

Initial Study

# Khalsa Truck Terminal Project

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## PROJECT INFORMATION

This document is the Initial Study for the potential environmental effects of the City of Kingsburg's (City) Khalsa Truck Terminal Project (Project). The City of Kingsburg will act as the Lead Agency for this project pursuant to the California Environmental Quality Act (CEQA) and the CEQA Guidelines. Copies of all materials referenced in this report are available for review in the project file during regular business hours at 1401 Draper Street, Kingsburg, CA 93631.

### Project title

Khalsa Truck Terminal Project

### Lead agency name and address

City of Kingsburg  
1401 Draper Street  
Kingsburg, CA 93631

### Contact person and phone number

Greg Collins, Contract City Planner  
City of Kingsburg  
(559) 897-5821

### Project location

The City of Kingsburg is located in Fresno County in the heart of the San Joaquin Valley. The proposed Project lies north of east Kamm Avenue, bounded diagonally to the north by State Route (SR) 99 and 825 feet from the south-bound off ramp. The Selma Colony Ditch runs north-south on the western boundary. The proposed truck terminal will be located on the approximately 14.56-acre lot assigned Assessor's Parcel Number (APN) 303-112-41S. An additional 7.11 acres, assigned APNs 393-112-52 and -54, are proposed for inclusion into the annexation, general plan amendment and re-zoning discussed below (see full Project Description). The City of Kingsburg lies northwest of Kings River and is traversed by SR 99 and SR 201.

Figure 1 – Location Map

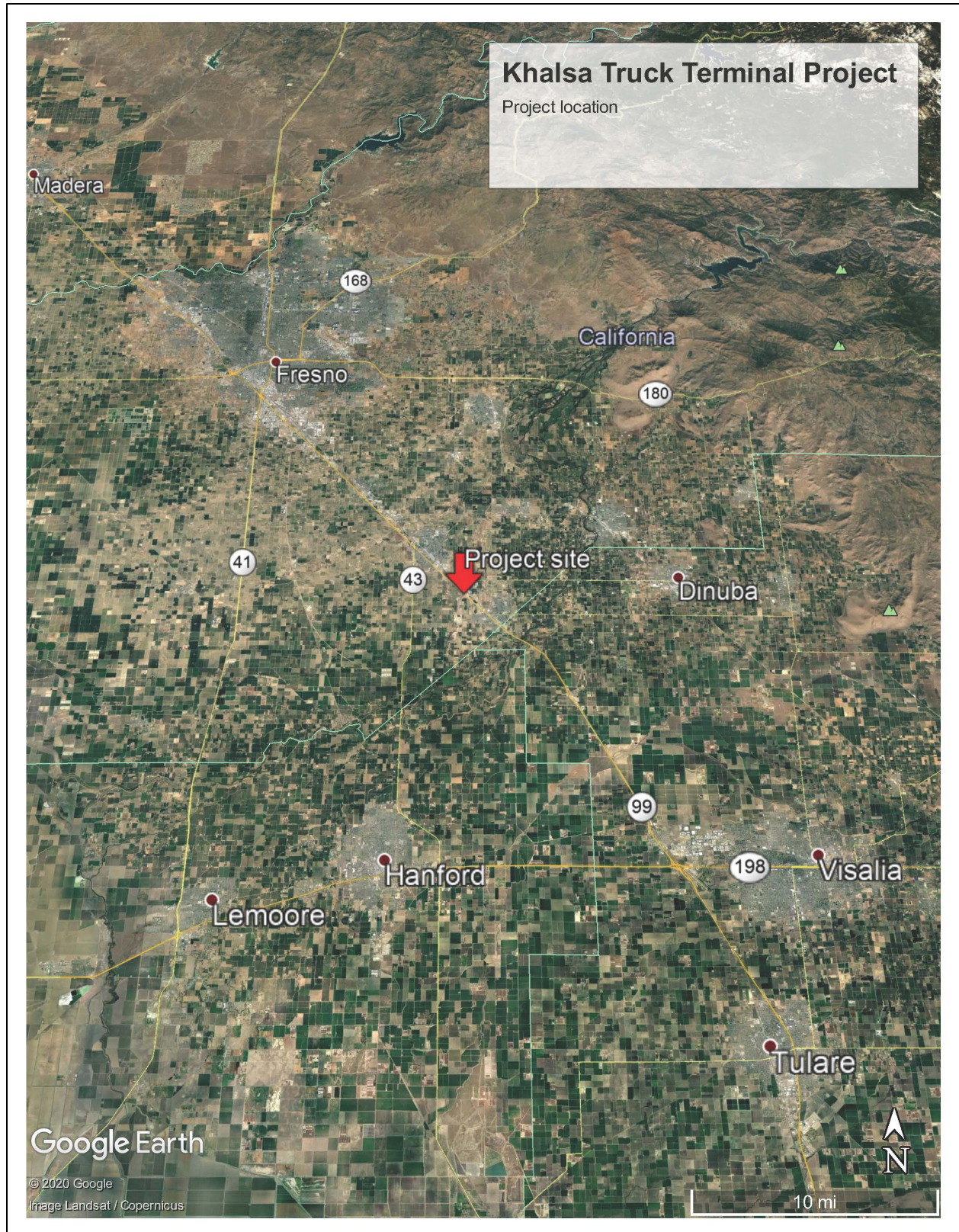
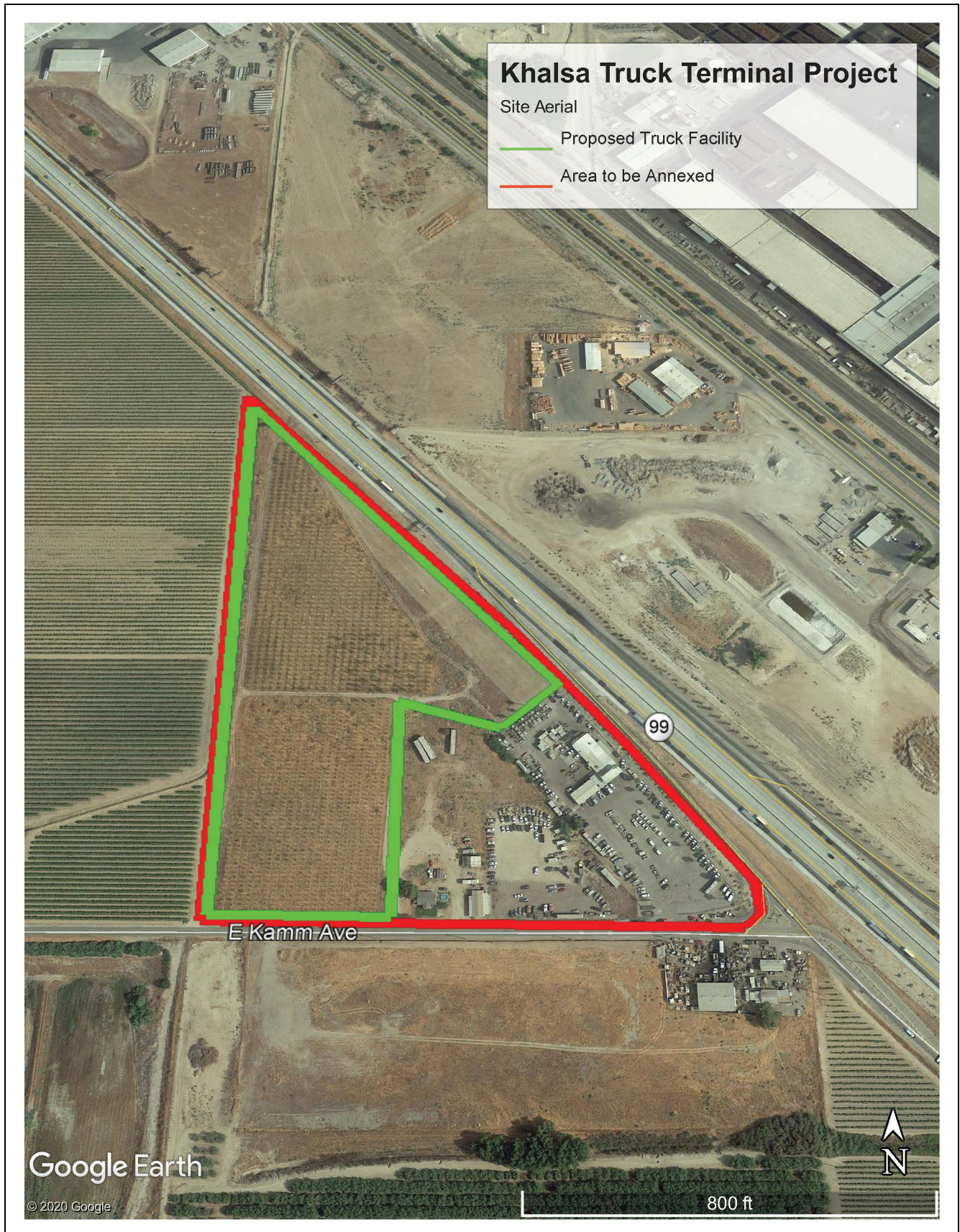




Figure 2 – Site Aerial



## Project sponsor's name/address

Khalsa Transportation Inc.  
13371 S. Fowler Avenue  
Selma, CA 93662

## General plan designation

Non-designated

## Zoning

C-6 (General Commercial, Fresno County)

## Project Description

The Project consists of the construction and operation of a new truck terminal Project immediately west of the City of Kingsburg. To accommodate the proposed Project, the following entitlements require approval by the City of Kingsburg:

- Annexation of approximately 21.67 acres from the County of Fresno into the City of Kingsburg, specifically:
  - 14.56-acre proposed Project site, APN 303-112-41S
  - APNs 393-112-52 and -54 totaling 7.11 acres
- A General Plan Amendment from Kingsburg's "non-designated" designation to the "highway commercial" designation.
- A Zoning Ordinance amendment from the Fresno County's general commercial (C-6) district to Kingsburg's highway commercial (CH) district.
- A Conditional Use Permit to allow the construction and operation of a 14.56-acre truck terminal. Specifically, the truck terminal will include the following components, as provided in Figure 3:
  - An 8,800 square-foot office building containing offices, dispatch center, meeting room, restrooms, storage and lunchrooms.
  - A 15,000 square-foot truck repair and maintenance building, containing two wash bays, one lube bay, two truck repair bays and an office/storage room.
  - Two fueling stations
  - Office parking containing 20 stalls
  - Truck parking containing 55 stalls
  - On-site well for domestic use and washing
  - On-site septic tank leach line system
  - On-site storm water basin



## Project Operations

The truck terminal facility is already operating at 13371 S. Fowler Avenue in Selma, approximately 4.6 miles to the west of the proposed new location, and all operations will be moved to the new location. The applicant is proposing a full-service truck terminal – parking, fueling, repair and maintenance, and restrooms. Hours of operation will be primarily from 8 am to 5 pm, however, trucks could be arriving and departing during all hours of the day. The truck operation currently employs and will continue to employ between 10 and 20 persons. These individuals are employed in the office and in the truck repair and maintenance building. A septic system/leach line will be installed and water for domestic use and truck washing will be obtained from an existing onsite well. It is anticipated that the proposed Project will use approximately 1,000 gallons of water per day.

Staff assumes that the truck fleet will be dispatched to locations in California and some adjoining states. Primary access to the subject site will be from a county-maintained road (Kamm Avenue), which has a paved width of approximately 25 feet and a right-of-way of 50 feet. Secondary access will be from the southbound Highway 99 off-ramp. Tertiary access will be from the west along Kamm Avenue.

## Surrounding Land Uses/Existing Conditions

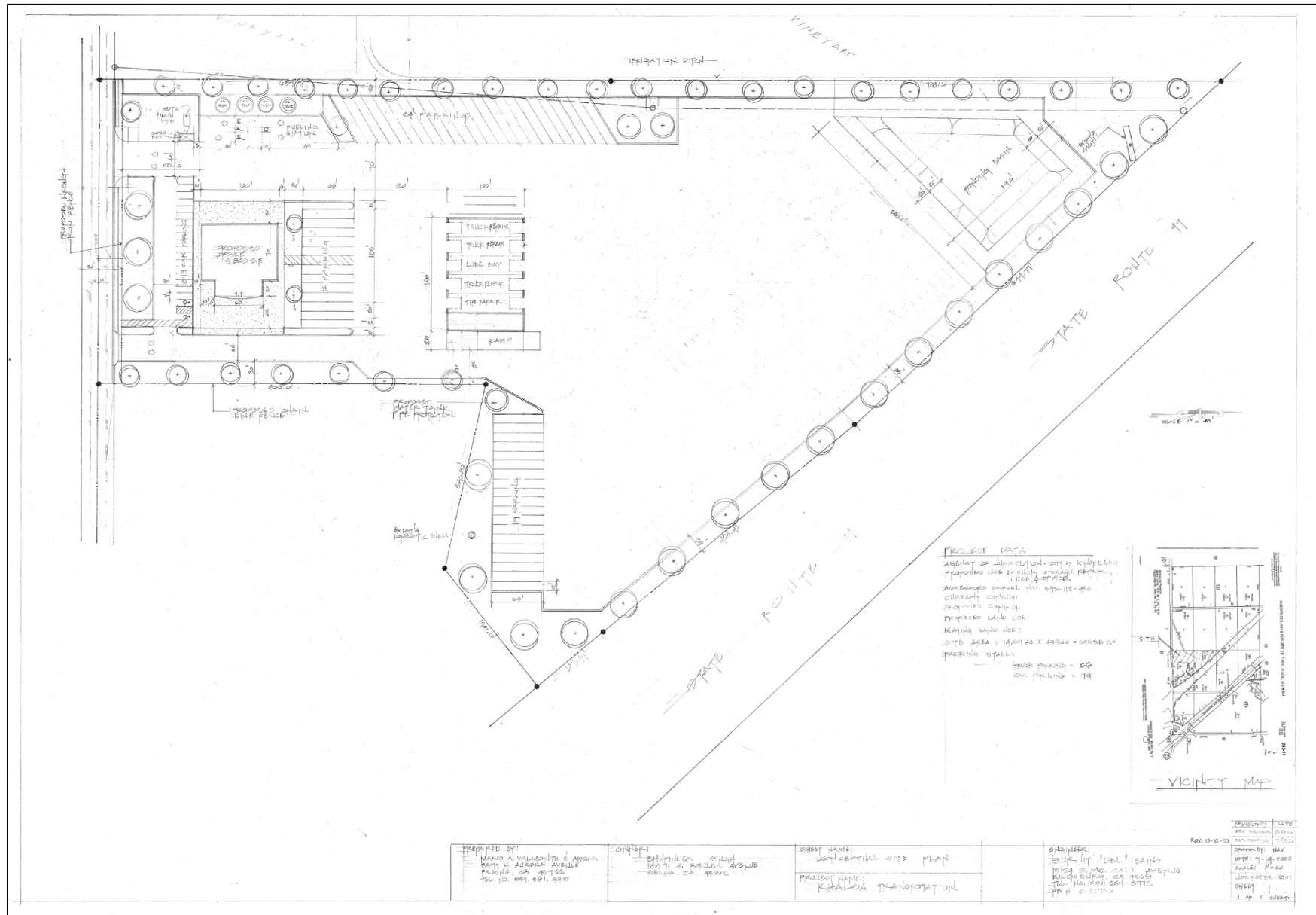
The proposed Project site is currently fallow land, formerly utilized for farming stone-fruit.

Lands surrounding the proposed Project are described as follows:

- North: SR 99, right-of-way.
- South: Vacant land, auto repair.
- East: Mobile home storage and truck sales.
- West: Vineyards and rural residential, single-family homes.



Figure 3 –Site Plan



## Other Public Agencies Involved

- State of California Native American Heritage Commission
- San Joaquin Valley Air Pollution Control District
- Central Valley Regional Water Quality Control Board
- Caltrans District 6

## Tribal Consultation

The City of Kingsburg has not received any project-specific requests from any Tribes in the geographic area with which it is traditionally and culturally affiliated with or otherwise to be notified about projects in the City of Kingsburg.

## ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

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

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

## DETERMINATION

On the basis of this initial evaluation:

- ☐ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
- ☒ I find that although the proposed project could have a significant effect on the environment,



there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

- ☐ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
- ☐ I find that the proposed project MAY have a “potentially significant impact” or “potentially significant unless mitigated” impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.
- ☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.



3/19/21

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On behalf of the City of Kingsburg

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Date

# ENVIRONMENTAL CHECKLIST

## I. AESTHETICS

### Would the project:

	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
a. Have a substantial adverse effect on a scenic vista?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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 regulations governing scenic quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d. Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

## ENVIRONMENTAL SETTING

The City of Kingsburg is located in the central portion of the San Joaquin Valley. The Project site resides in a primarily agricultural area, with row crops and orchards dominating the visual landscape. There is a mix of commercial uses nearby. The Project site is generally flat and bounded to the north by SR 99 and a right-of-way. Vacant land and an auto repair shop lie directly south of the Project site. Selma Colony Ditch runs north-south on the western boundary of the Project site, with vineyards and rural residential single-family homes further west. A mobile home storage yard and truck sales business lie directly to the east. There are no adopted scenic resources or scenic vistas in the area.

The existing visual character of the site area is dominated by nearby agriculture and commercial

business, as well as SR 99. The Project site currently consists of fallow land formerly used for stone fruit cultivation. Views of the proposed Project site area are possible from east Kamm Avenue and SR 99.

## RESPONSES

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

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

**Less Than Significant Impact.** A scenic vista is defined as a viewpoint that provides expansive views of highly valued landscape for the benefit of the general public. Views of the Coastal Range and Sierra Nevada Mountains are the only natural and visual resource in the Project area. Views of these distant mountains are afforded only during clear conditions due to poor air quality in the valley. Distant views of these mountains would largely be unaffected by the development of the Project because of the nature of the Project, distance and limited visibility of these features.

The Project site is within an urbanized area immediately northwest of the City of Kingsburg. There are no scenic highways, no scenic vistas or other protected scenic resources on or near the site. Visual character of the site is addressed further in Response C. below. Therefore, the Project has less than significant impact on scenic vistas or designated scenic resources or highways.

**Mitigation Measures:** None are required.

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

**Less Than Significant Impact.** The proposed Project would minimally alter the existing visual character of public views of the site by adding additional visual characteristics in the form of a truck terminal, which includes multiple buildings, wash and repair bays, parking and fueling stations. Annexation, general plan amendments and re-zoning are required for Project construction. The Project design would be subject to the Kingsburg's Building and Construction Ordinances adopted for the City's Municipal Code. Per the City's Regulations, detailed site plans and any building materials will be submitted by the Project developer to the City of Kingsburg. The plans shall be required prior to issuance of any permits. The review shall be substantially based on the site plans and elevations illustrated within this document.



The proposed Project will require the removal of a number of stone fruit trees, as the site was previously used for farming.

The improvements such as those proposed by the Project are typical of City industrial areas and are generally expected from residents of the City. These improvements would not substantially degrade the visual character of the area and would not diminish the visual quality of the area, as they would be consistent with the existing visual setting. The proposed Project itself is not visually imposing against the scale of the existing adjacent commercial buildings and nature of the surrounding area.

Therefore, the Project would have less than significant impacts on the visual character of the area.

**Mitigation Measures:** None are required.

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

**Less Than Significant Impact.** Nighttime lighting is necessary to provide and maintain safe, secure, and attractive environments; however, these lights have the potential to produce spillover light and glare and waste energy, and if designed incorrectly, could be considered unattractive. Light that falls beyond the intended area is referred to as “light trespass.” Types of light trespass include spillover light and glare. Minimizing all these forms of obtrusive light is an important environmental consideration. A less obtrusive and well-designed energy efficient fixture would face downward, emit the correct intensity of light for the use, and incorporate energy timers.

Spillover light is light emitted by a lighting installation that falls outside the boundaries of the property on which the installation is sited. Spillover light can adversely affect light-sensitive uses, such as residential neighborhoods at nighttime. Because light dissipates as it travels from the source, the intensity of a light fixture is often increased at the source to compensate for the dissipated light. This can further increase the amount of light that illuminates adjacent uses. Spillover light can be minimized by using only the level of light necessary, and by using cutoff type fixtures or shielded light fixtures, or a combination of fixture types.

Glare results when a light source directly in the field of vision is brighter than the eye can comfortably accept. Squinting or turning away from a light source is an indication of glare. The presence of a bright light in an otherwise dark setting may be distracting or annoying, referred to as discomfort glare, or it may diminish the ability to see other objects in the darkened environment, referred to as disability glare. Glare can be reduced by design features that block direct line of sight to the light source and that direct light downward, with little or no light emitted at high (near horizontal) angles, since this light would

travel long distances. Cutoff-type light fixtures minimize glare because they emit relatively low-intensity light at these angles.

Current sources of light in the Project area are from nearby commercial facilities, parking lot lighting and traffic lights from nearby roadways. The Project will necessitate security, service station and parking lot lighting. The truck terminal is expected to experience some nighttime use. Such lighting would be subject to City standards. Accordingly, potential impacts would be considered *less than significant*.

**Mitigation Measures:** None are required.

## II. AGRICULTURE AND FOREST RESOURCES

### Would the project:

	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Conflict with existing zoning for agricultural use, or a Williamson Act contract?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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))?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d. Result in the loss of forest land or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>



## ENVIRONMENTAL SETTING

The City of Kingsburg is located in southern Fresno County in the heart of the San Joaquin Valley. The site is currently comprised of fallow land, formerly utilized for stone fruit orchards. The Project site's surrounding lands consist primarily of agricultural lands to the west and further south, and commercial businesses immediately south, to the east and north past SR 99. Vacant land lies immediately south.

The majority of the approximately 14-acre site is classified as Prime Farmland by the Farmland Mapping and Monitoring Program (FMMP), with small portions of land classified as Urban and Built-Up Land and Semi-Agricultural & Rural Commercial Land.<sup>1</sup> The Project site is not under a Williamson Act contract and there is no forest land in the Project vicinity.

## RESPONSES

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.** The proposed Project site is currently fallowed but has historically been in agricultural production with stone fruit. According to the FMMP, approximately 10.52 acres of the site are designated as Prime Farmland, 3.26 acres are designated as Semi-Agricultural & Rural Commercial Land, and 0.04 acres are designated as Urban and Built-Up Land.

A Land Evaluation and Site Assessment (LESA) was conducted to analyze potential impacts resulting from the conversion of farmland. The LESA was developed by the California Department of Conservation to make determinations of the potential significance of a project's conversion of agricultural lands.<sup>2</sup>

As stated in the LESA, the model is composed of six different factors: two factors are based on measures of soil resource quality and four factors are based on a given project's size, water resource availability, surrounding agricultural lands, and surrounding protected resource lands. Each of these factors is separately rated on a 100-point scale, and weighted relative to one another before being combined into a single project score. This score becomes the basis for determining the significance of a project's agricultural conversion impacts. The site specific LESA results are provided in Table 1 and the associated worksheets are contained in their entirety in Appendix A.

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<sup>1</sup> California Department of Conservation. California Important Farmland Finder. <https://maps.conservation.ca.gov/DLRP/CIFF/>. Accessed December 2020.

<sup>2</sup> California Department of Conservation, Division of Land Resource Protection. Accessible at [http://www.conservation.ca.gov/dlrp/Pages/qh\\_les.aspx](http://www.conservation.ca.gov/dlrp/Pages/qh_les.aspx). Accessed December 2020.

**Table 1 – Land Evaluation and Site Assessment Model Scoring Summary**

Category	Factor	Raw Points	Factor Weight	Weighted Points	Comments
Land Evaluation	Land Capability Class	78.1	0.25	19.53	Majority of site is LCC III
	Storie Index	85.4	0.25	21.4	Majority of site is ranked as 80
	<b>Subtotal</b>		<b>0.50</b>	<b>40.93</b>	
Site Assessment	Project Size	10	0.15	1.5	
	Water Resource Availability	90	0.15	13.5	Groundwater is available via on-site wells
	Surrounding Agricultural Land	30	0.15	4.5	Approximately 50% of the surrounding land is considered farmland by the FMMP.
	Surrounding Protected Resource Lands	0	0.05	0.00	Only 44.86 acres in the surrounding land is under contract
	<b>Subtotal</b>		<b>0.50</b>	<b>19.5</b>	
Final Score				<b>60.43</b>	

Per the Department of Conservation, an agricultural site with a score between 60 to 79 points is, “Significant unless either SE or SA subscore is less than 20.”<sup>3</sup> As the proposed Project’s score totaled 60.43 (40.93 for the LE and 19.5 for the SA), the results of the conversion would be less than significant as the SA scored did not reach the 20 points or more scoring criteria threshold of “...less than 20...”.

As such, the Project’s impacts to conversion of Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland) would be *less than significant*.

**Mitigation Measures:** None are required.

<sup>3</sup> California Department of Conservation, Division of Land Resource Protection. Accessible at [http://www.conservation.ca.gov/dlrp/Pages/qh\\_les.aspx](http://www.conservation.ca.gov/dlrp/Pages/qh_les.aspx). Accessed December 2020.

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

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

**No Impact.** The Project site is not zoned for agriculture nor is the site covered by a Williamson Act contract. The Project is not zoned for forestland and does not propose any zone changes related to forest or timberland. There is *no impact*.

**Mitigation Measures:** None are required.

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

**No Impact.** No conversion of forestland, as defined under Public Resource Code or General Code, as referenced above, would occur as a result of the Project. There is *no impact*.

**Mitigation Measures:** None are required.

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

**Less Than Significant Impact.** As described in a), above, approximately 10.52 acres of the site are designated as Prime Farmland, 3.26 acres are designated as Semi-Agricultural & Rural Commercial Land, and 0.04 acres are designated as Urban and Built-Up Land, according to the FMMP. Site specific conversion impacts are determined to be less than significant. Conversion of the site results in a total LESA score of 60.43, which the Department of Conservation recognizes as a less than significant impact to Farmland. The Project proposes no development-inducing activities or components that would involve or result in other changes to the existing environment that could result in further conversion of Farmland to non-agricultural uses. The Project will not induce commercial or residential development nearby. No forest land is located on or adjacent to the Project site. As such, any impacts would be *less than significant*.

**Mitigation Measures:** None are required.

### III. AIR QUALITY

#### Would the project:

	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
a. Conflict with or obstruct implementation of the applicable air quality plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d. Result in other emissions (such as those leading to odors or adversely affecting a substantial number of people)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

### ENVIRONMENTAL SETTING

The climate of the City of Kingsburg and the San Joaquin Valley is characterized by long, hot summers and stagnant, foggy winters. Precipitation is low and temperature inversions are common. These characteristics are conducive to the formation and retention of air pollutants and are in part influenced by the surrounding mountains which intercept precipitation and act as a barrier to the passage of cold air and air pollutants.

The proposed Project lies within the San Joaquin Valley Air Basin, which is managed by the San Joaquin Valley Air Pollution Control District (SJVAPCD or Air District). National Ambient Air Quality Standards (NAAQS) and California Ambient Air Quality Standards (CAAQS) have been established for the following criteria pollutants: carbon monoxide (CO), ozone (O<sub>3</sub>), sulfur dioxide (SO<sub>2</sub>), nitrogen dioxide (NO<sub>2</sub>), particulate matter (PM<sub>10</sub> and PM<sub>2.5</sub>), and lead (Pb). The CAAQS also set standards for sulfates, hydrogen sulfide, and visibility.

Air quality plans or attainment plans are used to bring the applicable air basin into attainment with all state and federal ambient air quality standards designed to protect the health and safety of residents

within that air basin. Areas are classified under the Federal Clean Air Act as either “attainment”, “non-attainment”, or “extreme non-attainment” areas for each criteria pollutant based on whether the NAAQS have been achieved or not. Attainment relative to the State standards is determined by the California Air Resources Board (CARB). The San Joaquin Valley is designated as a State and Federal extreme non-attainment area for O<sub>3</sub>, a State and Federal non-attainment area for PM<sub>2.5</sub>, a State non-attainment area for PM<sub>10</sub>, and Federal and State attainment area for CO, SO<sub>2</sub>, NO<sub>2</sub>, and Pb.

Standards and attainment status for listed pollutants in the Air District can be found in Table 2. Note that both state and federal standards are presented.

**Table 2 - Standards and Attainment Status for Listed Pollutants in the Air District**

	<b>Federal Standard</b>	<b>California Standard</b>
Ozone	0.075 ppm (8-hr avg)	0.07 ppm (8-hr avg) 0.09 ppm (1-hr avg)
Carbon Monoxide	9.0 ppm (8-hr avg) 35.0 ppm (1-hr avg)	9.0 ppm (8-hr avg) 20.0 ppm (1-hr avg)
Nitrogen Dioxide	0.053 ppm (annual avg)	0.30 ppm (annual avg) 0.18 ppm (1-hr avg)
Sulfur Dioxide	0.03 ppm (annual avg) 0.14 ppm (24-hr avg) 0.5 ppm (3-hr avg)	0.04 ppm (24-hr avg) 0.25 ppm (1-hr avg)
Lead	1.5 µg/m <sup>3</sup> (calendar quarter) 0.15 µg/m <sup>3</sup> (rolling 3-month avg)	1.5 µg/m <sup>3</sup> (30-day avg)
Particulate Matter (PM <sub>10</sub> )	150 µg/m <sup>3</sup> (24-hr avg)	20 µg/m <sup>3</sup> (annual avg) 50 µg/m <sup>3</sup> (24-hr avg)
Particulate Matter (PM <sub>2.5</sub> )	15 µg/m <sup>3</sup> (annual avg)	35 µg/m <sup>3</sup> (24-hr avg) 12 µg/m <sup>3</sup> (annual avg)

*µg/m<sup>3</sup> = micrograms per cubic meter*

Additional State regulations include:

CARB Portable Equipment Registration Program – This program was designed to allow owners and operators of portable engines and other common construction or farming equipment to register their equipment under a statewide program so they may operate it statewide without the need to obtain a permit from the local air district.



U.S. EPA/CARB Off-Road Mobile Sources Emission Reduction Program – The California Clean Air Act (CCAA) requires CARB to achieve a maximum degree of emissions reductions from off-road mobile sources to attain State Ambient Air Quality Standards (SAAQS); off-road mobile sources include most construction equipment. Tier 1 standards for large compression-ignition engines used in off-road mobile sources went into effect in California in 1996. These standards, along with ongoing rulemaking, address emissions of nitrogen oxides (NOX) and toxic particulate matter from diesel engines. CARB is currently developing a control measure to reduce diesel PM and NOX emissions from existing off-road diesel equipment throughout the state.

California Global Warming Solutions Act – Established in 2006, Assembly Bill 32 (AB 32) requires that California’s GHG emissions be reduced to 1990 levels by the year 2020. This will be implemented through a statewide cap on GHG emissions, which was phased in beginning in 2012. AB 32 requires CARB to develop regulations and a mandatory reporting system to monitor global warming emissions levels.

The Project includes relocation of the existing terminal operations which are located at 1371 S. Fowler Avenue in Selma, CA, and construction of a new 8,800 square foot office building, 15,000 square foot repair and maintenance building, and two diesel fueling stations. The Project was assessed as if it would be developed in one phase. This assessment considers the existing emissions at the Selma location as the Project proponent’s “baseline” emissions and examines the projected net impacts to air quality posed by this Project to the San Joaquin Valley Air Basin. The net change in emissions from the Selma operation to the Project location and operation were used to determine whether or not the Project remains below established air quality thresholds of significance.

The forthcoming impact analysis is based on the Focused Air Quality Study for the Khalsa Truck Terminal Relocation Project, prepared by Trinity Consultants, which is provided in Appendix B.

## RESPONSES

### a. Conflict with or obstruct implementation of the applicable air quality plan?

**Less Than Significant Impact.** The proposed Project lies within the San Joaquin Valley Air Basin (SJVAB). At the Federal level, the SJVAB is designated as extreme nonattainment for the 8-hour ozone standard, attainment for PM<sub>10</sub> and CO, and nonattainment for PM<sub>2.5</sub>. At the State level, the SJVAB is designated as nonattainment for the 8-hour ozone, PM<sub>10</sub>, and PM<sub>2.5</sub> standards. Although the Federal 1-hour ozone standard was revoked in 2005, areas must still attain this standard, and the SJVAPCD

recently requested an EPA finding that the SJVAB has attained the standard based on 2011-2013 data<sup>4</sup>. To meet Federal Clean Air Act (CAA) requirements, the SJVAPCD has multiple air quality attainment plan (AQAP) documents, including:

- Extreme Ozone Attainment Demonstration Plan (EOADP) for attainment of the 1-hour ozone standard (2004);
- 2007 Ozone Plan for attainment of the 8-hour ozone standard;
- 2007 PM<sub>10</sub> Maintenance Plan and Request for Redesignation; and
- 2008 PM<sub>2.5</sub> Plan.

Because of the region's non-attainment status for ozone, PM<sub>2.5</sub>, and PM<sub>10</sub>, if the project-generated emissions of either of the ozone precursor pollutants (ROG or NO<sub>x</sub>), PM<sub>10</sub>, or PM<sub>2.5</sub> were to exceed the SJVAPCD's significance thresholds, then the project uses would be considered to conflict with the attainment plans. In addition, if the project uses were to result in a change in land use and corresponding increases in vehicle miles traveled, they may result in an increase in vehicle miles traveled that is unaccounted for in regional emissions inventories contained in regional air quality control plans.

The annual significance thresholds to be used for the Project for construction and operational emissions are as follows<sup>5</sup>:

- 10 tons per year ROG;
- 10 tons per year NO<sub>x</sub>;
- 15 tons per year PM<sub>10</sub>; and
- 15 tons per year PM<sub>2.5</sub>.

The project will result in both construction emissions and operational emissions as described below.

#### *Short-term Emissions*

Table 3 provides the construction emission levels using CalEEMod factors for construction of a 23,800 square foot general light industrial facility.

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<sup>4</sup> San Joaquin Valley Air Pollution Control District. Guide to Assessing and Mitigating Air Quality Impacts. March 19, 2015. Page 28. [http://www.valleyair.org/transportation/GAMAQI\\_3-19-15.pdf](http://www.valleyair.org/transportation/GAMAQI_3-19-15.pdf). Accessed December 2020.

<sup>5</sup> San Joaquin Valley Air Control District – Air Quality Threshold of Significance – Criteria Pollutants. <http://www.valleyair.org/transportation/0714-GAMAQI-Criteria-Pollutant-Thresholds-of-Significance.pdf>. Accessed December 2020.

**Table 3 – Construction Emissions<sup>6</sup>**

Emissions Source	Pollutant (tons/year)					
	ROG	NOx	CO	SOx	PM10	PM2.5
<b>2021 Emissions</b>	0.32	1.46	1.32	0.002	0.12	0.09
<b>SJVAPCD Construction Emissions Thresholds</b>	10	10	100	27	15	15
<b>Is Threshold Exceeded</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>

Based on anticipated activity levels, the Project construction activities would not exceed construction thresholds. Therefore, construction emissions are found to be less than significant.

#### *Long Term Emissions*

Long-term emissions impacts for the Project were determined by establishing baseline operations from the Selma location and comparing these with the increases/decreases associated with the proposed Project. The incremental change from the existing operation to the proposed Project were determined and are presented herein. Table 4 presents the Project's long-term incremental operations emissions generated from mobile, energy, and area sources as well as from water use and waste generation. Most of these emissions impacts are from mobile sources traveling to and from the Project location.

**Table 4 – Operational Emissions<sup>7</sup>**

Emissions Source	Pollutant (tons/year)					
	ROG	NOx	CO	SOx	PM10	PM2.5
<b>Area and Energy</b>	0.11	0.02	0.02	0.0002	0.002	0.002
<b>Employee Trips</b>	0.02	0.03	0.29	0.0007	0.076	0.021
<b>Truck Trips</b>	0.16	4.88	0.77	0.0175	0.440	0.134
<b>Total</b>	0.29	4.93	1.08	0.0184	0.518	0.157
<b>SJVAPCD Operational Emissions Thresholds – non permitted sources</b>	10	10	100	27	15	15
<b>Is Threshold Exceeded</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>

As demonstrated above in Table 4, the long-term incremental operational emissions increase associated with the proposed Project would be less than SJVAPCD significance threshold levels and would not pose an adverse impact to criterial air pollutants. Impacts are *less than significant*.

<sup>6</sup> Focused Air Quality Study for the Khalsa Truck Terminal Relocation Project. Trinity Consultants. February 2021. Page 4-1. See Appendix B.

<sup>7</sup> Ibid. Page 4-2.

- 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 Impact.** Cumulative impacts were also evaluated; however, cumulative emissions were not quantified because no other tentative projects were found within a one-mile radius of the Proposed Project which provided enough project detail information to accurately estimate emissions. Owing to the inherently cumulative nature of air quality impacts, the threshold for whether a project would make a cumulatively considerable contribution to a significant cumulative impact is currently based on whether the proposed Project would exceed established project-level thresholds. As such, a qualitative evaluation of the cumulative projects supports a finding that the Project's contribution would not be cumulatively considerable because the proposed Project's incremental emissions increase would be *less than significant*.

- c. Expose sensitive receptors to substantial pollutant concentrations?

