG emissions to 40 percent below 1990 levels by 2030. Additionally, on November 30, 2015, the California Supreme Court published its decision on the Newhall Ranch Specific Plan invalidating the EIR for a variety of reasons, including the use of 29 percent below BAU as a threshold to determine significance of GHG emissions under CEQA without any supporting evidence.

The GHG Plan Update adopted with the General Plan Update in August 2020 ensures conformity with the mandates of California Supreme Court in the Newhall Ranch case and the State of California’s latest GHG regulations. The GHG Plan Update re-evaluated the City’s GHG reduction targets and existing reduction strategies from the 2014 GHG Plan. New goals and supporting measures were included to reflect and ensure compliance with changes in the local and State policies and regulations such as SB 32 and California’s 2017 Climate Change Scoping Plan. The City’s GHG inventory, based on the most recent data available for the year 2016 was evaluated and the future growth in emissions for the BAU and adjusted BAU (ABAU) scenarios (the ABAU scenario considers the State policies) for the years 2020, 2030, and 2035 are projected. The 2020 and 2030 forecast years are consistent with the goals identified in AB 32 and SB 32, which identify Statewide GHG reduction targets by 2020 and 2030. The 2035 forecast year correspond to the City’s General Plan horizon year and would allow the City to develop long-term strategies to continue GHG reductions.

7.2 GHG IMPACT ANALYSIS

Impact GHG-1 Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

Impact Analysis

The following emissions estimate is consistent with CEQA Guidelines 15064.4. CalEEMod was used to estimate the Project’s GHG emissions. Modeling assumptions are described in Section 6:Modeling Parameters and Assumptions.

Constructions Emission Inventory

Construction GHGs would be emitted by the off-road construction equipment and vehicle travel by workers and material deliveries to the project site. The estimated construction GHG emissions are shown in Table 14. Because construction GHG



AIR QUALITY AND GREENHOUSE GAS IMPACT ASSESSMENT

Greenhouse Gas Impact Analysis
October 14, 2021

emissions are temporary and reduction measures are limited, a common professional practice is to amortize the construction emissions over the life of the project. A commercial project is conservatively assumed to have a life of 30 years.

Table 14: Construction Greenhouse Gas Emissions

Construction Year	MTCO ₂ e
2022	732
2023	48
Total	780
Amortized over 30 years ¹	26

Notes:

1. GHG emissions are amortized over the 30-year life of the proposed project.

Source: Stantec 2021, CalEEMod 2020.4.0.

Operational Emission Inventory

Operational or long-term emissions occur over the life of the project. Sources of emissions may include motor vehicles and trucks, energy usage, water usage, waste generation, and area sources, such as landscaping activities and residential woodburning. Operational GHG emissions associated with the project were estimated using CalEEMod 2020.4.0.

Operational GHG emissions are shown in Table 15.

Table 15: Operational Greenhouse Gas Emissions

Source	Emissions (MTCO ₂ e per year)
Area	0.01
Energy	917
Mobile	2,690
Waste	298
Water	206
Amortized Construction Emissions	26
Total	4,137

Source: Stantec 2021, CalEEMod 2020.4.0 (Appendix A).



AIR QUALITY AND GREENHOUSE GAS IMPACT ASSESSMENT

Greenhouse Gas Impact Analysis
October 14, 2021

The proposed project's GHG impact is determined by its consistency with applicable statewide and regional GHG reduction plans. As shown in Impact GHG-2, the proposed project would be consistent with the CARB's 2017 Scoping Plan, City of Fresno CAP, Fresno County COG's RTP/SCS, and the City's General Plan goals that aim to reduce air quality and energy (which in turn reduce GHG emissions), as such the Project will comply with applicable reduction plans and GHG emissions are less than significant.

The proposed project would not generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment; the impact is less than significant.

Level of Significance Before Mitigation

Less Than Significant Impact.

Mitigation Measures

No mitigation is necessary.

Level of Significance After Mitigation

Less Than Significant Impact.

Impact GHG-2 Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

The proposed project would have a significant impact with respect to GHG emissions and global climate change if it would substantially conflict with the provisions of Section 15064.4(b) of the *CEQA Guidelines*.

Pursuant to Appendix G of the *CEQA Guidelines*, a significant GHG impact is identified if the project could conflict with applicable GHG reduction plans, policies, or regulations. Development projects would be subject to complying with SB 32, Tulare COG's RTP/SCS, and the City's applicable goals. SB 32 is a statewide reduction goal aimed at reducing emissions to 40% below 1990 levels by 2030. CARB's 2017 Scoping Plan sets a framework for the State to meet the reduction targets of SB 32.

Consistency with the Final 2017 Scoping Plan Update

CARB issued the Final 2017 Scoping Plan Update in November 2017 and establishes emissions reduction strategies necessary to meet SB 32's 2030 reduction goals. Table 16 identifies the Scoping Plan policies that are applicable to the proposed project. As shown, the proposed project would be consistent with the Scoping Plan.



AIR QUALITY AND GREENHOUSE GAS IMPACT ASSESSMENT

Greenhouse Gas Impact Analysis
October 14, 2021

Table 16: Project Consistency with Applicable 2017 Scoping Plan Greenhouse Gas Reduction Strategies

Measure Name	Measure Description	Consistency Determination
SB 350 50% Renewable Mandate.	Utilities subject to the legislation will be required to increase their renewable energy mix from 33% in 2020 to 50% in 2030.	Consistent. The proposed project will purchase electricity from a utility subject to the SB 350 Renewable Mandate. In addition, the proposed project would be required to adhere to the latest Title 24 and CalGreen building standards for non-residential buildings.
Low Carbon Fuel Standard	This measure requires fuel providers to meet an 18 percent reduction in carbon content by 2030.	Consistent. Vehicles accessing the proposed project site will use fuel containing lower carbon content as the fuel standard is implemented.
Mobile Source Strategy (Cleaner Technology and Fuels Scenario)	Vehicle manufacturers will be required to meet existing regulations mandated by the LEV III and Heavy-Duty Vehicle programs. The strategy includes a goal of having 4.2 million ZEVs on the road by 2030 and increasing numbers of ZEV trucks and buses.	Consistent. Future employees can be expected to purchase increasing numbers of more fuel efficient and zero emission cars and trucks each year. The 2019 CalGreen Code non-residential development to include future charging vehicle spaces. The site is expected to receive deliveries and ship their product with an increasing numbers of ZEV delivery trucks as they become more commercially available and as CARB's Advanced Clean Truck Regulation takes effect.
Short-Lived Climate Pollutant (SLCP) Reduction Strategy	The strategy requires the reduction of SLCPs by 40 percent from 2013 levels by 2030 and the reduction of black carbon by 50 percent from 2013 levels by 2030.	Consistent. Black carbon is created from the burning of fuels such as coal, diesel, and biomass. The proposed Project may indirectly emit black carbon from diesel heavy duty truck trips to and from the site. However, the site is expected to receive deliveries and ship their product with an increasing numbers of ZEV delivery trucks as they become more commercially available and as CARB's Advanced Clean Truck Regulation takes effect. As a result, the proposed Project will reduce its SLCP and black carbon pollution by 2030.
SB 375 Sustainable Communities Strategies	Requires Regional Transportation Plans to include a sustainable communities' strategy for reduction of per capita vehicle miles traveled.	Consistent. The Project Applicant currently operates three facilities across the City. The facility at 1351 N. Crystal lies over three miles from the 1090 W. Church and 2413 S. Fruit Avenue facilities. Consolidating the manufacturing in a single facility will reduce the vehicle miles traveled throughout Fresno from employees, deliveries, and shipping trips.



AIR QUALITY AND GREENHOUSE GAS IMPACT ASSESSMENT

Greenhouse Gas Impact Analysis
 October 14, 2021

Measure Name	Measure Description	Consistency Determination
Post-2020 Cap-and-Trade Program	The Post 2020 Cap-and-Trade Program continues the existing program for another 10 years. The Cap-and-Trade Program applies to large industrial sources such as power plants, refineries, and cement manufacturers.	Consistent. The post-2020 Cap-and-Trade Program indirectly affects people who use the products and services produced by the regulated industrial sources when increased cost of products or services (such as electricity and fuel) are transferred to the consumers. The Cap-and-Trade Program covers the GHG emissions associated with electricity consumed in California, whether generated in-state or imported. Accordingly, GHG emissions associated with CEQA projects' electricity usage are covered by the Cap- and-Trade Program. The Cap-and-Trade Program also covers fuel suppliers (natural gas and propane fuel providers and transportation fuel providers) to address emissions from such fuels and from combustion of other fossil fuels not directly covered at large sources in the program's first compliance period.

Source of Measures: CARB, 2017

Source of Consistency Determination: Stantec Consulting Services Inc, 2021

Based on this evaluation, this analysis finds the project would be consistent with all feasible and applicable strategies recommended in the 2017 Scoping Plan Update.

Consistency with the City of Fresno GHG Plan Update

The City of Fresno adopted the GHG Plan Update in 2020. The GHG Plan Update includes a project consistency checklist that provides a platform and framework to track the GHG reduction strategies for individual projects. The Checklist serves to further the City of Fresno's sustainability goals and policies by encouraging more sustainable development and aim to conserve and reduce the consumption of resources. Individual projects that meet the Checklist will be deemed to be consistent with the Fresno GHG Plan Update and will be determined to have a less than significant contribution to cumulative GHG emissions. As shown in Table 17, the proposed project would be consistent with the GHG Plan Update.

Table 17: Consistency with the City of Fresno GHG Plan Update

Check List Item	Project Consistency
Strategy 1: Land Use and Transportation Demand Management	
Does the project provide complete streets for all roadway improvements? (Complete streets are roadways that include curb, gutter, and sidewalks on both sides of the street. For local and collector streets, adequate roadway width is provided to accommodate	Not Applicable. The Project will develop a warehouse on a greenfield site and will not develop or upgrade any public roadways. The Project will not interfere with any roadway improvements.



AIR QUALITY AND GREENHOUSE GAS IMPACT ASSESSMENT

Greenhouse Gas Impact Analysis
 October 14, 2021

two-way vehicle traffic and bicycles and arterial streets include striping for bike lanes.)	
Is the project a large employer (over 100 employees) and if so will the project comply with SJVAPCD Rule 9410 and provide an Employer Trips Reduction Implementation Plan that will include trip reduction methods such as increasing transit use, carpooling, vanpooling, bicycling, or other measures?	Consistent. The Project will be required per SJVAPCD Rule 9410 to provide an Employer Trip Reduction Implementation Plan. The goal of Rule 9410 is to reduce VMT from private vehicles used by employees to commute to and from worksites. The Project Applicant currently operates three facilities across the City. The facility at 1351 N. Crystal lies over three miles from the 1090 W. Church and 2413 S. Fruit Avenue facilities. Consolidating the manufacturing in a single facility will reduce the vehicle miles traveled throughout Fresno from employees, deliveries, and shipping trips.
Strategy 2: Energy Conservation and Renewable Energy	
Does the project meet the mandatory energy efficiency measures of the California Green Building Standards Code (CalGreen)? If the Project exceeds mandatory CalGreen measures, then provide the tier number that the project will meet in explanation.	Consistent. The Project is required under CalGreen to meet the mandatory energy efficiency measures for non-residential projects.
For commercial projects, does it achieve net zero electricity? Mark NA if project will be permitted before 2030.	Not Applicable. The Project is not required to achieve net zero electricity as it will be permitted and operational prior to 2030.
Does the project include onsite energy generation using renewable energy? If no, mark NA.	Not Applicable. The Project is not required to include onsite energy generation using renewable energy.
Strategy 3: Water Conservation	
Does the project meet the mandatory indoor water use measures of the CalGreen Code? If the project exceeds CalGreen mandatory measures provides methods in excess of requirements in the explanation.	Consistent. The Project is required under CalGreen to meet the mandatory indoor water use measures for non-residential projects.
Does the project meet the mandatory outdoor water use measures in the CalGreen Code? If the project exceeds CalGreen mandatory measures provides methods in excess of requirements in the explanation.	Consistent. The Project is required under CalGreen to meet the mandatory indoor water use measures for non-residential projects.
Strategy 4: Solid Waste Diversion and Recycling	
When completed will the project implement techniques for solid waste diversion and reduction (i.e. recycling, composting, waste to energy technology, waste separation)?	Consistent. The Project will be serviced by a waste collection service that will be required under state law to meet waste diversion goals.
During construction will the project recycle construction and demolition waste?	Consistent. The Project will not require any demolition or grading that will require the hauling of construction waste. However, construction will comply with all applicable county and city codes related to construction and solid waste managements.

Consistency with SJVAPCD CCAP

The SJVAPCD has adopted a CCAP, which includes suggested BPS for proposed residential development projects. Appendix J of the SJVAPCD Final Staff Report for the CCAP contains GHG reduction measures. Most measures in the Report are applicable



AIR QUALITY AND GREENHOUSE GAS IMPACT ASSESSMENT

Greenhouse Gas Impact Analysis
October 14, 2021

to mixed-use and residential developments, however some of these measures can also be applied to commercial developments. The proposed project’s consistency with these measures is included in Table 18 below. As shown in the table, the project would be consistent with applicable CCAP measures.

Table 15: Project Consistency with Applicable SJVAPCD CCAP GHG Reduction Measures

Measure Name	Measure Description	Project Consistency
Additional GHG Emission Reduction Measures Requiring Additional Investigation		
11- Vehicle Idling	Limit idling for commercial vehicles, including delivery and construction vehicles.	Consistent. CARB limits idling of diesel vehicles to 5 minutes. The Project will comply as applicable.
16-Energy Efficient Appliances	Install energy efficient heating and cooling systems, appliances and equipment, and control systems.	Consistent. The Project will be designed to be compliant with the 2019 California Building Standards and the California Energy Commission's regulations on nonresidential buildings.
20 - Tree Plants	Protect existing trees and encourage the planting of new trees. Adopt a tree protection and replacement ordinance, e.g., requiring that trees larger than a specified diameter that are removed to accommodate development must be replaced at a set ratio.	Consistent. Development of the Project will not result in the destruction or removal of any trees on the site.

Source: Stantec 2021. SJVAPCD, 2009.

Consistency with Fresno COG RTP/SCS

The Fresno COG’s 2018 RTP/SCS includes a series of goals for the region that would reduce GHG emissions based on the land use consistency and the reduction of vehicle trips. The proposed project’s consistency with these measures is included in Table 19 below. As shown in the table, the project would be consistent with applicable Fresno COG measures.

Table 16: Project Consistency with Applicable Tulare COG Goals

Goals	Consistency
An efficient, safe, integrated, multimodal transportation system.	Consistent. The Proposed Project will consolidate three warehouses across the City into one warehouse. This will create a more efficient system for the Applicant as well as the City’s transportation network as city-wide vehicle and truck travel associated with Busseto Foods will be reduced.



AIR QUALITY AND GREENHOUSE GAS IMPACT ASSESSMENT

Greenhouse Gas Impact Analysis
October 14, 2021

Goals	Consistency
Coordinate planning that is consistent with efforts that affect the region.	Not Applicable. This goal is aimed at local and regional jurisdictions. The Project will not interfere with this goal.
A multimodal regional transportation network compatible with adopted land use plans and consistent with the intent of SB 375.	Not Applicable. This goal is aimed at local and regional jurisdictions. The Project will not interfere with this goal.
Support cooperative efforts between local, state, federal agencies, and the public to plan, develop and manage our transportation system.	Not Applicable. This goal is aimed at local and regional jurisdictions. The Project will not interfere with this goal.
Attainment and maintenance of the California and National Ambient Air Quality Standards (criteria pollutants) as set by the Environmental Protection Agency and the California Air Resources Board.	Consistent. The proposed Project's construction and operational air pollutant emissions will fall below SJVAPCD thresholds and as a result will be consistent with the Air Basin's attainment plans and will not result in a significant impact for a pollutant in which the area is in nonattainment for.
Achieve a safe transportation system for all motorized and non-motorized users on all public roads in Fresno County.	Consistent. The Proposed Project will consolidate three warehouses across the City into one warehouse. This will create a more efficient system for the Applicant as well as the City's transportation network as city-wide vehicle and truck travel associated with Busseto Foods will be reduced. A reduction in total vehicle trips will lead to a safer network with less risk of collision or accidents.
An integrated and efficient highways, streets and roads network.	Not Applicable. This goal is aimed at local and regional jurisdictions. The Project will not interfere with this goal.
Utilize a partnership of federal, State, regional, local, community, and industry stakeholders to move freight on a safe, integrated, modern, efficient, and resilient system that contributes to the Fresno Region's economy, jobs, and healthy, livable communities.	Not Applicable. This goal is aimed at local and regional jurisdictions. The Project will not interfere with this goal.
Efficient use of available transportation funding.	Not Applicable. This goal is aimed at local and regional jurisdictions. The Project will not interfere with this goal.
Maintain highways, roads, and bridges in a state of good repair for all users.	Not Applicable. This goal is aimed at local and regional jurisdictions. The Project will not interfere with this goal.



AIR QUALITY AND GREENHOUSE GAS IMPACT ASSESSMENT

Greenhouse Gas Impact Analysis

October 14, 2021

Goals	Consistency
An efficient and fiscally responsible public transportation mobility system.	Not Applicable. This goal is aimed at local and regional jurisdictions. The Project will not interfere with this goal.
A quality, convenient, safe and reliable public transportation service.	Not Applicable. This goal is aimed at local and regional jurisdictions. The Project will not interfere with this goal.
An efficient and effective public transportation system.	Not Applicable. This goal is aimed at local and regional jurisdictions. The Project will not interfere with this goal.
Public transit services with a positive public image in communities served.	Not Applicable. This goal is aimed at local and regional jurisdictions. The Project will not interfere with this goal.
An integrated multimodal transportation system which facilitates the movement of people.	Not Applicable. This goal is aimed at local and regional jurisdictions. The Project will not interfere with this goal.
A coordinated policy for public transportation that complements land use and air quality/climate change policies.	Not Applicable. This goal is aimed at local and regional jurisdictions. The Project will not interfere with this goal.
Achieve or maintain transit network in a state of good repair.	Not Applicable. This goal is aimed at local and regional jurisdictions. The Project will not interfere with this goal.
A fully functional and integrated air service and airport system that is complementary to the regional transportation system.	Not Applicable. This goal is aimed at local and regional jurisdictions. The Project will not interfere with this goal.
Maximize bicycling and walking through their recognition and integration as valid and healthy transportation modes in transportation planning activities	Not Applicable. This goal is aimed at local and regional jurisdictions. The Project will not interfere with this goal.
Safe, convenient, and continuous routes for bicyclists and pedestrians of all types which interface with and complement a multimodal transportation system	Not Applicable. This goal is aimed at local and regional jurisdictions. The Project will not interfere with this goal.
Improved bicycle and pedestrian safety through education, engineering and enforcement.	Not Applicable. This goal is aimed at local and regional jurisdictions. The Project will not interfere with this goal.
Increased development of the regional bikeways system, related facilities, and pedestrian facilities by maximizing funding opportunities.	Not Applicable. This goal is aimed at local and regional jurisdictions. The Project will not interfere with this goal.
A safe, efficient and convenient rail system which serves the passenger and freight needs of the region and which is integrated with and complementary to the total transportation system	Not Applicable. This goal is aimed at local and regional jurisdictions. The Project will not interfere with this goal.
A transportation system that efficiently and effectively transports goods throughout Fresno County	Not Applicable. This goal is aimed at local and regional jurisdictions. The Project will not interfere with this goal.

Source: Stantec 2021. Fresno COG 2018.



AIR QUALITY AND GREENHOUSE GAS IMPACT ASSESSMENT

Greenhouse Gas Impact Analysis
October 14, 2021

Conclusion

The Project proposes to consolidate the three existing facilities in the City of Fresno into one manufacturing warehouse. Under current operations, Busseto utilizes a leased freezer to store raw materials, a production plant where the product is stuffed, dried, sliced, and packaged, and a third facility where finished product is stored and shipped out to customers. The new warehouse facility will hold the freezer operations as well as the storage, shipping, and receiving operations that are currently done at 1351 N. Crystal (located over three miles north of the Fruit and Church facilities). This will reduce shuttle truck activities and vehicle miles traveled between the three facilities.

The Project will also be required to adhere to Title 24 and the latest California Building Standards, which will require each single-family home to include photovoltaic cells. The proposed project would not conflict with the goals and objectives of CARB's 2017 Scoping Plan, or any other State or regional plan, policy, or regulation of an agency adopted for the purpose of reducing GHG emissions. As such, the proposed project would not conflict with an applicable plan; therefore, impacts would be considered less than significant.

Level of Significance Before Mitigation

Less Than Significant Impact.

Mitigation Measures

No mitigation is necessary.

Level of Significance After Mitigation

Less Than Significant Impact.



AIR QUALITY AND GREENHOUSE GAS IMPACT ASSESSMENT

Preparers
October 14, 2021

8.0 PREPARERS

Principal Air Quality Specialist/Project Manager..... Elena Nuño

Air Quality Specialist Kaitlyn Heck



9.0 REFERENCES

- Agency for Toxic Substances and Disease Registry. 2021. *Lead*. Website: <https://wwwn.cdc.gov/TSP/substances/ToxSubstance.aspx?toxid=22>. Accessed June 22, 2021.
- California Air Pollution Control Officers Association (CAPCOA). 2009. Health Risk Assessments for Proposed Land Use Projects. Website: http://www.capcoa.org/wp-content/uploads/2012/03/CAPCOA_HRA_LU_Guidelines_8-6-09.pdf. Accessed February 11, 2021.
- California Air Resources Board (CARB). 2001. Staff Report: Ozone Transport: 2001 Review. Website: <https://ww3.arb.ca.gov/research/apr/reports/l3067.pdf>. Accessed: February 10, 2021.
- . 2005. Air Quality and Land Use Handbook: A Community Health Perspective. April 2005. Website: <https://www.arb.ca.gov/ch/handbook.pdf>. Accessed: February 11, 2021.
- . 2013. California Almanac of Emissions & Air Quality. Website: <https://www.arb.ca.gov/aqd/almanac/almanac13/almanac2013all.pdf>. Accessed: February 10, 2021.
- . 2016a. Health Effects of Air Pollution. Website: <https://www.arb.ca.gov/research/health/health.htm>. Accessed: February 10, 2021.
- . 2016b. Overview: Diesel Exhaust and Health. Website: <https://www.arb.ca.gov/research/diesel/diesel-health.htm>. Accessed: July 22, 2021.
- . 2016c. Ambient Air Quality Standards. Website: <https://www.arb.ca.gov/research/aaqs/aaqs2.pdf>. Accessed: February 10, 2021.
- . 2017b. California's 2017 Climate Change Scoping Plan. Website: https://www.arb.ca.gov/cc/scopingplan/scoping_plan_2017.pdf. Accessed February July 19, 2021.
- . 2018a. iADAM: Air Quality Data Statistics. Website: <https://www.arb.ca.gov/adam>. Accessed July 16, 2021.



AIR QUALITY AND GREENHOUSE GAS IMPACT ASSESSMENT

References

October 14, 2021

- . 2018b. California Greenhouse Gas Emission Inventory – 2018 Edition. Website: <https://www.arb.ca.gov/cc/inventory/data/data.htm>. Accessed February 10, 2021.
- Centers for Disease Control and Prevention (CDC). 2020. Valley Fever (Coccidioidomycosis). Website: <https://www.cdc.gov/fungal/diseases/coccidioidomycosis/index.html>. Accessed July 20, 2021.
- City of Fresno. 2014. Fresno General Plan Update Greenhouse Gas Reduction Plan. Website: <https://www.fresno.gov/darm/wp-content/uploads/sites/10/2016/11/F-2-Greenhouse-Gas-Reduction-Plan.pdf>. Accessed August 5, 2021.
- Forster, P., V. Ramaswamy, P. Artaxo, T. Berntsen, R. Betts, D.W. Fahey, J. Haywood, J. Lean, D.C. Lowe, G. Myhre, J. Nganga, R. Prinn, G. Raga, M. Schulz and R. Van Dorland, 2007: Changes in Atmospheric Constituents and in Radiative Forcing. In: Climate Change 2007: The Physical Science Basis. Contribution of Working Group I to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change [Solomon, S., D. Qin, M. Manning, Z. Chen, M. Marquis, K.B. Averyt, M. Tignor and H.L. Miller (eds.)]. Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA.
- Fresno Council of Governments (COG). 2018. 2018 RTP Policy Element. Website: https://2ave3l244ex63mgdyc1u2mfp-wpengine.netdna-ssl.com/wp-content/uploads/2017/02/2018-RTP_Chapter-2_Policy-Element_7-3-18.pdf, accessed October 14, 2021.
- SJVAPCD. 2009. Final Staff Report Appendix J: GHG Emission Reduction Measures – Development Projects. Website: <https://www.valleyair.org/Programs/CCAP/bps/Appendix%20J%20-%20Dec%2017%202009.pdf>. Accessed October 14, 2021.
- . 2014. DRAFT STAFF REPORT Proposed Update to District’s Risk Management Policy to Address OEHHA’s Revised Risk Assessment Guidance Document. Website: https://www.valleyair.org/Workshops/postings/2014/10-09-14_OEHHA/Draft-Staff-Report-9-23-14.pdf. Accessed October 14, 2021.
- . 2015. Guidance for Assessing and Mitigating Air Quality Impacts. Website: http://www.valleyair.org/transportation/GAMAQI_3-19-15.pdf. Accessed: July 19, 2021.
- . 2015b. Amicus Curiae brief filed on Case S219783 in the Supreme Court of California, Sierra Club et. al. v. County of Fresno and Friant Ranch, L.P. April 13, 2015. Accessed July 20, 2021.



AIR QUALITY AND GREENHOUSE GAS IMPACT ASSESSMENT

References

October 14, 2021

- . 2019a. Ambient Air Quality Standards and Valley Attainment Status. Website: <https://www.valleyair.org/aqinfo/attainment.htm>. Accessed July 19, 2021.
- . 2019b. Community Emissions Reduction Program South Central Fresno. Website: <http://community.valleyair.org/media/1516/01finalscfresnocerp-9-19-19.pdf>. Accessed July 26, 2021.
- SCAQMD, 2015. Amicus Curiae Brief filed on Case S219783 in the Supreme Court of California, Sierra Club et. al. v County of Fresno and Friant Ranch, L.P. April 13, 2015. Accessed July 20, 2021.
- SoCal Gas. 2021. Aspire 2045 Sustainability and Climate Commitment to Net Zero. Website: https://www.socalgas.com/sites/default/files/2021-03/SoCalGas_Climate_Commitment.pdf. Accessed July 19, 2021.
- United Nation. The Paris Agreement. Website: <https://unfccc.int/process-and-meetings/the-paris-agreement/the-paris-agreement/> Accessed: July 27, 2021.
- U.S. Environmental Protection Agency. 2019a. Criteria Air Pollutants. Website: <https://www.epa.gov/criteria-air-pollutants>. Accessed: July 22, 2021.
- . 2019b. Greenhouse Gas Emissions. Website: <https://www.epa.gov/ghgemissions/overview-greenhouse-gases>. Accessed: July 21, 2021.
- . 2021a. Health and Environmental Effects of Particulate Matter. Website: <https://www.epa.gov/pm-pollution/health-and-environmental-effects-particulate-matter-pm>. Accessed: July 22, 2021.
- . 2021b. Particulate Matter (PM) Basics. Website: <https://www.epa.gov/pm-pollution/particulate-matter-pm-basics>EPA. 2021b. Particulate Matter (PM) Basics. <https://www.epa.gov/pm-pollution/particulate-matter-pm-basics>. Accessed July 19, 2021.
- . 2021c. Health Effects of Ozone Pollution. Website: <https://www.epa.gov/ground-level-ozone-pollution/health-effects-ozone-pollution>, accessed July 20, 2021.



AIR QUALITY AND GREENHOUSE GAS IMPACT ASSESSMENT

October 14, 2021

APPENDIX A

CRITERIA AIR POLLUTANT AND GHG EMISSIONS RESULTS



Bussetto Foods New Campus - Fresno County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

**Bussetto Foods New Campus
Fresno County, Annual**

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Heavy Industry	477.47	1000sqft	10.96	477,470.00	0
Parking Lot	190.00	Space	1.71	76,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	45
Climate Zone	3			Operational Year	2023
Utility Company	Pacific Gas and Electric Company				
CO2 Intensity (lb/MWhr)	203.98	CH4 Intensity (lb/MWhr)	0.033	N2O Intensity (lb/MWhr)	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Project site is 18.89 acres, building acreage updated to reflect size of site.

Construction Phase - Construction schedule provided by Applicant.

Trips and VMT - Concrete pouring will require 67 truck trips per day. Worker trips updated to reflect the average number of daily workers per phase.

Grading - Project site is relatively flat, no grading material will need to be haul on or off-site

Vehicle Trips - Weekday trip rate adjusted to be consistent with the June 2021 TIA prepared by JLB Traffic.

