Exhibit M

E20251000196

CITY OF FRESNO

NOTICE OF INTENT TO ADOPT A

MITIGATED NEGATIVE DECLARATION

Filed with the
FRESNO COUNTY
CLERK
2220 Tulare Street,
Fresno, CA 93721

ENVIRONMENTAL ASSESSMENT FOR T-6432/P23-02268/P23-02269/P23-03234

APPLICANT:

Cameron Graham
Golden State Developers LLC
680 P Street
Fresno, CA 93721

FILED
AUG 07 2025 TIME 12:18pm
By FRESNO COUNTY CLERK DEPUTY

PROJECT LOCATION:

located on the west side of South Peach Avenue, between East Tulare and East Huntington Avenues in the County of Fresno, California (See Exhibit A - Vicinity Map)

APN(s): 463-140-01, -02,-03, & -04

Site Latitude: 36º 44'27.08" N
Site Longitude: 119 º 43'06.94" W
Mount Diablo Base & Meridian, Township 14S, Range 21E, Section 6

The full Initial Study is on file in the Planning and Development Department, Fresno City Hall, 3rd Floor, Room 3043, 2600 Fresno Street, Fresno, CA 93721.

E20251000196

PROJECT DESCRIPTION:

Bonique Emerson of Precision Civil Engineering, on behalf of Cameron Graham of Golden State Developers, has filed Annexation Application No. P23-02268, Pre-zone Application No. P23-02269, Vesting Tentative Tract Map No. 6432, and Planned Development Permit Application No. P23-03234 pertains to ±9.46 acres of property located on the west side of South Peach Avenue, between East Tulare and East Huntington Avenues.

Annexation Application No. P23-02268 proposes to detach the property from the Kings River Conservation District and Fresno County Fire Protection District and annexation to the City of Fresno.

Pre-zone Application No. P23-02269 proposes to pre-zone: approximately 4.18 acres of the property from the Fresno County RA-NB (*Single Family Residential Agricultural*) to the City of Fresno RS-5 (*Single-Family Residential, Medium Density*) and approximately 4.80 acres of the property from the Fresno County AL20 (*Limited Agricultural*) zone district to the City of Fresno RS-5/ANX (*Single-Family Residential, Medium Density/Annexed Rural Residential Overly*) zone districts.

Vesting Tentative Tract Map No. 6432 proposes to subdivide approximately 3.97 acres of property into a 44-lot single-family residential development.

Planned Development Permit Application No. P23-03234 proposes to modify the RS-5 zone district development standards to allow for private streets; a reduction in the minimum lot size, and depth; a reduction in the minimum garage, street side yard, and rear yard setbacks, front; and an increase in the maximum lot coverage requirement

The City of Fresno has prepared an Initial Study of the above-described project and proposes to adopt a Mitigated Negative Declaration.

Pursuant to the California Public Resources Code (PRC) §§ 21093 and 21094 and California Environmental Quality Act (CEQA) Guidelines §§ 15070 to 15075, and 15150, this project has been evaluated with respect to each item on the attached Appendix G/Initial Study Checklist to determine whether this project may cause any additional significant effect on the environment. After conducting a review of the adequacy of the Project Specific Mitigation Measure Checklist and CEQA Guidelines §§ 15151 and 15178(b)(1) and (2), the Planning and Development Department, as lead agency, finds that no substantial changes have occurred, and that no new information has become available.

E20251000196

The completed Appendix G/Initial Study Checklist, its associated narrative, technical studies and mitigation measures reflect applicable comments of responsible and trustee agencies and research, and analyses conducted to examine the interrelationship between the proposed project and the physical environment. The information contained in the project application and its related environmental assessment application, responses to requests for comment, checklist, Initial Study narrative, and any attachments thereto, combine to form a record indicating that an Initial Study has been completed in compliance with the State CEQA Guidelines and the CEQA.

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

With mitigation imposed under the Project Specific Mitigation Measure Checklist, there is no substantial evidence in the record that this project may have additional significant, direct, indirect or cumulative effects on the environment that are significant. The Planning and Development Department, as lead agency, finds that no substantial changes have occurred, and that no new information has become available.

Based upon the evaluation guided by the Appendix G/Initial Study Checklist, it was determined that there are project specific foreseeable impacts which require project level mitigation measures.

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

Public notice has been provided regarding staff's finding in the manner prescribed by § 15072 of the CEQA Guidelines and by § 21092 of the PRC Code (CEQA provisions).

Additional information on the proposed project, including the Project Specific Mitigation Measure Checklist, proposed environmental finding of a Mitigated Negative Declaration and the Initial Study may be obtained from the Planning and Development Department, Fresno City Hall, 2600 Fresno Street, 3rd Floor, Room 3043, Fresno, California 93721 3604. Please contact Juan Lara at (559) 621-8039 or via email at Juan.Lara@fresno.gov for more information.

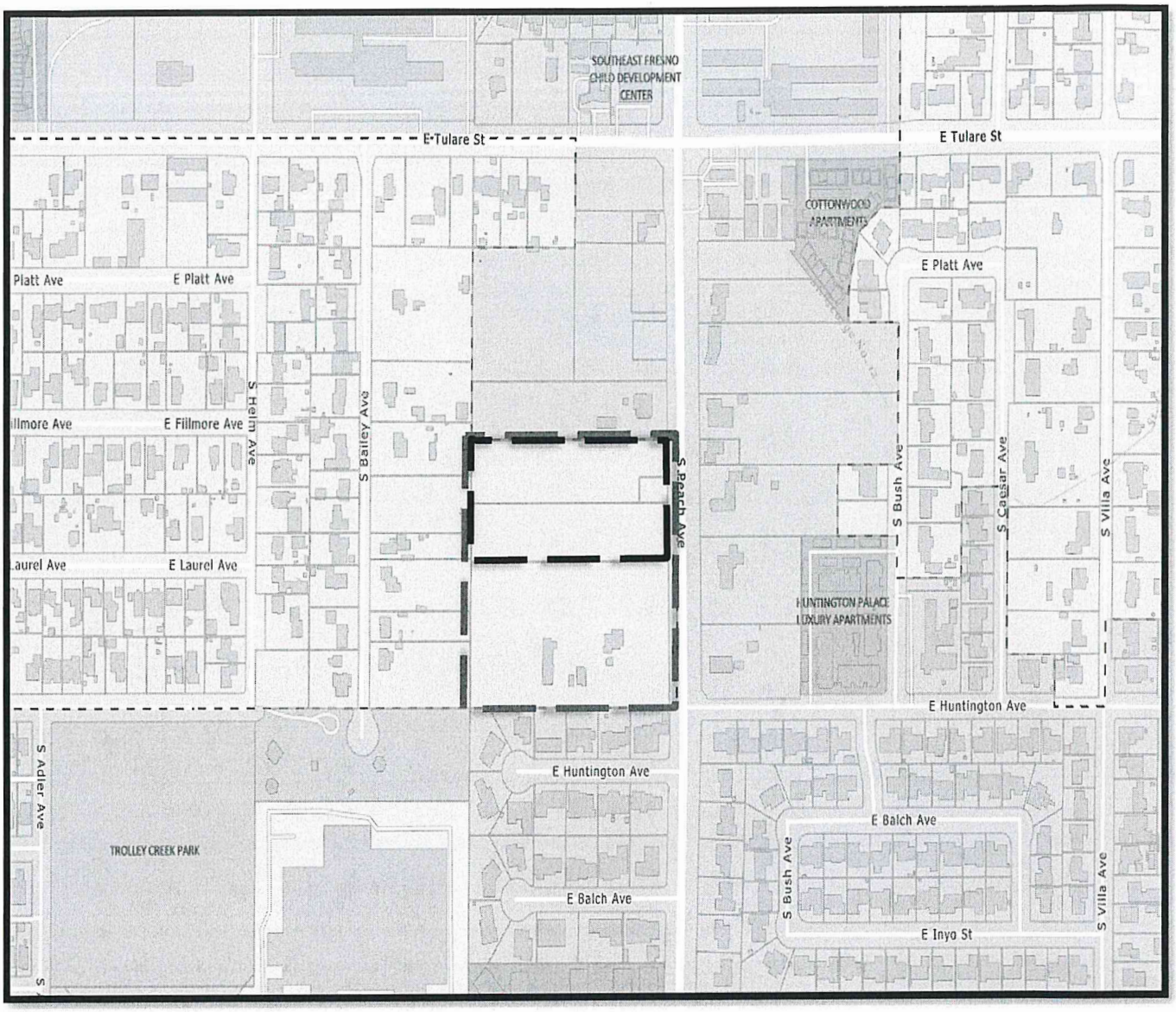
ANY INTERESTED PERSON may comment on the proposed environmental finding. Comments must be in writing and must state (1) the commentor's name and address; (2) the commentor's interest in, or relationship to, the project; (3) the environmental determination being commented upon; and (4) the specific reason(s) why the proposed environmental determination should or should not be made. Any comments may be submitted at any time between the publication date of this notice and close of business on August 28, 2025. Please direct comments to Juan Lara, Planner III, City of Fresno Planning and Development Department, City Hall, 2600 Fresno Street, Room 3043, Fresno, California, 93721-3604; or by email to Juan.Lara@fresno.gov.

E20251000196

INITIAL STUDY PREPARED BY: Juan Lara, Planner III	SUBMITTED BY: Juan Lara, Planner III CITY OF FRESNO PLANNING AND DEVELOPMENT DEPARTMENT
DATE: 08/07/2025	
Attachments: Exhibit A – Vicinity Map	

E20251000196

Exhibit A – Vicinity Map



Legend

Annexation Area

Subdivision Area

APPENDIX G/INITIAL STUDY FOR A MITIGATED NEGATIVE DECLARATION

Environmental Checklist Form for:

Environmental Assessment Application No. T-6432/P23-02269/P23-03234/P23-02268

1.	**Project title:** Vesting Tentative Tract No. 6432 Annexation Application No. P23-02268 Pre-zone Application No. P23-02269 Planned Development Permit Application No. P23-03234
2.	**Lead agency name and address:** City of Fresno Planning and Development Department 2600 Fresno Street Fresno, CA 93721
3.	**Contact person and phone number:** Juan Lara Planner III City of Fresno Planning and Development Department (559) 621-8039
4.	**Project location:** *Located on the west side of South Peach Avenue, between East Tulare Avenue and East Huntington Avenue, in the City and County of Fresno, CA* Site Latitude: 36º44'27.08" N Site Longitude: 119º43'06.94" W Mount Diablo Base & Meridian, Township 14S, Range 21E, Section 6 Assessor's Parcel Number(s): 463-140-01, -02 and -03. See Figures 1 and 2.

5.	**Project sponsor's name and address:** Golden State Developers, LLC 680 P Street, Suite 210 Fresno, CA 93721
6.	**General & Community plan land use designation:** General Plan: Current, Vacant/ Low Density Residential (Fresno County). Proposed, Medium Density Residential (City of Fresno)
7.	**Zoning:** Current: R1 – Residential Single Family, Extremely Low Density (Fresno County) Proposed: RS-5, Residential Single-Family, Medium Density/ 5-12 d.u./acre (City of Fresno)
8.	**Description of project:** The proposed Project includes Annexation, Pre-zone, Vesting Tentative Tract Map (VTTM) and Planned Development Applications, all of which were filed by Precision Civil Engineering on behalf of Golden State Developers, LLC, (herein, "Project Applicant"). Annexation Application No. P23-02268 is required to bring the Project site into the City of Fresno, as the Project is located on the west side of South Peach Avenue, between East Tulare Avenue and East Huntington Avenue immediately outside of the City of Fresno limit within Fresno County. Pre-zone Application No. P23-02269 is required as the site is currently zoned RA NB – Residential Single Family, Agricultural and AL 20 - Limited Agricultural (Fresno County), and as part of the Project, APNs 463-140-01, 463-140-02, 463-140-03, would be prezoned to RS-5 and 463-140-04 would be prezoned to RS-5/ANX, with development proposed on APNs 463-140-01, -02, and -03 (VTTM No. 6432). The project site was previously planned for medium density residential use upon annexation, therefore the pre-zoning would be consistent with existing City plans. VTTM No. 6432 includes the construction of a 44-lot single-family detached rental unit development, including a private gated entrance, open landscaping and 117 parking spaces (88 in garages, 29 open stalls) on approximately 3.68 acres (Project). The proposed development would include a mix of 3-bedroom, 2.5-bathroom and 4-

bedroom, 2.5-bathroom floor plan layouts, with covered outdoor patios and fenced rear yards.

Planned Development Permit Application No. P23-03234 requests modifications to City development standards as follows:

Code Section or Plan Policy #	Standard Description	Standard Requirement	Requested Modification
15-903-1	Front Setback	13’	5’
15-903-1	Interior Side Setback	8’ total, 3’/side	7’ total, 3’/side
15-903-1	Street Side Setback	10’	5’
15-903-1	Rear Setback	10’	5’
15-903-1	Garage, from back of curb or sidewalk	18’	none
15-903-1	Garage from primary façade	4’	0’
15-903-1	Maximum lot coverage	60%	80%

Access to the proposed development will be from one point along South Peach Avenue. All required improvements are proposed and will be installed by the developer as part of the Project.

Construction

The proposed Project includes the construction of a 44-lot single-family detached rental unit development with the associated private roads and utility improvements on an existing parcel, which is currently vacant. Construction will take 12 months with construction starting as early as mid-2025.

It is anticipated that the following pieces of equipment would be used during construction activities:

- Roller;
- Large bulldozer;
- Loaded trucks;

- Excavator;
- Generator;
- Service truck; and
- Air compressor.

9. **Surrounding land uses and setting:**

	Planned Land Use	Existing Zoning	Existing Land Use
North	Residential - Medium Density	**RS-5** Residential Single Family, Medium Density (City of Fresno)	Single-Family Residential
East	Residential – Medium Density	**RA NB** Single Family Residential/ Agricultural (Fresno County)	Single-Family Residential
South	Residential – Medium Density	**AL 20** Limited Agriculture (Fresno County)	Vacant
West	Residential Medium Low Density	**RS-4** Residential Single Family, Medium Low Density (City of Fresno)	Single-Family Residential

10. **Other public agencies whose approval is required (e.g., permits, financing approval, or participation agreement):**

Planning and Development Department, Building and Safety Services Division, Department of Public Works, Department of Public Utilities, Fire Department, Fresno Metropolitan Flood Control District, County of Fresno Department of Community Health, County of Fresno Department of Public Works and Planning, and San Joaquin Valley Air Pollution Control District.

11. **Have California Native American tribes traditionally and culturally affiliated with the project area requested consultation pursuant to Public Resources Code (PRC) Section 21080.3.1? If so, has consultation begun?**

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

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

Currently, the Table Mountain Rancheria Tribe and the Dumna Wo Wah Tribe have requested to be notified pursuant to Assembly Bill 52 (AB52). A certified letter was mailed to the above-mentioned tribes on February 7, 2025. The 30-day comment period ended on March 9, 2025. Neither tribe has requested consultation.