**Less Than Significant Impact.** The proposed Project is located in the City of Kingsburg at the intersection of Kamm Avenue and State Highway 99. Sensitive receptors are defined as areas where young children, chronically ill individuals, the elderly or people who are more sensitive than the general population reside. Schools, hospitals, nursing homes and daycare centers are locations where sensitive receptors would likely reside. The closest school is Rafer Johnson Junior High School at 1.51 miles to the southeast. The closest nursing home is Kingsburg Care Center at 1.53 miles to the southeast. There are no known schools, hospitals, or nursing homes within a one-mile radius of the Project.

#### *Localized Pollutant Screening Analysis*

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.

The SJVAPCD's GAMAQI includes screening thresholds for identifying projects that need detailed analysis for localized impacts. Projects with on-site emission increases from construction activities or operational activities that exceed the 100 pounds per day screening level of any criteria pollutant after compliance with Rule 9510 and implementation of all enforceable mitigation measures would require preparation of an ambient air quality analysis (AAQA). The criteria pollutants of concern for localized impact in the SJVAB are PM<sub>10</sub>, PM<sub>2.5</sub>, NO<sub>x</sub>, and CO. There is no localized emission standard for ROG and most types of ROG are not toxic and have no health-based standard; however, ROG was included for informational purposes only. As demonstrated in Tables 3 and 4, average daily emissions for

construction and operational activities associated with the Project would not exceed 100 pounds per day. Therefore, an AAQA is not required for the Project.

#### *Toxic Air Contaminants (TAC)*

The proposed Project is a truck terminal and will generate TAC emissions from diesel exhaust due to truck travel on-site and would be located near existing residents; therefore, an assessment of the potential risk to the population attributable to emissions of TACs from the proposed Project is required.

To predict the potential health risk to the population attributable to emissions of TACs from the proposed Project, ambient air concentrations were predicted with dispersion modeling to arrive at a conservative estimate of increased individual carcinogenic risk that might occur as a result of continuous exposure over a 70-year lifetime for operational emissions. Similarly, predicted concentrations were used to calculate noncancer chronic and acute hazard indices (HIs), which are the ratio of expected exposure to acceptable exposure. The basis for evaluating potential health risk is the identification of sources with increased TACs. TAC emissions from anticipated on-site HHD trucks were evaluated.

Health risk is determined using the Hotspots Analysis and Reporting Program (HARP2) software distributed by the CARB; HARP2 requires peak 1-hour emission rates and annual-averaged emission rates for all pollutants for each modeling source. Assumptions used to calculate the emission rates for the proposed Project are provided in Appendix B.

The carcinogenic risk and the health hazard index (HI) for chronic non-cancer risk at the point of maximum impact (PMI) do not exceed the significance levels of twenty in one million ( $20 \times 10^{-6}$ ) and 1.0, respectively for the proposed Project. The PMIs are identified by receptor location and risk and are provided in Table 5. The electronic AERMOD and HARP2 output files are provided in Appendix B.

**Table 5 – Potential Maximum Impacts Predicted by HARP<sup>8</sup>**

	<b>Operational Value</b>	<b>UTM East</b>	<b>UTM North</b>
<b>Excess Cancer Risk</b>	1.36E-06	268,802.08	4,406,134.14
<b>Chronic Hazard Index</b>	3.39E-04	268,802.08	4,406,134.14

Since the PMI remained below the significance threshold for cancer and chronic risk, as demonstrated in Table 5, the proposed Project would not have an adverse effect on any surrounding communities.

<sup>8</sup> Focused Air Quality Study for the Khalsa Truck Terminal Relocation Project. Trinity Consultants. February 2021. Page 4-5. See Appendix B.



Based on the predicted operational emissions and activity types, the proposed Project is not expected to affect any on-site or off-site sensitive receptors and is not expected to have any adverse impacts on any known sensitive receptor. Additionally, potential risks to the population attributable to emissions of HAPS from the proposed Project would be less than significant. Any impacts would *be less than significant*.

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

**Less than Significant Impact.** The proposed Project is located in a commercial and agricultural portion of the City of Kingsburg. The proposed truck terminal is not known to be a source of nuisance odors and is not listed in Table 6 of the SJVAPCDs GAMAQI. During construction, the various diesel-powered vehicles and equipment in use on-site would create localized odors. These odors would be temporary and are not likely to be noticeable for extended periods of time beyond the Project site. The potential for diesel odor impacts is therefore considered less than significant.

As such, the proposed Project is not expected to produce any offensive odors that would result in frequent odor complaints. Any impacts would be *less than significant*.

**Mitigation Measures:** None are required.

#### IV. BIOLOGICAL RESOURCES

##### Would the project:

	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

- e. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance? ☐ ☐ ☐ ☒
- f. Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan? ☐ ☐ ☐ ☒

## ENVIRONMENTAL SETTING

The proposed Project site is located in a portion of the central San Joaquin Valley that has, for decades, experienced intensive agricultural and urban disturbances. Current agricultural endeavors in the region include dairies, groves, and row crops.

Like most of California, the Central San Joaquin Valley experiences a Mediterranean climate. Warm dry summers are followed by cool moist winters. Summer temperatures usually exceed 90 degrees Fahrenheit, and the relative humidity is generally very low. Winter temperatures rarely raise much above 70 degrees Fahrenheit, with daytime highs often below 60 degrees Fahrenheit. Annual precipitation within the proposed Project site is about 10 inches, almost 85% of which falls between the months of October and March. Nearly all precipitation falls in the form of rain and storm-water readily infiltrates the soils of the surrounding the sites.

Native plant and animal species once abundant in the region have become locally extirpated or have experienced large reductions in their populations due to conversion of upland, riparian, and aquatic habitats to agricultural and urban uses. Remaining native habitats are particularly valuable to native wildlife species including special status species that still persist in the region. According to the North Kingsburg Specific Plan, most of the North Kingsburg area is dominated by permanent crops such as vineyards and deciduous fruit orchards, interspersed with smaller crops and farmhouses<sup>9</sup>. Almost the entire region has been previously developed.

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<sup>9</sup> North Kingsburg Specific Plan, Site Conditions, 2005. <https://www.cityofkingsburg-ca.gov/DocumentCenter/View/187/North-Kingsburg-Specific-Plan-PDF>. Accessed December 2020.

The site is currently comprised of fallow land, formerly utilized for stone fruit orchards. The Project site's surrounding lands consist primarily of agricultural lands to the west and further south, and commercial businesses immediately south, to the east and north past SR 99. Vacant land lies immediately south.

The Selma Colony Ditch is considered riverine habitat by the National Wetlands Inventory (NWI) Mapper<sup>10</sup>.

## RESPONSES

- 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?

**Less than Significant Impact.** The Project site is highly disturbed, fallow land and comprised of former stone fruit orchards. The site is lacking in substantial vegetation and State Route 99 is immediately adjacent to the eastern site border. These two factors suggest that the Project site is extremely unlikely to serve as nesting habitat for bird species or any animal or plant species. Any impacts remain *less than significant*.

**Mitigation Measures:** None are required.

- b. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?
- c. Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

**Less Than Significant Impact.** There are no natural waterways or sensitive natural communities in the vicinity of the proposed Project. The Selma Colony Ditch runs along the western site border and is

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<sup>10</sup> National Wetlands Inventory, Surface Waters and Wetlands Mapper. <https://www.fws.gov/wetlands/Data/Mapper.html>. Accessed December 2020.

considered riverine habitat by the National Wetlands Inventory (NWI) Mapper<sup>11</sup>. However, because this feature occurs on the westernmost boundary of the Project site, due to the site design, no impacts to this feature are anticipated. As such, potential impacts are less than significant.

**Mitigation Measures:** None are required.

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

**Less Than Significant Impact.** There are no natural waterways or natural vegetation on the subject site, and the site is not used for movement of wildlife species or for a migratory wildlife corridor, nor is the site used for native wildlife nursery sites. The site has been developed previously, is highly disturbed, and is immediately adjacent to the busy State Route 99. Any impacts would be less than significant.

**Mitigation Measures:** None are required.

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

**Less than Significant Impact.** The City of Kingsburg's General Plan includes various policies for the protection of biological resources. The proposed Project would not conflict with any of the adopted policies and any impacts would be considered *less than significant*.

**Mitigation Measures:** None are required.

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

**No Impact.** The proposed Project site is not within an area set aside for the conservation of habitat or sensitive plant or animal species pursuant to a Habitat Conservation Plan, Natural Community

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<sup>11</sup> National Wetlands Inventory, Surface Waters and Wetlands Mapper. <https://www.fws.gov/wetlands/Data/Mapper.html>. Accessed December 2020.



Conservation Plan, or other approved local, regional, or state habitat conservation plan. As such, there is *no impact*.

**Mitigation Measures:** None are required.

## V. CULTURAL RESOURCES

### Would the project:

	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
a. Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Disturb any human remains, including those interred outside of formal cemeteries?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

## ENVIRONMENTAL SETTING

Archaeological resources are places where human activity has measurably altered the earth or left deposits of physical remains. Archaeological resources may be either prehistoric (before the introduction of writing in a particular area) or historic (after the introduction of writing). The majority of such places in this region are associated with either Native American or Euroamerican occupation of the area. The most frequently encountered prehistoric and early historic Native American archaeological sites are village settlements with residential areas and sometimes cemeteries; temporary camps where food and raw materials were collected; smaller, briefly occupied sites where tools were manufactured or repaired; and special-use areas like caves, rock shelters, and sites of rock art. Historic archaeological sites may include foundations or features such as privies, corrals, and trash dumps.

## RESPONSES

- a. Cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?

**Less than Significant Impact with Mitigation.** A record search of site files and maps was conducted at the Southern San Joaquin Valley Archaeological Information Center (IC), California State University, Bakersfield (see Appendix C). A Sacred Lands File Request was also submitted to the Native American Heritage Commission (NAHC). These investigations determined that five cultural resource studies have been conducted within the one-half mile radius and there are three recorded resource within that one-half mile radius. These resources include a historic era railroad, a historic era canal and a historic era

refuse deposit. There are no recorded resources within the proposed Project area 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.

Subsurface construction activities associated with the proposed Project could potentially damage or destroy previously undiscovered historic resources. This is considered a potentially significant impact; however, implementation of Mitigation Measure **CUL-1** will ensure that significant impacts remain *less than significant with mitigation incorporation*.

**CUL-1** The following measures shall be implemented:

- Before initiation of construction or ground-disturbing activities associated with the Project, the City shall require all construction personnel to be alerted to the possibility of buried cultural resources, including historic, archeological and paleontological resources;
- The general contractor and its supervisory staff shall be responsible for monitoring the construction Project for disturbance of cultural resources; and
- If a potentially significant historical, archaeological, or paleontological resource, such as structural features, unusual amounts of bone or shell, artifacts, human remains, or architectural remains or trash deposits are encountered during subsurface construction activities (i.e., trenching, grading), all construction activities within a 100-foot radius of the identified potential resource shall cease until a qualified archaeologist evaluates the item for its significance and records the item on the appropriate State Department of Parks and Recreation (DPR) forms. The archaeologist shall determine whether the item requires further study. If, after the qualified archaeologist conducts appropriate technical analyses, the item is determined to be significant under California Environmental Quality Act, the archaeologist shall recommend feasible mitigation measures, which may include avoidance, preservation in place or other appropriate measure, as outlined in Public Resources Code section 21083.2. The City of Kingsburg shall implement said measures.

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

**Less than Significant Impact with Mitigation.** The possibility exists that subsurface construction activities may encounter undiscovered archaeological resources. This would be a potentially significant impact. Implementation of Mitigation Measure **CUL-1** would require inadvertently discovery practices

to be implemented should previously undiscovered archeological resources be located. As such, impacts to undiscovered archeological resources would be *less than significant with mitigation incorporation*.

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

**Less than Significant Impact with Mitigation.** There are no unique geological features or known fossil-bearing sediments in the vicinity of the proposed Project site. However, there remains the possibility for previously unknown, buried paleontological resources or unique geological sites to be uncovered during subsurface construction activities. Therefore, this would be a potentially significant impact. Mitigation is proposed requiring standard inadvertent discovery procedures to be implemented to reduce this impact to a level of *less than significant with mitigation incorporation*.

**CUL-2** The Project applicant will incorporate into the construction contract(s) a provision that in the event a fossil or fossil formations are discovered during any subsurface construction activities for the proposed Project (i.e., trenching, grading), all excavations within 100 feet of the find shall be temporarily halted until the find is examined by a qualified paleontologist, in accordance with Society of Vertebrate Paleontology standards. The paleontologist shall notify the appropriate representative at the City of Kingsburg who shall coordinate with the paleontologist as to any necessary investigation of the find. If the find is determined to be significant under CEQA, the City shall implement those measures, which may include avoidance, preservation in place, or other appropriate measures, as outlined in Public Resources Code section 21083.2.

## VI. ENERGY

### Would the project:

	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

### ENVIRONMENTAL SETTING

California's total energy consumption is second-highest in the nation, but, in 2016, the state's per capita energy consumption ranked 48<sup>th</sup>, due in part to its mild climate and its energy efficiency programs. In 2017, California ranked second in the nation in conventional hydroelectric generation and first as a producer of electricity from solar, geothermal, and biomass resources while also in 2017, solar PV and solar thermal installations provided about 16% of California's net electricity generation.<sup>12</sup>

Energy usage is typically quantified using the British thermal unit (BTU). As a point of reference, the approximately amounts of energy contained in common energy sources are as follows:

Energy Source	BTUs <sup>13</sup>
Gasoline	120,429 per gallon
Natural Gas	1,037 per cubic foot
Electricity	3,412 per kilowatt-hour

<sup>12</sup> U.S. Energy Information Administration. Independent Statistics and Analysis. California Profile Overview. <https://www.eia.gov/state/?sid=CA#tabs-1>. Accessed December 2020.

<sup>13</sup> U.S. Energy Information Administration. Energy Units and Calculators Explained. [https://www.eia.gov/energyexplained/index.php?page=about\\_energy\\_units](https://www.eia.gov/energyexplained/index.php?page=about_energy_units). Accessed December 2020.



California electrical consumption in 2016 was 7,830.8 trillion BTU<sup>14</sup>, as provided in Table 6, while total electrical consumption by Fresno County in 2018 was 26.109 trillion BTU.<sup>15</sup>

<b>Table 6 – 2016 California Energy Consumption<sup>16</sup></b>		
<b>End User</b>	<b>BTU of energy consumed (in trillions)</b>	<b>Percentage of total consumption</b>
<b>Residential</b>	1,384.4	17.7
<b>Commercial</b>	1,477.2	18.9
<b>Industrial</b>	1,854.3	23.7
<b>Transportation</b>	3,114.9	39.8
<b>Total</b>	<b>7,830.8</b>	<b>--</b>

The California Department of Transportation (Caltrans) reports that approximately 25.1 million automobiles, 5.7 million trucks, and 889,024 motorcycles were registered in the state in 2017, resulting in a total estimated 339.8 billion vehicles miles traveled (VMT).<sup>17</sup>

#### Applicable Regulations

##### California Energy Code (Title 24, Part 6, Building Energy Efficiency Standards)

California Code of Regulations Title 24, Part 6 comprises the California Energy Code, which was adopted to ensure that building construction, system design and installation achieve energy efficiency. The California Energy Code was first established in 1978 by the CEC in response to a legislative mandate to reduce California's energy consumption, and apply to energy consumed for heating, cooling, ventilation, water heating, and lighting in new residential and non-residential buildings. The standards are updated periodically to increase the baseline energy efficiency requirements. The 2013 Building Energy Efficiency Standards focus on several key areas to improve the energy efficiency of newly constructed buildings and additions and alterations to existing buildings and include requirements to enable both demand reductions during critical peak periods and future solar electric and thermal system installations. Although it was not originally intended to reduce greenhouse gas (GHG) emissions, electricity production by fossil fuels results in GHG emissions and energy efficient buildings require less electricity. Therefore, increased energy efficiency results in decreased GHG emissions.

<sup>14</sup> U.S. Energy Information Administration. Independent Statistics and Analysis. California Profile Overview. <https://www.eia.gov/state/?sid=CA#tabs-1>. Accessed December 2020.

<sup>15</sup> California Energy Commission. Electricity Consumption by County. <http://ecdms.energy.ca.gov/electbycounty.aspx>. Accessed December 2020.

<sup>16</sup> U.S. Energy Information Administration. Independent Statistics and Analysis. California Profile Overview. <https://www.eia.gov/state/?sid=CA#tabs-1>. Accessed December 2020.

<sup>17</sup> Caltrans. 2017. California Transportation Quick Facts. <http://www.dot.ca.gov/drsi/library/qf/qf2017.pdf>. Accessed December 2020.

### California Green Building Standards Code (Title 24, Part II, CALGreen)

The California Building Standards Commission adopted the California Green Buildings Standards Code (CALGreen in Part 11 of the Title 24 Building Standards Code) for all new construction statewide on July 17, 2008. Originally a volunteer measure, the code became mandatory in 2010 and the most recent update (2019) will go into effect on January 1, 2020. CALGreen sets targets for energy efficiency, water consumption, dual plumbing systems for potable and recyclable water, diversion of construction waste from landfills, and use of environmentally sensitive materials in construction and design, including eco-friendly flooring, carpeting, paint, coatings, thermal insulation, and acoustical wall and ceiling panels. The 2019 CALGreen Code includes mandatory measures for non-residential development related to site development; water use; weather resistance and moisture management; construction waste reduction, disposal, and recycling; building maintenance and operation; pollutant control; indoor air quality; environmental comfort; and outdoor air quality. Mandatory measures for residential development pertain to green building; planning and design; energy efficiency; water efficiency and conservation; material conservation and resource efficiency; environmental quality; and installer and special inspector qualifications.

### Clean Energy and Pollution Reduction Act (SB 350)

The Clean Energy and Pollution Reduction Act (SB 350) was passed by California Governor Brown on October 7, 2015, and establishes new clean energy, clean air, and greenhouse gas reduction goals for the year 2030 and beyond. SB 350 establishes a greenhouse gas reduction target of 40 percent below 1990 levels for the State of California, further enhancing the ability for the state to meet the goal of reducing greenhouse gas emissions by 80 percent below 1990 levels by the year 2050.

### Renewable Portfolio Standard (SB 1078 and SB 107)

Established in 2002 under SB 1078, the state's Renewables Portfolio Standard (RPS) was amended under SB 107 to require accelerated energy reduction goals by requiring that by the year 2010, 20 percent of electricity sales in the state be served by renewable energy resources. In years following its adoption, Executive Order S-14-08 was signed, requiring electricity retail sellers to provide 33 percent of their service loads with renewable energy by the year 2020. In 2011, SB X1-2 was signed, aligning the RPS target with the 33 percent requirement by the year 2020. This new RPS applied to all state electricity retailers, including publicly owned utilities, investor-owned utilities, electrical service providers, and community choice aggregators. All entities included under the RPS were required to adopt the RPS 20 percent by year 2020 reduction goal by the end of 2013, adopt a reduction goal of 25 percent by the end of 2016, and meet the 33 percent reduction goal by the end of 2020. In addition, the Air Resources Board,

under Executive Order S-21-09, was required to adopt regulations consistent with these 33 percent renewable energy targets.

## RESPONSES

- a. Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?
- b. Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

**Less Than Significant Impact.** The proposed Project consists of a full-service truck terminal – parking, fueling, repair and maintenance, and restrooms. A new Conditional Use Permit will be required to accommodate the new truck terminal facilities. The Project will consume energy in the short-term during Project construction and in the long-term during Project operation.

During construction, the Project would consume energy in two general forms: (1) the fuel energy consumed by construction vehicles and equipment; and (2) bound energy in construction materials, such as asphalt, steel, concrete, pipes, and manufactured or processed materials such as lumber and glass. Title 24 Building Energy Efficiency Standards provide guidance on construction techniques to maximize energy conservation and it is expected that contractors and owners have a strong financial incentive to use recycled materials and products originating from nearby sources in order to reduce materials costs. As such, it is anticipated that materials used in construction and construction vehicle fuel energy would not involve the wasteful, inefficient, or unnecessary consumption of energy.

Operational Project energy consumption would continue to occur for multiple purposes, including but not limited to, maintenance building, an office, site lighting, and vehicle use. CalEEMod was utilized to generate the estimated energy demand of the proposed Project, and the results are provided in Table 7 and in Appendix B.

<b>Table 7 – Annual Project Energy Consumption</b>		
<b>Land Use</b>	<b>Electricity Use in kWh/year</b>	<b>Natural Gas Use in kBTU/year</b>
<b>General Industry Light</b>	209,916	496,706

The proposed Project would be required to comply with Title 24 Building Energy Efficiency Standards, which provide minimum efficiency standards related to various building features, including appliances, water and space heating and cooling equipment, building insulation and roofing, and lighting.

Implementation of Title 24 standards significantly increases energy savings, and it is generally assumed that compliance with Title 24 ensures projects will not result in the inefficient, wasteful, or unnecessary consumption of energy.

As discussed in Impact XVII – Transportation/Traffic, at build-out the Project will generate 312 new vehicle trips. Adopted federal vehicle fuel standards have continually improved since their original adoption in 1975 and assists in avoiding the inefficient, wasteful, and unnecessary use of energy by vehicles.

As discussed previously, the proposed Project would be required to implement and be consistent with existing energy design standards at the local and state level. The Project would be subject to energy conservation requirements in the California Energy Code and CALGreen. Adherence to state code requirements would ensure that the Project would not result in wasteful and inefficient use of non-renewable resources due to building operation.

Therefore, any impacts are *less than significant*.

**Mitigation Measures:** None are required.

## VII. GEOLOGY AND SOILS

### Would the project:

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.

Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
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<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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ii. Strong seismic ground shaking?

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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iii. Seismic-related ground failure, including liquefaction?

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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iv. Landslides?

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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b. Result in substantial soil erosion or the loss of topsoil?

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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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?

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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d. Be located on expansive soil, as defined in Table 18-1-B of the most recently adopted Uniform Building Code creating

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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substantial direct or indirect risks to life or property?

- |  |                          |                                     |                          |                                     |
|--|--------------------------|-------------------------------------|--------------------------|-------------------------------------|
| e. Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water? | <input type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| f. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?  | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            |

## ENVIRONMENTAL SETTING

According to the 2005 North Kingsburg Specific Plan, the Project site and surrounding areas are slightly sloping south, with the contours of the land draining water towards the Kings River, but are considered nearly-flat<sup>18</sup>. The slope is not considered a significant barrier to urbanization. The soils in the area are typified as sandy-loam with good subsurface drainage. The soil report provided for the Project site specifies that the parcel is composed of the following: approximately 72.6 % Delhi loamy sand (0 to 3 percent slopes), 0.1% Delhi loamy sand (3-9 percent slopes) and 27.3% Hanford fine sandy loam (See Appendix A).

There are no known active earthquake faults in the City of Kingsburg<sup>19</sup>. The nearest active fault from Kingsburg is the Nunez Fault, approximately 54 miles southwest, near Coalinga.

## RESPONSES

- a-i. Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo

<sup>18</sup> North Kingsburg Specific Plan, 2005. <https://www.cityofkingsburg-ca.gov/DocumentCenter/View/187/North-Kingsburg-Specific-Plan-PDF>. Accessed December 2020.

<sup>19</sup> California Department of Conservation, California Geological Survey. Fault Activity Map of California. <https://maps.conservation.ca.gov/cgs/fam/>. Accessed December 2020.



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.

- a-ii. Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving strong seismic ground shaking?
- a-iii. Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving seismic-related ground failure, including liquefaction?
- a-iv. Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving landslides?

**Less Than Significant Impact.** The proposed Project site is not located in an earthquake fault zone as delineated by the 1972 Alquist-Priolo Earthquake Fault Zoning Map Act. The nearest known potentially active fault is the Nunez Fault, located over fifty miles southwest the site. No active faults have been mapped within the project boundaries, so there is no potential for fault rupture. It is anticipated that the proposed Project site would be subject to some ground acceleration and ground shaking associated with seismic activity during its design life. The Project site would be engineered and constructed in strict accordance with the earthquake resistant design requirements contained in the latest edition of the California Building Code (CBC) for seismic zone II, as well as Title 24 of the California Administrative Code, and therefore would avoid potential seismically induced hazards on planned structures. The Project site has a generally flat topography, and is not at risk of landslide. The impact of seismic hazards on the project would be *less than significant*.

**Mitigation Measures:** None are required.

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

**Less Than Significant Impact.** The proposed Project will install a truck terminal comprised of a 8,800 square-foot office building, a 15,000 square-foot truck repair and maintenance building, two fueling stations and parking. The Project site has a generally flat topography and is in an established urban area. Construction activities associated with the Project involves ground preparation work for the facilities and parking areas. These activities could expose barren soils to sources of wind or water, resulting in the potential for erosion and sedimentation on and off the Project site. An on-site storm water basin is planned; however, during construction, nuisance flow caused by minor rain could flow off-site. The City and/or contractor would be required to employ appropriate sediment and erosion control BMPs as part of a Stormwater Pollution Prevention Plan (SWPPP) that would be required by the California National Pollution Discharge Elimination System (NPDES). In addition, soil erosion and loss of topsoil would be

minimized through implementation of the SVJAPCD fugitive dust control measures (See Section III). Once construction is complete, the Project would not result in soil erosion or loss of topsoil. Compliance with state regulations will ensure that impacts remain *less than significant*.

**Mitigation Measures:** None required.

- c. Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?
- d. Be located on expansive soil, as defined in Table 18-1-B of the most recently adopted Uniform Building Code creating substantial risks to life or property?

**Less Than Significant Impact.** See Section VI a. above. The site is not at significant risk from ground shaking, liquefaction, or landslide and is otherwise considered geologically stable. Liquefaction typically occurs when there is shallow groundwater, low-density non-plastic soils, and high-intensity ground motion. Soil in the City of Kingsburg consists primarily of sandy loam, which is generally not conducive to liquefaction. The City is relatively flat, which precludes the occurrence of landslides. Subsidence is typically related to over-extraction of groundwater from certain types of geologic formations where the water is partly responsible for supporting the ground surface; however, the City of Kingsburg is not recognized by the U.S. Geological Service as being in an area of subsidence.<sup>20</sup> Impacts are considered *less than significant*.

**Mitigation Measures:** None required.

- e. Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?

**No Impact.** The Project includes the construction of an on-site septic tank and leach-line system, which will be implemented according to the City of Kingsburg's Building Code Ordinances and Standards. The Project's needs will not necessitate tying into the existing sewer services. Therefore, there is *no impact*.

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<sup>20</sup> U.S. Geological Service. Areas of Land Subsidence in California. [https://ca.water.usgs.gov/land\\_subsidence/california-subsidence-areas.html](https://ca.water.usgs.gov/land_subsidence/california-subsidence-areas.html). Accessed December 2020.

**Mitigation Measures:** None are required.

f. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

**Less Than Significant Impact with Mitigation.** There are no unique geologic features in the Project vicinity. Although there are no known paleontological resources located in the project area, site development does have the potential to directly or indirectly destroy an unknown paleontological resource. Mitigation measures CUL-1 and CUL-2 are included to reduce any impacts to a less than significant level.

**Mitigation Measures:** CUL-1 and CUL-2

## VIII. GREENHOUSE GAS EMISSIONS

### Would the project:

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

Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
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<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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b. Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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### ENVIRONMENTAL SETTING

Various gases in the earth's atmosphere play an important role in moderating the earth's surface temperature. Solar radiation enters 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 are transparent to solar radiation but are effective in absorbing infrared radiation. Consequently, radiation that would otherwise escape back into space is retained, resulting in a warming of the earth's atmosphere. This phenomenon is known as the greenhouse effect. Scientific research to date indicates that some of the observed climate change is a result of increased GHG emissions associated with human activity. Among the GHGs contributing to the greenhouse effect are water vapor, carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>), ozone, Nitrous Oxide (NO<sub>x</sub>), and chlorofluorocarbons. Human-caused emissions of these GHGs in excess of natural ambient concentrations are considered responsible for enhancing the greenhouse effect. GHG emissions contributing to global climate change are attributable, in large part, to human activities associated with the industrial/manufacturing, utility, transportation, residential, and agricultural sectors. In California, the transportation sector is the largest emitter of GHGs, followed by electricity generation. Global climate change is, indeed, a global issue. GHGs are global pollutants, unlike criteria pollutants and TACs (which are pollutants of regional and/or local concern). Global climate change, if it occurs, could potentially affect water resources in California. Rising temperatures could be anticipated to result in sea-level rise (as polar ice caps melt) and possibly change the timing and amount of precipitation, which could alter water quality. According to some, climate change could result in more extreme weather patterns; both heavier precipitation that could lead to flooding, as well as more extended drought periods. There is uncertainty regarding the timing, magnitude, and nature of the potential changes to water resources as a result of climate change; however, several trends are evident.

Snowpack and snowmelt may also be affected by climate change. Much of California's precipitation falls as snow in the Sierra Nevada and southern Cascades, and snowpack represents approximately 35 percent of the state's useable annual water supply. The snowmelt typically occurs from April through July; it provides natural water flow to streams and reservoirs after the annual rainy season has ended. As air temperatures increase due to climate change, the water stored in California's snowpack could be affected by increasing temperatures resulting in: (1) decreased snowfall, and (2) earlier snowmelt.

The forthcoming impact analysis is based on the Focused Air Quality Study for the Khalsa Truck Terminal Relocation Project, prepared by Trinity Consultants, which is provided in Appendix B.

## RESPONSES

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

**Less Than Significant Impact.** The Project's greenhouse gas emissions are primarily from mobile source activities. Not all GHGs exhibit the same ability to induce climate change; as a result, GHG contributions are commonly quantified as carbon dioxide equivalents (CO<sub>2</sub>e). The proposed Project's operational CO<sub>2</sub>e emissions were estimated using CalEEMod and, as with the Project's operational emissions, GHG emissions are based on the incremental change from the Selma operation to the proposed Project's emissions. The Project's GHG emissions are summarized in Table 8.

**Table 8 – Estimated Annual Greenhouse Gas Emissions<sup>21</sup>**

	<b>CO<sub>2</sub> Emissions (metric tons)</b>	<b>CH<sub>4</sub> Emissions (metric tons)</b>	<b>N<sub>2</sub>O Emissions (metric tons)</b>	<b>CO<sub>2</sub>e Emissions (metric tons)</b>
Area	0.0004	0.0000	0.000	0.0005
Energy	87.57	0.003	0.001	87.97
Waste	5.99	0.354	0.000	14.84
Water	10.41	0.180	0.004	16.19
Employee Trips	60.41	0.002	0.000	60.46
Truck Trips	1,667.13	0.072	0.000	1,668.92
Total	1,831.51	0.611	0.005	1,848.38
2005 BAU	2,023.32	0.789	0.005	2,044.66
<b>BAU less Project emissions</b>				<b>9.6%</b>

<sup>21</sup> Focused Air Quality Study for the Khalsa Truck Terminal Relocation Project. Trinity Consultants. February 2021. Page 4-2. See Appendix B.

The current inventory and forecast for GHG emissions in the California Air Resource Board's 2008 Climate Change Scoping Plan supports the 2011 IPCC estimates. The 2008 Climate Change Scoping Plan also indicates that GHG emissions will increase to 596.41 million metric tons of CO<sub>2</sub>e by 2020. It is widely understood that climate change is a "global" issue and, as such, GHG emissions are a cumulative problem and can only be evaluated as such.

The amount of CO<sub>2</sub> that would be generated by the Project is so small in relation to the California CO<sub>2</sub> equivalent estimates for 2020 (596 million metric tons CO<sub>2</sub>e) that it's not possible for the contribution of the project to be cumulatively considerable. Additionally, the Project's GHG emissions are less than the 2005 business as usual emissions for the Project by 196.28 metric tons CO<sub>2</sub>e, which is a 9.6% reduction. Therefore, the Project would not generate a cumulatively considerable GHG impact nor would it conflict with any applicable plan, policy or regulation adopted for the purpose of reducing the emissions of GHGs. The Project will also not conflict with any elements of the California Air Resources Board's 2008 Climate Change Scoping Plan. Therefore, this potential impact is *less than significant*.

**Mitigation Measures:** None are required.

## IX. HAZARDS AND HAZARDOUS MATERIALS

### Would the project:

	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f. Impair implementation of or physically interfere with an adopted emergency	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>



## IX. HAZARDS AND HAZARDOUS MATERIALS

### Would the project:

response plan or emergency evacuation plan?

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

Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
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☐
☐
☐
☒

## ENVIRONMENTAL SETTING

The area immediately surrounding the proposed Project is composed of primarily commercial and agricultural land uses. The site currently consists of fallow land, previously utilized for stone fruit farming.

## RESPONSES

- Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?
- 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.** This impact is associated with hazards caused by the routine transport, use, or disposal of hazardous materials or through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment. Proposed Project construction activities may involve the use and transport of hazardous materials. These materials may include fuels, oils, mechanical fluids, and other chemicals used during construction. Transportation, storage, use, and disposal of hazardous materials during construction activities would be required to comply with applicable federal, state, and local statutes and regulations. Compliance would ensure that human health and the environment are not exposed to hazardous materials. In addition, the Project would be required to comply with the National Pollutant Discharge Elimination System (NPDES) permit program through the submission and implementation of a Stormwater Pollution Prevention Plan during construction activities to prevent contaminated runoff from leaving the project site. Therefore, no significant impacts would occur during construction activities.

The operational phase of the proposed Project would occur after construction is completed. The proposed Project includes land uses that are considered compatible with the surrounding uses. A component of the Project involves storing gasoline for fueling trucks, which is acceptable under a new Conditional Use Permit.

The Project would not create a significant hazard through the routine transport, use, or disposal of hazardous materials, nor would a significant hazard to the public or to the environment through the reasonably foreseeable upset and accidental conditions involving the likely release of hazardous materials into the environment occur.

Therefore, the proposed Project will not create a significant hazard to the public or the environment and any impacts would be *less than significant*.

**Mitigation Measures:** None are required.

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

**No Impact.** No schools are located within 0.25 mile of the Project site. This condition precludes the possibility of activities associated with the proposed Project exposing schools within a 0.25-mile radius of the project site to hazardous materials. *No impact* would occur.

**Mitigation Measures:** None are required.

- c. Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?

**No Impact.** The proposed Project site is not located on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 (Geotracker<sup>22</sup> and Envirostor<sup>23</sup> databases – accessed in

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<sup>22</sup> California State Water Resources Control Board, GeoTracker Database. <https://geotracker.waterboards.ca.gov/map/>. Accessed December 2020.

<sup>23</sup> Department of Toxic Substances Control, EnviroStor Database. <https://www.envirostor.dtsc.ca.gov/public/map/>. Accessed December 2020.

December 2020). There are no hazardous materials sites that impact the Project. As such, *no impacts* would occur that would create a significant hazard to the public or the environment.

**Mitigation Measures:** None are required.

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

**Less than Significant Impact.** The City of Kingsburg lies within the Fresno County Airport Land Use Compatibility Plan.<sup>24</sup> There are no municipal or private airstrips in the Project vicinity. Trinkle Agricultural Flying lies approximately 5.4 miles southeast and Selma Airport lies 5.4 miles northwest. The proposed site is not located inside any adopted Airport Land Use Plan's Safety Zone. The proposed land use could potentially contribute to the severity of an aircraft accident due to the fueling stations; however, the Project itself would not result in a safety hazard to aircraft. Thus, any impacts are *less than significant*.

**Mitigation Measures:** None are required.

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

**No Impact.** The Project will not interfere with any adopted emergency response or evacuation plan. There is *no impact*.

**Mitigation Measures:** None are required.

- g. Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?

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<sup>24</sup> Fresno County Airport Land Use Compatibility Plan (ALUCP), adopted December 3, 2018. <https://www.fresnocog.org/project/airport-land-use-commission-fresno-county/>. Accessed December 2020.

**No Impact.** There are no wildlands on or near the Project site. There is ***no impact***.

**Mitigation Measures:** None are required.

## X. HYDROLOGY AND WATER QUALITY

### Would the project:

	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
i. Result in substantial erosion or siltation on- or off- site;	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
ii. substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iii. create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

## X. HYDROLOGY AND WATER QUALITY

### Would the project:

	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
iv. impede or redirect flood flows?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d. In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e. Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

## ENVIRONMENTAL SETTING

The City of Kingsburg's annual water supply is 6,138 acre-feet, and exceeds the community's water demand, which is around 3,798.<sup>25</sup>

The City of Kingsburg will not be providing water to the Project site. A domestic well will be installed according to City Standards and will be utilized for domestic water purposes, as well as truck washing.

## RESPONSES

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

**Less Than Significant Impact.** The Project has the potential to impact water quality standards and/or waste discharge requirements during construction (temporary impacts) and operation. Impacts are discussed below.

### *Construction*

<sup>25</sup> Kingsburg, California City Website. <http://ca-kingsburg.civicplus.com/213/Water>. Accessed December 2020.

Although the proposed Project site is small in scale, grading, excavation and loading activities associated with construction activities could temporarily increase runoff, erosion, and sedimentation. Construction activities also could result in soil compaction and wind erosion effects that could adversely affect soils and reduce the revegetation potential at construction sites and staging areas.