Vehicle Emission Factors -

Vehicle Emission Factors -

Vehicle Emission Factors -

Construction Off-road Equipment Mitigation - SJVAPCD Rule 8021

Bussetto Foods New Campus - Fresno County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	150
tblConstructionPhase	NumDays	300.00	186.00
tblConstructionPhase	NumDays	30.00	23.00
tblConstructionPhase	NumDays	30.00	23.00
tblConstructionPhase	NumDays	20.00	21.00
tblConstructionPhase	NumDays	20.00	55.00
tblConstructionPhase	NumDays	10.00	20.00
tblGrading	AcresOfGrading	69.00	18.89
tblGrading	AcresOfGrading	69.00	18.89
tblGrading	AcresOfGrading	30.00	18.89
tblTripsAndVMT	VendorTripNumber	0.00	67.00
tblTripsAndVMT	WorkerTripNumber	18.00	20.00
tblTripsAndVMT	WorkerTripNumber	20.00	50.00
tblTripsAndVMT	WorkerTripNumber	20.00	50.00
tblTripsAndVMT	WorkerTripNumber	15.00	50.00
tblTripsAndVMT	WorkerTripNumber	232.00	150.00
tblTripsAndVMT	WorkerTripNumber	15.00	40.00
tblVehicleTrips	WD_TR	3.93	4.96

2.0 Emissions Summary

Bussetto Foods New Campus - Fresno County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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	0.3771	3.4975	3.3252	7.9900e-003	0.5387	0.1491	0.6879	0.2305	0.1389	0.3694	0.0000	718.9514	718.9514	0.1258	0.0316	731.4974
2023	0.0190	0.1755	0.2057	5.2000e-004	0.0141	6.9400e-003	0.0211	3.8900e-003	6.4700e-003	0.0104	0.0000	47.1297	47.1297	6.8900e-003	2.7100e-003	48.1083
Maximum	0.3771	3.4975	3.3252	7.9900e-003	0.5387	0.1491	0.6879	0.2305	0.1389	0.3694	0.0000	718.9514	718.9514	0.1258	0.0316	731.4974

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	0.3771	3.4974	3.3252	7.9900e-003	0.3467	0.1491	0.4958	0.1322	0.1389	0.2711	0.0000	718.9508	718.9508	0.1258	0.0316	731.4969
2023	0.0190	0.1755	0.2057	5.2000e-004	0.0141	6.9400e-003	0.0211	3.8900e-003	6.4700e-003	0.0104	0.0000	47.1297	47.1297	6.8900e-003	2.7100e-003	48.1082
Maximum	0.3771	3.4974	3.3252	7.9900e-003	0.3467	0.1491	0.4958	0.1322	0.1389	0.2711	0.0000	718.9508	718.9508	0.1258	0.0316	731.4969

Bussetto Foods New Campus - Fresno County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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	34.74	0.01	27.10	41.93	0.00	25.88	0.00	0.00	0.00	0.00	0.00	0.00

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	2-1-2022	4-30-2022	1.4472	1.4472
2	5-1-2022	7-31-2022	0.7595	0.7595
3	8-1-2022	10-31-2022	0.7628	0.7628
4	11-1-2022	1-31-2023	1.0699	1.0699
		Highest	1.4472	1.4472

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	2.2038	6.0000e-005	6.1300e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.0119	0.0119	3.0000e-005	0.0000	0.0127
Energy	0.0533	0.4845	0.4070	2.9100e-003		0.0368	0.0368		0.0368	0.0368	0.0000	910.2560	910.2560	0.0720	0.0172	917.1757
Mobile	1.2858	2.1635	12.1738	0.0283	2.7112	0.0233	2.7345	0.7254	0.0219	0.7473	0.0000	2,643.1656	2,643.1656	0.1423	0.1451	2,689.9627
Waste						0.0000	0.0000		0.0000	0.0000	120.1828	0.0000	120.1828	7.1026	0.0000	297.7479
Water						0.0000	0.0000		0.0000	0.0000	35.0296	55.2788	90.3084	3.6068	0.0860	206.1180
Total	3.5428	2.6480	12.5869	0.0312	2.7112	0.0601	2.7713	0.7254	0.0587	0.7842	155.2124	3,608.7123	3,763.9247	10.9238	0.2483	4,111.0170

Bussetto Foods New Campus - Fresno County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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	2.2038	6.0000e-005	6.1300e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.0119	0.0119	3.0000e-005	0.0000	0.0127
Energy	0.0533	0.4845	0.4070	2.9100e-003		0.0368	0.0368		0.0368	0.0368	0.0000	910.2560	910.2560	0.0720	0.0172	917.1757
Mobile	1.2858	2.1635	12.1738	0.0283	2.7112	0.0233	2.7345	0.7254	0.0219	0.7473	0.0000	2,643.1656	2,643.1656	0.1423	0.1451	2,689.9627
Waste						0.0000	0.0000		0.0000	0.0000	120.1828	0.0000	120.1828	7.1026	0.0000	297.7479
Water						0.0000	0.0000		0.0000	0.0000	35.0296	55.2788	90.3084	3.6068	0.0860	206.1180
Total	3.5428	2.6480	12.5869	0.0312	2.7112	0.0601	2.7713	0.7254	0.0587	0.7842	155.2124	3,608.7123	3,763.9247	10.9238	0.2483	4,111.0170

	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	Site Preparation	Site Preparation	2/1/2022	2/28/2022	5	20	
2	Grading/Excavation	Grading	3/1/2022	3/31/2022	5	23	
3	Drainage/Utilities/Trenching	Grading	3/1/2022	3/31/2022	5	23	

Bussetto Foods New Campus - Fresno County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

4	Foundations/Concrete Pour	Paving	4/1/2022	4/30/2022	5	21
5	Building Construction	Building Construction	5/1/2022	1/16/2023	5	186
6	Paving	Paving	11/1/2022	1/16/2023	5	55

Acres of Grading (Site Preparation Phase): 18.89

Acres of Grading (Grading Phase): 18.89

Acres of Paving: 1.71

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
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading/Excavation	Excavators	2	8.00	158	0.38
Grading/Excavation	Graders	1	8.00	187	0.41
Grading/Excavation	Rubber Tired Dozers	1	8.00	247	0.40
Grading/Excavation	Scrapers	2	8.00	367	0.48
Grading/Excavation	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Drainage/Utilities/Trenching	Excavators	2	8.00	158	0.38
Drainage/Utilities/Trenching	Graders	1	8.00	187	0.41
Drainage/Utilities/Trenching	Rubber Tired Dozers	1	8.00	247	0.40
Drainage/Utilities/Trenching	Scrapers	2	8.00	367	0.48
Drainage/Utilities/Trenching	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Foundations/Concrete Pour	Pavers	2	8.00	130	0.42
Foundations/Concrete Pour	Paving Equipment	2	8.00	132	0.36
Foundations/Concrete Pour	Rollers	2	8.00	80	0.38
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20

Bussetto Foods New Campus - Fresno County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading/Excavation	8	50.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Drainage/Utilities/Trenching	8	50.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Foundations/Concrete Pour	6	50.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	150.00	91.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	40.00	67.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

Bussetto Foods New Campus - Fresno County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Site Preparation - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1907	0.0000	0.1907	0.1004	0.0000	0.1004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0317	0.3308	0.1970	3.8000e-004		0.0161	0.0161		0.0148	0.0148	0.0000	33.4394	33.4394	0.0108	0.0000	33.7098
Total	0.0317	0.3308	0.1970	3.8000e-004	0.1907	0.0161	0.2068	0.1004	0.0148	0.1152	0.0000	33.4394	33.4394	0.0108	0.0000	33.7098

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.7000e-004	4.6000e-004	5.1700e-003	1.0000e-005	1.6000e-003	1.0000e-005	1.6100e-003	4.2000e-004	1.0000e-005	4.3000e-004	0.0000	1.3073	1.3073	4.0000e-005	4.0000e-005	1.3202
Total	6.7000e-004	4.6000e-004	5.1700e-003	1.0000e-005	1.6000e-003	1.0000e-005	1.6100e-003	4.2000e-004	1.0000e-005	4.3000e-004	0.0000	1.3073	1.3073	4.0000e-005	4.0000e-005	1.3202

Bussetto Foods New Campus - Fresno County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Site Preparation - 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	tons/yr										MT/yr					
Fugitive Dust					0.0858	0.0000	0.0858	0.0452	0.0000	0.0452	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0317	0.3308	0.1970	3.8000e-004		0.0161	0.0161		0.0148	0.0148	0.0000	33.4394	33.4394	0.0108	0.0000	33.7097
Total	0.0317	0.3308	0.1970	3.8000e-004	0.0858	0.0161	0.1019	0.0452	0.0148	0.0600	0.0000	33.4394	33.4394	0.0108	0.0000	33.7097

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.7000e-004	4.6000e-004	5.1700e-003	1.0000e-005	1.6000e-003	1.0000e-005	1.6100e-003	4.2000e-004	1.0000e-005	4.3000e-004	0.0000	1.3073	1.3073	4.0000e-005	4.0000e-005	1.3202
Total	6.7000e-004	4.6000e-004	5.1700e-003	1.0000e-005	1.6000e-003	1.0000e-005	1.6100e-003	4.2000e-004	1.0000e-005	4.3000e-004	0.0000	1.3073	1.3073	4.0000e-005	4.0000e-005	1.3202

Bussetto Foods New Campus - Fresno County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Grading/Excavation - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0793	0.0000	0.0793	0.0392	0.0000	0.0392	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0417	0.4467	0.3340	7.1000e-004		0.0188	0.0188		0.0173	0.0173	0.0000	62.7148	62.7148	0.0203	0.0000	63.2219
Total	0.0417	0.4467	0.3340	7.1000e-004	0.0793	0.0188	0.0981	0.0392	0.0173	0.0565	0.0000	62.7148	62.7148	0.0203	0.0000	63.2219

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.9300e-003	1.3200e-003	0.0149	4.0000e-005	4.6000e-003	2.0000e-005	4.6200e-003	1.2200e-003	2.0000e-005	1.2400e-003	0.0000	3.7584	3.7584	1.2000e-004	1.1000e-004	3.7955
Total	1.9300e-003	1.3200e-003	0.0149	4.0000e-005	4.6000e-003	2.0000e-005	4.6200e-003	1.2200e-003	2.0000e-005	1.2400e-003	0.0000	3.7584	3.7584	1.2000e-004	1.1000e-004	3.7955

Bussetto Foods New Campus - Fresno County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Grading/Excavation - 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	tons/yr										MT/yr					
Fugitive Dust					0.0357	0.0000	0.0357	0.0176	0.0000	0.0176	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0417	0.4467	0.3340	7.1000e-004		0.0188	0.0188		0.0173	0.0173	0.0000	62.7147	62.7147	0.0203	0.0000	63.2218
Total	0.0417	0.4467	0.3340	7.1000e-004	0.0357	0.0188	0.0545	0.0176	0.0173	0.0349	0.0000	62.7147	62.7147	0.0203	0.0000	63.2218

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.9300e-003	1.3200e-003	0.0149	4.0000e-005	4.6000e-003	2.0000e-005	4.6200e-003	1.2200e-003	2.0000e-005	1.2400e-003	0.0000	3.7584	3.7584	1.2000e-004	1.1000e-004	3.7955
Total	1.9300e-003	1.3200e-003	0.0149	4.0000e-005	4.6000e-003	2.0000e-005	4.6200e-003	1.2200e-003	2.0000e-005	1.2400e-003	0.0000	3.7584	3.7584	1.2000e-004	1.1000e-004	3.7955

Bussetto Foods New Campus - Fresno County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Drainage/Utilities/Trenching - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0793	0.0000	0.0793	0.0392	0.0000	0.0392	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0417	0.4467	0.3340	7.1000e-004		0.0188	0.0188		0.0173	0.0173	0.0000	62.7148	62.7148	0.0203	0.0000	63.2219
Total	0.0417	0.4467	0.3340	7.1000e-004	0.0793	0.0188	0.0981	0.0392	0.0173	0.0565	0.0000	62.7148	62.7148	0.0203	0.0000	63.2219

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.9300e-003	1.3200e-003	0.0149	4.0000e-005	4.6000e-003	2.0000e-005	4.6200e-003	1.2200e-003	2.0000e-005	1.2400e-003	0.0000	3.7584	3.7584	1.2000e-004	1.1000e-004	3.7955
Total	1.9300e-003	1.3200e-003	0.0149	4.0000e-005	4.6000e-003	2.0000e-005	4.6200e-003	1.2200e-003	2.0000e-005	1.2400e-003	0.0000	3.7584	3.7584	1.2000e-004	1.1000e-004	3.7955

Bussetto Foods New Campus - Fresno County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Drainage/Utilities/Trenching - 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	tons/yr										MT/yr					
Fugitive Dust					0.0357	0.0000	0.0357	0.0176	0.0000	0.0176	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0417	0.4467	0.3340	7.1000e-004		0.0188	0.0188		0.0173	0.0173	0.0000	62.7147	62.7147	0.0203	0.0000	63.2218
Total	0.0417	0.4467	0.3340	7.1000e-004	0.0357	0.0188	0.0545	0.0176	0.0173	0.0349	0.0000	62.7147	62.7147	0.0203	0.0000	63.2218

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.9300e-003	1.3200e-003	0.0149	4.0000e-005	4.6000e-003	2.0000e-005	4.6200e-003	1.2200e-003	2.0000e-005	1.2400e-003	0.0000	3.7584	3.7584	1.2000e-004	1.1000e-004	3.7955
Total	1.9300e-003	1.3200e-003	0.0149	4.0000e-005	4.6000e-003	2.0000e-005	4.6200e-003	1.2200e-003	2.0000e-005	1.2400e-003	0.0000	3.7584	3.7584	1.2000e-004	1.1000e-004	3.7955

Bussetto Foods New Campus - Fresno County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Foundations/Concrete Pour - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0116	0.1168	0.1531	2.4000e-004		5.9600e-003	5.9600e-003		5.4900e-003	5.4900e-003	0.0000	21.0289	21.0289	6.8000e-003	0.0000	21.1990
Paving	2.2400e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0138	0.1168	0.1531	2.4000e-004		5.9600e-003	5.9600e-003		5.4900e-003	5.4900e-003	0.0000	21.0289	21.0289	6.8000e-003	0.0000	21.1990

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.7700e-003	1.2000e-003	0.0136	4.0000e-005	4.2000e-003	2.0000e-005	4.2200e-003	1.1200e-003	2.0000e-005	1.1400e-003	0.0000	3.4316	3.4316	1.1000e-004	1.0000e-004	3.4654
Total	1.7700e-003	1.2000e-003	0.0136	4.0000e-005	4.2000e-003	2.0000e-005	4.2200e-003	1.1200e-003	2.0000e-005	1.1400e-003	0.0000	3.4316	3.4316	1.1000e-004	1.0000e-004	3.4654

Bussetto Foods New Campus - Fresno County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Foundations/Concrete Pour - 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	tons/yr										MT/yr					
Off-Road	0.0116	0.1168	0.1531	2.4000e-004		5.9600e-003	5.9600e-003		5.4900e-003	5.4900e-003	0.0000	21.0289	21.0289	6.8000e-003	0.0000	21.1989
Paving	2.2400e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0138	0.1168	0.1531	2.4000e-004		5.9600e-003	5.9600e-003		5.4900e-003	5.4900e-003	0.0000	21.0289	21.0289	6.8000e-003	0.0000	21.1989

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.7700e-003	1.2000e-003	0.0136	4.0000e-005	4.2000e-003	2.0000e-005	4.2200e-003	1.1200e-003	2.0000e-005	1.1400e-003	0.0000	3.4316	3.4316	1.1000e-004	1.0000e-004	3.4654
Total	1.7700e-003	1.2000e-003	0.0136	4.0000e-005	4.2000e-003	2.0000e-005	4.2200e-003	1.1200e-003	2.0000e-005	1.1400e-003	0.0000	3.4316	3.4316	1.1000e-004	1.0000e-004	3.4654

Bussetto Foods New Campus - Fresno County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1493	1.3664	1.4318	2.3600e-003		0.0708	0.0708		0.0666	0.0666	0.0000	202.7596	202.7596	0.0486	0.0000	203.9740
Total	0.1493	1.3664	1.4318	2.3600e-003		0.0708	0.0708		0.0666	0.0666	0.0000	202.7596	202.7596	0.0486	0.0000	203.9740

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0164	0.4294	0.1216	1.6600e-003	0.0528	4.6200e-003	0.0574	0.0153	4.4200e-003	0.0197	0.0000	159.0023	159.0023	1.2000e-003	0.0240	166.1720
Worker	0.0441	0.0301	0.3393	9.3000e-004	0.1049	5.4000e-004	0.1055	0.0279	5.0000e-004	0.0284	0.0000	85.7892	85.7892	2.8000e-003	2.6000e-003	86.6355
Total	0.0606	0.4595	0.4609	2.5900e-003	0.1577	5.1600e-003	0.1629	0.0431	4.9200e-003	0.0481	0.0000	244.7915	244.7915	4.0000e-003	0.0266	252.8075

Bussetto Foods New Campus - Fresno County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 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	tons/yr										MT/yr					
Off-Road	0.1493	1.3664	1.4318	2.3600e-003		0.0708	0.0708		0.0666	0.0666	0.0000	202.7594	202.7594	0.0486	0.0000	203.9737
Total	0.1493	1.3664	1.4318	2.3600e-003		0.0708	0.0708		0.0666	0.0666	0.0000	202.7594	202.7594	0.0486	0.0000	203.9737

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0164	0.4294	0.1216	1.6600e-003	0.0528	4.6200e-003	0.0574	0.0153	4.4200e-003	0.0197	0.0000	159.0023	159.0023	1.2000e-003	0.0240	166.1720
Worker	0.0441	0.0301	0.3393	9.3000e-004	0.1049	5.4000e-004	0.1055	0.0279	5.0000e-004	0.0284	0.0000	85.7892	85.7892	2.8000e-003	2.6000e-003	86.6355
Total	0.0606	0.4595	0.4609	2.5900e-003	0.1577	5.1600e-003	0.1629	0.0431	4.9200e-003	0.0481	0.0000	244.7915	244.7915	4.0000e-003	0.0266	252.8075

Bussetto Foods New Campus - Fresno County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	8.6500e-003	0.0791	0.0893	1.5000e-004		3.8500e-003	3.8500e-003		3.6200e-003	3.6200e-003	0.0000	12.7493	12.7493	3.0300e-003	0.0000	12.8251
Total	8.6500e-003	0.0791	0.0893	1.5000e-004		3.8500e-003	3.8500e-003		3.6200e-003	3.6200e-003	0.0000	12.7493	12.7493	3.0300e-003	0.0000	12.8251

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	5.4000e-004	0.0220	6.5900e-003	1.0000e-004	3.3200e-003	1.4000e-004	3.4600e-003	9.6000e-004	1.3000e-004	1.0900e-003	0.0000	9.6259	9.6259	5.0000e-005	1.4500e-003	10.0590
Worker	2.5500e-003	1.6500e-003	0.0195	6.0000e-005	6.6000e-003	3.0000e-005	6.6300e-003	1.7500e-003	3.0000e-005	1.7800e-003	0.0000	5.2520	5.2520	1.6000e-004	1.5000e-004	5.3008
Total	3.0900e-003	0.0236	0.0261	1.6000e-004	9.9200e-003	1.7000e-004	0.0101	2.7100e-003	1.6000e-004	2.8700e-003	0.0000	14.8779	14.8779	2.1000e-004	1.6000e-003	15.3598

Bussetto Foods New Campus - Fresno County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Building Construction - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	8.6500e-003	0.0791	0.0893	1.5000e-004		3.8500e-003	3.8500e-003		3.6200e-003	3.6200e-003	0.0000	12.7493	12.7493	3.0300e-003	0.0000	12.8251
Total	8.6500e-003	0.0791	0.0893	1.5000e-004		3.8500e-003	3.8500e-003		3.6200e-003	3.6200e-003	0.0000	12.7493	12.7493	3.0300e-003	0.0000	12.8251

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	5.4000e-004	0.0220	6.5900e-003	1.0000e-004	3.3200e-003	1.4000e-004	3.4600e-003	9.6000e-004	1.3000e-004	1.0900e-003	0.0000	9.6259	9.6259	5.0000e-005	1.4500e-003	10.0590
Worker	2.5500e-003	1.6500e-003	0.0195	6.0000e-005	6.6000e-003	3.0000e-005	6.6300e-003	1.7500e-003	3.0000e-005	1.7800e-003	0.0000	5.2520	5.2520	1.6000e-004	1.5000e-004	5.3008
Total	3.0900e-003	0.0236	0.0261	1.6000e-004	9.9200e-003	1.7000e-004	0.0101	2.7100e-003	1.6000e-004	2.8700e-003	0.0000	14.8779	14.8779	2.1000e-004	1.6000e-003	15.3598

Bussetto Foods New Campus - Fresno County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.7 Paving - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0243	0.2448	0.3208	5.0000e-004		0.0125	0.0125		0.0115	0.0115	0.0000	44.0606	44.0606	0.0143	0.0000	44.4169
Paving	1.7900e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0261	0.2448	0.3208	5.0000e-004		0.0125	0.0125		0.0115	0.0115	0.0000	44.0606	44.0606	0.0143	0.0000	44.4169

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.0400e-003	0.0795	0.0225	3.1000e-004	9.7700e-003	8.6000e-004	0.0106	2.8200e-003	8.2000e-004	3.6400e-003	0.0000	29.4342	29.4342	2.2000e-004	4.4400e-003	30.7614
Worker	2.9600e-003	2.0200e-003	0.0228	6.0000e-005	7.0400e-003	4.0000e-005	7.0700e-003	1.8700e-003	3.0000e-005	1.9000e-003	0.0000	5.7520	5.7520	1.9000e-004	1.7000e-004	5.8087
Total	6.0000e-003	0.0815	0.0453	3.7000e-004	0.0168	9.0000e-004	0.0177	4.6900e-003	8.5000e-004	5.5400e-003	0.0000	35.1861	35.1861	4.1000e-004	4.6100e-003	36.5701

Bussetto Foods New Campus - Fresno County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.7 Paving - 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	tons/yr										MT/yr					
Off-Road	0.0243	0.2448	0.3208	5.0000e-004		0.0125	0.0125		0.0115	0.0115	0.0000	44.0606	44.0606	0.0143	0.0000	44.4168
Paving	1.7900e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0261	0.2448	0.3208	5.0000e-004		0.0125	0.0125		0.0115	0.0115	0.0000	44.0606	44.0606	0.0143	0.0000	44.4168

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.0400e-003	0.0795	0.0225	3.1000e-004	9.7700e-003	8.6000e-004	0.0106	2.8200e-003	8.2000e-004	3.6400e-003	0.0000	29.4342	29.4342	2.2000e-004	4.4400e-003	30.7614
Worker	2.9600e-003	2.0200e-003	0.0228	6.0000e-005	7.0400e-003	4.0000e-005	7.0700e-003	1.8700e-003	3.0000e-005	1.9000e-003	0.0000	5.7520	5.7520	1.9000e-004	1.7000e-004	5.8087
Total	6.0000e-003	0.0815	0.0453	3.7000e-004	0.0168	9.0000e-004	0.0177	4.6900e-003	8.5000e-004	5.5400e-003	0.0000	35.1861	35.1861	4.1000e-004	4.6100e-003	36.5701

Bussetto Foods New Campus - Fresno County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.7 Paving - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	5.6800e-003	0.0561	0.0802	1.3000e-004		2.8100e-003	2.8100e-003		2.5800e-003	2.5800e-003	0.0000	11.0148	11.0148	3.5600e-003	0.0000	11.1038
Paving	4.5000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	6.1300e-003	0.0561	0.0802	1.3000e-004		2.8100e-003	2.8100e-003		2.5800e-003	2.5800e-003	0.0000	11.0148	11.0148	3.5600e-003	0.0000	11.1038

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	4.0000e-004	0.0162	4.8500e-003	7.0000e-005	2.4400e-003	1.0000e-004	2.5500e-003	7.1000e-004	1.0000e-004	8.1000e-004	0.0000	7.0872	7.0872	4.0000e-005	1.0700e-003	7.4061
Worker	6.8000e-004	4.4000e-004	5.2000e-003	2.0000e-005	1.7600e-003	1.0000e-005	1.7700e-003	4.7000e-004	1.0000e-005	4.8000e-004	0.0000	1.4005	1.4005	4.0000e-005	4.0000e-005	1.4135
Total	1.0800e-003	0.0166	0.0101	9.0000e-005	4.2000e-003	1.1000e-004	4.3200e-003	1.1800e-003	1.1000e-004	1.2900e-003	0.0000	8.4877	8.4877	8.0000e-005	1.1100e-003	8.8196

Bussetto Foods New Campus - Fresno County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.7 Paving - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	5.6800e-003	0.0561	0.0802	1.3000e-004		2.8100e-003	2.8100e-003		2.5800e-003	2.5800e-003	0.0000	11.0148	11.0148	3.5600e-003	0.0000	11.1038
Paving	4.5000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	6.1300e-003	0.0561	0.0802	1.3000e-004		2.8100e-003	2.8100e-003		2.5800e-003	2.5800e-003	0.0000	11.0148	11.0148	3.5600e-003	0.0000	11.1038

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	4.0000e-004	0.0162	4.8500e-003	7.0000e-005	2.4400e-003	1.0000e-004	2.5500e-003	7.1000e-004	1.0000e-004	8.1000e-004	0.0000	7.0872	7.0872	4.0000e-005	1.0700e-003	7.4061
Worker	6.8000e-004	4.4000e-004	5.2000e-003	2.0000e-005	1.7600e-003	1.0000e-005	1.7700e-003	4.7000e-004	1.0000e-005	4.8000e-004	0.0000	1.4005	1.4005	4.0000e-005	4.0000e-005	1.4135
Total	1.0800e-003	0.0166	0.0101	9.0000e-005	4.2000e-003	1.1000e-004	4.3200e-003	1.1800e-003	1.1000e-004	1.2900e-003	0.0000	8.4877	8.4877	8.0000e-005	1.1100e-003	8.8196

Bussetto Foods New Campus - Fresno County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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	1.2858	2.1635	12.1738	0.0283	2.7112	0.0233	2.7345	0.7254	0.0219	0.7473	0.0000	2,643.1656	2,643.1656	0.1423	0.1451	2,689.9627
Unmitigated	1.2858	2.1635	12.1738	0.0283	2.7112	0.0233	2.7345	0.7254	0.0219	0.7473	0.0000	2,643.1656	2,643.1656	0.1423	0.1451	2,689.9627

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Heavy Industry	2,368.25	3,065.36	2430.32	7,230,768	7,230,768
Parking Lot	0.00	0.00	0.00		
Total	2,368.25	3,065.36	2,430.32	7,230,768	7,230,768

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Heavy Industry	9.50	7.30	7.30	59.00	28.00	13.00	92	5	3
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Bussetto Foods New Campus - Fresno County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Heavy Industry	0.510058	0.053037	0.175964	0.161396	0.026773	0.007006	0.013819	0.022114	0.000717	0.000291	0.024206	0.001529	0.003090
Parking Lot	0.510058	0.053037	0.175964	0.161396	0.026773	0.007006	0.013819	0.022114	0.000717	0.000291	0.024206	0.001529	0.003090

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	382.8279	382.8279	0.0619	7.5100e-003	386.6134
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	382.8279	382.8279	0.0619	7.5100e-003	386.6134
NaturalGas Mitigated	0.0533	0.4845	0.4070	2.9100e-003		0.0368	0.0368		0.0368	0.0368	0.0000	527.4281	527.4281	0.0101	9.6700e-003	530.5623
NaturalGas Unmitigated	0.0533	0.4845	0.4070	2.9100e-003		0.0368	0.0368		0.0368	0.0368	0.0000	527.4281	527.4281	0.0101	9.6700e-003	530.5623

Bussetto Foods New Campus - Fresno County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
General Heavy Industry	9.88363e+006	0.0533	0.4845	0.4070	2.9100e-003		0.0368	0.0368		0.0368	0.0368	0.0000	527.4281	527.4281	0.0101	9.6700e-003	530.5623
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0533	0.4845	0.4070	2.9100e-003		0.0368	0.0368		0.0368	0.0368	0.0000	527.4281	527.4281	0.0101	9.6700e-003	530.5623

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
General Heavy Industry	9.88363e+006	0.0533	0.4845	0.4070	2.9100e-003		0.0368	0.0368		0.0368	0.0368	0.0000	527.4281	527.4281	0.0101	9.6700e-003	530.5623
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0533	0.4845	0.4070	2.9100e-003		0.0368	0.0368		0.0368	0.0368	0.0000	527.4281	527.4281	0.0101	9.6700e-003	530.5623

Bussetto Foods New Campus - Fresno County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Heavy Industry	4.11102e+006	380.3668	0.0615	7.4600e-003	384.1279
Parking Lot	26600	2.4611	4.0000e-004	5.0000e-005	2.4855
Total		382.8279	0.0619	7.5100e-003	386.6134

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Heavy Industry	4.11102e+006	380.3668	0.0615	7.4600e-003	384.1279
Parking Lot	26600	2.4611	4.0000e-004	5.0000e-005	2.4855
Total		382.8279	0.0619	7.5100e-003	386.6134

6.0 Area Detail

Bussetto Foods New Campus - Fresno County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	tons/yr										MT/yr					
Mitigated	2.2038	6.0000e-005	6.1300e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.0119	0.0119	3.0000e-005	0.0000	0.0127
Unmitigated	2.2038	6.0000e-005	6.1300e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.0119	0.0119	3.0000e-005	0.0000	0.0127

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.3336					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.8697					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	5.7000e-004	6.0000e-005	6.1300e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.0119	0.0119	3.0000e-005	0.0000	0.0127
Total	2.2038	6.0000e-005	6.1300e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.0119	0.0119	3.0000e-005	0.0000	0.0127

Bussetto Foods New Campus - Fresno County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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	0.3336					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.8697					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	5.7000e-004	6.0000e-005	6.1300e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.0119	0.0119	3.0000e-005	0.0000	0.0127
Total	2.2038	6.0000e-005	6.1300e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.0119	0.0119	3.0000e-005	0.0000	0.0127

7.0 Water Detail

7.1 Mitigation Measures Water

Bussetto Foods New Campus - Fresno County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	90.3084	3.6068	0.0860	206.1180
Unmitigated	90.3084	3.6068	0.0860	206.1180

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Heavy Industry	110.415 / 0	90.3084	3.6068	0.0860	206.1180
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		90.3084	3.6068	0.0860	206.1180

Bussetto Foods New Campus - Fresno County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Heavy Industry	110.415 / 0	90.3084	3.6068	0.0860	206.1180
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		90.3084	3.6068	0.0860	206.1180

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	120.1828	7.1026	0.0000	297.7479
Unmitigated	120.1828	7.1026	0.0000	297.7479

Bussetto Foods New Campus - Fresno County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Heavy Industry	592.06	120.1828	7.1026	0.0000	297.7479
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		120.1828	7.1026	0.0000	297.7479

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Heavy Industry	592.06	120.1828	7.1026	0.0000	297.7479
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		120.1828	7.1026	0.0000	297.7479

9.0 Operational Offroad

Bussetto Foods New Campus - Fresno County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

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

11.0 Vegetation

Bussetto Foods New Campus - Fresno County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Bussetto Foods New Campus

Fresno County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Heavy Industry	477.47	1000sqft	10.96	477,470.00	0
Parking Lot	190.00	Space	1.71	76,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	45
Climate Zone	3			Operational Year	2023
Utility Company	Pacific Gas and Electric Company				
CO2 Intensity (lb/MWhr)	203.98	CH4 Intensity (lb/MWhr)	0.033	N2O Intensity (lb/MWhr)	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Project site is 18.89 acres, building acreage updated to reflect size of site.

Construction Phase - Construction schedule provided by Applicant.

Trips and VMT - Concrete pouring will require 67 truck trips per day. Worker trips updated to reflect the average number of daily workers per phase.

Grading - Project site is relatively flat, no grading material will need to be haul on or off-site

Vehicle Trips - Weekday trip rate adjusted to be consistent with the June 2021 TIA prepared by JLB Traffic.

Vehicle Emission Factors -

Vehicle Emission Factors -

Vehicle Emission Factors -

Construction Off-road Equipment Mitigation - SJVAPCD Rule 8021

Bussetto Foods New Campus - Fresno County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	150
tblConstructionPhase	NumDays	300.00	186.00
tblConstructionPhase	NumDays	30.00	23.00
tblConstructionPhase	NumDays	30.00	23.00
tblConstructionPhase	NumDays	20.00	21.00
tblConstructionPhase	NumDays	20.00	55.00
tblConstructionPhase	NumDays	10.00	20.00
tblGrading	AcresOfGrading	69.00	18.89
tblGrading	AcresOfGrading	69.00	18.89
tblGrading	AcresOfGrading	30.00	18.89
tblTripsAndVMT	VendorTripNumber	0.00	67.00
tblTripsAndVMT	WorkerTripNumber	18.00	20.00
tblTripsAndVMT	WorkerTripNumber	20.00	50.00
tblTripsAndVMT	WorkerTripNumber	20.00	50.00
tblTripsAndVMT	WorkerTripNumber	15.00	50.00
tblTripsAndVMT	WorkerTripNumber	232.00	150.00
tblTripsAndVMT	WorkerTripNumber	15.00	40.00
tblVehicleTrips	WD_TR	3.93	4.96

2.0 Emissions Summary

Bussetto Foods New Campus - Fresno County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.1 Overall Construction (Maximum Daily Emission)

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	lb/day										lb/day					
2022	7.6393	77.9010	61.0761	0.1319	19.2322	3.2739	20.8456	10.0824	3.0120	11.5667	0.0000	12,806.53 21	12,806.53 21	3.9110	0.5634	12,910.54 16
2023	3.5431	31.5757	38.0650	0.0956	2.6319	1.2617	3.8936	0.7224	1.1771	1.8995	0.0000	9,559.606 2	9,559.606 2	1.3785	0.5401	9,755.009 9
Maximum	7.6393	77.9010	61.0761	0.1319	19.2322	3.2739	20.8456	10.0824	3.0120	11.5667	0.0000	12,806.53 21	12,806.53 21	3.9110	0.5634	12,910.54 16

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	lb/day										lb/day					
2022	7.6393	77.9010	61.0761	0.1319	8.7449	3.2739	10.3583	4.5611	3.0120	6.2937	0.0000	12,806.53 21	12,806.53 21	3.9110	0.5634	12,910.54 16
2023	3.5431	31.5757	38.0650	0.0956	2.6319	1.2617	3.8936	0.7224	1.1771	1.8995	0.0000	9,559.606 2	9,559.606 2	1.3785	0.5401	9,755.009 9
Maximum	7.6393	77.9010	61.0761	0.1319	8.7449	3.2739	10.3583	4.5611	3.0120	6.2937	0.0000	12,806.53 21	12,806.53 21	3.9110	0.5634	12,910.54 16

Bussetto Foods New Campus - Fresno County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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	47.97	0.00	42.39	51.10	0.00	39.16	0.00	0.00	0.00	0.00	0.00	0.00

Bussetto Foods New Campus - Fresno County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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	12.0787	6.2000e-004	0.0681	1.0000e-005		2.4000e-004	2.4000e-004		2.4000e-004	2.4000e-004		0.1461	0.1461	3.8000e-004		0.1557
Energy	0.2920	2.6548	2.2300	0.0159		0.2018	0.2018		0.2018	0.2018		3,185.6983	3,185.6983	0.0611	0.0584	3,204.6293
Mobile	10.5092	13.8361	89.2415	0.2049	18.9382	0.1586	19.0968	5.0562	0.1488	5.2051		21,085.3739	21,085.3739	1.0191	1.0593	21,426.5254
Total	22.8799	16.4915	91.5397	0.2209	18.9382	0.3606	19.2988	5.0562	0.3508	5.4071		24,271.2183	24,271.2183	1.0806	1.1177	24,631.3104

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	12.0787	6.2000e-004	0.0681	1.0000e-005		2.4000e-004	2.4000e-004		2.4000e-004	2.4000e-004		0.1461	0.1461	3.8000e-004		0.1557
Energy	0.2920	2.6548	2.2300	0.0159		0.2018	0.2018		0.2018	0.2018		3,185.6983	3,185.6983	0.0611	0.0584	3,204.6293
Mobile	10.5092	13.8361	89.2415	0.2049	18.9382	0.1586	19.0968	5.0562	0.1488	5.2051		21,085.3739	21,085.3739	1.0191	1.0593	21,426.5254
Total	22.8799	16.4915	91.5397	0.2209	18.9382	0.3606	19.2988	5.0562	0.3508	5.4071		24,271.2183	24,271.2183	1.0806	1.1177	24,631.3104

Bussetto Foods New Campus - Fresno County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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	Site Preparation	Site Preparation	2/1/2022	2/28/2022	5	20	
2	Grading/Excavation	Grading	3/1/2022	3/31/2022	5	23	
3	Drainage/Utilities/Trenching	Grading	3/1/2022	3/31/2022	5	23	
4	Foundations/Concrete Pour	Paving	4/1/2022	4/30/2022	5	21	
5	Building Construction	Building Construction	5/1/2022	1/16/2023	5	186	
6	Paving	Paving	11/1/2022	1/16/2023	5	55	