Figure 1 – Regional Location

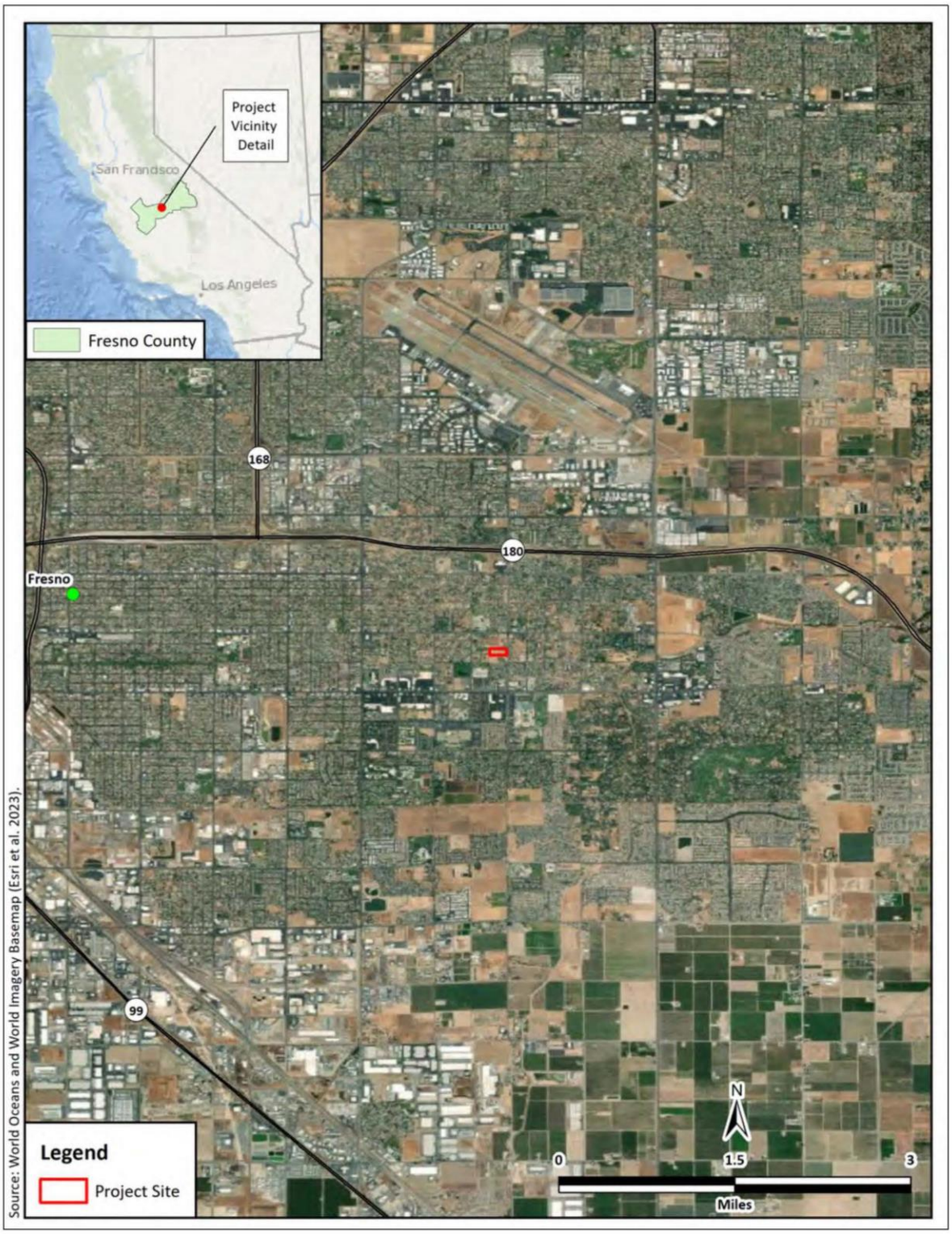
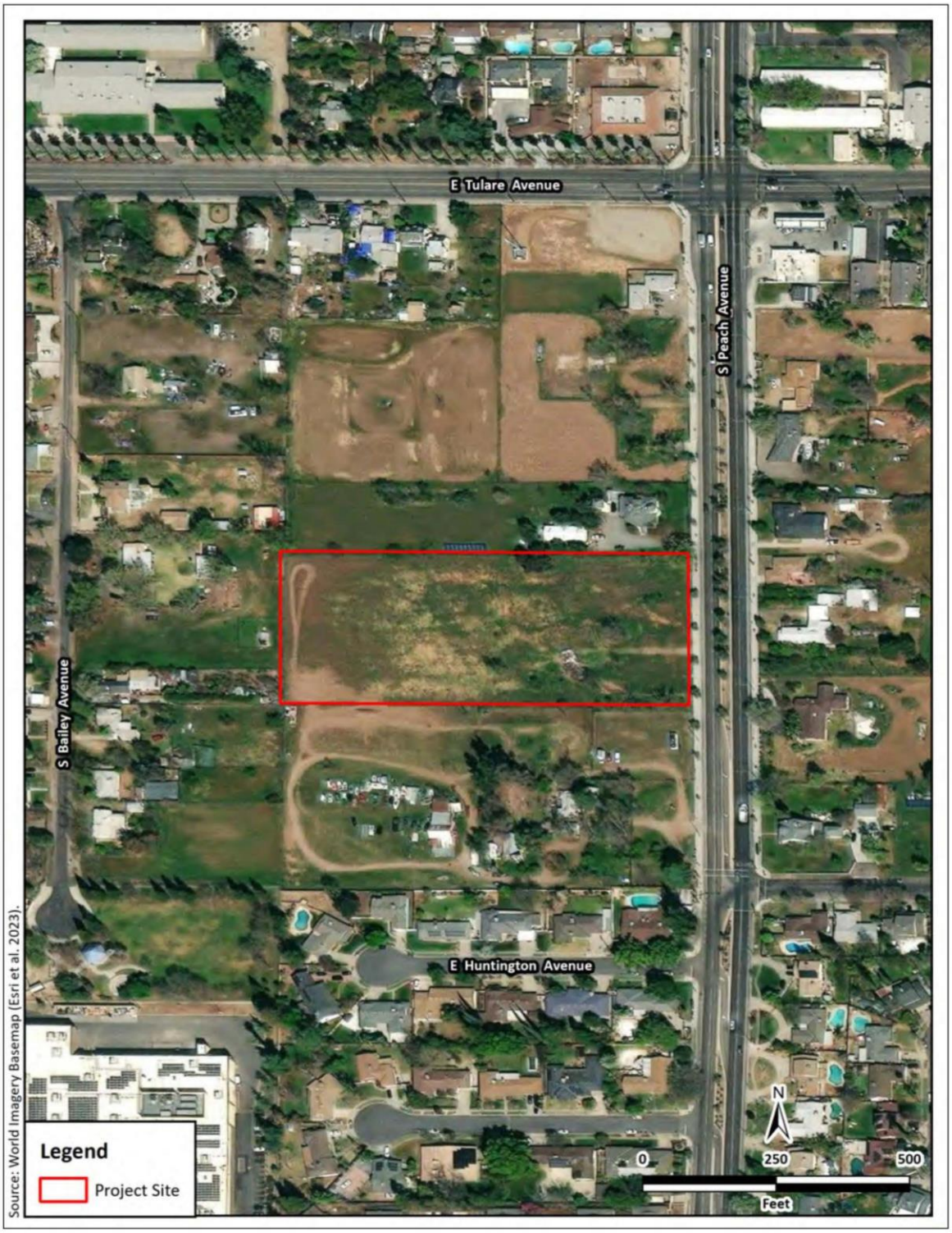


Figure 1 – Site Aerial



ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

The environmental factors checked below would be potentially affected by this project,

involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages.

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

DETERMINATION: (To be completed by the Lead Agency)

On the basis of this initial evaluation:

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

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

August 8,2025

Juan Lara, Planner III — Date

City of Fresno, Planning and Development Department

EVALUATION OF ADDITIONAL ENVIRONMENTAL IMPACTS:

1. For purposes of this Initial Study, the following answers have the corresponding meanings:

   a. “No Impact” means the specific impact category does not apply to the project, or that the record sufficiently demonstrates that project specific factors or general standards applicable to the project will result in no impact for the threshold under consideration.

   b. “Less Than Significant Impact” means there is an impact related to the threshold under consideration, but that impact is less than significant.

c. “Less Than Significant with Mitigation Incorporation” means there is a potentially significant impact related to the threshold under consideration, however, with the mitigation incorporated into the project, the impact is less than significant.

d. “Potentially Significant Impact” means there is substantial evidence that an effect may be significant related to the threshold under consideration.

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

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

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

5. "Negative Declaration: Less Than Significant With Mitigation Incorporated" applies where the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less Than Significant Impact." The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level (mitigation measures from, "Earlier Analyses," as described in (6) below, may be cross-referenced).

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

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

8. The explanation of each issue should identify:

   a. The significance criteria or threshold, if any, used to evaluate each question; and

   b. The mitigation measure identified, if any, to reduce the impact to less than significance.

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
I. AESTHETICS – Except as provided in PRC Section 21099, would the project:				
a) Have a substantial adverse effect on a scenic vista?				X
b) Substantially damage scenic resources, including, but not limited to, trees, rock out-croppings, and historic buildings within a state scenic highway?				X
c) In non-urbanized areas, substantially degrade the existing visual character or quality public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?			X	

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?		X		

DISCUSSION

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

No Impact. A scenic vista is a viewpoint that provides a distant view of highly valued natural or man-made landscape features for the benefit of the general public. Typical scenic vistas are locations where views of rivers, hillsides, and open space areas can be obtained as well as locations where valued urban landscape features can be viewed in the distance.

The City of Fresno General Plan identifies six locations along the San Joaquin River bluffs as designated vista points from which views should be maintained. The scenic views from the San Joaquin River bluffs are not expected to be substantially affected since the land uses included in the approved General Plan are similar to current land uses. As such, implementation of future development associated with the continued implementation of the approved General Plan would result in a less than significant impact on existing designated vista points.

According to the City of Fresno General Plan, scenic views are also attributed to public views of buildings in Downtown Fresno that provide a skyline within the Planning Area. Due to relatively flat topography, intervening land uses, and landscaping, views of the skyline are primarily limited to areas within the Downtown Fresno area. Limited views of existing high-rise buildings in Downtown Fresno are visible from portions of elevated freeways, including SR 41, SR 99, and SR 180. The continued implementation of the approved General Plan would allow future development in the Downtown area, which could include additional high rises. While views of scenic resources in the Downtown Fresno area may be partially obstructed following future development as allowed by the approved General Plan, existing development in these areas currently inhibits views of scenic vistas.

The proposed Project site is located in an area designated for residential zoning uses by the County. The site is outside of the San Joaquin River bluffs and Downtown Fresno area. The adjacent parcels consist of single-family residences and areas located further north, south and west have also been developed into residential neighborhoods. The subject site is currently undeveloped. The existing topography of the site is nearly flat, with elevations ranging from 304-307 feet above mean sea level (amsl). There are no significant trees, rock outcroppings, and/or historic buildings located on the subject property that have been identified as important scenic resources.

There would be *no impact* to scenic vistas.

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

No Impact. The Project site is in an area dominated by residential development. There are no scenic vistas or other protected scenic resources on or near the site. There are no scenic highways near the proposed site. The nearest eligible State Scenic Highway includes a portion of SR 180 (approximately 7 miles east of the City of Fresno) and a portion of SR 168 (approximately 5 miles east of the City of Fresno). The nearest officially-designated State Scenic Highway is located more than 30 miles northeast of the City of Fresno within the County of Madera. Miles of intervening land uses separate the Project site from either stretch of eligible State Scenic Highway. As such, there would be *no impact.*

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

Less Than Significant Impact. The proposed Project is located in an urbanized area immediately adjacent to the City of Fresno. Satellite imagery indicates the Project site was formerly a rural residence. A house and shed, demolished between 2009 and 2012 were present in the southeast quadrant of the Project site. The site is currently periodically disked and was likely last disked in 2018, according to Google imagery. The site is designated by the General Plan for urban development. The proposed Project would alter the existing visual character of public views of the site from vacant to fully developed with a 44-lot single-family detached rental unit development. The Project design is subject to the City's Design Guidelines adopted for the City's General Plan which apply to site layout, building design, landscaping, interior street design, lighting, parking and signage. Detailed architectural plans,

color palettes and building materials as well as landscaping plans will be submitted by the Project developer to the City of Fresno Planning and Development Department. The plans shall be required prior to issuance of any building permits.

The Project will require removal of existing trees and shrubs. Curb and gutters, electrical panels and pedestrian sidewalks are incorporated into the project design, along with site landscaping.

The site is currently zoned RA NB – Residential Single Family, Agricultural and AL 20 Limited Agricultural (Fresno County), and as part of the Project, APNs 463-140-01, 463-140-02, 463-140-03, would be prezoned to RS-5 and 463-140-04 would be prezoned to RS-5/ANX, with development proposed on APNs 463-140-01, -02, and -03 (VTTM No. 6432). Once rezoned, the proposed Project will be in compliance with the requirements of the RS-5 Residential Zone.

The improvements such as those proposed by the Project are typical of large city urban areas and are generally expected by 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 and consistent with regulations governing scenic quality. The Project itself is not visually imposing against the scale of the existing landscape and nature of the surrounding area.

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

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

Less Than Significant with Mitigation Incorporated. The proposed Project would result in new lighting sources on the site consistent with adjacent residential development. New lighting sources would include interior lighting from residences, street lighting, and security lighting. All street and landscape lighting will be consistent with the lighting set forth in Section 15-2508 of the Fresno Municipal Code (FMC), which states that “lights shall be placed to deflect light away from adjacent properties and public streets, and to prevent adverse interference with the normal operation or enjoyment of surrounding properties.” It also states that “windows shall not cause glare that may disrupt adjoining properties, traffic on adjacent streets, etc.” Implementation of mitigation measure AES-1 will further reduce potential impacts resulting from street lighting.

The proposed Project may produce temporary light and glare from construction activities, which could stem from vehicle construction and equipment lighting. However, most construction work is anticipated to take place during daylight hours, and lighting will be directed away from surrounding homes to minimize disruption. The construction-related light will cease once Project construction has finished.

Adherence to the FMC and mitigation measure AES-1 would ensure potential impacts resulting from new sources of light and glare would remain *less than significant.*

Mitigation Measures

The proposed Project shall implement and incorporate, as applicable, the aesthetic related mitigation measures as identified in the attached Project Specific Mitigation Monitoring and Reporting Program dated August 7, 2025.

AES-1: Lighting systems for street and parking areas shall include shields to direct light to the roadway surfaces and parking areas. Vertical shields on the light fixtures shall also be used to direct light away from adjacent light sensitive land uses such as residents.

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
II. AGRICULTURE AND FORESTRY RESOURCES – In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:				

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

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?				X

DISCUSSION

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?

No Impact. Upon annexation, the site will be within the City limits in an area substantially built up with residential uses. The California Department of Conservation, Important Farmland Finder Program considers the Project site to be *Urban and Built-Up Land*. This project is contiguous to an existing urbanized area and would a be natural progression that allows orderly and consistent development of residences to meet the growing demand for housing in the City. There is no farmland on-site and as such, there will be no conversion of land to non-agricultural uses. There would be *no impact*.

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

No Impact. The site is zoned as Single Family Residential, Agricultural (RA NB) and Limited Agricultural (AL20) by Fresno County. The Applicant proposes annexing and re-zoning the Project site as Single Family Residential, Medium Density (RS-5) and Signel Family Residential, Medium Density/Annexed Rural Residential Transitional Overly (RS-5/ANX), as per the City of Fresno General Plan zoning designations. The site is not subject to a Williamson Act contract and no mitigation is required. There would be *no impact.*

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

No Impact. As mentioned in Impact b), above, the site is zoned as Single Family Residential, Agricultural (RA NB) and Limited Agricultural (AL20) by Fresno County. The Applicant proposes annexing and re-zoning the Project site as Single Family Residential, Medium Density (RS-5) and Signel Family Residential, Medium Density/Annexed Rural Residential Transitional Overly (RS-5/ANX), as per the City of Fresno General Plan zoning designations. The proposed project would not conflict with existing zoning for, or cause rezoning of, forest land, timberland, or timberland zoned Timberland Production, and no mitigation is necessary. There would be *no impact*.

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

No Impact. As described in Impact c) above, there is no forest land on the Project site. There would be *no impact.*

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

No Impact. As discussed in Impact a) above, there is no agricultural land on-site. The proposed Project will not involve new other changes in the existing environment that could result in conversion of Farmland. There would be *no impact*.

Mitigation Measures

None are required.

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
III. AIR QUALITY – Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan (*e.g.*, by having potential emissions of regulated criterion pollutants which exceed the San Joaquin Valley Air Pollution Control Districts (SJVAPCD) adopted thresholds for these pollutants)?			X	
b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?			X	
c) Expose sensitive receptors to substantial pollutant concentrations?		X		
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?			X	

An Air Quality, Greenhouse Gas, and Energy Technical Memorandum (Memo) was prepared by Johnson Johnson and Miller Air Quality Consulting Services, report date May 15, 2023, Revised November 7, 2024, and is the basis for analysis of this environmental impact section. The Memo is provided in its entirety in Appendix A**.**

DISCUSSION

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

Less Than Significant Impact. CEQA requires that certain projects be analyzed for consistency with the applicable air quality plan. An air quality plan describes air pollution control strategies to be implemented by a city, county, or region classified as a non-attainment area. The main purpose of the air quality plan is to bring the area into compliance with the requirements of the federal and State air quality standards. To bring the San Joaquin Valley Air Basin (SJVAB) into attainment, the San Joaquin Valley Air Pollution Control District (SJVAPCD) adopted the 2016 Plan for the 2008 8-Hour Ozone Standard in June 2016 to satisfy Clean Air Act requirements and ensure attainment of the 75 parts per billion (ppb) 8-hour ozone standard.

To assure the SJVAB's continued attainment of the U.S. Environmental Protection Agency (USEPA) respirable particulate matter (PM10) standard, the SJVAPCD adopted the 2007 PM10 Maintenance Plan in September 2007.