Three general sources of potential short-term construction-related stormwater pollution associated with the proposed project are: 1) the handling, storage, and disposal of construction materials containing pollutants; 2) the maintenance and operation of construction equipment; and 3) earth moving activities which, when not controlled, may generate soil erosion and transportation, via storm runoff or mechanical equipment. Generally, routine safety precautions for handling and storing construction materials may effectively mitigate the potential pollution of stormwater by these materials. These same types of common sense, “good housekeeping” procedures can be extended to non-hazardous stormwater pollutants such as sawdust and other solid wastes.

Poorly maintained vehicles and heavy equipment leaking fuel, oil, antifreeze, or other fluids on the construction site are also common sources of stormwater pollution and soil contamination. In addition, grading activities can greatly increase erosion processes. Two general strategies are recommended to prevent construction silt from entering local storm drains. First, erosion control procedures should be implemented for those areas that must be exposed. Secondly, the area should be secured to control offsite migration of pollutants. These Best Management Practices (BMPs) would be required in the Stormwater Pollution Prevention Plan (SWPPP) to be prepared prior to commencement of Project construction. When properly designed and implemented, these “good-housekeeping” practices are expected to reduce short-term construction-related impacts to less than significant.

In accordance with the National Pollution Discharge Elimination System (NPDES) Stormwater Program, the Project will be required to comply with existing regulatory requirements to prepare a SWPPP designed to control erosion and the loss of topsoil to the extent practicable using BMPs that the Regional Water Quality Control Board (RWQCB) has deemed effective in controlling erosion, sedimentation, runoff during construction activities. The specific controls are subject to the review and approval by the RWQCB and are an existing regulatory requirement.

Therefore, any impacts are *less than significant*.

**Mitigation Measures:** None are required.

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.** Project demands for groundwater resources in connection with the proposed Project would not substantially deplete groundwater supplies and/or otherwise interfere with groundwater recharge efforts being implemented by the City of Kingsburg. The conversion of the Project site from agricultural uses (stone fruit orchards) to a truck terminal is anticipated to reduce the volume of groundwater being utilized. Stone fruit farming generally requires between 4- and 5-acre feet of water per acre of crop. The truck terminal will require far less than that volume of water. Any impacts would be *less than significant*.

**Mitigation Measures:** None are required.

- 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 offsite;
  - ii. substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;
  - iii. create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or
  - iv. impede or redirect flood flows?

**Less Than Significant Impact.** The Project includes minor changes to the existing stormwater drainage pattern of the area through the installation of the facility buildings, fueling stations, and parking areas. The Project will be required by the City to be graded to facilitate proper stormwater drainage. An on-site stormwater drainage basin will be implemented and is subject to City Standards. Standard construction practices and compliance with state and federal regulations, city ordinances and regulations, The Uniform Building Code, and adherence to professional engineering design approved by the City of Kingsburg will reduce or eliminate potential drainage impacts from the Project.

As discussed in Impact X(d, e), the proposed Project is within Flood Zone “X” which is outside the 0.2% annual chance floodplain. Accordingly, the chance of flooding at the site is remote. Any impacts related to this analysis area are *less than significant*.

**Mitigation Measures:** None required.

- d. In flood hazard, tsunami or seiche zones, risk release of pollutants due to project inundation?
- e. Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

**Less Than Significant Impact.** According to FEMA Flood Map 06019C2675H, the Project is within Zone X, which is identified as experiencing 0.2% Annual Chance Flood Hazard and 1% Annual Chance Flood (with average depth of less than one foot or with drainage areas less than one square mile).<sup>26</sup> There are no bodies of water near the site that would create a potential risk of hazards from seiche, tsunami or mudflow. The Project will not conflict with any water quality control plans or sustainable groundwater management plan. There will be *a less than significant impact* associated with Project implementation.

**Mitigation Measures:** None are required.

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<sup>26</sup> FEMA Flood Map Service Center.

<https://msc.fema.gov/portal/search?AddressQuery=E%20kamm%2C%20kingsburg%20ca#searchresultsanchor>. Accessed December 2020.

## XI. LAND USE AND PLANNING

### Would the project:

	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
a. Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

## ENVIRONMENTAL SETTING

The proposed Project site is adjacent to the northwestern portion of the City of Kingsburg. The proposed Project site is heavily disturbed with primarily commercial and agricultural uses. The Project site is currently fallow land, formerly utilized for stone fruit farming (See Figure 3 – Aerial Map). The Project site is currently zoned C-6 (General Commercial), but is proposed for re-zoning to CH (Highway Commercial). The Project area is also proposed for annexation and a General Plan Amendment to convert the property from “non-designated” to “highway commercial”. An additional 7.11 acres are proposed for annexation in order to maintain continuity within the City’s boundaries.

## RESPONSES

### a. Physically divide an established community?

**Less Than Significant Impact.** The construction and operation of the Project would require a land use change. However, it would not divide an established community, and the proposed use is considered acceptable in the Project area. A Conditional Use Permit is required for truck terminal construction and operation. Impacts are *less than significant*.

**Mitigation Measures:** None are required.

- b. Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the General Plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?

**Less Than Significant Impact.** The proposed Project includes the addition of facility buildings, fueling stations and parking areas. The immediate vicinity of the proposed Project site is comprised of commercial and agricultural land uses. The area is highly disturbed. The proposed Project has no characteristics that would physically divide the City of Kingsburg. Access to the existing surrounding establishments will remain.

The proposed construction of a truck terminal does require re-zoning, annexation and a General Plan Amendment. However, it would not conflict with any applicable land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect. Impacts are *less than significant*.

**Mitigation Measures:** None are required.

## XII. MINERAL RESOURCES

### Would the project:

	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

## ENVIRONMENTAL SETTING

According to the California Department of Conservation, Kingsburg is within a SMARA (Surface Mining and Reclamation Act of 1975) Study Area, which is included in a report on the aggregate materials of the Fresno Production-Consumption Region<sup>27</sup>. However, there are no active mineral resource mines within the Kingsburg planning area<sup>28</sup>. The City of Reedley has the closest significant mineral resource, which is an open sand and gravel pit, approximately eight miles northeast of Kingsburg.

## RESPONSES

- 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?
- 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.** There are no known mineral resources in the proposed Project area. Therefore, there is *no impact*.

<sup>27</sup> California Department of Conservation, CGS Information Warehouse: Mineral Land Classification. <https://maps.conservation.ca.gov/cgs/informationwarehouse/mlc/>. Accessed December 2020.

<sup>28</sup> California Department of Conservation, Mines OnLine. <https://maps.conservation.ca.gov/mol/index.html>. Accessed December 2020.

**Mitigation Measures:** None are required.

## XIII. NOISE

**Would the project:**

	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Generation of excessive groundborne vibration or groundborne noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

## ENVIRONMENTAL SETTING

Noise is most often described as unwanted sound. Although sound can be easily measured, the perception of noise and the physical response to sound complicate the analysis of its impact on people. The City of Kingsburg is impacted by a multitude of noise sources. Mobile sources of noise, especially cars and trucks, are the most common and significant sources of noise in most communities, and they are predominant sources of noise in the City. Commercial, industrial, and institutional land uses throughout the City (i.e., schools, fire stations, utilities) also generate stationary-source noise. The Project is located in an area with a mix of uses. The predominant noise sources in the Project area include traffic on local roadways including SR 99, noise associated with nearby commercial businesses, and potentially agricultural noise from the nearby fields to the west and further to the south of the Project site. The nearest sensitive receptor in the immediate area consists of a rural residential home, less than a quarter of a mile to the west.



## RESPONSES

- a. Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?
- b. Generation of excessive groundborne vibration or groundborne noise levels?

**Less than Significant Impact.***Short-term (Construction) Noise Impacts*

Proposed Project construction related activities will involve temporary noise sources. Typical construction related equipment include graders, trenchers, small tractors and excavators. During the proposed Project construction, noise from construction related activities will contribute to the noise environment in the immediate vicinity. Activities involved in construction will generate maximum noise levels, as indicated in Table 9, ranging from 79 to 91 dBA at a distance of 50 feet, without feasible noise control (e.g., mufflers) and ranging from 75 to 80 dBA at a distance of 50 feet, with feasible noise controls.

**Table 9**  
**Typical Construction Noise Levels**

Type of Equipment	dBA at 50 ft	
	Without Feasible Noise Control	With Feasible Noise
<b>Dozer or Tractor</b>	80	75
<b>Excavator</b>	88	80
<b>Scraper</b>	88	80
<b>Front End Loader</b>	79	75
<b>Backhoe</b>	85	75
<b>Grader</b>	85	75
<b>Truck</b>	91	75

The distinction between short-term construction noise impacts and long-term operational noise impacts is a typical one in both CEQA documents and local noise ordinances, which generally recognize the reality that short-term noise from construction is inevitable and cannot be mitigated beyond a certain level. Thus, local agencies frequently tolerate short-term noise at levels that they would not accept for permanent noise sources. A more severe approach would be impractical and might preclude the kind of construction activities that are to be expected from time to time in urban environments. Most residents of urban areas recognize this reality and expect to hear construction activities on occasion.

*Long-term (Operational) Noise Impacts*

The primary source of on-going noise from the proposed Project will be from trucks entering and leaving the terminal, motorized equipment used in truck repair and maintenance, as well as any noise associated with truck washing. The noise associated with the Project is not anticipated to contribute a significant amount to ambient noise levels. The area is active with commercial businesses and is near SR 99, and as such the proposed Project will not introduce a new significant source of noise that isn't already in the area. Thus, any impacts would be *less than significant*.

**Mitigation Measures:** None are required.

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

**No Impact.** The Project is located within an airport land use plan; however, it is not within two miles of a public airport or public use airport. Therefore, there is *no impact*.

**Mitigation Measures:** None are required.

## XIV. POPULATION AND HOUSING

### Would the project:

	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
a. Induce substantial 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)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

## ENVIRONMENTAL SETTING

The City of Kingsburg's 2020 population was 12,883, up by only 332 people from the 2019 population estimate of 12,551.<sup>29</sup>

The current status of the Project site is comprised of fallow land, formerly utilized for stone fruit farming. There is no new housing associated with the Project.

The Project site is located in an area dominated by commercial and agricultural uses. The nearest residence is less than one-quarter mile to the west.

## RESPONSES

- a. Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?
- b. Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?

<sup>29</sup> State of California, Department of Finance. E-1 Cities, Counties, and the State Population Estimates with Annual Percent Change – January 1, 2019 and 2020. <http://www.dof.ca.gov/Forecasting/Demographics/Estimates/E-1/>. Accessed December 2020.

**No Impact.** There are no new homes associated with the proposed Project and there are no residential structures currently on-site. The proposed Project would be a truck terminal that would temporarily provide construction jobs in the Kingsburg area, which could be readily filled by the existing employment base, given the City's existing unemployment rates. The proposed Project will not affect any regional population, housing, or employment projections anticipated by City policy documents. There is *no impact*.

**Mitigation Measures:** None are required.

## XV. PUBLIC SERVICES

### Would the project:

Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
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- a. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:

Fire protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Police protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Other public facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

## ENVIRONMENTAL SETTING

The Project site is located in a primarily commercial and agricultural area in the northwestern portion of the City of Kingsburg. The Project site is generally flat and bounded diagonally to the north by SR 99. East Kamm Avenue bounds the Project site to the south, with vacant land and an auto repair business beyond the roadway. A mobile home storage yard and truck sales business lie to the east. Vineyards and a handful of single-family homes lie to the west. The area is served by the City of Kingsburg Fire Department, City of Kingsburg Police Department, the Kingsburg Joint Union High School District, Kingsburg Elementary Charter School District and other public facilities.

## RESPONSES

- a. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the

construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:

#### Fire protection?

**Less than Significant Impact.** The proposed Project site will continue to be served by the City of Kingsburg Fire Department, which is approximately 2.2 miles southeast of the proposed Project site, located at 1460 Marion Street. No additional fire personnel or equipment is anticipated, as the site is already served by the Fire Station.

The Project would be required to comply with all applicable fire and building safety codes (California Building Code and Uniform Fire Code) to ensure fire safety elements are incorporated into final Project design, including the providing designated fire lanes marked as such. Appropriate fire safety considerations will be included as part of the final design of the Project. Thus, the impact would be *less than significant*.

#### Police Protection?

**Less than Significant Impact.** The proposed Project will continue to be served by the City of Kingsburg Police Department, which is approximately 2.3 miles southeast of the proposed Project site, located at 1300 California Street. No additional police personnel or equipment is anticipated, and the Department would not need to expand its existing service area or construct a new facility to serve the Project site. As such, the Project would have a *less than significant impact* on police protection services.

#### Schools?

**No Impact.** The direct increase in demand for schools is normally associated with new residential projects that bring new families with school-aged children to a region. The proposed Project does not contain any residential uses. The proposed Project, therefore, would not result in an influx of new students in the Project area and is not expected to result in an increased demand upon District resources and would not require the construction of new facilities. There is *no impact*.

#### Parks?

**No Impact.** The Project would not result in an increase in demand for parks and recreation facilities because it would not result in an increase in population. Accordingly, the proposed Project would have *no impacts* on parks.

#### Other public facilities?

**No Impact.** The proposed Project requires annexation, re-zoning and a General Plan Amendment for construction and operation. However, the current zoning is General Commercial and the proposed zoning is Highway Commercial; these land uses are quite similar and both fit growth projections identified in the City's General Plan and other infrastructure studies. The Project, therefore, would not result in increased demand for, or impacts on, other public facilities such as library services. Accordingly, *no impact* would occur.

**Mitigation Measures:** None are required.

## XVI. RECREATION

### Would the project:

	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
a. Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

## ENVIRONMENTAL SETTING

The City of Kingsburg currently maintains six parks; Memorial Park, Heritage Park, Erling Park, Downtown Park, Bicentennial Park, and Athwal Park<sup>30</sup>. In addition to the City's parks, Kingsburg also runs the Crandell Swimming Complex and helps maintain the Blossom Trail. Athletic fields on the campuses of Kingsburg's school district provides recreational opportunities after school hours.

## RESPONSES

- Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?
- Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?

**No Impact.** The proposed Project does not include the construction of residential uses and would not directly or indirectly induce population growth. Therefore, the proposed Project would not cause physical deterioration of existing recreational facilities from increased usage or result in the need for new or expanded recreational facilities. The Project would have *no impact* to existing parks.

<sup>30</sup> City of Kingsburg Website, Living and Visiting. <http://cityofkingsburg-ca.gov/Facilities>. Accessed December 2020.



**Mitigation Measures:** None are required.

## XVII. TRANSPORTATION/ TRAFFIC

### Would the project:

	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d. Result in inadequate emergency access?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

## ENVIRONMENTAL SETTING

The proposed Project lies north of east Kamm Avenue, bounded diagonally to the north by State Route (SR) 99 and 825 feet from the south-bound off ramp. The Selma Colony Ditch runs north-south on the western boundary. The proposed truck terminal will be located on the approximately 14-56-acre lot assigned Assessor's Parcel Number (APN) 303-112-41S. An additional 7.11 acres, assigned APNs 393-112-52 and -54, are proposed for inclusion into the annexation, general plan amendment and re-zoning (see full Project Description). The City of Kingsburg lies northwest of Kings River and is traversed by SR 99 and SR 201. The existing streets in the Project vicinity are as follows:

- Bethel Avenue is designated as a primary arterial in the City of Kingsburg. Bethel Avenue provides access to residential and agricultural land uses. In the vicinity of the Project it exists as a two-lane roadway.

- Kamm Avenue is designated as a primary arterial in the City of Kingsburg. Kamm Avenue extends west from State Route 99 and east from Bethel Avenue through Kingsburg. In the Project vicinity it exists as a two-lane roadway and provides access to mainly agricultural land uses.
- Parkway Drive is a north-south roadway parallel to State Route 99 which extends from Kamm Avenue south to its terminus at Bethel Avenue and the State Route 99 southbound onramp. In the vicinity of the Project it exists as a two-lane roadway and provides connection Kamm Avenue on the west side of State Route 99 to Kamm Avenue east of State Route 99.
- State Route 99 is a major north-south route through the central valley of California, extending from Interstate 5 south of Bakersfield to Sacramento. State Route 99 operates as a 4-lane freeway through the City of Kingsburg and has interchanges at 18<sup>th</sup> Avenue and Sierra Street (SR 201) in the vicinity of the Project.

A Traffic Study was prepared for the proposed Project by Ruettggers & Schuler Civil Engineers, and is provided in Appendix D. The following analysis summarizes the information provided in the Traffic Study.

## RESPONSES

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

### *Project Trip Generation and Design Hour Volumes*

The Institute of Transportation Engineers (ITE) Trip Generation, 10<sup>th</sup> Edition manual, which is typically used in order to estimate traffic volumes generated by various types of land uses, provides very little data for trucking facilities, and does not capture the proposed truck terminal use. A search of the ITE land use codes did not produce a similar type use as the proposed Project. Therefore, from information gathered from the applicant and the site plan, the following assumptions were used to determine the Project trip generation.

#### Trucks:

- There will be 42 heavy duty trucks will make a minimum of one trip into the facility and one trip out of the facility daily (55 parking spaces for trucks with 75% active in a day).

- 7% of the trucks will be entering and 24% of the trucks will be exiting the facility during AM Peak Hour as well 24% of the trucks entering and 14% of the trucks exiting the facility during PM Peak Hour.
- The remaining heavy duty truck trips are distributed throughout the day. A heavy vehicle factor of 2.0 was used on the heavy truck trips for the level of service analysis.

#### Passenger Vehicles:

- There will be 20 full-time employees will make a minimum of two trips to and from the facility while 25% of the employees will make additional trips throughout the day.
- Each truck will require a driver to enter and exit the site. These trips were assumed to generally coincide with the truck trips throughout the day.

**Table 10 – Trip Generation<sup>31</sup>**

<b>General Information</b>	<b>Daily Trips</b>	<b>AM Peak Hour Trips</b>		<b>PM Peak Hour Trips</b>	
<b>Development Type</b>	ADT	In % Split/Trips	Out % Split/Trips	In % Split/Trips	Out % Split/Trips
<b>Employees</b>	144	30	5	8	30
<b>Heavy Duty Trucks*</b>	168	6	20	20	12
<b>Total Trips</b>	228	33	15	18	36

\* A heavy-duty truck factor of 2.0 was applied to heavy duty truck trips.

#### Existing and Future Traffic

Weekday peak hour turning movements were counted at the study intersections in January 2021. Traffic counts were obtained between the hours of 7:00 and 9:00am, and 4:00 and 6:00pm and peak hour was determined to be 7:15 to 8:15am and 4:00 to 5:00pm (count data is included in Appendix D). Due to the closure of the State Route 99 Southbound ramps, historical ramp data was obtained from Caltrans and compared with current traffic volumes.

<sup>31</sup> Traffic Study prepared by Ruettgers & Schuler Civil Engineers. February 2021. Page 8. See Appendix D.

Annual growth rates ranging between 0.5 and 8.32 percent were applied to existing peak hour volumes to estimate future peak hour volumes for the year 2040. These growth rates were estimated based on a comparison of regional travel demand model volumes from the Fresno Council of Governments (FCOG) between years 2018 and 2035. It is noted that a search for applications for projects in the City of Kingsburg that may have an influence on the cumulative traffic was made and no project applications were found that would affect the study intersections and roadways. Existing peak hour volumes, Existing plus project peak hour volumes, and future peak hour volumes for the year 2040, both without and with project traffic are provided in Appendix D.

### *Intersection Analysis*

A capacity analysis of the study intersections was conducted using Synchro 9 software from Trafficware. This software utilizes the capacity analysis methodology in the Transportation Research Board's Highway Capacity Manual. The analysis was performed for the following AM and PM Peak Hour traffic scenarios:

- Existing (2021)
- Existing (2021) + Project
- Future (2040)
- Future (2040) + Project

Criteria for intersection level of service (LOS) are shown in the tables below.

Level of Service Criteria for an Unsignalized Intersection:

Level of Service	Average Control Delay (sec/veh)	Expected Delay to Minor Street Traffic
A	$\leq 10$	Little or no delay
B	$> 10$ and $\leq 15$	Short delays
C	$> 15$ and $\leq 25$	Average delays
D	$> 25$ and $\leq 35$	Long delays
E	$> 35$ and $\leq 50$	Very long delays
F	$> 50$	Extreme delays

Level of service criteria for a signalized intersection:

Level of Service	Average Control Delay (sec/veh)	Volume-to-Capacity Ratio
A	$\leq 10$	$< 0.60$
B	$> 10$ and $\leq 20$	0.61 - 0.70
C	$> 20$ and $\leq 35$	0.71 - 0.80
D	$> 35$ and $\leq 55$	0.81 - 0.90
E	$> 55$ and $\leq 80$	0.91 - 1.00
F	$> 80$	$> 1.00$

The City of Kingsburg Traffic Impact Study Guidelines and the Caltrans Concept Report states that the peak hour level of service for intersections shall be no lower than LOS “D” for the existing and future scenarios. Level of service for the study intersections is presented in Table 11.

**Table 11 – Intersection Level of Service AM/PM Peak Hour<sup>32</sup>**

Intersection	Existing (2021)		Existing (2021) + Project		Future (2040)		Future (2040) + Project	
	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS
<b>SR 99 SB Onramp &amp; E Kamm Ave</b>	8.9/9.4	A/A	9/9.4	A/A	9/9.5	A/A	9.1/9.5	A/A
<b>S Bethel Ave &amp; E Kamm Ave/SR 99 NB Offramp</b>	9.8/9.3	A/A A/A	9.8/9.3	A/A A/A	11.9/10.6	B/B A/A	11.9/10.6	B/B A/A
<b>S Bethel Ave &amp; SR 99 NB Offramp</b>	9.7/9.8	A/A	10.1/10.1	B/B	13.1/13.8	B/B	13.9/14.5	B/B
<b>Bethel Ave &amp; Parkway Dr/SR 99 SB Onramp</b>	10.1/10.9	B/B	10.5/11.8	B/B	11.2	12.8	11.9/14.5	B/B

All four intersections within the Project scope operate, in the current and future years, above LOS D and are anticipated to do so with the addition of Project traffic.

### *Roadway Analysis*

A capacity analysis of the study roadways was conducted using HCS 2010 software from McTrans. This software utilizes the capacity analysis methodology in the Transportation Research Board’s Highway

<sup>32</sup> Traffic Study prepared by Ruetters & Schuler Civil Engineers. February 2021. Page 17. See Appendix D.

Capacity Manual. The City of Kingsburg Traffic Impact Study Guidelines states that the peak hour level of service for roadways shall be no lower than LOS “D” for urban areas for the existing and future scenarios. The analysis was performed for the following AM and PM traffic scenarios and is provided in Table 12:

- Existing (2021)
- Existing (2021) + Project
- Future (2040)
- Future (2040) + Project

Level-of-Service Criteria for Two-Lane Highways in Class III are as follows:

<i>LOS</i>	<i>PFFS (%)</i>
A	>91.7
B	>83.3-91.7
C	>75.0-83.3
D	>66.7-75.0
E	≤ 66.7

Note: LOS F applies whenever the demand flow in one or both directions exceeds the capacity of the segment.

**Table 12 – Roadway Level of Service<sup>33</sup>**

Street	2021 Directional		2021 + Project		2040 Directional		2040 + Project	
	LOS		Directional LOS		LOS		Directional LOS	
	N or E AM/PM	S or W AM/PM	N or E AM/PM	S or W AM/PM	N or E AM/PM	S or W AM/PM	N or E AM/PM	S or W AM/PM
<b>S Bethel Avenue: Parkway Drive to SR 99 NB Offramp</b>	B/C	B/C	B/B	B/C	B/B	B/C	B/B	C/C
<b>S Bethel Avenue: SR 99 NB Offramp to SR 99 NB Onramp</b>	B/B	B/B	B/B	B/B	C/B	B/B	C/B	B/B

<sup>33</sup> Traffic Study prepared by Ruetters & Schuler Civil Engineers. February 2021. Page 18. See Appendix D.

Street	2021 Directional LOS		2021 + Project Directional LOS		2040 Directional LOS		2040 + Project Directional LOS	
<b>Parkway Drive: E</b>								
<b>Kamm Avenue to S</b>	B/B	B/C	B/B	B/C	C/C	C/C	C/C	C/C
<b>Bethel Avenue</b>								

All roadways within the Project scope operate, in the current and future years, at or above LOS D and are anticipated to do so with the addition of Project traffic.

Based on the City of Kingsburg's and Caltran's standards for determining whether Project traffic has a significant impact on intersections and roadways, this Project is anticipated to have a *less than significant impact*.

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

**Less Than Significant Impact.** At the time of this study, the City of Kingsburg had not developed or adopted a Vehicle Miles Traveled (VMT) policy. The Fresno Council of Governments has adopted VMT guidelines included in the document "Fresno County SB 743 Implementation Regional Guidelines" dated January 2021. The guideline contains recommendations regarding VMT assessment, significance thresholds and mitigation measures.

The guideline provides "screening thresholds" for identifying whether a land use project should be expected to result in a less than significant transportation impact under CEQA. Projects meeting one or more of these criteria would not be required to undergo a detailed VMT analysis. One such screening threshold pertains to the project generated daily traffic. According to Chapter 3. "Project Screening", the guideline states that if the project generates fewer than 500 average daily trips, the project is presumed to create a less than significant impact.

As shown in Table 10, the project is anticipated to generate 228 daily trips. Of the 228 trips, 168 of the trips will be heavy trucks (adjusted), which are not generally included in VMT analysis as they are addressed in other CEQA sections. With the project generating less than 500 daily trips, it is presumed to create a *Less Than Significant impact*.



- 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.** Construction of the proposed Project would require the delivery of heavy construction equipment and facility materials, some of which may require transport by oversize vehicles. The use of oversize vehicles during construction can create a hazard to the public by limiting motorist views on roadways and by the obstruction of space. Construction-related oversize vehicle loads must comply with permit-related and other requirements of the California Vehicle Code and the California Streets and Highway Code. California Highway Patrol escorts may be required at the discretion of Caltrans and the County and would be detailed in respective oversize load permits. Due to the rural nature of the area roads and flat terrain, construction vehicles are not anticipated to incur hazards traveling to and from the Project site. Furthermore, the proposed Project would not include a design feature or use vehicles with incompatible uses that would create a hazard on the roadways surrounding the Project site. Any impacts would be *less than significant*.

#### **Mitigation Measures**

None are required.

- d. Result in inadequate emergency access?

**Less Than Significant Impact.** The proposed Project is not anticipated to deteriorate the performance of the existing circulation system. Project implementation will not conflict with any circulation program, plan, ordinance or policy. Emergency access will not be impacted, and as such, this impact is *less than significant*.

#### **Mitigation Measures**

None are required.

## XVIII. TRIBAL CULTURAL RESOURCES

### Would the project:

Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
--------------------------------------	---	------------------------------------	--------------

- a. Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:
  - i. Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or
  - ii. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code section 5024.1. In applying the criteria set forth in subdivision (c) of the Public Resources Code section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

☐
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## RESPONSES

- a). Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:
- i) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or
  - ii) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

**Less than Significant Impact.** A Tribal Cultural Resource (TCR) is defined under Public Resources Code section 21074 as a site, feature, place, cultural landscape that is geographically defined in terms of size and scope, sacred place, and object with cultural value to a California Native American tribe that are either included and that is listed or eligible for inclusion in the California Register of Historic Resources or in a local register of historical resources, or if the City of Kingsburg, acting as the Lead Agency, supported by substantial evidence, chooses at its discretion to treat the resource as a TCR. As discussed above, under Section V, Cultural Resources, criteria (b) and (d), no known archeological resources, ethnographic sites or Native American remains are located on the proposed Project site. As discussed under criterion (b) implementation of Mitigation Measure CUL-1 would reduce impacts to unknown archaeological deposits, including TCRs, to a less than significant level. As discussed under criterion (d), compliance with California Health and Safety Code Section 7050.5 would reduce the likelihood of disturbing or discovering human remains, including those of Native Americans.

The Native American Heritage Commission (NAHC) has performed a Sacred Lands File search for sites located on or near the Project site, with negative results. The NAHC also provided a consultation list of tribal governments with traditional lands or cultural places located within the project area. An opportunity has been provided to Native American tribes listed by the Native American Heritage Commission during the CEQA process as required by AB 52. Any impacts to TCR would be considered *less than significant*.

**Mitigation Measures:** No additional measures are required.

## XIX. UTILITIES AND SERVICE SYSTEMS

### Would the project:

	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
a. Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e. Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

## ENVIRONMENTAL SETTING

The Project will not require public utility infrastructure provided by the City of Kingsburg. The site plan includes a storm drainage basin, an on-site septic tank and leach line system, and a domestic well. The Project will require solid waste disposal services.

The City of Kingsburg contracts with Mid Valley Disposal for solid waste and recycling collection.

## RESPONSES

- a. Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?
- b. Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?
- c. Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?
- d. Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?
- e. Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?

**Less than Significant Impact.** The proposed Project includes the installation of a full-service truck terminal including buildings, fueling stations, parking and the associated improvements. The proposed Project would not require service for sewage disposal or water. Solid waste disposal services will be provided by Mid Valley Disposal. The City of Kingsburg's utilities and service systems would not be affected by the construction and operation of the truck terminal. Any impacts would be *less than significant*.

**Mitigation Measures:** None are required.

## XX. WILDFIRE

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

	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
a. Substantially impair an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

## ENVIRONMENTAL SETTING

The City of Kingsburg's planning area is composed of urbanized portions of land and the surrounding agricultural fields. The proposed Project site's elevation is between 306 and 310 feet above sea level in an area of intense urban uses. The Project lies north of east Kamm Avenue, bounded diagonally to the north by State Route 99 and 825 feet from the south-bound off ramp. The proposed truck terminal will be located on approximately 14.56 acres of developed land, currently occupied by former stone fruit orchards. The immediate vicinity is comprised of SR 99 to the north, agricultural uses to the west, and commercial

businesses to the east and south. The City is not located in or near a state responsibility area<sup>34</sup> nor is it on or near lands classified as very high fire hazard severity zones.<sup>35</sup>

## RESPONSES

- a. Substantially impair an adopted emergency response plan or emergency evacuation plan?
- b. Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?
- c. Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?
- d. Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?

**No Impact.** The proposed Project is located in an area developed with commercial and agricultural uses, which precludes the risk of wildfire. The area is relatively flat in nature which would limit the risk of downslope flooding and landslides, and limit any wildfire spread.

To receive building permits, the proposed Project would be required to be in compliance with the adopted emergency response plan. In addition, the City is not located in or near a state responsibility area<sup>36</sup> nor is it on or near lands classified as very high fire hazard severity zones.<sup>37</sup> As such, there are *no impacts* resulting from wildfire risk.

**Mitigation Measures:** None are required.

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<sup>34</sup> State of California. California Department of Forestry and Fire Protection. [https://www.fire.ca.gov/media/2136/facilities\\_sra\\_map.pdf](https://www.fire.ca.gov/media/2136/facilities_sra_map.pdf). Accessed February 2021.

<sup>35</sup> California State GeoPortal. California Fire Hazard Severity Zone Viewer. <https://gis.data.ca.gov/datasets/789d5286736248f69c4515c04f58f414>. Accessed February 2021.

<sup>36</sup> State of California. California Department of Forestry and Fire Protection. [https://www.fire.ca.gov/media/2136/facilities\\_sra\\_map.pdf](https://www.fire.ca.gov/media/2136/facilities_sra_map.pdf). Accessed February 2021.

<sup>37</sup> California State GeoPortal. California Fire Hazard Severity Zone Viewer. <https://gis.data.ca.gov/datasets/789d5286736248f69c4515c04f58f414>. Accessed February 2021.

## XXI. MANDATORY FINDINGS OF SIGNIFICANCE

### Would the project:

	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
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?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

### RESPONSES

- 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?

**Less than Significant Impact With Mitigation.** The analyses of environmental issues contained in this Initial Study indicate that the proposed Project is not expected to have substantial impact on the environment or on any resources identified in the Initial Study. Mitigation measures have been incorporated in the Project to reduce all potentially significant impacts to *less than significant*.

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. The proposed Project would not contribute substantially to adverse cumulative conditions, or create any substantial indirect impacts (i.e., increase in population could lead to an increase need for housing, increase in traffic, air pollutants, etc.). The impact is *less than significant*.

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

**Less than Significant Impact With Mitigation.** The analyses of environmental issues contained in this Initial Study indicate that the project is not expected to have substantial impact on human beings, either directly or indirectly. Mitigation measures have been incorporated in the Project to reduce all potentially significant impacts to *less than significant*.

## LIST OF PREPARERS

### **Crawford & Bowen Planning, Inc.**

- Emily Bowen, LEED AP, Principal Environmental Planner
- Travis Crawford, AICP, Principal Environmental Planner

### **Ruettgers & Schuler Civil Engineers**

- Ian Parks, PE

### **Trinity Consultants**

- Matt Daniel, Senior Consultant

## Persons and Agencies Consulted

### **City of Kingsburg**

- Greg Collins, Contract City Planner

Appendix A

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# Land Evaluation Site Assessment

**NOTES**

**Calculation of the Land Evaluation (LE) Score**

**Part 1. Land Capability Classification (LCC) Score:**

- (1) Determine the total acreage of the project.
- (2) Determine the soil types within the project area and enter them in **Column A** of the **Land Evaluation Worksheet** provided on page 2-A.
- (3) Calculate the total acres of each soil type and enter the amounts in **Column B**.
- (4) Divide the acres of each soil type (**Column B**) by the total acreage to determine the proportion of each soil type present. Enter the proportion of each soil type in **Column C**.
- (5) Determine the LCC for each soil type from the applicable Soil Survey and enter it in **Column D**.
- (6) From the LCC Scoring Table below, determine the point rating corresponding to the LCC for each soil type and enter it in **Column E**.

LCC Scoring Table

LCC Class	I	Ile	Ils,w	IIle	IIls,w	IVe	IVs,w	V	VI	VII	VIII
Points	100	90	80	70	60	50	40	30	20	10	0

- (7) Multiply the proportion of each soil type (**Column C**) by the point score (**Column E**) and enter the resulting scores in **Column F**.
- (8) Sum the LCC scores in **Column F**.
- (9) Enter the LCC score in box <1> of the **Final LESA Score Sheet** on page 10-A.

**Part 2. Storie Index Score:**

- (1) Determine the Storie Index rating for each soil type and enter it in **Column G**.
- (2) Multiply the proportion of each soil type (**Column C**) by the Storie Index rating (**Column G**) and enter the scores in **Column H**.
- (3) Sum the Storie Index scores in **Column H** to gain the Storie Index Score.
- (4) Enter the Storie Index Score in box <2> of the **Final LESA Score Sheet** on page 10-A.

## Land Evaluation Worksheet

### Land Capability Classification (LCC) and Storie Index Scores

A	B	C	D	E	F	G	H
Soil Map Unit	Project Acres	Proportion of Project Area	LCC	LCC Rating	LCC Score	Storie Index	Storie Index Score
DhA	10.4	0.73	3s	70	51.1	80	58.4
Hm	3.9	0.27	1	100	27	100	27
<b>Totals</b>	14.3	(Must Sum to 1.0)		<b>LCC Total Score</b>	78.1	<b>Storie Index Total Score</b>	85.4

## Site Assessment Worksheet 1.

### Project Size Score

	I	J	K
	LCC Class I - II	LCC Class III	LCC Class IV - VIII
		10.4	
	3.9		
<b>Total Acres</b>	3.9	10.4	
<b>Project Size Scores</b>	0	10	

**Highest Project  
Size Score**

10

**NOTES**

**Calculation of the Site Assessment (SA) Score**

**Part 1. Project Size Score:**

- (1) Using **Site Assessment Worksheet 1** provided on page 2-A, enter the acreage of each soil type from **Column B** in the **Column - I, J or K** - that corresponds to the LCC for that soil. (Note: While the Project Size Score is a component of the Site Assessment calculations, the score sheet is an extension of data collected in the Land Evaluation Worksheet, and is therefore displayed beside it).
- (2) Sum **Column I** to determine the total amount of class I and II soils on the project site.
- (3) Sum **Column J** to determine the total amount of class III soils on the project site.
- (4) Sum **Column K** to determine the total amount of class IV and lower soils on the project site.
- (5) Compare the total score for each LCC group in the Project Size Scoring Table below and determine which group receives the highest score.

**Project Size Scoring Table**

<b>Class I or II</b>		<b>Class III</b>		<b>Class IV or Lower</b>	
Acreage	Points	Acreage	Points	Acreage	Points
>80	100	>160	100	>320	100
60-79	90	120-159	90	240-319	80
40-59	80	80-119	80	160-239	60
20-39	50	60-79	70	100-159	40
10-19	30	40-59	60	40-99	20
10<	0	20-39	30	40<	0
		10-19	10		
		10<	0		

- (6) Enter the **Project Size Score** (the highest score from the three LCC categories) in box <3> of the **Final LESA Score Sheet** on page 10-A.

**NOTES**

**Part 2. Water Resource Availability Score:**

(1) Determine the type(s) of irrigation present on the project site, including a determination of whether there is dryland agricultural activity as well.