Acres of Grading (Site Preparation Phase): 18.89

Acres of Grading (Grading Phase): 18.89

Acres of Paving: 1.71

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
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading/Excavation	Excavators	2	8.00	158	0.38
Grading/Excavation	Graders	1	8.00	187	0.41
Grading/Excavation	Rubber Tired Dozers	1	8.00	247	0.40

Bussetto Foods New Campus - Fresno County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Grading/Excavation	Scrapers	2	8.00	367	0.48
Grading/Excavation	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Drainage/Utilities/Trenching	Excavators	2	8.00	158	0.38
Drainage/Utilities/Trenching	Graders	1	8.00	187	0.41
Drainage/Utilities/Trenching	Rubber Tired Dozers	1	8.00	247	0.40
Drainage/Utilities/Trenching	Scrapers	2	8.00	367	0.48
Drainage/Utilities/Trenching	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Foundations/Concrete Pour	Pavers	2	8.00	130	0.42
Foundations/Concrete Pour	Paving Equipment	2	8.00	132	0.36
Foundations/Concrete Pour	Rollers	2	8.00	80	0.38
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading/Excavation	8	50.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Drainage/Utilities/Trenching	8	50.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Foundations/Concrete Pour	6	50.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	150.00	91.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	40.00	67.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

Bussetto Foods New Campus - Fresno County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Site Preparation - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					19.0679	0.0000	19.0679	10.0388	0.0000	10.0388			0.0000			0.0000
Off-Road	3.1701	33.0835	19.6978	0.0380		1.6126	1.6126		1.4836	1.4836		3,686.0619	3,686.0619	1.1922		3,715.8655
Total	3.1701	33.0835	19.6978	0.0380	19.0679	1.6126	20.6805	10.0388	1.4836	11.5224		3,686.0619	3,686.0619	1.1922		3,715.8655

Bussetto Foods New Campus - Fresno County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Site Preparation - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	0.0779	0.0428	0.5986	1.5400e-003	0.1643	8.2000e-004	0.1651	0.0436	7.6000e-004	0.0443		156.7422	156.7422	4.5200e-003	4.1800e-003	158.1020
Total	0.0779	0.0428	0.5986	1.5400e-003	0.1643	8.2000e-004	0.1651	0.0436	7.6000e-004	0.0443		156.7422	156.7422	4.5200e-003	4.1800e-003	158.1020

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					
Fugitive Dust					8.5806	0.0000	8.5806	4.5175	0.0000	4.5175			0.0000			0.0000
Off-Road	3.1701	33.0835	19.6978	0.0380		1.6126	1.6126		1.4836	1.4836	0.0000	3,686.0619	3,686.0619	1.1922		3,715.8655
Total	3.1701	33.0835	19.6978	0.0380	8.5806	1.6126	10.1931	4.5175	1.4836	6.0011	0.0000	3,686.0619	3,686.0619	1.1922		3,715.8655

Bussetto Foods New Campus - Fresno County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Site Preparation - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	0.0779	0.0428	0.5986	1.5400e-003	0.1643	8.2000e-004	0.1651	0.0436	7.6000e-004	0.0443		156.7422	156.7422	4.5200e-003	4.1800e-003	158.1020
Total	0.0779	0.0428	0.5986	1.5400e-003	0.1643	8.2000e-004	0.1651	0.0436	7.6000e-004	0.0443		156.7422	156.7422	4.5200e-003	4.1800e-003	158.1020

3.3 Grading/Excavation - 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					
Fugitive Dust					6.8931	0.0000	6.8931	3.4043	0.0000	3.4043			0.0000			0.0000
Off-Road	3.6248	38.8435	29.0415	0.0621		1.6349	1.6349		1.5041	1.5041		6,011.4105	6,011.4105	1.9442		6,060.0158
Total	3.6248	38.8435	29.0415	0.0621	6.8931	1.6349	8.5280	3.4043	1.5041	4.9084		6,011.4105	6,011.4105	1.9442		6,060.0158

Bussetto Foods New Campus - Fresno County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Grading/Excavation - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	0.1948	0.1071	1.4965	3.8500e-003	0.4107	2.0500e-003	0.4128	0.1090	1.8900e-003	0.1108		391.8555	391.8555	0.0113	0.0105	395.2550
Total	0.1948	0.1071	1.4965	3.8500e-003	0.4107	2.0500e-003	0.4128	0.1090	1.8900e-003	0.1108		391.8555	391.8555	0.0113	0.0105	395.2550

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					
Fugitive Dust					3.1019	0.0000	3.1019	1.5319	0.0000	1.5319			0.0000			0.0000
Off-Road	3.6248	38.8435	29.0415	0.0621		1.6349	1.6349		1.5041	1.5041	0.0000	6,011.4105	6,011.4105	1.9442		6,060.0158
Total	3.6248	38.8435	29.0415	0.0621	3.1019	1.6349	4.7368	1.5319	1.5041	3.0360	0.0000	6,011.4105	6,011.4105	1.9442		6,060.0158

Bussetto Foods New Campus - Fresno County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Grading/Excavation - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	0.1948	0.1071	1.4965	3.8500e-003	0.4107	2.0500e-003	0.4128	0.1090	1.8900e-003	0.1108		391.8555	391.8555	0.0113	0.0105	395.2550
Total	0.1948	0.1071	1.4965	3.8500e-003	0.4107	2.0500e-003	0.4128	0.1090	1.8900e-003	0.1108		391.8555	391.8555	0.0113	0.0105	395.2550

3.4 Drainage/Utilities/Trenching - 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					
Fugitive Dust					6.8931	0.0000	6.8931	3.4043	0.0000	3.4043			0.0000			0.0000
Off-Road	3.6248	38.8435	29.0415	0.0621		1.6349	1.6349		1.5041	1.5041		6,011.4105	6,011.4105	1.9442		6,060.0158
Total	3.6248	38.8435	29.0415	0.0621	6.8931	1.6349	8.5280	3.4043	1.5041	4.9084		6,011.4105	6,011.4105	1.9442		6,060.0158

Bussetto Foods New Campus - Fresno County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Drainage/Utilities/Trenching - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	0.1948	0.1071	1.4965	3.8500e-003	0.4107	2.0500e-003	0.4128	0.1090	1.8900e-003	0.1108		391.8555	391.8555	0.0113	0.0105	395.2550
Total	0.1948	0.1071	1.4965	3.8500e-003	0.4107	2.0500e-003	0.4128	0.1090	1.8900e-003	0.1108		391.8555	391.8555	0.0113	0.0105	395.2550

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					
Fugitive Dust					3.1019	0.0000	3.1019	1.5319	0.0000	1.5319			0.0000			0.0000
Off-Road	3.6248	38.8435	29.0415	0.0621		1.6349	1.6349		1.5041	1.5041	0.0000	6,011.4105	6,011.4105	1.9442		6,060.0158
Total	3.6248	38.8435	29.0415	0.0621	3.1019	1.6349	4.7368	1.5319	1.5041	3.0360	0.0000	6,011.4105	6,011.4105	1.9442		6,060.0158

Bussetto Foods New Campus - Fresno County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Drainage/Utilities/Trenching - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	0.1948	0.1071	1.4965	3.8500e-003	0.4107	2.0500e-003	0.4128	0.1090	1.8900e-003	0.1108		391.8555	391.8555	0.0113	0.0105	395.2550
Total	0.1948	0.1071	1.4965	3.8500e-003	0.4107	2.0500e-003	0.4128	0.1090	1.8900e-003	0.1108		391.8555	391.8555	0.0113	0.0105	395.2550

3.5 Foundations/Concrete Pour - 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	1.1028	11.1249	14.5805	0.0228		0.5679	0.5679		0.5225	0.5225		2,207.6603	2,207.6603	0.7140		2,225.5104
Paving	0.2133					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	1.3162	11.1249	14.5805	0.0228		0.5679	0.5679		0.5225	0.5225		2,207.6603	2,207.6603	0.7140		2,225.5104

Bussetto Foods New Campus - Fresno County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Foundations/Concrete Pour - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	0.1948	0.1071	1.4965	3.8500e-003	0.4107	2.0500e-003	0.4128	0.1090	1.8900e-003	0.1108		391.8555	391.8555	0.0113	0.0105	395.2550
Total	0.1948	0.1071	1.4965	3.8500e-003	0.4107	2.0500e-003	0.4128	0.1090	1.8900e-003	0.1108		391.8555	391.8555	0.0113	0.0105	395.2550

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	1.1028	11.1249	14.5805	0.0228		0.5679	0.5679		0.5225	0.5225	0.0000	2,207.6603	2,207.6603	0.7140		2,225.5104
Paving	0.2133					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	1.3162	11.1249	14.5805	0.0228		0.5679	0.5679		0.5225	0.5225	0.0000	2,207.6603	2,207.6603	0.7140		2,225.5104

Bussetto Foods New Campus - Fresno County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Foundations/Concrete Pour - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	0.1948	0.1071	1.4965	3.8500e-003	0.4107	2.0500e-003	0.4128	0.1090	1.8900e-003	0.1108		391.8555	391.8555	0.0113	0.0105	395.2550
Total	0.1948	0.1071	1.4965	3.8500e-003	0.4107	2.0500e-003	0.4128	0.1090	1.8900e-003	0.1108		391.8555	391.8555	0.0113	0.0105	395.2550

3.6 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	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612		2,554.3336	2,554.3336	0.6120		2,569.6322
Total	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612		2,554.3336	2,554.3336	0.6120		2,569.6322

Bussetto Foods New Campus - Fresno County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Building Construction - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	0.1907	4.6971	1.3688	0.0189	0.6169	0.0528	0.6697	0.1776	0.0505	0.2281		2,002.3464	2,002.3464	0.0152	0.3016	2,092.5935
Worker	0.5845	0.3211	4.4896	0.0116	1.2322	6.1600e-003	1.2384	0.3268	5.6700e-003	0.3325		1,175.5666	1,175.5666	0.0339	0.0314	1,185.7649
Total	0.7752	5.0182	5.8584	0.0305	1.8491	0.0589	1.9080	0.5045	0.0562	0.5606		3,177.9130	3,177.9130	0.0491	0.3330	3,278.3583

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	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612	0.0000	2,554.3336	2,554.3336	0.6120		2,569.6322
Total	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612	0.0000	2,554.3336	2,554.3336	0.6120		2,569.6322

Bussetto Foods New Campus - Fresno County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Building Construction - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	0.1907	4.6971	1.3688	0.0189	0.6169	0.0528	0.6697	0.1776	0.0505	0.2281		2,002.3464	2,002.3464	0.0152	0.3016	2,092.5935
Worker	0.5845	0.3211	4.4896	0.0116	1.2322	6.1600e-003	1.2384	0.3268	5.6700e-003	0.3325		1,175.5666	1,175.5666	0.0339	0.0314	1,185.7649
Total	0.7752	5.0182	5.8584	0.0305	1.8491	0.0589	1.9080	0.5045	0.0562	0.5606		3,177.9130	3,177.9130	0.0491	0.3330	3,278.3583

3.6 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584		2,555.2099	2,555.2099	0.6079		2,570.4061
Total	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584		2,555.2099	2,555.2099	0.6079		2,570.4061

Bussetto Foods New Campus - Fresno County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Building Construction - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	0.1013	3.8261	1.1809	0.0182	0.6169	0.0256	0.6425	0.1776	0.0245	0.2021		1,927.6807	1,927.6807	0.0106	0.2900	2,014.3691
Worker	0.5371	0.2811	4.0945	0.0112	1.2322	5.8100e-003	1.2380	0.3268	5.3500e-003	0.3322		1,144.6185	1,144.6185	0.0303	0.0288	1,153.9691
Total	0.6383	4.1072	5.2754	0.0294	1.8491	0.0314	1.8805	0.5045	0.0298	0.5343		3,072.2992	3,072.2992	0.0408	0.3189	3,168.3382

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	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584	0.0000	2,555.2099	2,555.2099	0.6079		2,570.4061
Total	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584	0.0000	2,555.2099	2,555.2099	0.6079		2,570.4061

Bussetto Foods New Campus - Fresno County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Building Construction - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	0.1013	3.8261	1.1809	0.0182	0.6169	0.0256	0.6425	0.1776	0.0245	0.2021		1,927.680 7	1,927.680 7	0.0106	0.2900	2,014.369 1
Worker	0.5371	0.2811	4.0945	0.0112	1.2322	5.8100e-003	1.2380	0.3268	5.3500e-003	0.3322		1,144.618 5	1,144.618 5	0.0303	0.0288	1,153.969 1
Total	0.6383	4.1072	5.2754	0.0294	1.8491	0.0314	1.8805	0.5045	0.0298	0.5343		3,072.299 2	3,072.299 2	0.0408	0.3189	3,168.338 2

3.7 Paving - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1028	11.1249	14.5805	0.0228		0.5679	0.5679		0.5225	0.5225		2,207.660 3	2,207.660 3	0.7140		2,225.510 4
Paving	0.0815					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	1.1843	11.1249	14.5805	0.0228		0.5679	0.5679		0.5225	0.5225		2,207.660 3	2,207.660 3	0.7140		2,225.510 4

Bussetto Foods New Campus - Fresno County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.7 Paving - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	0.1404	3.4583	1.0078	0.0139	0.4542	0.0389	0.4930	0.1308	0.0372	0.1680		1,474.255 1	1,474.255 1	0.0112	0.2220	1,540.700 7
Worker	0.1559	0.0856	1.1972	3.0800e-003	0.3286	1.6400e-003	0.3302	0.0872	1.5100e-003	0.0887		313.4844	313.4844	9.0300e-003	8.3700e-003	316.2040
Total	0.2963	3.5439	2.2050	0.0170	0.7828	0.0405	0.8233	0.2179	0.0387	0.2566		1,787.739 5	1,787.739 5	0.0202	0.2304	1,856.904 6

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	1.1028	11.1249	14.5805	0.0228		0.5679	0.5679		0.5225	0.5225	0.0000	2,207.660 3	2,207.660 3	0.7140		2,225.510 4
Paving	0.0815					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	1.1843	11.1249	14.5805	0.0228		0.5679	0.5679		0.5225	0.5225	0.0000	2,207.660 3	2,207.660 3	0.7140		2,225.510 4

Bussetto Foods New Campus - Fresno County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.7 Paving - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	0.1404	3.4583	1.0078	0.0139	0.4542	0.0389	0.4930	0.1308	0.0372	0.1680		1,474.255 1	1,474.255 1	0.0112	0.2220	1,540.700 7
Worker	0.1559	0.0856	1.1972	3.0800e-003	0.3286	1.6400e-003	0.3302	0.0872	1.5100e-003	0.0887		313.4844	313.4844	9.0300e-003	8.3700e-003	316.2040
Total	0.2963	3.5439	2.2050	0.0170	0.7828	0.0405	0.8233	0.2179	0.0387	0.2566		1,787.739 5	1,787.739 5	0.0202	0.2304	1,856.904 6

3.7 Paving - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694		2,207.584 1	2,207.584 1	0.7140		2,225.433 6
Paving	0.0815					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	1.1142	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694		2,207.584 1	2,207.584 1	0.7140		2,225.433 6

Bussetto Foods New Campus - Fresno County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.7 Paving - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	0.0746	2.8170	0.8695	0.0134	0.4542	0.0188	0.4730	0.1308	0.0180	0.1488		1,419.2814	1,419.2814	7.7800e-003	0.2135	1,483.1069
Worker	0.1432	0.0750	1.0919	2.9800e-003	0.3286	1.5500e-003	0.3301	0.0872	1.4300e-003	0.0886		305.2316	305.2316	8.0700e-003	7.6900e-003	307.7251
Total	0.2178	2.8920	1.9613	0.0164	0.7828	0.0204	0.8032	0.2179	0.0194	0.2374		1,724.5130	1,724.5130	0.0159	0.2212	1,790.8320

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	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694	0.0000	2,207.5841	2,207.5841	0.7140		2,225.4336
Paving	0.0815					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	1.1142	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694	0.0000	2,207.5841	2,207.5841	0.7140		2,225.4336

Bussetto Foods New Campus - Fresno County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.7 Paving - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	0.0746	2.8170	0.8695	0.0134	0.4542	0.0188	0.4730	0.1308	0.0180	0.1488		1,419.2814	1,419.2814	7.7800e-003	0.2135	1,483.1069
Worker	0.1432	0.0750	1.0919	2.9800e-003	0.3286	1.5500e-003	0.3301	0.0872	1.4300e-003	0.0886		305.2316	305.2316	8.0700e-003	7.6900e-003	307.7251
Total	0.2178	2.8920	1.9613	0.0164	0.7828	0.0204	0.8032	0.2179	0.0194	0.2374		1,724.5130	1,724.5130	0.0159	0.2212	1,790.8320

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Bussetto Foods New Campus - Fresno County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	10.5092	13.8361	89.2415	0.2049	18.9382	0.1586	19.0968	5.0562	0.1488	5.2051		21,085.3739	21,085.3739	1.0191	1.0593	21,426.5254
Unmitigated	10.5092	13.8361	89.2415	0.2049	18.9382	0.1586	19.0968	5.0562	0.1488	5.2051		21,085.3739	21,085.3739	1.0191	1.0593	21,426.5254

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Heavy Industry	2,368.25	3,065.36	2430.32	7,230,768	7,230,768
Parking Lot	0.00	0.00	0.00		
Total	2,368.25	3,065.36	2,430.32	7,230,768	7,230,768

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Heavy Industry	9.50	7.30	7.30	59.00	28.00	13.00	92	5	3
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Heavy Industry	0.510058	0.053037	0.175964	0.161396	0.026773	0.007006	0.013819	0.022114	0.000717	0.000291	0.024206	0.001529	0.003090
Parking Lot	0.510058	0.053037	0.175964	0.161396	0.026773	0.007006	0.013819	0.022114	0.000717	0.000291	0.024206	0.001529	0.003090

5.0 Energy Detail

Bussetto Foods New Campus - Fresno County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	0.2920	2.6548	2.2300	0.0159		0.2018	0.2018		0.2018	0.2018		3,185.6983	3,185.6983	0.0611	0.0584	3,204.6293
NaturalGas Unmitigated	0.2920	2.6548	2.2300	0.0159		0.2018	0.2018		0.2018	0.2018		3,185.6983	3,185.6983	0.0611	0.0584	3,204.6293

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					
General Heavy Industry	27078.4	0.2920	2.6548	2.2300	0.0159		0.2018	0.2018		0.2018	0.2018		3,185.6983	3,185.6983	0.0611	0.0584	3,204.6293
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.2920	2.6548	2.2300	0.0159		0.2018	0.2018		0.2018	0.2018		3,185.6983	3,185.6983	0.0611	0.0584	3,204.6293

Bussetto Foods New Campus - Fresno County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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					
General Heavy Industry	27.0784	0.2920	2.6548	2.2300	0.0159		0.2018	0.2018		0.2018	0.2018		3,185.6983	3,185.6983	0.0611	0.0584	3,204.6293
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.2920	2.6548	2.2300	0.0159		0.2018	0.2018		0.2018	0.2018		3,185.6983	3,185.6983	0.0611	0.0584	3,204.6293

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	12.0787	6.2000e-004	0.0681	1.0000e-005		2.4000e-004	2.4000e-004		2.4000e-004	2.4000e-004		0.1461	0.1461	3.8000e-004		0.1557
Unmitigated	12.0787	6.2000e-004	0.0681	1.0000e-005		2.4000e-004	2.4000e-004		2.4000e-004	2.4000e-004		0.1461	0.1461	3.8000e-004		0.1557

Bussetto Foods New Campus - Fresno County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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	1.8277					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	10.2448					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	6.3100e-003	6.2000e-004	0.0681	1.0000e-005		2.4000e-004	2.4000e-004		2.4000e-004	2.4000e-004		0.1461	0.1461	3.8000e-004		0.1557
Total	12.0787	6.2000e-004	0.0681	1.0000e-005		2.4000e-004	2.4000e-004		2.4000e-004	2.4000e-004		0.1461	0.1461	3.8000e-004		0.1557

Bussetto Foods New Campus - Fresno County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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	1.8277					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	10.2448					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	6.3100e-003	6.2000e-004	0.0681	1.0000e-005		2.4000e-004	2.4000e-004		2.4000e-004	2.4000e-004		0.1461	0.1461	3.8000e-004		0.1557
Total	12.0787	6.2000e-004	0.0681	1.0000e-005		2.4000e-004	2.4000e-004		2.4000e-004	2.4000e-004		0.1461	0.1461	3.8000e-004		0.1557

7.0 Water Detail

7.1 Mitigation Measures Water

Bussetto Foods New Campus - Fresno County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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
----------------	--------	-----------	-----------	-------------	-------------	-----------

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

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

11.0 Vegetation

Bussetto Foods New Campus - Fresno County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

**Bussetto Foods New Campus
Fresno County, Winter**

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Heavy Industry	477.47	1000sqft	10.96	477,470.00	0
Parking Lot	190.00	Space	1.71	76,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	45
Climate Zone	3			Operational Year	2023
Utility Company	Pacific Gas and Electric Company				
CO2 Intensity (lb/MWhr)	203.98	CH4 Intensity (lb/MWhr)	0.033	N2O Intensity (lb/MWhr)	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Project site is 18.89 acres, building acreage updated to reflect size of site.

Construction Phase - Construction schedule provided by Applicant.

Trips and VMT - Concrete pouring will require 67 truck trips per day. Worker trips updated to reflect the average number of daily workers per phase.

Grading - Project site is relatively flat, no grading material will need to be haul on or off-site

Vehicle Trips - Weekday trip rate adjusted to be consistent with the June 2021 TIA prepared by JLB Traffic.

Vehicle Emission Factors -

Vehicle Emission Factors -

Vehicle Emission Factors -

Construction Off-road Equipment Mitigation - SJVAPCD Rule 8021

Bussetto Foods New Campus - Fresno County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	150
tblConstructionPhase	NumDays	300.00	186.00
tblConstructionPhase	NumDays	30.00	23.00
tblConstructionPhase	NumDays	30.00	23.00
tblConstructionPhase	NumDays	20.00	21.00
tblConstructionPhase	NumDays	20.00	55.00
tblConstructionPhase	NumDays	10.00	20.00
tblGrading	AcresOfGrading	69.00	18.89
tblGrading	AcresOfGrading	69.00	18.89
tblGrading	AcresOfGrading	30.00	18.89
tblTripsAndVMT	VendorTripNumber	0.00	67.00
tblTripsAndVMT	WorkerTripNumber	18.00	20.00
tblTripsAndVMT	WorkerTripNumber	20.00	50.00
tblTripsAndVMT	WorkerTripNumber	20.00	50.00
tblTripsAndVMT	WorkerTripNumber	15.00	50.00
tblTripsAndVMT	WorkerTripNumber	232.00	150.00
tblTripsAndVMT	WorkerTripNumber	15.00	40.00
tblVehicleTrips	WD_TR	3.93	4.96

2.0 Emissions Summary

Bussetto Foods New Campus - Fresno County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.1 Overall Construction (Maximum Daily Emission)

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	lb/day										lb/day					
2022	7.5939	77.9382	60.6294	0.1310	19.2322	3.2739	20.8456	10.0824	3.0120	11.5667	0.0000	12,718.17 38	12,718.17 38	3.9137	0.5688	12,822.95 35
2023	3.4549	32.1017	37.3844	0.0940	2.6319	1.2618	3.8937	0.7224	1.1772	1.8996	0.0000	9,403.070 7	9,403.070 7	1.3828	0.5456	9,600.219 1
Maximum	7.5939	77.9382	60.6294	0.1310	19.2322	3.2739	20.8456	10.0824	3.0120	11.5667	0.0000	12,718.17 38	12,718.17 38	3.9137	0.5688	12,822.95 35

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	lb/day										lb/day					
2022	7.5939	77.9382	60.6294	0.1310	8.7449	3.2739	10.3583	4.5611	3.0120	6.2937	0.0000	12,718.17 38	12,718.17 38	3.9137	0.5688	12,822.95 35
2023	3.4549	32.1017	37.3844	0.0940	2.6319	1.2618	3.8937	0.7224	1.1772	1.8996	0.0000	9,403.070 7	9,403.070 7	1.3828	0.5456	9,600.219 1
Maximum	7.5939	77.9382	60.6294	0.1310	8.7449	3.2739	10.3583	4.5611	3.0120	6.2937	0.0000	12,718.17 38	12,718.17 38	3.9137	0.5688	12,822.95 35

Bussetto Foods New Campus - Fresno County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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	47.97	0.00	42.39	51.10	0.00	39.16	0.00	0.00	0.00	0.00	0.00	0.00

Bussetto Foods New Campus - Fresno County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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	12.0787	6.2000e-004	0.0681	1.0000e-005		2.4000e-004	2.4000e-004		2.4000e-004	2.4000e-004		0.1461	0.1461	3.8000e-004		0.1557
Energy	0.2920	2.6548	2.2300	0.0159		0.2018	0.2018		0.2018	0.2018		3,185.6983	3,185.6983	0.0611	0.0584	3,204.6293
Mobile	8.2818	15.4939	85.8331	0.1880	18.9382	0.1587	19.0969	5.0562	0.1490	5.2052		19,348.1668	19,348.1668	1.1412	1.1253	19,712.0231
Total	20.6525	18.1492	88.1312	0.2039	18.9382	0.3607	19.2989	5.0562	0.3510	5.4072		22,534.0111	22,534.0111	1.2026	1.1837	22,916.8081

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	12.0787	6.2000e-004	0.0681	1.0000e-005		2.4000e-004	2.4000e-004		2.4000e-004	2.4000e-004		0.1461	0.1461	3.8000e-004		0.1557
Energy	0.2920	2.6548	2.2300	0.0159		0.2018	0.2018		0.2018	0.2018		3,185.6983	3,185.6983	0.0611	0.0584	3,204.6293
Mobile	8.2818	15.4939	85.8331	0.1880	18.9382	0.1587	19.0969	5.0562	0.1490	5.2052		19,348.1668	19,348.1668	1.1412	1.1253	19,712.0231
Total	20.6525	18.1492	88.1312	0.2039	18.9382	0.3607	19.2989	5.0562	0.3510	5.4072		22,534.0111	22,534.0111	1.2026	1.1837	22,916.8081

Bussetto Foods New Campus - Fresno County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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	Site Preparation	Site Preparation	2/1/2022	2/28/2022	5	20	
2	Grading/Excavation	Grading	3/1/2022	3/31/2022	5	23	
3	Drainage/Utilities/Trenching	Grading	3/1/2022	3/31/2022	5	23	
4	Foundations/Concrete Pour	Paving	4/1/2022	4/30/2022	5	21	
5	Building Construction	Building Construction	5/1/2022	1/16/2023	5	186	
6	Paving	Paving	11/1/2022	1/16/2023	5	55	

Acres of Grading (Site Preparation Phase): 18.89

Acres of Grading (Grading Phase): 18.89

Acres of Paving: 1.71

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
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading/Excavation	Excavators	2	8.00	158	0.38
Grading/Excavation	Graders	1	8.00	187	0.41
Grading/Excavation	Rubber Tired Dozers	1	8.00	247	0.40

Bussetto Foods New Campus - Fresno County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Grading/Excavation	Scrapers	2	8.00	367	0.48
Grading/Excavation	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Drainage/Utilities/Trenching	Excavators	2	8.00	158	0.38
Drainage/Utilities/Trenching	Graders	1	8.00	187	0.41
Drainage/Utilities/Trenching	Rubber Tired Dozers	1	8.00	247	0.40
Drainage/Utilities/Trenching	Scrapers	2	8.00	367	0.48
Drainage/Utilities/Trenching	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Foundations/Concrete Pour	Pavers	2	8.00	130	0.42
Foundations/Concrete Pour	Paving Equipment	2	8.00	132	0.36
Foundations/Concrete Pour	Rollers	2	8.00	80	0.38
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading/Excavation	8	50.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Drainage/Utilities/Trenching	8	50.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Foundations/Concrete Pour	6	50.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	150.00	91.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	40.00	67.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

Bussetto Foods New Campus - Fresno County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Site Preparation - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					19.0679	0.0000	19.0679	10.0388	0.0000	10.0388			0.0000			0.0000
Off-Road	3.1701	33.0835	19.6978	0.0380		1.6126	1.6126		1.4836	1.4836		3,686.0619	3,686.0619	1.1922		3,715.8655
Total	3.1701	33.0835	19.6978	0.0380	19.0679	1.6126	20.6805	10.0388	1.4836	11.5224		3,686.0619	3,686.0619	1.1922		3,715.8655

Bussetto Foods New Campus - Fresno County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Site Preparation - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	0.0688	0.0503	0.5093	1.3700e-003	0.1643	8.2000e-004	0.1651	0.0436	7.6000e-004	0.0443		139.0705	139.0705	5.0500e-003	4.6600e-003	140.5844
Total	0.0688	0.0503	0.5093	1.3700e-003	0.1643	8.2000e-004	0.1651	0.0436	7.6000e-004	0.0443		139.0705	139.0705	5.0500e-003	4.6600e-003	140.5844

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					
Fugitive Dust					8.5806	0.0000	8.5806	4.5175	0.0000	4.5175			0.0000			0.0000
Off-Road	3.1701	33.0835	19.6978	0.0380		1.6126	1.6126		1.4836	1.4836	0.0000	3,686.0619	3,686.0619	1.1922		3,715.8655
Total	3.1701	33.0835	19.6978	0.0380	8.5806	1.6126	10.1931	4.5175	1.4836	6.0011	0.0000	3,686.0619	3,686.0619	1.1922		3,715.8655

Bussetto Foods New Campus - Fresno County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Site Preparation - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	0.0688	0.0503	0.5093	1.3700e-003	0.1643	8.2000e-004	0.1651	0.0436	7.6000e-004	0.0443		139.0705	139.0705	5.0500e-003	4.6600e-003	140.5844
Total	0.0688	0.0503	0.5093	1.3700e-003	0.1643	8.2000e-004	0.1651	0.0436	7.6000e-004	0.0443		139.0705	139.0705	5.0500e-003	4.6600e-003	140.5844

3.3 Grading/Excavation - 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					
Fugitive Dust					6.8931	0.0000	6.8931	3.4043	0.0000	3.4043			0.0000			0.0000
Off-Road	3.6248	38.8435	29.0415	0.0621		1.6349	1.6349		1.5041	1.5041		6,011.4105	6,011.4105	1.9442		6,060.0158
Total	3.6248	38.8435	29.0415	0.0621	6.8931	1.6349	8.5280	3.4043	1.5041	4.9084		6,011.4105	6,011.4105	1.9442		6,060.0158

Bussetto Foods New Campus - Fresno County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Grading/Excavation - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	0.1721	0.1257	1.2732	3.4200e-003	0.4107	2.0500e-003	0.4128	0.1090	1.8900e-003	0.1108		347.6764	347.6764	0.0126	0.0116	351.4609
Total	0.1721	0.1257	1.2732	3.4200e-003	0.4107	2.0500e-003	0.4128	0.1090	1.8900e-003	0.1108		347.6764	347.6764	0.0126	0.0116	351.4609

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					
Fugitive Dust					3.1019	0.0000	3.1019	1.5319	0.0000	1.5319			0.0000			0.0000
Off-Road	3.6248	38.8435	29.0415	0.0621		1.6349	1.6349		1.5041	1.5041	0.0000	6,011.4105	6,011.4105	1.9442		6,060.0158
Total	3.6248	38.8435	29.0415	0.0621	3.1019	1.6349	4.7368	1.5319	1.5041	3.0360	0.0000	6,011.4105	6,011.4105	1.9442		6,060.0158

Bussetto Foods New Campus - Fresno County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Grading/Excavation - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	0.1721	0.1257	1.2732	3.4200e-003	0.4107	2.0500e-003	0.4128	0.1090	1.8900e-003	0.1108		347.6764	347.6764	0.0126	0.0116	351.4609
Total	0.1721	0.1257	1.2732	3.4200e-003	0.4107	2.0500e-003	0.4128	0.1090	1.8900e-003	0.1108		347.6764	347.6764	0.0126	0.0116	351.4609

3.4 Drainage/Utilities/Trenching - 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					
Fugitive Dust					6.8931	0.0000	6.8931	3.4043	0.0000	3.4043			0.0000			0.0000
Off-Road	3.6248	38.8435	29.0415	0.0621		1.6349	1.6349		1.5041	1.5041		6,011.4105	6,011.4105	1.9442		6,060.0158
Total	3.6248	38.8435	29.0415	0.0621	6.8931	1.6349	8.5280	3.4043	1.5041	4.9084		6,011.4105	6,011.4105	1.9442		6,060.0158

Bussetto Foods New Campus - Fresno County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Drainage/Utilities/Trenching - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	0.1721	0.1257	1.2732	3.4200e-003	0.4107	2.0500e-003	0.4128	0.1090	1.8900e-003	0.1108		347.6764	347.6764	0.0126	0.0116	351.4609
Total	0.1721	0.1257	1.2732	3.4200e-003	0.4107	2.0500e-003	0.4128	0.1090	1.8900e-003	0.1108		347.6764	347.6764	0.0126	0.0116	351.4609