SJVAPCD Regulation VIII (Fugitive PM10 Prohibitions) is designed to reduce PM10 emissions generated by human activity. The SJVAPCD adopted the 2018 plan for the 1997, 2006, and 2012 fine particulate matter (PM2.5) standard to address the USEPA federal annual PM2.5 standard of 12 µg/m3, established in 2012. The SJVAPCD has established project construction and operational emissions thresholds for criteria pollutants, as shown in Table 1 below. For a project to be consistent with SJVAPCD attainment plans, the pollutants emitted from project operation should not exceed the SJVAPCD daily thresholds, cause a significant impact on air quality, or the project must already have been included in the attainment plans projection.

As discussed below, emissions associated with the construction or operation of the proposed Project would not result in the generation of criteria air pollutants that would exceed SJVAPCD thresholds of significance.

Construction Emissions

Construction is expected to progress over one year. As shown in Table 1, the emissions in each construction year are below the significance thresholds (modeling assumptions are provided in Appendix C). Consequently, the construction emissions for the Project basis are *less than significant.*

Table 1: Construction Air Pollutant Emissions

Construction Activity	Emissions (Tons/Year)					
	ROG	NO_X	CO	SO_X	PM_{10}	$PM_{2.5}$

Site Preparation	0.01	0.14	0.09	<0.01	0.05	0.03
Grading	0.02	0.22	0.16	<0.01	0.05	0.02
Paving	0.10	0.91	1.05	<0.01	0.06	0.05
Building Construction (2023)	0.09	0.76	0.92	<0.01	0.05	0.04
Building Construction (2024)	0.01	0.10	0.15	<0.01	0.01	<0.01
Architectural Coating	0.29	0.01	0.02	<0.01	<0.01	<0.01
Total Emissions	**0.52**	**2.14**	**2.39**	**0.00**	**0.22**	**0.14**
Significance Thresholds	10	10	100	27	15	15
Exceed Significance Thresholds?	No	No	No	No	No	No

Notes:
PM_{10} and $PM_{2.5}$ emissions are from the mitigated output to reflect compliance with Regulation VIII—Fugitive PM_{10} Prohibitions.
Source of Emissions: CalEEMod Output (Appendix A).
Source of Thresholds: San Joaquin Valley Air Pollution Control District (SJVAPCD). 2015. Guidance for Assessing and Mitigating Air Quality Impacts. February 19. Website: https://www.valleyair.org/transportation/GAMAQI-2015/FINAL-DRAFT-GAMAQI.PDF. Accessed May 1, 2023.

Operational Emissions

When making important determinations, the SJVAPCD considers building and operating emissions separately; in any case, the annual operating emissions together with the annual building emissions will not exceed the relevant SJVAPCD thresholds. Operational emissions occur during the project's lifespan and come from two major sources: Region sources and motor vehicles or mobile sources.

Please note that these findings include the benefits of compliance with required regulations not yet implemented in the California Emissions Estimator Model (CalEEMod) and the design and location of projects using the mitigation portion of CalEEMod. Such steps and regulations are considered part of the project baseline; however, the results are presented in the mitigated model performance of CalEEMod and are not considered mitigation appropriate for compliance with CEQA.

Reductions from land use and transportation measures relating to the location, site design and proximity of the project to alternative modes of transport are measured by CalEEMod and are based on the methodology provided in the 2010 report of the California Air Pollution Control Officers Association (CAPCOA), Quantifying Gas Mitigation Measures. As shown in Table 2, the emissions are below the San Joaquin

Valley Air Pollution Control District (SJVAPCD) significance thresholds, and therefore, would result in a *less than significant* impact.

Table 2: Operational Air Pollutant Emissions

Source	Emissions (tons/year)					
	ROG	**NO_X**	**CO**	**SO_X**	**PM_{10}**	**$PM_{2.5}$**
Area	0.39	0.02	0.33	<0.01	<0.01	<0.01
Energy	0.01	0.05	0.02	<0.01	<0.01	<0.01
Mobile (Vehicle Trips)	0.13	0.25	1.57	<0.01	0.45	0.12
Annual Total	**0.53**	**0.32**	**1.92**	**<0.01**	**0.45**	**0.12**
Significance Thresholds	10	10	100	27	15	15
Exceed Significance Thresholds?	No	No	No	No	No	No

Notes:

Emissions were quantified using the earliest operational year for the proposed project to provide a conservative estimate of emissions.

Source: CalEEMod Output (Appendix A).

Localized Pollutant 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. In locations that already exceed standards for these pollutants, significance is based on a significant impact level (SIL) that represents the amount that is considered a cumulatively considerable contribution to an existing violation of an air quality standard. The pollutants of concern for localized impact in the SJVAB are NO_2, SO_x, and CO.

The SJVAPCD has provided guidance for screening localized impacts in the GAMAQI that establishes a screening threshold of 100 pounds per day of any criteria pollutant. If a project exceeds 100 pounds per day of any criteria pollutant, then ambient air quality modeling would be necessary. If the project does not exceed 100 pounds per day of any criteria pollutant, it can be assumed that the emission would not cause a violation of an ambient air quality standard. Local construction impacts would be short-term in nature lasting only during the duration of construction.

Construction

As shown in Table 3, on-site construction emissions would be less than 100 pounds per day for each of the criteria pollutants. To present a conservative estimate, on-site emissions for on-road construction vehicles were included in the localized analysis. Based on the SJVAPCD's guidance, the construction emissions would not cause an ambient air quality standard violation.

Table 3: Localized Concentrations of NO_X, CO, PM_{10}, and $PM_{2.5}$ for Construction

Source	On-site Emissions (pounds per day)			
	NO_X	**CO**	**PM_{10}**	**$PM_{2.5}$**
Maximum On-site Daily (2023)	27.56	18.37	10.12	5.71
Maximum On-site Daily (2024)	13.63	16.46	0.63	0.58
Maximum Daily On-site Emissions	**27.56**	**18.37**	**10.12**	**5.71**
Significance Thresholds	100	100	100	100
Exceed Significance Thresholds?	No	No	No	No

Note: Assumptions regarding dates of construction activities are based on the construction schedule shown in **Error! Reference s ource not found.**.
Source of Emissions: CalEEMod Output and Additional Supporting Information (Appendixt A).
Source of Thresholds: San Joaquin Valley Air Pollution Control District (SJVAPCD). 2015. Guidance for Assessing and Mitigating Air Quality Impacts. February 19. Website: https://www.valleyair.org/transportation/GAMAQI-2015/FINAL-DRAFT-GAMAQI.PDF. Accessed May 1, 2023.

As shown in Table 3, the proposed Project will not surpass SJVAPCD screening requirements that require additional analysis of the ambient air quality. As such, the proposed Project will not conflict with or obstruct implementation of the applicable air quality plan. Impacts would be *less than significant*.

Operation

Localized impacts could occur in areas with a single large source of emissions such as a power plant or with multiple sources concentrated in a small area such as a distribution center.

As shown in Table 4 below, operational modeling of on-site emissions for the proposed Project indicate that the Project would not exceed 100 pounds per day for each of the criteria pollutants. Therefore, based on the SJVAPCD's guidance, the operational emissions would not cause an ambient air quality standard violation. As such, impacts would be *less than significant.*

Table 4: Localized Concentrations of NO_X, CO, PM_{10}, and $PM_{2.5}$ for Construction

Source	On-site Emissions (pounds per day)			
	NO_X	**CO**	**PM_{10}**	**$PM_{2.5}$**
Area	0.44	3.78	0.05	0.05
Energy	0.27	0.11	0.02	0.02
Mobile (On-site + Localized Vehicle Emissions)	0.49	3.14	0.16	0.05
Daily Total	**1.20**	**7.03**	**0.24**	**0.12**
Significance Thresholds	100	100	100	100
Exceed Significance Thresholds?	No	No	No	No

Source of Emissions: CalEEMod Output and Additional Supporting Information (Attachment A).
Maximum daily emissions of NOX, CO, PM_{10}, and $PM_{2.5}$ were highest in the Winter scenario.
Source of Thresholds: San Joaquin Valley Air Pollution Control District (SJVAPCD). 2015. Guidance for Assessing and Mitigating Air Quality Impacts. February 19. Website: https://www.valleyair.org/transportation/GAMAQI-2015/FINAL-DRAFT-GAMAQI.PDF. Accessed May 1, 2023.

As shown in Table 1 and 2 above, the Project's construction and operational regional emissions would not exceed SJVAPCD's regional criteria pollutant emissions quantitative thresholds. Therefore, the proposed project would not be considered in conflict with or obstruct implementation of the applicable air quality plan. Potential impacts would be *less than significant.*

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. To result in a less than significant impact, emissions of nonattainment pollutants must be below the SJVAPCD's regional significance thresholds. This is an approach recommended by the SJVAPCD's in its GAMAQI. The primary pollutants of concern during project construction and operation are ROG, NOX, PM10, and PM2.5. The SJVAPCD GAMAQI adopted in 2015 contains thresholds for CO, NOX, ROG, SOX, PM10, and PM2.5.

Air pollutant emissions have both regional and localized effects. As shown in Table 3 and Table 4, the Project's regional emissions would not exceed the applicable regional criteria pollutant emissions quantitative thresholds. Potential impacts would be *less than significant.*

c) **Expose sensitive receptors to substantial pollutant concentrations?**

Less Than Significant Impact with Mitigation Incorporated. Emissions occurring at or near the project have the potential to create a localized impact that could expose sensitive receptors to substantial pollutant concentrations. The SJVAPCD considers a sensitive receptor to be a location that houses or attracts children, the elderly, people with illnesses, or others who are especially sensitive to the effects of air pollutants. Examples of sensitive receptors include hospitals, residences, convalescent facilities, and schools. The image below shows a 1,000 foot radius around the center point of the proposed Project site. While the site is vacant and is largely surrounded by open space and single family residences, other sensitive receptors within 1,000 feet of the

Project boundary include:

- Trolley Creek Park (372 feet to the southwest)
- Huntington Palace luxury apartments (417 feet to the east)
- Kings Canyon Middle School (740 feet to the north)
- Easterby Elementary School (744 feet to the north)
- Evergreen Care Center (758 feet to the southeast)
- Southeast Fresno Child Development Daycare Center (760 feet to the north)
- Huntington Pond Park (770 feet to the southwest)
- Vintage Gardens Assisted Living Community (995 feet to the south)

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 implementation of all enforceable mitigation measures would require additional analysis to determine if the preparation of an ambient air quality analysis is needed. The criteria pollutants of concern for localized impact in the Air Basin are PM10, PM2.5, NOX, and CO. There is no localized emission standard for ROG.

As shown in Table 3, the Project would not exceed the emission screening thresholds during project construction. Therefore, the Project's localized criteria pollutant impacts from construction of the Project would be *less than significant.*

As shown in Table 4, the Project would not exceed SJVAPCD screening thresholds for localized criteria pollutant impacts; therefore, the Project's localized criteria pollutant impacts from long-term operations would be *less than significant.*

Toxic Air Contaminants

Construction

As discussed above, criteria pollutant emissions during construction would not exceed the SJVAPCD's significance thresholds and would not be expected to result in concentrations that would exceed ambient standards or contribute substantially to an existing exceedance of an ambient air quality standard. Therefore, construction of the proposed Project would not result in localized emissions that, if when combined with background emissions, would result in exceedance of any health-based air quality standard for any criteria pollutant. As such, health risk impacts related to criteria pollutants emitted during the construction period of the proposed Project would be *less than significant*.

Construction-related activities would result in temporary, short-term project-generated emissions of diesel particulate matter (DPM) from the exhaust of off-road, heavy-duty diesel equipment for site preparation (e.g., clearing, grading); soil hauling truck traffic; paving; home construction; application of architectural coatings; and other miscellaneous activities. For construction activity, DPM is the primary air toxic of concern. Particulate exhaust emissions from diesel-fueled engines (i.e., DPM) were identified as a toxic air contaminant (TAC) by the California Air Resources Board (CARB) in 1998.[1] Due to proposed Project's proximity to existing sensitive receptors,

1 California Air Resources Board (CARB). 1998. The Toxic Air Contaminant Identification Process: Toxic Air Contaminant Emissions from Diesel-fueled Engines. Website: www.arb.ca.gov/toxics/dieseltac/factsht1.pdf.

a health risk assessment was performed to assess impacts from DPM emissions resulting from construction of the project. The results of the health risk assessment are summarized below, while the calculations used for the health risk assessment are provided as Attachment B of Appendix A.

The construction HRA evaluated DPM (represent as exhaust PM_{10}) emissions generated during construction of the proposed Project and the related health risk impacts for sensitive receptors located within 1,000 feet of the project boundary. A project would result in a significant impact if it would individually expose sensitive receptors to TACs resulting in an increased cancer risk greater than 20 in one million or an increased non-cancer risk of greater than 1.0 on the hazard index. It should be noted that the SJVAPCD's latest threshold of significance for TAC emissions is an increase in cancer risk for the maximally exposed individual of 20 in one million (formerly 10 in one million).

To estimate the potential cancer risk associated with construction of the proposed project from equipment exhaust (including DPM), a dispersion model[2] (AERMOD) was used to translate an emission rate from the source location to concentrations at the receptor locations of interest (i.e., receptors at nearby residences). AERMOD provides a refined methodology for estimating localized impacts by utilizing long-term, measured representative meteorological data for the project site and a representative construction schedule. A graphical representation of AERMOD inputs, including the locations of modeled sensitive receptor locations, is included as part of Attachment B of Appendix A.

Construction-related activities would result in temporary, short-term project-generated emissions of diesel particulate matter (DPM) from the exhaust of off-road, heavy-duty diesel equipment for site preparation (e.g., clearing, grading); soil hauling truck traffic; paving; home construction; application of architectural coatings; and other miscellaneous activities. For construction activity, DPM is the primary air toxic of concern. Particulate exhaust emissions from diesel-fueled engines (i.e., DPM) were identified as a toxic air contaminant (TAC) by the California Air Resources Board (CARB) in 1998. Due to the proposed Project's proximity to existing sensitive receptors, a health risk assessment was performed to assess impacts from DPM emissions resulting from construction of the Project. The results of the health risk

2 An air dispersion model is a mathematical formulation used to estimate air quality impacts at specific locations (receptors) surrounding a source of emissions given the rate of emissions and prevailing meteorological conditions. The air dispersion model applied in this assessment was the EPA American Meteorological Society Regulatory Model (AERMOD), Version 21112, which is approved by the SJVAPCD for air dispersion assessments.

assessment are summarized below, while the calculations used for the health risk assessment are provided as Attachment B in Appendix A.

The construction HRA evaluated DPM (represent as exhaust PM10) emissions generated during construction of the proposed Project and the related health risk impacts for sensitive receptors located within 1,000 feet of the project boundary.

A project would result in a significant impact if it would individually expose sensitive receptors to TACs resulting in an increased cancer risk greater than 20 in one million or an increased non-cancer risk of greater than 1.0 on the hazard index. It should be noted that the SJVAPCD's latest threshold of significance for TAC emissions is an increase in cancer risk for the maximally exposed individual of 20 in one million (formerly 10 in one million).

To estimate the potential cancer risk associated with construction of the proposed Project from equipment exhaust (including DPM), a dispersion model (AERMOD) was used to translate an emission rate from the source location to concentrations at the receptor locations of interest (i.e., receptors at nearby residences). AERMOD provides a refined methodology for estimating localized impacts by utilizing long-term, measured representative meteorological data for the project site and a representative construction schedule. A graphical representation of AERMOD inputs, including the locations of modeled sensitive receptor locations, is included as part of Attachment B in Appendix A.

Cancer Risk

The Office of Environmental Health Hazard Assessment (OEHHA) has developed guidance for estimating cancer risks that considers the increased sensitivity of infants and adults to TAC emissions, different breathing rates, and time spent at home. This guidance was applied in estimating cancer risks from the construction and operation of the proposed Project.

The recommend method for the estimation of cancer risk is shown in the equations.

Cancer Risk = CDPM x Inhalation Exposure Factor (EQ-1)

Where:

Cancer Risk = Total individual excess cancer risk defined as the cancer risk a hypothetical individual faces if exposed to carcinogenic emissions from a particular source for specified exposure durations; this risk is defined as an excess risk because it is above and beyond the background cancer risk to the population; cancer risk is expressed in terms of risk per million exposed individuals.