(2) Divide the site into portions according to the type or types of irrigation or dryland cropping that is available in each portion. Enter this information in **Column B** of **Site Assessment Worksheet 2. - Water Resources Availability**.

(3) Determine the proportion of the total site represented for each portion identified, and enter this information in **Column C**.

(4) Using the Water Resources Availability Scoring Table, identify the option that is most applicable for each portion, based upon the feasibility of irrigation in drought and non-drought years, and whether physical or economic restrictions are likely to exist. Enter the applicable Water Resource Availability Score into **Column D**.

(5) Multiply the Water Resource Availability Score for each portion by the proportion of the project area it represents to determine the weighted score for each portion in **Column E**.

(6) Sum the scores for all portions to determine the project's total Water Resources Availability Score

(7) Enter the Water Resource Availability Score in box <4> of the **Final LESA Score Sheet** on page 10-A.

**Site Assessment Worksheet 2. - Water Resources Availability**

A	B	C	D	E
Project Portion	Water Source	Proportion of Project Area	Water Availability Score	Weighted Availability Score (C x D)
1	well/surface water	1.0	90	90
2				
3				
4				
5				
6				
		(Must Sum to 1.0)	<b>Total Water Resource Score</b>	90



**Water Resource Availability Scoring Table**

Option	Non-Drought Years			Drought Years			WATER RESOURCE SCORE
	RESTRICTIONS			RESTRICTIONS			
	Irrigated Production Feasible?	Physical Restrictions ?	Economic Restrictions ?	Irrigated Production Feasible?	Physical Restrictions ?	Economic Restrictions ?	
1	YES	NO	NO	YES	NO	NO	100
2	YES	NO	NO	YES	NO	YES	95
3	YES	NO	YES	YES	NO	YES	90
4	YES	NO	NO	YES	YES	NO	85
5	YES	NO	NO	YES	YES	YES	80
6	YES	YES	NO	YES	YES	NO	75
7	YES	YES	YES	YES	YES	YES	65
8	YES	NO	NO	NO	-- --	-- --	50
9	YES	NO	YES	NO	-- --	-- --	45
10	YES	YES	NO	NO	-- --	-- --	35
11	YES	YES	YES	NO	-- --	-- --	30
12	Irrigated production not feasible, but rainfall adequate for dryland production in both drought and non-drought years						25
13	Irrigated production not feasible, but rainfall adequate for dryland production in non-drought years (but not in drought years)						20
14	Neither irrigated nor dryland production feasible						0

**NOTES**

**Part 3. Surrounding Agricultural Land Use Score:**

- (1) Calculate the project's Zone of Influence (ZOI) as follows:
  - (a) a rectangle is drawn around the project such that the rectangle is the smallest that can completely encompass the project area.
  - (b) a second rectangle is then drawn which extends one quarter mile on all sides beyond the first rectangle.
  - (c) The ZOI includes all parcels that are contained within or are intersected by the second rectangle, less the area of the project itself.
- (2) Sum the area of all parcels to determine the total acreage of the ZOI.
- (3) Determine which parcels are in agricultural use and sum the areas of these parcels
- (4) Divide the area in agriculture found in step (3) by the total area of the ZOI found in step (2) to determine the percent of the ZOI that is in agricultural use.
- (5) Determine the Surrounding Agricultural Land Score utilizing the Surrounding Agricultural Land Scoring Table below.

**Surrounding Agricultural Land Scoring Table**

Percent of ZOI in Agriculture	Surrounding Agricultural Land Score
90-100	100
80-89	90
75-79	80
70-74	70
65-69	60
60-64	50
55-59	40
50-54	30
45-49	20
40-44	10
<40	0

- (5) Enter the Surrounding Agricultural Land Score in box <5> of the **Final LESA Score Sheet** on page 10-A.

**Site Assessment Worksheet 3.**

**Surrounding Agricultural Land and Surrounding Protected Resource Land**

A	B	C	D	E	F	G
Zone of Influence					Surrounding Agricultural Land Score (From Table)	Surrounding Protected Resource Land Score (From Table)
Total Acres	Acres in Agriculture	Acres of Protected Resource Land	Percent in Agriculture (A/B)	Percent Protected Resource Land (A/C)		
356.39	183.31	44.86	51%	13%		

**NOTES**

**Part 4. Protected Resource Lands Score:**

The Protected Resource Lands scoring relies upon the same Zone of Influence information gathered in Part 3, and figures are entered in Site Assessment Worksheet 3, which combines the surrounding agricultural and protected lands calculations.

- (1) Use the total area of the ZOI calculated in Part 3. for the Surrounding Agricultural Land Use score.
- (2) Sum the area of those parcels within the ZOI that are protected resource lands, as defined in the California Agricultural LESA Guidelines.
- (3) Divide the area that is determined to be protected in Step (2) by the total acreage of the ZOI to determine the percentage of the surrounding area that is under resource protection.
- (4) Determine the Surrounding Protected Resource Land Score utilizing the Surrounding Protected Resource Land Scoring Table below.

**Surrounding Protected Resource Land Scoring Table**

Percent of ZOI Protected	Protected Resource Land Score
90-100	100
80-89	90
75-79	80
70-74	70
65-69	60
60-64	50
55-59	40
50-54	30
45-49	20
40-44	10
<40	0

- (5) Enter the Protected Resource Land score in box <6> of the **Final LESA Score Sheet** on page 10-A.

# **NOTES**

Total LESA Score

0-39 Points - Less than significant

40-59 Points - Less than significant only if LE and SA subscores are each greater than or equal to 20 points

60-79 Points - Significant unless either LE or SA subscore is less than 20

80-100 Points - Significant impact

Project impact is considered  
LESS THAN SIGNIFICANT

## **Final LESA Score Sheet**

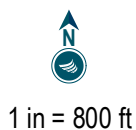
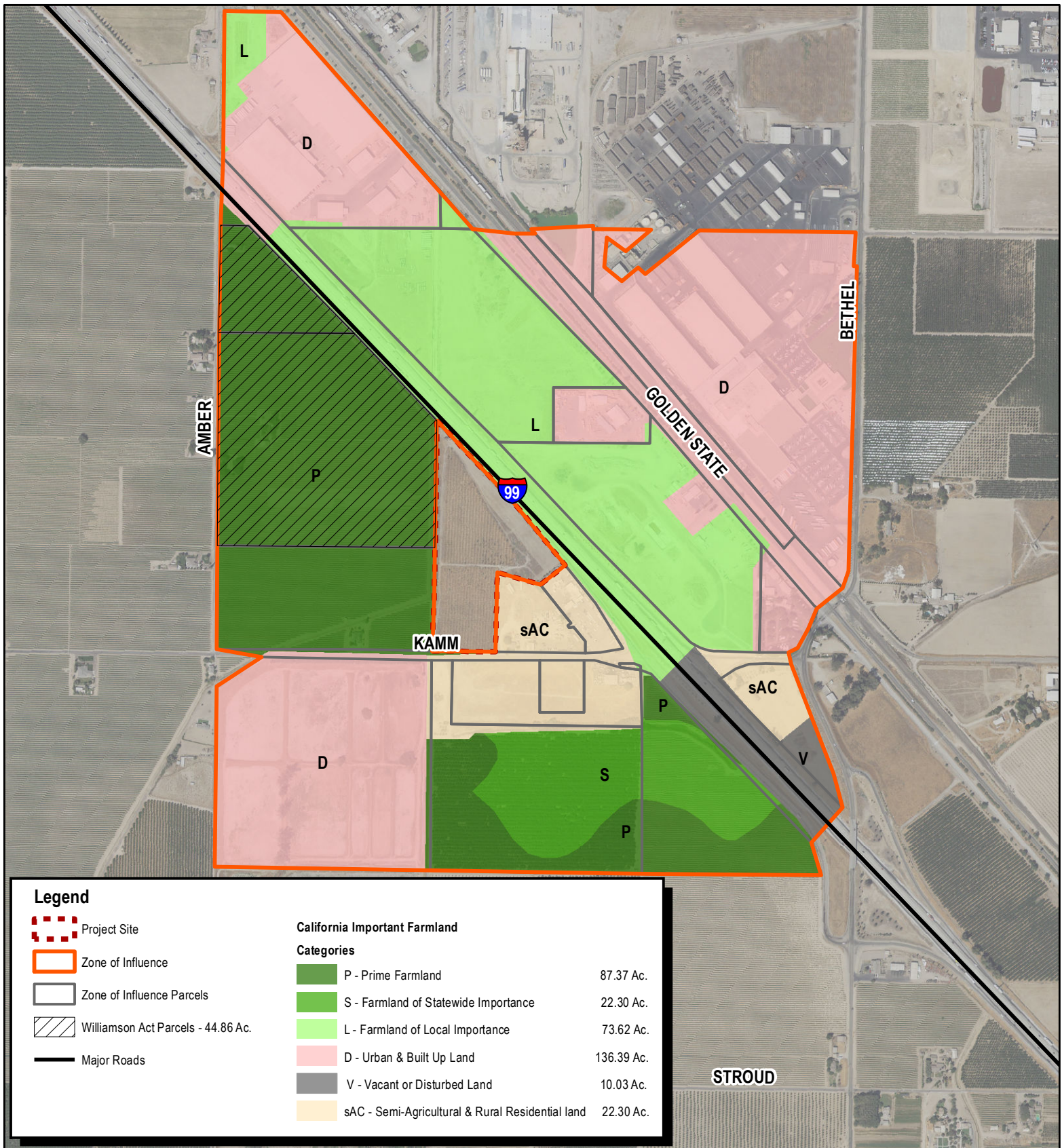
### **Calculation of the Final LESA Score:**

- (1) Multiply each factor score by the factor weight to determine the weighted score and enter in Weighted Factor Scores column.
- (2) Sum the weighted factor scores for the LE factors to determine the total LE score for the project.
- (3) Sum the weighted factor scores for the SA factors to determine the total SA score for the project.
- (4) Sum the total LE and SA scores to determine the Final LESA Score for the project.

	<b>Factor Scores</b>	<b>Factor Weight</b>	<b>Weighted Factor Scores</b>
<b>LE Factors</b>			
Land Capability Classification	<1> 78.1	0.25	19.53
Storie Index	<2> 85.4	0.25	21.4
LE Subtotal		<b>0.50</b>	40.93
<b>SA Factors</b>			
Project Size	<3> 10	0.15	1.5
Water Resource Availability	<4> 90	0.15	13.5
Surrounding Agricultural Land	<5> 30	0.15	4.5
Protected Resource Land	<6> 0	0.05	0
SA Subtotal		<b>0.50</b>	19.5
<b>Final LESA Score</b>			60.43

For further information on the scoring thresholds under the California Agricultural LESA Model, consult Section 4 of the Instruction Manual.





0 0.075 0.15 0.3 0.45 Miles

**Zone of Influence**

**References:**  
 California Department of Conservation Farmland Mapping and Monitoring Program  
 -California Important Farmland: 2018 (DL)  
 Fresno County CDS

**Notes:**  
 Acres calculated in  
 NAD 1983 2011 StatePlane California IV FIPS 0404 Ft US





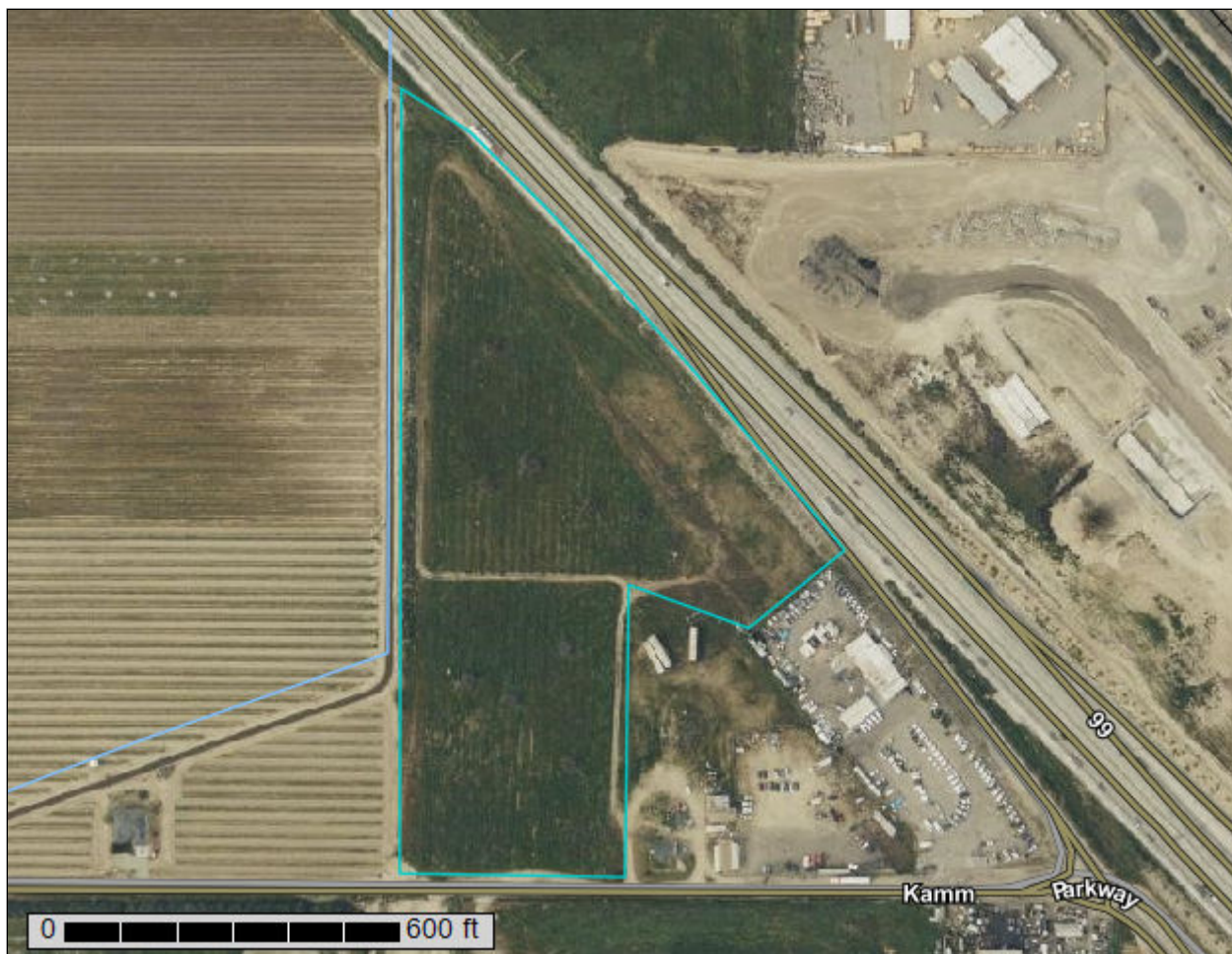
United States  
Department of  
Agriculture

**NRCS**

Natural  
Resources  
Conservation  
Service

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

# Custom Soil Resource Report for Eastern Fresno Area, California



# Preface

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

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

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (<http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/>) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (<https://offices.sc.egov.usda.gov/locator/app?agency=nrcs>) or your NRCS State Soil Scientist ([http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2\\_053951](http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2_053951)).

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

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

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

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# How Soil Surveys Are Made

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

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

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

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

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

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

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

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

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

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

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

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

## Custom Soil Resource Report

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

# Soil Map

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


# Custom Soil Resource Report Soil Map



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## MAP LEGEND

### Area of Interest (AOI)

 Area of Interest (AOI)


### Soils


 Soil Map Unit Polygons


 Soil Map Unit Lines


 Soil Map Unit Points

### Special Point Features

 Blowout

 Borrow Pit


 Clay Spot

 Closed Depression

 Gravel Pit

 Gravelly Spot

 Landfill

 Lava Flow

 Marsh or swamp

 Mine or Quarry

 Miscellaneous Water

 Perennial Water

 Rock Outcrop

 Saline Spot

 Sandy Spot

 Severely Eroded Spot


 Sinkhole


 Slide or Slip


 Sodic Spot


 Spoil Area

 Stony Spot


 Very Stony Spot

 Wet Spot

 Other

 Special Line Features

### Water Features

 Streams and Canals


### Transportation

 Rails


 Interstate Highways

 US Routes

 Major Roads

 Local Roads

### Background

 Aerial Photography

## MAP INFORMATION

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

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

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

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

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

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

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

Soil Survey Area: Eastern Fresno Area, California  
Survey Area Data: Version 13, May 29, 2020

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

Date(s) aerial images were photographed: Mar 17, 2019—Mar 24, 2019

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



## Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
DhA	Delhi loamy sand, 0 to 3 percent slopes, MLRA 17	10.4	72.6%
DhB	Delhi loamy sand, 3 to 9 percent slopes	0.0	0.1%
Hm	Hanford fine sandy loam	3.9	27.3%
<b>Totals for Area of Interest</b>		<b>14.4</b>	<b>100.0%</b>

## Map Unit Descriptions

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

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

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

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The

delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

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

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

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

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

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

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

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

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

## Eastern Fresno Area, California

### DhA—Delhi loamy sand, 0 to 3 percent slopes, MLRA 17

#### Map Unit Setting

*National map unit symbol:* 2ss8r  
*Elevation:* 30 to 430 feet  
*Mean annual precipitation:* 9 to 16 inches  
*Mean annual air temperature:* 59 to 64 degrees F  
*Frost-free period:* 225 to 310 days  
*Farmland classification:* Prime farmland if irrigated

#### Map Unit Composition

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

#### Description of Delhi

##### Setting

*Landform:* Dunes on fan remnants  
*Landform position (two-dimensional):* Toeslope, shoulder  
*Landform position (three-dimensional):* Side slope  
*Down-slope shape:* Linear  
*Across-slope shape:* Linear  
*Parent material:* Eolian deposits derived from sandy alluvium derived from granite

##### Typical profile

*A - 0 to 7 inches:* loamy sand  
*C1 - 7 to 25 inches:* loamy sand  
*C2 - 25 to 60 inches:* loamy sand

##### Properties and qualities

*Slope:* 0 to 3 percent  
*Depth to restrictive feature:* More than 80 inches  
*Drainage class:* Somewhat excessively drained  
*Runoff class:* Very low  
*Capacity of the most limiting layer to transmit water (Ksat):* High to very high (5.95 to 19.98 in/hr)  
*Depth to water table:* More than 80 inches  
*Frequency of flooding:* None  
*Frequency of ponding:* None  
*Maximum salinity:* Nonsaline (0.0 to 1.0 mmhos/cm)  
*Available water capacity:* Low (about 4.2 inches)

##### Interpretive groups

*Land capability classification (irrigated):* 3s  
*Land capability classification (nonirrigated):* 4e  
*Hydrologic Soil Group:* A  
*Hydric soil rating:* No

#### Minor Components

##### Hanford

*Percent of map unit:* 6 percent  
*Landform:* Depressions on fan remnants

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*Hydric soil rating:* No

### **Dello**

*Percent of map unit:* 6 percent

*Landform:* Depressions on fan remnants

*Hydric soil rating:* Yes

### **Grangeville**

*Percent of map unit:* 1 percent

*Hydric soil rating:* No

### **Hilmar**

*Percent of map unit:* 1 percent

*Hydric soil rating:* No

### **Dinuba**

*Percent of map unit:* 1 percent

*Hydric soil rating:* No

## **DhB—Delhi loamy sand, 3 to 9 percent slopes**

### **Map Unit Setting**

*National map unit symbol:* hl3h

*Elevation:* 230 to 400 feet

*Mean annual precipitation:* 9 to 12 inches

*Mean annual air temperature:* 61 to 63 degrees F

*Frost-free period:* 225 to 250 days

*Farmland classification:* Prime farmland if irrigated

### **Map Unit Composition**

*Delhi and similar soils:* 85 percent

*Minor components:* 15 percent

*Estimates are based on observations, descriptions, and transects of the mapunit.*

### **Description of Delhi**

#### **Setting**

*Landform:* Dunes on fan remnants

*Landform position (two-dimensional):* Toeslope, shoulder

*Landform position (three-dimensional):* Side slope

*Down-slope shape:* Linear

*Across-slope shape:* Linear

*Parent material:* Eolian deposits derived from alluvium derived from granite

#### **Typical profile**

*A - 0 to 7 inches:* loamy sand

*C1 - 7 to 25 inches:* loamy sand

*C2 - 25 to 60 inches:* loamy sand

#### **Properties and qualities**

*Slope:* 3 to 9 percent

*Depth to restrictive feature:* More than 80 inches

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*Drainage class:* Somewhat excessively drained

*Runoff class:* Low

*Capacity of the most limiting layer to transmit water (Ksat):* High to very high (5.95 to 19.98 in/hr)

*Depth to water table:* More than 80 inches

*Frequency of flooding:* None

*Frequency of ponding:* None

*Available water capacity:* Low (about 4.8 inches)

### Interpretive groups

*Land capability classification (irrigated):* 3s

*Land capability classification (nonirrigated):* 4e

*Hydrologic Soil Group:* A

*Hydric soil rating:* No

### Minor Components

#### Fresno

*Percent of map unit:* 12 percent

*Landform:* Fan remnants

*Hydric soil rating:* No

#### Unnamed, steeper slopes

*Percent of map unit:* 3 percent

*Landform:* Dunes on fan remnants

*Hydric soil rating:* No

## Hm—Hanford fine sandy loam

### Map Unit Setting

*National map unit symbol:* hl5p

*Elevation:* 200 to 500 feet

*Mean annual precipitation:* 8 to 15 inches

*Mean annual air temperature:* 61 to 63 degrees F

*Frost-free period:* 250 to 275 days

*Farmland classification:* Prime farmland if irrigated

### Map Unit Composition

*Hanford and similar soils:* 85 percent

*Minor components:* 15 percent

*Estimates are based on observations, descriptions, and transects of the mapunit.*

### Description of Hanford

#### Setting

*Landform:* Alluvial fans, flood plains

*Landform position (two-dimensional):* Footslope, toeslope

*Landform position (three-dimensional):* Base slope, rise

*Down-slope shape:* Linear

*Across-slope shape:* Linear

*Parent material:* Alluvium derived from granite

## Custom Soil Resource Report

### Typical profile

*A - 0 to 16 inches:* fine sandy loam  
*C - 16 to 72 inches:* fine sandy loam

### Properties and qualities

*Slope:* 0 to 2 percent  
*Depth to restrictive feature:* More than 80 inches  
*Drainage class:* Well drained  
*Runoff class:* Very low  
*Capacity of the most limiting layer to transmit water (Ksat):* High (1.98 to 5.95 in/hr)  
*Depth to water table:* More than 80 inches  
*Frequency of flooding:* None  
*Frequency of ponding:* None  
*Available water capacity:* Moderate (about 7.8 inches)

### Interpretive groups

*Land capability classification (irrigated):* 1  
*Land capability classification (nonirrigated):* 4c  
*Hydrologic Soil Group:* A  
*Hydric soil rating:* No

### Minor Components

#### Unnamed, loam

*Percent of map unit:* 10 percent  
*Landform:* Flood plains  
*Hydric soil rating:* No

#### Unnamed, steeper slopes

*Percent of map unit:* 4 percent  
*Landform:* Benches  
*Hydric soil rating:* No

#### Unnamed

*Percent of map unit:* 1 percent  
*Landform:* Drainageways on flood plains  
*Hydric soil rating:* Yes

# **Soil Information for All Uses**

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## **Suitabilities and Limitations for Use**

The Suitabilities and Limitations for Use section includes various soil interpretations displayed as thematic maps with a summary table for the soil map units in the selected area of interest. A single value or rating for each map unit is generated by aggregating the interpretive ratings of individual map unit components. This aggregation process is defined for each interpretation.

## **Land Classifications**

Land Classifications are specified land use and management groupings that are assigned to soil areas because combinations of soil have similar behavior for specified practices. Most are based on soil properties and other factors that directly influence the specific use of the soil. Example classifications include ecological site classification, farmland classification, irrigated and nonirrigated land capability classification, and hydric rating.

## **California Revised Storie Index (CA)**

The Revised Storie Index is a rating system based on soil properties that govern the potential for soil map unit components to be used for irrigated agriculture in California.

The Revised Storie Index assesses the productivity of a soil from the following four characteristics:

- Factor A: degree of soil profile development
- Factor B: texture of the surface layer
- Factor C: steepness of slope
- Factor X: drainage class, landform, erosion class, flooding and ponding frequency and duration, soil pH, soluble salt content as measured by electrical conductivity, and sodium adsorption ratio

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Revised Storie Index numerical ratings have been combined into six classes as follows:

- Grade 1: Excellent (81 to 100)
- Grade 2: Good (61 to 80)
- Grade 3: Fair (41 to 60)
- Grade 4: Poor (21 to 40)
- Grade 5: Very poor (11 to 20)
- Grade 6: Nonagricultural (10 or less)

The components listed for each map unit in the accompanying Summary by Map Unit table in Web Soil Survey or the Aggregation Report in Soil Data Viewer are determined by the aggregation method chosen. An aggregated rating class is shown for each map unit. The components listed for each map unit are only those that have the same rating class as the one shown for the map unit. The percent composition of each component in a particular map unit is given to help the user better understand the extent to which the rating applies to the map unit.

Other components with different ratings may occur in each map unit. The ratings for all components, regardless the aggregated rating of the map unit, can be viewed by generating the equivalent report from the Soil Reports tab in Web Soil Survey or from the Soil Data Mart site. Onsite investigation may be needed to validate these interpretations and to confirm the identity of the soil on a given site.




Custom Soil Resource Report  
Map—California Revised Storie Index (CA)



## Custom Soil Resource Report









### MAP LEGEND

#### Area of Interest (AOI)









 Area of Interest (AOI)

#### Soils





##### Soil Rating Polygons





-  Grade 1 - Excellent
-  Grade 2 - Good
-  Grade 3 - Fair
-  Grade 4 - Poor
-  Grade 5 - Very Poor
-  Grade 6 - Nonagricultural
-  Not rated
-  Not rated or not available

##### Soil Rating Lines


-  Grade 1 - Excellent
-  Grade 2 - Good
-  Grade 3 - Fair
-  Grade 4 - Poor
-  Grade 5 - Very Poor
-  Grade 6 - Nonagricultural
-  Not rated
-  Not rated or not available

##### Soil Rating Points






-  Grade 1 - Excellent
-  Grade 2 - Good
-  Grade 3 - Fair
-  Grade 4 - Poor

-  Grade 5 - Very Poor
-  Grade 6 - Nonagricultural
-  Not rated
-  Not rated or not available

#### Water Features

 Streams and Canals

#### Transportation

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

#### Background

 Aerial Photography

### MAP INFORMATION

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

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

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

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

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

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

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

Soil Survey Area: Eastern Fresno Area, California  
Survey Area Data: Version 13, May 29, 2020

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

Date(s) aerial images were photographed: Mar 17, 2019—Mar 24, 2019

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

**Table—California Revised Storie Index (CA)**

Map unit symbol	Map unit name	Rating	Component name (percent)	Acres in AOI	Percent of AOI
DhA	Delhi loamy sand, 0 to 3 percent slopes, MLRA 17	Grade 2 - Good	Delhi (85%)	10.4	72.6%
DhB	Delhi loamy sand, 3 to 9 percent slopes	Grade 2 - Good	Delhi (85%)	0.0	0.1%
Hm	Hanford fine sandy loam	Grade 1 - Excellent	Hanford (85%)	3.9	27.3%
<b>Totals for Area of Interest</b>				<b>14.4</b>	<b>100.0%</b>

**Rating Options—California Revised Storie Index (CA)**

*Aggregation Method:* Dominant Condition

*Component Percent Cutoff:* None Specified

*Tie-break Rule:* Lower

**Irrigated Capability Class**

Land capability classification shows, in a general way, the suitability of soils for most kinds of field crops. Crops that require special management are excluded. The soils are grouped according to their limitations for field crops, the risk of damage if they are used for crops, and the way they respond to management. The criteria used in grouping the soils do not include major and generally expensive landforming that would change slope, depth, or other characteristics of the soils, nor do they include possible but unlikely major reclamation projects. Capability classification is not a substitute for interpretations that show suitability and limitations of groups of soils for rangeland, for woodland, or for engineering purposes.

In the capability system, soils are generally grouped at three levels-capability class, subclass, and unit. Only class and subclass are included in this data set.

Capability classes, the broadest groups, are designated by the numbers 1 through 8. The numbers indicate progressively greater limitations and narrower choices for practical use. The classes are defined as follows:

Class 1 soils have few limitations that restrict their use.

Class 2 soils have moderate limitations that reduce the choice of plants or that require moderate conservation practices.

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Class 3 soils have severe limitations that reduce the choice of plants or that require special conservation practices, or both.

Class 4 soils have very severe limitations that reduce the choice of plants or that require very careful management, or both.

Class 5 soils are subject to little or no erosion but have other limitations, impractical to remove, that restrict their use mainly to pasture, rangeland, forestland, or wildlife habitat.

Class 6 soils have severe limitations that make them generally unsuitable for cultivation and that restrict their use mainly to pasture, rangeland, forestland, or wildlife habitat.

Class 7 soils have very severe limitations that make them unsuitable for cultivation and that restrict their use mainly to grazing, forestland, or wildlife habitat.

Class 8 soils and miscellaneous areas have limitations that preclude commercial plant production and that restrict their use to recreational purposes, wildlife habitat, watershed, or esthetic purposes.



Custom Soil Resource Report  
Map—Irrigated Capability Class



## Custom Soil Resource Report










### MAP LEGEND

#### Area of Interest (AOI)










 Area of Interest (AOI)

#### Soils



##### Soil Rating Polygons








 Capability Class - I  
 Capability Class - II  
 Capability Class - III  
 Capability Class - IV  
 Capability Class - V  
 Capability Class - VI  
 Capability Class - VII  
 Capability Class - VIII  
 Not rated or not available

##### Soil Rating Lines


 Capability Class - I  
 Capability Class - II  
 Capability Class - III  
 Capability Class - IV  
 Capability Class - V  
 Capability Class - VI  
 Capability Class - VII  
 Capability Class - VIII  
 Not rated or not available

##### Soil Rating Points






 Capability Class - I  
 Capability Class - II

 Capability Class - III  
 Capability Class - IV  
 Capability Class - V  
 Capability Class - VI  
 Capability Class - VII  
 Capability Class - VIII  
 Not rated or not available


#### Water Features

 Streams and Canals

#### Transportation

 Rails  
 Interstate Highways  
 US Routes  
 Major Roads  
 Local Roads

#### Background

 Aerial Photography

### MAP INFORMATION

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

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

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

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

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

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

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

Soil Survey Area: Eastern Fresno Area, California  
Survey Area Data: Version 13, May 29, 2020

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

Date(s) aerial images were photographed: Mar 17, 2019—Mar 24, 2019

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

**Table—Irrigated Capability Class**

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
DhA	Delhi loamy sand, 0 to 3 percent slopes, MLRA 17	3	10.4	72.6%
DhB	Delhi loamy sand, 3 to 9 percent slopes	3	0.0	0.1%
Hm	Hanford fine sandy loam	1	3.9	27.3%
<b>Totals for Area of Interest</b>			<b>14.4</b>	<b>100.0%</b>

**Rating Options—Irrigated Capability Class***Aggregation Method: Dominant Condition**Component Percent Cutoff: None Specified**Tie-break Rule: Higher*

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- United States Department of Agriculture, Natural Resources Conservation Service. National range and pasture handbook. <http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/landuse/rangepasture/?cid=stelprdb1043084>



## Custom Soil Resource Report

United States Department of Agriculture, Natural Resources Conservation Service. National soil survey handbook, title 430-VI. [http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/scientists/?cid=nrcs142p2\\_054242](http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/scientists/?cid=nrcs142p2_054242)

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Appendix B

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# Focused Air Quality Study

# **FOCUSED AIR QUALITY STUDY**

## **Khalsa Truck Terminal Relocation Kingsburg, CA**

### **Prepared For:**

**Crawford & Bowen Planning, Inc.**  
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### **Prepared By:**

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February 2021

Project 200505.0218



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## 1. EXECUTIVE SUMMARY

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### 1.1 Executive Summary

Trinity Consultants (Trinity) has completed a Focused Air Quality Study (FAQS) for the Khalsa Truck Terminal relocation in Kingsburg, CA. The Project includes the relocation of the existing terminal operations and construction of a new 8,800 square foot office building, 15,000 square foot repair and maintenance building, and two diesel fueling stations.

This FAQS was prepared pursuant to the SJVAPCD's Guidance for Assessing and Mitigating Air Quality Impacts (GAMAQI) (SJVAPCD 2015), the California Environmental Quality Act (CEQA) (Public Resources Code 21000 to 21189) and the CEQA Guidelines (California Code of Regulations Title 14, Division 6, Chapter 3, Sections 15000 – 15387).

### 1.2 Statement of Finding

The emissions estimates prepared for this FAQS do not exceed the SJVAPCD's established emissions thresholds and significance thresholds for all CEQA air quality determinations; therefore, this Project would not pose a significant impact to the San Joaquin Valley Air Basin and would have a *less than significant air quality impact*.

## 2. PROJECT INFORMATION

### 2.1 Introduction

The Project site is located in the City of Kingsburg at the intersection of Kamm Avenue and State Highway 99 on APN 393-112-41. The Project includes relocation of the existing terminal operations which are located at 1371 S. Fowler Avenue in Selma, CA, and construction of a new 8,800 square foot office building, 15,000 square foot repair and maintenance building, and two diesel fueling stations. The Project was assessed as if it would be developed in one phase. This assessment considers the existing emissions at the Selma location as the Project proponent's "baseline" emissions and examines the projected net impacts to air quality posed by this Project to the San Joaquin Valley Air Basin. The net change in emissions from the Selma operation to the Project location and operation were used to determine whether or not the Project remains below established air quality thresholds of significance.

### 2.2 Project Location

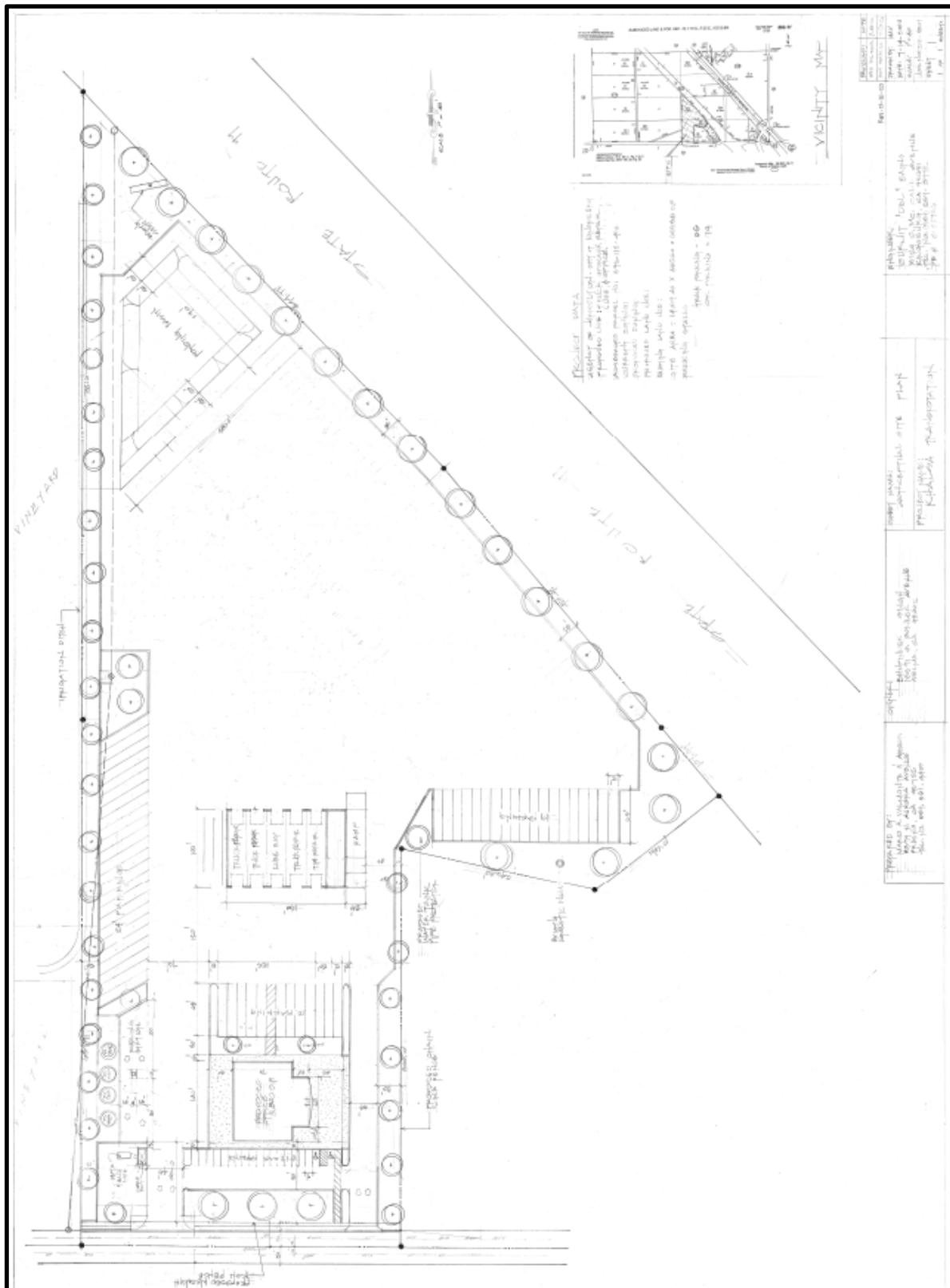
The Project is located in the City of Kingsburg at the intersection of Kamm Avenue and State Highway 99. **Figure 2-1** depicts the Project location within the City of Kingsburg and **Figure 2-2** depicts the proposed site plan.