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					
Fugitive Dust					3.1019	0.0000	3.1019	1.5319	0.0000	1.5319			0.0000			0.0000
Off-Road	3.6248	38.8435	29.0415	0.0621		1.6349	1.6349		1.5041	1.5041	0.0000	6,011.4105	6,011.4105	1.9442		6,060.0158
Total	3.6248	38.8435	29.0415	0.0621	3.1019	1.6349	4.7368	1.5319	1.5041	3.0360	0.0000	6,011.4105	6,011.4105	1.9442		6,060.0158

Bussetto Foods New Campus - Fresno County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Drainage/Utilities/Trenching - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	0.1721	0.1257	1.2732	3.4200e-003	0.4107	2.0500e-003	0.4128	0.1090	1.8900e-003	0.1108		347.6764	347.6764	0.0126	0.0116	351.4609
Total	0.1721	0.1257	1.2732	3.4200e-003	0.4107	2.0500e-003	0.4128	0.1090	1.8900e-003	0.1108		347.6764	347.6764	0.0126	0.0116	351.4609

3.5 Foundations/Concrete Pour - 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	1.1028	11.1249	14.5805	0.0228		0.5679	0.5679		0.5225	0.5225		2,207.6603	2,207.6603	0.7140		2,225.5104
Paving	0.2133					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	1.3162	11.1249	14.5805	0.0228		0.5679	0.5679		0.5225	0.5225		2,207.6603	2,207.6603	0.7140		2,225.5104

Bussetto Foods New Campus - Fresno County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Foundations/Concrete Pour - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	0.1721	0.1257	1.2732	3.4200e-003	0.4107	2.0500e-003	0.4128	0.1090	1.8900e-003	0.1108		347.6764	347.6764	0.0126	0.0116	351.4609
Total	0.1721	0.1257	1.2732	3.4200e-003	0.4107	2.0500e-003	0.4128	0.1090	1.8900e-003	0.1108		347.6764	347.6764	0.0126	0.0116	351.4609

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	1.1028	11.1249	14.5805	0.0228		0.5679	0.5679		0.5225	0.5225	0.0000	2,207.6603	2,207.6603	0.7140		2,225.5104
Paving	0.2133					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	1.3162	11.1249	14.5805	0.0228		0.5679	0.5679		0.5225	0.5225	0.0000	2,207.6603	2,207.6603	0.7140		2,225.5104

Bussetto Foods New Campus - Fresno County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Foundations/Concrete Pour - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	0.1721	0.1257	1.2732	3.4200e-003	0.4107	2.0500e-003	0.4128	0.1090	1.8900e-003	0.1108		347.6764	347.6764	0.0126	0.0116	351.4609
Total	0.1721	0.1257	1.2732	3.4200e-003	0.4107	2.0500e-003	0.4128	0.1090	1.8900e-003	0.1108		347.6764	347.6764	0.0126	0.0116	351.4609

3.6 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	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612		2,554.3336	2,554.3336	0.6120		2,569.6322
Total	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612		2,554.3336	2,554.3336	0.6120		2,569.6322

Bussetto Foods New Campus - Fresno County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Building Construction - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	0.1853	5.0101	1.4172	0.0190	0.6169	0.0529	0.6698	0.1776	0.0506	0.2283		2,004.117 2	2,004.117 2	0.0150	0.3021	2,094.516 8
Worker	0.5163	0.3769	3.8196	0.0103	1.2322	6.1600e-003	1.2384	0.3268	5.6700e-003	0.3325		1,043.029 1	1,043.029 1	0.0379	0.0349	1,054.382 7
Total	0.7017	5.3870	5.2368	0.0292	1.8491	0.0591	1.9082	0.5045	0.0563	0.5608		3,047.146 3	3,047.146 3	0.0528	0.3370	3,148.899 5

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	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612	0.0000	2,554.333 6	2,554.333 6	0.6120		2,569.632 2
Total	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612	0.0000	2,554.333 6	2,554.333 6	0.6120		2,569.632 2

Bussetto Foods New Campus - Fresno County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Building Construction - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	0.1853	5.0101	1.4172	0.0190	0.6169	0.0529	0.6698	0.1776	0.0506	0.2283		2,004.117 2	2,004.117 2	0.0150	0.3021	2,094.516 8
Worker	0.5163	0.3769	3.8196	0.0103	1.2322	6.1600e-003	1.2384	0.3268	5.6700e-003	0.3325		1,043.029 1	1,043.029 1	0.0379	0.0349	1,054.382 7
Total	0.7017	5.3870	5.2368	0.0292	1.8491	0.0591	1.9082	0.5045	0.0563	0.5608		3,047.146 3	3,047.146 3	0.0528	0.3370	3,148.899 5

3.6 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584		2,555.209 9	2,555.209 9	0.6079		2,570.406 1
Total	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584		2,555.209 9	2,555.209 9	0.6079		2,570.406 1

Bussetto Foods New Campus - Fresno County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Building Construction - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	0.0949	4.0936	1.2208	0.0183	0.6169	0.0257	0.6425	0.1776	0.0246	0.2022		1,931.374 0	1,931.374 0	0.0103	0.2908	2,018.294 8
Worker	0.4762	0.3297	3.5026	9.9300e-003	1.2322	5.8100e-003	1.2380	0.3268	5.3500e-003	0.3322		1,015.975 3	1,015.975 3	0.0340	0.0321	1,026.384 8
Total	0.5711	4.4233	4.7233	0.0282	1.8491	0.0315	1.8806	0.5045	0.0299	0.5344		2,947.349 2	2,947.349 2	0.0443	0.3229	3,044.679 6

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	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584	0.0000	2,555.209 9	2,555.209 9	0.6079		2,570.406 1
Total	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584	0.0000	2,555.209 9	2,555.209 9	0.6079		2,570.406 1

Bussetto Foods New Campus - Fresno County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Building Construction - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	0.0949	4.0936	1.2208	0.0183	0.6169	0.0257	0.6425	0.1776	0.0246	0.2022		1,931.374 0	1,931.374 0	0.0103	0.2908	2,018.294 8
Worker	0.4762	0.3297	3.5026	9.9300e-003	1.2322	5.8100e-003	1.2380	0.3268	5.3500e-003	0.3322		1,015.975 3	1,015.975 3	0.0340	0.0321	1,026.384 8
Total	0.5711	4.4233	4.7233	0.0282	1.8491	0.0315	1.8806	0.5045	0.0299	0.5344		2,947.349 2	2,947.349 2	0.0443	0.3229	3,044.679 6

3.7 Paving - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1028	11.1249	14.5805	0.0228		0.5679	0.5679		0.5225	0.5225		2,207.660 3	2,207.660 3	0.7140		2,225.510 4
Paving	0.0815					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	1.1843	11.1249	14.5805	0.0228		0.5679	0.5679		0.5225	0.5225		2,207.660 3	2,207.660 3	0.7140		2,225.510 4

Bussetto Foods New Campus - Fresno County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.7 Paving - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	0.1365	3.6887	1.0435	0.0140	0.4542	0.0390	0.4932	0.1308	0.0373	0.1681		1,475.5588	1,475.5588	0.0110	0.2224	1,542.1168
Worker	0.1377	0.1005	1.0186	2.7300e-003	0.3286	1.6400e-003	0.3302	0.0872	1.5100e-003	0.0887		278.1411	278.1411	0.0101	9.3100e-003	281.1687
Total	0.2742	3.7893	2.0620	0.0167	0.7828	0.0406	0.8234	0.2179	0.0388	0.2567		1,753.6999	1,753.6999	0.0211	0.2317	1,823.2855

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	1.1028	11.1249	14.5805	0.0228		0.5679	0.5679		0.5225	0.5225	0.0000	2,207.6603	2,207.6603	0.7140		2,225.5104
Paving	0.0815					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	1.1843	11.1249	14.5805	0.0228		0.5679	0.5679		0.5225	0.5225	0.0000	2,207.6603	2,207.6603	0.7140		2,225.5104

Bussetto Foods New Campus - Fresno County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.7 Paving - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	0.1365	3.6887	1.0435	0.0140	0.4542	0.0390	0.4932	0.1308	0.0373	0.1681		1,475.5588	1,475.5588	0.0110	0.2224	1,542.1168
Worker	0.1377	0.1005	1.0186	2.7300e-003	0.3286	1.6400e-003	0.3302	0.0872	1.5100e-003	0.0887		278.1411	278.1411	0.0101	9.3100e-003	281.1687
Total	0.2742	3.7893	2.0620	0.0167	0.7828	0.0406	0.8234	0.2179	0.0388	0.2567		1,753.6999	1,753.6999	0.0211	0.2317	1,823.2855

3.7 Paving - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694		2,207.5841	2,207.5841	0.7140		2,225.4336
Paving	0.0815					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	1.1142	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694		2,207.5841	2,207.5841	0.7140		2,225.4336

Bussetto Foods New Campus - Fresno County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.7 Paving - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	0.0699	3.0140	0.8988	0.0135	0.4542	0.0189	0.4731	0.1308	0.0181	0.1489		1,422.0006	1,422.0006	7.5800e-003	0.2141	1,485.9973
Worker	0.1270	0.0879	0.9340	2.6500e-003	0.3286	1.5500e-003	0.3301	0.0872	1.4300e-003	0.0886		270.9267	270.9267	9.0800e-003	8.5500e-003	273.7026
Total	0.1969	3.1019	1.8328	0.0161	0.7828	0.0204	0.8032	0.2179	0.0195	0.2374		1,692.9274	1,692.9274	0.0167	0.2227	1,759.6999

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	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694	0.0000	2,207.5841	2,207.5841	0.7140		2,225.4336
Paving	0.0815					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	1.1142	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694	0.0000	2,207.5841	2,207.5841	0.7140		2,225.4336

Bussetto Foods New Campus - Fresno County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.7 Paving - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	0.0699	3.0140	0.8988	0.0135	0.4542	0.0189	0.4731	0.1308	0.0181	0.1489		1,422.0006	1,422.0006	7.5800e-003	0.2141	1,485.9973
Worker	0.1270	0.0879	0.9340	2.6500e-003	0.3286	1.5500e-003	0.3301	0.0872	1.4300e-003	0.0886		270.9267	270.9267	9.0800e-003	8.5500e-003	273.7026
Total	0.1969	3.1019	1.8328	0.0161	0.7828	0.0204	0.8032	0.2179	0.0195	0.2374		1,692.9274	1,692.9274	0.0167	0.2227	1,759.6999

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Bussetto Foods New Campus - Fresno County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	8.2818	15.4939	85.8331	0.1880	18.9382	0.1587	19.0969	5.0562	0.1490	5.2052		19,348.68	19,348.68	1.1412	1.1253	19,712.0231
Unmitigated	8.2818	15.4939	85.8331	0.1880	18.9382	0.1587	19.0969	5.0562	0.1490	5.2052		19,348.68	19,348.68	1.1412	1.1253	19,712.0231

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Heavy Industry	2,368.25	3,065.36	2430.32	7,230,768	7,230,768
Parking Lot	0.00	0.00	0.00		
Total	2,368.25	3,065.36	2,430.32	7,230,768	7,230,768

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Heavy Industry	9.50	7.30	7.30	59.00	28.00	13.00	92	5	3
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Heavy Industry	0.510058	0.053037	0.175964	0.161396	0.026773	0.007006	0.013819	0.022114	0.000717	0.000291	0.024206	0.001529	0.003090
Parking Lot	0.510058	0.053037	0.175964	0.161396	0.026773	0.007006	0.013819	0.022114	0.000717	0.000291	0.024206	0.001529	0.003090

5.0 Energy Detail

Bussetto Foods New Campus - Fresno County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	0.2920	2.6548	2.2300	0.0159		0.2018	0.2018		0.2018	0.2018		3,185.6983	3,185.6983	0.0611	0.0584	3,204.6293
NaturalGas Unmitigated	0.2920	2.6548	2.2300	0.0159		0.2018	0.2018		0.2018	0.2018		3,185.6983	3,185.6983	0.0611	0.0584	3,204.6293

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					
General Heavy Industry	27078.4	0.2920	2.6548	2.2300	0.0159		0.2018	0.2018		0.2018	0.2018		3,185.6983	3,185.6983	0.0611	0.0584	3,204.6293
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.2920	2.6548	2.2300	0.0159		0.2018	0.2018		0.2018	0.2018		3,185.6983	3,185.6983	0.0611	0.0584	3,204.6293

Bussetto Foods New Campus - Fresno County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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					
General Heavy Industry	27.0784	0.2920	2.6548	2.2300	0.0159		0.2018	0.2018		0.2018	0.2018		3,185.6983	3,185.6983	0.0611	0.0584	3,204.6293
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.2920	2.6548	2.2300	0.0159		0.2018	0.2018		0.2018	0.2018		3,185.6983	3,185.6983	0.0611	0.0584	3,204.6293

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	12.0787	6.2000e-004	0.0681	1.0000e-005		2.4000e-004	2.4000e-004		2.4000e-004	2.4000e-004		0.1461	0.1461	3.8000e-004		0.1557
Unmitigated	12.0787	6.2000e-004	0.0681	1.0000e-005		2.4000e-004	2.4000e-004		2.4000e-004	2.4000e-004		0.1461	0.1461	3.8000e-004		0.1557

Bussetto Foods New Campus - Fresno County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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	1.8277					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	10.2448					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	6.3100e-003	6.2000e-004	0.0681	1.0000e-005		2.4000e-004	2.4000e-004		2.4000e-004	2.4000e-004		0.1461	0.1461	3.8000e-004		0.1557
Total	12.0787	6.2000e-004	0.0681	1.0000e-005		2.4000e-004	2.4000e-004		2.4000e-004	2.4000e-004		0.1461	0.1461	3.8000e-004		0.1557

Bussetto Foods New Campus - Fresno County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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	1.8277					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	10.2448					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	6.3100e-003	6.2000e-004	0.0681	1.0000e-005		2.4000e-004	2.4000e-004		2.4000e-004	2.4000e-004		0.1461	0.1461	3.8000e-004		0.1557
Total	12.0787	6.2000e-004	0.0681	1.0000e-005		2.4000e-004	2.4000e-004		2.4000e-004	2.4000e-004		0.1461	0.1461	3.8000e-004		0.1557

7.0 Water Detail

7.1 Mitigation Measures Water

Bussetto Foods New Campus - Fresno County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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
----------------	--------	-----------	-----------	-------------	-------------	-----------

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

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

11.0 Vegetation

AIR QUALITY AND GREENHOUSE GAS IMPACT ASSESSMENT

October 14, 2021

APPENDIX B

HEALTH RISK CALCULATIONS AND AERMOD OUTPUT FILES




```

**
*****
**
** AERMOD Input Produced by:
** AERMOD View Ver. 10.0.0
** Lakes Environmental Software Inc.
** Date: 10/5/2021
** File: C:\Lakes\AERMOD View\BussetoFoods\BussetoFoods.ADI
**
*****
**
**
*****
** AERMOD Control Pathway
*****
**
**
CO STARTING
  TITLEONE C:\Lakes\AERMOD View\BussetoFoods\BussetoFoods.isc
  MODELOPT DFAULT CONC
  AVERTIME 1 ANNUAL
  POLLUTID PM_2.5
  RUNORNOT RUN
  ERRORFIL BussetoFoods.err
CO FINISHED
**
*****
** AERMOD Source Pathway
*****
**
**
SO STARTING
** Source Location **
** Source ID - Type - X Coord. - Y Coord. **
  LOCATION PAREA1      AREAPOLY   247523.144   4066861.600       83.370
** Source Parameters **
  SRCPARAM PAREA1      5.3027E-08      3.000           4
  AREAVERT PAREA1      247523.144 4066861.600 247515.142 4066657.252
  AREAVERT PAREA1      247899.833 4066651.097 247907.219 4066856.676
  SRCGROUP ALL
SO FINISHED
**
*****
** AERMOD Receptor Pathway
*****
**
**
RE STARTING
  INCLUDED BussetoFoods.rou
RE FINISHED

```

```
**
*****
** AERMOD Meteorology Pathway
*****
**
**
ME STARTING
  SURFFILE "C:\Users\kheck\Desktop\Met Data\Fresno_2013-2017.SFC"
  PROFFILE "C:\Users\kheck\Desktop\Met Data\Fresno_2013-2017.PFL"
  SURFDATA 93193 2013 FRESNO/AIR_TERMINAL
  UAIRDATA 23230 2013 OAKLAND/WSO_AP
  PROFBASE 112.0 METERS
ME FINISHED
**
*****
** AERMOD Output Pathway
*****
**
**
OU STARTING
  RECTABLE ALLAVE 1ST
  RECTABLE 1 1ST
** Auto-Generated Plotfiles
  PLOTFILE 1 ALL 1ST BussetoFoods.AD\01H1GALL.PLT 31
  PLOTFILE ANNUAL ALL BussetoFoods.AD\AN00GALL.PLT 32
  SUMMFILE BussetoFoods.sum
OU FINISHED
**
*****
** Project Parameters
*****
** PROJCTN  CoordinateSystemUTM
** DESCPTN  UTM: Universal Transverse Mercator
** DATUM    World Geodetic System 1984
** DTMRGN   Global Definition
** UNITS    m
** ZONE     11
** ZONEINX  0
**
```

```

**
*****
**
** AERMOD Input Produced by:
** AERMOD View Ver. 10.0.0
** Lakes Environmental Software Inc.
** Date: 10/5/2021
** File: C:\Lakes\AERMOD View\BussetoFoods\BussetoFoods.ADI
**
*****
**
**
*****
** AERMOD Control Pathway
*****
**
**
CO STARTING
  TITLEONE C:\Lakes\AERMOD View\BussetoFoods\BussetoFoods.isc
  MODELOPT DFAULT CONC
  AVERTIME 1 ANNUAL
  POLLUTID PM_2.5
  RUNORNOT RUN
  ERRORFIL BussetoFoods.err
CO FINISHED
**
*****
** AERMOD Source Pathway
*****
**
**
SO STARTING
** Source Location **
** Source ID - Type - X Coord. - Y Coord. **
  LOCATION PAREA1      AREAPOLY   247523.144  4066861.600      83.370
** Source Parameters **
  SRCPARAM PAREA1      5.3027E-08      3.000      4
  AREAVERT PAREA1      247523.144  4066861.600  247515.142  4066657.252
  AREAVERT PAREA1      247899.833  4066651.097  247907.219  4066856.676
  SRCGROUP ALL
SO FINISHED
**
*****
** AERMOD Receptor Pathway
*****
**
**
RE STARTING
  INCLUDED BussetoFoods.rou
RE FINISHED

```

```
**
*****
** AERMOD Meteorology Pathway
*****
**
**
ME STARTING
  SURFFILE "C:\Users\kheck\Desktop\Met Data\Fresno_2013-2017.SFC"
  PROFFILE "C:\Users\kheck\Desktop\Met Data\Fresno_2013-2017.PFL"
  SURFDATA 93193 2013 FRESNO/AIR_TERMINAL
  UAIRDATA 23230 2013 OAKLAND/WSO_AP
  PROFBASE 112.0 METERS
```

```
ME FINISHED
**
```

```
*****
** AERMOD Output Pathway
*****
**
**
```

```
OU STARTING
  RECTABLE ALLAVE 1ST
  RECTABLE 1 1ST
** Auto-Generated Plotfiles
  PLOTFILE 1 ALL 1ST BussetoFoods.AD\01H1GALL.PLT 31
  PLOTFILE ANNUAL ALL BussetoFoods.AD\AN00GALL.PLT 32
  SUMMFILE BussetoFoods.sum
OU FINISHED
```

*** Message Summary For AERMOD Model Setup ***

----- Summary of Total Messages -----

```
A Total of          0 Fatal Error Message(s)
A Total of          2 Warning Message(s)
A Total of          0 Informational Message(s)
```

```
***** FATAL ERROR MESSAGES *****
*** NONE ***
```

```
***** WARNING MESSAGES *****
ME W186      63      MEOPEN: THRESH_1MIN 1-min ASOS wind speed threshold used
              0.50
ME W187      63      MEOPEN: ADJ_U* Option for Stable Low Winds used in AERMET
```

```
*****
*** SETUP Finishes Successfully ***
```

▲ *** AERMOD - VERSION 21112 *** *** C:\Lakes\AERMOD
View\BussetoFoods\BussetoFoods.isc *** 10/05/21
*** AERMET - VERSION 18081 *** ***
*** 14:44:03

PAGE 1
*** MODELOPTs: RegDEFAULT CONC ELEV RURAL ADJ_U*

*** MODEL SETUP OPTIONS SUMMARY

**Model Is Setup For Calculation of Average CONCentration Values.

-- DEPOSITION LOGIC --

**NO GAS DEPOSITION Data Provided.
**NO PARTICLE DEPOSITION Data Provided.
**Model Uses NO DRY DEPLETION. DRYDPLT = F
**Model Uses NO WET DEPLETION. WETDPLT = F

**Model Uses RURAL Dispersion Only.

**Model Uses Regulatory DEFAULT Options:
1. Stack-tip Downwash.
2. Model Accounts for ELEVated Terrain Effects.
3. Use Calms Processing Routine.
4. Use Missing Data Processing Routine.
5. No Exponential Decay.

**Other Options Specified:
ADJ_U* - Use ADJ_U* option for SBL in AERMET
CCVR_Sub - Meteorological data includes CCVR substitutions
TEMP_Sub - Meteorological data includes TEMP substitutions

**Model Assumes No FLAGPOLE Receptor Heights.

**The User Specified a Pollutant Type of: PM_2.5

**Model Calculates 1 Short Term Average(s) of: 1-HR
and Calculates ANNUAL Averages

**This Run Includes: 1 Source(s); 1 Source Group(s); and 75
Receptor(s)

with: 0 POINT(s), including
0 POINTCAP(s) and 0 POINTHOR(s)
and: 0 VOLUME source(s)

and: 1 AREA type source(s)
and: 0 LINE source(s)
and: 0 RLINE/RLINEXT source(s)
and: 0 OPENPIT source(s)
and: 0 BUOYANT LINE source(s) with a total of 0 line(s)

**Model Set To Continue RUNNING After the Setup Testing.

**The AERMET Input Meteorological Data Version Date: 18081

**Output Options Selected:

Model Outputs Tables of ANNUAL Averages by Receptor
Model Outputs Tables of Highest Short Term Values by Receptor (RECTABLE

Keyword)

Model Outputs External File(s) of High Values for Plotting (PLOTFILE

Keyword)

Model Outputs Separate Summary File of High Ranked Values (SUMMFILE

Keyword)

**NOTE: The Following Flags May Appear Following CONC Values: c for Calm Hours
m for Missing
Hours
b for Both Calm
and Missing Hours

**Misc. Inputs: Base Elev. for Pot. Temp. Profile (m MSL) = 112.00 ; Decay
Coef. = 0.000 ; Rot. Angle = 0.0
Emission Units = GRAMS/SEC ;
Emission Rate Unit Factor = 0.10000E+07
Output Units = MICROGRAMS/M**3

**Approximate Storage Requirements of Model = 3.5 MB of RAM.

**Input Runstream File: aermod.inp

**Output Print File: aermod.out

**Detailed Error/Message File: BussetoFoods.err

**File for Summary of Results: BussetoFoods.sum

▲ *** AERMOD - VERSION 21112 *** C:\Lakes\AERMOD
View\BussetoFoods\BussetoFoods.isc *** 10/05/21
*** AERMET - VERSION 18081 ***
*** 14:44:03

PAGE 2

*** MODELOPTs: RegDEFAULT CONC ELEV RURAL ADJ_U*

*** AREAPOLY SOURCE DATA ***

INIT.	URBAN	NUMBER	EMISSION	RATE	LOCATION	OF	AREA	BASE	RELEASE	NUMBER
SOURCE	PART.	(GRAMS/SEC	X	Y	ELEV.	HEIGHT	OF	VERTS.		
SZ	SOURCE	SCALAR	VARY							
ID	CATS.	/METER**2)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)			
(METERS)	BY									

PAREA1 0 0.53027E-07 247523.1 4066861.6 83.4 3.00 4
 0.00 NO

*** AERMOD - VERSION 21112 *** C:\Lakes\AERMOD
 View\BussetoFoods\BussetoFoods.isc *** 10/05/21
 *** AERMET - VERSION 18081 ***
 *** 14:44:03

PAGE 3

*** MODELOPTs: RegDFault CONC ELEV RURAL ADJ_U*

*** SOURCE IDs DEFINING SOURCE GROUPS

SRCGROUP ID

SOURCE IDs

ALL PAREA1 ,
 *** AERMOD - VERSION 21112 *** C:\Lakes\AERMOD
 View\BussetoFoods\BussetoFoods.isc *** 10/05/21
 *** AERMET - VERSION 18081 ***
 *** 14:44:03

PAGE 4

*** MODELOPTs: RegDFault CONC ELEV RURAL ADJ_U*

*** DISCRETE CARTESIAN RECEPTORS ***
 (X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
 (METERS)

(247120.8, 4066784.8, 84.7, 84.7, 0.0); (247120.8,
 4066804.8, 84.9, 84.9, 0.0);
 (247120.8, 4066824.8, 85.1, 85.1, 0.0); (247120.8,
 4066844.8, 85.3, 85.3, 0.0);
 (247120.8, 4066864.8, 85.2, 85.2, 0.0); (247140.8,
 4066784.8, 84.9, 84.9, 0.0);

13	01	01	1	07	-3.2	0.079	-9.000	-9.000	-999.	53.	13.9	0.10	2.38
1.00	0.94	56.			10.0	275.9	2.0						
13	01	01	1	08	-3.9	0.086	-9.000	-9.000	-999.	61.	15.0	0.11	2.38
0.65	1.06	2.			10.0	276.4	2.0						
13	01	01	1	09	7.5	-9.000	-9.000	-9.000	50.	-999.	-99999.0	0.13	2.38
0.36	0.00	0.			10.0	278.1	2.0						
13	01	01	1	10	58.7	0.121	0.640	0.005	161.	101.	-2.8	0.10	2.38
0.26	0.87	34.			10.0	280.9	2.0						
13	01	01	1	11	63.3	0.147	0.785	0.005	276.	135.	-4.5	0.17	2.38
0.22	0.97	261.			10.0	282.5	2.0						
13	01	01	1	12	75.8	0.188	1.109	0.007	649.	195.	-7.9	0.15	2.38
0.21	1.43	277.			10.0	283.8	2.0						
13	01	01	1	13	155.3	0.195	1.573	0.008	905.	207.	-4.3	0.15	2.38
0.21	1.35	275.			10.0	284.9	2.0						
13	01	01	1	14	137.7	0.226	1.535	0.007	947.	258.	-7.6	0.12	2.38
0.22	1.84	321.			10.0	285.9	2.0						
13	01	01	1	15	83.1	0.293	1.308	0.006	972.	380.	-27.2	0.12	2.38
0.26	2.78	312.			10.0	285.9	2.0						
13	01	01	1	16	26.9	0.396	0.901	0.006	979.	598.	-207.9	0.12	2.38
0.35	4.25	309.			10.0	285.4	2.0						
13	01	01	1	17	-43.4	0.472	-9.000	-9.000	-999.	778.	245.2	0.12	2.38
0.62	5.36	321.			10.0	282.5	2.0						
13	01	01	1	18	-29.4	0.292	-9.000	-9.000	-999.	406.	94.0	0.12	2.38
1.00	3.39	318.			10.0	281.4	2.0						
13	01	01	1	19	-25.7	0.255	-9.000	-9.000	-999.	311.	71.7	0.15	2.38
1.00	2.81	293.			10.0	280.9	2.0						
13	01	01	1	20	-26.2	0.258	-9.000	-9.000	-999.	315.	73.3	0.15	2.38
1.00	2.84	297.			10.0	279.2	2.0						
13	01	01	1	21	-25.0	0.246	-9.000	-9.000	-999.	293.	66.4	0.15	2.38
1.00	2.71	292.			10.0	278.1	2.0						
13	01	01	1	22	-11.2	0.146	-9.000	-9.000	-999.	138.	24.8	0.12	2.38
1.00	1.76	319.			10.0	277.5	2.0						
13	01	01	1	23	-6.7	0.113	-9.000	-9.000	-999.	91.	19.3	0.15	2.38
1.00	1.31	282.			10.0	277.5	2.0						
13	01	01	1	24	-1.9	0.069	-9.000	-9.000	-999.	44.	15.2	0.11	2.38
1.00	0.65	24.			10.0	275.9	2.0						

First hour of profile data

YR	MO	DY	HR	HEIGHT	F	WDIR	WSPD	AMB_TMP	sigmaA	sigmaW	sigmaV
13	01	01	01	10.0	1	113.	1.89	277.1	99.0	-99.00	-99.00

F indicates top of profile (=1) or below (=0)

```

^ *** AERMOD - VERSION 21112 ***      *** C:\Lakes\AERMOD
View\BussetoFoods\BussetoFoods.isc      ***      10/05/21
*** AERMET - VERSION 18081 ***      ***
***      14:44:03

```

PAGE 7

*** MODELOPTs: RegDFault CONC ELEV RURAL ADJ_U*

*** THE ANNUAL AVERAGE CONCENTRATION VALUES AVERAGED OVER 5
 YEARS FOR SOURCE GROUP: ALL ***
 INCLUDING SOURCE(S): PAREA1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS

** CONC OF PM_{2.5} IN MICROGRAMS/M**3

**

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)
Y-COORD (M)	CONC		
247120.83	4066784.75	0.03204	247120.83
4066804.75	0.03126		
247120.83	4066824.75	0.03044	247120.83
4066844.75	0.02957		
247120.83	4066864.75	0.02870	247140.83
4066784.75	0.03408		
247140.83	4066804.75	0.03323	247140.83
4066824.75	0.03231		
247140.83	4066844.75	0.03135	247140.83
4066864.75	0.03039		
247160.83	4066784.75	0.03635	247160.83
4066804.75	0.03541		
247160.83	4066824.75	0.03439	247160.83
4066844.75	0.03331		
247180.83	4066784.75	0.03889	247180.83
4066804.75	0.03785		
247180.83	4066824.75	0.03671	247180.83
4066844.75	0.03549		
247200.83	4066784.75	0.04174	247200.83
4066804.75	0.04057		
247200.83	4066824.75	0.03929	247200.83
4066844.75	0.03791		
247220.83	4066784.75	0.04495	247220.83
4066804.75	0.04364		
247220.83	4066824.75	0.04217	247220.83
4066844.75	0.04060		
247240.83	4066784.75	0.04860	247240.83
4066804.75	0.04711		
247240.83	4066824.75	0.04543	247240.83
4066844.75	0.04360		
247260.83	4066784.75	0.05278	247260.83
4066804.75	0.05106		
247260.83	4066824.75	0.04911	247260.83
4066844.75	0.04701		
247280.83	4066784.75	0.05757	247280.83

VALUES FOR SOURCE GROUP: ALL

INCLUDING SOURCE(S): PAREA1

,

*** DISCRETE CARTESIAN RECEPTOR POINTS

** CONC OF PM_{2.5} IN MICROGRAMS/M**3

**

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)
Y-COORD (M)	CONC	(YYMMDDHH)		
247120.83	4066784.75	1.68375	(13021308)	247120.83
4066804.75	1.57685	(13032407)		
247120.83	4066824.75	1.52228	(13032407)	247120.83
4066844.75	1.41593	(13032407)		
247120.83	4066864.75	1.39834	(13021708)	247140.83
4066784.75	1.74664	(13021308)		
247140.83	4066804.75	1.63397	(13032407)	247140.83
4066824.75	1.57253	(13032407)		
247140.83	4066844.75	1.45677	(13032407)	247140.83
4066864.75	1.50829	(13021708)		
247160.83	4066784.75	1.81420	(13021308)	247160.83
4066804.75	1.69458	(13032407)		
247160.83	4066824.75	1.62598	(13032407)	247160.83
4066844.75	1.50017	(13032407)		
247180.83	4066784.75	1.88659	(13021308)	247180.83
4066804.75	1.75928	(13032407)		
247180.83	4066824.75	1.68290	(13032407)	247180.83
4066844.75	1.55056	(13021708)		
247200.83	4066784.75	1.96410	(13021308)	247200.83
4066804.75	1.82797	(13032407)		
247200.83	4066824.75	1.74339	(13032407)	247200.83
4066844.75	1.68311	(13021708)		
247220.83	4066784.75	2.04738	(13021308)	247220.83
4066804.75	1.90123	(13032407)		
247220.83	4066824.75	1.80809	(13032407)	247220.83
4066844.75	1.82443	(13021708)		
247240.83	4066784.75	2.13708	(13021308)	247240.83
4066804.75	1.98233	(13021308)		
247240.83	4066824.75	1.87743	(13032407)	247240.83
4066844.75	1.97468	(13021708)		
247260.83	4066784.75	2.23507	(13021308)	247260.83
4066804.75	2.07203	(13021308)		
247260.83	4066824.75	1.95236	(13032407)	247260.83
4066844.75	2.13525	(13021708)		
247280.83	4066784.75	2.34052	(13021308)	247280.83
4066804.75	2.17000	(13021308)		
247280.83	4066824.75	2.08117	(13021708)	247280.83