C_{DPM} = Period average DPM air concentration calculated from the air dispersion model in $\mu g/m^3$

Inhalation is the most important exposure pathway to impact human health from DPM and the inhalation exposure factor is defined as follows:

Inhalation Exposure Factor=CPF x EF x ED x DBR x AAF/AT (EQ-2)

Where:

CPF = Inhalation cancer potency factor for the TAC: 1.1 (mg/kg-day)-1 for DPM
EF = Exposure frequency (days/year)
ED = Exposure duration (years of construction)
AAF = set of age-specific adjustment factors that include age sensitivity factors (ASF), daily breathing rates (DBR), and time at home factors (TAH)
AT = Averaging time period over which exposure is averaged (days)

Chronic Non-Cancer Hazard

Non-cancer chronic impacts are calculated by dividing the annual average concentration by the Reference Exposure Level (REL) for that substance. The REL is defined as the concentration at which no adverse non-cancer health effects are anticipated. The following equation was used to determine the non-cancer risk:

Hazard Quotient = Ci/RELi

Where:

Ci = Concentration in the air of substance i (annual average concentration in $\mu g/m^3$)

RELi = Chronic noncancer Reference Exposure Level for substance i ($\mu g/m^3$)

Construction Health Risk Assessment Results

The results of the HRA prepared for Project construction for cancer risk and long-term chronic cancer risk are summarized below. Construction emissions were estimated assuming adherence to all applicable rules, regulations, and Project design features. The construction emissions were assumed to be distributed over the Project Area with a working schedule of eight hours per day and five days per week. Emissions were adjusted by a factor of 4.2 to convert for use with a 24-hour-per-day, 365 day-per-year

averaging period. Detailed parameters and complete calculations are included in Attachment B of Appendix A.

The estimated health and hazard impacts at the Maximally Exposed Receptor (MER) from the Project's construction emissions are provided in Table 5.

Table 5: Summary of the Health Impacts from Unmitigated Construction of the Proposed Project

Exposure Scenario	Maximum Cancer Risk (Risk per Million)	Chronic Non-Cancer Hazard Index[1]
Risks and Hazards at the MER	31.35	0.0241
Significance Threshold	20	1
Threshold Exceeded in Any Scenario?	Yes	No

Notes:
MER = maximally exposed receptor
Source: Construction Health Risk Assessment (Attachment B).

As shown in Table 5, estimated health risks from elevated DPM concentrations during construction of the proposed Project would exceed the applicable cancer risk significance threshold at the MER. This represents a potentially significant construction TAC exposure impact. Therefore, mitigation is required to reduce the impact during the construction period to below a level of significance.

MM AIR-1 requires the Project applicant, Project sponsor, or construction contractor to provide documentation to the City of Fresno that the construction fleet meets CARB Tier 4 Interim off-road emissions standards. Table 6 shows the health risks and non-cancer hazard index for construction with implementation of MM AIR-1.

Table 6: Summary of the Health Impacts from Mitigated Construction of the Proposed Project

Exposure Scenario	Maximum Cancer Risk (Risk per Million)	Chronic Non-Cancer Hazard Index[1]
Risks and Hazards at the MER - Mitigated (Tier 4 Option)		
Risks and Hazards at the MER	3.78	0.0029
Risks and Hazards at the MER - Mitigated (Level 3 Filters Option)		
Risks and Hazards at the MER	6.36	0.0049
Maximum Risks and Hazards at the MER[1] After the Incorporation of Mitigation Measure AIR-2		
Highest Risks and Hazards at the MER	6.36	0.0049
Significance Threshold	20	1
Threshold Exceeded in Either Mitigated Scenario?	No	No
Notes: MER = maximally exposed receptor Source: Construction Health Risk Assessment (Attachment B).		

As noted in Table 6, calculated health metrics from the proposed Project's construction DPM emissions would not exceed the cancer risk significance threshold or non-cancer hazard index significance threshold at the MER with incorporation of MM AIR-1. Therefore, the impact on nearby sensitive receptors from TACs during construction would be *less than significant with the incorporation of mitigation*.

Operations

PM10 and PM2.5 are commonly used as proxies for Diesel Particulate Matter (DPM), which would be the toxic air containment of concern emitted by the Project. Estimated localized emissions generated by the proposed Project would not reach levels high enough to necessitate further analysis. As such, it is not expected that any TAC concentrations would reach levels that would cause an exceedance of the SJVAPCD's health risk thresholds.

Unlike warehouses or distribution centers, the daily vehicle trips generated by the proposed residential Project would be primarily generated by passenger vehicles. Passenger vehicles typically use gasoline engines rather than the diesel engines that are found in heavy-duty trucks. Gasoline-powered vehicles do emit TACs in the form of toxic organic gases, some of which are carcinogenic. Compared to the combustion of diesel, the combustion of gasoline had relatively low emissions of TACs. Thus, residential users produce limited amounts of TAC emissions during operation. Nonetheless, it is anticipated that there would be some heavy-duty trucks visiting the project site during operations. Consistent with SJVAPCD guidance, an operational prioritization screening analysis was completed for the proposed Project.

Operational DPM emissions from diesel trucks were estimated using emission factors from CARB's EMFAC and estimated truck travel and idling at the Project site based

on average daily trips and the SJVAPCD-approved residential fleet mix. The emissions were entered into the SJVAPCD Prioritization Screening Tool to determine the risk scores, with complete calculations and assumptions included as part of Attachment A in Appendix A. The results of the screening analysis are provided in Table 7.

Table 7: Prioritization Tool Health Risk Screening Results

Impact Source	Cancer Risk Score	Chronic Risk Score	Acute Risk Score
Diesel Trucks	0.460	0.005	0.000
Total Risk from Project Operations	**0.460**	**0.005**	**0.000**
Screening Risk Score Threshold	**10**	**1**	**1**
Screening Thresholds Exceeded?	**No**	**No**	**No**
Source: Attachment A – Modeling Assumptions, CalEEMod Output files, and Operational Screening Results			

As shown in Table 7, the Project would not exceed the cancer risk or chronic hazard threshold levels. The primary source of the emissions responsible for chronic risk are from diesel trucks. DPM does not have an acute risk factor. Since the Project does not exceed the applicable SJVAPCD screening thresholds for cancer risk, acute risk, or chronic risk, this impact would be *less than significant.*

Valley Fever

Valley fever, or coccidioidomycosis, is an infection caused by inhalation of the spores of the fungus, *Coccidioides immitis* (*C. immitis*). The spores live in soil and can live for an extended time in harsh environmental conditions. Activities or conditions that increase the amount of fugitive dust contribute to greater exposure, and they include dust storms, grading, and recreational off-road activities.

The San Joaquin Valley is considered an endemic area for Valley fever. During 2000–2018, a total of 65,438 coccidioidomycosis cases were reported in California; median statewide annual incidence was 7.9 per 100,000 population and varied by region from 1.1 in Northern and Eastern California to 90.6 in the Southern San Joaquin Valley, with the largest increase (15-fold) occurring in the Northern San Joaquin Valley. Incidence has been consistently high in six counties in the Southern San Joaquin Valley (Fresno, Kern, Kings, Madera, Tulare, and Merced counties) and Central Coast (San Luis Obispo County) regions. California experienced 7,392 new probable or confirmed cases of Valley fever in 2020. A total of 466 Valley fever cases were reported in Fresno County in 2020.

The distribution of *C. immitis* within endemic areas is not uniform and growth sites are commonly small (a few tens of meters) and widely scattered. Known sites appear to have some ecological factors in common suggesting that certain physical, chemical, and biological conditions are more favorable for *C. immitis* growth. Avoidance, when possible, of sites favorable for the occurrence of *C. immitis* is a prudent risk management strategy. Listed below are ecological factors and sites favorable for the occurrence of *C. immitis*:

1) Rodent burrows (often a favorable site for *C. immitis*, perhaps because temperatures are more moderate and humidity higher than on the ground surface)

2) Old (prehistoric) Indian campsites near fire pits

3) Areas with sparse vegetation and alkaline soils

4) Areas with high salinity soils

5) Areas adjacent to arroyos (where residual moisture may be available)

6) Packrat middens

7) Upper 30 centimeters of the soil horizon, especially in virgin undisturbed soils

8) Sandy, well-aerated soil with relatively high water-holding capacities

Sites within endemic areas less favorable for the occurrence of *C. immitis* include:

1) Cultivated fields

2) Heavily vegetated areas (e.g., grassy lawns)

3) Higher elevations (above 7,000 feet)

4) Areas where commercial fertilizers (e.g., ammonium sulfate) have been applied

5) Areas that are continually wet

6) Paved (asphalt or concrete) or oiled areas

7) Soils containing abundant microorganisms

8) Heavily urbanized areas where there is little undisturbed virgin soil

The current Project site is primarily vacant, with sparse shrubbery; however, the site has been previously graded or tilled. In addition, the Project site is surrounded by other parcels that are built-up or have been previously disturbed. The Project site is not cultivated, heavily vegetated, at a high elevation, fertilized, paved, continually wet, or

heavily urbanized. Therefore, construction activities could generate fugitive dust that contain *C. immitis* spores. The Project will minimize the generation of fugitive dust during construction activities by complying with SJVAPCD's Regulation VIII (Fugitive Dust/PM-10 Control), which is included in Mitigation Measure AIR-2. Regulation VIII is a series of rules designed to reduce fugitive dust from construction sites, parking and staging areas, open areas, material storage areas, etc. In addition, common dust control measures used to comply with SJVAPCD's Regulation VIII (such as applying water or chemical dust suppressants) would further reduce the favorability of the site conditions for *C. immitis* to occur. Therefore, compliance with the SJVAPCD's Regulation VIII and Mitigation Measure AIR-2 would reduce Valley fever impacts during construction to less than significant.

During operations, dust emissions are anticipated to be relatively small, because most of the project area where operational activities would occur would be occupied by the proposed residential homes and pavement. This condition would substantially lessen the possibility of the Project from providing habitat suitable for *C. immitis* spores and for generating fugitive dust that may contribute to Valley fever exposure. Impacts would be *less than significant.*

Naturally Occurring Asbestos

Review of the map of areas where naturally occurring asbestos in California are likely to occur found no such areas in the Project Area. Therefore, development of the Project is not anticipated to expose receptors to naturally occurring asbestos. Impacts would be *less than significant.*

Operations—The Project's Potential to Locate Sensitive Receptor Near Existing Sources of TACs

As a residential project, the Project would locate sensitive receptors – future residents – where they could be subject to existing sources of TACs. However, the California Supreme Court concluded in *California Building Industry Association (CBIA) v. Bay Area Air Quality Management District (BAAQMD)* (2015) 62 Cal.4th 369, that agencies subject to CEQA are not required to analyze the impact of existing environmental conditions on a project's future users or residents. Therefore, this potential impact will not be further addressed in this document.

Conclusion

In summary, the Project would not exceed SJVAPCD localized emission daily screening levels for any criteria pollutant. The Project would not be a significant source of TAC emissions during operations and would be a less than significant source of TAC emissions during construction with implementation of mitigation. The Project is

not in an area with suitable habitat for Valley fever spores and is not in an area known to have naturally occurring asbestos. Therefore, the Project would not result in significant impacts to sensitive receptors. MM AIR-1 and AIR-2 are required to reduce the Project's potential impacts during construction to *less than significant with mitigation incorporated.*

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

Less Than Significant Impact. Two situations are recognized to create a potential for odor impact. The first occurs when a new odor source is located near an existing sensitive receptor. The second occurs when a new sensitive receptor locates near an existing source of odor. to the decision in *CBIA v. BAAQMD* suggests that impacts of existing sources of odors on future residents at the Project site are not subject to CEQA review.

Odor impacts from the Project on residential areas and other sensitive receptors, such as hospitals, day-care centers, schools, etc. warrant the closest scrutiny, but consideration should also be given to other land uses where people may congregate, such as recreational facilities, worksites, and commercial areas.The SJVAPCD recommends that the analysis should be based on a review of odor complaints for similar facilities. In assessing potential odor impacts, consideration also should be given to local meteorological conditions, particularly the intensity and direction of prevailing winds.

Lead Agencies can also make a determination of significance based on a review of SJVAPCD complaint records. For a project locating near an existing source of odors, the impact is potentially significant when the project site is at least as close as any other site that has already experienced significant odor problems related to the odor source.

Significant odor problems are defined by the SJVAPCD as:

• More than one confirmed complaint per year averaged over a three-year period, or

• Three unconfirmed complaints per year averaged over a three-year period.

An unconfirmed complaint means that either the odor/air contaminant release could not be detected, or the source/facility cannot be determined. Because of the subjective nature of odor impacts and the lack of quantitative or formulaic methodologies, the significance determination of potential odor impacts should be considered on a case-by-case basis.

Although the Project is less than one mile from the nearest sensitive receptor, the Project is not expected to be a significant source of odors. The screening levels for these land use types are shown in Table 8.

Table 8: Screening Levels for Potential Odor Sources

Odor Generator	Screening Distance
Wastewater Treatment Facilities	2 miles
Sanitary Landfill	1 mile
Transfer Station	1 mile
Composting Facility	1 mile
Petroleum Refinery	2 miles
Asphalt Batch Plant	1 mile
Chemical Manufacturing	1 mile
Fiberglass Manufacturing	1 mile
Painting/Coating Operations (e.g., auto body shop)	1 mile
Food Processing Facility	1 mile
Feed Lot/Dairy	1 mile
Rendering Plant	1 mile
Source of Thresholds: San Joaquin Valley Air Pollution Control District (SJVAPCD). 2015. Guidance for Assessing and Mitigating Air Quality Impacts. February 19. Website: https://www.valleyair.org/transportation/GAMAQI-2015/FINAL-DRAFT-GAMAQI.PDF. Accessed May 1, 2023.	

Construction

During construction, various diesel-powered vehicles and equipment in use on-site would create localized odors. These odors would be temporary and intermittent, which would decrease the likelihood of the odors concentrating in a single area or lingering for any notable period of time. As such, these odors would likely not be noticeable for extended periods of time beyond the Project's site boundaries. The potential for odor impacts from construction of the Project would, therefore, be *less than significant.*

Operations

Project as a Generator

The occurrence and severity of odor impacts depend on numerous factors, including the nature, frequency, and intensity of the source; wind speed and direction; and the presence of sensitive receptors. Although offensive odors rarely cause any physical harm, they still can be very unpleasant, leading to considerable distress and often generating citizen complaints to local governments and regulatory agencies. The Project is residential in nature, and operations would not be anticipated to produce odorous emissions. Therefore, Project operations would not create objectionable

odors affecting a substantial number of people; the impact would be *less than significant*.

Mitigation Measures

The Project shall implement and incorporate, as applicable, the air quality related mitigation measures as identified in the attached Project Specific Mitigation Monitoring and Reporting Program dated August 7, 2025.

MM AIR-1

Before a construction permit is issued for the proposed Project, the Project applicant, Project sponsor, or construction contractor shall submit reasonably detailed proof of compliance with the following requirements to the City of Fresno.

Where portable diesel engines are used during construction, all off-road equipment with engines greater than 75 horsepower shall have engines that meet California Air Resources Board (CARB) Tier 4 Interim off-road emission standards. except as otherwise specified herein. If engines that comply with Tier 4 Interim or Tier 4 Final off-road emission standards are not commercially available, then the construction contractor shall use the next cleanest piece of off-road equipment (e.g., Tier 3) that is commercially available. For purposes of this project design feature, “commercially available” shall mean the equipment at issue is available taking into consideration factors such as (i) critical-path timing of construction; and (ii) geographic proximity of equipment to the project site. If the relevant equipment is determined by the project applicant to not be commercially available, the contractor must confirm this conclusion by providing to the City letters from at least two rental companies for each piece of unavailable off-road equipment that is required for the Project.

MM AIR-2

Consistent with the SJVAPCD Regulation VIII (Fugitive PM10 Prohibitions), the following controls are required to be included as specifications for the proposed Project and implemented at the construction site:

- All disturbed areas, including storage piles, which are not being actively utilized for construction purposes, shall be effectively stabilized of dust emissions using water, chemical stabilizer/suppressant, covered with a tarp or other suitable cover or vegetative ground cover.
- All on-site unpaved roads and off-site unpaved access roads shall be effectively stabilized of dust emissions using water or chemical stabilizer/suppressant.
- All land clearing, grubbing, scraping, excavation, land leveling, grading, cut and fill, and demolition activities shall be effectively controlled of fugitive dust emissions utilizing application of water or by presoaking.
- When materials are transported off-site, all material shall be covered, or effectively wetted to limit visible dust emissions, and at least six inches of freeboard space from the top of the container shall be maintained.
- All operations shall limit or expeditiously remove the accumulation of mud or dirt from adjacent public streets at the end of each workday. (The use of dry rotary brushes is expressly prohibited except where preceded or accompanied by sufficient wetting to limit the visible dust emissions. Use of blower devices is expressly forbidden.)
- Following the addition of materials to, or the removal of materials from, the surface of out-door storage piles, said piles shall be effectively stabilized of fugitive dust emission utilizing sufficient water or chemical stabilizer/suppressant.