**Figure 2-1. Project Location**





Figure 2-2. Proposed Site Plan



### 3. AIR QUALITY IMPACTS THRESHOLDS AND EVALUATION METHODOLOGY

Significance thresholds are based on the CEQA Appendix G Environmental Checklist Form (not included herein) and SJVAPCD air quality thresholds (SJVAPCD 2015). A potentially significant impact to air quality, as defined by the CEQA Checklist, would occur if the project caused one or more of the following:

- ▶ Conflict with or obstruct implementation of the applicable air quality plan;
- ▶ 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;
- ▶ Expose sensitive receptors to substantial pollutant concentrations; and/or
- ▶ Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.

The SJVAPCD has identified quantitative emission thresholds to determine whether the potential air quality impacts of a project require analysis in the form of an Environmental Impact Report. The SJVAPCD air quality thresholds from the GAMAQI are presented in **Table 3-1** (SJVAPCD 2015). The SJVAPCD separates construction emissions from operational emissions, and further separates permitted operational emissions from non-permitted operational emissions, for determining significance thresholds for air pollutant emissions.

**Table 3-1. SJVAPCD Air Quality Thresholds of Significance - Criteria Pollutants**

Pollutant/ Precursor	Construction Emissions	Operational Emissions	
		Permitted Equipment and Activities	Non-Permitted Equipment and Activities
	Emissions (tpy)	Emissions (tpy)	Emissions (tpy)
CO	100	100	100
NOx	10	10	10
ROG	10	10	10
SOx	27	27	27
PM <sub>10</sub>	15	15	15
PM <sub>2.5</sub>	15	15	15

Source: SJVAPCD 2015

Criteria pollutant emissions were estimated using the California Emissions Estimator Model (CalEEMod) version 2016.3.2 (California Air Pollution Control Officers Association (CAPCOA) 2016). This project would generate short-term construction emissions and long-term operational emissions.

An air quality evaluation also considers: 1) exposure of sensitive receptors to substantial pollutant concentrations; and 2) the creation of other emissions (such as those leading to odors) adversely affecting a substantial number of people. The criteria for this evaluation are based on the Lead Agency's determination of the proximity of the proposed Project to sensitive receptors. A sensitive receptor is a location where human populations, especially children, senior citizens and sick persons, are present, and where there is a reasonable expectation of continuous human exposure to pollutants, according to the averaging period for ambient air quality standards, i.e. the 24-hour, 8-hour, or 1-hour standards. Commercial and industrial sources are not considered sensitive receptors.

## 4. PROJECT-RELATED EMISSIONS

This document was prepared pursuant to the SJVAPCD's GAMAQI and provides a cursory review of the Project emissions to demonstrate that it would not exceed established air quality emissions thresholds.

### 4.1 Short-Term Emissions

**Table 4-1** shows the construction emission levels using CalEEMod factors for construction of a 23,800 square foot general light industrial facility (see Attachment A).

Adjustment to default values in CalEEMod included:

- ▶ Site acreage adjusted to match actual acreage; and
- ▶ Construction schedule adjusted to match anticipated schedule.

Construction emission estimates also included the following SJVAPCD's required measures for all projects:

- ▶ Water exposed area 3 times per day; and
- ▶ Reduce vehicle speed to less than 15 miles per hour.

Based on these anticipated activity levels, the Project construction activities would not exceed construction thresholds (**Table 4-1**). Therefore, construction emissions were found to be less than significant, and no further evaluation is required.

**Table 4-1. Construction Emissions**

Emissions Source	Pollutant					
	ROG	NOx	CO	SOx	PM <sub>10</sub>	PM <sub>2.5</sub>
	(tons/year)					
2021 Emissions	0.32	1.46	1.32	0.002	0.12	0.09
SJVAPCD Construction Emissions Thresholds	10	10	100	27	15	15
Is Threshold Exceeded?	No	No	No	No	No	No

### 4.2 Long-Term Emissions

Long-term emissions impacts for the Project were determined by establishing baseline operations from the Selma location and comparing these with the increases/decreases associated with the proposed Project. The incremental change from the existing operation to the proposed Project were determined and are presented herein. **Table 4-2** presents the Project's long-term incremental operations emissions generated from mobile, energy, and area sources as well as from water use and waste generation. Most of these emissions impacts are from mobile sources traveling to and from the Project location. The following changes to default values were incorporated during the CalEEMod analysis:

- ▶ Trip rates were adjusted to match the traffic study and only evaluate the proposed incremental increase:
  - Employee One-Way Trips:
    - ◆ Baseline One-Way Trips = 85 per day
    - ◆ Traffic Study One-Way Trips = 144 per day
    - ◆ Increased One-Way Trips = 59 per day
  - Truck Trips:
    - ◆ Baseline One-Way Trips = 30 per day

- ◆ Traffic Study One-Way Trips = 84 per day
  - ◆ Increased One-Way Trips = 54 per day
- ▶ Mileage for truck trips were adjusted to 50 miles per trip;
  - ▶ Fleet mix was updated to 50% light duty auto (LDA) and 50% Light duty trucks (LDT1) for employee trips and 100% heavy heavy duty trucks (HHDT) for truck trips.

**Table 4-2. Total Project Operational Emissions**

Emissions Source	Pollutant					
	ROG	NOx	CO	SOx	PM <sub>10</sub>	PM <sub>2.5</sub>
	(tons/year)					
Area and Energy	0.11	0.02	0.02	0.0002	0.002	0.002
Employee Trips	0.02	0.03	0.29	0.0007	0.076	0.021
Truck Trips	0.16	4.88	0.77	0.0175	0.440	0.134
<i>Total</i>	<i>0.29</i>	<i>4.93</i>	<i>1.08</i>	<i>0.0184</i>	<i>0.518</i>	<i>0.157</i>
SJVAPCD Operational Emissions Thresholds – non-permitted sources	10	10	100	27	15	15
Is Threshold Exceeded?	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>

As calculated (see **Attachment A**), the long-term incremental operational emissions increase associated with the proposed Project would be less than SJVAPCD significance threshold levels and would, therefore, not pose a significant impact to criteria air pollutants.

### 4.3 Greenhouse Gas Emissions

The Project's greenhouse gas (GHG) emissions are primarily from mobile source activities. Not all GHGs exhibit the same ability to induce climate change; as a result, GHG contributions are commonly quantified as carbon dioxide equivalents (CO<sub>2</sub>e) (**see Attachment A**). The proposed Project's operational CO<sub>2</sub>e emissions were estimated using CalEEMod and, as with the Project's Operational Emissions, GHG emissions are based on the incremental change from the Selma operation to the proposed Project's emissions. The Project's GHG emissions are summarized in **Table 4-3**.

**Table 4-3. Estimated Annual Greenhouse Gas Emissions**

	CO <sub>2</sub> Emissions metric tons	CH <sub>4</sub> Emissions metric tons	N <sub>2</sub> O Emissions metric tons	CO <sub>2</sub> e Emissions metric tons
Area	0.0004	0.000	0.000	0.0005
Energy	87.57	0.003	0.001	87.97
Waste	5.99	0.354	0.000	14.84
Water	10.41	0.180	0.004	16.19
Employee Trips	60.41	0.002	0.000	60.46
Truck Trips	1,667.13	0.072	0.000	1,668.92
<i>Total</i>	<i>1,831.51</i>	<i>0.611</i>	<i>0.005</i>	<i>1,848.38</i>
2005 BAU	2,023.32	0.789	0.005	2,044.66
<b>BAU less Project emissions</b>				<b>9.6%</b>

The current inventory and forecast for GHG emissions in the California Air Resources Board's 2008 Climate Change Scoping Plan supports the 2011 IPPC estimates. The 2008 Climate Change Scoping Plan also indicates

that GHG emissions will increase to 596.41 million metric tons of CO<sub>2</sub>e by 2020. It is widely understood that climate change is a “global” issue and, as such, GHG emissions are a cumulative problem and can only be evaluated as such.

The amount of CO<sub>2</sub> that would be generated by the Project is so small in relation to the California CO<sub>2</sub> equivalent estimates for 2020 (596 million metric tons CO<sub>2</sub>e) that it's not possible for the contribution of the project to be cumulatively considerable. Additionally, the Project's GHG emissions are less than the 2005 business as usual emissions for the Project by 196.28 metric tons CO<sub>2</sub>e, which is a 9.6% reduction. Therefore, the Project would not generate a cumulatively considerable GHG impact nor would it conflict with any applicable plan, policy or regulation adopted for the purpose of reducing the emissions of GHGs. The Project will also not conflict with any elements of the California Air Resources Board's 2008 Climate Change Scoping Plan. Therefore, this potential impact is less than significant.

#### **4.4 Potential Impact on Sensitive Receptors**

The proposed Project is located in the City of Kingsburg at the intersection of Kamm Avenue and State Highway 99. Sensitive receptors are defined as areas where young children, chronically ill individuals, the elderly or people who are more sensitive than the general population reside. Schools, hospitals, nursing homes and daycare centers are locations where sensitive receptors would likely reside. The closest school is Rafer Johnson Junior High School at 1.51 miles to the southeast. The closest nursing home is Kingsburg Care Center at 1.53 miles to the southeast. There are no known schools, hospitals, or nursing homes within a one-mile radius of the Project.

Based on the predicted operational emissions and activity types, the proposed Project is not expected to affect any on-site or off-site sensitive receptors and is not expected to have any adverse impacts on any known sensitive receptor.

#### **4.5 Potential Impacts to Visibility to Nearby Class 1 Areas**

It should be noted that visibility impact analyses are not usually conducted for area sources. The recommended analysis methodology was initially intended for stationary sources of emissions which were subject to the Prevention of Significant Deterioration (PSD) requirements in 40 CFR Part 60. Since the Project's emissions are predicted to be significantly less than the PSD threshold levels, an impact at either the Kings Canyon National Park or the Sequoia National Park Areas (the two nearest Class 1 areas to the Project) is extremely unlikely. Therefore, based on the Project's predicted emissions, the Project is not expected to have any adverse impact to visibility at any Class 1 Area.

#### **4.6 Potential Odor Impacts**

The proposed Project is a truck terminal. Expected uses are not known to be a source of nuisance odors and are not listed in Table 6 of the SJVAPCD's GAMAQI. The Project is therefore not anticipated to have substantial odor impacts. The Project is therefore anticipated to have a less than significant odor impact.

#### **4.7 Ambient Air Quality Impacts**

As stated in the of GAMAQI (2015, p 96-97), SJVAPCD has developed screening levels for requiring an Ambient Air Quality Analysis (AAQA). The SJVAPCD recommends that an AAQA be performed for all criteria pollutants when emissions of any criteria pollutant resulting from project construction or operational activities exceed

the 100 pounds per day screening level, after compliance with Rule 9510 requirements and implementation of all enforceable mitigation measures.

As shown above in **Table 4-1** and **Table 4-2**, average daily emissions for construction and operational activities associated with this Project would not exceed 100 pounds per day. Therefore, an AAQA is not required for this Project.

## 4.8 Toxic Air Contaminant (TAC) Impacts

TACs, as defined by the California Health & Safety Code (CH&SC) §44321, are listed in Appendices AI and AII in AB 2588 Air Toxic “Hot Spots” and Assessment Act’s Emissions Inventory Criteria and Guideline Regulation document. SJVAPCD’s risk management objectives for permitting and CEQA are as follows:

- ▶ Minimize health risks from new and modified sources of air pollution.
- ▶ Health risks from new and modified sources shall not be significant relative to the background risk levels and other risk levels that are typically accepted throughout the community.
- ▶ Avoid unreasonable restrictions on permitting.

The proposed Project is a truck terminal and will generate TAC emissions from diesel exhaust due to truck travel on-site and would be located near existing residents; therefore, an assessment of the potential risk to the population attributable to emissions of TACs from the proposed Project is required.

To predict the potential health risk to the population attributable to emissions of TACs from the proposed Project, ambient air concentrations were predicted with dispersion modeling to arrive at a conservative estimate of increased individual carcinogenic risk that might occur as a result of continuous exposure over a 70-year lifetime for operational emissions. Similarly, predicted concentrations were used to calculate non-cancer chronic and acute hazard indices (HIs), which are the ratio of expected exposure to acceptable exposure. The basis for evaluating potential health risk is the identification of sources with increased TACs. TAC emissions from anticipated on-site HHD trucks were evaluated.

Health risk is determined using the Hotspots Analysis and Reporting Program (HARP2) software distributed by the CARB; HARP2 requires peak 1-hour emission rates and annual-averaged emission rates for all pollutants for each modeling source. Assumptions used to calculate the emission rates for the proposed Project are outlined below.

The most recent version of EPA’s AMS/EPA Regulatory Model - AERMOD (recompiled for the Lakes ISC-AERMOD View interface) was used to predict the dispersion of emissions from the proposed Project. The analysis employed all of the regulatory default AERMOD model keyword parameters, including elevated terrain options.

Diesel combustion emissions from 42 trucks making round trips per day each were modeled as volume line sources for on-site travel. There is no truck idling on-site therefore emissions from idling were not modeled. The assumed 42 truck trips per day was based on the trip rates from the Project traffic study and on-site VMT were estimated in Google Earth. Diesel particulate matter was calculated using CalEEMod approved emission factors for HHDT trucks. A unit emission rate of 1 grams/second (g/sec) was input to AERMOD for each source.

Discrete receptors were placed on scattered agricultural houses and businesses within close proximity of the Project site. Discrete receptors were not placed on schools as there are none within one mile of the Project

site. A total of 162 discrete off-site receptors were analyzed. Elevated terrain options were employed even though there is not complex terrain in the Project area.

SJVAPCD-provided, AERMET UStar processed meteorological datasets for the Visalia monitoring station, calendar years 2007 through 2010 was input to AERMOD (SJVAPCD, 2018). This was the most recent available dataset available at the time the modeling was conducted. Rural dispersion parameters were used because the operation and the majority of the land surrounding the facility is considered "rural" under the Auer land use classification method (Auer 1978).

Plot files generated by AERMOD were imported the Air Dispersion Modeling and Risk Assessment Tool (ADMRT) program in the Hotspots Analysis and Reporting Program Version 2 (HARP2). ADMRT post-processing was used to assess the potential for excess cancer risk and chronic non-cancer effects using the most recent health effects data from the California EPA Office of Environmental Health Hazard Assessment (OEHHA).

HARP post-processing was used to assess the potential for excess chronic non-cancer effects and cancer risk using the most recent health effects data from OEHHA. HARP2 site parameters were set for the mandatory minimum pathways. Risk reports were generated using the derived OEHHA analysis method for carcinogenic risk and non-carcinogenic chronic and acute risk. Site parameters are included in the HARP2 output files. Total cancer risk was predicted at each receptor. A hazard index was computed for chronic non-cancer health effects for each applicable endpoint and each receptor. There is currently no acute risk associated with DPM emissions, therefore, acute risk has not been calculated. SJVAPCD has set the level of significance for carcinogenic risk at twenty in one million, which is understood as the possibility of causing twenty additional cancer cases in a population of one million people. The level of significance for chronic non-cancer risk is a hazard index of 1.0. All receptors were modeled as residential receptors with a 70-year exposure for operational emissions. This is conservative since all business receptors would be exposed less than 70 years.

The carcinogenic risk and the health hazard index (HI) for chronic non-cancer risk at the point of maximum impact (PMI) do not exceed the significance levels of twenty in one million ( $20 \times 10^{-6}$ ) and 1.0, respectively for the proposed Project. The PMIs are identified by receptor location and risk and are provided in **Table 4-4**. The electronic AERMOD and HARP2 output files are provided in **Appendix B**.

**Table 4-4. Potential Maximum Impacts Predicted by HARP**

	Operational Value	UTM East	UTM North
Excess Cancer Risk	1.36E-06	268802.08	4046134.14
Chronic Hazard Index	3.39E-04	268802.08	4046134.14

As shown above in **Table 4-4**, the maximum predicted cancer risk for the proposed Project is 1.36E-06. The maximum chronic non-cancer hazard index for the proposed Project is 3.39E-04. Since the PMI remained below the significance threshold for cancer and chronic risk, this Project would not have an adverse effect on any of the surrounding communities.

*The potential health risk attributable to the proposed Project is determined to be less than significant based on the following conclusions:*

1. Potential carcinogenic risk from the proposed Project is below the significance level of twenty in one million at each of the modeled receptors; and



2. The hazard index for the potential chronic non-cancer risk from the proposed Project is below the significance level of 1.0 at each of the modeled receptors.
3. The hazard index for the potential acute non-cancer risk was not calculated since there is no acute risk associated with DPM emission. Therefore, the proposed Project is considered below the significance level.

Therefore, potential risk to the population attributable to emissions of HAPs from the proposed Project would be less than significant.

## **4.9 Cumulative Impacts**

Cumulative impacts were also evaluated; however, cumulative emissions were not quantified because no other tentative projects were found within a one-mile radius of the Proposed Project which provided enough project detail information to accurately estimate emissions. Owing to the inherently cumulative nature of air quality impacts, the threshold for whether a project would make a cumulatively considerable contribution to a significant cumulative impact is currently based on whether the proposed Project would exceed established project-level thresholds. As such, a qualitative evaluation of the cumulative projects supports a finding that the Project's contribution would not be cumulatively considerable because the proposed Project's incremental emissions increase would be less than significant.



## 5. CONCLUSIONS

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Based on the criteria established by the SJVAPCD's GAMAQI, the Project as proposed, when compared to the existing operation as a baseline, would not pose an incremental emissions increase that would exceed the SJVAPCD's criteria air pollutant emission levels and would generate *less than significant air quality impacts*.

## 6. REFERENCES

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- California Environmental Quality Act (CEQA). 2019. (Public Resources Code 21000 - 21189) and CEQA Guidelines (California Code of Regulations Title 14, Division 6, Chapter 3, Sections 15000 – 15387).
- . 2019. CEQA, Appendix G – Environmental Checklist Form, Final Text.
- California Air Pollution Control Officers Association (CAPCOA). 2016. California Emissions Estimator Model tm (CalEEMod), version 2016.3.2.
- . 2016. "Air Toxic Hot Spots" Facility Prioritization Guidelines, Revised 2016.
- San Joaquin Valley Air Pollution Control District (SJVAPCD). 2015. Guidance for Assessing and Mitigating Air Quality Impacts (GAMAQI). March 19, 2015. [http://www.valleyair.org/transportation/GAMAQI\\_3-19-15.pdf](http://www.valleyair.org/transportation/GAMAQI_3-19-15.pdf)
- . 2009. Guidance for Valley Land-use Agencies in Addressing GHG Emission Impacts for New Projects under CEQA. December 17, 2009.
- . 2018. Modeling Meteorological Data. Updated May 15, 2018.  
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## **APPENDIX A. CALEEMOD EMISSIONS ESTIMATES OUTPUT FILES**

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## Khalsa Truck Terminal - Buildings and Employee Travel - Fresno County, Annual

## Khalsa Truck Terminal - Buildings and Employee Travel Fresno County, Annual

### 1.0 Project Characteristics

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#### 1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	23.80	1000sqft	14.56	23,800.00	0

#### 1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	45
Climate Zone	3			Operational Year	2021
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	CH4 Intensity (lb/MWhr)	0.029	N2O Intensity (lb/MWhr)	0.006

#### 1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Actual Project acreage

Construction Phase - Estimated construction schedule

Vehicle Trips - The project has an increase of 113 trips (59 employee trips and 54 truck trips).  $59/23.8 = 2.479$  trip rate. This run will only have the increase of employee trips. A subsequent run will evaluate the increased truck trips.

Fleet Mix - Employee trips have been divided evenly between LDA and LDT1

Construction Off-road Equipment Mitigation -

Area Mitigation -

## Khalsa Truck Terminal - Buildings and Employee Travel - Fresno County, Annual

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	20.00	5.00
tblConstructionPhase	NumDays	300.00	135.00
tblConstructionPhase	NumDays	30.00	5.00
tblConstructionPhase	NumDays	20.00	5.00
tblConstructionPhase	NumDays	10.00	5.00
tblConstructionPhase	PhaseEndDate	9/9/2022	10/29/2021
tblConstructionPhase	PhaseEndDate	7/15/2022	10/15/2021
tblConstructionPhase	PhaseEndDate	5/21/2021	4/9/2021
tblConstructionPhase	PhaseEndDate	8/12/2022	10/22/2021
tblConstructionPhase	PhaseEndDate	4/9/2021	4/2/2021
tblConstructionPhase	PhaseStartDate	8/13/2022	10/23/2021
tblConstructionPhase	PhaseStartDate	5/22/2021	4/10/2021
tblConstructionPhase	PhaseStartDate	4/10/2021	4/3/2021
tblConstructionPhase	PhaseStartDate	7/16/2022	10/16/2021
tblFleetMix	HHD	0.12	0.00
tblFleetMix	LDA	0.49	0.50
tblFleetMix	LDT1	0.03	0.50
tblFleetMix	LDT2	0.17	0.00
tblFleetMix	LHD1	0.02	0.00
tblFleetMix	LHD2	4.7320e-003	0.00
tblFleetMix	MCY	5.1540e-003	0.00
tblFleetMix	MDV	0.12	0.00
tblFleetMix	MH	6.2900e-004	0.00
tblFleetMix	MHD	0.03	0.00
tblFleetMix	OBUS	2.3660e-003	0.00

## Khalsa Truck Terminal - Buildings and Employee Travel - Fresno County, Annual

tblFleetMix	SBUS	1.0970e-003	0.00
tblFleetMix	UBUS	1.5900e-003	0.00
tblGrading	AcresOfGrading	12.50	75.00
tblLandUse	LotAcreage	0.55	14.56
tblVehicleTrips	CC_TTP	28.00	0.00
tblVehicleTrips	CNW_TTP	13.00	0.00
tblVehicleTrips	CW_TTP	59.00	100.00
tblVehicleTrips	DV_TP	5.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	92.00	100.00
tblVehicleTrips	ST_TR	1.32	2.48
tblVehicleTrips	SU_TR	0.68	2.48
tblVehicleTrips	WD_TR	6.97	2.48

## 2.0 Emissions Summary

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## Khalsa Truck Terminal - Buildings and Employee Travel - Fresno County, Annual

**2.1 Overall Construction****Unmitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	0.3217	1.4624	1.3152	2.2700e-003	0.1083	0.0768	0.1851	0.0396	0.0720	0.1117	0.0000	196.6243	196.6243	0.0475	0.0000	197.8118
Maximum	0.3217	1.4624	1.3152	2.2700e-003	0.1083	0.0768	0.1851	0.0396	0.0720	0.1117	0.0000	196.6243	196.6243	0.0475	0.0000	197.8118

**Mitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	0.3217	1.4624	1.3152	2.2700e-003	0.0473	0.0768	0.1241	0.0168	0.0720	0.0888	0.0000	196.6241	196.6241	0.0475	0.0000	197.8116
Maximum	0.3217	1.4624	1.3152	2.2700e-003	0.0473	0.0768	0.1241	0.0168	0.0720	0.0888	0.0000	196.6241	196.6241	0.0475	0.0000	197.8116

	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	56.33	0.00	32.95	57.54	0.00	20.43	0.00	0.00	0.00	0.00	0.00	0.00

## Khalsa Truck Terminal - Buildings and Employee Travel - Fresno County, Annual

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	3-1-2021	5-31-2021	0.6069	0.6069
2	6-1-2021	8-31-2021	0.6525	0.6525
3	9-1-2021	9-30-2021	0.2128	0.2128
		Highest	0.6525	0.6525

## 2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.1095	0.0000	2.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	4.3000e-004	4.3000e-004	0.0000	0.0000	4.5000e-004
Energy	2.6800e-003	0.0244	0.0205	1.5000e-004		1.8500e-003	1.8500e-003		1.8500e-003	1.8500e-003	0.0000	87.5731	87.5731	3.2700e-003	1.0600e-003	87.9699
Mobile	0.0239	0.0272	0.2921	6.7000e-004	0.0754	5.4000e-004	0.0760	0.0200	5.0000e-004	0.0205	0.0000	60.4068	60.4068	1.9300e-003	0.0000	60.4550
Waste						0.0000	0.0000		0.0000	0.0000	5.9903	0.0000	5.9903	0.3540	0.0000	14.8406
Water						0.0000	0.0000		0.0000	0.0000	1.7461	8.6636	10.4097	0.1797	4.3200e-003	16.1890
<b>Total</b>	<b>0.1361</b>	<b>0.0516</b>	<b>0.3128</b>	<b>8.2000e-004</b>	<b>0.0754</b>	<b>2.3900e-003</b>	<b>0.0778</b>	<b>0.0200</b>	<b>2.3500e-003</b>	<b>0.0224</b>	<b>7.7364</b>	<b>156.6439</b>	<b>164.3803</b>	<b>0.5389</b>	<b>5.3800e-003</b>	<b>179.4550</b>



## Khalsa Truck Terminal - Buildings and Employee Travel - Fresno County, Annual

**2.2 Overall Operational****Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.1095	0.0000	2.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	4.2000e-004	4.2000e-004	0.0000	0.0000	4.5000e-004
Energy	2.6800e-003	0.0244	0.0205	1.5000e-004		1.8500e-003	1.8500e-003		1.8500e-003	1.8500e-003	0.0000	87.5731	87.5731	3.2700e-003	1.0600e-003	87.9699
Mobile	0.0239	0.0272	0.2921	6.7000e-004	0.0754	5.4000e-004	0.0760	0.0200	5.0000e-004	0.0205	0.0000	60.4068	60.4068	1.9300e-003	0.0000	60.4550
Waste						0.0000	0.0000		0.0000	0.0000	5.9903	0.0000	5.9903	0.3540	0.0000	14.8406
Water						0.0000	0.0000		0.0000	0.0000	1.7461	8.6636	10.4097	0.1797	4.3200e-003	16.1890
<b>Total</b>	<b>0.1361</b>	<b>0.0516</b>	<b>0.3128</b>	<b>8.2000e-004</b>	<b>0.0754</b>	<b>2.3900e-003</b>	<b>0.0778</b>	<b>0.0200</b>	<b>2.3500e-003</b>	<b>0.0224</b>	<b>7.7364</b>	<b>156.6439</b>	<b>164.3803</b>	<b>0.5389</b>	<b>5.3800e-003</b>	<b>179.4550</b>

	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
<b>Percent Reduction</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>

**3.0 Construction Detail****Construction Phase**

## Khalsa Truck Terminal - Buildings and Employee Travel - Fresno County, Annual

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	3/27/2021	4/2/2021	5	5	
2	Grading	Grading	4/3/2021	4/9/2021	5	5	
3	Building Construction	Building Construction	4/10/2021	10/15/2021	5	135	
4	Paving	Paving	10/16/2021	10/22/2021	5	5	
5	Architectural Coating	Architectural Coating	10/23/2021	10/29/2021	5	5	

**Acres of Grading (Site Preparation Phase): 0**

**Acres of Grading (Grading Phase): 75**

**Acres of Paving: 0**

**Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 35,700; Non-Residential Outdoor: 11,900; Striped Parking Area: 0 (Architectural Coating – sqft)**

**OffRoad Equipment**

## Khalsa Truck Terminal - Buildings and Employee Travel - Fresno County, Annual

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Grading	Excavators	2	8.00	158	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
Paving	Pavers	2	8.00	130	0.42
Paving	Rollers	2	8.00	80	0.38
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Paving	Paving Equipment	2	8.00	132	0.36
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Building Construction	Welders	1	8.00	46	0.45

**Trips and VMT**

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	10.00	4.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	2.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

## Khalsa Truck Terminal - Buildings and Employee Travel - Fresno County, Annual

**3.1 Mitigation Measures Construction**

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

**3.2 Site Preparation - 2021****Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0452	0.0000	0.0452	0.0248	0.0000	0.0248	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.7200e-003	0.1012	0.0529	1.0000e-004		5.1100e-003	5.1100e-003		4.7000e-003	4.7000e-003	0.0000	8.3589	8.3589	2.7000e-003	0.0000	8.4265
<b>Total</b>	<b>9.7200e-003</b>	<b>0.1012</b>	<b>0.0529</b>	<b>1.0000e-004</b>	<b>0.0452</b>	<b>5.1100e-003</b>	<b>0.0503</b>	<b>0.0248</b>	<b>4.7000e-003</b>	<b>0.0295</b>	<b>0.0000</b>	<b>8.3589</b>	<b>8.3589</b>	<b>2.7000e-003</b>	<b>0.0000</b>	<b>8.4265</b>

## Khalsa Truck Terminal - Buildings and Employee Travel - Fresno County, Annual

**3.2 Site Preparation - 2021****Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.8000e-004	1.1000e-004	1.1300e-003	0.0000	3.6000e-004	0.0000	3.6000e-004	1.0000e-004	0.0000	1.0000e-004	0.0000	0.3007	0.3007	1.0000e-005	0.0000	0.3009
<b>Total</b>	<b>1.8000e-004</b>	<b>1.1000e-004</b>	<b>1.1300e-003</b>	<b>0.0000</b>	<b>3.6000e-004</b>	<b>0.0000</b>	<b>3.6000e-004</b>	<b>1.0000e-004</b>	<b>0.0000</b>	<b>1.0000e-004</b>	<b>0.0000</b>	<b>0.3007</b>	<b>0.3007</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>0.3009</b>

**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					0.0176	0.0000	0.0176	9.6800e-003	0.0000	9.6800e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.7200e-003	0.1012	0.0529	1.0000e-004		5.1100e-003	5.1100e-003		4.7000e-003	4.7000e-003	0.0000	8.3589	8.3589	2.7000e-003	0.0000	8.4265
<b>Total</b>	<b>9.7200e-003</b>	<b>0.1012</b>	<b>0.0529</b>	<b>1.0000e-004</b>	<b>0.0176</b>	<b>5.1100e-003</b>	<b>0.0227</b>	<b>9.6800e-003</b>	<b>4.7000e-003</b>	<b>0.0144</b>	<b>0.0000</b>	<b>8.3589</b>	<b>8.3589</b>	<b>2.7000e-003</b>	<b>0.0000</b>	<b>8.4265</b>

## Khalsa Truck Terminal - Buildings and Employee Travel - Fresno County, Annual

**3.2 Site Preparation - 2021****Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.8000e-004	1.1000e-004	1.1300e-003	0.0000	3.6000e-004	0.0000	3.6000e-004	1.0000e-004	0.0000	1.0000e-004	0.0000	0.3007	0.3007	1.0000e-005	0.0000	0.3009
<b>Total</b>	<b>1.8000e-004</b>	<b>1.1000e-004</b>	<b>1.1300e-003</b>	<b>0.0000</b>	<b>3.6000e-004</b>	<b>0.0000</b>	<b>3.6000e-004</b>	<b>1.0000e-004</b>	<b>0.0000</b>	<b>1.0000e-004</b>	<b>0.0000</b>	<b>0.3007</b>	<b>0.3007</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>0.3009</b>

**3.3 Grading - 2021****Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0548	0.0000	0.0548	0.0126	0.0000	0.0126	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0105	0.1160	0.0772	1.6000e-004		4.9600e-003	4.9600e-003		4.5700e-003	4.5700e-003	0.0000	13.6238	13.6238	4.4100e-003	0.0000	13.7339
<b>Total</b>	<b>0.0105</b>	<b>0.1160</b>	<b>0.0772</b>	<b>1.6000e-004</b>	<b>0.0548</b>	<b>4.9600e-003</b>	<b>0.0598</b>	<b>0.0126</b>	<b>4.5700e-003</b>	<b>0.0171</b>	<b>0.0000</b>	<b>13.6238</b>	<b>13.6238</b>	<b>4.4100e-003</b>	<b>0.0000</b>	<b>13.7339</b>

## Khalsa Truck Terminal - Buildings and Employee Travel - Fresno County, Annual

**3.3 Grading - 2021****Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.0000e-004	1.2000e-004	1.2600e-003	0.0000	4.0000e-004	0.0000	4.0000e-004	1.1000e-004	0.0000	1.1000e-004	0.0000	0.3341	0.3341	1.0000e-005	0.0000	0.3343
<b>Total</b>	<b>2.0000e-004</b>	<b>1.2000e-004</b>	<b>1.2600e-003</b>	<b>0.0000</b>	<b>4.0000e-004</b>	<b>0.0000</b>	<b>4.0000e-004</b>	<b>1.1000e-004</b>	<b>0.0000</b>	<b>1.1000e-004</b>	<b>0.0000</b>	<b>0.3341</b>	<b>0.3341</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>0.3343</b>

**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					0.0214	0.0000	0.0214	4.9000e-003	0.0000	4.9000e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0105	0.1160	0.0772	1.6000e-004		4.9600e-003	4.9600e-003		4.5700e-003	4.5700e-003	0.0000	13.6237	13.6237	4.4100e-003	0.0000	13.7339
<b>Total</b>	<b>0.0105</b>	<b>0.1160</b>	<b>0.0772</b>	<b>1.6000e-004</b>	<b>0.0214</b>	<b>4.9600e-003</b>	<b>0.0263</b>	<b>4.9000e-003</b>	<b>4.5700e-003</b>	<b>9.4700e-003</b>	<b>0.0000</b>	<b>13.6237</b>	<b>13.6237</b>	<b>4.4100e-003</b>	<b>0.0000</b>	<b>13.7339</b>

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**3.3 Grading - 2021****Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.0000e-004	1.2000e-004	1.2600e-003	0.0000	4.0000e-004	0.0000	4.0000e-004	1.1000e-004	0.0000	1.1000e-004	0.0000	0.3341	0.3341	1.0000e-005	0.0000	0.3343
<b>Total</b>	<b>2.0000e-004</b>	<b>1.2000e-004</b>	<b>1.2600e-003</b>	<b>0.0000</b>	<b>4.0000e-004</b>	<b>0.0000</b>	<b>4.0000e-004</b>	<b>1.1000e-004</b>	<b>0.0000</b>	<b>1.1000e-004</b>	<b>0.0000</b>	<b>0.3341</b>	<b>0.3341</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>0.3343</b>

**3.4 Building Construction - 2021****Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1283	1.1767	1.1188	1.8200e-003		0.0647	0.0647		0.0608	0.0608	0.0000	156.3552	156.3552	0.0377	0.0000	157.2982
<b>Total</b>	<b>0.1283</b>	<b>1.1767</b>	<b>1.1188</b>	<b>1.8200e-003</b>		<b>0.0647</b>	<b>0.0647</b>		<b>0.0608</b>	<b>0.0608</b>	<b>0.0000</b>	<b>156.3552</b>	<b>156.3552</b>	<b>0.0377</b>	<b>0.0000</b>	<b>157.2982</b>



## Khalsa Truck Terminal - Buildings and Employee Travel - Fresno County, Annual

**3.4 Building Construction - 2021****Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	8.2000e-004	0.0304	4.6300e-003	8.0000e-005	1.7900e-003	8.0000e-005	1.8700e-003	5.2000e-004	8.0000e-005	5.9000e-004	0.0000	7.2130	7.2130	8.7000e-004	0.0000	7.2347
Worker	2.6900e-003	1.6400e-003	0.0170	5.0000e-005	5.4000e-003	3.0000e-005	5.4300e-003	1.4300e-003	3.0000e-005	1.4700e-003	0.0000	4.5105	4.5105	1.1000e-004	0.0000	4.5133
<b>Total</b>	<b>3.5100e-003</b>	<b>0.0320</b>	<b>0.0217</b>	<b>1.3000e-004</b>	<b>7.1900e-003</b>	<b>1.1000e-004</b>	<b>7.3000e-003</b>	<b>1.9500e-003</b>	<b>1.1000e-004</b>	<b>2.0600e-003</b>	<b>0.0000</b>	<b>11.7235</b>	<b>11.7235</b>	<b>9.8000e-004</b>	<b>0.0000</b>	<b>11.7480</b>

**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	0.1283	1.1767	1.1188	1.8200e-003		0.0647	0.0647		0.0608	0.0608	0.0000	156.3550	156.3550	0.0377	0.0000	157.2980
<b>Total</b>	<b>0.1283</b>	<b>1.1767</b>	<b>1.1188</b>	<b>1.8200e-003</b>		<b>0.0647</b>	<b>0.0647</b>		<b>0.0608</b>	<b>0.0608</b>	<b>0.0000</b>	<b>156.3550</b>	<b>156.3550</b>	<b>0.0377</b>	<b>0.0000</b>	<b>157.2980</b>