** CONC OF PM_2.5 IN MICROGRAMS/M**3

**

GROUP ID	NETWORK	AVERAGE CONC	RECEPTOR (XR, YR,
ZELEV, ZHILL, ZFLAG)	OF TYPE	GRID-ID	
ALL	1ST HIGHEST VALUE IS	0.14035 AT (	247440.83, 4066804.75,
83.55,	83.55, 0.00) DC		
	2ND HIGHEST VALUE IS	0.12882 AT (	247440.83, 4066824.75,
83.65,	83.65, 0.00) DC		
	3RD HIGHEST VALUE IS	0.09745 AT (	247380.83, 4066784.75,
83.84,	83.84, 0.00) DC		
	4TH HIGHEST VALUE IS	0.09279 AT (	247380.83, 4066804.75,
84.05,	84.05, 0.00) DC		
	5TH HIGHEST VALUE IS	0.08691 AT (	247380.83, 4066824.75,
84.26,	84.26, 0.00) DC		
	6TH HIGHEST VALUE IS	0.08643 AT (	247360.83, 4066784.75,
84.01,	84.01, 0.00) DC		
	7TH HIGHEST VALUE IS	0.08259 AT (	247360.83, 4066804.75,
84.26,	84.26, 0.00) DC		
	8TH HIGHEST VALUE IS	0.08028 AT (	247380.83, 4066844.75,
84.46,	84.46, 0.00) DC		
	9TH HIGHEST VALUE IS	0.07783 AT (	247360.83, 4066824.75,
84.46,	84.46, 0.00) DC		
	10TH HIGHEST VALUE IS	0.07729 AT (	247340.83, 4066784.75,
84.18,	84.18, 0.00) DC		

*** RECEPTOR TYPES: GC = GRIDCART
 GP = GRIDPOLR
 DC = DISCCART
 DP = DISCPOLR

▲ *** AERMOD - VERSION 21112 *** *** C:\Lakes\AERMOD
 View\BussetoFoods\BussetoFoods.isc *** 10/05/21
 *** AERMET - VERSION 18081 *** ***
 *** 14:44:03

PAGE 10

*** MODELOPTs: RegDFault CONC ELEV RURAL ADJ_U*

*** THE SUMMARY OF HIGHEST 1-HR

RESULTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3

**

GROUP ID (XR, YR, ZELEV, ZHILL, ZFLAG)	AVERAGE CONC OF TYPE	NETWORK GRID-ID	DATE (YYMMDDHH)	RECEPTOR
-----	-----	-----	-----	-----

ALL HIGH 1ST HIGH VALUE IS 4.07221 ON 13021708: AT (247440.83,
4066824.75, 83.65, 83.65, 0.00) DC

*** RECEPTOR TYPES: GC = GRIDCART
GP = GRIDPOLR
DC = DISCCART
DP = DISCPOLR

▲ *** AERMOD - VERSION 21112 *** *** C:\Lakes\AERMOD
View\BussetoFoods\BussetoFoods.isc *** 10/05/21
*** AERMET - VERSION 18081 *** ***
*** 14:44:03

PAGE 11

*** MODELOPTs: RegDFault CONC ELEV RURAL ADJ_U*

*** Message Summary : AERMOD Model Execution ***

----- Summary of Total Messages -----

A Total of 0 Fatal Error Message(s)
A Total of 2 Warning Message(s)
A Total of 2426 Informational Message(s)

A Total of 43824 Hours Were Processed

A Total of 1891 Calm Hours Identified

A Total of 535 Missing Hours Identified (1.22 Percent)

***** FATAL ERROR MESSAGES *****

*** NONE ***

***** WARNING MESSAGES *****

ME W186 63 MEOPEN: THRESH_1MIN 1-min ASOS wind speed threshold used
0.50
ME W187 63 MEOPEN: ADJ_U* Option for Stable Low Winds used in AERMET

```
*****  
*** AERMOD Finishes Successfully ***  
*****
```

```

**
*****
**
** AERMOD Input Produced by:
** AERMOD View Ver. 10.0.0
** Lakes Environmental Software Inc.
** Date: 10/14/2021
** File: C:\Lakes\AERMOD View\BusetoOperational\BusetoOperational.ADI
**
*****
**
**
*****
** AERMOD Control Pathway
*****
**
**
CO STARTING
  TITLEONE C:\Lakes\AERMOD View\BusetoOperational\BusetoOperational.isc
  MODELOPT DFAULT CONC
  AVERTIME 1 ANNUAL
  POLLUTID PM_2.5
  RUNORNOT RUN
  ERRORFIL BusetoOperational.err
CO FINISHED
**
*****
** AERMOD Source Pathway
*****
**
**
SO STARTING
** Source Location **
** Source ID - Type - X Coord. - Y Coord. **
  LOCATION PAREA1      AREAPOLY   247523.144   4066861.600      83.370
** Source Parameters **
  SRCPARAM PAREA1      3.6536E-11      3.000      4
  AREAVERT PAREA1      247523.144 4066861.600 247515.142 4066657.252
  AREAVERT PAREA1      247899.833 4066651.097 247907.219 4066856.676
  SRCGROUP ALL
SO FINISHED
**
*****
** AERMOD Receptor Pathway
*****
**
**
RE STARTING
  INCLUDED BusetoOperational.rou
RE FINISHED

```

```
**
*****
** AERMOD Meteorology Pathway
*****
**
**
ME STARTING
  SURFFILE "C:\Users\kheck\Desktop\Met Data\Fresno_2013-2017.SFC"
  PROFFILE "C:\Users\kheck\Desktop\Met Data\Fresno_2013-2017.PFL"
  SURFDATA 93193 2013 FRESNO/AIR_TERMINAL
  UAIRDATA 23230 2013 OAKLAND/WSO_AP
  PROFBASE 112.0 METERS
ME FINISHED
**
*****
** AERMOD Output Pathway
*****
**
**
OU STARTING
  RECTABLE ALLAVE 1ST
  RECTABLE 1 1ST
** Auto-Generated Plotfiles
  PLOTFILE 1 ALL 1ST BUSETOOPERATIONAL.AD\01H1GALL.PLT 31
  PLOTFILE ANNUAL ALL BUSETOOPERATIONAL.AD\AN00GALL.PLT 32
  SUMMFILE BusetoOperational.sum
OU FINISHED
**
*****
** Project Parameters
*****
** PROJCTN  CoordinateSystemUTM
** DESCPTN  UTM: Universal Transverse Mercator
** DATUM    World Geodetic System 1984
** DTMRGN   Global Definition
** UNITS    m
** ZONE     11
** ZONEINX  0
**
```

```

**
*****
**
** AERMOD Input Produced by:
** AERMOD View Ver. 10.0.0
** Lakes Environmental Software Inc.
** Date: 10/14/2021
** File: C:\Lakes\AERMOD View\BusetoOperational\BusetoOperational.ADI
**
*****
**
**
*****
** AERMOD Control Pathway
*****
**
**
CO STARTING
  TITLEONE C:\Lakes\AERMOD View\BusetoOperational\BusetoOperational.isc
  MODELOPT DFAULT CONC
  AVERTIME 1 ANNUAL
  POLLUTID PM_2.5
  RUNORNOT RUN
  ERRORFIL BusetoOperational.err
CO FINISHED
**
*****
** AERMOD Source Pathway
*****
**
**
SO STARTING
** Source Location **
** Source ID - Type - X Coord. - Y Coord. **
  LOCATION PAREA1      AREAPOLY   247523.144   4066861.600      83.370
** Source Parameters **
  SRCPARAM PAREA1      3.6536E-11      3.000      4
  AREAVERT PAREA1      247523.144 4066861.600 247515.142 4066657.252
  AREAVERT PAREA1      247899.833 4066651.097 247907.219 4066856.676
  SRCGROUP ALL
SO FINISHED
**
*****
** AERMOD Receptor Pathway
*****
**
**
RE STARTING
  INCLUDED BusetoOperational.rou
RE FINISHED

```

```
**
*****
** AERMOD Meteorology Pathway
*****
**
**
ME STARTING
  SURFFILE "C:\Users\kheck\Desktop\Met Data\Fresno_2013-2017.SFC"
  PROFFILE "C:\Users\kheck\Desktop\Met Data\Fresno_2013-2017.PFL"
  SURFDATA 93193 2013 FRESNO/AIR_TERMINAL
  UAIRDATA 23230 2013 OAKLAND/WSO_AP
  PROFBASE 112.0 METERS
```

```
ME FINISHED
**
*****
```

```
** AERMOD Output Pathway
*****
**
**
```

```
OU STARTING
  RECTABLE ALLAVE 1ST
  RECTABLE 1 1ST
** Auto-Generated Plotfiles
  PLOTFILE 1 ALL 1ST BUSETOOPERATIONAL.AD\01H1GALL.PLT 31
  PLOTFILE ANNUAL ALL BUSETOOPERATIONAL.AD\AN00GALL.PLT 32
  SUMMFILE BusetoOperational.sum
OU FINISHED
```

*** Message Summary For AERMOD Model Setup ***

----- Summary of Total Messages -----

```
A Total of          0 Fatal Error Message(s)
A Total of          2 Warning Message(s)
A Total of          0 Informational Message(s)
```

```
***** FATAL ERROR MESSAGES *****
*** NONE ***
```

```
***** WARNING MESSAGES *****
ME W186      63      MEOPEN: THRESH_1MIN 1-min ASOS wind speed threshold used
              0.50
ME W187      63      MEOPEN: ADJ_U* Option for Stable Low Winds used in AERMET
```

```
*****
*** SETUP Finishes Successfully ***
```

▲ *** AERMOD - VERSION 21112 *** *** C:\Lakes\AERMOD
View\BusetoOperational\BusetoOperational.isc *** 10/14/21
*** AERMET - VERSION 18081 *** ***
*** 11:34:45

PAGE 1
*** MODELOPTs: RegDEFAULT CONC ELEV RURAL ADJ_U*

*** MODEL SETUP OPTIONS SUMMARY

**Model Is Setup For Calculation of Average CONCentration Values.

-- DEPOSITION LOGIC --

**NO GAS DEPOSITION Data Provided.

**NO PARTICLE DEPOSITION Data Provided.

**Model Uses NO DRY DEPLETION. DRYDPLT = F

**Model Uses NO WET DEPLETION. WETDPLT = F

**Model Uses RURAL Dispersion Only.

**Model Uses Regulatory DEFAULT Options:

1. Stack-tip Downwash.
2. Model Accounts for ELEVated Terrain Effects.
3. Use Calms Processing Routine.
4. Use Missing Data Processing Routine.
5. No Exponential Decay.

**Other Options Specified:

ADJ_U* - Use ADJ_U* option for SBL in AERMET

CCVR_Sub - Meteorological data includes CCVR substitutions

TEMP_Sub - Meteorological data includes TEMP substitutions

**Model Assumes No FLAGPOLE Receptor Heights.

**The User Specified a Pollutant Type of: PM_2.5

**Model Calculates 1 Short Term Average(s) of: 1-HR
and Calculates ANNUAL Averages

**This Run Includes: 1 Source(s); 1 Source Group(s); and 75
Receptor(s)

with: 0 POINT(s), including
0 POINTCAP(s) and 0 POINTHOR(s)
and: 0 VOLUME source(s)

and: 1 AREA type source(s)
and: 0 LINE source(s)
and: 0 RLINE/RLINEXT source(s)
and: 0 OPENPIT source(s)
and: 0 BUOYANT LINE source(s) with a total of 0 line(s)

**Model Set To Continue RUNNING After the Setup Testing.

**The AERMET Input Meteorological Data Version Date: 18081

**Output Options Selected:

Model Outputs Tables of ANNUAL Averages by Receptor
Model Outputs Tables of Highest Short Term Values by Receptor (RECTABLE

Keyword)

Model Outputs External File(s) of High Values for Plotting (PLOTFILE

Keyword)

Model Outputs Separate Summary File of High Ranked Values (SUMMFILE

Keyword)

**NOTE: The Following Flags May Appear Following CONC Values: c for Calm Hours
m for Missing
Hours
b for Both Calm
and Missing Hours

**Misc. Inputs: Base Elev. for Pot. Temp. Profile (m MSL) = 112.00 ; Decay
Coef. = 0.000 ; Rot. Angle = 0.0
Emission Units = GRAMS/SEC ;
Emission Rate Unit Factor = 0.10000E+07
Output Units = MICROGRAMS/M**3

**Approximate Storage Requirements of Model = 3.5 MB of RAM.

**Input Runstream File: aermod.inp

**Output Print File: aermod.out

**Detailed Error/Message File: BusetoOperational.err

**File for Summary of Results: BusetoOperational.sum

▲ *** AERMOD - VERSION 21112 *** C:\Lakes\AERMOD
View\BusetoOperational\BusetoOperational.isc *** 10/14/21
*** AERMET - VERSION 18081 ***
*** 11:34:45

PAGE 2

*** MODELOPTs: RegDFault CONC ELEV RURAL ADJ_U*

*** AREAPOLY SOURCE DATA ***

INIT.	URBAN	NUMBER	EMISSION	RATE	LOCATION OF AREA		BASE	RELEASE	NUMBER
SOURCE	PART.	EMISSION	RATE	(GRAMS/SEC	X	Y	ELEV.	HEIGHT	OF VERTS.
SZ	SOURCE	SCALAR	VARY						
ID	CATS.	/METER**2)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	
(METERS)	BY								

PAREA1 0 0.36536E-10 247523.1 4066861.6 83.4 3.00 4
 0.00 NO

↑ *** AERMOD - VERSION 21112 *** *** C:\Lakes\AERMOD
 View\BusetoOperational\BusetoOperational.isc *** 10/14/21
 *** AERMET - VERSION 18081 *** ***
 *** 11:34:45

PAGE 3

*** MODELOPTs: RegDFault CONC ELEV RURAL ADJ_U*

*** SOURCE IDs DEFINING SOURCE GROUPS

SRCGROUP ID

SOURCE IDs

ALL PAREA1 ,
 ↑ *** AERMOD - VERSION 21112 *** *** C:\Lakes\AERMOD
 View\BusetoOperational\BusetoOperational.isc *** 10/14/21
 *** AERMET - VERSION 18081 *** ***
 *** 11:34:45

PAGE 4

*** MODELOPTs: RegDFault CONC ELEV RURAL ADJ_U*

*** DISCRETE CARTESIAN RECEPTORS ***
 (X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
 (METERS)

(247120.8, 4066784.8, 84.7, 84.7, 0.0); (247120.8,
 4066804.8, 84.9, 84.9, 0.0);
 (247120.8, 4066824.8, 85.1, 85.1, 0.0); (247120.8,
 4066844.8, 85.3, 85.3, 0.0);
 (247120.8, 4066864.8, 85.2, 85.2, 0.0); (247140.8,
 4066784.8, 84.9, 84.9, 0.0);

13	01	01	1	07	-3.2	0.079	-9.000	-9.000	-999.	53.	13.9	0.10	2.38
1.00	0.94	56.			10.0	275.9	2.0						
13	01	01	1	08	-3.9	0.086	-9.000	-9.000	-999.	61.	15.0	0.11	2.38
0.65	1.06	2.			10.0	276.4	2.0						
13	01	01	1	09	7.5	-9.000	-9.000	-9.000	50.	-999.	-99999.0	0.13	2.38
0.36	0.00	0.			10.0	278.1	2.0						
13	01	01	1	10	58.7	0.121	0.640	0.005	161.	101.	-2.8	0.10	2.38
0.26	0.87	34.			10.0	280.9	2.0						
13	01	01	1	11	63.3	0.147	0.785	0.005	276.	135.	-4.5	0.17	2.38
0.22	0.97	261.			10.0	282.5	2.0						
13	01	01	1	12	75.8	0.188	1.109	0.007	649.	195.	-7.9	0.15	2.38
0.21	1.43	277.			10.0	283.8	2.0						
13	01	01	1	13	155.3	0.195	1.573	0.008	905.	207.	-4.3	0.15	2.38
0.21	1.35	275.			10.0	284.9	2.0						
13	01	01	1	14	137.7	0.226	1.535	0.007	947.	258.	-7.6	0.12	2.38
0.22	1.84	321.			10.0	285.9	2.0						
13	01	01	1	15	83.1	0.293	1.308	0.006	972.	380.	-27.2	0.12	2.38
0.26	2.78	312.			10.0	285.9	2.0						
13	01	01	1	16	26.9	0.396	0.901	0.006	979.	598.	-207.9	0.12	2.38
0.35	4.25	309.			10.0	285.4	2.0						
13	01	01	1	17	-43.4	0.472	-9.000	-9.000	-999.	778.	245.2	0.12	2.38
0.62	5.36	321.			10.0	282.5	2.0						
13	01	01	1	18	-29.4	0.292	-9.000	-9.000	-999.	406.	94.0	0.12	2.38
1.00	3.39	318.			10.0	281.4	2.0						
13	01	01	1	19	-25.7	0.255	-9.000	-9.000	-999.	311.	71.7	0.15	2.38
1.00	2.81	293.			10.0	280.9	2.0						
13	01	01	1	20	-26.2	0.258	-9.000	-9.000	-999.	315.	73.3	0.15	2.38
1.00	2.84	297.			10.0	279.2	2.0						
13	01	01	1	21	-25.0	0.246	-9.000	-9.000	-999.	293.	66.4	0.15	2.38
1.00	2.71	292.			10.0	278.1	2.0						
13	01	01	1	22	-11.2	0.146	-9.000	-9.000	-999.	138.	24.8	0.12	2.38
1.00	1.76	319.			10.0	277.5	2.0						
13	01	01	1	23	-6.7	0.113	-9.000	-9.000	-999.	91.	19.3	0.15	2.38
1.00	1.31	282.			10.0	277.5	2.0						
13	01	01	1	24	-1.9	0.069	-9.000	-9.000	-999.	44.	15.2	0.11	2.38
1.00	0.65	24.			10.0	275.9	2.0						

First hour of profile data

YR	MO	DY	HR	HEIGHT	F	WDIR	WSPD	AMB_TMP	sigmaA	sigmaW	sigmaV
13	01	01	01	10.0	1	113.	1.89	277.1	99.0	-99.00	-99.00

F indicates top of profile (=1) or below (=0)

```

^ *** AERMOD - VERSION 21112 ***      *** C:\Lakes\AERMOD
View\BusetoOperational\BusetoOperational.isc      ***      10/14/21
*** AERMET - VERSION 18081 ***      ***
***      11:34:45

```

PAGE 7

*** MODELOPTs: RegDFault CONC ELEV RURAL ADJ_U*

*** THE ANNUAL AVERAGE CONCENTRATION VALUES AVERAGED OVER 5
 YEARS FOR SOURCE GROUP: ALL ***
 INCLUDING SOURCE(S): PAREA1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS

** CONC OF PM_{2.5} IN MICROGRAMS/M**3

**			
X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)
Y-COORD (M)	CONC		
247120.83	4066784.75	0.00002	247120.83
4066804.75	0.00002		
247120.83	4066824.75	0.00002	247120.83
4066844.75	0.00002		
247120.83	4066864.75	0.00002	247140.83
4066784.75	0.00002		
247140.83	4066804.75	0.00002	247140.83
4066824.75	0.00002		
247140.83	4066844.75	0.00002	247140.83
4066864.75	0.00002		
247160.83	4066784.75	0.00003	247160.83
4066804.75	0.00002		
247160.83	4066824.75	0.00002	247160.83
4066844.75	0.00002		
247180.83	4066784.75	0.00003	247180.83
4066804.75	0.00003		
247180.83	4066824.75	0.00003	247180.83
4066844.75	0.00002		
247200.83	4066784.75	0.00003	247200.83
4066804.75	0.00003		
247200.83	4066824.75	0.00003	247200.83
4066844.75	0.00003		
247220.83	4066784.75	0.00003	247220.83
4066804.75	0.00003		
247220.83	4066824.75	0.00003	247220.83
4066844.75	0.00003		
247240.83	4066784.75	0.00003	247240.83
4066804.75	0.00003		
247240.83	4066824.75	0.00003	247240.83
4066844.75	0.00003		
247260.83	4066784.75	0.00004	247260.83
4066804.75	0.00004		
247260.83	4066824.75	0.00003	247260.83
4066844.75	0.00003		
247280.83	4066784.75	0.00004	247280.83

4066804.75	0.00004			
	247280.83	4066824.75	0.00004	247280.83
4066844.75	0.00004			
	247340.83	4066784.75	0.00005	247340.83
4066804.75	0.00005			
	247340.83	4066824.75	0.00005	247340.83
4066844.75	0.00005			
	247360.83	4066784.75	0.00006	247360.83
4066804.75	0.00006			
	247360.83	4066824.75	0.00005	247360.83
4066844.75	0.00005			
	247380.83	4066784.75	0.00007	247380.83
4066804.75	0.00006			
	247380.83	4066824.75	0.00006	247380.83
4066844.75	0.00006			
	247440.83	4066804.75	0.00010	247440.83
4066824.75	0.00009			
	248180.83	4066424.75	0.00003	248180.83
4066444.75	0.00003			
	248200.83	4066424.75	0.00003	248200.83
4066444.75	0.00003			
	248320.83	4066164.75	0.00001	248320.83
4066184.75	0.00001			
	248320.83	4066204.75	0.00002	248320.83
4066224.75	0.00002			
	248320.83	4066244.75	0.00002	248320.83
4066264.75	0.00002			
	248320.83	4066284.75	0.00002	248320.83
4066304.75	0.00002			
	248320.83	4066324.75	0.00002	248320.83
4066344.75	0.00002			
	248320.83	4066364.75	0.00002	248320.83
4066384.75	0.00002			
	248320.83	4066404.75	0.00002	248320.83
4066424.75	0.00002			
	248320.83	4066444.75	0.00002	247081.22
4066093.63	0.00001			
	248486.60	4066060.02	0.00001	247145.38
4067694.54	0.00000			
	248523.27	4067660.94	0.00000	

^ *** AERMOD - VERSION 21112 *** *** C:\Lakes\AERMOD
 View\BusetoOperational\BusetoOperational.isc *** 10/14/21
 *** AERMET - VERSION 18081 *** ***
 *** 11:34:45

PAGE 8
 *** MODELOPTs: RegDFault CONC ELEV RURAL ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION

VALUES FOR SOURCE GROUP: ALL

INCLUDING SOURCE(S): PAREA1

,

*** DISCRETE CARTESIAN RECEPTOR POINTS

** CONC OF PM_{2.5} IN MICROGRAMS/M³

**

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)
Y-COORD (M)	CONC	(YYMMDDHH)		
247120.83	4066784.75	0.00116	(13021308)	247120.83
4066804.75	0.00109	(13032407)		
247120.83	4066824.75	0.00105	(13032407)	247120.83
4066844.75	0.00098	(13032407)		
247120.83	4066864.75	0.00096	(13021708)	247140.83
4066784.75	0.00120	(13021308)		
247140.83	4066804.75	0.00113	(13032407)	247140.83
4066824.75	0.00108	(13032407)		
247140.83	4066844.75	0.00100	(13032407)	247140.83
4066864.75	0.00104	(13021708)		
247160.83	4066784.75	0.00125	(13021308)	247160.83
4066804.75	0.00117	(13032407)		
247160.83	4066824.75	0.00112	(13032407)	247160.83
4066844.75	0.00103	(13032407)		
247180.83	4066784.75	0.00130	(13021308)	247180.83
4066804.75	0.00121	(13032407)		
247180.83	4066824.75	0.00116	(13032407)	247180.83
4066844.75	0.00107	(13021708)		
247200.83	4066784.75	0.00135	(13021308)	247200.83
4066804.75	0.00126	(13032407)		
247200.83	4066824.75	0.00120	(13032407)	247200.83
4066844.75	0.00116	(13021708)		
247220.83	4066784.75	0.00141	(13021308)	247220.83
4066804.75	0.00131	(13032407)		
247220.83	4066824.75	0.00125	(13032407)	247220.83
4066844.75	0.00126	(13021708)		
247240.83	4066784.75	0.00147	(13021308)	247240.83
4066804.75	0.00137	(13021308)		
247240.83	4066824.75	0.00129	(13032407)	247240.83
4066844.75	0.00136	(13021708)		
247260.83	4066784.75	0.00154	(13021308)	247260.83
4066804.75	0.00143	(13021308)		
247260.83	4066824.75	0.00135	(13032407)	247260.83
4066844.75	0.00147	(13021708)		
247280.83	4066784.75	0.00161	(13021308)	247280.83
4066804.75	0.00150	(13021308)		
247280.83	4066824.75	0.00143	(13021708)	247280.83

4066844.75	0.00159	(13021708)		
247340.83	4066784.75	0.00187	(13021308)	247340.83
4066804.75	0.00174	(13021308)		
247340.83	4066824.75	0.00185	(13021708)	247340.83
4066844.75	0.00198	(13021708)		
247360.83	4066784.75	0.00198	(13021308)	247360.83
4066804.75	0.00185	(13021308)		
247360.83	4066824.75	0.00201	(13021708)	247360.83
4066844.75	0.00213	(13021708)		
247380.83	4066784.75	0.00210	(13021308)	247380.83
4066804.75	0.00202	(13021708)		
247380.83	4066824.75	0.00218	(13021708)	247380.83
4066844.75	0.00229	(13021708)		
247440.83	4066804.75	0.00268	(13021708)	247440.83
4066824.75	0.00281	(13021708)		
248180.83	4066424.75	0.00078	(13042106)	248180.83
4066444.75	0.00081	(14010520)		
248200.83	4066424.75	0.00077	(14010520)	248200.83
4066444.75	0.00079	(14010520)		
248320.83	4066164.75	0.00048	(17120120)	248320.83
4066184.75	0.00049	(13020624)		
248320.83	4066204.75	0.00050	(13052105)	248320.83
4066224.75	0.00051	(13052105)		
248320.83	4066244.75	0.00052	(14122306)	248320.83
4066264.75	0.00054	(14122306)		
248320.83	4066284.75	0.00056	(17121721)	248320.83
4066304.75	0.00057	(13042106)		
248320.83	4066324.75	0.00059	(13042106)	248320.83
4066344.75	0.00061	(14010520)		
248320.83	4066364.75	0.00062	(14010520)	248320.83
4066384.75	0.00065	(17121817)		
248320.83	4066404.75	0.00066	(17121817)	248320.83
4066424.75	0.00071	(13022108)		
248320.83	4066444.75	0.00076	(13022108)	247081.22
4066093.63	0.00046	(14121508)		
248486.60	4066060.02	0.00039	(13052105)	247145.38
4067694.54	0.00050	(13020908)		
248523.27	4067660.94	0.00022	(14021901)	

^ *** AERMOD - VERSION 21112 *** *** C:\Lakes\AERMOD
 View\BusetoOperational\BusetoOperational.isc ***
 *** AERMET - VERSION 18081 *** ***
 *** 11:34:45

10/14/21

PAGE 9

*** MODELOPTs: RegDFault CONC ELEV RURAL ADJ_U*

*** THE SUMMARY OF MAXIMUM ANNUAL RESULTS

AVERAGED OVER 5 YEARS ***

** CONC OF PM_{2.5} IN MICROGRAMS/M**3

**

GROUP ID	NETWORK	AVERAGE CONC	RECEPTOR (XR, YR,
ZELEV, ZHILL, ZFLAG)	OF TYPE	GRID-ID	
ALL	1ST HIGHEST VALUE IS	0.00010 AT (	247440.83, 4066804.75,
83.55,	83.55, 0.00) DC		
	2ND HIGHEST VALUE IS	0.00009 AT (	247440.83, 4066824.75,
83.65,	83.65, 0.00) DC		
	3RD HIGHEST VALUE IS	0.00007 AT (	247380.83, 4066784.75,
83.84,	83.84, 0.00) DC		
	4TH HIGHEST VALUE IS	0.00006 AT (	247380.83, 4066804.75,
84.05,	84.05, 0.00) DC		
	5TH HIGHEST VALUE IS	0.00006 AT (	247380.83, 4066824.75,
84.26,	84.26, 0.00) DC		
	6TH HIGHEST VALUE IS	0.00006 AT (	247360.83, 4066784.75,
84.01,	84.01, 0.00) DC		
	7TH HIGHEST VALUE IS	0.00006 AT (	247360.83, 4066804.75,
84.26,	84.26, 0.00) DC		
	8TH HIGHEST VALUE IS	0.00006 AT (	247380.83, 4066844.75,
84.46,	84.46, 0.00) DC		
	9TH HIGHEST VALUE IS	0.00005 AT (	247360.83, 4066824.75,
84.46,	84.46, 0.00) DC		
	10TH HIGHEST VALUE IS	0.00005 AT (	247340.83, 4066784.75,
84.18,	84.18, 0.00) DC		

*** RECEPTOR TYPES: GC = GRIDCART
 GP = GRIDPOLR
 DC = DISCCART
 DP = DISCPOLR

▲ *** AERMOD - VERSION 21112 *** C:\Lakes\AERMOD
 View\BusetoOperational\BusetoOperational.isc *** 10/14/21
 *** AERMET - VERSION 18081 *** ***
 *** 11:34:45

PAGE 10

*** MODELOPTs: RegDEFAULT CONC ELEV RURAL ADJ_U*

*** THE SUMMARY OF HIGHEST 1-HR

RESULTS ***

** CONC OF PM_{2.5} IN MICROGRAMS/M**3

**

GROUP ID (XR, YR, ZELEV, ZHILL, ZFLAG)	AVERAGE CONC OF TYPE	NETWORK GRID-ID	DATE (YYMMDDHH)	RECEPTOR

ALL HIGH 1ST HIGH VALUE IS 0.00281 ON 13021708: AT (247440.83,
4066824.75, 83.65, 83.65, 0.00) DC

*** RECEPTOR TYPES: GC = GRIDCART
GP = GRIDPOLR
DC = DISCCART
DP = DISCPOLR

▲ *** AERMOD - VERSION 21112 *** C:\Lakes\AERMOD
View\BusetoOperational\BusetoOperational.isc *** 10/14/21
*** AERMET - VERSION 18081 ***
*** 11:34:45

PAGE 11

*** MODELOPTs: RegDFault CONC ELEV RURAL ADJ_U*

*** Message Summary : AERMOD Model Execution ***

----- Summary of Total Messages -----

A Total of 0 Fatal Error Message(s)
A Total of 2 Warning Message(s)
A Total of 2426 Informational Message(s)

A Total of 43824 Hours Were Processed

A Total of 1891 Calm Hours Identified

A Total of 535 Missing Hours Identified (1.22 Percent)

***** FATAL ERROR MESSAGES *****
*** NONE ***

***** WARNING MESSAGES *****
ME W186 63 MEOPEN: THRESH_1MIN 1-min ASOS wind speed threshold used
0.50
ME W187 63 MEOPEN: ADJ_U* Option for Stable Low Winds used in AERMET

```
*****  
*** AERMOD Finishes Successfully ***  
*****
```

Operational DPM Calculations

Source: EMFAC2021 (v1.0.1) Emission Rates

Region Type: County

Region: Fresno

Calendar Year: 2023

Season: Annual

Vehicle Classification: EMFAC2007 Categories

Units: miles/day for CVMT and EVMT, trips/day for Trips, kWh/day for Energy Consumption, g/mile for RUNEX, PMBW and PMTW, g/trip for STREX, HOTSOAK and RUNLOSS, g/vehicle/day for IDLEX and DIURN

Region	Calendar Year	Vehicle Category	Model Year	Speed	Fuel	Population	Total VMT	Percentage of Each Type by VMT	Annual Number of Trips by Fuel Type	PM2.5 RUNEX	Miles Traveled per Trip	Total Annual PM2.5 within 1,000 feet around facility (g/year)	PM2.5 Emission Rate (g/s)
Fresno	2023	HHDT	Aggregate	Aggregate	Gasoline	2,180,895,548	85,063,060,56	4.13951E-05	0.135610266	0.006139446	1	0.000832572	2.64007E-11
Fresno	2023	HHDT	Aggregate	Aggregate	Diesel	13,888,525,48	203,044,1285	0.988093646	3236.994784	0.028043132	1	90.77547067	2.87847E-06
Fresno	2023	HHDT	Aggregate	Aggregate	Electricity	12,290,352,448	867,789,2394	0.000422301	1,383457909	0	1	0	0
Fresno	2023	HHDT	Aggregate	Aggregate	Natural Gas	359,295,4056	23513,60693	0.011442658	37,48614823	0.004331669	1	0.162377588	5.14896E-09
Total HHDT VMT							205,4907,744					Total Annual PM2.5 Generated	2.88365E-06

Construction DPM Calculations

Year	PM2.5 Exhaust (tons/year)
2022*	0.1389
2023*	0.00647
Total	0.14537
Average (tons/year)	0.14537
Average (lbs/year)	290.74
Average (lbs/day)	0.796547945
Average (lbs/second)	9.2193E-06
Average (grams/second)	0.004181806

A. Equation 5.4.1.1: $\text{Dose-air} = C_{\text{air}} \times \{\text{BR/BW}\} \times A \times \text{EF} \times 10^{-6}$

1. Dose-air = Dose through inhalation (mg/kg/d)
2. C_{air} = Concentration in air ($\mu\text{g}/\text{m}^3$)
3. {BR/BW} = Daily Breathing rate normalized to body weight (L/kg body weight - day)
4. A = Inhalation absorption factor (unitless)
5. EF = Exposure frequency (unitless), days/365 days
6. 10^{-6} = Micrograms to milligrams conversion, liters to cubic meters conversion

a: Recommended default values for EQ 5.4.1.1:

1. {BR/BW} = Daily breathing rates by age groupings, see As supplemental information, the assessor may wish to evaluate the inhalation dose by using the mean point estimates in Table 5.6 to provide a range of breathing rates for cancer risk assessment to the risk manager.
2. Table (point estimates) and Table 5.7 (parametric model distributions for Tier III stochastic risk assessment). For Tier 1 residential estimates, use 95th percentile breathing rates in Table 5.6.
3. A = 1
4. EF = 0.96 (350 days/365 days in a year for a resident)

A. Equation 8.2.4 A: $\text{RISK}_{\text{inh-res}} = \text{DOSE}_{\text{air}} \times \text{CPF} \times \text{ASF} \times \text{ED/AT} \times \text{FAH}$

7. $\text{RISK}_{\text{inh-res}}$ = Residential inhalation cancer risk
8. DOSE_{air} = Daily inhalation dose (mg/kg-day)
9. CPF = Inhalation cancer potency factor ($\text{mg}/\text{kg}\text{-day}^{-1}$)
10. ASF = Age sensitivity factor for a specified age group (unitless)
11. ED = Exposure duration (in years) for a specified age group
12. AT = Averaging time for lifetime cancer risk (years)
13. FAH = Fraction of time spent at home (unitless)

a: Recommended default values for EQ 8.2.4 A:

5. DOSE_{air} = Calculated for each age group from Eq. 5.4.1
6. CPF = Substance-specific (see Table 7.1)
7. ASF = See Section 8.2.1
8. ED = 0.25 years for 3rd trimester, 2 years for 0<2, 7 years for 2<9, 14 years for 2<16, 14 years for 16<30, 54 years for 16-70
9. AT = 70 years*
10. FAH = See Table 8.4

70-Year Cancer Risk

Construction Cancer Risk Calculations

Dose (Equation 5.4.1.1)						
Exposure Age	Concentration (ug/m3)	Breathing Rate L/kg body weight-day	Inhalation Absorption Factor	EF	Multiplier	DOSE (mg/kg/day)
3rd trimester	0.14	361	1	0.95890411	0.000001	4.8463E-05
Infant	0.14	1090	1	0.95890411	0.000001	0.000146329
Child	0.14	572	1	0.95890411	0.000001	7.6789E-05
Adult	0.14	261	1	0.95890411	0.000001	3.50384E-05

Cancer Risk (Equation 8.2.4A)

Exposure Age	DOSE (mg/kg/day)	CPF (mg/kg-day ⁻¹)	ASF	Exposure Duration (years)/Averaging Time (years)	FAH	RISK
3rd trimester	4.8463E-05	1.1	10	0.003571429	0.851	1.62E-06
Infant	0.000146329	1.1	10	0.010714286	0.851	1.47E-05
Infant Construction Risk (3rd Trimester and Infant)						1.63E-05
Child	7.6789E-05	1.1	3	0.014285714	0.721	2.61E-06
Adult	3.50384E-05	1.1	1	0.014285714	0.73	4.02E-07

[Microsoft Word - Draft Staff Report - 9-23-14 v2.docx \(valleyair.org\)](#)

Operational Cancer Risk Calculations

Dose (Equation 5.4.1.1)						
Exposure Age	Concentration (ug/m3)	Breathing Rate L/kg body weight-day	Inhalation Absorption Factor	EF	Multiplier	DOSE (mg/kg/day)
Infant	0.0001	1090	1	0.95890411	0.000001	1.04521E-07
Child	0.0001	572	1	0.95890411	0.000001	5.48493E-08
Adult	0.0001	261	1	0.95890411	0.000001	2.50274E-08

Cancer Risk (Equation 8.2.4A)

Exposure Age	DOSE (mg/kg/day)	CPF (mg/kg-day ⁻¹)	ASF	Exposure Duration (years)/Averaging Time (years)	FAH	RISK
Infant	1.04521E-07	1.1	10	0.017857143	0.851	1.75E-08
Child	5.48493E-08	1.1	3	0.2	0.721	2.61E-08
Adult	2.50274E-08	1.1	1	7.771428571	0.73	1.56E-07
TOTAL OPERATIONAL RISK						2.00E-07

Total Cancer Risk

Exposure Age	Phase of Project	Duration of Exposure	Risk
3rd trimester	Construction	0.25	1.62E-06
Infant	Construction	0.75	1.47E-05
Infant	Operation	1.25	1.75E-08
Child	Operation	14	2.61E-08
Adult	Operation	54	3.56E-07
TOTAL			1.65E-05



Appendix B: Habitat Assessment

Prepared by Precision Civil Engineering, Inc. on January 12, 2021.