ENVIRONMENTAL ISSUES	**Potentially Significant Impact**	**Less Than Significant with Mitigation Incorporated**	**Less Than Significant Impact**	**No Impact**
IV. BIOLOGICAL RESOURCES – Would the project:				

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?		X		
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or US Fish and Wildlife Service?				X
c) Have a substantial adverse effect on 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?				X

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?		X		
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?			X	
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?				X

DISCUSSION

The biological resources evaluation is based upon a review of available literature, databases, and existing site conditions evaluated during a reconnaissance survey. These studies evaluated the potential for sensitive biological resources to occur on and in the vicinity of the Project, and any impacts that could potentially occur. A copy of the biological resource evaluation, included as Appendix B of this document, is the basis for analysis of the discussion below.

As a framework for the evaluation and reconnaissance survey, an official USFWS species list was obtained for the Project (USFWS 2023a). In addition, the California Natural Diversity Database (CNDDB, CDFW 2023) and the CNPS Inventory of Rare and Endangered Plants (CNPS 2023) were searched for records of special-status plant and animal species from the vicinity of the Project site. Regional lists of special-

status species were compiled using CNDDB and CNPS database searches confined to the Malaga 7.5-minute United States Geological Survey (USGS) topographic quadrangle, which encompasses the Project site, and the eight surrounding quadrangles (Caruthers, Clovis, Conejo, Fresno North, Fresno South, Round Mountain, Sanger, and Selma). A local list of special-status species was compiled using CNDDB records from within five miles of the Project site. Species that lacked a CEQA-recognized special status designation by state or federal regulatory agencies or public interest groups were omitted from the final list. Species for which the Project site does not provide habitat were eliminated from further consideration. Aerial imagery was reviewed from Google Earth and other sources, USGS topographic maps, the Web Soil Survey, the National Wetlands Inventory , and relevant literature.

The results of the database inquiries were reviewed to evaluate the potential for the occurrence of special-status species and other sensitive biological resources known to occur on or near the Project site prior to conducting the biological reconnaissance survey.

A field reconnaissance survey of the Project site was conducted on January 18, 2023. The Project site and a 50-foot buffer surrounding the Project site (Survey Area) were walked and thoroughly inspected to evaluate and document the potential for the area to support state or federally protected resources. All plants except those under cultivation or planted in residential areas and all vertebrate wildlife species observed within the survey area were identified and documented. The survey area was evaluated for the presence of regulated habitats, including lakes, streams, and other waters using methods described in the Wetlands Delineation Manual and regional supplement and as defined by the California Department of Fish and Wildlife (CDFW) or under the Porter-Cologne Water Quality Control Act. An additional buffer of 0.5 miles around the Project site was inspected for potential nesting habitat for special-status raptors. The 0.5-mile buffer was surveyed by driving public roads and identifying the presence of large trees or other potentially suitable substrates for nesting raptors as well as open areas that could provide foraging habitat.

The purpose of the survey was to determine the presence and extent of existing plant communities and any sensitive habitats, the presence and potential for occurrence of special-status plant and animal species, and to identify any other sensitive biological resources within the Survey Area Plant and wildlife species and current site conditions were recorded while conducting the survey.

General Site Conditions

The Project site supports ruderal vegetation dominated by nonnative grasses and forbs. It is bordered by rural residential development in all directions. Unmaintained

ornamental trees and shrubs are sparsely distributed throughout the eastern half and around the perimeter of the Project site. Trash and debris are scattered throughout the entire Project site. Satellite imagery indicates the Project site was formerly a rural residence which was demolished between 2009 and 2012. The site is periodically disked and was last disked in 2018, according to Google imagery.

The Project site is underlain by Atwater loamy sand, 0 to 3 percent slopes and Greenfield sandy loam, 0 to 3 percent slopes.. The Project site is at an elevation of 316–318 feet above mean sea level.

A total of 19 plant species (four native and 15 nonnative) and 14 bird species were observed during the survey (see Table 2, Appendix B).

Search Results

Searching the CNDDB for records of special-status species from the Malaga 7.5-minute USGS topographic quadrangle and the eight surrounding quadrangles produced 131 records of 42 species (See Table 1, Appendix B). Of those 42 species, 11 were not considered further because they are not CEQA-recognized as special-status species by state or federal regulatory agencies or public interest groups or are considered extirpated in California. Of the remaining 31 species, 17 are known from within 5 miles of the Project site. Of those species only two, pallid bat (*Antrozous pallidus* – SSSC) and western mastiff bat (*Eumops perotis californicus* – SSSC), could occur on or near the Project site (Table 1, Appendix B).

Searching the CNPS inventory of rare and endangered plants of California yielded 12 species (CNPS 2023) which have a CRPR of 1 or 2 (Table 1, Appendix B). None of these species are expected to occur on or near the Project site due to either (1) lack of habitat, (2) the Project site being outside the current range of the species, or (3) lack of detection during the January 18, 2023 field survey.

Impact Analysis

This section describes the results of the database searches and, using conditions present on the Project site as determined by the reconnaissance survey, provides an analysis of Project impacts on each of six biological evaluation criteria. Each of the biological evaluation criteria were determined to be in one of three categories: less-than-significant impacts with mitigation incorporated, less than significant impacts, and no impacts. Each of the evaluation criteria are discussed below and mitigation measures are provided as needed which, when implemented, reduce impacts to less than significant levels.

a) Have a substantial adverse effect, either directly or through habitat

modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or the U.S. Fish and Wildlife Service?

Less than Significant Impact with Mitigation Incorporated. The Project could adversely affect three special-status animal species, burrowing owl, the western mastiff bat and the pallid bat, that could occur on or near the Project site. Construction activities such as excavating, trenching, or using other heavy equipment that disturbs or harms a special-status species could constitute a significant impact. Mitigation Measures BIO-1 and BIO-2, which include preconstruction surveys, are included in the conditions of approval to reduce the potential impacts to *less than significant* with mitigation incorporated.

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

No Impact. There are no riparian habitats or other sensitive natural communities identified in local or regional plans, policies, or regulation or by the California Department of Fish and Wildlife or the U.S. Fish and Wildlife Service in the subject site. Additionally, there are no natural waterways or sensitive natural communities on the subject site or in the immediate vicinity. As such, there is *no impact.*

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

No Impact. There are no state or federally protected wetlands on the subject site. As such, there is *no impact.*

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 with Mitigation Incorporated. The Project could impede the use of nursery sites for native birds protected under the MBTA and CFGC. Migratory birds are expected to nest on and near the Project site. Construction disturbance during the breeding season could result in the incidental loss of fertile

eggs or nestlings or otherwise lead to nest abandonment. Disturbance that causes nest abandonment or loss of reproductive effort can be considered "take" under the MBTA and CFGC. Loss of fertile eggs or nesting birds, or any activities resulting in nest abandonment, could constitute a significant effect if the species is particularly rare in the region. Construction activities such as excavating, trenching, and grading that disturb a nesting bird on the Project site or immediately adjacent to the construction zone could constitute a significant impact. Mitigation Measure BIO-3 (below) shall be included in the conditions of approval to reduce the potential effect to *less than significant with mitigation incorporated*.

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's General Plan Parks, Open Space, and Schools Element contains several objectives and policies pertaining to the protection of biological resources. Most of the policies pertain to general long-term protection and preservation of biological resources including providing buffers for natural areas (Policy POSS-5-c), implementing habitat restoration where applicable (Policy POSS-5-f), protection/enhancement of the San Joaquin River area (Policy POSS-6-a, 6-b, 7-a through 7-g). The Project is not located in the vicinity of the San Joaquin River and is surrounded by urban development. The biological resource evaluation prepared for the proposed Project (see Appendix B) determined that no critical habitat occurs on site and the site is lacking habitat for the majority of sensitive species. Mitigation measures BIO-1 through BIO-3 are included to protect species that may have on-site habitat. Ornamental trees associated with previously removed residences are on-site and will be removed as a part of the proposed Project. The removal of these trees are subject to provisions of the City's Municipal Code regarding trees on public property (Article 3 of Section 13-305 of the City of Fresno Municipal Code) which requires the City to utilize whatever technique, methods and procedures necessary to preserve all trees in the city, when feasible. Through the City of Fresno entitlement process, City staff will ensure that the City's Municipal Code is being adhered to. There is a *less than significant impact.*

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

No Impact. The PG&E San Joaquin Valley Operation and Maintenance (O&M) Habitat Conservation Plan (HCP) was approved in 2007 and covers portions of nine counties, including Fresno County. This HCP covers PG&E activities which occur as

a result of ongoing O&M that would have an adverse impact on any of the 65 covered species and provides incidental take coverage from the US Fish and Wildlife Service and the California Department of Fish and Wildlife. As the proposed Project is not a PG&E activity, the Project is not subject to the provisions of the HCP. There is no other HCP, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan that regulates the Project area. Therefore, there is *no impact*.

Mitigation Measures

The proposed Project shall implement and incorporate the biological resource related mitigation measures as identified in the attached Project Specific Mitigation Monitoring Checklist dated August 7, 2025.

BIO-1 Protect roosting pallid bat and western mastiff bat:

A pre-construction clearance survey shall be conducted by a qualified biologist to ensure that no roosting pallid bats or western mastiff bats will be disturbed during the implementation of the Project. A pre-construction clearance survey shall be conducted no more than 14 days prior to the initiation of construction activities. During this survey, the qualified biologist shall inspect all potential roosting habitat in and immediately adjacent to the impact areas. If an active roost is found close enough to the construction area to be disturbed by these activities, the qualified biologist shall determine the extent of a construction-free buffer to be established around the roost. If work cannot proceed without disturbing the roosting bats, work will be halted or redirected to other areas until the roost is no longer in use.

BIO-2 Protect burrowing owl

Conduct focused burrowing owl surveys to assess the presence/absence of burrowing owl in accordance with the Staff Report on Burrowing Owl Mitigation and the Burrowing Owl Survey Protocol and Mitigation Guidelines. These involve conducting four pre-construction survey visits.

If a burrowing owl or sign of burrowing owl use (e.g., feathers, guano, pellets) is detected on or within 500 feet of the Project site, and the qualified biologist determines that Project activities would disrupt the owl(s), a construction-free buffer, limited operating period, or passive relocation shall be implemented in

consultation with the CDFW.

BIO-3 Protect nesting birds:

To the extent practicable, construction shall be scheduled to avoid the nesting season, which extends from February through August. If it is not possible to schedule construction between September and January, pre-construction surveys for nesting birds shall be conducted by a qualified biologist to ensure that no active nests will be disturbed during the implementation of the Project. A pre-construction survey shall be conducted no more than 14 days prior to the initiation of construction activities. During this survey, the qualified biologist shall inspect all potential nest substrates in and immediately adjacent to the impact areas. If an active nest is found close enough to the construction area to be disturbed by these activities, the qualified biologist shall determine the extent of a construction-free buffer to be established around the nest. If work cannot proceed without disturbing the nesting birds, work will be halted or redirected to other areas until nesting and fledging are completed or the nest has otherwise failed for non-construction related reasons.

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
V. CULTURAL RESOURCES – Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5?		X		
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?		X		

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
c) Disturb any human remains, including those interred outside of formal cemeteries?		X		

DISCUSSION

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

Less Than Significant Impact with Mitigation. A prehistoric and historic site records and literature search was conducted for the Project area through the Southern San Joaquin Valley Information Center of the California Historical Resources Information System on January 30, 2023 (File RS#23-023). Records indicated that there have been no previous cultural resources studies conducted within the Project area. There has been one previous cultural resource study completed that intersects with the eastern border of the Project area, FR-01800. It should be noted this report was completed approximately 21 years ago and should be considered out of date for current studies. Additionally, there have been seven cultural resource studies conducted within the one-half mile radius: FR00257, 00296, 020 (See Appendix C). A review of the Sacred Lands Inventory by the Native American Heritage Commission (NAHC) was also performed and the results were negative.

There are no previously recorded cultural resources within the Project area. Furthermore, it is not known if any currently exist there. There have been 11 recorded resources within the one-half mile radius: P-10- 004312, 004762, 004763, 004764, 004765, 004766, 004767, 004769, 004770, 004772, & 005121. These resources consist of historic era single family properties.

Although no cultural or archaeological resources, paleontological resources or human remains have been identified in the Project area to date, the possibility exists that such resources or remains may be discovered during Project site preparation, excavation and/or grading activities. As such, Mitigation Measure CUL-1 shall be implemented to protect undiscovered resources. Adherence to this mitigation measure will result in a *less than significant impact with mitigation incorporated.*

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

Less Than Significant Impact with Mitigation. As discussed in Impact a) above, no surface or recorded evidence of sensitive cultural resources have been recorded. However, the possibility exists that such resources or remains may be discovered during Project site preparation, excavation and/or grading activities. Mitigation Measure CUL – 1 shall be implemented to ensure that Project will result in *less than significant impact with mitigation incorporated.*

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

Less Than Significant Impact with Mitigation. Although no cultural or archaeological resources, paleontological resources or human remains have been identified in the Project area yet, the possibility exists that such resources or remains may be discovered during Project site preparation, excavation and/or grading activities.

The discovery of human remains is regulated by California Health and Safety Code Section 7050.5, which states, in part, that:

"(b) In the event of discovery or recognition of any human remains in any location other than a dedicated cemetery, there shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains until the coroner of the county in which the humans remains are discovered has determined in accordance with Chapter 10 (commencing with Section 27460) of Part 3 of Division 2 of Title 3 of the Government Code, that the remains are not subject to provisions of law concerning investigation of the circumstances, manner and cause of any death, and the recommendations concerning the treatment and disposition of the human remains have been made to the person responsible for the excavation, or his or her authorized representative, in the manner provided in Section 5097.98 of the Public Resources Code. The coroner shall make his or her determination within two working days from the time the person responsible for the excavation, or his or her authorized representative, notifies the coroner of the discovery or recognition of the human remains.

(c) If the coroner determines that the remains are not subject to his or her authority and the coroner recognizes the human remains to be those of a Native American, or

has reason to believe that they are those of a Native American, he or she shall contact, by telephone within 24 hours, the Native American Heritage Commission."

Incorporation of Mitigation Measure CUL-2 will ensure compliance with California Health and Safety Code Section 7050.5, which would protect buried remains and reduce potential impacts to human remains to *less than significant with mitigation incorporated.*

Mitigation Measures

The proposed Project shall implement and incorporate the cultural resource related mitigation measures as identified in the attached Project Specific Mitigation Monitoring Checklist dated August 7, 2025.

CUL-1 If previously unknown resources are encountered before or during grading activities, construction shall stop in the immediate vicinity of the find and a qualified historical resources specialist shall be consulted to determine whether the resource requires further study. The qualified historical resources specialist shall make recommendations to the City on the measures that shall be implemented to protect the discovered resources, including but not limited to excavation of the finds and evaluation of the finds in accordance with Section 15064.5 of the CEQA Guidelines and the City's Historic Preservation Ordinance. If the resources are determined to be unique historical resources as defined under Section 15064.5 of the CEQA Guidelines, measures shall be identified by the monitor and recommended to the Lead Agency. Appropriate measures for significant resources could include avoidance or capping, incorporation of the site in green space, parks, or open space, or data recovery excavations of the finds. No further grading shall occur in the area of the discovery until the Lead Agency approves the measures to protect these resources. Any historical artifacts recovered as a result of mitigation shall be provided to a City-approved institution or person who is capable of providing long-term preservation to allow future scientific study.

CUL-2 In the event that human remains are unearthed during excavation and grading activities of any future development Project, all activity shall cease immediately. Pursuant to Health and Safety Code (HSC) Section 7050.5, no further disturbance shall occur until the County Coroner has made the necessary findings as to origin and disposition pursuant to PRC Section 5097.98(a). If the remains are determined to be of Native American descent, the coroner shall within 24 hours notify the Native American Heritage Commission (NAHC). The NAHC shall then contact the most likely

descendent of the deceased Native American, who shall then serve as the consultant on how to proceed with the remains. Pursuant to PRC Section 5097.98(b), upon the discovery of Native American remains, the landowner shall ensure that the immediate vicinity, according to generally accepted cultural or archaeological standards or practices, where the Native American human remains are located is not damaged or disturbed by further development activity until the landowner has discussed and conferred with the most likely descendants regarding their recommendations, if applicable, taking into account the possibility of multiple human remains. The landowner shall discuss and confer with the descendants all reasonable options regarding the descendants' preferences for treatment.

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

The energy requirements for the proposed Project were determined using the construction and operational estimates generated from the Modeling Assumptions as noted in the Air Quality, Greenhouse Gas, and Energy Technical Memorandum (Memo) prepared by Johnson Johnson and Miller Air Quality Consulting Services, report date May

15, 2023, revised November 7, 2024, and is the basis for analysis. The Memo is provided in its entirety in Appendix A**.**

DISCUSSION

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

Less Than Significant Impact.