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**3.4 Building Construction - 2021****Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	8.2000e-004	0.0304	4.6300e-003	8.0000e-005	1.7900e-003	8.0000e-005	1.8700e-003	5.2000e-004	8.0000e-005	5.9000e-004	0.0000	7.2130	7.2130	8.7000e-004	0.0000	7.2347
Worker	2.6900e-003	1.6400e-003	0.0170	5.0000e-005	5.4000e-003	3.0000e-005	5.4300e-003	1.4300e-003	3.0000e-005	1.4700e-003	0.0000	4.5105	4.5105	1.1000e-004	0.0000	4.5133
<b>Total</b>	<b>3.5100e-003</b>	<b>0.0320</b>	<b>0.0217</b>	<b>1.3000e-004</b>	<b>7.1900e-003</b>	<b>1.1000e-004</b>	<b>7.3000e-003</b>	<b>1.9500e-003</b>	<b>1.1000e-004</b>	<b>2.0600e-003</b>	<b>0.0000</b>	<b>11.7235</b>	<b>11.7235</b>	<b>9.8000e-004</b>	<b>0.0000</b>	<b>11.7480</b>

**3.5 Paving - 2021****Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	3.1400e-003	0.0323	0.0366	6.0000e-005		1.6900e-003	1.6900e-003		1.5600e-003	1.5600e-003	0.0000	5.0059	5.0059	1.6200e-003	0.0000	5.0464
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>3.1400e-003</b>	<b>0.0323</b>	<b>0.0366</b>	<b>6.0000e-005</b>		<b>1.6900e-003</b>	<b>1.6900e-003</b>		<b>1.5600e-003</b>	<b>1.5600e-003</b>	<b>0.0000</b>	<b>5.0059</b>	<b>5.0059</b>	<b>1.6200e-003</b>	<b>0.0000</b>	<b>5.0464</b>

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**3.5 Paving - 2021****Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.5000e-004	9.0000e-005	9.5000e-004	0.0000	3.0000e-004	0.0000	3.0000e-004	8.0000e-005	0.0000	8.0000e-005	0.0000	0.2506	0.2506	1.0000e-005	0.0000	0.2507
<b>Total</b>	<b>1.5000e-004</b>	<b>9.0000e-005</b>	<b>9.5000e-004</b>	<b>0.0000</b>	<b>3.0000e-004</b>	<b>0.0000</b>	<b>3.0000e-004</b>	<b>8.0000e-005</b>	<b>0.0000</b>	<b>8.0000e-005</b>	<b>0.0000</b>	<b>0.2506</b>	<b>0.2506</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>0.2507</b>

**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	3.1400e-003	0.0323	0.0366	6.0000e-005		1.6900e-003	1.6900e-003		1.5600e-003	1.5600e-003	0.0000	5.0059	5.0059	1.6200e-003	0.0000	5.0463
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>3.1400e-003</b>	<b>0.0323</b>	<b>0.0366</b>	<b>6.0000e-005</b>		<b>1.6900e-003</b>	<b>1.6900e-003</b>		<b>1.5600e-003</b>	<b>1.5600e-003</b>	<b>0.0000</b>	<b>5.0059</b>	<b>5.0059</b>	<b>1.6200e-003</b>	<b>0.0000</b>	<b>5.0463</b>

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**3.5 Paving - 2021****Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.5000e-004	9.0000e-005	9.5000e-004	0.0000	3.0000e-004	0.0000	3.0000e-004	8.0000e-005	0.0000	8.0000e-005	0.0000	0.2506	0.2506	1.0000e-005	0.0000	0.2507
<b>Total</b>	<b>1.5000e-004</b>	<b>9.0000e-005</b>	<b>9.5000e-004</b>	<b>0.0000</b>	<b>3.0000e-004</b>	<b>0.0000</b>	<b>3.0000e-004</b>	<b>8.0000e-005</b>	<b>0.0000</b>	<b>8.0000e-005</b>	<b>0.0000</b>	<b>0.2506</b>	<b>0.2506</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>0.2507</b>

**3.6 Architectural Coating - 2021****Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.1655					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.5000e-004	3.8200e-003	4.5400e-003	1.0000e-005		2.4000e-004	2.4000e-004		2.4000e-004	2.4000e-004	0.0000	0.6383	0.6383	4.0000e-005	0.0000	0.6394
<b>Total</b>	<b>0.1660</b>	<b>3.8200e-003</b>	<b>4.5400e-003</b>	<b>1.0000e-005</b>		<b>2.4000e-004</b>	<b>2.4000e-004</b>		<b>2.4000e-004</b>	<b>2.4000e-004</b>	<b>0.0000</b>	<b>0.6383</b>	<b>0.6383</b>	<b>4.0000e-005</b>	<b>0.0000</b>	<b>0.6394</b>

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**3.6 Architectural Coating - 2021****Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.0000e-005	1.0000e-005	1.3000e-004	0.0000	4.0000e-005	0.0000	4.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0334	0.0334	0.0000	0.0000	0.0334
<b>Total</b>	<b>2.0000e-005</b>	<b>1.0000e-005</b>	<b>1.3000e-004</b>	<b>0.0000</b>	<b>4.0000e-005</b>	<b>0.0000</b>	<b>4.0000e-005</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>0.0334</b>	<b>0.0334</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0334</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.1655					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.5000e-004	3.8200e-003	4.5400e-003	1.0000e-005		2.4000e-004	2.4000e-004		2.4000e-004	2.4000e-004	0.0000	0.6383	0.6383	4.0000e-005	0.0000	0.6394
<b>Total</b>	<b>0.1660</b>	<b>3.8200e-003</b>	<b>4.5400e-003</b>	<b>1.0000e-005</b>		<b>2.4000e-004</b>	<b>2.4000e-004</b>		<b>2.4000e-004</b>	<b>2.4000e-004</b>	<b>0.0000</b>	<b>0.6383</b>	<b>0.6383</b>	<b>4.0000e-005</b>	<b>0.0000</b>	<b>0.6394</b>

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**3.6 Architectural Coating - 2021****Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.0000e-005	1.0000e-005	1.3000e-004	0.0000	4.0000e-005	0.0000	4.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0334	0.0334	0.0000	0.0000	0.0334
<b>Total</b>	<b>2.0000e-005</b>	<b>1.0000e-005</b>	<b>1.3000e-004</b>	<b>0.0000</b>	<b>4.0000e-005</b>	<b>0.0000</b>	<b>4.0000e-005</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>0.0334</b>	<b>0.0334</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0334</b>

**4.0 Operational Detail - Mobile****4.1 Mitigation Measures Mobile**

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0239	0.0272	0.2921	6.7000e-004	0.0754	5.4000e-004	0.0760	0.0200	5.0000e-004	0.0205	0.0000	60.4068	60.4068	1.9300e-003	0.0000	60.4550
Unmitigated	0.0239	0.0272	0.2921	6.7000e-004	0.0754	5.4000e-004	0.0760	0.0200	5.0000e-004	0.0205	0.0000	60.4068	60.4068	1.9300e-003	0.0000	60.4550

## 4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	59.00	59.00	59.00	204,023	204,023
Total	59.00	59.00	59.00	204,023	204,023

## 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 Light Industry	9.50	7.30	7.30	100.00	0.00	0.00	100	0	0

## 4.4 Fleet Mix

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

## 5.0 Energy Detail

Historical Energy Use: N

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## 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	61.0670	61.0670	2.7600e-003	5.7000e-004	61.3063
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	61.0670	61.0670	2.7600e-003	5.7000e-004	61.3063
NaturalGas Mitigated	2.6800e-003	0.0244	0.0205	1.5000e-004		1.8500e-003	1.8500e-003		1.8500e-003	1.8500e-003	0.0000	26.5061	26.5061	5.1000e-004	4.9000e-004	26.6636
NaturalGas Unmitigated	2.6800e-003	0.0244	0.0205	1.5000e-004		1.8500e-003	1.8500e-003		1.8500e-003	1.8500e-003	0.0000	26.5061	26.5061	5.1000e-004	4.9000e-004	26.6636

## 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 Light Industry	496706	2.6800e-003	0.0244	0.0205	1.5000e-004		1.8500e-003	1.8500e-003		1.8500e-003	1.8500e-003	0.0000	26.5061	26.5061	5.1000e-004	4.9000e-004	26.6636
<b>Total</b>		<b>2.6800e-003</b>	<b>0.0244</b>	<b>0.0205</b>	<b>1.5000e-004</b>		<b>1.8500e-003</b>	<b>1.8500e-003</b>		<b>1.8500e-003</b>	<b>1.8500e-003</b>	<b>0.0000</b>	<b>26.5061</b>	<b>26.5061</b>	<b>5.1000e-004</b>	<b>4.9000e-004</b>	<b>26.6636</b>



## Khalsa Truck Terminal - Buildings and Employee Travel - Fresno County, Annual

**5.2 Energy by Land Use - Natural Gas****Mitigated**

	Natural Gas 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 Light Industry	496706	2.6800e-003	0.0244	0.0205	1.5000e-004		1.8500e-003	1.8500e-003		1.8500e-003	1.8500e-003	0.0000	26.5061	26.5061	5.1000e-004	4.9000e-004	26.6636
<b>Total</b>		<b>2.6800e-003</b>	<b>0.0244</b>	<b>0.0205</b>	<b>1.5000e-004</b>		<b>1.8500e-003</b>	<b>1.8500e-003</b>		<b>1.8500e-003</b>	<b>1.8500e-003</b>	<b>0.0000</b>	<b>26.5061</b>	<b>26.5061</b>	<b>5.1000e-004</b>	<b>4.9000e-004</b>	<b>26.6636</b>

**5.3 Energy by Land Use - Electricity****Unmitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	209916	61.0670	2.7600e-003	5.7000e-004	61.3063
<b>Total</b>		<b>61.0670</b>	<b>2.7600e-003</b>	<b>5.7000e-004</b>	<b>61.3063</b>

## Khalsa Truck Terminal - Buildings and Employee Travel - Fresno County, Annual

**5.3 Energy by Land Use - Electricity****Mitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	209916	61.0670	2.7600e-003	5.7000e-004	61.3063
<b>Total</b>		<b>61.0670</b>	<b>2.7600e-003</b>	<b>5.7000e-004</b>	<b>61.3063</b>

**6.0 Area Detail****6.1 Mitigation Measures Area**

Use Electric Lawnmower

Use Electric Leafblower

Use Electric Chainsaw

## Khalsa Truck Terminal - Buildings and Employee Travel - Fresno County, Annual

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.1095	0.0000	2.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	4.2000e-004	4.2000e-004	0.0000	0.0000	4.5000e-004
Unmitigated	0.1095	0.0000	2.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	4.3000e-004	4.3000e-004	0.0000	0.0000	4.5000e-004

## 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	0.0166					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0930					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.0000e-005	0.0000	2.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	4.3000e-004	4.3000e-004	0.0000	0.0000	4.5000e-004
<b>Total</b>	<b>0.1095</b>	<b>0.0000</b>	<b>2.2000e-004</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>4.3000e-004</b>	<b>4.3000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>4.5000e-004</b>

## Khalsa Truck Terminal - Buildings and Employee Travel - Fresno County, Annual

**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	0.0166					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0930					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.0000e-005	0.0000	2.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	4.2000e-004	4.2000e-004	0.0000	0.0000	4.5000e-004
<b>Total</b>	<b>0.1095</b>	<b>0.0000</b>	<b>2.2000e-004</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>4.2000e-004</b>	<b>4.2000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>4.5000e-004</b>

**7.0 Water Detail****7.1 Mitigation Measures Water**

## Khalsa Truck Terminal - Buildings and Employee Travel - Fresno County, Annual

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	10.4097	0.1797	4.3200e-003	16.1890
Unmitigated	10.4097	0.1797	4.3200e-003	16.1890

## 7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	5.50375 / 0	10.4097	0.1797	4.3200e-003	16.1890
<b>Total</b>		<b>10.4097</b>	<b>0.1797</b>	<b>4.3200e-003</b>	<b>16.1890</b>

## Khalsa Truck Terminal - Buildings and Employee Travel - Fresno County, Annual

**7.2 Water by Land Use****Mitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	5.50375 / 0	10.4097	0.1797	4.3200e-003	16.1890
<b>Total</b>		<b>10.4097</b>	<b>0.1797</b>	<b>4.3200e-003</b>	<b>16.1890</b>

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

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	5.9903	0.3540	0.0000	14.8406
Unmitigated	5.9903	0.3540	0.0000	14.8406

## Khalsa Truck Terminal - Buildings and Employee Travel - Fresno County, Annual

**8.2 Waste by Land Use****Unmitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	29.51	5.9903	0.3540	0.0000	14.8406
<b>Total</b>		<b>5.9903</b>	<b>0.3540</b>	<b>0.0000</b>	<b>14.8406</b>

**Mitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	29.51	5.9903	0.3540	0.0000	14.8406
<b>Total</b>		<b>5.9903</b>	<b>0.3540</b>	<b>0.0000</b>	<b>14.8406</b>

**9.0 Operational Offroad**

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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## Khalsa Truck Terminal - Buildings and Employee Travel - Fresno County, Annual

**10.0 Stationary Equipment**

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**Fire Pumps and Emergency Generators**

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

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

Equipment Type	Number
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**11.0 Vegetation**

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## Khalsa Truck Terminal - Truck Travel - Fresno County, Annual

**Khalsa Truck Terminal - Truck Travel**  
**Fresno County, Annual****1.0 Project Characteristics**

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**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	23.80	1000sqft	14.56	23,800.00	0

**1.2 Other Project Characteristics**

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	45
Climate Zone	3			Operational Year	2021
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MW hr)	641.35	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

**1.3 User Entered Comments & Non-Default Data**

## Khalsa Truck Terminal - Truck Travel - Fresno County, Annual

Project Characteristics -

Land Use - Actual Project acreage

Construction Phase - Operational Run for Trucks Only

Vehicle Trips - The project has an increase of 113 trips (59 employee trips and 54 truck trips).  $54/23.8 = 2.269$  trip rate. This run will only have the increase of truck trips.

Fleet Mix - Truck trips are 100% HHDT

Construction Off-road Equipment Mitigation -

Area Mitigation -

Consumer Products - Already evaluated in another run

Area Coating - Already evaluated in another run

Landscape Equipment - Already evaluated in another run

Energy Use - Already evaluated in another run

Water And Wastewater - Already evaluated in another run

Solid Waste - Already evaluated in another run

Table Name	Column Name	Default Value	New Value
tblAreaCoating	ReapplicationRatePercent	10	0
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	20.00	0.00
tblConstructionPhase	NumDays	300.00	0.00
tblConstructionPhase	NumDays	30.00	0.00
tblConstructionPhase	NumDays	20.00	0.00
tblConstructionPhase	NumDays	10.00	0.00
tblConstructionPhase	PhaseEndDate	9/9/2022	10/22/2021
tblConstructionPhase	PhaseEndDate	7/15/2022	4/9/2021
tblConstructionPhase	PhaseEndDate	5/21/2021	4/2/2021
tblConstructionPhase	PhaseEndDate	8/12/2022	10/15/2021
tblConstructionPhase	PhaseEndDate	4/9/2021	3/26/2021

## Khalsa Truck Terminal - Truck Travel - Fresno County, Annual

tblConstructionPhase	PhaseStartDate	8/13/2022	10/23/2021
tblConstructionPhase	PhaseStartDate	5/22/2021	4/10/2021
tblConstructionPhase	PhaseStartDate	4/10/2021	4/3/2021
tblConstructionPhase	PhaseStartDate	7/16/2022	10/16/2021
tblEnergyUse	LightingElect	2.70	0.00
tblEnergyUse	NT24E	4.16	0.00
tblEnergyUse	NT24NG	3.84	0.00
tblEnergyUse	T24E	1.96	0.00
tblEnergyUse	T24NG	17.03	0.00
tblFleetMix	HHD	0.12	1.00
tblFleetMix	LDA	0.49	0.00
tblFleetMix	LDT1	0.03	0.00
tblFleetMix	LDT2	0.17	0.00
tblFleetMix	LHD1	0.02	0.00
tblFleetMix	LHD2	4.7320e-003	0.00
tblFleetMix	MCY	5.1540e-003	0.00
tblFleetMix	MDV	0.12	0.00
tblFleetMix	MH	6.2900e-004	0.00
tblFleetMix	MHD	0.03	0.00
tblFleetMix	OBUS	2.3660e-003	0.00
tblFleetMix	SBUS	1.0970e-003	0.00
tblFleetMix	UBUS	1.5900e-003	0.00
tblGrading	AcresOfGrading	0.00	75.00
tblLandUse	LotAcreage	0.55	14.56
tblSolidWaste	SolidWasteGenerationRate	29.51	0.00
tblVehicleTrips	CC_TL	7.30	0.00
tblVehicleTrips	CC_TTP	28.00	0.00

## Khalsa Truck Terminal - Truck Travel - Fresno County, Annual

tblVehicleTrips	CNW_TL	7.30	0.00
tblVehicleTrips	CNW_TTP	13.00	0.00
tblVehicleTrips	CW_TL	9.50	50.00
tblVehicleTrips	CW_TTP	59.00	100.00
tblVehicleTrips	DV_TP	5.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	92.00	100.00
tblVehicleTrips	ST_TR	1.32	2.27
tblVehicleTrips	SU_TR	0.68	2.27
tblVehicleTrips	WD_TR	6.97	2.27
tblWater	IndoorWaterUseRate	5,503,750.00	0.00

## 2.0 Emissions Summary

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## Khalsa Truck Terminal - Truck Travel - Fresno County, Annual

## 2.1 Overall Construction

### Unmitigated Construction

[illegible]

### Mitigated Construction

[illegible][illegible]

## Khalsa Truck Terminal - Truck Travel - Fresno County, Annual

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
		Highest		

**2.2 Overall Operational****Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.1565	4.8823	0.7673	0.0175	0.4197	0.0199	0.4396	0.1153	0.0191	0.1344	0.0000	1,667.132 0	1,667.132 0	0.0715	0.0000	1,668.919 5
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>0.1565</b>	<b>4.8823</b>	<b>0.7673</b>	<b>0.0175</b>	<b>0.4197</b>	<b>0.0199</b>	<b>0.4396</b>	<b>0.1153</b>	<b>0.0191</b>	<b>0.1344</b>	<b>0.0000</b>	<b>1,667.132 0</b>	<b>1,667.132 0</b>	<b>0.0715</b>	<b>0.0000</b>	<b>1,668.919 5</b>

## Khalsa Truck Terminal - Truck Travel - Fresno County, Annual

**2.2 Overall Operational****Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.1565	4.8823	0.7673	0.0175	0.4197	0.0199	0.4396	0.1153	0.0191	0.1344	0.0000	1,667.1320	1,667.1320	0.0715	0.0000	1,668.9195
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>0.1565</b>	<b>4.8823</b>	<b>0.7673</b>	<b>0.0175</b>	<b>0.4197</b>	<b>0.0199</b>	<b>0.4396</b>	<b>0.1153</b>	<b>0.0191</b>	<b>0.1344</b>	<b>0.0000</b>	<b>1,667.1320</b>	<b>1,667.1320</b>	<b>0.0715</b>	<b>0.0000</b>	<b>1,668.9195</b>

	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
<b>Percent Reduction</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>

**3.0 Construction Detail****Construction Phase**

## Khalsa Truck Terminal - Truck Travel - Fresno County, Annual

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	3/27/2021	3/26/2021	5	0	
2	Grading	Grading	4/3/2021	4/2/2021	5	0	
3	Building Construction	Building Construction	4/10/2021	4/9/2021	5	0	
4	Paving	Paving	10/16/2021	10/15/2021	5	0	
5	Architectural Coating	Architectural Coating	10/23/2021	10/22/2021	5	0	

**Acres of Grading (Site Preparation Phase): 0**

**Acres of Grading (Grading Phase): 75**

**Acres of Paving: 0**

**Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 35,700; Non-Residential Outdoor: 11,900; Striped Parking Area: 0 (Architectural Coating – sqft)**

**OffRoad Equipment**



## Khalsa Truck Terminal - Truck Travel - Fresno County, Annual

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Grading	Excavators	2	8.00	158	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
Paving	Pavers	2	8.00	130	0.42
Paving	Rollers	2	8.00	80	0.38
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Paving	Paving Equipment	2	8.00	132	0.36
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Building Construction	Welders	1	8.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	10.00	4.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	2.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

## Khalsa Truck Terminal - Truck Travel - Fresno County, Annual

### 3.1 Mitigation Measures Construction

### Water Exposed Area

## Reduce Vehicle Speed on Unpaved Roads

### 3.2 Site Preparation - 2021

### Unmitigated Construction On-Site

[illegible]

## Khalsa Truck Terminal - Truck Travel - Fresno County, Annual

### 3.2 Site Preparation - 2021

### Unmitigated Construction Off-Site

[illegible]

### Mitigated Construction On-Site

[illegible]

## Khalsa Truck Terminal - Truck Travel - Fresno County, Annual

### 3.2 Site Preparation - 2021

### Mitigated Construction Off-Site

[illegible]

### 3.3 Grading - 2021

### Unmitigated Construction On-Site

[illegible]

## Khalsa Truck Terminal - Truck Travel - Fresno County, Annual

### 3.3 Grading - 2021

### Unmitigated Construction Off-Site

[illegible]

### Mitigated Construction On-Site

[illegible]

## Khalsa Truck Terminal - Truck Travel - Fresno County, Annual

### 3.3 Grading - 2021

### Mitigated Construction Off-Site

[illegible]

### 3.4 Building Construction - 2021

### Unmitigated Construction On-Site

[illegible]

## Khalsa Truck Terminal - Truck Travel - Fresno County, Annual

### 3.4 Building Construction - 2021

### Unmitigated Construction Off-Site

[illegible]

### Mitigated Construction On-Site

[illegible]

## Khalsa Truck Terminal - Truck Travel - Fresno County, Annual

### 3.4 Building Construction - 2021

### Mitigated Construction Off-Site

[illegible]

### 3.5 Paving - 2021

### Unmitigated Construction On-Site

[illegible]



## Khalsa Truck Terminal - Truck Travel - Fresno County, Annual

### 3.5 Paving - 2021

### Unmitigated Construction Off-Site

[illegible]

### Mitigated Construction On-Site

[illegible]

## Khalsa Truck Terminal - Truck Travel - Fresno County, Annual

### 3.5 Paving - 2021

### Mitigated Construction Off-Site

[illegible]

### 3.6 Architectural Coating - 2021

### Unmitigated Construction On-Site

[illegible]

## Khalsa Truck Terminal - Truck Travel - Fresno County, Annual

### 3.6 Architectural Coating - 2021

### Unmitigated Construction Off-Site

[illegible]

### Mitigated Construction On-Site

[illegible]

## Khalsa Truck Terminal - Truck Travel - Fresno County, Annual

**3.6 Architectural Coating - 2021****Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**4.0 Operational Detail - Mobile****4.1 Mitigation Measures Mobile**

## Khalsa Truck Terminal - Truck Travel - Fresno County, Annual

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.1565	4.8823	0.7673	0.0175	0.4197	0.0199	0.4396	0.1153	0.0191	0.1344	0.0000	1,667.1320	1,667.1320	0.0715	0.0000	1,668.9195
Unmitigated	0.1565	4.8823	0.7673	0.0175	0.4197	0.0199	0.4396	0.1153	0.0191	0.1344	0.0000	1,667.1320	1,667.1320	0.0715	0.0000	1,668.9195

## 4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	54.00	54.00	54.00	982,840	982,840
Total	54.00	54.00	54.00	982,840	982,840

## 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 Light Industry	50.00	0.00	0.00	100.00	0.00	0.00	100	0	0

## 4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Light Industry	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	1.000000	0.000000	0.000000	0.000000	0.000000	0.000000

## 5.0 Energy Detail

Historical Energy Use: N

## Khalsa Truck Terminal - Truck Travel - Fresno County, Annual

## 5.1 Mitigation Measures Energy

[illegible]

## 5.2 Energy by Land Use - NaturalGas

### Unmitigated

[illegible]

## Khalsa Truck Terminal - Truck Travel - Fresno County, Annual

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

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
General Light Industry	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
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**5.3 Energy by Land Use - Electricity****Unmitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

## Khalsa Truck Terminal - Truck Travel - Fresno County, Annual

**5.3 Energy by Land Use - Electricity****Mitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**6.0 Area Detail**

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**6.1 Mitigation Measures Area**

Use Electric Lawnmower

Use Electric Leafblower

Use Electric Chainsaw



## Khalsa Truck Terminal - Truck Travel - Fresno County, Annual

[illegible]

## 6.2 Area by SubCategory

### Unmitigated

[illegible]

## Khalsa Truck Terminal - Truck Travel - Fresno County, Annual

**6.2 Area by SubCategory****Mitigated**

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

**7.0 Water Detail****7.1 Mitigation Measures Water**

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

## Khalsa Truck Terminal - Truck Travel - Fresno County, Annual

**7.2 Water by Land Use****Unmitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	0 / 0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**Mitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	0 / 0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**8.0 Waste Detail****8.1 Mitigation Measures Waste**

## Khalsa Truck Terminal - Truck Travel - Fresno County, Annual

**Category/Year**

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

**8.2 Waste by Land Use****Unmitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

## Khalsa Truck Terminal - Truck Travel - Fresno County, Annual

**8.2 Waste by Land Use****Mitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**9.0 Operational Offroad**

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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**10.0 Stationary Equipment****Fire Pumps and Emergency Generators**

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

**Boilers**

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

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

**11.0 Vegetation**

Khalsa Truck Terminal - Truck Travel - Fresno County, Annual

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## Khalsa Truck Terminal - Buildings and Employee Travel - BAU - Fresno County, Annual

## Khalsa Truck Terminal - Buildings and Employee Travel - BAU

### Fresno County, Annual

## 1.0 Project Characteristics

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### 1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	23.80	1000sqft	14.56	23,800.00	0

### 1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	45
Climate Zone	3			Operational Year	2005
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	CH4 Intensity (lb/MWhr)	0.029	N2O Intensity (lb/MWhr)	0.006

### 1.3 User Entered Comments & Non-Default Data

## Khalsa Truck Terminal - Buildings and Employee Travel - BAU - Fresno County, Annual

Project Characteristics -

Land Use - Actual Project acreage

Construction Phase - Operational Run Only

Vehicle Trips - The project has an increase of 113 trips (59 employee trips and 54 truck trips).  $59/23.8 = 2.479$  trip rate. This run will only have the increase of employee trips. A subsequent run will evaluate the increased truck trips.

Construction Off-road Equipment Mitigation -

Area Mitigation -

Fleet Mix - Employee trips have been divided evenly between LDA and LDT1

Consumer Products -

Area Coating -

Landscape Equipment -

Energy Use -

Water And Wastewater -

Solid Waste -

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	150.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	150.00
tblArchitecturalCoating	EF_Residential_Exterior	250.00	150.00
tblArchitecturalCoating	EF_Residential_Interior	250.00	150.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	250	150
tblAreaCoating	Area_EF_Nonresidential_Interior	250	150
tblAreaCoating	Area_EF_Residential_Exterior	250	150
tblAreaCoating	Area_EF_Residential_Interior	250	150
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	10.00	0.00
tblConstructionPhase	NumDays	30.00	0.00
tblConstructionPhase	NumDays	300.00	0.00



## Khalsa Truck Terminal - Buildings and Employee Travel - BAU - Fresno County, Annual

tblConstructionPhase	NumDays	20.00	0.00
tblConstructionPhase	NumDays	20.00	0.00
tblConstructionPhase	PhaseEndDate	1/14/2005	12/31/2004
tblConstructionPhase	PhaseEndDate	2/25/2005	1/14/2005
tblConstructionPhase	PhaseEndDate	4/21/2006	2/25/2005
tblConstructionPhase	PhaseEndDate	5/19/2006	4/21/2006
tblConstructionPhase	PhaseEndDate	6/16/2006	5/19/2006
tblFleetMix	HHD	0.11	0.00
tblFleetMix	LDA	0.42	0.50
tblFleetMix	LDT1	0.06	0.50
tblFleetMix	LDT2	0.15	0.00
tblFleetMix	LHD1	0.04	0.00
tblFleetMix	LHD2	6.9730e-003	0.00
tblFleetMix	MCY	5.2690e-003	0.00
tblFleetMix	MDV	0.18	0.00
tblFleetMix	MH	1.5690e-003	0.00
tblFleetMix	MHD	0.03	0.00
tblFleetMix	OBUS	2.0990e-003	0.00
tblFleetMix	SBUS	1.2120e-003	0.00
tblFleetMix	UBUS	1.7870e-003	0.00
tblGrading	AcresOfGrading	0.00	75.00
tblLandUse	LotAcreage	0.55	14.56
tblVehicleTrips	CC_TTP	28.00	0.00
tblVehicleTrips	CNW_TTP	13.00	0.00
tblVehicleTrips	CW_TTP	59.00	100.00
tblVehicleTrips	DV_TP	5.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00

## Khalsa Truck Terminal - Buildings and Employee Travel - BAU - Fresno County, Annual

tblVehicleTrips	PR_TP	92.00	100.00
tblVehicleTrips	ST_TR	1.32	2.48
tblVehicleTrips	SU_TR	0.68	2.48
tblVehicleTrips	WD_TR	6.97	2.48

## 2.0 Emissions Summary

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Khalsa Truck Terminal - Buildings and Employee Travel - BAU - Fresno County, Annual

## 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					
2005											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2006											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

### 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					
2005											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2006											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

[illegible]

## Khalsa Truck Terminal - Buildings and Employee Travel - BAU - Fresno County, Annual

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
		Highest		

**2.2 Overall Operational****Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area											0.0000	4.3000e-004	4.3000e-004	0.0000	0.0000	4.7000e-004
Energy											0.0000	87.5731	87.5731	3.2700e-003	1.0600e-003	87.9699
Mobile											0.0000	74.1246	74.1246	0.0110	0.0000	74.3992
Waste											5.9903	0.0000	5.9903	0.3540	0.0000	14.8406
Water											1.7461	8.6636	10.4097	0.1797	4.3200e-003	16.1890
<b>Total</b>											<b>7.7364</b>	<b>170.3617</b>	<b>178.0980</b>	<b>0.5480</b>	<b>5.3800e-003</b>	<b>193.3992</b>

## Khalsa Truck Terminal - Buildings and Employee Travel - BAU - Fresno County, Annual

**2.2 Overall Operational****Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area											0.0000	4.3000e-004	4.3000e-004	0.0000	0.0000	4.7000e-004
Energy											0.0000	87.5731	87.5731	3.2700e-003	1.0600e-003	87.9699
Mobile											0.0000	74.1246	74.1246	0.0110	0.0000	74.3992
Waste											5.9903	0.0000	5.9903	0.3540	0.0000	14.8406
Water											1.7461	8.6636	10.4097	0.1797	4.3200e-003	16.1890
<b>Total</b>											<b>7.7364</b>	<b>170.3617</b>	<b>178.0980</b>	<b>0.5480</b>	<b>5.3800e-003</b>	<b>193.3992</b>

	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
<b>Percent Reduction</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>

**3.0 Construction Detail****Construction Phase**

## Khalsa Truck Terminal - Buildings and Employee Travel - BAU - Fresno County, Annual

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	1/1/2005	12/31/2004	5	0	
2	Grading	Grading	1/15/2005	1/14/2005	5	0	
3	Building Construction	Building Construction	2/26/2005	2/25/2005	5	0	
4	Paving	Paving	4/22/2006	4/21/2006	5	0	
5	Architectural Coating	Architectural Coating	5/20/2006	5/19/2006	5	0	

**Acres of Grading (Site Preparation Phase): 0**

**Acres of Grading (Grading Phase): 75**

**Acres of Paving: 0**

**Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 35,700; Non-Residential Outdoor: 11,900; Striped Parking Area: 0 (Architectural Coating – sqft)**

**OffRoad Equipment**

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Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

**Trips and VMT**

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	10.00	4.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	2.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

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### 3.1 Mitigation Measures Construction

### Water Exposed Area

## Reduce Vehicle Speed on Unpaved Roads

### 3.3 Grading - 2005

### Unmitigated Construction On-Site

[illegible]



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### 3.3 Grading - 2005

### Unmitigated Construction Off-Site

[illegible]

### Mitigated Construction On-Site

[illegible]

Khalsa Truck Terminal - Buildings and Employee Travel - BAU - Fresno County, Annual

### 3.3 Grading - 2005

### Mitigated Construction Off-Site

[illegible]

### 3.4 Building Construction - 2005

### Unmitigated Construction On-Site

[illegible]

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### 3.4 Building Construction - 2005

### Unmitigated Construction Off-Site

[illegible]

### Mitigated Construction On-Site

[illegible]

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### 3.4 Building Construction - 2005

### Mitigated Construction Off-Site

[illegible]

### 3.5 Paving - 2006

### Unmitigated Construction On-Site

[illegible]

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### 3.5 Paving - 2006

### Unmitigated Construction Off-Site

[illegible]

### Mitigated Construction On-Site

[illegible]

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### 3.5 Paving - 2006

### Mitigated Construction Off-Site

[illegible]

### 3.6 Architectural Coating - 2006

### Unmitigated Construction On-Site

[illegible]

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### 3.6 Architectural Coating - 2006

### Unmitigated Construction Off-Site

[illegible]

### Mitigated Construction On-Site

[illegible]

## Khalsa Truck Terminal - Buildings and Employee Travel - BAU - Fresno County, Annual

**3.6 Architectural Coating - 2006****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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**4.0 Operational Detail - Mobile****4.1 Mitigation Measures Mobile**



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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated											0.0000	74.1246	74.1246	0.0110	0.0000	74.3992
Unmitigated											0.0000	74.1246	74.1246	0.0110	0.0000	74.3992

## 4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	59.02	59.02	59.02	204,105	204,105
Total	59.02	59.02	59.02	204,105	204,105

## 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 Light Industry	9.50	7.30	7.30	100.00	0.00	0.00	100	0	0

## 4.4 Fleet Mix

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

## 5.0 Energy Detail

Historical Energy Use: N

## Khalsa Truck Terminal - Buildings and Employee Travel - BAU - Fresno County, Annual

## 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	61.0670	61.0670	2.7600e-003	5.7000e-004	61.3063
Electricity Unmitigated											0.0000	61.0670	61.0670	2.7600e-003	5.7000e-004	61.3063
NaturalGas Mitigated											0.0000	26.5061	26.5061	5.1000e-004	4.9000e-004	26.6636
NaturalGas Unmitigated											0.0000	26.5061	26.5061	5.1000e-004	4.9000e-004	26.6636

## 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 Light Industry	496706											0.0000	26.5061	26.5061	5.1000e-004	4.9000e-004	26.6636
<b>Total</b>												<b>0.0000</b>	<b>26.5061</b>	<b>26.5061</b>	<b>5.1000e-004</b>	<b>4.9000e-004</b>	<b>26.6636</b>

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**5.2 Energy by Land Use - Natural Gas****Mitigated**

	Natural Gas 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 Light Industry	496706											0.0000	26.5061	26.5061	5.1000e-004	4.9000e-004	26.6636
<b>Total</b>												<b>0.0000</b>	<b>26.5061</b>	<b>26.5061</b>	<b>5.1000e-004</b>	<b>4.9000e-004</b>	<b>26.6636</b>

**5.3 Energy by Land Use - Electricity****Unmitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	209916	61.0670	2.7600e-003	5.7000e-004	61.3063
<b>Total</b>		<b>61.0670</b>	<b>2.7600e-003</b>	<b>5.7000e-004</b>	<b>61.3063</b>

## Khalsa Truck Terminal - Buildings and Employee Travel - BAU - Fresno County, Annual

**5.3 Energy by Land Use - Electricity****Mitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	209916	61.0670	2.7600e-003	5.7000e-004	61.3063
<b>Total</b>		<b>61.0670</b>	<b>2.7600e-003</b>	<b>5.7000e-004</b>	<b>61.3063</b>

**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	tons/yr										MT/yr					
Mitigated											0.0000	4.3000e-004	4.3000e-004	0.0000	0.0000	4.7000e-004
Unmitigated											0.0000	4.3000e-004	4.3000e-004	0.0000	0.0000	4.7000e-004

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**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											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping											0.0000	4.3000e-004	4.3000e-004	0.0000	0.0000	4.7000e-004
<b>Total</b>											<b>0.0000</b>	<b>4.3000e-004</b>	<b>4.3000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>4.7000e-004</b>

**Mitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping											0.0000	4.3000e-004	4.3000e-004	0.0000	0.0000	4.7000e-004
<b>Total</b>											<b>0.0000</b>	<b>4.3000e-004</b>	<b>4.3000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>4.7000e-004</b>

**7.0 Water Detail**

## Khalsa Truck Terminal - Buildings and Employee Travel - BAU - Fresno County, Annual

**7.1 Mitigation Measures Water**

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	10.4097	0.1797	4.3200e-003	16.1890
Unmitigated	10.4097	0.1797	4.3200e-003	16.1890

**7.2 Water by Land Use****Unmitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	5.50375 / 0	10.4097	0.1797	4.3200e-003	16.1890
<b>Total</b>		<b>10.4097</b>	<b>0.1797</b>	<b>4.3200e-003</b>	<b>16.1890</b>

## Khalsa Truck Terminal - Buildings and Employee Travel - BAU - Fresno County, Annual

**7.2 Water by Land Use****Mitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	5.50375 / 0	10.4097	0.1797	4.3200e-003	16.1890
<b>Total</b>		<b>10.4097</b>	<b>0.1797</b>	<b>4.3200e-003</b>	<b>16.1890</b>

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

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	5.9903	0.3540	0.0000	14.8406
Unmitigated	5.9903	0.3540	0.0000	14.8406

## Khalsa Truck Terminal - Buildings and Employee Travel - BAU - Fresno County, Annual

**8.2 Waste by Land Use****Unmitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	29.51	5.9903	0.3540	0.0000	14.8406
<b>Total</b>		<b>5.9903</b>	<b>0.3540</b>	<b>0.0000</b>	<b>14.8406</b>

**Mitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	29.51	5.9903	0.3540	0.0000	14.8406
<b>Total</b>		<b>5.9903</b>	<b>0.3540</b>	<b>0.0000</b>	<b>14.8406</b>

**9.0 Operational Offroad**

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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## Khalsa Truck Terminal - Buildings and Employee Travel - BAU - Fresno County, Annual

## 10.0 Stationary Equipment

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### Fire Pumps and Emergency Generators

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

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

Equipment Type	Number
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## 11.0 Vegetation

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## Khalsa Truck Terminal - Truck Travel - BAU - Fresno County, Annual

## Khalsa Truck Terminal - Truck Travel - BAU

### Fresno County, Annual

## 1.0 Project Characteristics

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### 1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	23.80	1000sqft	14.56	23,800.00	0

### 1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	45
Climate Zone	3			Operational Year	2005
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MW hr)	641.35	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

### 1.3 User Entered Comments & Non-Default Data

## Khalsa Truck Terminal - Truck Travel - BAU - Fresno County, Annual

Project Characteristics -

Land Use - Actual Project acreage

Construction Phase - Operational Run for Trucks Only

Vehicle Trips - The project has an increase of 113 trips (59 employee trips and 54 truck trips).  $54/23.8 = 2.269$  trip rate. This run will only have the increase of truck trips.