**HABITAT ASSESMENT
APNs: 477-030-20 & 477-030-21
2325 S. WEST AVENE & 995 W. CHURCH AVENUE
FRESNO, CALIFORNIA**

This document was prepared for use only by the client, only for the purposes stated, and within a reasonable time from issuance. Non-commercial, educational and scientific use of this report by regulatory agencies is regarded as a "fair use" and not a violation of copyright. Regulatory agencies may make additional copies of this document for internal use. Copies may also be made available to the public as required by law. The reprint must acknowledge the copyright and indicate that permission to reprint has been received.

A Report Prepared for:

Busseto Foods
1090 W Church Avenue
Fresno, CA 93706

HABITAT ASSESSMENT
APNs: 477-030-20 & 477-030-21
2325 S. WEST AVENUE & 995 W. CHURCH AVENUE
FRESNO, CALIFORNIA

Project No: 20-102
January 12, 2021



Ryan Brosius
Staff Environmental Scientist

Precision Civil Engineering, Inc.
1234 O Street
Fresno, California 93721
(559) 449-4500

TABLE OF CONTENTS

<u>Chapter</u>	<u>Page</u>
1 EXECUTIVE SUMMARY	1
2 INTRODUCTION.....	2
2.1 <u>Project description</u>	2
2.2 <u>Project location</u>	2
2.3 <u>Purpose and need</u>	2
3 RELEVANT LAWS, REGULATIONS AND POLICIES	3
3.1 <u>California environmental quality act</u>	3
3.2 <u>Federal and state endangered species acts</u>	3
3.3 <u>Migratory bird treaty act</u>	4
3.4 <u>California state fish and game code birds of prey</u>	4
3.5 <u>Clean water act</u>	5
3.5.1 <u>Section 401: Water Quality</u>	5
3.5.2 <u>Section 404: Waters of the U.S. and Wetlands</u>	5
4 METHODOLOGY.....	6
4.1 <u>Background review</u>	6
4.2 <u>Site survey</u>	6
5 RESULTS.....	7
5.1 <u>Background review</u>	7
5.2 <u>Site Investigation</u>	7
5.2.1 <u>Site Habitat</u>	8
5.2.2 <u>Potential for Species to Occur on Site</u>	8
5.3 <u>Wetlands survey</u>	9
6 RECOMENDATIONS	11
7 REFERENCES	12
APPENDICES	
A. Tables	
1 Observed Flora	
2 Observed Fauna	
3 Special Status Species that Potentially Occur in the Sites Region	
B. Plates	
1 Project Vicinity Map	
2 CNDDDB Sighting Map	
3 Site Map	
4 Photographs	
5 Photographs	
C. Natural Diversity Database	
National Wetlands Inventory	

1 EXECUTIVE SUMMARY

Busseto Foods proposes to build an approximately 500,000 sf. food processing warehouse on the 18.9 acres of APNs: 477-030-20 & 477-030-21. The site is located at 2325 S. West Ave and 995 W. Church Ave in Fresno, Fresno County, California. The site is identified as APNs: 447-030-20 & 447-030-21 (See Appendix "B").

The purpose of this Habitat Assessment is to provide the project proponent with an assessment of the biological resources located on and adjacent to the site in relation to existing laws, regulations, and policies. This Report is used to evaluate whether the project would have a substantial adverse effect, either directly or indirectly, on any special status species, or on the habitat on which they depend.

There are 17 special status species that may occur in the site's vicinity, of which, 13 are endangered or threatened animals and four are endangered or threatened plants. According to the referenced data, no occurrences of special status species have been documented on the project site (California Department of Fish and Game Natural Diversity Data Base 2021). On December 17, 2020, Precision Civil Engineering biologists conducted a reconnaissance level survey of the project area to search for special status species, and to determine the potential presence of suitable habitat for these species. The site was surveyed using meandering pedestrian transects.

The site vegetation is primarily classified as agricultural habitat. This indicates that the vegetation on site and in the region is highly disturbed and is unlikely to follow natural vegetation patterns

Based on findings there is disturbed, marginally-suitable habitat for two state and/or federally listed sensitive status animal species adjacent the project impact area: California tiger salamander and Swainson's Hawk. Due to the sites disturbed nature, there is a low potential for these species to be present.

The project site's vegetation was checked for wetland and vernal pool species. There were no indicators of vernal pools or wetlands being present on the project site.

Based on the data gathered during the resource evaluation of the site, the proposed project, a food processing warehouse, has low potential to significantly impact the special status species and habitat resources onsite.

2 INTRODUCTION

2.1 PROJECT DESCRIPTION

The project consists of a proposed 500,000 sf. food processing warehouse. The site is located at 2325 S. West Ave & 995 W. Church Ave in Fresno, Fresno County, California. The site is identified as APNs: 477-030-20 & 477-030-21.

2.2 PROJECT LOCATION

The proposed project (site) is located south of W. Church Avenue between S. West Avenue and S. Teilman Avenue in Fresno, Fresno County California. The site is within the Fresno South 7.5 *Minute United States Geological Survey* (USGS) Quadrangles, at Township 14 South, Range 19 East, Section 17 of Mount Diablo Baseline and Meridian. The site consists of approximately 18.9-acres.

2.3 PURPOSE AND NEED

The purpose of this Habitat Assessment is to provide Busseto Foods with an assessment of the biological resources located on and adjacent to the site in relation to existing laws, regulations, and policies. This report is intended to assist the project proponent in making informed decisions regarding its proposed project, including suggested Best Management Practices to avoid/reduce special status species and habitat impacts and potentially costly mitigation and to provide the basis for an Initial Study for CEQA submittal.

3 RELEVANT LAWS, REGULATIONS AND POLICIES

The following laws, regulations, and policies are relevant to this project in terms of getting the appropriate regulatory/permit approval.

3.1 CALIFORNIA ENVIRONMENTAL QUALITY ACT

The California Environmental Quality Act (CEQA) (Public Resources Code 21000-21177) was enacted so that the environmental consequences of projects could be considered prior to the start of a project. CEQA has a number of objectives, two of which are to identify ways to avoid or reduce environmental impacts and to prevent environmental impacts by requiring the implementation of mitigation measures. Environmental impacts to biological resources are considered “significant” if they:

- 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 (CDFG), or U.S. Fish and Wildlife Service (FWS);
- 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 CDFG or FWS;
- Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means;
- Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites;
- Conflict with local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance;
- Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

3.2 FEDERAL AND STATE ENDANGERED SPECIES ACTS

Both the Federal Endangered Species Act (FESA) and the California Endangered Species Act (CESA) prohibit the “take” of species that are listed as either threatened or

endangered. The term “take” is defined under Section 9 of the FESA as to “harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, collect, or attempt to engage in any such conduct.” “Take” is further defined to include habitat modification or degradation where it results in death or injury to wildlife by significantly impairing essential behavioral patterns including but not limited to breeding, foraging, or sheltering. Any project which would jeopardize the continued existence of special status species is consequently unlawful.

Pursuant to FESA, the FWS regulates projects that may affect the continued existence of federally listed threatened or endangered species. Species are defined as threatened or endangered by the FWS if they are listed in Title 50 of the Code of Federal Regulations (CFR). An incidental take permit under Section 10 (a), or federal consultation under Section 7 of the FESA is required if project development may affect a federally listed species.

Pursuant to CESA, the California Department of Fish and Game regulates projects that may affect the continued existence of state listed threatened and endangered species. California listed species are provided in Title 14, California Code of Regulations (CCR), Sections 670.2 and 670.5. An incidental take permit under Section 2081 of the Fish and Game Code is required if project development may affect a state listed species.

“Special status species” is the collective term given to species identified in local or regional plans, policies, or regulations, or by the CDFG or FWS. A Habitat Assessment is conducted to determine whether the project would have a substantial adverse effect, either directly or indirectly, on any special status species, or on the habitat on which they depend.

3.3 MIGRATORY BIRD TREATY ACT

The Migratory Bird Treaty Act (MBTA), first enacted in 1918, implements domestically a series of treaties (on behalf of Canada) between the United States and Great Britain, Mexico, Japan, and the former USSR. The MBTA provides for international migratory bird protection, and authorizes the Secretary of the Interior to regulate the “taking” of migratory birds. The current list of species protected by the MBTA can be located in Title 50, CFR Section 10.13.

3.4 CALIFORNIA STATE FISH AND GAME CODE BIRDS OF PREY

Any impacts to nesting birds of prey in the order of Falconiformes or Strigiformes (raptors), which are protected by the local, state, or federal government would be considered unlawful. In addition, CDFG Code Section 3503.5 states that it is “unlawful to take, possess, or destroy the nest or eggs of any such bird or to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by this code or any regulation adopted pursuant thereto.” Any disturbance that could result in the

incidental loss of eggs or nestlings, or otherwise lead to nest abandonment is therefore considered unlawful.

3.5 CLEAN WATER ACT

3.5.1 Section 401: Water Quality

Under Section 401 of the CWA, EPA is granted authority to regulate activities that impact the quality of water. This authority in the State of California is delegated to State Water Resources Control Board, with Regional Water Quality Control Boards administering regulatory process. Under this regulatory process a project proponent must apply for the appropriate 401 permit if they plan to dredge, fill, or discharge to a Waters of the United States or a Water of the State.

3.5.2 Section 404: Waters of the U.S. and Wetlands

Under a Federal regulation, Section 404 of the CWA, the U.S. Army Corps of Engineers (USACE), has regulatory authority over the discharge of dredged and fill materials into Waters of the United States (WUS). WUS include all waters that are, have, or may be used for interstate and/or international commerce, including all water that is subject to the tide; all waters that are rivers, streams, sloughs, lakes, mudflats, sand flats, wetlands, wet meadows, prairie potholes, playa lakes, or natural ponds and the use, degradation, or destruction, of afore mentioned, which could affect interstate and international commerce; all impoundment of above mentioned; all tributaries of above mentioned; territorial seas; and all wetlands adjacent to above mentioned WUS. In areas where wetlands are absent, the jurisdictional boundary for the USACE is the ordinary high water mark (OHWM). OHWM is defined as “. . . the line on the shore established by the fluctuations of water and indicated by physical characteristics such as a clear, natural line impressed on the bank, shelving, changes in the character of the soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas.”

Wetlands can extend the jurisdiction of the USACE beyond the WUS boundary, and are subject to the same level of regulation under CWA Section 404. Wetlands are defined as “. . . those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions,” (30 CFR 328.3). The USACE has established 3 criteria, all of which must be met, for the determination of wetlands. The standards for the criteria and their use in the determination of jurisdiction are detailed in the “Corps of Engineers Wetlands Delineation Manual” – commonly called the “1987 Manual.”

4 METHODOLOGY

4.1 BACKGROUND REVIEW

Biological resource books, articles, and databases were reviewed to identify special-status species and sensitive habitats that might be present at or adjacent to the site. The databases accessed included: FWS special-status species database, the CDFG Natural Diversity Data Base (CNDDDB), FWS National Wetlands Inventory (NWI) GIS database, and the California Native Plant Society (CNPS) electronic inventory database. The map developed from these sources is provided in appendix "B" Plate 3.

4.2 SITE SURVEY

On December 17, 2020, Precision Civil Engineering (PCE) biologist, Mr. Ryan Brosius conducted a reconnaissance level survey of the project area to search for special status species, and to determine the potential presence of suitable habitat for these species. The site was surveyed using meandering pedestrian transects. Field binoculars were used to observe and identify animals encountered during the survey. Botanical species were identified, based on current available hand samples, to the species level whenever possible and recorded; otherwise they were recorded at the level of genus and or family. These surveys do not constitute CDFG and/or FWS Protocol level surveys for any specific species.

Indicators for wetlands and vernal pools were searched for within the project's boundaries. Wetland indicators are defined in the USACE protocols as described in the 1987 manual (Environmental Laboratory 1987). There are three indicators that the USACE use in this determination. They are: the predominance of wetland plants in the site's vegetation must be greater than fifty percent; the site must exhibit wetland hydrology which is confirmed by the presence of a combination of primary and secondary indicators; and the site's soils must show evidence of being inundated or hydric.

5 RESULTS

5.1 BACKGROUND REVIEW

A review of the previously mentioned databases identified the species listed in Appendix A. Table 3. The results from the different database were combined into a single table. There was a total of 17 special status species that are known to occur, or have the potential to occur in the site's vicinity. Of the 17 special status species that may occur in the site's vicinity, 13 are endangered or threatened animals and four are endangered or threatened plants. According to the CNDDDB GIS data, there were 12 special-status species known to occur within a 5-mile radius of the site. Of the 12 special-status species listed only four species are listed with a known location the remainder species are listed as located in Fresno, Ca (the city center).

A review of CNDDDB GIS sightings within a 2-mile radius of the site indicates a sighting of the Hoary bat and the San Joaquin pocket mouse to the northwest of the site.

The CNPS electronic inventory was reviewed to identify the special status plant species known to occur on the Fresno South quadrangle. The CNPS inventory of rare and endangered vascular plants of California includes occurrence records from CNDDDB as well as other references. No special status plants were identified within the Fresno South quadrangles.

5.2 SITE INVESTIGATION

The investigation was conducted on December 17, 2020. Field conditions were typical for winter at the site. The temperature was in the mid 50's during the day. The sky was overcast, and there was a light breeze throughout the day. Vegetation on site consisted of a few plants growing on the site. The site consisted of a disked and graded field and contained very little vegetation. 90% of the onsite vegetation consisted of ruderal weedy species and tumbleweed.

Ground fauna on site were predominantly observed along the perimeter of the site. Ground squirrel burrows were found around onsite power-poles, the onsite pump/well and along the southern fence line. Sightings of ground squirrels did not occur during the investigation.

Trees were not noted on the site or adjacent to the site. The site is bordered by an orchard to the east of the site and a water basin to the south of the site. An Industrial development/ Auto dismantling yard and disked field is located to the west of the site. A food processing facility and disked fields are located to the north of the site. Paved roadways border the site to the north and west. Several American crows and brewer's

black birds were observed on the site. American white pelicans, gulls, Great blue herons, American coots, and Egrets were observed in the water basin to the south of the site.

5.2.1 Site Habitat

The site vegetation is primarily classified as agricultural habitat. This habitat type is surrounded by extensively developed lands and roadways and ranks moderate to low in terms of wildlife value. 100% of the site was disked and graded fallow agricultural land that contained very little vegetation. Ruderal weedy species typically found in disturbed or agricultural modified plant communities were observed on the site. The height of the vegetation was typically less than 6 inches tall. This indicates that the vegetation on site and in the region is highly disturbed and is unlikely to follow natural vegetation patterns. The site is not expected to support native vegetation, due to disking activities.

Habitat located within agricultural lands ranks relatively low in wildlife values, due to heavy alteration by grazing and agricultural practices. Though the undeveloped margins of these lands can offer reasonable access to food and water for some species and serve as movement corridors through which a variety of wildlife could be expected to pass, they lack a cover component that would enable the vast majority of wildlife species to safely nest, forage and escape from predators.

The site is bound by W. Church Avenue and S. West Avenue to the north and west. Disked fields and industrial developments are located to the north and west. A basin is located to the south of the site. The basin is fenced in by a chain link fence. Very little vegetation is in the basin. A dirt road borders the site to the east beyond which is an orchard. Typical dominant vegetation included: Bermuda grass (*Cynodon dactylon*) and tumbleweed (*Amaranthus albus*). A complete list of flora species observed onsite can be found in appendix "A" Table 1.

5.2.2 Potential for Species to Occur on Site

One amphibian species has a low potential to occur onsite, The California Tiger Salamander (*Ambystoma californiense*). California Tiger Salamanders are found in grasslands, oak savanna, mixed woodland lowlands and lower elevation coniferous forests. The species will usually breed in seasonal temporary ponds, but may use slower moving creeks, streams, and perennial permanent waters for breeding. 95-98% of the life cycle of the California Tiger Salamander are spent in fossorial mammal burrows, and usually those of ground squirrels. Ground squirrel burrows and a perennial water source is present but due to the heavily impacted site conditions in the form of regular disking onsite and the lack of vegetation along the basin and a lack of breeding habitat the species is not likely to occur. This species was not observed during the site investigation and was not listed on the CNDDDB database in the vicinity of the site.

Swainson's hawk is a State-listed, threatened raptor species. Adult birds have dark brown heads with a dark breast band, which is contrasted by a lighter brown belly. In the dark morphs of the species, the entire body may be a sooty-brown to black color, except for the partially white throat. This species typically breeds in stands with few trees in western juniper-sage flats, riparian areas and oak savannah habitats, often in close proximity to agricultural areas. Swainson's hawks also require suitable foraging habitat comprised of grasslands, alfalfa and grain fields.

According to the CNDDDB database Swainson's hawk sightings were not observed within 10 miles of the site. No raptor nests (active) were observed on-site or immediately adjacent the project area. The project area does contain suitable nesting habitat in the form of mature trees adjacent to the site, but due to the heavily impacted sight conditions and the sight containing poor foraging habitat (grasslands, suitable agricultural crops) in the area, the species is not likely to occur.

Other mammals potentially using these areas as a travel corridor between different habitat types include: skunk (*Mephitis mephitis*), coyote (*Canis latrans*), gray fox (*Urocyon cinereoargenteus*), Virginia opossum (*Didelphis marsupialis*) and raccoon (*Procyon lotor*). No observations of these species were recorded during the survey.

5.3 WETLANDS SURVEY

Wetland indicators are defined in the U.S. Army Corps of Engineer protocols of the 1987 manual (Environmental Laboratory 1987). There are three categories of indicators, vegetation, hydrology and soils.

A preliminary wetland assessment was conducted at the subject site during PCE's reconnaissance-level site visit conducted on December 17, 2020. The survey was conducted by examining the site for wetland indicators, as described by the U.S. Army Corps of Engineers (USACE/Corps) Wetlands Delineation Manual (1987). According to USACE requirements, a potential wetland must contain primary wetland indicators for all three wetland criteria parameters: hydrophytic vegetation, hydric soils, and surface hydrology.

The approximately 18.9-acre site is comprised of agricultural land located on Atwater soils. On-site topography consisted of leveled agricultural land. Onsite elevation is at an elevation of 300 feet. A basin is located to the south of the site. Disked agricultural land and industrial development is located to the north and west of the site. An orchard is located to the east of the site.

Vegetation observed on-site included bermuda grass (*Cynodon dactylon*) and tumbleweed (*Amaranthus albus*). The site is maintained and appears to be regularly disked and contained very little vegetation. The plant species found within the proposed project site are upland or non-indicator species, and as such would not constitute wetland vegetation. No Obligate Wetland Indicator Species (Species that occur within wetlands 100% of the time) were observed on-site. The adjacent basin did not contain any vegetation and appears to be maintained and sprayed with an herbicide.

The site did not contain any ponds or standing water. A basin is located to the south of the site. The basin did contain water at the time of the site visit. The basin did not contain any structures to divert water onto the subject site.

Soils at the site are comprised of Atwater soils which is described as having very deep, well drained soils formed in granitic alluvium. The soils are coarse-loamy and cultivated. The soil is not listed as a hydric soil.

Because three of the three primary indicators (hydrology, hydrophytic vegetation and hydric soils) for preliminary wetlands evaluation were lacking onsite, it is unlikely that the subject site would be considered as a jurisdictional waters under USACE standards.

6 RECOMENDATIONS

Impacts to biological resources are separated into three categories based on the duration of impact. Long-term impacts are defined as those impacts that would cause permanent loss or adverse effects to the resource by construction, alteration, diversion or use other than has historically been implemented or accepted. Short-term or temporary impacts would be defined as those associated with construction-activities, or uses other than those normally practiced on site, such as elevated levels of noise and equipment traffic not normally associated with the site. No-significant impact would be defined as those associated with historical and current uses that do not alter, change, or otherwise significantly diminish the sites current condition.

Based on data gathered during the resource evaluation of the site, the proposed project, intends to develop the site as a food processing warehouse. Access to the site will be from S. West Avenue and W. Church Avenue. The current plans call for development of the entire site. The project has a low potential to significantly impact the resources on site; therefore no further studies are recommended.

7 REFERENCES

1. California Department of Fish and Game. California Fish and Game Code. Gould Publications: Binghamton, New York, 1995.
2. California Department of Fish and Game. California Natural Diversity Data Base. The Resources Agency: Sacramento, California, 2021
3. Hickman, James C. The Jepson Manual: Higher Plants of California. Berkeley, California: University of California Press, 1993.
4. Holland, R.F. Preliminary Description of the Terrestrial Natural Communities of California. Sacramento, California: Resources Agency, 1986.
5. U.S. USACE. Corps of Engineers Wetlands Delineation Manual. Department of the Army, 1987.
6. U.S. Fish and Wildlife Service. 1996. California GAP Analysis - GIS Vegetation Layer. Developed by UCSB Center for Biological Diversity.
7. U.S. Fish and Wildlife Service. 1996. California GAP Analysis - GIS Vegetation Layer. Developed by UCSB Center for Biological Diversity.
8. U.S. Geological Survey. 7.5 Minute Topographic Quadrangle Map, Fresno South.
9. Wetland Training Institute, Inc. Federal Wetland Regulation Reference Manual. B.N. Goode and R. J. Pierces (eds.) WTI 90-1, 1991.
10. U.S.D.A.- U.S.F.S, A Guide to Wildlife Habitats of California. Mayer, Kenneth E., and Laudenslayer, Jr.(eds.), 1988.
11. Sibley, David Allen, The Sibley Guide to Birds. Knopf, 2001.
12. Burt, William H., and Grossenheider, Richard P., Mammal, Peterson Field Guides (3rd ed.). Houghton Mifflin, 1980.
13. Ball, Daniel A., and et.al. , Weeds of the West (9th ed.). Grand Teton Lithography, 2002.
14. NatureServe 2021 - NatureServe Explorer: An online encyclopedia of life. <http://www.natureserve.org/explorer>. Accessed January 2021

APPENDIX A

Tables

Table 1
Observed Flora Species List
 2325 S. West Ave 995 W. Church Ave Fresno, Fresno County, California
 12/17/2020

FAMILY	SCIENTIFIC NAME	COMMON NAME	HABITAT TYPE	LIFE CYCLE TYPE	NATIVE VS. NON-NATIVE	WETLAND INDICATOR DESIGNATION
Amaranthaceae	<i>Amaranthus palmeri</i>	pigweed	disturbed habitat	annual-perennial	native	
Amaranthaceae	<i>Amaranthus albus</i>	tumbleweed	waste places, roadsides	annual	non-native	FACU
Asteraceae	<i>Xanthium strumarium</i>	common cocklebur	disturbed habitat	annual	native	FAC+
Asteraceae	<i>Matricaria discoidea</i>	pineapple weed	disturbed areas	annual		NL
Malvaceae	<i>Malva neglecta</i>	common mallow	disturbed habitat	annual		
Poaceae	<i>Cynodon dactylon</i>	Bermuda grass	disturbed areas	perennial	non-native	FAC
Poaceae	<i>Bromus madritensis</i>	brome	disturbed grassland		non-native	
Poaceae	<i>Festuca</i> sp. *	fescue	see note 2	annual-perennial	see note 3	see note 4

* - Field specimen for this specie identified to the genus level only due to desiccation or other condition of available samples.

Note 1 - Range of common names for species within genus.

Note 2 - Range of habitats for species within genus.

Note 3 - Species within this genus can be either native or non-native.

Note 4 - Range of indicators for species within genus.

Table 2.

Observed Fauna

2325 S. West Ave 995 W. Church Ave

Fresno, Fresno County, California

12/17/2020

SCIENTIFIC NAME	COMMON NAME
<i>Corvus brachyrhynchos</i>	American crow
<i>Euphagus cyanocephalus</i>	Brewer's Black bird
<i>Pelecanus erythrorhynchos</i>	American white pelican
<i>Laridae</i>	gull
<i>Ardea herodias</i>	Great blue heron
<i>Fulica americana</i>	American coot
<i>Ardeidae</i>	Egret

2325 S. West Ave and 995 W Church Ave - Fresno South Quad

Note: Species with Potential or Low Likelihood of occurring on site are discussed in more detail in text.