Construction Energy Demand

As summarized in Table 9 and Table 10, the proposed Project would require 15,551 gallons of diesel fuel for construction off-road equipment and 4,956 gallons of gasoline and diesel for on-road vehicles during construction. There are no unusual Project characteristics that would necessitate the use of construction equipment that would be less energy efficient than at comparable construction sites in the region or other parts of the state. In addition, the overall construction schedule and process is already designed to be efficient in order to avoid excess monetary costs. For example, equipment and fuel are not typically used wastefully due to the added expense associated with renting the equipment, maintaining it, and fueling it. Therefore, it is expected that construction fuel consumption associated with the proposed Project would not be any more inefficient, wasteful, or unnecessary than at other construction sites in the region, and as such, impacts would be *less than significant*.

Table 9: Construction Off-Road Fuel Consumption

Project Component	Construction Activity	Fuel Consumption (gallons)
Tract No. 6432 Project (On-Site, Off -road Equipment Use)	Site Preparation	703
	Grading	1,100
	Building Construction	12,781
	Paving	843
	Architectural Coating	124
Total		**15,551**
Note: Totals may not appear to sum correctly due to rounding Source: Energy Consumption Calculations (Attachment C of Appendix A).		

Table 10: Construction On-Road Fuel Consumption

Project Component	Construction Phase	Vehicle Miles Traveled (miles over the construction duration)	Total Fuel Consumption (gallons of fuel over the construction duration)
Tract No. 6432 Project (On-site, Off-road Equipment Use)	Site Preparation	2,224	114
	Grading	15,980	2,058
	Building Construction	44,216	2,192
	Paving	9,456	530
	Architectural Coating	1,552	62
Total		**73,428**	**4,956**

Notes:
Totals may not appear to sum correctly due to rounding.
Source: Energy Consumption Calculations (Attachment C).

Long-Term Energy Demand

Building Energy Demand

Buildings and infrastructure constructed pursuant to the proposed Project would comply with the versions of CCR Titles 20 and 24, including California Green Building Standards (CALGreen), that are applicable at the time that building permits are issued. The proposed Project is estimated to demand 366,100 kWh of electricity per year (54,915 off-site demand, assuming solar panels will cover approximately 85 percent of the Project's electricity demand). This would represent an increase in demand for electricity.

It would be expected that building energy consumption associated with the proposed Project would not be any more inefficient, wasteful, or unnecessary than for any other similar buildings in the region. Current state regulatory requirements for new building construction contained in the 2019 CALGreen and Title 24 standards would increase energy efficiency and reduce energy demand in comparison to existing commercial structures, and therefore would reduce actual environmental effects associated with energy use from the proposed Project. Additionally, the CALGreen and Title 24 standards have increased efficiency standards through each update.

Therefore, while the proposed Project would result in increased electricity demand, the electricity and natural gas would be consumed more efficiently and would be typical of existing industrial development.

Based on the above information, the proposed Project would not result in the inefficient or wasteful consumption of electricity, and impacts would be *less than significant.*

Transportation Energy Demands

The daily vehicular fuel consumption is estimated to be 129.1 gallons of gasoline and diesel fuel combined. Annual consumption is estimated at 47,120 gallons. In addition, the proposed Project would constitute development within an established community and would not be opening a new geographical area for development. As such, the proposed Project would not result in unusually long trip lengths for future residents, visitors, or deliveries to the proposed homes. The Project site is located near other residential land uses and is in close proximity to commercial and public uses. The Project would be well-positioned to accommodate an existing community and provide housing for planned growth. Vehicles accessing the site would be typical of vehicles accessing similar residential uses in the City of Fresno and surrounding areas. For these reasons, it would be expected that vehicular fuel consumption associated with the proposed Project would not be any more inefficient, wasteful, or unnecessary than for any other similar land use activities in the region, and impacts would be *less than significant.*

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

Less Than Significant Impact. The Project proposes a tentative tract map that would facilitate the construction and development of 44 new single-family homes, all of which would be built in accordance with all applicable rules and regulations. Compliance with established and applicable regulations would ensure that the Project would not conflict with or obstruct any state or local plan for renewable energy or energy efficiency. Moreover, compliance with Title 24 standards would ensure that the proposed Project would not conflict with any energy conservation policies related to the proposed Project's building envelope, mechanical systems, and indoor and outdoor lighting. In addition, the proposed Project would constitute development within an established community. As such, the Project would not be opening a new geographical area for development such that it would not result in unusually long trip lengths for future Project residents.

For the above reasons, the proposed Project would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency, and impacts would be *less than significant.*

Mitigation Measures

None required.

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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.			X	
ii) Strong seismic ground shaking?			X	
iii) Seismic-related ground failure, including liquefaction?			X	
iv) Landslides?			X	
b) Result in substantial soil erosion or the loss of topsoil?			X	

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?			X	
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?			X	
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?				X
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?			X	

DISCUSSION

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.

Less Than Significant Impact. According to the Fault Rupture Zones Map prepared by the California Department of Conservation in 2018, the Project site is not located within a Fault-Rupture Hazard Area. Moreover, no active faults have been identified within the City of Fresno. The nearest zoned fault to the City is a portion of the Nunez Fault, located approximately 48 miles southwest of the City. Therefore, because no active faults occur within the City, impacts associated with fault rupture would be *less than significant*.

ii. Strong seismic ground shaking?

Less Than Significant Impact. 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 III, as well as Title 24 of the California Administrative Code, and therefore would avoid potential seismically induced hazards on planned structures. Additionally, construction and daily activities of operation will not cause or contribute to strong seismic shaking. The impact of strong seismic ground shaking on the Project would be *less than significant.*

iii. Seismic-related ground failure, including liquefaction?

Less Than Significant Impact. The potential for soil liquefaction within the City of Fresno ranges from very low to moderate due to the variable density of the subsurface soils and the presence of shallow groundwater. Construction in California is regulated by the California Building Code (CBC) which requires site-specific geotechnical studies which must consider the potential for liquefaction and soil strength loss. The CBC also mandates foundation design that addresses liquefaction impacts and may require ground improvement techniques. The proposed Project will be subject to the requirements set forth in the California Building Code (Fresno Municipal Code Section 11-101) which would ensure that potential settlement and lateral spread impacts would be *less than significant*.

iv. Landslides?

Less Than Significant Impact. Landslides are the release of rock, soil, or other debris and its subsequent movement down a slope or hillside. Landslides occur during earthquakes, triggered by the strain induced in soil and rock by ground shaking vibrations, and during non-earthquake conditions, most frequently during the rainy season. Any slope of 15 degrees or greater is susceptible to mud or landslides. The Project area is generally flat in nature, with slopes nearly at zero degrees. As such, the Project site is not susceptible to mud or landslides during non-earthquake conditions during the dry or rainy season.

Additionally, the proposed Project site is not located in an earthquake fault zone as delineated by the 1972 Alquist-Priolo Earthquake Fault Zoning Map Act. 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 III, as well as Title 24 of the California Administrative Code, and therefore would avoid potential seismically induced hazards on planned structures. The impact of the Project on and from landslides would be *less than significant.*

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

Less Than Significant Impact. Construction activities associated with the Project involve ground preparation work for the new residential development, streets, and the associated improvements. 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. 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 in 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 site will be covered with streets, buildings and landscaping and, the Project would not result in soil erosion or loss of topsoil. Adherence to local and state requirements will ensure that any impacts are *less than significant*.

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

Less Than Significant Impact. As discussed in Impact a) above, the site is not at significant risk from earthquakes, ground shaking, liquefaction, or landslide and is otherwise considered geologically stable. 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 Fresno is not recognized by the U.S. Geological Service as being in an area of subsidence.[3] Impacts would be *less than significant*.

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

Less Than Significant Impact. Surface and near-surface soils throughout the city of Fresno consist of varying combinations of clays, silts, sands, gravels, and cobbles.

The Project site is underlain by Atwater loamy sand, 0 to 3 percent slopes and Greenfield sandy loam, 0 to 3 percent slopes (NCRS 2023). These soil types are considered well drained with a low ability for water storage, which means they are unlikely to expand.[4] Any impacts would be *less than significant.*

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. Under the approved City of Fresno General Plan, all development within the City limits is required to install public sewage collection and disposal systems. Should the site contain a septic system from the previous use, it will be removed in compliance with the Fresno County Public Works and Planning Department regulation, including obtaining a demolition permit. The Project will be required to tie into existing sewer services (See Utilities section for more details). Therefore, there would be *no impact.*

---

3 U.S. Geological Service. Areas of Land Subsidence in California. https://ca.water.usgs.gov/land_subsidence/california-subsidence-areas.html. Accessed February 2023.

4 USDA Natural Resources Conservation Service. Custom Soil Resource Report for Eastern Fresno Area, California.

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 geological features on site or in the area. As discussed previously in this document, there are no known cultural or historical resources on or near the site. (See Section V. for more details). Mitigation Measure CUL-1 is included to reduce potential impacts to undiscovered resources. Therefore, there would be a *less than significant impact with mitigation.*

Mitigation Measures

See CUL-1 in Section V.

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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?			X	
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?			X	

DISCUSSION

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

Less Than Significant Impact. The analysis in the Greenhouse Gas section is based on the Air Quality, Greenhouse Gas, and Energy Technical Memorandum (Memo) prepared by Johnson Johnson and Miller Air Quality Consulting Services, report date May 15, 2023. The Memo is provided in its entirety in Appendix A**.**

To determine significance, the analysis first quantifies Project-related GHG emissions under a business-as-usual scenario, and then compares these emissions with those emissions that would occur when all Project-related design features are accounted for, and when compliance with applicable regulatory measures is assumed. The standards and methodology are explained in further detail, below.

Construction

GHG emissions generated during all phases of construction were combined and are shown in Table 11. Neither the City of Fresno nor the SJVAPCD have adopted thresholds of significance for construction related emissions. In addition, GHG emission reduction measures for construction equipment are relatively limited. Therefore, a standard practice is to amortize construction emissions over the anticipated lifetime of a project, so that GHG reduction measures will address construction GHG emissions as part of the operational GHG reduction strategies. To evaluate construction-related GHG emissions, the total emissions generated during construction were amortized based on the life of the development (30 years for residential development) and added to the operational emissions to determine the total emissions from the Project, as shown below.

Table 11: Summary of Construction-Generated Greenhouse Gas Emissions

Emissions Source	MT CO_{2e} per Year
Site Preparation (2023)	18
Grading (2023)	46
Building Construction (2024)	170
Building Construction (2024)	150
Paving (2024)	22
Architectural Coating (2024)	3
Total Construction Duration (2023-2024)	
Total Construction $MTCO2_e$	409
Emissions Amortized Over 30 Years[1]	13.6
Notes: MT CO_2e = metric tons of carbon dioxide equivalent [1] Construction GHG emissions are amortized over the 30-year lifetime of the project. Source: CalEEMod Output and Additional Supporting Information (Attachment A of Appendix A).	

Operations

Operational or long-term emissions occur over the life of the Project. Sources of emissions may include motor vehicles and trucks, energy usage, water usage, waste generation, and area sources, such as landscaping activities and residential woodburning. Operational GHG emissions associated with the proposed Project were estimated using CalEEMod 2020.4.0. Please see the "Assumptions" sections of Attachment A in Appendix A for details regarding assumptions and methodology used to estimate emissions. Complete CalEEMod output files and additional supporting information are also included in Attachment A.

Business-as-Usual Operational Emissions

Operational emissions under the business-as-usual scenario were modeled using CalEEMod 2020.4.0. Modeling assumptions for the year 2005 were used to represent business as usual conditions (without the benefit of regulations adopted to reduce GHG emissions). CARB and SJVAPCD guidance recommend using regulatory conditions in 2002-2004 in the baseline scenario to represent conditions as if regulations had not been adopted to allow the effect of projected growth on achieving reduction targets to be clearly defined. CalEEMod defaults were used for Project energy usage, water usage, waste generation, and area sources (architectural coating, consumer products, and landscaping). The vehicle fleet mixes were revised to reflect the appropriate residential Project fleet mix for each scenario modeled.

Buildout Year Operational Emissions

Operational emissions for full Project buildout were modeled for the 2023 operational year (full buildout scenario in the earliest operational year) and 2030 operational year scenarios using CalEEMod. CalEEMod assumes compliance with some, but not all, applicable rules and regulations regarding energy efficiency, vehicle fuel efficiency, renewable energy usage, and other GHG reduction policies, as described in the CalEEMod User's Guide.

The reductions obtained from each regulation and the source of the reduction amount used in the analysis are described below.

The following regulations are incorporated into the CalEEMod emission factors:

- Pavley I and Pavley II (LEV III) motor vehicle emission standards
- CARB Medium and Heavy-Duty Vehicle Regulation
- 2005, 2008, 2013, 2016, and 2019 Title 24 Energy Efficiency Standards

The following regulations have not been incorporated into the CalEEMod emission factors and require alternative methods to account for emission reductions provided by the regulations:

- Renewables Portfolio Standard (RPS) requirements for year 2030
- Green Building Code Standards (indoor water use)
- California Model Water Efficient Landscape Ordinance (outdoor water)
- CalRecycle 75 Percent Initiative (solid waste)
- 2022 Title 24 Energy Efficiency Standards

Title 24 reductions for 2013 and 2016 updates were added to CalEEMod 2016.3.2 and were carried into CalEEMod 2020.4.0. Title 24 reductions for 2019 were added to CalEEMod 2020.4.0; however, the additions do not account for on-site renewable energy that would be included as part of single-family residential projects. Therefore, the CalEEMod mitigation component was used to account for rooftop solar included as part of the proposed Project.

RPS is not accounted for in CalEEMod 2020.4.0. Reductions from RPS for operational years 2030 and beyond are addressed by revising the electricity emission intensity factor in CalEEMod to account for the utility RPS rate forecast for 2030. The utilities will be required by SB 100 to increase the use of renewable energy sources to 60 percent by 2030. Data for PG&E was used to estimate a revised CO2 intensity factor for use in the modeling.

Reductions in emissions from solid waste are based on the County of Fresno achieving the CalRecycle 75 Percent Initiative by 2020 compared with a 50 percent baseline for 2005. No additional reductions were accounted for in the emission estimates prepared for the Project.

Energy savings from water conservation resulting from the Green Building Code Standards for indoor water use and California Model Water Efficient Landscape Ordinance for outdoor water use are not included in CalEEMod. The Water Conservation Act of 2009 mandates a 20 percent reduction in urban water use that is implemented with these regulations. Benefits of the water conservation regulations are applied in the CalEEMod mitigation component.

GHG reductions from some design features and compliance with regulations that are not otherwise accounted for can be quantified in CalEEMod. Note that CalEEMod nominally treats these design elements and conditions as “mitigation measures,”

despite their inclusion in the project description. Therefore, reported operational emissions are considered to represent unmitigated project conditions.

Operational GHG emissions by source are shown in Table 12 for the buildout year scenarios. Full buildout of the Project was modeled in the 2023 operational year, as earliest occupancy is anticipated to occur as early as 2023.

Table 12: Unmitigated Project Operational GHG Emissions (Buildout Year Scenario)

Emission Source	Emissions (MT CO_2e per year)	
	Business as Usual Total Emissions (MT CO_2e per year)	**Buildout Year Total Emissions with Regulations and Design Features (MT CO_2e per year)**
Area	19.73	19.72
Energy	194	62
Mobile (On-Road Vehicles)	566	408
Waste	23	17
Water	10	5
Amortized Construction Emissions	14	14
Total (MT CO_2e per year)	**827**	**526**
Reduction from BAU (MT **CO_2e per year)**		301
Percent Reduction		36.4%
Significance Threshold		29%
Exceeds Either Significance Threshold?		**No**

MT CO_2e = metric tons of carbon dioxide equivalent.

Totals were calculated using unrounded emissions; totals may not appear to sum exactly due to rounding.

Source of Significance Threshold: San Joaquin Valley Air Pollution Control District (SJVAPCD). 2015. Final Draft Guidance for Assessing and Mitigating Air Quality Impacts. Website: https://www.valleyair.org/transportation/GAMAQI2015/FINAL-DRAFT-GAMAQI.PDF. Accessed May 1, 2023.

Source of Business-as-Usual Emissions: CalEEMod output for the 2023 BAU scenario (see Attachment A of Appendix A).

Source of Buildout Year Emissions: CalEEMod output for project buildout in 2023 (Attachment A of Appendix A).

As shown in Table 12, the proposed Project's total GHG annual emissions would not exceed applicable thresholds of significance in either scenario analyzed.

The 2030 operational year scenarios are summarized in Table 13. As previously noted, the 2030 operational year was used to assess the Project's consistency with the SB 32 2030 target. The 2017 Scoping Plan addresses a future GHG goal and remains relevant to assess potential impacts from the proposed Project, which is expected to be built and operational prior to 2030.