Fleet Mix - Truck trips are 100% HHDT

Construction Off-road Equipment Mitigation -

Area Mitigation -

Consumer Products - Already evaluated in another run

Area Coating - Already evaluated in another run

Landscape Equipment - Already evaluated in another run

Energy Use - Already evaluated in another run

Water And Wastewater - Already evaluated in another run

Solid Waste - Already evaluated in another run

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	150.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	150.00
tblArchitecturalCoating	EF_Residential_Exterior	250.00	150.00
tblArchitecturalCoating	EF_Residential_Interior	250.00	150.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	250	150
tblAreaCoating	Area_EF_Nonresidential_Interior	250	150
tblAreaCoating	Area_EF_Residential_Exterior	250	150
tblAreaCoating	Area_EF_Residential_Interior	250	150
tblAreaCoating	ReapplicationRatePercent	10	0
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	20.00	0.00
tblConstructionPhase	NumDays	300.00	0.00

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tblConstructionPhase	NumDays	30.00	0.00
tblConstructionPhase	NumDays	20.00	0.00
tblConstructionPhase	NumDays	10.00	0.00
tblConstructionPhase	PhaseEndDate	6/16/2006	5/19/2006
tblConstructionPhase	PhaseEndDate	4/21/2006	2/25/2005
tblConstructionPhase	PhaseEndDate	2/25/2005	1/14/2005
tblConstructionPhase	PhaseEndDate	5/19/2006	4/21/2006
tblConstructionPhase	PhaseEndDate	1/14/2005	12/31/2004
tblEnergyUse	LightingElect	2.70	0.00
tblEnergyUse	NT24E	4.16	0.00
tblEnergyUse	NT24NG	3.84	0.00
tblEnergyUse	T24E	1.96	0.00
tblEnergyUse	T24NG	17.03	0.00
tblFleetMix	HHD	0.11	1.00
tblFleetMix	LDA	0.42	0.00
tblFleetMix	LDT1	0.06	0.00
tblFleetMix	LDT2	0.15	0.00
tblFleetMix	LHD1	0.04	0.00
tblFleetMix	LHD2	6.9730e-003	0.00
tblFleetMix	MCY	5.2690e-003	0.00
tblFleetMix	MDV	0.18	0.00
tblFleetMix	MH	1.5690e-003	0.00
tblFleetMix	MHD	0.03	0.00
tblFleetMix	OBUS	2.0990e-003	0.00
tblFleetMix	SBUS	1.2120e-003	0.00
tblFleetMix	UBUS	1.7870e-003	0.00
tblGrading	AcresOfGrading	0.00	75.00

## Khalsa Truck Terminal - Truck Travel - BAU - Fresno County, Annual

tblLandUse	LotAcreage	0.55	14.56
tblSolidWaste	SolidWasteGenerationRate	29.51	0.00
tblVehicleTrips	CC_TL	7.30	0.00
tblVehicleTrips	CC_TTP	28.00	0.00
tblVehicleTrips	CNW_TL	7.30	0.00
tblVehicleTrips	CNW_TTP	13.00	0.00
tblVehicleTrips	CW_TL	9.50	50.00
tblVehicleTrips	CW_TTP	59.00	100.00
tblVehicleTrips	DV_TP	5.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	92.00	100.00
tblVehicleTrips	ST_TR	1.32	2.27
tblVehicleTrips	SU_TR	0.68	2.27
tblVehicleTrips	WD_TR	6.97	2.27
tblWater	IndoorWaterUseRate	5,503,750.00	0.00

## 2.0 Emissions Summary

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## 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					
2005											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2006											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

### 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					
2005											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2006											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

[illegible]

## Khalsa Truck Terminal - Truck Travel - BAU - Fresno County, Annual

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
		Highest		

**2.2 Overall Operational****Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Energy											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile											0.0000	1,845.225 9	1,845.225 9	0.2412	0.0000	1,851.255 1
Waste											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>											<b>0.0000</b>	<b>1,845.225 9</b>	<b>1,845.225 9</b>	<b>0.2412</b>	<b>0.0000</b>	<b>1,851.255 1</b>

## Khalsa Truck Terminal - Truck Travel - BAU - Fresno County, Annual

**2.2 Overall Operational****Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Energy											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile											0.0000	1,845.225 9	1,845.225 9	0.2412	0.0000	1,851.255 1
Waste											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>											<b>0.0000</b>	<b>1,845.225 9</b>	<b>1,845.225 9</b>	<b>0.2412</b>	<b>0.0000</b>	<b>1,851.255 1</b>

	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
<b>Percent Reduction</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>

**3.0 Construction Detail****Construction Phase**



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Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	1/1/2005	12/31/2004	5	0	
2	Grading	Grading	1/15/2005	1/14/2005	5	0	
3	Building Construction	Building Construction	2/26/2005	2/25/2005	5	0	
4	Paving	Paving	4/22/2006	4/21/2006	5	0	
5	Architectural Coating	Architectural Coating	5/20/2006	5/19/2006	5	0	

**Acres of Grading (Site Preparation Phase): 0**

**Acres of Grading (Grading Phase): 75**

**Acres of Paving: 0**

**Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 35,700; Non-Residential Outdoor: 11,900; Striped Parking Area: 0 (Architectural Coating – sqft)**

**OffRoad Equipment**

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Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Grading	Excavators	2	8.00	158	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
Paving	Pavers	2	8.00	130	0.42
Paving	Rollers	2	8.00	80	0.38
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Paving	Paving Equipment	2	8.00	132	0.36
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Building Construction	Welders	1	8.00	46	0.45

**Trips and VMT**

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	10.00	4.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	2.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

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### 3.1 Mitigation Measures Construction

### Water Exposed Area

## Reduce Vehicle Speed on Unpaved Roads

### 3.3 Grading - 2005

### Unmitigated Construction On-Site

[illegible]

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### 3.3 Grading - 2005

### Unmitigated Construction Off-Site

[illegible]

### Mitigated Construction On-Site

[illegible]

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### 3.3 Grading - 2005

### Mitigated Construction Off-Site

[illegible]

### 3.4 Building Construction - 2005

### Unmitigated Construction On-Site

[illegible]

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### 3.4 Building Construction - 2005

### Unmitigated Construction Off-Site

[illegible]

### Mitigated Construction On-Site

[illegible]

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### 3.4 Building Construction - 2005

### Mitigated Construction Off-Site

[illegible]

### 3.5 Paving - 2006

### Unmitigated Construction On-Site

[illegible]

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### 3.5 Paving - 2006

### Unmitigated Construction Off-Site

[illegible]

### Mitigated Construction On-Site

[illegible]



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### 3.5 Paving - 2006

### Mitigated Construction Off-Site

[illegible]

### 3.6 Architectural Coating - 2006

### Unmitigated Construction On-Site

[illegible]

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### 3.6 Architectural Coating - 2006

### Unmitigated Construction Off-Site

[illegible]

### Mitigated Construction On-Site

[illegible]

## Khalsa Truck Terminal - Truck Travel - BAU - Fresno County, Annual

**3.6 Architectural Coating - 2006****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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**4.0 Operational Detail - Mobile****4.1 Mitigation Measures Mobile**

## Khalsa Truck Terminal - Truck Travel - BAU - Fresno County, Annual

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated											0.0000	1,845.2259	1,845.2259	0.2412	0.0000	1,851.2551
Unmitigated											0.0000	1,845.2259	1,845.2259	0.2412	0.0000	1,851.2551

## 4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	54.03	54.03	54.03	983,273	983,273
Total	54.03	54.03	54.03	983,273	983,273

## 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 Light Industry	50.00	0.00	0.00	100.00	0.00	0.00	100	0	0

## 4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Light Industry	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	1.000000	0.000000	0.000000	0.000000	0.000000	0.000000

## 5.0 Energy Detail

Historical Energy Use: N

## Khalsa Truck Terminal - Truck Travel - BAU - Fresno County, Annual

## 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	0.0000
Electricity Unmitigated											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Mitigated											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

## 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 Light Industry	0											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>												<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

## Khalsa Truck Terminal - Truck Travel - BAU - Fresno County, Annual

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

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
General Light Industry	0											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>												<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**5.3 Energy by Land Use - Electricity****Unmitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

## Khalsa Truck Terminal - Truck Travel - BAU - Fresno County, Annual

**5.3 Energy by Land Use - Electricity****Mitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**6.0 Area Detail**

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**6.1 Mitigation Measures Area**

Use Electric Lawnmower

Use Electric Leafblower

Use Electric Chainsaw

## Khalsa Truck Terminal - Truck Travel - BAU - Fresno County, Annual

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unmitigated											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

## 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											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>											<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>



## Khalsa Truck Terminal - Truck Travel - BAU - Fresno County, Annual

**6.2 Area by SubCategory****Mitigated**

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

**7.0 Water Detail****7.1 Mitigation Measures Water**

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

## Khalsa Truck Terminal - Truck Travel - BAU - Fresno County, Annual

**7.2 Water by Land Use****Unmitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	0 / 0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**Mitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	0 / 0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**8.0 Waste Detail****8.1 Mitigation Measures Waste**

## Khalsa Truck Terminal - Truck Travel - BAU - Fresno County, Annual

**Category/Year**

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

**8.2 Waste by Land Use****Unmitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

## Khalsa Truck Terminal - Truck Travel - BAU - Fresno County, Annual

**8.2 Waste by Land Use****Mitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**9.0 Operational Offroad**

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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**10.0 Stationary Equipment****Fire Pumps and Emergency Generators**

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

**Boilers**

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

Equipment Type	Number
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**11.0 Vegetation**

Khalsa Truck Terminal - Truck Travel - BAU - Fresno County, Annual

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Khalsa Truck Terminal - Truck Travel - Onsite Only (HRA) - Fresno County, Annual

## Khalsa Truck Terminal - Truck Travel - Onsite Only (HRA)

### Fresno County, Annual

## 1.0 Project Characteristics

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### 1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	23.80	1000sqft	14.56	23,800.00	0

### 1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	45
Climate Zone	3			Operational Year	2021
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MW hr)	641.35	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

### 1.3 User Entered Comments & Non-Default Data

## Khalsa Truck Terminal - Truck Travel - Onsite Only (HRA) - Fresno County, Annual

Project Characteristics -

Land Use - Actual Project acreage

Construction Phase - Operational Run for Trucks Only

Vehicle Trips - HRA looks all all truck trips since the project is a relocation not just the increase. 42 total onsite round-trips.  $42/23.8 = 1.7647$  trip rate. Round trip distance onsite = 0.27 miles

Fleet Mix - Truck trips are 100% HHDT

Construction Off-road Equipment Mitigation -

Area Mitigation -

Consumer Products - Already evaluated in another run

Area Coating - Already evaluated in another run

Landscape Equipment - Already evaluated in another run

Energy Use - Already evaluated in another run

Water And Wastewater - Already evaluated in another run

Solid Waste - Already evaluated in another run

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	150.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	150.00
tblArchitecturalCoating	EF_Residential_Exterior	250.00	150.00
tblArchitecturalCoating	EF_Residential_Interior	250.00	150.00
tblAreaCoating	ReapplicationRatePercent	10	0
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	20.00	0.00
tblConstructionPhase	NumDays	300.00	0.00
tblConstructionPhase	NumDays	30.00	0.00
tblConstructionPhase	NumDays	20.00	0.00
tblConstructionPhase	NumDays	10.00	0.00
tblConstructionPhase	PhaseEndDate	6/16/2006	5/19/2006

## Khalsa Truck Terminal - Truck Travel - Onsite Only (HRA) - Fresno County, Annual

tblConstructionPhase	PhaseEndDate	4/21/2006	2/25/2005
tblConstructionPhase	PhaseEndDate	2/25/2005	1/14/2005
tblConstructionPhase	PhaseEndDate	5/19/2006	4/21/2006
tblConstructionPhase	PhaseEndDate	1/14/2005	12/31/2004
tblEnergyUse	LightingElect	2.70	0.00
tblEnergyUse	NT24E	4.16	0.00
tblEnergyUse	NT24NG	3.84	0.00
tblEnergyUse	T24E	1.96	0.00
tblEnergyUse	T24NG	17.03	0.00
tblFleetMix	HHD	0.12	1.00
tblFleetMix	LDA	0.49	0.00
tblFleetMix	LDT1	0.03	0.00
tblFleetMix	LDT2	0.17	0.00
tblFleetMix	LHD1	0.02	0.00
tblFleetMix	LHD2	4.7320e-003	0.00
tblFleetMix	MCY	5.1540e-003	0.00
tblFleetMix	MDV	0.12	0.00
tblFleetMix	MH	6.2900e-004	0.00
tblFleetMix	MHD	0.03	0.00
tblFleetMix	OBUS	2.3660e-003	0.00
tblFleetMix	SBUS	1.0970e-003	0.00
tblFleetMix	UBUS	1.5900e-003	0.00
tblGrading	AcresOfGrading	0.00	75.00
tblLandUse	LotAcreage	0.55	14.56
tblSolidWaste	SolidWasteGenerationRate	29.51	0.00
tblVehicleTrips	CC_TL	7.30	0.00
tblVehicleTrips	CC_TTP	28.00	0.00



## Khalsa Truck Terminal - Truck Travel - Onsite Only (HRA) - Fresno County, Annual

tblVehicleTrips	CNW_TL	7.30	0.00
tblVehicleTrips	CNW_TTP	13.00	0.00
tblVehicleTrips	CW_TL	9.50	0.27
tblVehicleTrips	CW_TTP	59.00	100.00
tblVehicleTrips	DV_TP	5.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	92.00	100.00
tblVehicleTrips	ST_TR	1.32	1.76
tblVehicleTrips	SU_TR	0.68	1.76
tblVehicleTrips	WD_TR	6.97	1.76
tblWater	IndoorWaterUseRate	5,503,750.00	0.00

## 2.0 Emissions Summary

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Khalsa Truck Terminal - Truck Travel - Onsite Only (HRA) - Fresno County, Annual

## 2.1 Overall Construction

### Unmitigated Construction

[illegible]

### Mitigated Construction

[illegible][illegible]

Khalsa Truck Terminal - Truck Travel - Onsite Only (HRA) - Fresno County, Annual

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
		Highest		

## 2.2 Overall Operational

### Unmitigated Operational

[illegible]

## Khalsa Truck Terminal - Truck Travel - Onsite Only (HRA) - Fresno County, Annual

**2.2 Overall Operational****Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area						0.0000	0.0000									
Energy						0.0000	0.0000									
Mobile					1.7600e-003	5.0000e-004	2.2600e-003									
Waste						0.0000	0.0000									
Water						0.0000	0.0000									
<b>Total</b>					<b>1.7600e-003</b>	<b>5.0000e-004</b>	<b>2.2600e-003</b>									

	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
<b>Percent Reduction</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>

**3.0 Construction Detail****Construction Phase**

## Khalsa Truck Terminal - Truck Travel - Onsite Only (HRA) - Fresno County, Annual

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	1/1/2005	12/31/2004	5	0	
2	Grading	Grading	1/15/2005	1/14/2005	5	0	
3	Building Construction	Building Construction	2/26/2005	2/25/2005	5	0	
4	Paving	Paving	4/22/2006	4/21/2006	5	0	
5	Architectural Coating	Architectural Coating	5/20/2006	5/19/2006	5	0	

**Acres of Grading (Site Preparation Phase): 0**

**Acres of Grading (Grading Phase): 75**

**Acres of Paving: 0**

**Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 35,700; Non-Residential Outdoor: 11,900; Striped Parking Area: 0 (Architectural Coating – sqft)**

**OffRoad Equipment**

## Khalsa Truck Terminal - Truck Travel - Onsite Only (HRA) - Fresno County, Annual

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Grading	Excavators	2	8.00	158	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
Paving	Pavers	2	8.00	130	0.42
Paving	Rollers	2	8.00	80	0.38
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Paving	Paving Equipment	2	8.00	132	0.36
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Building Construction	Welders	1	8.00	46	0.45

**Trips and VMT**

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	10.00	4.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	2.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

## Khalsa Truck Terminal - Truck Travel - Onsite Only (HRA) - Fresno County, Annual

### 3.1 Mitigation Measures Construction

Water Exposed Area

## Reduce Vehicle Speed on Unpaved Roads

### 3.3 Grading - 2005

### Unmitigated Construction On-Site

[illegible]

Khalsa Truck Terminal - Truck Travel - Onsite Only (HRA) - Fresno County, Annual

### 3.3 Grading - 2005

### Unmitigated Construction Off-Site

[illegible]

### Mitigated Construction On-Site

[illegible]



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### 3.3 Grading - 2005

### Mitigated Construction Off-Site

[illegible]

### 3.4 Building Construction - 2005

### Unmitigated Construction On-Site

[illegible]

Khalsa Truck Terminal - Truck Travel - Onsite Only (HRA) - Fresno County, Annual

### 3.4 Building Construction - 2005

### Unmitigated Construction Off-Site

[illegible]

### Mitigated Construction On-Site

[illegible]

Khalsa Truck Terminal - Truck Travel - Onsite Only (HRA) - Fresno County, Annual

### 3.4 Building Construction - 2005

### Mitigated Construction Off-Site

[illegible]

### 3.5 Paving - 2006

### Unmitigated Construction On-Site

[illegible]

Khalsa Truck Terminal - Truck Travel - Onsite Only (HRA) - Fresno County, Annual

### 3.5 Paving - 2006

### Unmitigated Construction Off-Site

[illegible]

### Mitigated Construction On-Site

[illegible]

Khalsa Truck Terminal - Truck Travel - Onsite Only (HRA) - Fresno County, Annual

### 3.5 Paving - 2006

### Mitigated Construction Off-Site

[illegible]

### 3.6 Architectural Coating - 2006

### Unmitigated Construction On-Site

[illegible]

Khalsa Truck Terminal - Truck Travel - Onsite Only (HRA) - Fresno County, Annual

### 3.6 Architectural Coating - 2006

### Unmitigated Construction Off-Site

[illegible]

### Mitigated Construction On-Site

[illegible]

## Khalsa Truck Terminal - Truck Travel - Onsite Only (HRA) - Fresno County, Annual

**3.6 Architectural Coating - 2006****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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**4.0 Operational Detail - Mobile****4.1 Mitigation Measures Mobile**

## Khalsa Truck Terminal - Truck Travel - Onsite Only (HRA) - Fresno County, Annual

	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					1.7600e-003	5.0000e-004	2.2600e-003									
Unmitigated					1.7600e-003	5.0000e-004	2.2600e-003									

## 4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	42.00	42.00	42.00	4,128	4,128
Total	42.00	42.00	42.00	4,128	4,128

## 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 Light Industry	0.27	0.00	0.00	100.00	0.00	0.00	100	0	0

## 4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Light Industry	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	1.000000	0.000000	0.000000	0.000000	0.000000	0.000000

## 5.0 Energy Detail

Historical Energy Use: N





## Khalsa Truck Terminal - Truck Travel - Onsite Only (HRA) - Fresno County, Annual

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

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
General Light Industry	0						0.0000	0.0000									
<b>Total</b>							<b>0.0000</b>	<b>0.0000</b>									

**5.3 Energy by Land Use - Electricity****Unmitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	0				
<b>Total</b>					

## Khalsa Truck Terminal - Truck Travel - Onsite Only (HRA) - Fresno County, Annual

**5.3 Energy by Land Use - Electricity****Mitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	0				
<b>Total</b>					

**6.0 Area Detail**

---

**6.1 Mitigation Measures Area**

Use Electric Lawnmower

Use Electric Leafblower

Use Electric Chainsaw

Khalsa Truck Terminal - Truck Travel - Onsite Only (HRA) - Fresno County, Annual

[illegible]

## 6.2 Area by SubCategory

### Unmitigated

[illegible]

## Khalsa Truck Terminal - Truck Travel - Onsite Only (HRA) - Fresno County, Annual

**6.2 Area by SubCategory****Mitigated**

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

**7.0 Water Detail****7.1 Mitigation Measures Water**

## Khalsa Truck Terminal - Truck Travel - Onsite Only (HRA) - Fresno County, Annual

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated				
Unmitigated				

**7.2 Water by Land Use****Unmitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	0 / 0				
<b>Total</b>					

## Khalsa Truck Terminal - Truck Travel - Onsite Only (HRA) - Fresno County, Annual

**7.2 Water by Land Use****Mitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	0 / 0				
<b>Total</b>					

**8.0 Waste Detail**

---

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

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated				
Unmitigated				

## Khalsa Truck Terminal - Truck Travel - Onsite Only (HRA) - Fresno County, Annual

**8.2 Waste by Land Use****Unmitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	0				
<b>Total</b>					

**Mitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	0				
<b>Total</b>					

**9.0 Operational Offroad**

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



## Khalsa Truck Terminal - Truck Travel - Onsite Only (HRA) - Fresno County, Annual

## 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

---

## **APPENDIX B. AERMOD AND HARP2 ELECTRONIC FILES**

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Appendix C

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CHRIS Results



**To:** Emily Bowen  
Crawford Bowen Planning, Inc.  
113 N. Church Street, Suite 302  
Visalia, CA 93291

**Record Search 20-451**

**Date:** December 18, 2020

**Re:** City of Kingsburg Khalsa Truck Terminal Project

**County:** Fresno

**Map(s):** Selma 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 five studies within the one-half mile radius, FR-00073, 00135, 01711, 02287, and 02452.

**KNOWN/RECORDED CULTURAL RESOURCES WITHIN THE PROJECT AREA AND THE ONE-HALF MILE RADIUS**

There are no recorded resources within the project area, and it is not known if any exist there. There are three recorded resources within the one-half mile radius, P-10-003930, 005986, and 006242. These resources include an historic era railroad, an historic era canal, and an historic era refuse deposit.

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 and operation of a new truck terminal project immediate west of the City of Kingsburg on land that is currently vacant and has not been previously developed. Because a cultural resources study has not been conducted on this project area, it is unknown if any cultural resources are present. Therefore, prior to project activities, we recommend a qualified, professional consultant first conduct a field survey to determine if any cultural resources are present. A list of qualified consultants can be found at [www.chrisinfo.org](http://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:** December 18, 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

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# Traffic Study

# **TRAFFIC STUDY**

## **Proposed Khalsa Truck Facility on East Kamm Avenue**

**Kingsburg, CA**

**Prepared for:**

**Crawford & Bowen Planning, Inc.**

**February 2021**

**Prepared by:**



**1800 30TH STREET, SUITE 260  
BAKERSFIELD, CA 93301**

# **DRAFT**

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Ian J. Parks, RCE 58155

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## **EXECUTIVE SUMMARY**

The proposed 14.56-acre truck terminal is located north of E Kamm Avenue and west of State Route 99 in the City of Kingsburg. Site access is proposed along E Kamm Avenue.

The list of proposed study intersections, roadway segments, and scenarios are as follows:

### **Study Intersections:**

- State Route 99 Northbound Offramp at Bethel Avenue/Kamm Avenue
- State Route 99 Northbound Onramp at Bethel Avenue/Kamm Avenue
- State Route 99 Southbound Offramp at Kamm Avenue/Parkway Drive
- State Route 99 Southbound Onramp at Bethel Avenue/Parkway Drive

### **Roadway Segments:**

- Parkway Drive from Kamm Avenue to Bethel Avenue
- Bethel Avenue from Parkway Drive to State Route 99 Northbound Offramp
- Bethel Avenue from State Route 99 Northbound Offramp to State Route 99 Northbound Onramp

### **Scenarios:**

- Existing
- Existing + Project
- Future (Cumulative)
- Future (Cumulative) + Project

### **Level of Service Analysis**

#### **PM Peak Hour**

Intersection	Existing (2021)		Existing (2021) + Project		Future (2040)		Future (2040) + Project	
	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS
SR 99 SB Onramp & E Kamm Ave	9.4	A	9.4	A	9.5	A	9.5	A
S Bethel Ave & E Kamm Ave/SR 99 NB Onramp	9.3	A A	9.3	A A	10.6	B A	10.6	B A
S Bethel Ave & SR 99 NB Offramp	9.8	A	10.1	B	13.8	B	14.5	B
Bethel Ave & Parkway Dr/SR 99 SB Onramp	10.9	B	11.8	B	12.8	B	14.5	B

**AM Peak Hour**

Intersection	Existing (2021)		Existing (2021) + Project		Future (2040)		Future (2040) + Project	
	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS
SR 99 SB Onramp & E Kamm Ave	8.9	A	9	A	9	A	9.1	A
S Bethel Ave & E Kamm Ave/SR 99 NB Onramp	9.8	A A	9.8	A A	11.9	B A	11.9	B A
S Bethel Ave & SR 99 NB Offramp	9.7	A	10.1	B	13.1	B	13.9	B
Bethel Ave & Parkway Dr/SR 99 SB Onramp	10.1	B	10.5	B	11.2	B	11.9	B

**HCS Analysis**

Street	2021		2021+Project		2040		2040+Project	
	Directional LOS		Directional LOS		Directional LOS		Directional LOS	
	N or E AM/PM	S or W AM/PM	N or E AM/PM	S or W AM/PM	N or E AM/PM	S or W AM/PM	N or E AM/PM	S or W AM/PM
S Bethel Avenue: Parkway Drive to SR 99 NB Offramp	B/C	B/C	B/B	B/C	B/B	B/C	B/B	C/C
S Bethel Avenue: SR 99 NB Offramp to SR 99 NB Onramp	B/B	B/B	B/B	B/B	C/B	B/B	C/B	B/B
Parkway Drive: E Kamm Avenue to S Bethel Avenue	B/B	B/C	B/B	B/C	C/C	C/C	C/C	C/C

**Conclusion**

Based on Level of Service (LOS) analysis and Highway Capacity Software (HCS), it was determined that no intersections or roadway segments fall below an acceptable level of service and thus mitigation is not necessary. Based on the City of Kingsburg's and Caltran's standards, this project is anticipated to have a less-than-significant impact.

## **INTRODUCTION**

The purpose of this study is to evaluate the potential traffic impact of a proposed 14.56-acre truck terminal located on Kamm Avenue, west of State Route 99 in the of the City of Kingsburg. The proposed truck terminal will include a 12,540 square foot office, a 15,000 square foot truck repair and maintenance building, two fueling stations, 38 office parking stalls, and 148 truck parking stalls. Hours of operation will be primarily 8:00 am to 5:00 pm, however, trucks are able to arrive and depart during all hours of the day. The truck terminal is expected to employ 10 to 20 persons. A vicinity map is presented in Figure 1 and a location map is presented in Figure 2.

### **A. Study Area**

The study area is bounded by the Interchange of State Route 99 and Kamm Avenue and Bethel Avenue.

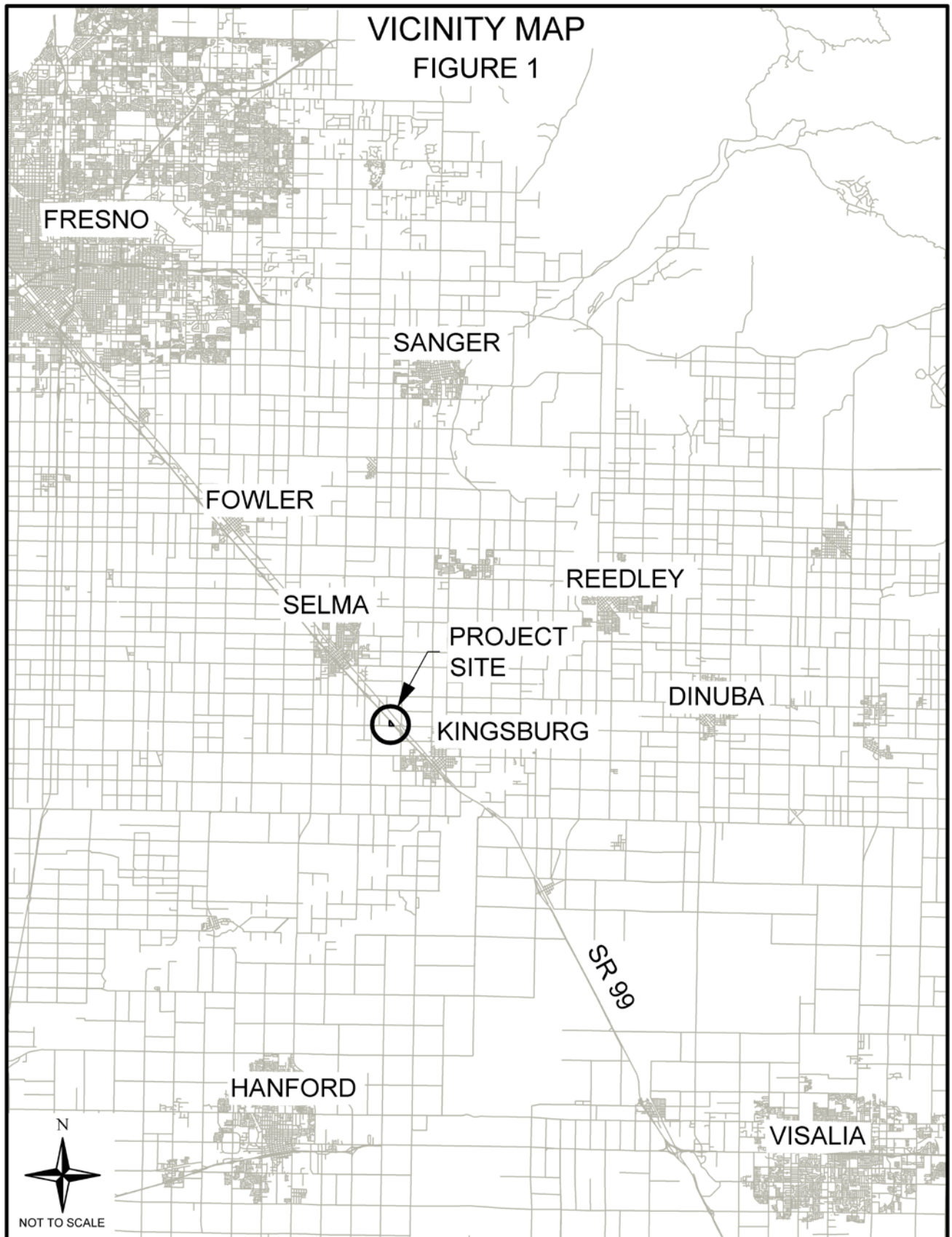
A total of four intersections are included in the study, all of which are stop controlled. The scope of the study was developed in association with the City of Kingsburg and Caltrans. The scope is based on the guidelines contained in the City of Kingsburg “Traffic Impact Study Report Guidelines.”

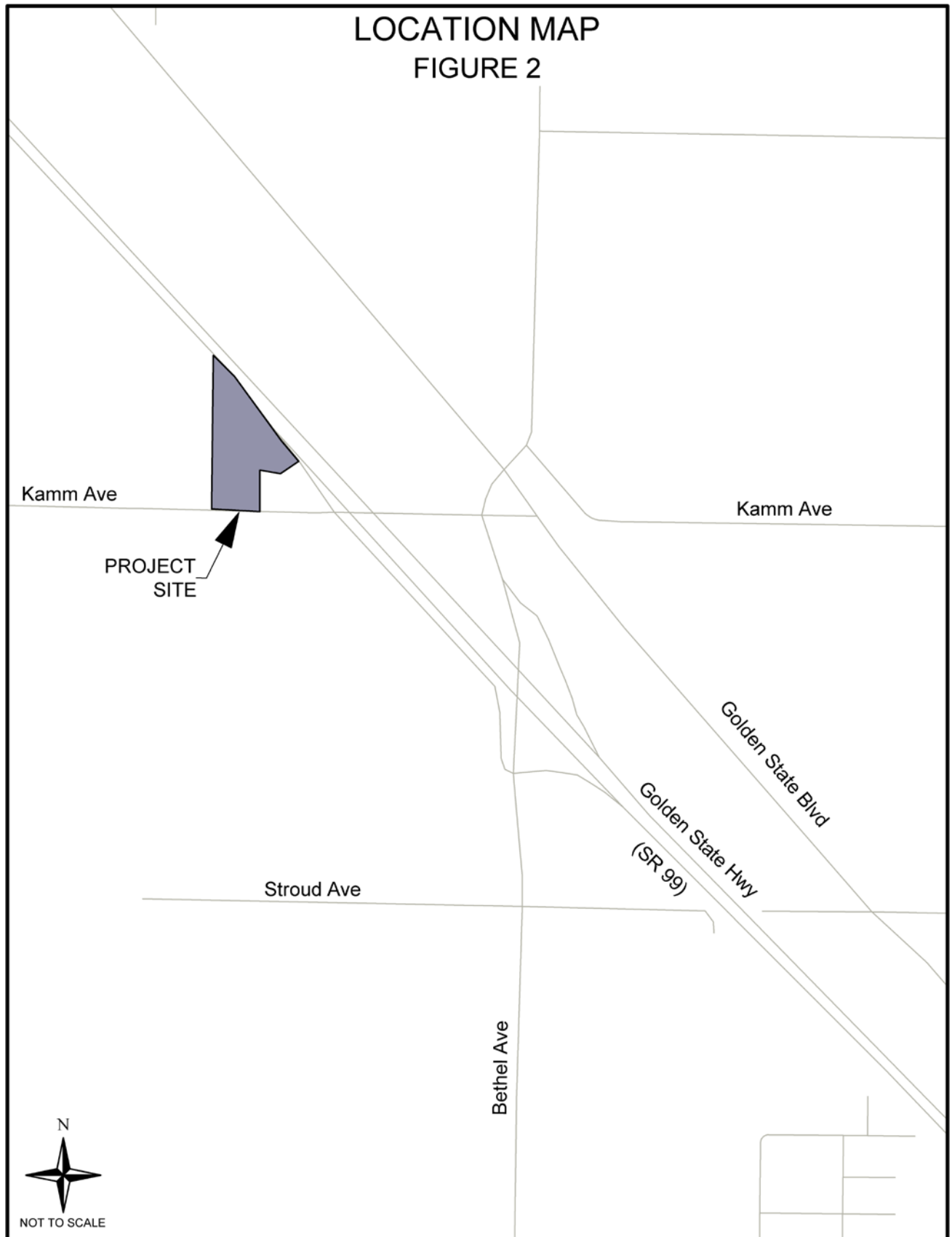
### **B. Existing Site Uses and Site Access**

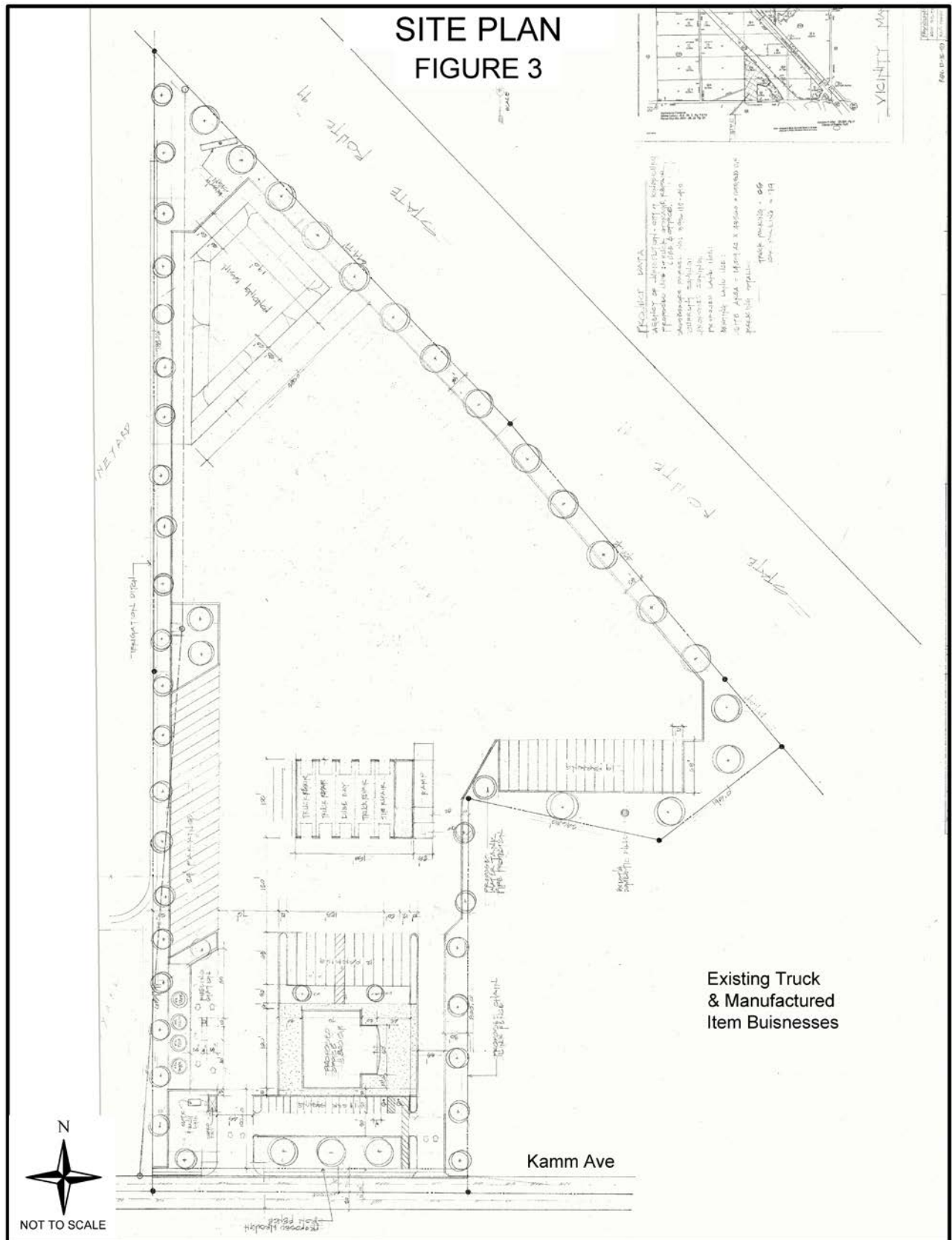
The site is currently vacant land which has previously been used for agricultural production. Site access is proposed along E Kamm Avenue, approximately 1,200 feet west of the State Route 99 Southbound offramp.