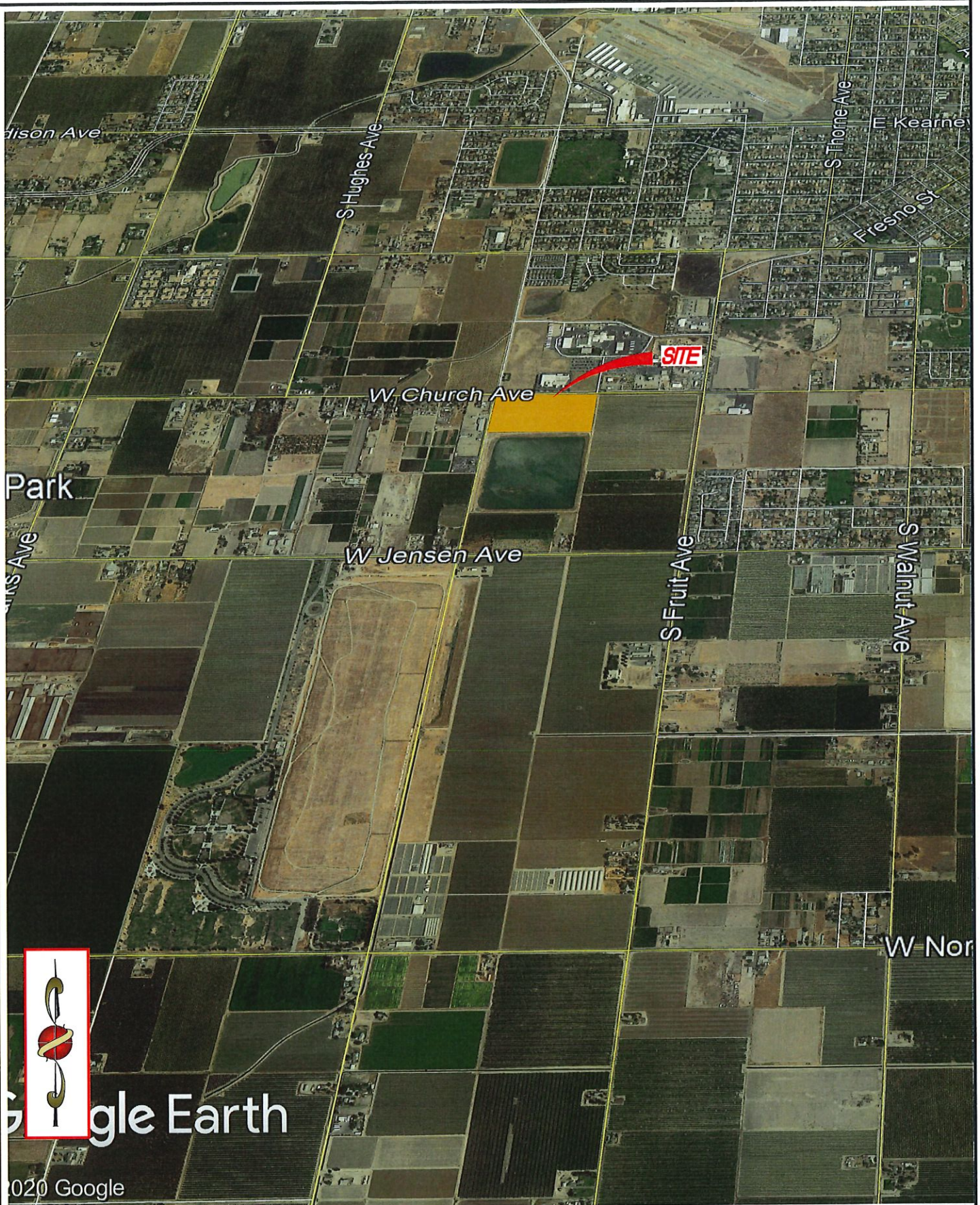
Scientific Nomenclature	Common Name	Status			Habitat Association and Distribution (CNDDDB) / Site Conditions	Likelihood of Occurring on the Project Site		
		Federal	State	Other		Not Expected	Low	Potential
<i>Bombus crotchii</i>	crotch bumble bee	SC			Coastal California east to the Sierra-Cascade Crest and south into Mexico. Food plant genera include antirrhinum, phacelia, clarkia, dendromecon, eschscholzia, and erigonum.	X		
<i>Efferia antiochi</i>	Antioch efferian robberfly				Known only from Contra Costa and Fresno Counties	X		
<i>Lytta molesta</i>	Molestan blister beetle	SC			Inhabits vernal pools and wetlands in the central valley of California, from Contra Costa to Kern and Tulare counties.	X		
<i>Metapogon hurdi</i>	Hurd's metapogon robberfly				Known only from Antioch (Dunes?) and Fresno	X		
<i>Ambystoma californiense</i>	California tiger salamander	E		CDFG: SC	Need underground refuges, especially ground squirrel burrows & vernal pools or other seasonal water sources for breeding. Federal listing refers to populations in Santa Barbara County only.		X	
<i>Anniella pulchra pulchra</i>	silvery legless lizard	SC		CDFG: SC	Soil moisture is essential. They prefer soils with high moisture content. Sandy or loose loamy soils under sparse vegetation.	X		
<i>Arizona elegans occidentalis</i>	California glossy snake	SC		CDFG: SC	Generalists reported from a range of scrub and grassland habitats, often with loose or sandy soils.	X		
<i>Phrynosoma blainvillii</i>	Coast horned lizard			BLM Sensitive	Chaparral, Cismontane woodland, Coast bluff scrub, Coastal scrub, Desert wash, Pinon & juniper woodlands, Riparian scrub, Riparian woodland, Valley & foothill grassland.	X		
<i>Buteo swainsoni</i>	Swainson's hawk		T		Requires adjacent suitable foraging areas such as grasslands, or alfalfa or grain fields supporting rodent populations. Breeds in stands with few trees in juniper-sage flats, riparian areas, and oak savannas		X	
<i>Antrozous pallidus</i>	Pallid bat	SC			Deserts, grasslands, shrublands, woodlands and forests. Most common in open, dry habitats with rocky areas for roosting. Roots must protect bats from high temperatures. Very sensitive to disturbance of roosting sites.	X		
<i>Eumops perotis californicus</i>	Greater western mastiff-bat	SC			Roosts in crevices in cliff faces, high buildings, trees & tunnels. Many open, semi-arid to arid habitats, including conifer & deciduous woodlands, coastal scrub, grasslands, chaparral etc	X		
<i>Lasiurus cinereus</i>	Hoary bat			LC	Broadleaved upland forest, cismontane woodland, lower.	X		
<i>Perognathus inornatus</i>	San Joaquin pocket mouse	SC			Needs friable soils. Typically found in grasslands and blue oak savannas.	X		
<i>Caulanthus californicus</i>	California jewel-flower	E	E	CNPS:1b	Historical from various valley habitats in both central valley and Carrizo plain. 65-900m. Chenopod scrub, valley and foothill grassland, pinyon juniper woodland.	X		
<i>Imperata brevifolia</i>	California satintail			CNPS: 2.1	Chaparral, Coastal scrub, Mojavean desert scrub, meadows and seeps often alkali, riparian scrub/ mesic.	X		
<i>Leptosiphon serrulatus</i>	Madera leptosiphon			CNPS: 1b	Cismontane coniferous forest, meadows and seeps. 300-1300 meters.	X		
<i>Tropidocarpum capparideum</i>	caper-fruited tropidocarpum				Valley and foothill grassland. Alkaline clay. 0-360 M.	X		

Legend:

C - Candidate Species
E - Endangered Species
T - Threatened Species
P - Proposed Species
R - Listed Rare
CA - Listed by CDFG but not FWS
PE - Proposed (Endangered)
PT - Proposed (Threatened)
SC - Species of Concern
SLC - Species of Local Concern

APPENDIX B

PLATES



P:\CIVIL 3D PROJECTS\202009-102\REPORTS\0105B-102.BIG EXHIBIT.DWG 1/15/2021 1:07:42 PM



Google Earth

© 2020 Google



EXHIBIT

DESCRIPTION:
SITE VICINITY MAP

PROJECT NAME:

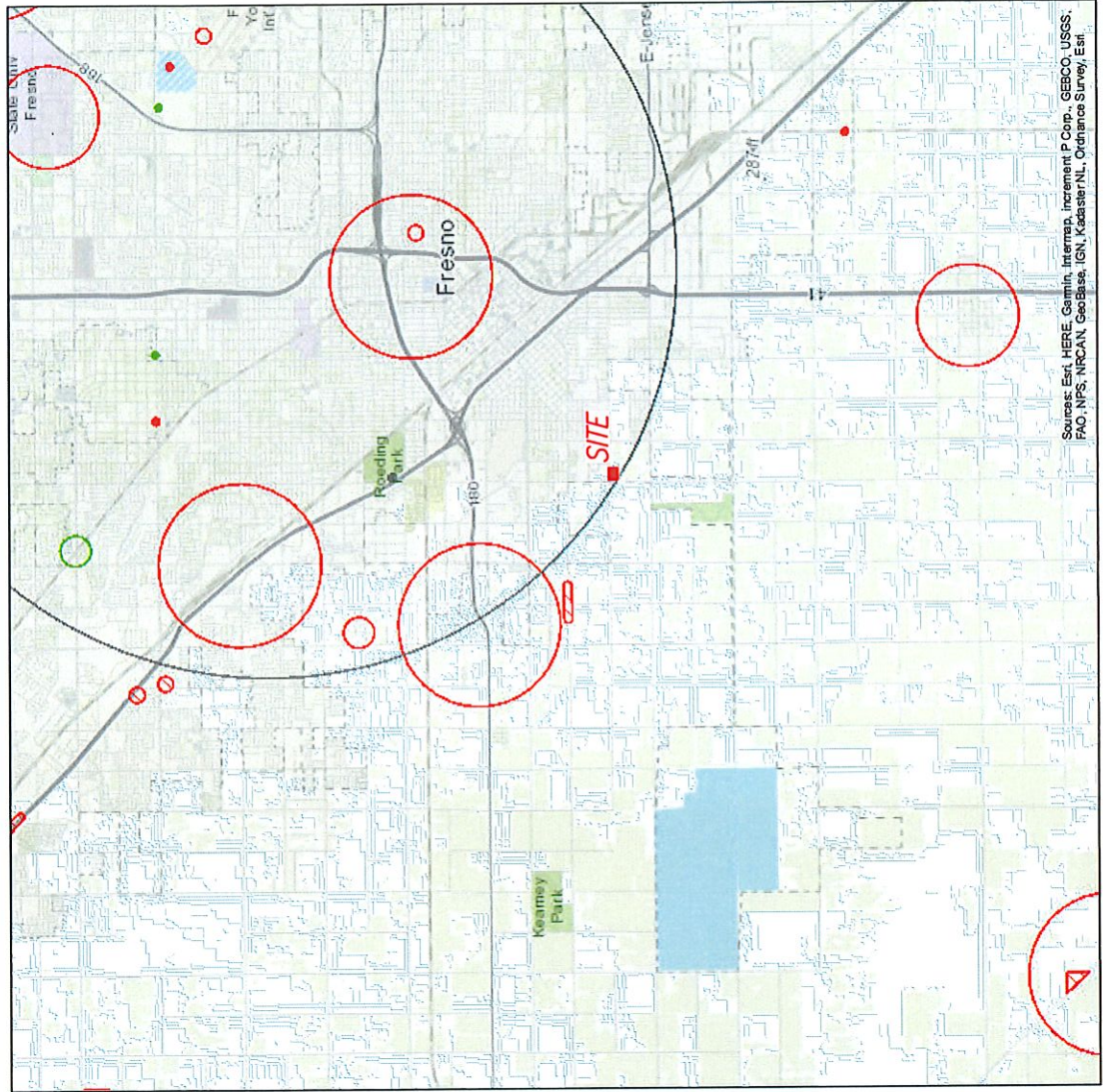
Busseto Foods Facility

PLATE 1

12-17-2020

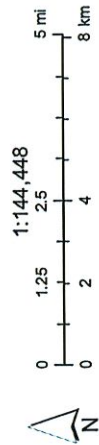
20-102

Busseto Foods Facility



California Natural Diversity Database (CNDDB) Commercial [ds85]

- Plant (80m)
- Plant (specific)
- Plant (non-specific)
- Plant (circular)
- Animal (80m)
- Animal (specific)
- Animal (non-specific)
- Animal (circular)
- Terrestrial Comm. (80m)
- Terrestrial Comm. (specific)
- Terrestrial Comm. (non-specific)
- Terrestrial Comm. (circular)
- Aquatic Comm. (80m)
- Aquatic Comm. (specific)
- Aquatic Comm. (non-specific)
- Aquatic Comm. (circular)
- Multiple (80m)
- Multiple (specific)
- Multiple (non-specific)
- Multiple (circular)
- Sensitive EO's (Commercial only)



1:144,448
January 11, 2021

Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, Geobase, IGN, Kansas State, Ordinance Survey, Esri

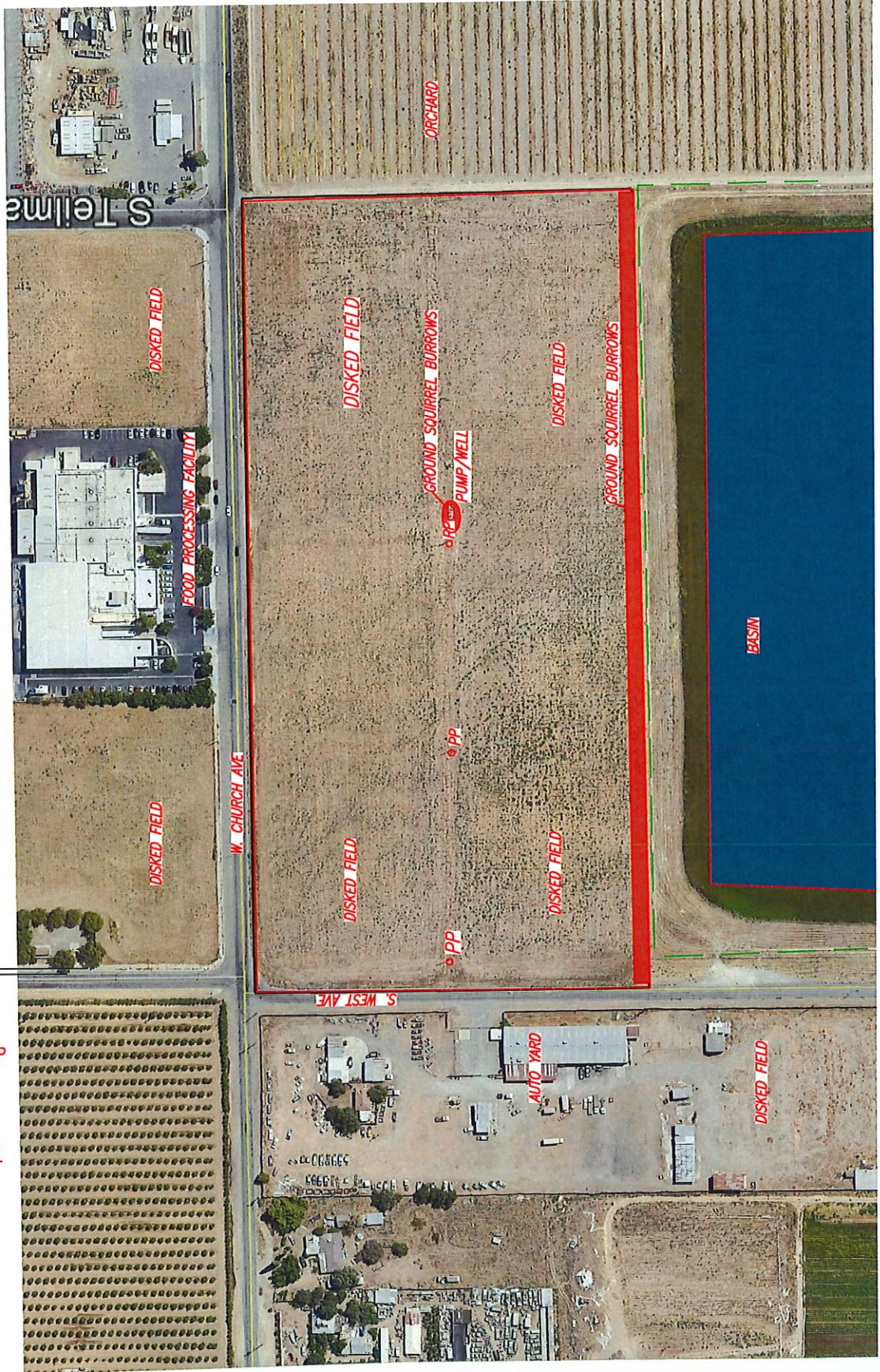
Author: rbustus@precision.net



EXHIBIT
DESCRIPTION:
CNDDB SIGHTING MAP

PROJECT NAME:
BUSSETO FOODS FACILITY
12/17/2020 20-102

PLATE 2



LEGEND

-  SITE
-  WELL ABOVEGROUND WATER WELL/PUMP
-  PP POLE-MOUNTED TRANSFORMER
-  GROUND SQUIRREL BURROWS



PROJECT: 20-102 BUSSETO FOODS FACILITY; DATE: 12/17/2020; TIME: 2:50:05 PM



EXHIBIT DESCRIPTION: SITE MAP	PROJECT NAME: BUSSETO FOODS FACILITY		PLATE 3
	12/17/2020	20-102	



LOOKING NORTH FROM THE SOUTHWEST CORNER OF THE SITE.



LOOKING EAST FROM THE SOUTHWEST CORNER OF THE SITE.



LOOKING WEST FROM THE SOUTHWEST CORNER OF THE SITE.



LOOKING NORTHWEST FROM THE SOUTHWEST CORNER OF THE SITE.



LOOKING WEST FROM THE NORTHEAST CORNER OF THE SITE.



LOOKING EAST FROM THE NORTHWEST CORNER OF THE SITE.

P:\CIVIL 3D PROJECTS\202009-102\REPORTS\101019-102_BUG_EXHIBIT.DWG 1/16/2021 2:03:33 PM



EXHIBIT
DESCRIPTION:
SITE PHOTOGRAPHS

PROJECT NAME:
BUSSETO FOODS FACILITY
12-17-2020 **20-102**

PLATE 4



IRRIGATION PIPING, AND POWER POLES LOCATED IN THE CENTER OF THE SITE.



LOOKING EAST FROM THE WESTERN CENTER OF THE SITE



BASIN LOCATED SOUTH OF THE SITE.

P:\CIVIL 3D PROJECTS\2020\20-102\REPORTS\BIO\20-102 BIO EXHIBIT.DWG 1/15/2021 2:51:58 PM

	EXHIBIT		PROJECT NAME:		PLATE 5
	DESCRIPTION: SITE PHOTOGRAPHS		BUSSETO FOODS FACILITY		
			12-17-2020	20-102	

APPENDIX C

Natural Diversity Database



Multiple Occurrences per Page
California Department of Fish and Wildlife
California Natural Diversity Database



Query Criteria: QuadIS (Fresno South (3611967))

Ambystoma californiense		Element Code: AAAAA01180		
California tiger salamander				
Listing Status:	Federal: Threatened	CNDDDB Element Ranks:	Global: G2G3	
	State: Threatened		State: S2S3	
	Other: CDFW_WL-Watch List, IUCN_VU-Vulnerable			
Habitat:	General: CENTRAL VALLEY DPS FEDERALLY LISTED AS THREATENED. SANTA BARBARA AND SONOMA COUNTIES DPS FEDERALLY LISTED AS ENDANGERED.			
	Micro: NEED UNDERGROUND REFUGES, ESPECIALLY GROUND SQUIRREL BURROWS, AND VERNAL POOLS OR OTHER SEASONAL WATER SOURCES FOR BREEDING.			
Occurrence No.	583	Map Index: 46277	EO Index: 46277	Element Last Seen: 1936-05-16
Occ. Rank:	None		Presence: Extirpated	Site Last Seen: 1936-05-16
Occ. Type:	Natural/Native occurrence		Trend: Unknown	Record Last Updated: 2002-08-20
Quad Summary:	Malaga (3611966), Fresno South (3611967), Clovis (3611976), Fresno North (3611977)			
County Summary:	Fresno			
Lat/Long:	36.77388 / -119.77951	Accuracy:	5 miles	
UTM:	Zone-11 N4073392 E251931	Elevation (ft):	300	
PLSS:	T13S, R20E, Sec. 27 (M)	Acres:	0.0	
Location:	FRESNO.			
Detailed Location:				
Ecological:				
General:	1879 RECORD FROM THE USNM (#11794), NO OTHER INFORMATION GIVEN. CORNELL UNIVERSITY MUSEUM OF VERTEBRATES #3017 (2 SPECIMENS) COLLECTED 16 MAY 1936 BY L.F. HADSELL. JENNINGS CONSIDERS THIS SITE EXTIRPATED.			
Owner/Manager:	UNKNOWN			



Multiple Occurrences per Page
California Department of Fish and Wildlife
California Natural Diversity Database



<i>Buteo swainsoni</i>		Element Code: ABNKC19070
Swainson's hawk		
Listing Status:	Federal: None	CNDDDB Element Ranks: Global: G5
	State: Threatened	State: S3
	Other: BLM_S-Sensitive, IUCN_LC-Least Concern, USFWS_BCC-Birds of Conservation Concern	
Habitat:	General: BREEDS IN GRASSLANDS WITH SCATTERED TREES, JUNIPER-SAGE FLATS, RIPARIAN AREAS, SAVANNAHS, & AGRICULTURAL OR RANCH LANDS WITH GROVES OR LINES OF TREES.	
	Micro: REQUIRES ADJACENT SUITABLE FORAGING AREAS SUCH AS GRASSLANDS, OR ALFALFA OR GRAIN FIELDS SUPPORTING RODENT POPULATIONS.	

Occurrence No.	2583	Map Index: 46277	EO Index: 91594	Element Last Seen: 1956-05-04
Occ. Rank:	Unknown		Presence: Presumed Extant	Site Last Seen: 1956-05-04
Occ. Type:	Natural/Native occurrence		Trend: Unknown	Record Last Updated: 2013-09-26

Quad Summary: Malaga (3611966), Fresno South (3611967), Clovis (3611976), Fresno North (3611977)
County Summary: Fresno

Lat/Long:	36.77388 / -119.77951	Accuracy:	5 miles
UTM:	Zone-11 N4073392 E251931	Elevation (ft):	300
PLSS:	T13S, R20E, Sec. 27 (M)	Acres:	0.0

Location: FRESNO.
Detailed Location: MAPPED GENERALLY TO GIVEN LOCALITY "NEAR FRESNO," EXACT DETECTION LOCATIONS UNKNOWN.
Ecological:
General: ACTIVE NEST(S) OBSERVED BY MINTURN ON 23 APR 1956 AND 4 MAY 1956, AS REPORTED IN BLOOM (1979).
Owner/Manager: UNKNOWN

Occurrence No.	2720	Map Index: A5139	EO Index: 106840	Element Last Seen: 2016-06-20
Occ. Rank:	Fair		Presence: Presumed Extant	Site Last Seen: 2016-06-20
Occ. Type:	Natural/Native occurrence		Trend: Unknown	Record Last Updated: 2017-06-29

Quad Summary: Malaga (3611966), Fresno South (3611967)
County Summary: Fresno

Lat/Long:	36.67196 / -119.75036	Accuracy:	80 meters
UTM:	Zone-11 N4062008 E254209	Elevation (ft):	288
PLSS:	T14S, R20E, Sec. 36, NW (M)	Acres:	5.0

Location: W SIDE OF RR TRACKS ABOUT 0.25 MI NE OF E MALAGA AVE AT S CEDAR AVE, 0.7 MI SW OF HWY 99 AT E CENTRAL AVE, SOUTH FRESNO.
Detailed Location: MAPPED TO PROVIDED COORDINATES.
Ecological: NEST IN TREE IN NON-NATIVE GRASSLAND WITHIN PASTURE WITH SCATTERED TREES. ADJACENT TO ROAD AND RAILROAD IN AGRICULTURAL AND RURAL RESIDENTIAL AREA.
General: NEST MONITORED IN 2016; ONE YOUNG WAS SUCCESSFULLY FLEDGED.
Owner/Manager: PVT



Multiple Occurrences per Page
California Department of Fish and Wildlife
California Natural Diversity Database



<i>Lasiurus cinereus</i>		Element Code: AMACC05030	
hoary bat			
Listing Status:	Federal: None	CNDDDB Element Ranks:	Global: G5
	State: None		State: S4
	Other: IUCN_LC-Least Concern, WBWG_M-Medium Priority		
Habitat:	General: PREFERS OPEN HABITATS OR HABITAT MOSAICS, WITH ACCESS TO TREES FOR COVER AND OPEN AREAS OR HABITAT EDGES FOR FEEDING.		
	Micro: ROOSTS IN DENSE FOLIAGE OF MEDIUM TO LARGE TREES. FEEDS PRIMARILY ON MOTHS. REQUIRES WATER.		
Occurrence No.	25	Map Index: 68488	EO Index: 68782
Occ. Rank:	Unknown	Presence: Presumed Extant	Element Last Seen: 1915-04-03
Occ. Type:	Natural/Native occurrence	Trend: Unknown	Site Last Seen: 1915-04-03
			Record Last Updated: 2007-03-15
Quad Summary:	Fresno South (3611967)		
County Summary:	Fresno		
Lat/Long:	36.72100 / -119.85331	Accuracy:	non-specific area
UTM:	Zone-11 N4067718 E245168	Elevation (ft):	270
PLSS:	T14S, R19E, Sec. 13 (M)	Acres:	31.0
Location:	FRESNO, CALIFORNIA AVE NEAR VALENTINE ST.		
Detailed Location:	MAPPED ACCORDING TO LAT/LONG COORDINATES WITH UNCERTAINTY OF 30 M AND LOCATION DESCRIPTION PROVIDED BY MANIS.		
Ecological:			
General:	1 FEMALE SPECIMEN (MVZ #21439) COLLECTED BY ADREY E. BORELL AND WALTER P. TAYLOR ON 3 APR 1915.		
Owner/Manager:	UNKNOWN		



Multiple Occurrences per Page
California Department of Fish and Wildlife
California Natural Diversity Database



<i>Antrozous pallidus</i>		Element Code: AMACC10010	
pallid bat			
Listing Status:	Federal: None	CNDDDB Element Ranks:	Global: G5
	State: None		State: S3
	Other: BLM_S-Sensitive, CDFW_SSC-Species of Special Concern, IUCN_LC-Least Concern, USFS_S-Sensitive, WBWG_H-High Priority		
Habitat:	General: DESERTS, GRASSLANDS, SHRUBLANDS, WOODLANDS AND FORESTS. MOST COMMON IN OPEN, DRY HABITATS WITH ROCKY AREAS FOR ROOSTING.		
	Micro: ROOSTS MUST PROTECT BATS FROM HIGH TEMPERATURES. VERY SENSITIVE TO DISTURBANCE OF ROOSTING SITES.		

Occurrence No.	147	Map Index:	66492	EO Index:	66606	Element Last Seen:	1909-10-06
Occ. Rank:	Unknown	Presence:	Presumed Extant	Site Last Seen:		Record Last Updated:	2006-10-02
Occ. Type:	Natural/Native occurrence	Trend:	Unknown				
Quad Summary:	Fresno South (3611967)						
County Summary:	Fresno						
Lat/Long:	36.74789 / -119.77191		Accuracy:	1/10 mile			
UTM:	Zone-11 N4070489 E252526		Elevation (ft):	310			
PLSS:	T14S, R20E, Sec. 02, NW (M)		Acres:	0.0			
Location:	FRESNO.						
Detailed Location:	MAPPED ACCORDING TO LAT/LONG COORDINATES GIVEN BY MANIS, WITH UNCERTAINTY OF 30 M. MAPPED LOCATION IS NEAR 1ST STREET AND GRANT AVE IN FRESNO.						
Ecological:							
General:	1 UNKNOWN SPECIMEN COLLECTED BY W.N. WEAR ON 6 OCT 1909, MVZ #9440.						
Owner/Manager:	UNKNOWN						



Multiple Occurrences per Page
California Department of Fish and Wildlife
California Natural Diversity Database



<i>Eumops perotis californicus</i>		Element Code: AMACD02011	
western mastiff bat			
Listing Status:	Federal: None	CNDDDB Element Ranks:	Global: G5T4
	State: None		State: S3S4
Habitat:	Other: BLM_S-Sensitive, CDFW_SSC-Species of Special Concern, WBWG_H-High Priority		
	General: MANY OPEN, SEMI-ARID TO ARID HABITATS, INCLUDING CONIFER & DECIDUOUS WOODLANDS, COASTAL SCRUB, GRASSLANDS, CHAPARRAL, ETC.		
	Micro: ROOSTS IN CREVICES IN CLIFF FACES, HIGH BUILDINGS, TREES AND TUNNELS.		

Occurrence No.	47	Map Index: 66290	EO Index: 66374	Element Last Seen: 1991-04-17
Occ. Rank:	Unknown		Presence: Presumed Extant	Site Last Seen: 1991-04-17
Occ. Type:	Natural/Native occurrence		Trend: Unknown	Record Last Updated: 2006-09-26
Quad Summary:	Fresno South (3611967), Fresno North (3611977)			
County Summary:	Fresno			
Lat/Long:	36.74878 / -119.78150		Accuracy: 1 mile	
UTM:	Zone-11 N4070613 E251672		Elevation (ft):	
PLSS:	T14S, R20E, Sec. 03 (M)		Acres: 0.0	
Location:	FRESNO.			
Detailed Location:	INCLUDES OBSERVATION FROM "FRESNO, WASHINGTON GRAMMAR SCHOOL."			
Ecological:				
General:	SPECIMENS COLLECTED APR 1895 & 20 NOV 1958 AND DEPOSITED AT CAS. 1 MALE SPECIMEN COLLECTED BY ARDREY E. BORELLI ON 6 OCT 1916 AT "WASHINGTON GRAMMAR SCHOOL," MVZ #35082. SPECIMEN COLLECTED 17 APR 1991 AND DEPOSITED AT MVZ.			
Owner/Manager:	UNKNOWN			

Occurrence No.	161	Map Index: 66420	EO Index: 66517	Element Last Seen: 1958-XX-XX
Occ. Rank:	Unknown		Presence: Presumed Extant	Site Last Seen: 1958-XX-XX
Occ. Type:	Natural/Native occurrence		Trend: Unknown	Record Last Updated: 2006-09-26
Quad Summary:	Fresno South (3611967)			
County Summary:	Fresno			
Lat/Long:	36.65045 / -119.79075		Accuracy: 3/5 mile	
UTM:	Zone-11 N4059725 E250529		Elevation (ft):	
PLSS:	T15S, R20E, Sec. 04 (M)		Acres: 0.0	
Location:	EASTON.			
Detailed Location:	EXACT LOCATION UNKNOWN. MAPPED ACCORDING TO LAT/LONG COORDINATES PROVIDED IN PIERSON & RAINEY.			
Ecological:				
General:	SPECIMENS COLLECTED IN 1968 AND DEPOSITED AT CSUF.			
Owner/Manager:	UNKNOWN			



Multiple Occurrences per Page
California Department of Fish and Wildlife
California Natural Diversity Database



<i>Perognathus inornatus</i>			Element Code: AMAFD01060		
San Joaquin pocket mouse					
Listing Status:	Federal:	None	CNDDDB Element Ranks:	Global:	G2G3
	State:	None		State:	S2S3
	Other:	BLM_S-Sensitive, IUCN_LC-Least Concern			
Habitat:	General:	GRASSLAND, OAK SAVANNA AND ARID SCRUBLAND IN THE SOUTHERN SACRAMENTO VALLEY, SALINAS VALLEY, SAN JOAQUIN VALLEY AND ADJACENT FOOTHILLS, SOUTH TO THE MOJAVE DESERT.			
	Micro:	ASSOCIATED WITH FINE-TEXTURED, SANDY, FRIABLE SOILS.			

Occurrence No.	16	Map Index:	14563	EO Index:	23951	Element Last Seen:	1915-11-20
Occ. Rank:	Unknown	Presence:	Presumed Extant	Site Last Seen:	1915-11-20	Record Last Updated:	1989-08-10
Occ. Type:	Natural/Native occurrence		Trend:	Unknown			
Quad Summary:	Fresno South (3611967), Fresno North (3611977)						
County Summary:	Fresno						
Lat/Long:	36.73689 / -119.85793			Accuracy:	1 mile		
UTM:	Zone-11 N4069494 E244808			Elevation (ft):			
PLSS:	T14S, R19E, Sec. 01, SW (M)			Acres:	0.0		
Location:	4 MI W FRESNO.						
Detailed Location:							
Ecological:							
General:	MVZ #21989.						
Owner/Manager:	UNKNOWN						

<i>Anniella pulchra</i>			Element Code: ARACC01020		
Northern California legless lizard					
Listing Status:	Federal:	None	CNDDDB Element Ranks:	Global:	G3
	State:	None		State:	S3
	Other:	CDFW_SSC-Species of Special Concern, USFS_S-Sensitive			
Habitat:	General:	SANDY OR LOOSE LOAMY SOILS UNDER SPARSE VEGETATION.			
	Micro:	SOIL MOISTURE IS ESSENTIAL. THEY PREFER SOILS WITH A HIGH MOISTURE CONTENT.			

Occurrence No.	116	Map Index:	46277	EO Index:	107017	Element Last Seen:	188X-XX-XX
Occ. Rank:	Unknown	Presence:	Presumed Extant	Site Last Seen:	188X-XX-XX	Record Last Updated:	2017-07-12
Occ. Type:	Natural/Native occurrence		Trend:	Unknown			
Quad Summary:	Malaga (3611966), Fresno South (3611967), Clovis (3611976), Fresno North (3611977)						
County Summary:	Fresno						
Lat/Long:	36.77388 / -119.77951			Accuracy:	5 miles		
UTM:	Zone-11 N4073392 E251931			Elevation (ft):	300		
PLSS:	T13S, R20E, Sec. 27 (M)			Acres:	0.0		
Location:	FRESNO.						
Detailed Location:	HISTORIC COLLECTION NEEDING MORE REFINED FIELD RESEARCH.						
Ecological:							
General:	TWO COLLECTED IN THE LATE 1800S, MOST LIKELY 1880S. IT'S NOT ENTIRELY CERTAIN WHAT NEWLY DESCRIBED ANNIELLA CONCEPT IS IN THIS AREA, BUT PAPPENFUSS & PARHAM (2013) IMPLY THESE WOULD BE A. PULCHRA.						
Owner/Manager:	UNKNOWN						



Multiple Occurrences per Page
California Department of Fish and Wildlife
California Natural Diversity Database



<i>Phrynosoma blainvillii</i>		Element Code: ARACF12100	
coast horned lizard			
Listing Status:	Federal: None	CNDDDB Element Ranks:	Global: G3G4
	State: None		State: S3S4
	Other: BLM_S-Sensitive, CDFW_SSC-Species of Special Concern, IUCN_LC-Least Concern		
Habitat:	General: FREQUENTS A WIDE VARIETY OF HABITATS, MOST COMMON IN LOWLANDS ALONG SANDY WASHES WITH SCATTERED LOW BUSHES.		
	Micro: OPEN AREAS FOR SUNNING, BUSHES FOR COVER, PATCHES OF LOOSE SOIL FOR BURIAL, AND ABUNDANT SUPPLY OF ANTS AND OTHER INSECTS.		

Occurrence No.	863	Map Index:	46277	EO Index:	103150	Element Last Seen:	1893-07-07
Occ. Rank:	None	Presence:	Possibly Extirpated	Site Last Seen:	1893-07-07	Record Last Updated:	2016-08-23
Occ. Type:	Natural/Native occurrence	Trend:	Unknown				
Quad Summary:	Malaga (3611966), Fresno South (3611967), Clovis (3611976), Fresno North (3611977)						
County Summary:	Fresno						
Lat/Long:	36.77388 / -119.77951		Accuracy:	5 miles			
UTM:	Zone-11 N4073392 E251931		Elevation (ft):	300			
PLSS:	T13S, R20E, Sec. 27 (M)		Acres:	0.0			
Location:	FRESNO.						
Detailed Location:	COLLECTION LOCALITIES GIVEN ONLY AS "FRESNO."						
Ecological:							
General:	4 COLLECTED ON UNKNOWN DATES BY ANONYMOUS COLLECTORS. 4 COLLECTED IN 1879. 3 COLLECTED ON 23 SEP 1891. 1 COLLECTED ON 7 JUL 1893. 1 COLLECTED ON UNKNOWN DATE PRIOR TO 1906.						
Owner/Manager:	UNKNOWN						



Multiple Occurrences per Page
California Department of Fish and Wildlife
California Natural Diversity Database



Arizona elegans occidentalis		Element Code: ARADB01017
California glossy snake		
Listing Status:	Federal: None	CNDDDB Element Ranks: Global: G5T2
	State: None	State: S2
	Other: CDFW_SSC-Species of Special Concern	
Habitat:	General: PATCHILY DISTRIBUTED FROM THE EASTERN PORTION OF SAN FRANCISCO BAY, SOUTHERN SAN JOAQUIN VALLEY, AND THE COAST, TRANSVERSE, AND PENINSULAR RANGES, SOUTH TO BAJA CALIFORNIA.	
	Micro: GENERALIST REPORTED FROM A RANGE OF SCRUB AND GRASSLAND HABITATS, OFTEN WITH LOOSE OR SANDY SOILS.	