Table 13: Unmitigated Project Operational GHG Emissions (Year 2030 Scenario)

Emission Source	Emissions (MT CO_2e per year)	
	Business as Usual Total Emissions (MT CO_2e per year)	**Buildout Year Total Emissions with Regulations and Design Features (MT CO_2e per year)**
Area	19.73	19.72
Energy	194	62
Mobile (On-Road Vehicles)	562	333
Waste	23	17
Water	10	5
Amortized Construction Emissions	14	14
Total (MT CO_2e per year)	**823**	**451**
Reduction from BAU (MT **CO_2e per year)**		372
Percent Reduction		45.2%
Significance Threshold[1]		29%
Exceeds Either Significance Threshold?		**No**

MT CO_2e = metric tons of carbon dioxide equivalent.

Totals were calculated using unrounded emissions; totals may not appear to sum exactly due to rounding.

[1] Adjusted threshold to account for 2017 Scoping Plan Update 40 percent reduction goal by 2030.

Source of Business-as-Usual Emissions: CalEEMod output for the 2030 BAU scenario (see Attachment A of Appendix A).

Source of 2030 Emissions: CalEEMod output for the year 2030 (Attachment A of Appendix A).

As shown in Table 12 and Table 13, the Project would achieve a 36.4 percent reduction from BAU at Project buildout (2023) and a 45.2 percent reduction from BAU by the year 2030 with adopted regulations and design features incorporated. These amounts both exceed the 29 percent reduction required by the SJVAPCD threshold, and go beyond the required 21.7 percent average reduction from all GHG emission sources to meet the AB 32 targets. CARB originally identified a reduction of 29 percent from business as usual as needed to achieve AB 32 targets. The 2008 recession and slower growth in the years since 2008 have reduced the growth forecasted for 2020 and the amount needed to be reduced to achieve 1990 levels as required by AB 32, so the target was revised to 21.7 percent.

The 36.4 percent reduction from BAU is 14.7 percent beyond the average reduction required by the state from all sources to achieve the AB 32 2020 target (and 7.4 percent beyond the SJVAPCD's threshold). This surplus addresses the Supreme Court's concern in the Newhall case that new development must exceed average reductions to meet its fair share of emission reductions.

By 2030, the proposed Poject would achieve a 45.2 percent reduction from BAU or 23.5 percent above the 16.2 percent reduction necessary to meet the AB 32 reduction target.

The Project's occupancy is anticipated to begin as early as 2025; thus, additional analysis is provided to show consistency with post-2020 state legislative GHG goals. The SB 32 goal of 40 percent below 1990 emission levels by 2030 is the target established by the 2017 Scoping Plan Update.

The 2017 Scoping Plan includes strategies that are not incorporated in the analysis above. Many measures that are likely to proceed include zero net energy buildings in future updates to Title 24 and enhanced motor vehicle fuel efficiency standards beyond 2025. The 2017 Scoping Plan identified an emission limit of 260 million metric tons of carbon dioxide equivalents (MMTCO2e). The 2030 BAU Inventory is estimated to be 392 MMTCO2e. The 2017 Scoping Plan identified that the bulk of its reductions would come from electric power, industrial fuel combustion, and transportation. The continuance of Cap and Trade would provide additional reductions. Although the 2017 Scoping Plan largely relies on state actions to achieve the GHG emissions limit, CARB considers local government partners in achieving the state's goals for reducing GHG emissions. The 2017 Scoping Plan suggests that all new land use development implement feasible measures to reduce GHG emissions, however, it does not define feasible measures nor assign a required reduction amount to new development. A fair share quantitative threshold based on the 2017 Scoping Plan is not presently feasible as the nexus between a project's contribution and its fair share mitigation is not well defined.

Based on the 36.4 percent reduction from BAU for Project buildout in the earliest operational year (2025), the proposed Project would not have a significant impact on GHG emissions as it would meet the SJVAPCD's threshold of 29 percent and exceed the CARB's 21.7 percent reduction necessary from all sources to meet the AB 32 emissions limit.

For the year 2030, the Project achieves a 45.2 percent reduction from BAU, which demonstrates substantial progress towards achieving the 2030 target.

Regarding the years 2045 and 2050, there have been Executive Orders issued to address carbon neutrality and GHG reduction targets, respectively for those years, however, there are no existing GHG reduction plans that specifically address those Orders. Historically, the state would take the lead in developing regulatory and market measures to achieve the required reductions. The proposed Project would participate in the reductions through adherence with regulations and continued improvements to the motor vehicle efficiencies accessing the Project site. Studies have shown that in

order to meet the 2050 targets, aggressive pursuit of technologies in the transportation and energy sectors, including electrification and the decarbonization of fuel, will be required. Because of the technological shifts required and the unknown parameters of the regulatory framework in 2050, quantitatively analyzing the proposed Project's impacts further relative to the 2050 goals is speculative for purposes of CEQA.

Conclusion

In summary, the proposed Project meets the required 29 percent below BAU guidance provided by the SJVAPCD. Furthermore, analysis of the proposed Project shows substantial reductions in the year 2030 , which is evidence that it would not inhibit the state's progress in achieving the 2030 GHG emissions target or emissions targets beyond 2030. The GHG emissions impact would be *less than significant* with respect to Consideration #1 and #2.

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

Less Than Significant Impact. The following analysis assesses the proposed Project's compliance with Consideration No. 3 regarding consistency with adopted plans to reduce GHG emissions. The proposed Project is also assessed for its consistency with CARB's adopted Scoping Plans, which include the 2008, 2017, and 2022 Scoping Plans.

Consistency with AB 32 and the 2008 Scoping Plan

The State's regulatory program implementing the 2008 Scoping Plan is now fully mature. All regulations envisioned in the Scoping Plan have been adopted, and the effectiveness of those regulations has been estimated by the agencies during the adoption process and then tracked to verify their effectiveness after implementation. The combined effect of this successful effort is that the State projects that it will achieve continued progress toward meeting post-2020 targets. Governor Brown, in the introduction to Executive Order B-30-15, stated "California is on track to meet or exceed the current target of reducing greenhouse gas emissions to 1990 levels by 2020, as established in the California Global Warming Solutions Act of 2006 (AB 32)."

Consistency with SB 32 and the 2017 Scoping Plan

The 2017 Climate Change Scoping Plan Update (2017 Scoping Plan) includes the strategy that the State intends to pursue to achieve the 2030 targets of Executive

Order S-3-05 and SB 32. Although CARB adopted the 2022 Scoping Plan in December 2022 that addresses long-term GHG goals set forth by AB 1279,17 the 2017 Scoping Plan addresses a future GHG goal and remains relevant to the proposed Project. The 2017 Scoping Plan includes the following summary of its overall strategy for reaching the 2030 target:

- SB 350
    - o Achieve 50 percent Renewables Portfolio Standard (RPS) by 2030.
    - o Doubling of energy efficiency savings by 2030.
- Low Carbon Fuel Standard (LCFS)
    - o Increased stringency (reducing carbon intensity 18 percent by 2030, up from 10 percent in 2020).
- Mobile Source Strategy (Cleaner Technology and Fuels Scenario)
    - o Maintaining existing GHG standards for light- and heavy-duty vehicles.
    - o Put 4.2 million zero-emission vehicles (ZEVs) on the roads.
    - o Increase ZEV buses, delivery and other trucks.
- Sustainable Freight Action Plan to Improve freight system efficiency.
    - o Maximize use of near-zero emission vehicles and equipment powered by renewable energy.
    - o Deploy over 100,000 zero-emission trucks and equipment by 2030.
- Short-Lived Climate Pollutant (SLCP) Reduction Strategy
    - o Reduce emissions of methane and hydrofluorocarbons 40 percent below 2013 levels by 2030.
    - o Reduce emissions of black carbon 50 percent below 2013 levels by 2030.
- SB 375 Sustainable Communities Strategies
    - o Increased stringency of 2035 targets.
- Post-2020 Cap-and-Trade Program
    - o Declining caps, continued linkage with Québec, and linkage to Ontario, Canada.
    - o CARB will look for opportunities to strengthen the program to support more air

quality co-benefits, including specific program design elements. In Fall 2016, CARB staff described potential future amendments including reducing the offset usage limit, redesigning the allocation strategy to reduce free allocation to support increased technology and energy investment at covered entities and reducing allocation if the covered entity increases criteria or toxics emissions over some baseline.

• By 2018, develop Integrated Natural and Working Lands Action Plan to secure California's land base as a net carbon sink.

Table 14 provides an analysis of the Project's consistency with the 2017 Scoping Plan Update measures.

Table 14: Consistency with SB 32 2017 Scoping Plan Update

Scoping Plan Measure	Project Consistency
SB 350 50% Renewable Mandate. Utilities subject to the legislation will be required to increase their renewable energy mix from 33% in 2020 to 50% in 2030. *(The requirement is now 60% in 2030 per SB 100.)*	**Consistent**: The Project will purchase electricity from a utility subject to the SB 350 Renewable Mandate.
SB 350 Double Building Energy Efficiency by 2030. This is equivalent to a 20 percent reduction from 2014 building energy usage compared to current projected 2030 levels.	**Not Applicable**. This measure applies to existing buildings. New structures, including new single-family homes, are required to comply with Title 24 Energy Efficiency Standards that are expected to increase in stringency until residential housing achieves zero net energy. The Project consists of the construction of 44 new single-family homes and does not include renovations to existing structures.
Low Carbon Fuel Standard. This measure requires fuel providers to meet an 18 percent reduction in carbon content by 2030.	**Consistent**. Vehicles accessing the Project site will use fuel containing lower carbon content as the fuel standard is implemented.
Mobile Source Strategy (Cleaner Technology and Fuels Scenario). Vehicle manufacturers will be required to meet existing regulations mandated by the LEV III and Heavy-Duty Vehicle programs. The strategy includes a goal of having 4.2 million ZEVs on the road by 2030 and increasing numbers of ZEV trucks and buses.	**Consistent**. Project residents can be expected to purchase increasing numbers of more fuel efficient and zero emission cars and trucks each year. The CALGreen Code requires electrical service in new single-family housing to be EV charger-ready. In addition, home deliveries will be made by increasing numbers of ZEV delivery trucks.
Sustainable Freight Action Plan. The plan's target is to improve freight system efficiency 25 percent by increasing the value of goods and services produced from the freight sector, relative to the amount of carbon that it produces by 2030. This would be achieved by deploying over 100,000 freight vehicles and equipment capable of zero emission operation and maximize near-zero emission freight vehicles and equipment powered by renewable energy by 2030.	**Not Applicable**. The measure applies to owners and operators of trucks and freight operations. The Project is residential in nature and would not support freight operations. However, home deliveries are expected to be made by increasing number of ZEV delivery trucks.

Scoping Plan Measure	Project Consistency
Short-Lived Climate Pollutant (SLCP) Reduction Strategy. The strategy requires the reduction of SLCPs by 40 percent from 2013 levels by 2030 and the reduction of black carbon by 50 percent from 2013 levels by 2030.	**Consistent**. The Project will only include natural gas hearths that produce very little black carbon compared with wood burning fireplaces and heaters in-line with the SJVAPCD's Guidance for Assessing and Mitigating Air Quality Impacts mitigation measures.[1]
SB 375 Sustainable Communities Strategies. Requires Regional Transportation Plans to include a sustainable communities strategy for reduction of per capita vehicle miles traveled.	**Not applicable**. The Project is for tentative tract map to allow for the construction and development of 44 single-family homes and does not include the development of a regional transportation plan. However, the Project will provide residential development to increase development densities, which facilitates reductions to VMT.
Post-2020 Cap-and-Trade Program. The Post 2020 Cap-and-Trade Program continues the existing program for another 10 years. The Cap-and-Trade Program applies to large industrial sources such as power plants, refineries, and cement manufacturers.	**Consistent.** The post-2020 Cap-and-Trade Program indirectly affects people who use the products and services produced by the regulated industrial sources when increased cost of products or services (such as electricity and fuel) are transferred to the consumers. The Cap-and-Trade Program covers the GHG emissions associated with electricity consumed in California, whether generated in-state or imported. Accordingly, GHG emissions associated with CEQA projects' electricity usage are covered by the Cap-and-Trade Program. The Cap-and-Trade Program also covers fuel suppliers (natural gas and propane fuel providers and transportation fuel providers) to address emissions from such fuels and from combustion of other fossil fuels not directly covered at large sources in the program's first compliance period.
Natural and Working Lands Action Plan. CARB is working in coordination with several other agencies at the federal, state, and local levels, stakeholders, and with the public, to develop measures as outlined in the Scoping Plan Update and the governor's Executive Order B-30-15 to reduce GHG emissions and to cultivate net carbon sequestration potential for California's natural and working land.	**Not Applicable**. The Project is residential development and will not be considered natural or working lands.
Source: California Air Resources Board (CARB). 2017. The 2017 Climate Change Scoping Plan Update. January 20. Website: https://www.arb.ca.gov/cc/scopingplan/2030sp_pp_final.pdf. August 1, 2022. [1] San Joaquin Valley Air Pollution Control District (SJVAPCD). 2015. Guidance for Assessing and Mitigating Air Quality Impacts. Website: https://www.valleyair.org/transportation/GAMAQI-2015/FINAL-DRAFT-GAMA. Accessed May 1, 2023.	

Consistency Regarding GHG Reduction Goals for 2050 under Executive Order S-3-05 and GHG Reduction Goals for 2045 under the 2022 Scoping Plan

CARB adopted the 2022 Scoping Plan in December 2022 that addresses long-term GHG goals set forth by AB 1279.18 The 2022 Scoping Plan outlines the State's pathway to achieve carbon neutrality and an 85 percent reduction in 1990 emissions goal by 2045. In the 2022 Scoping Plan, CARB advocates for compliance with a local GHG reduction strategy consistent with CEQA Guidelines section 15183.5.

To achieve carbon neutrality by 2045, the 2022 Scoping Plan contains GHG reductions, technology, and clean energy mandated by statutes, reduction of short-lived climate

pollutants, and mechanical carbon dioxide capture and sequestration actions. Table 15 contains a list of key GHG emission reduction actions and strategies from the 2022 Scoping Plan and assesses the Project's consistency with these actions and strategies.

Table 15: Project Consistency with 2022 Scoping Plan

2022 Scoping Plan Actions and Strategies	Responsible Party(ies)	Project Consistency
Transportation Technology • Achieve 100 percent ZEV sales of light duty vehicles by 2035 and medium heavy-duty vehicles by 2040. • Achieve 20 percent zero-emission target for the aviation sector. • Develop a rapid and robust network of ZEV refueling infrastructure to support needed transition to ZEVs. • Ensure that the transition of ZEV technology is affordable for low-income households and communities of color and meets the needs of communities and small business. • Prioritize incentive funding for heavy-duty ZEV technology deployment in regions of the state with the highest concentrations of harmful criteria and toxic air contaminant emissions. • Promote private investment in the transition to ZEV technology, undergirded by regulatory certainty such as infrastructure credits in the Low Carbon Fuel Standard for hydrogen and electricity and hydrogen station grants from the CEC's Clean Transportation Program pursuant to Executive Order B-48-18. • Evaluate and continue to offer incentives similar to those through FARMER, Carl Moyer, the Clean Fuel Reward Program, the Community Air Protection Program, the Low Carbon Transportation, including CORE. Where feasible, prioritize and increase funding for clean transportation equity programs. • Continue and accelerate funding support for zero emission vehicles and refueling infrastructure through 2030 to ensure the rapid transformation of the transportation sector.	State agencies and local agencies	**No Conflict**: Vehicles must transition to zero-emission technology to decarbonize the transportation sector. Executive Order N-79-20 reflects the urgency of transitioning to zero emission vehicles (ZEVs) by establishing target dates for reaching 100 percent ZEV sales or fleet transitions to ZEV technology. EO N-79-20 calls for 100 percent ZEV sales of new light-duty vehicles by 2035. The Advanced Clean Cars II regulation fulfills this goal and serves as the primary mechanism to help deploy ZEVs. A number of existing incentive programs also support this transition, including the Clean Cars 4 All Program. EO N-79-20 also sets targets for transitioning the medium- and heavy-duty fleet to zero emissions: by 2035 for drayage trucks and by 2045 for buses and heavy-duty long-haul trucks where feasible. Replacing heavy-duty vehicles with ZEV technology will substantially reduce GHG emissions and diesel PM emissions in communities adjacent to ports, distribution centers, and highways. EO N-79-20 sets an off-road equipment target of transitioning the entire fleet to ZEV technology by 2035, where feasible. There are a number of funding sources available to support this transition, including FARMER, Carl Moyer, and Community Air Protection Incentives; as well as Low Carbon Transportation Incentives, including the Clean Off-Road Equipment program. Refueling infrastructure is a crucial component of transforming transportation technology. Electric vehicle chargers and hydrogen refueling stations must become easily accessible for all drivers to support a wholesale transition to ZEV technology. Deployment of ZEV refueling infrastructure is currently supported by a number of existing State public funding mechanisms. Intrastate aviation relies on internal combustion engine technology today, but battery-electric and hydrogen fuel cell aviation applications are in development, along with sustainable aviation fuel.