### **C. Existing Uses in Vicinity of the Site**

Existing land uses in the vicinity of the proposed development include agricultural land uses to the west, north and south, manufacture homes and truck facility to the east. State Route 99 also exists to the east.







## D. Existing Streets and Intersections

Bethel Avenue is designated as a primary arterial in the City of Kingsburg. Bethel Avenue provides access to residential and agricultural land uses. In the vicinity of the project it exists as a two-lane roadway.

Kamm Avenue is designated as a primary arterial in the City of Kingsburg. Kamm Avenue extends west from State Route 99 and east from Bethel Avenue through Kingsburg. In the vicinity of the project it exists as a two-lane roadway and provides access to mainly agricultural land uses.

Parkway Drive is a north-south roadway parallel to State Route 99 which extends from Kamm Avenue south to its terminus at Bethel Avenue and the State Route 99 southbound onramp. In the vicinity of the project it exists as a two-lane roadway and provides connection Kamm Avenue on the west side of State Route 99 to Kamm Avenue east of State Route 99.

State Route 99 is a major north-south route through the central valley of California, extending from Interstate 5 south of Bakersfield to Sacramento. State Route 99 operates as a 4-lane freeway through the City of Kingsburg and has interchanges at 18<sup>th</sup> Avenue and Sierra Street (SR 201) in the vicinity of the project.

## **PROJECT TRIP GENERATION AND DESIGN HOUR VOLUMES**

The Institute of Transportation Engineers (ITE) Trip Generation, 10<sup>th</sup> Edition manual, which is typically used in order to estimate traffic volumes generated by various types of land uses, provides very little data for trucking facilities, and does not capture the proposed truck terminal use. A search of the ITE land use codes did not produce a similar type use as the proposed project. Therefore, from information gathered from the applicant and the site plan, the following assumptions were used to determine the project trip generation.

### **Trucks:**

- There will be 42 heavy duty trucks will make a minimum of one trip into the facility and one trip out of the facility daily (55 parking spaces for trucks with 75% active in a day).
- 7% of the trucks will be entering and 24% of the trucks will be exiting the facility during AM Peak Hour as well 24% of the trucks entering and 14% of the trucks exiting the facility during PM Peak Hour.
- The remaining heavy duty truck trips are distributed throughout the day. A heavy vehicle factor of 2.0 was used on the heavy truck trips for the level of service analysis.

### **Passenger Vehicles:**

- There will be 20 full-time employees will make a minimum of two trips to and from the facility while 25% of the employees will make additional trips throughout the day.
- Each truck will require a driver to enter and exit the site. These trips were assumed to generally coincide with the truck trips throughout the day.

**Table 1a  
Trip Generation**

General Information	Daily Trips	AM Peak Hour Trips		PM Peak Hour Trips	
Development Type	ADT	In % Split/ Trips	Out % Split/ Trips	In % Split/ Trips	Out % Split/ Trips
Employees	144	30	5	8	30
Heavy Duty Trucks	84	3	10	10	6
<b>Total Trips</b>	<b>228</b>	<b>33</b>	<b>15</b>	<b>18</b>	<b>36</b>



**Table 1b**  
**Trip Generation with Passenger Car Equivalent Adjustment**

General Information	Daily Trips	AM Peak Hour Trips		PM Peak Hour Trips	
Development Type	ADT	In % Split/ Trips	Out % Split/ Trips	In % Split/ Trips	Out % Split/ Trips
Employees	144	30	5	8	30
Adjusted Truck Trip Volumes <sup>1</sup>	168	6	20	20	12
<b>Total Trips</b>	<b>312</b>	<b>36</b>	<b>25</b>	<b>28</b>	<b>42</b>

<sup>1</sup>A heavy duty truck factor of 2.0 was applied to heavy duty truck trips.

### **PROJECT TRIP DISTRIBUTION AND ASSIGNMENT**

The project trip distribution was based on the most logically traveled routes for traffic accessing the project and a review of the potential draw from population centers within the region as well as the types of land uses involved. For purposes of this study, it was assumed that a majority of project traffic will travel north and south along State Route 99. These assumptions were used to distribute project traffic as shown in Figure 4 for the roadway system within the study scope.

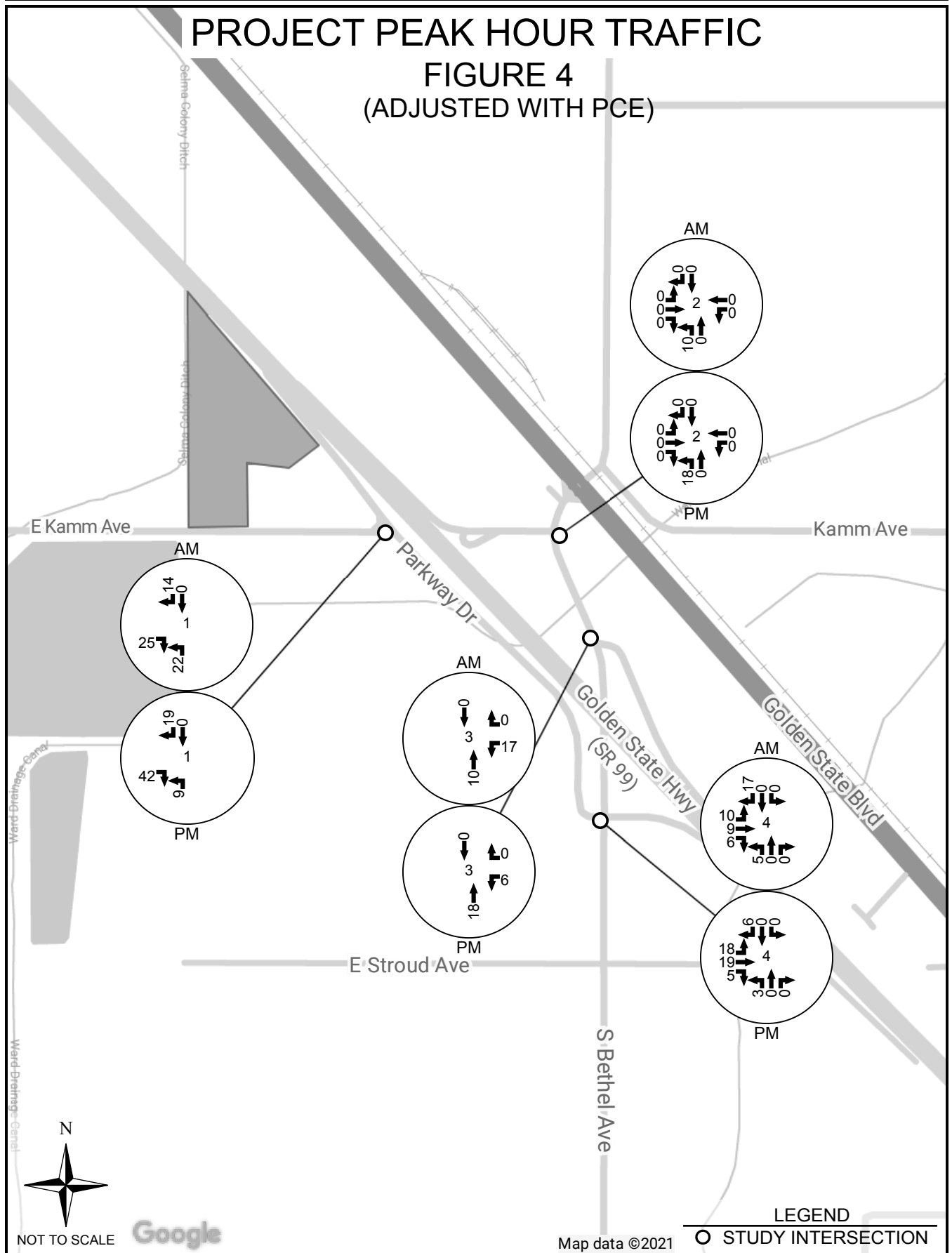
## **EXISTING AND FUTURE TRAFFIC**

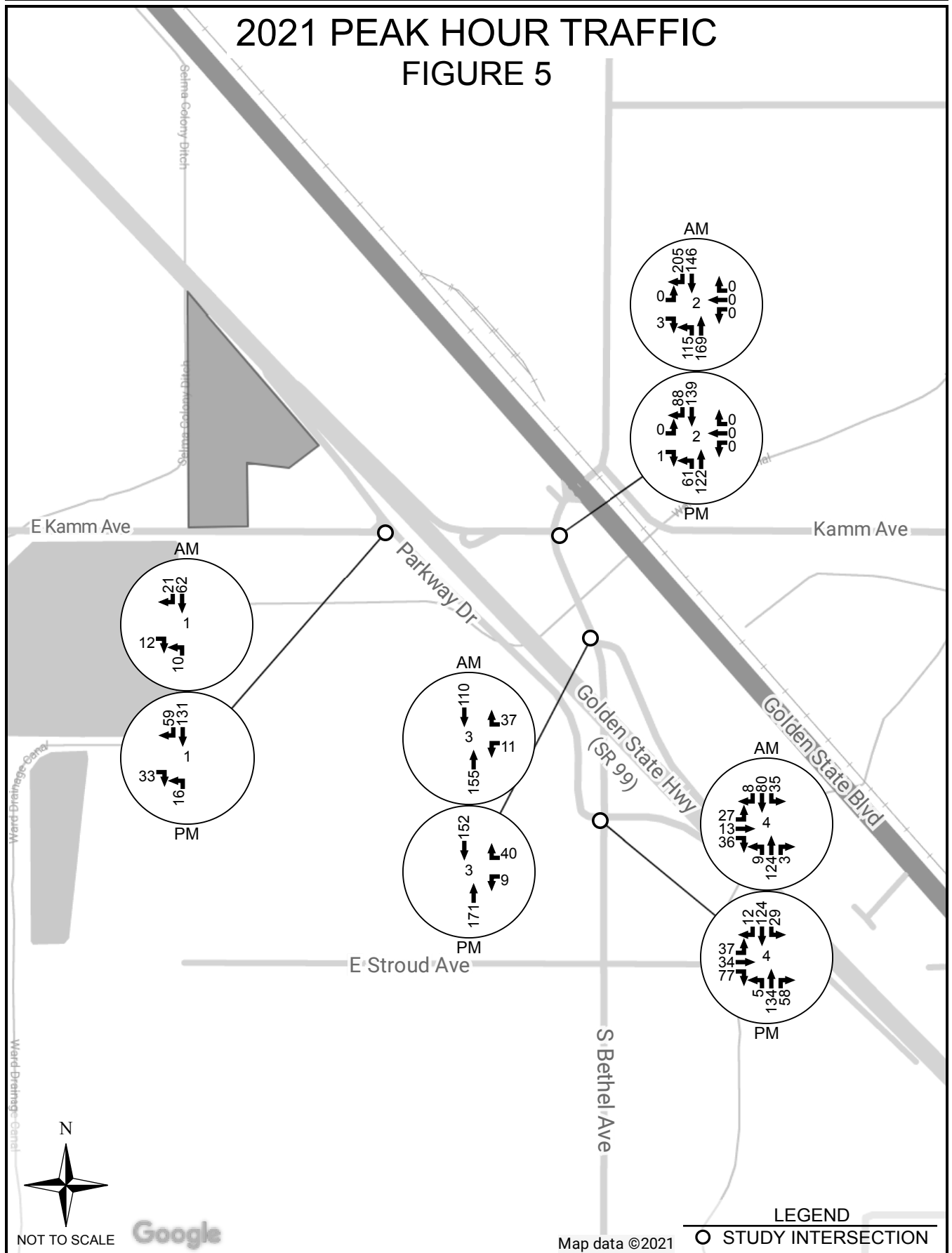
Weekday peak hour turning movements were counted at the study intersections in January 2021. Traffic counts were obtained between the hours of 7:00 and 9:00am, and 4:00 and 6:00pm. Peak hour was determined to be 7:15 to 8:15am and 4:00 to 5:00pm. Count data is included in the Appendix. Due to the closure of the State Route 99 Southbound ramps, historical ramp data was obtained from Caltrans and compared with current traffic volumes. Using the Caltrans data shown in the appendix, adjustment factors ranging from one to 29 were applied to existing peak hour volumes to account for ramp closures and the COVID-19 pandemic. Following are the adjustment factors used.

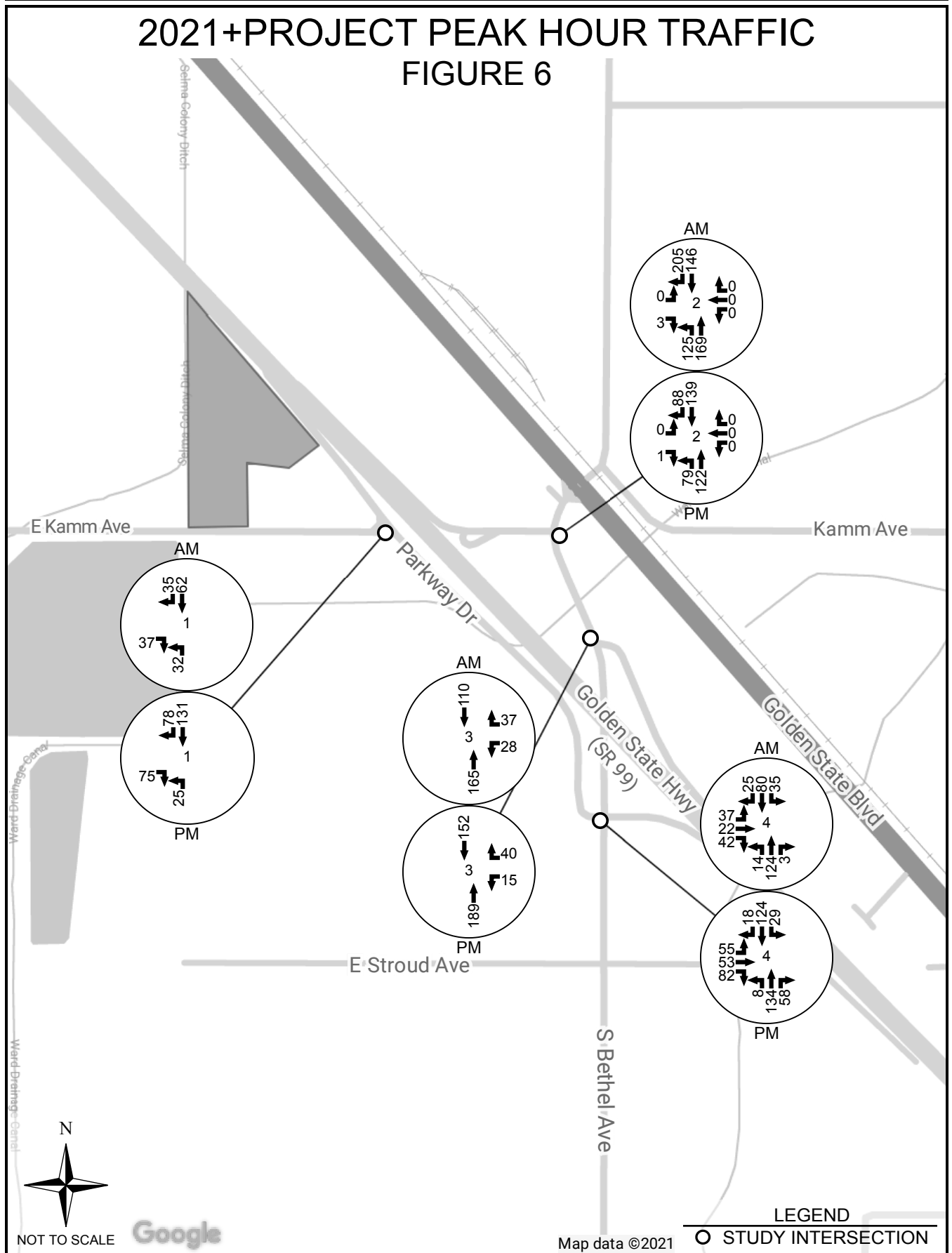
- State Route 99 Southbound Offramp Adjustment Factors  
Peak hour count data supplied from Caltrans was used, no adjustment necessary
- State Route 99 Southbound Onramp Adjustment Factors  
AM: 2.93  
PM: 29.00
- State Route 99 Northbound Offramp Adjustment Factors  
AM: 1.18  
PM: 1.17
- State Route 99 Northbound Onramp Adjustment Factors  
AM: 1.72  
PM: 1.00

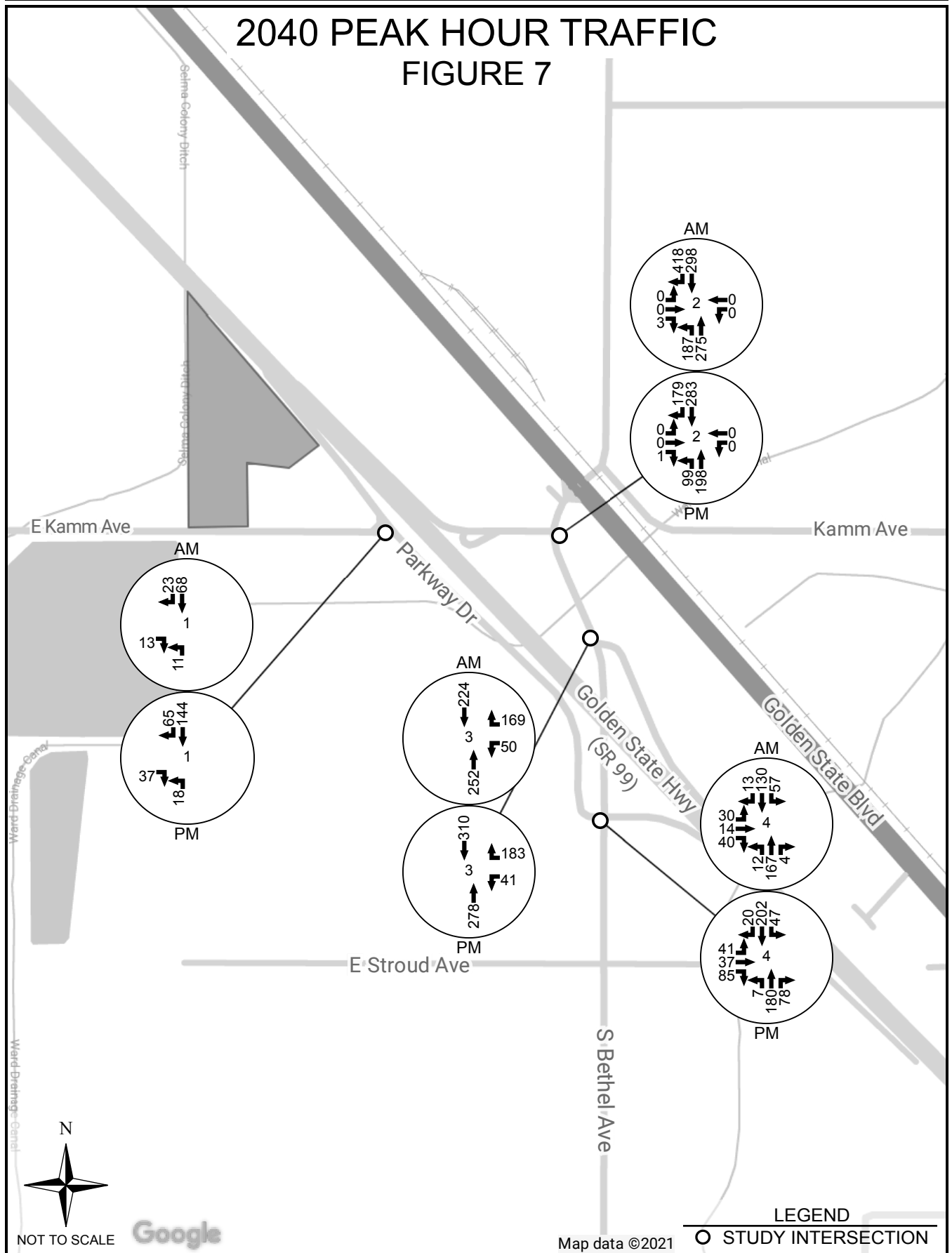
Annual growth rates ranging between 0.5 and 8.32 percent were applied to existing peak hour volumes to estimate future peak hour volumes for the year 2040. These growth rates were estimated based on a comparison of regional travel demand model volumes from the Fresno Council of Governments (FCOG) between years 2018 and 2035. It is noted that a search for applications for projects that may have an influence on the cumulative traffic was made and no project applications were found that would affect the study intersections and roadways.

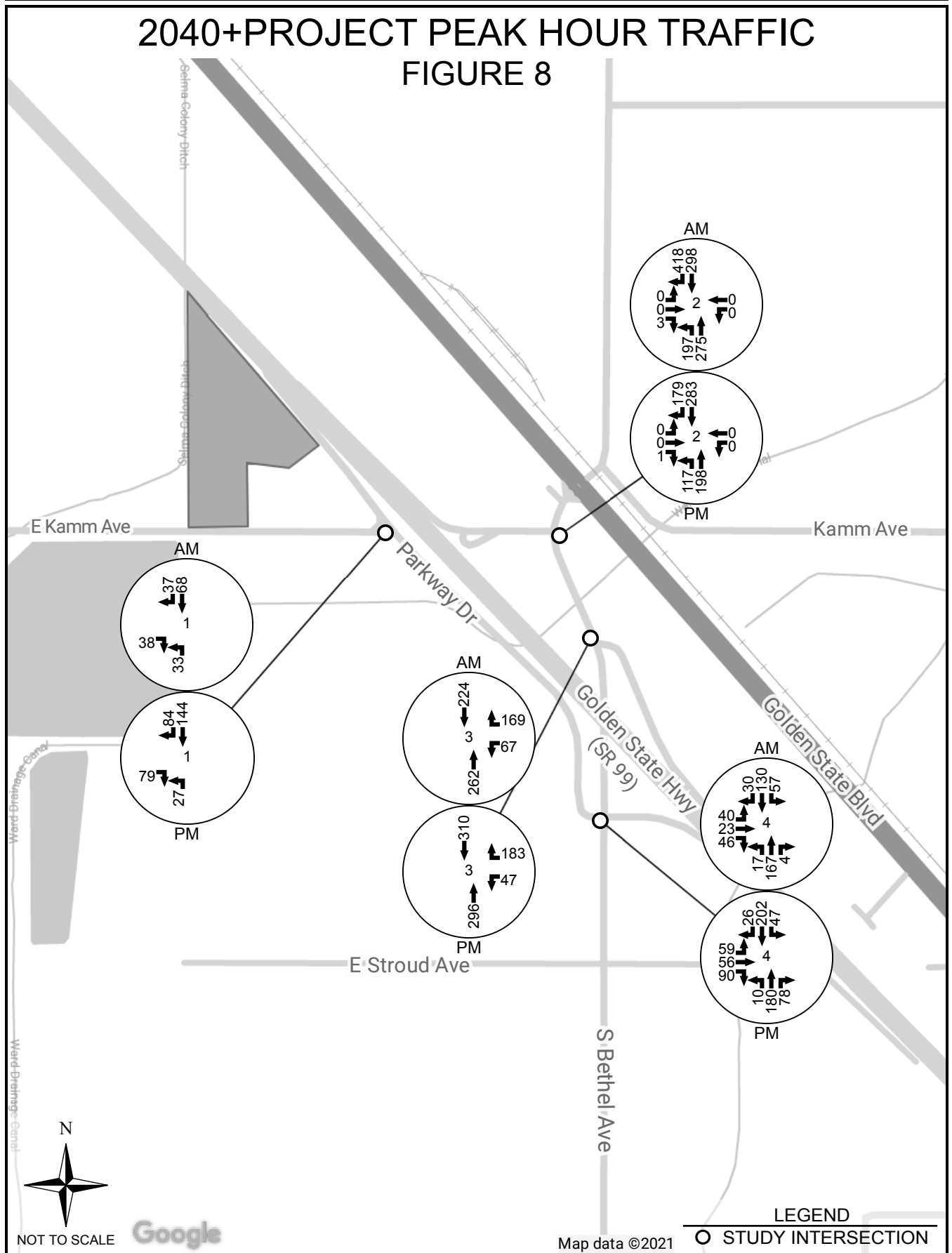
Existing peak hour volumes are shown in Figure 5. Existing plus project peak hour volumes are shown in Figure 6. Future peak hour volumes for the year 2040, both without and with project traffic, are shown in Figures 7 and 8, respectively.











## **INTERSECTION ANALYSIS**

A capacity analysis of the study intersections was conducted using Synchro 9 software from Trafficware. This software utilizes the capacity analysis methodology in the Transportation Research Board's Highway Capacity Manual. The analysis was performed for the following AM and PM Peak Hour traffic scenarios:

- Existing (2021)
- Existing (2021) + Project
- Future (2040)
- Future (2040) + Project

Criteria for intersection level of service (LOS) are shown in the tables below.

### **LEVEL OF SERVICE CRITERIA UNSIGNALIZED INTERSECTION**

Level of Service	Average Control Delay (sec/veh)	Expected Delay to Minor Street Traffic
A	$\leq 10$	Little or no delay
B	$> 10$ and $\leq 15$	Short delays
C	$> 15$ and $\leq 25$	Average delays
D	$> 25$ and $\leq 35$	Long delays
E	$> 35$ and $\leq 50$	Very long delays
F	$> 50$	Extreme delays

### **LEVEL OF SERVICE CRITERIA SIGNALIZED INTERSECTIONS**

Level of Service	Average Control Delay (sec/veh)	Volume-to-Capacity Ratio
A	$\leq 10$	$< 0.60$
B	$> 10$ and $\leq 20$	0.61 - 0.70
C	$> 20$ and $\leq 35$	0.71 - 0.80
D	$> 35$ and $\leq 55$	0.81 - 0.90
E	$> 55$ and $\leq 80$	0.91 - 1.00
F	$> 80$	$> 1.00$



The City of Kingsburg Traffic Impact Study Guidelines and the Caltrans Concept Report states that the peak hour level of service for intersections shall be no lower than LOS “D” for the existing and future scenarios. Level of service for the study intersections is presented in Tables 3a and 3b.

**Table 3a**  
**Intersection Level of Service**  
**AM Peak Hour**

Intersection	Existing (2021)		Existing (2021) + Project		Future (2040)		Future (2040) + Project	
	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS
SR 99 SB Onramp & E Kamm Ave	8.9	A	9	A	9	A	9.1	A
S Bethel Ave & E Kamm Ave/SR 99 NB Onramp	9.8	A A	9.8	A A	11.9	B A	11.9	B A
S Bethel Ave & SR 99 NB Offramp	9.7	A	10.1	B	13.1	B	13.9	B
Bethel Ave & Parkway Dr/SR 99 SB Onramp	10.1	B	10.5	B	11.2	B	11.9	B

**Table 3b**  
**Intersection Level of Service**  
**PM Peak Hour**

Intersection	Existing (2021)		Existing (2021) + Project		Future (2040)		Future (2040) + Project	
	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS
SR 99 SB Onramp & E Kamm Ave	9.4	A	9.4	A	9.5	A	9.5	A
S Bethel Ave & E Kamm Ave/SR 99 NB Onramp	9.3	A A	9.3	A A	10.6	B A	10.6	B A
S Bethel Ave & SR 99 NB Offramp	9.8	A	10.1	B	13.8	B	14.5	B
Bethel Ave & Parkway Dr/SR 99 SB Onramp	10.9	B	11.8	B	12.8	B	14.5	B

## **ROADWAY ANALYSIS**

A capacity analysis of the study roadways was conducted using HCS 2010 software from McTrans. This software utilizes the capacity analysis methodology in the Transportation Research Board's Highway Capacity Manual. The City of Kingsburg Traffic Impact Study Guidelines states that the peak hour level of service for roadways shall be no lower than LOS "D" for urban areas for the existing and future scenarios. The analysis was performed for the following AM and PM traffic scenarios:

- Existing (2021)
- Existing (2021) + Project
- Future (2040)
- Future (2040) + Project

Level-of-Service Criteria for Two-Lane Highways in Class III are as follows:

<i>LOS</i>	<i>PFFS (%)</i>
A	>91.7
B	>83.3-91.7
C	>75.0-83.3
D	>66.7-75.0
E	≤66.7

Note: LOS F applies whenever the demand flow in one or both directions exceeds the capacity of the segment.

**Table 4**  
**ROADWAY LEVEL OF SERVICE**

Street	2021 Directional LOS		2021+Project Directional LOS		2040 Directional LOS		2040+Project Directional LOS	
	N or E AM/PM	S or W AM/PM	N or E AM/PM	S or W AM/PM	N or E AM/PM	S or W AM/PM	N or E AM/PM	S or W AM/PM
S Bethel Avenue: Parkway Drive to SR 99 NB Offramp	B/C	B/C	B/B	B/C	B/B	B/C	B/B	C/C
S Bethel Avenue: SR 99 NB Offramp to SR 99 NB Onramp	B/B	B/B	B/B	B/B	C/B	B/B	C/B	B/B
Parkway Drive: E Kamm Avenue to S Bethel Avenue	B/B	B/C	B/B	B/C	C/C	C/C	C/C	C/C

## **TRAFFIC SIGNAL WARRANT ANALYSIS**

Peak hour signal warrants were evaluated for each of the unsignalized intersections within the study based on the California Manual on Uniform Traffic Control Devices (MUTCD). Peak hour signal warrants assess delay to traffic on the minor street approaches when entering or crossing a major street. Signal warrant analysis results for AM and PM peak hours are shown in Tables 6a and 6b.

It is important to note that a signal warrant defines the minimum condition under which signalization of an intersection might be warranted. Meeting this threshold does not suggest traffic signals are required, but rather, that other traffic factors and conditions be considered in order to determine whether signals are truly justified.

It is also noted that signal warrants do not necessarily correlate with level of service. An intersection may satisfy a signal warrant condition and operate at or above an acceptable level of service or operate below an acceptable level of service and not meet signal warrant criteria.

**Table 5a**  
**AM Traffic Signal Warrants**

#	Intersection	2021			2021+Project			2040			2040+Project		
		Major Street Total Approach Vol	Minor Street High Approach Vol	Warrant Met	Major Street Total Approach Vol	Minor Street High Approach Vol	Warrant Met	Major Street Total Approach Vol	Minor Street High Approach Vol	Warrant Met	Major Street Total Approach Vol	Minor Street High Approach Vol	Warrant Met
1	SR 99 SB Onramp at E Kamm Ave	93	12	NO	129	37	NO	102	13	NO	138	38	NO
2	S Bethel Ave at E Kamm Ave	635	3	NO	645	3	NO	1178	3	NO	1188	3	NO
3	S Bethel Ave at SR 99 NB Offramp	265	48	NO	275	65	NO	476	219	NO	486	236	YES
4	S Bethel Ave at Parkway Dr	259	76	NO	281	101	NO	383	84	NO	405	109	NO

**Table 5b**  
**PM Traffic Signal Warrants**

#	Intersection	2021			2021+Project			2040			2040+Project		
		Major Street Total Approach Vol	Minor Street High Approach Vol	Warrant Met	Major Street Total Approach Vol	Minor Street High Approach Vol	Warrant Met	Major Street Total Approach Vol	Minor Street High Approach Vol	Warrant Met	Major Street Total Approach Vol	Minor Street High Approach Vol	Warrant Met
1	SR 99 SB Onramp at E Kamm Ave	206	33	NO	234	75	NO	227	37	NO	255	79	NO
2	S Bethel Ave at E Kamm Ave	410	1	NO	428	1	NO	759	1	NO	777	1	NO
3	S Bethel Ave at SR 99 NB Offramp	323	49	NO	341	55	NO	588	224	YES	606	230	YES
4	S Bethel Ave at Parkway Dr	362	148	NO	371	190	NO	534	163	NO	543	205	YES

## **VEHICLE MILES TRAVELED ANALYSIS**

An evaluation of vehicle miles traveled (VMT) for project traffic was conducted based on applicable California Environmental Quality Act (CEQA) Guidelines.

### **Project Vehicle Miles Traveled**

At the time of this study, the City of Kingsburg had not developed or adopted a Vehicle Miles Traveled (VMT) policy. The Fresno Council of Governments has adopted VMT guidelines included in the document “Fresno County SB 743 Implementation Regional Guidelines” dated January 2021. The guideline contains recommendations regarding VMT assessment, significance thresholds and mitigation measures.

The guideline provides “screening thresholds” for identifying whether a land use project should be expected to result in a less than significant transportation impact under CEQA. Projects meeting one or more of these criteria would not be required to undergo a detailed VMT analysis. One such screening threshold pertains to the project generated daily traffic. According to Chapter 3. “Project Screening”, the guideline states that if the project generates fewer than 500 average daily trips, the project is presumed to create a less than significant impact.

As shown in Table 1a, the project is anticipated to generate 228 daily trips. 84 of the trips will be heavy trucks, which are not generally included in VMT analysis as they are addressed in other CEQA sections. With the project generating less than 500 daily trips, it is presumed to create a less than significant impact.

## **SUMMARY AND CONCLUSIONS**

This study has evaluated the potential traffic impact of a proposed 14.59 acre truck facility located on the west side of State Route 99 and the north side of Kamm Avenue of the City of Kingsburg in Fresno County. The development includes a 3,800 square foot office building, a 15,000 square foot truck repair and maintenance building, 38 office parking stalls, 158 truck parking stalls, and two fueling stations.

### **Level of Service Analysis**

All four intersections within the project scope operate, in the current and future years, above LOS D and are anticipated to do so with the addition of project traffic.

### **Roadway Capacity**

All roadways within the project scope operate, in the current and future years, at or above LOS D and are anticipated to do so with the addition of project traffic.

### **Conclusion**

Based on the City of Kingsburg's and Caltran's standards for determining whether project traffic has a significant impact on intersections and roadways, this project is anticipated to have a less-than-significant impact.

**REFERENCES**

1. 2017 Annual Traffic Census, Caltrans
2. Highway Capacity Manual, Transportation Research Board
3. North Kingsburg Specific Plan, adopted July 2005
4. Manual on Uniform Traffic Control Devices for Streets and Highways, 2012 Edition, Federal Highway Administration (FHA)
5. Trip Generation, 10<sup>th</sup> Edition, Institute of Transportation Engineers (ITE)

## APPENDIX