Occurrence No.	1	Map Index: 46277	EO Index: 104841	Element Last Seen: 1893-07-04
Occ. Rank:	Unknown		Presence: Presumed Extant	Site Last Seen: 1893-07-04
Occ. Type:	Natural/Native occurrence		Trend: Unknown	Record Last Updated: 2017-03-02
Quad Summary:	Malaga (3611966), Fresno South (3611967), Clovis (3611976), Fresno North (3611977)			
County Summary:	Fresno			
Lat/Long:	36.77388 / -119.77951	Accuracy:	5 miles	
UTM:	Zone-11 N4073392 E251931	Elevation (ft):	300	
PLSS:	T13S, R20E, Sec. 27 (M)	Acres:	0.0	
Location:	FRESNO.			
Detailed Location:	EXACT LOCATION UNKNOWN, MAPPED TO CENTER OF FRESNO.			
Ecological:				
General:	1 MALE (A PARATYPE) WAS COLLECTED IN THIS VICINITY ON 4 JUL 1893.			
Owner/Manager:	UNKNOWN			



Multiple Occurrences per Page
California Department of Fish and Wildlife
California Natural Diversity Database



<i>Lytta molesta</i>			Element Code: IICOL4C030	
molestan blister beetle				
Listing Status:	Federal: None	CNDDDB Element Ranks:	Global: G2	
	State: None		State: S2	
	Other:			
Habitat:	General: INHABITS THE CENTRAL VALLEY OF CALIFORNIA, FROM CONTRA COSTA TO KERN AND TULARE COUNTIES.			
	Micro: <input type="checkbox"/>			

Occurrence No.	13	Map Index: 46277	EO Index: 64456	Element Last Seen: 19XX-XX-XX
Occ. Rank:	Unknown		Presence: Possibly Extirpated	Site Last Seen: 19XX-XX-XX
Occ. Type:	Natural/Native occurrence		Trend: Unknown	Record Last Updated: 2006-03-30
Quad Summary:	Malaga (3611966), Fresno South (3611967), Clovis (3611976), Fresno North (3611977)			
County Summary:	Fresno			
Lat/Long:	36.77388 / -119.77951	Accuracy:	5 miles	
UTM:	Zone-11 N4073392 E251931	Elevation (ft):	360	
PLSS:	T13S, R20E, Sec. 27 (M)	Acres:	0.0	
Location:	FRESNO.			
Detailed Location:				
Ecological:				
General:	LOCALITY FROM CALIFORNIA BEETLE PROJECT ONLINE DATABASE; COLLECTION INFORMATION NOT GIVEN. HISTORICAL RECORD; EXACT LOCATION UNKNOWN.			
Owner/Manager:	UNKNOWN			

<i>Efferia antiochi</i>			Element Code: IIDIP07010	
Antioch efferian robberfly				
Listing Status:	Federal: None	CNDDDB Element Ranks:	Global: G1G2	
	State: None		State: S1S2	
	Other:			
Habitat:	General: KNOWN ONLY FROM CONTRA COSTA AND FRESNO COUNTIES.			
	Micro: <input type="checkbox"/>			

Occurrence No.	2	Map Index: 46277	EO Index: 63436	Element Last Seen: 1954-12-15
Occ. Rank:	Unknown		Presence: Presumed Extant	Site Last Seen: 1954-12-15
Occ. Type:	Natural/Native occurrence		Trend: Unknown	Record Last Updated: 2005-12-08
Quad Summary:	Malaga (3611966), Fresno South (3611967), Clovis (3611976), Fresno North (3611977)			
County Summary:	Fresno			
Lat/Long:	36.77388 / -119.77951	Accuracy:	5 miles	
UTM:	Zone-11 N4073392 E251931	Elevation (ft):	300	
PLSS:	T13S, R20E, Sec. 27 (M)	Acres:	0.0	
Location:	FRESNO.			
Detailed Location:				
Ecological:				
General:	COLLECTED BY CHRIS THOMPSON; ALSO COLLECTED 24 OCT 1954 BY G. FRYMIRE. IN COLLECTION AT CSU FRESNO. PARATYPES.			
Owner/Manager:	UNKNOWN			



Multiple Occurrences per Page
California Department of Fish and Wildlife
California Natural Diversity Database



<i>Metapogon hurdi</i>			Element Code: IIDIP08010		
Hurd's metapogon robberfly					
Listing Status:	Federal: None		CNDDDB Element Ranks:	Global: G1G2	
	State: None			State: S1S2	
	Other:				
Habitat:	General: KNOWN ONLY FROM ANTIOCH (DUNES?) AND FRESNO.				
	Micro: □				

Occurrence No.	2	Map Index: 46277	EO Index: 60267	Element Last Seen:	1922-11-29
Occ. Rank:	Unknown		Presence: Possibly Extirpated	Site Last Seen:	1922-11-29
Occ. Type:	Natural/Native occurrence		Trend: Unknown	Record Last Updated:	2005-02-25
Quad Summary:	Malaga (3611966), Fresno South (3611967), Clovis (3611976), Fresno North (3611977)				
County Summary:	Fresno				
Lat/Long:	36.77388 / -119.77951		Accuracy:	5 miles	
UTM:	Zone-11 N4073392 E251931		Elevation (ft):	325	
PLSS:	T13S, R20E, Sec. 27 (M)		Acres:	0.0	
Location:	FRESNO.				
Detailed Location:	NO OTHER COLLECTION INFORMATION GIVEN.				
Ecological:					
General:	HISTORICAL SPECIMENS. 4 MALE AND 6 FEMALE PARATYPES.				
Owner/Manager:	UNKNOWN				

<i>Bombus crotchii</i>			Element Code: IIHYM24480		
Crotch bumble bee					
Listing Status:	Federal: None		CNDDDB Element Ranks:	Global: G3G4	
	State: Candidate Endangered			State: S1S2	
	Other:				
Habitat:	General: COASTAL CALIFORNIA EAST TO THE SIERRA-CASCADE CREST AND SOUTH INTO MEXICO.				
	Micro: FOOD PLANT GENERA INCLUDE ANTIRRHINUM, PHACELIA, CLARKIA, DENDROMECON, ESCHSCHOLZIA, AND ERIOGONUM.				

Occurrence No.	53	Map Index: 46277	EO Index: 98701	Element Last Seen:	1899-04-29
Occ. Rank:	Unknown		Presence: Presumed Extant	Site Last Seen:	1899-04-29
Occ. Type:	Natural/Native occurrence		Trend: Unknown	Record Last Updated:	2015-09-09
Quad Summary:	Malaga (3611966), Fresno South (3611967), Clovis (3611976), Fresno North (3611977)				
County Summary:	Fresno				
Lat/Long:	36.77388 / -119.77951		Accuracy:	5 miles	
UTM:	Zone-11 N4073392 E251931		Elevation (ft):	300	
PLSS:	T13S, R20E, Sec. 27 (M)		Acres:	0.0	
Location:	FRESNO.				
Detailed Location:	EXACT LOCATION UNKNOWN. MAPPED BY CNDDDB IN THE GENERAL VICINITY OF FRESNO.				
Ecological:					
General:	COLLECTED 29 APR 1899.				
Owner/Manager:	UNKNOWN				



Multiple Occurrences per Page
California Department of Fish and Wildlife
California Natural Diversity Database



<i>Tropidocarpum capparideum</i>		Element Code: PDBRA2R010
caper-fruited tropidocarpum		
Listing Status:	Federal: None	CNDDDB Element Ranks: Global: G1
	State: None	State: S1
	Other: Rare Plant Rank - 1B.1, SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden, USFS_S-Sensitive	
Habitat:	General: VALLEY AND FOOTHILL GRASSLAND.	
	Micro: ALKALINE CLAY. 0-360 M.	

Occurrence No.	22	Map Index: 46277	EO Index: 64783	Element Last Seen: 1930-04-12
Occ. Rank:	Unknown		Presence: Presumed Extant	Site Last Seen: 1930-04-12
Occ. Type:	Natural/Native occurrence		Trend: Unknown	Record Last Updated: 2006-05-19
Quad Summary:	Malaga (3611966), Fresno South (3611967), Clovis (3611976), Fresno North (3611977)			
County Summary:	Fresno			
Lat/Long:	36.77388 / -119.77951		Accuracy: 5 miles	
UTM:	Zone-11 N4073392 E251931		Elevation (ft):	
PLSS:	T13S, R20E, Sec. 27 (M)		Acres: 0.0	
Location:	FRESNO.			
Detailed Location:	EXACT LOCATION UNKNOWN. MAPPED BY CNDDDB CENTERED ON THE CITY OF FRESNO, MAKING THE ASSUMPTION THAT THE SITE DESCRIPTION WAS REFERRING TO THE CITY OF FRESNO, NOT TO THE COUNTY OF FRESNO.			
Ecological:				
General:	ONLY SOURCE OF INFORMATION FOR THIS OCCURRENCE IS A 1930 COLLECTION BY DE FOREST. NEEDS FIELDWORK.			
Owner/Manager:	UNKNOWN			



Multiple Occurrences per Page
California Department of Fish and Wildlife
California Natural Diversity Database



<i>Caulanthus californicus</i>		Element Code: PDBRA31010	
California jewelflower			
Listing Status:	Federal: Endangered	CNDDDB Element Ranks:	Global: G1
	State: Endangered		State: S1
	Other: Rare Plant Rank - 1B.1, SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden, SB_SBBG-Santa Barbara Botanic Garden, SB_UCBG-UC Botanical Garden at Berkeley		
Habitat:	General: CHENOPOD SCRUB, VALLEY AND FOOTHILL GRASSLAND, PINYON AND JUNIPER WOODLAND.		
	Micro: SANDY SOILS. 65-1860 M.		

Occurrence No.	38	Map Index:	46277	EO Index:	63230	Element Last Seen:	XXXX-XX-XX
Occ. Rank:	None	Presence:	Extirpated	Site Last Seen:	1986-XX-XX	Record Last Updated:	2016-04-18
Occ. Type:	Natural/Native occurrence		Trend:	Unknown			
Quad Summary:	Malaga (3611966), Fresno South (3611967), Clovis (3611976), Fresno North (3611977)						
County Summary:	Fresno						
Lat/Long:	36.77388 / -119.77951		Accuracy:	5 miles			
UTM:	Zone-11 N4073392 E251931		Elevation (ft):				
PLSS:	T13S, R20E, Sec. 27 (M)		Acres:	0.0			
Location:	FRESNO.						
Detailed Location:	EXACT LOCATION UNKNOWN, MAPPED IN THE GENERAL VICINITY OF FRESNO.						
Ecological:							
General:	SITE IS BASED ON AN UNDATED DAVIDSON COLLECTION, POSSIBLY MADE IN THE LATE 1890'S OR EARLY 1900'S. NO HABITAT REMAINS IN VICINITY OF FRESNO ACCORDING TO TAYLOR (1986).						
Owner/Manager:	UNKNOWN						

<i>Leptosiphon serrulatus</i>		Element Code: PDPLM09130	
Madera leptosiphon			
Listing Status:	Federal: None	CNDDDB Element Ranks:	Global: G3
	State: None		State: S3
	Other: Rare Plant Rank - 1B.2, BLM_S-Sensitive, USFS_S-Sensitive		
Habitat:	General: CISMONTANE WOODLAND, LOWER MONTANE CONIFEROUS FOREST.		
	Micro: DRY SLOPES; OFTEN ON DECOMPOSED GRANITE IN WOODLAND. 80-1645 M.		

Occurrence No.	23	Map Index:	46277	EO Index:	75591	Element Last Seen:	1922-05-XX
Occ. Rank:	Unknown	Presence:	Presumed Extant	Site Last Seen:	1922-05-XX	Record Last Updated:	2009-04-20
Occ. Type:	Natural/Native occurrence		Trend:	Unknown			
Quad Summary:	Malaga (3611966), Fresno South (3611967), Clovis (3611976), Fresno North (3611977)						
County Summary:	Fresno						
Lat/Long:	36.77388 / -119.77951		Accuracy:	5 miles			
UTM:	Zone-11 N4073392 E251931		Elevation (ft):				
PLSS:	T13S, R20E, Sec. 27 (M)		Acres:	0.0			
Location:	NEAR FRESNO.						
Detailed Location:	EXACT LOCATION UNKNOWN. MAPPED BY CNDDDB AS BEST GUESS AROUND FRESNO.						
Ecological:	FOOTHILLS.						
General:	ONLY SOURCE OF INFORMATION FOR THIS SITE IS A 1922 MINTHORN COLLECTION. NEEDS FIELDWORK.						
Owner/Manager:	UNKNOWN						



Multiple Occurrences per Page
California Department of Fish and Wildlife
California Natural Diversity Database



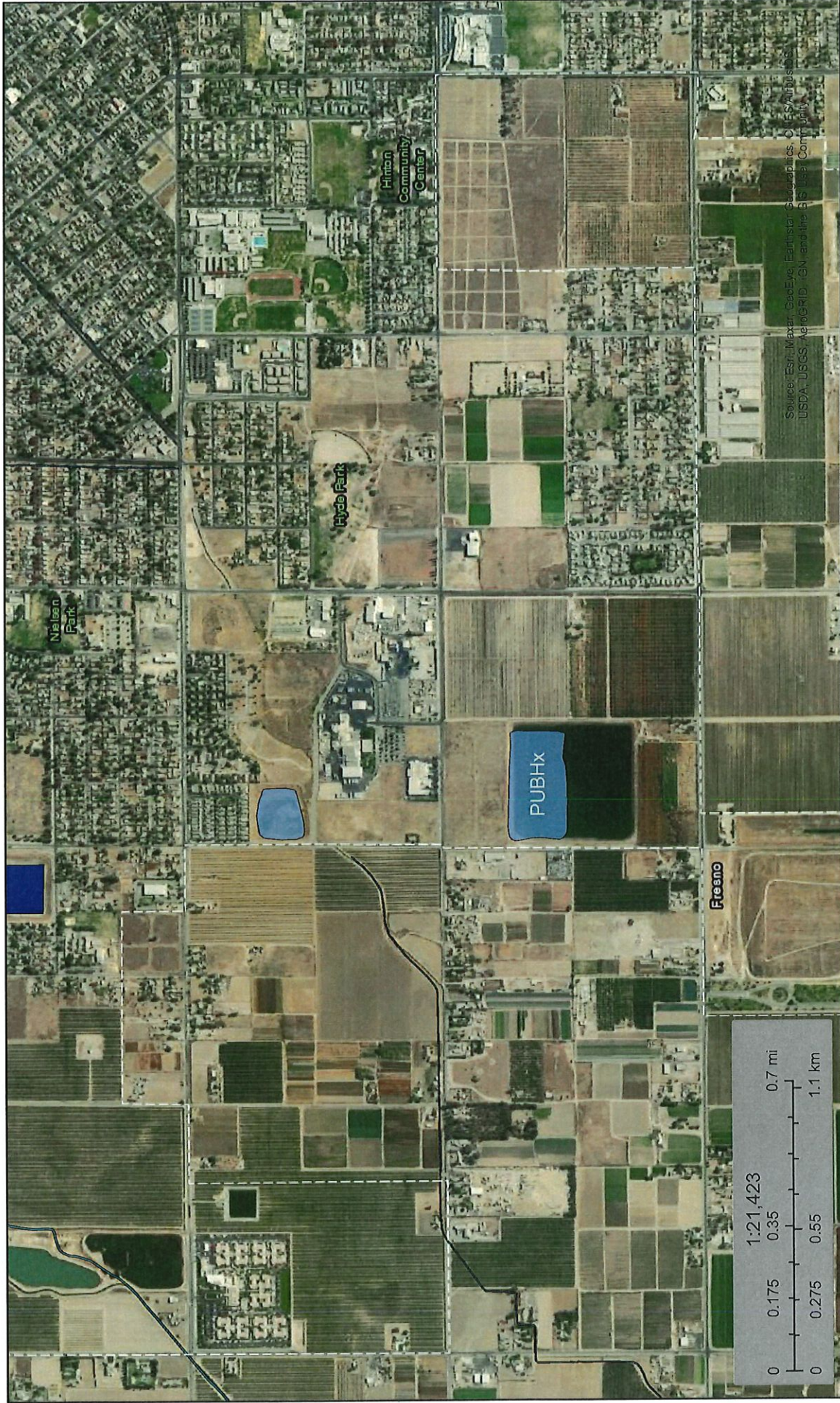
<i>Imperata brevifolia</i>		Element Code: PMPOA3D020	
California satintail			
Listing Status:	Federal: None	CNDDDB Element Ranks:	Global: G4
	State: None		State: S3
Other:	Rare Plant Rank - 2B.1, SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden, SB_SBBG-Santa Barbara Botanic Garden, USFS_S-Sensitive		
Habitat:	General:	COASTAL SCRUB, CHAPARRAL, RIPARIAN SCRUB, MOJAVEAN DESERT SCRUB, MEADOWS AND SEEPS (ALKALI), RIPARIAN SCRUB.	
	Micro:	MESIC SITES, ALKALI SEEPS, RIPARIAN AREAS. 3-1495 M.	

Occurrence No.	22	Map Index: 46277	EO Index: 69854	Element Last Seen:	1893-07-31
Occ. Rank:	Unknown		Presence: Presumed Extant	Site Last Seen:	1893-07-31
Occ. Type:	Natural/Native occurrence		Trend: Unknown	Record Last Updated:	2007-04-26
Quad Summary:	Malaga (3611966), Fresno South (3611967), Clovis (3611976), Fresno North (3611977)				
County Summary:	Fresno				
Lat/Long:	36.77388 / -119.77951		Accuracy:	5 miles	
UTM:	Zone-11 N4073392 E251931		Elevation (ft):	300	
PLSS:	T13S, R20E, Sec. 27 (M)		Acres:	0.0	
Location:	FRESNO.				
Detailed Location:	EXACT LOCATION UNKNOWN. MAPPED BY CNDDDB AS A BEST GUESS AROUND FRESNO.				
Ecological:					
General:	ONLY SOURCE OF INFORMATION FOR THIS OCCURRENCE IS AN 1893 COLLECTION BY WILSON, ET AL. NEEDS FIELDWORK.				
Owner/Manager:	UNKNOWN				



National Wetlands Inventory

Busseto Foods Facility Project



Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

January 11, 2021

Wetlands

- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Other
- Riverine



Appendix C: CHRIS Record Search Results

Prepared by San Joaquin Valley Information Center on October 5, 2020.



To: Jenna Chilingirian
Precision Civil Engineering, Inc.
1234 O Street
Fresno, CA 93721

Record Search 20-352

Date: October 5, 2020

Re: Food Processing, Warehousing, and Distribution Facility Project

County: Fresno

Map(s): Fresno South 7.5'

CULTURAL RESOURCES RECORDS SEARCH

The California Office of Historic Preservation (OHP) contracts with the California Historical Resources Information System's (CHRIS) regional Information Centers (ICs) to maintain information in the CHRIS inventory and make it available to local, state, and federal agencies, cultural resource professionals, Native American tribes, researchers, and the public. Recommendations made by IC coordinators or their staff regarding the interpretation and application of this information are advisory only. Such recommendations do not necessarily represent the evaluation or opinion of the State Historic Preservation Officer in carrying out the OHP's regulatory authority under federal and state law.

The following are the results of a search of the cultural resource files at the Southern San Joaquin Valley Information Center. These files include known and recorded cultural resources sites, inventory and excavation reports filed with this office, and resources listed on the National Register of Historic Places, the OHP Built Environment Resources Directory, California State Historical Landmarks, California Register of Historical Resources, California Inventory of Historic Resources, and California Points of Historical Interest. Due to processing delays and other factors, not all of the historical resource reports and resource records that have been submitted to the OHP are available via this records search. Additional information may be available through the federal, state, and local agencies that produced or paid for historical resource management work in the search area.

PRIOR CULTURAL RESOURCE STUDIES CONDUCTED WITHIN THE PROJECT AREA AND THE ONE-HALF MILE RADIUS

According to the information in our files, there have been no previous cultural resource studies conducted within the project area. There have been two studies conducted within the one-half mile radius, FR-02140 and FR-02175.

KNOWN/RECORDED CULTURAL RESOURCES WITHIN THE PROJECT AREA AND THE ONE-HALF MILE RADIUS

There are no known resources within the project area, and it is not known if any exist there. There has been one recorded resource within the one-half mile radius, P-10-004337, and historic era radio broadcasting station.

There are no recorded cultural resources within the project area or radius that are listed in the National Register of Historic Places, the California Register of Historical Resources, the California Points of Historical Interest, California Inventory of Historic Resources, or the California State Historic Landmarks.

COMMENTS AND RECOMMENDATIONS

We understand this project consists of construction of a food processing, warehousing, and distribution facility on land that is currently vacant and has not been previously developed. Because a cultural resources study has not been conducted on the project area, it is not known if any cultural resources are present there. Therefore, we recommend a qualified, professional archaeologist conduct a field survey prior to ground disturbance activities to determine if cultural resources are present. A list of qualified consultants can be found at www.chrisinfo.org.

We also recommend that you contact the Native American Heritage Commission in Sacramento. They will provide you with a current list of Native American individuals/organizations that can assist you with information regarding cultural resources that may not be included in the CHRIS Inventory and that may be of concern to the Native groups in the area. The Commission can consult their "Sacred Lands Inventory" file to determine what sacred resources, if any, exist within this project area and the way in which these resources might be managed. Finally, please consult with the lead agency on this project to determine if any other cultural resource investigation is required. If you need any additional information or have any questions or concerns, please contact our office at (661) 654-2289.

By:

Celeste M. Thomson, Coordinator

Date: October 5, 2020

Please note that invoices for Information Center services will be sent under separate cover from the California State University, Bakersfield Accounting Office.



Appendix D: Vehicle Miles Traveled Analysis

Prepared by JLB Traffic Engineering, Inc. on June 10, 2021.

Vehicle Miles Traveled Analysis

Busseto Foods

Located on the Southeast Corner of
West Avenue and Church Boulevard

In the City of Fresno, California

Prepared for:

Busseto Foods
1090 W. Church Avenue
Fresno, CA 93706

June 10, 2021

Project No. 039-003



Traffic Engineering, Transportation Planning, & Parking Solutions

516 W. Shaw Ave., Ste. 103

Fresno, CA 93704

Phone: (559) 570-8991

www.JLBtraffic.com



Traffic Engineering, Transportation Planning, & Parking Solutions

Vehicle Miles Traveled Analysis

For the Busseto Foods Project located on the Southeast Corner of West Avenue and Church Boulevard

In the City of Fresno, CA

June 10, 2021

This Vehicle Miles Traveled Analysis has been prepared under the direction of a licensed Traffic Engineer. The licensed Traffic Engineer attests to the technical information contained therein and has judged the qualifications of any technical specialists providing engineering data from which recommendations, conclusions and decisions are based.

Prepared by:

Jose Luis Benavides, P.E., T.E.

President



Traffic Engineering, Transportation Planning, & Parking Solutions

516 W. Shaw Ave., Ste. 103
Fresno, CA 93704
Phone: (559) 570-8991
www.JLBtraffic.com

Table of Contents

Project Description	1
VMT Analysis	1
Regulatory Setting.....	1
VMT Results	3
Conclusion.....	4
Study Participants	5
References	6

List of Tables

Table I: VMT Results	4
-----------------------------------	----------

List of Appendices

Appendix A: VMT Output

Project Description

This report describes a Vehicle Miles Traveled (VMT) Analysis prepared by JLB Traffic Engineering, Inc. (JLB) for the Busseto Foods Facility (Project) located on the southeast corner of West Avenue and Church Avenue in the City of Fresno. The Project proposes to develop a 477,470 square foot facility on 18.89 acres to use on for the processing, freezing and distribution of product. Based on information provided to JLB, the Project will undergo a General Plan Amendment and Rezone through the City of Fresno to change the land use designation from Medium Density Residential to General Light Industrial.

VMT Analysis

Regulatory Setting

Senate Bill (SB) 743 requires that relevant California Environmental Quality Act (CEQA) analysis of transportation impacts be conducted using a metric known as VMT instead of level of service (LOS). VMT measures how much actual auto travel (additional miles driven) a proposed project would create on California roads. If the project adds excessive car travel onto our roads, the project may cause a significant transportation impact.

The State CEQA Guidelines were amended to implement SB 743, by adding Section 15064.3. Among its provisions, Section 15064.3 confirms that, except with respect to transportation projects, a project's effect on automobile delay shall not constitute a significant environmental impact. Therefore, LOS measures of impacts on traffic facilities are no longer a relevant CEQA criteria for transportation impacts.

CEQA Guidelines Section 15064.3(b)(4) states that "[a] lead agency has discretion to choose the most appropriate methodology to evaluate a project's vehicle miles traveled, including whether to express the change in absolute terms, per capita, per household or in any other measure. A lead agency may use models to estimate a project's vehicle miles traveled, and may revise those estimates to reflect professional judgment based on substantial evidence. Any assumptions used to estimate vehicle miles traveled and any revision to model outputs should be documented and explained in the environmental document prepared for the project. The standard of adequacy in Section 15151 shall apply to the analysis described in this section."

On June 25, 2020, the City of Fresno adopted guidelines or thresholds for VMT pursuant to Senate Bill 743 to be effective July 1, 2020. The thresholds described therein are referred to herein as the City of Fresno VMT Thresholds. The City of Fresno VMT Thresholds document was prepared and adopted consistent with the requirements of CEQA Guidelines Sections 15064.3 and 15064.7. The December 2018 Technical Advisory on Evaluating Transportation Impacts in CEQA (TA) published by the Governor's Office of Planning and Research (OPR), was utilized as a reference and guidance document in the preparation of the Fresno VMT Thresholds.

The City of Fresno VMT Thresholds adopted a screening standard and criteria that can be used to screen out qualified development projects that meet the adopted criteria from needing to prepare a detailed VMT Analysis. These criteria may be size, location, proximity to transit, of trip making potential. In general development projects that are consistent with the City's General Plan and Zoning and that that meet one or more of the following criteria can be screened out from a quantitative VMT analysis.

1. Project Located in a Transit Priority Area/High Quality Transit Corridor (within 0.5 miles of a transit stop).
2. Project is Local-serving Retail of less than 50,000 square feet.
3. Project is a Low Trip Generator (Less than 500 average daily trips)
4. Project has a High Level of Affordable Housing Units
5. Project is an institutional/Government and Public Service Uses
6. Project is located in a Low VMT Zone

This screening tool is consistent with the OPR December 2018 Guidance referenced above. The screening tool includes an analysis of those portions of the City that satisfy the standard of reducing VMT by 13% from existing per capita and per employee VMT averages within the relevant region. The relevant region adopted by the City of Fresno VMT Thresholds is Fresno County.

However, the City of Fresno VMT Thresholds Section 3.1 regarding Development Projects states that "If a project constitutes a General Plan Amendment (GPA) or a Zone Change (ZC), none of the screening criteria may apply". Since this particular Project includes both a General Plan Amendment and a Zone Change, it does not meet the screening criteria. As such, a quantitative VMT analysis is required, and such was prepared utilizing the Fresno COG Activity Based Model (ABM).

For projects that are not screened out, a quantitative analysis of VMT impacts must be prepared and compared against the adopted VMT thresholds of significance. The Fresno VMT Thresholds document includes thresholds of significance for development projects, transportation projects, and land use plans. These thresholds of significance were developed using the County of Fresno as the applicable region, and the required reduction of VMT (as adopted in the Fresno VMT Thresholds) corresponds to Fresno County's contribution to the statewide GHG emission reduction target. In order to reach the statewide GHG reduction target of 15%, Fresno County must reduce its GHG emissions by 13%. The method of reducing GHG by 13% is to reduce VMT by 13% as well.

VMT Results

VMT is simply the product of a number of trips and those trips' lengths. The first step in a VMT analysis is to establish the baseline average VMT, which requires the definition of a region. The *CEQA Guidelines for Vehicle Miles Traveled Thresholds* for the City of Fresno provide that the Fresno County average VMT per Capita (appropriate for residential land uses) and Employee (appropriate for office/commercial non-retail land uses) are 16.1 and 25.6, respectively. The City's threshold targets a 13% reduction in VMT for residential and office/commercial non-retail land uses.

The City's adopted thresholds for development projects correspond to the regional averages modeled by Fresno COG's ABM. For residential and non-residential (except retail) development projects, the adopted threshold of significance is a 13% reduction, which means that projects that generate VMT in excess of a 13% reduction from the existing regional VMT per capita or per employee would have a significant environmental impact. Projects that reduce VMT by 13% or more are less than significant. For retail projects, the adopted threshold is any net increase in Regional VMT compared to the existing Regional VMT.

Quantitative assessments of the VMT generated by a development project are determined using the COG ABM, which is a tour-based model.

For mixed use projects, the City of Fresno VMT Thresholds state that the VMT can be estimated based on each component of the project, independently, after taking credit for internal trip capture. It also confirms that mixed use projects must use the Fresno COG's Activity Based Model. The VMT per capita (for the residential component) and the total VMT (for the retail component) is then compared against the relevant threshold.

The target VMT for residential and commercial non-retail land uses are $(16.1 \times (1-.13) = 14.0)$ 14.0 VMT per capita and $(25.6 \times (1-.13) = 22.3)$ 22.3 VMT per employee, respectively. In addition, for retail land uses the City's threshold targets a net zero (0) increase in Regional VMT for retail land uses (City of Fresno, 2020).

The Project's trip generation, anticipated maximum number of employment and square footages were provided to Fresno COG in order to conduct a Project-specific VMT analysis using the Fresno COG ABM for specific Project components. Table I summarizes the VMT results for the Project derived from Fresno COG ABM and the relevant threshold. Based on Fresno COG ABM VMT results, the Project has an average VMT per employee of 17.60 which is within the City's VMT threshold for commercial non-retail uses of 22.30 VMT per employee. Therefore, there are no impacts to VMT associated with this Project. Appendix A presents the Project VMT output from the Fresno COG model.

Conclusion

As can be seen in Table I below, Project VMT per employee is 17.60. This VMT per employee is within the City's Threshold for the commercial non-retail land use of a maximum of 22.30 VMT per employee. In conclusion, there are no impacts to VMT associated with this Project pursuant to the City of Fresno VMT analysis guidelines.

Table I: VMT Results

<i>Project Components</i>	<i>Fresno COG plus Project VMT Results¹</i>	<i>City of Fresno VMT Threshold²</i>	<i>Significant VMT Impact?</i>
Commercial Non-Retail	17.60 / employee	22.30 / employee	No

Note: 1 = VMT Results per Fresno COG ABM.

2 = VMT Threshold per *CEQA Guidelines for Vehicle Miles Traveled Thresholds* for the City of Fresno.

- Per the Fresno COG ABM, the Project's VMT output is projected to be 17.60 VMT per employee.
- The City of Fresno VMT threshold for commercial non-retail land uses is a maximum of 22.30 VMT per employee.
- As a result, there are no impacts to VMT associated with this Project.

Study Participants

JLB Traffic Engineering, Inc. Personnel

Jose Luis Benavides, PE, TE	Project Manager
Susana Maciel, EIT	Project Engineer
Matthew Arndt, EIT	Engineer I/II
Jesus Garcia	Engineer I/II
Dennis Wynn	Sr. Engineering Technician
Adrian Benavides	Engineering Aide
Christian Sanchez	Engineering Aide

Persons Consulted:

Michael Grazier	Busseto Foods
Jill Gormley	City of Fresno
Harmanjit Dhaliwal	City of Fresno
Gloria Hensley	Fresno County
Brian Spaunhurst	Fresno County
David Padilla	Caltrans
Christopher Nicholas	Caltrans
Jamaica Gentry	Caltrans
Kai Han	Fresno COG
Santosh Bhattarai	Fresno COG

References

- California Air Pollution Control Officers Association. 2010. "Quantifying Greenhouse Gas Mitigation Measures: A Resource For Local Government To Assess Emission Reductions From Greenhouse Gas Mitigation Measures". Sacramento: State of California.
- California Department of Transportation. 2002. "Guide For The Preparation Of Traffic Impact Studies". State of California.
- California Department of Transportation. 2020. "California Manual On Uniform Traffic Control Devices, FHWA's MUTCD 2009 Edition, including Revisions 1 & 2 as amended for use in California ". Sacramento: 2014 ed. State of California.
- City of Fresno. 2014. "Fresno General Plan". Fresno: City of Fresno.
- City of Fresno. 2016. "Active Transportation Plan". Fresno: City of Fresno.
- City of Fresno. 2020. "CEQA Guidelines For Vehicle Miles Traveled Thresholds". Fresno: City of Fresno,
- Fresno County. 2000. "Fresno County General Plan". Fresno: Fresno County.
- Governor's Office of Planning and Research. 2018. Technical Advisory On Evaluating Transportation Impacts In CEQA. Ebook. Sacramento: State of California, pp.1-34. Available at: <https://opr.ca.gov/docs/20190122-743_Technical_Advisory.pdf> [Accessed 20 January 2021].
- Institute of Transportation Engineers. 2017. "Trip Generation Manual". Washington: Institute of Transportation Engineers. Vol. 1-3.

Appendix A: Fresno COG Activity Based Model VMT Output



www.JLBtraffic.com
info@JLBtraffic.com

516 W. Shaw Ave., Ste. 103
Fresno, CA 93704
(559) 570-8991

App | A

Busseto Foods

TAZ	Employment	Veh VMT	Veh Trips	Trip Length	VMT per capita
2856	210	3698.05	372	9.93	17.6