2022 Scoping Plan Actions and Strategies	Responsible Party(ies)	Project Consistency
		The proposed Project consists of the construction and operations of 44-lot single family detached residential rental unit development on approximately 3.68 net acres. GHG emissions generated by Project-related vehicle travel would benefit from the above regulations and programs, and mobile source emissions generated by the proposed Project would be reduced as automobiles and truck fleets are transitioned to ZEV technology. Additionally, the Project would include EV charging infrastructure in accordance with regulations which would support the transition to EV technology. Thus, the Project would not conflict with actions under the transportation technology sector.
Transportation Fuels • Accelerate the reduction and replacement of fossil fuel production and consumption in California. • Incentivize private investment in new zero-carbon fuel production in California. • Incentivize the transition of existing fuel production and distribution assets to support deployment of low- and zero-carbon fuels while protecting public health and the environment. • Invest in the infrastructure to support reliable refueling for transportation such as electricity and hydrogen refueling. • Evaluate and propose, as needed, changes to strengthen the Cap-and-Trade Program. • Initiate a public process focused on options to increase the stringency and scope of the LCFS: - Evaluate and propose accelerated carbon intensity targets pre-2030 for LCFS. - Evaluate and propose further declines in LCFS post-2030 carbon intensity targets to align with this 2022 Scoping Plan. - Consider integrating opt-in sectors into the program. - Provide capacity credits for hydrogen and electricity for heavy-duty fueling. • Monitor for and ensure that raw materials used to produce low-carbon fuels or technologies do not result in unintended consequences.	State agencies and local agencies	**No Conflict**: Mobile source emissions generated by the proposed residential Project would be reduced with implementation of the wider use of zero-carbon fuels consistent with reduction of GHG emissions under AB 1279. Additionally, the Project would utilize energy efficiency appliances and equipment and will meet the applicable energy standards in the Title 24 Building Energy Efficiency Standards and CALGreen Code, which will limit the amount of fossil fuel use and GHG emissions. During operations the Project will provide improvements to the pedestrian network by complying with local building codes and incorporating paved areas and landscaping. Considering the actions and strategies require action by the state and local agencies, Project consistency is determined by assessing whether the Project would conflict with the actions needed in the transportation fuels sector. As supported by the information provided above, the Project would not conflict with actions in the transportation fuels sector.
Vehicles Miles Traveled • Achieve a per capita VMT reduction of at least 25 percent below 2019 levels by 2030 and 30 percent below 2019 levels by 2045. • Reimagine new roadway projects that decrease VMT in a way that meets community needs and reduces the need to drive. • Invest in making public transit a viable alternative to driving by increasing affordability, reliability, coverage, service frequency, and consumer experience. • Implement equitable roadway pricing strategies based on local context and need, reallocating revenues to improve transit, bicycling, and other sustainable transportation choices. • Expand and complete planned networks of high-quality active transportation infrastructure.	State agencies and local agencies	**No Conflict**: VMT reductions will play a crucial role in reducing overall transportation energy demand and achieving California's climate, air quality, and equity goals. CARB did not set regulatory limits on VMT in the 2022 Scoping Plan because the authority to reduce VMT largely lies with state, regional, and local transportation, land use, and housing agencies, along with the Legislature and its budgeting choices. The Project-specific VMT impacts were addressed under the transportation section of the CEQA document. The VMT analysis demonstrates that the Project-generated trip estimates fall below the thresholds for analysis of VMT or for requiring the preparation of a traffic impact study. As such, impacts

2022 Scoping Plan Actions and Strategies	Responsible Party(ies)	Project Consistency
• Channel the deployment of autonomous vehicles, ride-hailing services, and other new mobility options toward high passenger-occupancy and low VMT-impact service models that complement transit and ensure equitable access or priority populations. • Streamline access to public transportation through programs such as the California Integrated Travel Project. • Ensure alignment of land use, housing, transportation, and conservation planning in adopted regional plans and local plans (e.g., general plans, zoning, and local transportation plans), and develop tools to support implementation of these plans. • Accelerate infill development and housing production at all affordability levels in transportation-efficient places, with a focus on housing for lower income residents.		related to VMT were found to be less than significant. As such, the Project would not conflict with actions in the vehicle miles traveled sector.
Clean Electricity Grid • Per SB 350, double statewide energy efficiency savings in electricity and fossil gas end uses by 2030, through a combination of energy efficiency and fuel substitution actions. • Use long-term planning processes to support grid reliability and expansion of renewable and zero-carbon resource and infrastructure deployment. • Complete systemwide and local reliability assessments. Such assessments should be completed before state agencies update their electricity sector GHG targets. • Prioritize actions to mitigate impacts to electricity reliability and affordability and provide sufficient flexibility in the state's decarbonization roadmap for adjustments as may be needed. • Facilitate long lead-time resource development. • Continue coordination between energy agencies and energy proceedings to maximize opportunities for demand response. • Continue to explore the benefits of regional markets to enhance decarbonization, reliability, and affordability. • Address resource build-out challenges, including permitting, interconnection, and transmission network upgrades. • Explore new financing mechanisms and rate designs to address affordability. • Per SB 100 and SB 1020, achieve 90 percent, 95 percent, and 100 percent renewable and zero-carbon retail sales by 2035, 2040, and 2045, respectively. • Evaluate and propose, as needed, changes to strengthen the Cap-and-Trade Program. • Target programs and incentives to support and improve access to renewable and zero-carbon energy projects (e.g., rooftop solar, community owned or controlled solar or wind, battery storage, and microgrids) for communities most at need,	State agencies and local agencies	**No Conflict**: Decarbonizing the electricity sector depends on both using energy more efficiently and replacing fossil-fueled generation with renewable and zero carbon resources, including solar, wind, energy storage, geothermal, biomass, and hydroelectric power. The RPS Program and the Cap-and-Trade Program continue to incentivize dispatch of renewables over fossil generation to serve state demand. SB 100 increased RPS stringency to require 60 percent renewables by 2030 and for California to provide 100 percent of its retail sales of electricity from renewable and zero-carbon resources by 2045. Furthermore, SB 1020 has added interim targets to SB 100's policy framework to require renewable and zero-carbon resources to supply 90 percent of all retail electricity sales by 2035 and 95 percent of all electricity retail sales by 2040; establish a planning goal of at least 20 GW of offshore wind by 2045; and that state agencies plan for an energy transition that avoids the need for new fossil gas capacity to meet California's long-term energy goals. California also continues to advance its appliance and building energy efficiency standards to reduce growth in electricity consumption and meet the SB 350 goal to double statewide energy efficiency savings in electricity and fossil gas end uses by 2030. Increased transportation and building electrification and continued policy commitment to behind-the-meter solar and storage will continue to drive growth of microgrids and other distributed energy resources. Continued transition to renewable and zero-carbon electricity resources will enable electricity to become a zero-carbon substitute for fossil fuels. This transformation will drive investments in a large fleet of generation and storage resources but will also require significant transmission to accommodate these new

2022 Scoping Plan Actions and Strategies	Responsible Party(ies)	Project Consistency
including frontline, low-income, rural, and indigenous communities. • Prioritize public investments in zero-carbon energy projects to first benefit the most overly burdened communities affected by pollution, climate impacts, and poverty.		capacity additions. Resources such as storage and demand-side management are essential to maintain reliability with high concentrations of renewables. Hydrogen produced from renewable resources and renewable feedstocks can serve a dual role as a low-carbon fuel for existing combustion turbines or fuel cells, and as energy storage for later use. The proposed Project would utilize energy efficiency appliances and equipment and will meet the applicable energy standards in the Title 24 Building Energy Efficiency Standards and CALGreen Code. In addition, the Project would include on-site renewable energy in the form of solar panels and would not have a significant impact due to wasteful, inefficient, or unnecessary consumption of energy resources during Project construction or operations (see Energy analysis). As such, the Project would not conflict with actions under the clean electricity grid sector
Sustainable Manufacturing and Buildings • Maximize air quality benefits using the best available control technologies for stationary sources in communities most in need. • Implement SB 905, which requires CARB to create the Carbon Capture, Removal, Utilization, and Storage Program to evaluate, demonstrate, and regulate carbon capture, utilization, and sequestration and carbon dioxide removal projects and technology. • End fossil gas infrastructure expansion for newly constructed buildings. • Develop a net-zero cement strategy to meet SB 956 targets for the GHG intensity of cement use. • Leverage energy efficiency and low carbon hydrogen programs. • Prioritize most vulnerable residents with the majority of funds in the new $922 million Equitable Building Decarbonization program. • Achieve three million all-electric and electric-ready homes by 2030 and seven million by 2035 with six million heat pumps installed by 2030. • Adopt a zero-emission standard for new space and water heaters sold in California beginning in 2030. • Implement biomethane procurement targets for investor-owned utilities as specified in SB 1440.	State agencies and local agencies	**No Conflict**: The 2022 Scoping Plan reduces dependence on fossil gas in the industrial and building sectors by transitioning substantial energy demand to alternative fuels. Combustion of fossil gas, other gaseous fossil fuels, and solid fossil fuels provide energy to meet three broad industry needs: electricity, steam, and process heat. Non-combustion emissions result from fugitive emissions and from the chemical transformations inherent to some manufacturing processes. Decarbonizing industrial facilities depends upon displacing fossil fuel use with a mix of electrification, solar thermal heat, biomethane, low- or zero-carbon hydrogen, and other low-carbon fuels to provide energy for heat and reduce combustion emissions. Emissions also can be reduced by implementing energy efficiency measures and using substitute raw materials that can reduce energy demand and some process emissions. Some remaining combustion emissions and some non-combustion CO_2 emissions can be captured and sequestered. This sector has a continuing demand for fossil gas due to lack of non-combustion technologically feasible or cost-effective alternatives for certain industrial sectors. Microgrids powered by renewable resources and with battery storage are emerging as a key enabler of electrification and decarbonization at industrial facilities. The Project is residential in nature and would not include industrial uses. The Project would utilize energy-efficient appliances in the proposed residences. The Project would also meet the applicable energy standards in the Title 24 Building Energy Efficiency Standards and CALGreen Code. During operations, the Project will provide improvements to the pedestrian network. As such, the

2022 Scoping Plan Actions and Strategies	Responsible Party(ies)	Project Consistency
		Project would not conflict with sustainable manufacturing buildings industry sector.
Carbon Dioxide Removal and Capture Sector • Implement SB 905. • Achieve the 85 percent reduction in anthropogenic sources below 1990 levels per AB 1279 by incorporating Carbon Capture and Storage (CCS) into sectors and programs beyond transportation. • Evaluate and propose the role for CCS in cement decarbonization and as part of hydrogen peroxide pathways. • Explore carbon capture application for zero-carbon power for reliability needs per SB 100.	State agencies and local agencies	**No Conflict**: CARB has acknowledged that the deployment of carbon dioxide removal to counterbalance hard-to-abate residual emissions is needed to achieve net zero GHG emissions. Modeling shows that emissions from the AB 32 GHG Inventory sources will continue to persist even if all fossil related combustion emissions are phased out. Carbon dioxide removal includes both sequestration in natural and working lands and mechanical approaches such as: direct air capture, CCS (which is carbon capture from anthropogenic point sources involves capturing carbon from a smokestack of an emitting facility), or direct air capture (which captures carbon directly from the atmosphere). The Project would not conflict with measures to increase carbon dioxide removal and capture. As such, the Project would not conflict with action under the carbon dioxide removal and capture sector.
Short-Lived Climate Pollutants (Non- Combustion Gases) • Install anaerobic digesters to maximize air and water quality protection, maximize biomethane capture, and direct biomethane to specific sectors. • Increase alternative manure management projects. • Expand markets for products made from organic waste. • Pursuant to SB 1137, develop leak detection and repair plans for facilities in health protection zones, implement emission detection system standards, and provide public access to emissions data. • Convert large HFC emitters to the lowest practical global warming potential (GWP) technologies.	State agencies and local agencies	**No Conflict**: SLCPs include black carbon, methane, and fluorinated gases. Dairy and livestock are the largest source of methane emissions followed by landfills. Black Carbon (soot) comes primarily from transportation, specifically heavy-duty vehicles followed by fuel combustion for residential, commercial, and industrial uses. The Project would not conflict with SLCP dairy and livestock methane sector actions in the 2022 Scoping Plan. The proposed Project consists of the construction and operations of 44-lot single family detached residential rental unit development on approximately 3.68 net acres and does not include dairy or livestock. Furthermore, the Project does not include a new landfill or any oil or gas production, processing, or storage facilities. The Project would comply with the 2022 CalGreen Code for energy efficiency and use of high-GWP refrigerants and would not conflict with these policies or actions. Considering the information presented above, the Project would not conflict with SLCP sector actions in the 2022 Scoping Plan.
Natural and Working Lands • Implement AB 1757 and SB 27. • Implement the Climate Smart Strategy. • Accelerate the pace and scale of climate smart forest management to at least 2.3 million acres annually by 2025.	State agencies and local agencies	**No Conflict**: AB 1757 requires state agencies to set targets for natural carbon removal and emissions reductions on natural and working lands. AB 1757 is expected to catalyze natural carbon sequestration in California by: requiring California Natural Resources Agency and CARB to establish targets for sequestration on natural and working lands for 2030, 2038, and 2045; ensuring that natural sequestration

2022 Scoping Plan Actions and Strategies	Responsible Party(ies)	Project Consistency
• Accelerate the pace and scale of healthy soils practices to 80,000 acres annually by 2025, conserve at least 8,000 acres of annual crops annually, and increase organic agriculture to 20 percent of all cultivated acres by 2045. • Restore 60,000 acres of Delta wetlands annually by 2045. • Increase urban forestry investment annually by 200 percent, relative to business as usual.		projects have rigorous measurement and verification; and establishing an expert committee to advise state agencies on modeling and implementation. SB 27 is designed to accelerate the removal of carbon from the atmosphere by expanding California's carbon removal capability (i.e. sequestration) and improve the carbon retention of the state's natural and working lands. The Project is residential in nature and would not include natural working lands. As such, the Project would not conflict with natural and working strategies under the 2022 Scoping Plan.
Source: California Air Resources Board (CARB). 2022. 2022 Scoping Plan for Achieving Carbon Neutrality. November 16. Website: https://ww2.arb.ca.gov/sites/default/files/2022-12/2022-sp_1.pdf. Accessed November 3, 2024.		

As shown above in Table 15, the Project would not conflict with relevant 2022 Scoping Plan actions or strategies that aim to achieve the State's climate target of reducing anthropogenic emissions to 85 percent below 1990 levels and achieving carbon neutrality by 2045.

Conclusion

Taking into account the proposed Project's emissions, Project design features detailed in Table 15, and the progress being made by the State towards reducing emissions in key sectors such as transportation, industry, and electricity, the Project would be consistent with State GHG Plans and would further the State's goals of reducing GHG emissions to 1990 levels by 2020, 40 percent below 1990 levels by 2030 and carbon neutral by 2045, and does not obstruct their attainment. The proposed Project's GHG impacts would be *less than significant*.

Mitigation Measures

None Required.

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
IX. HAZARDS AND HAZARDOUS MATERIAL – Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?			X	
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?			X	
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?			X	
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?				X

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?			X	
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?			X	
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?			X	

DISCUSSION

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

Less Than Significant Impact. Construction of the Project would require the use and transport of hazardous materials, including fuels, oils, and other chemicals (e.g., paints, lead, adhesives, etc.) typically used during construction. It is likely that these hazardous materials and vehicles would be stored by the contractor(s) on-site during construction activities. Improper use and transportation of hazardous materials could result in accidental releases or spills, potentially posing health risks to workers, the public, and the environment. However, all materials used during construction would be contained, stored, and handled in compliance with applicable standards and regulations established by the Department of Toxic Substances Control (DTSC), the

U.S. Environmental Protection Agency (EPA) and the Occupational Safety and Health Administration (OSHA). In addition, as discussed previously, a Storm Water Pollution Prevention Plan (SWPPP) is required for the Project and shall include emergency procedures for incidental hazardous materials releases. The SWPPP also includes Best Management Practices which includes requirements for hazardous materials storage.

The operational phase of the proposed Project would occur after construction is completed and residents move in to occupy the structures on a day-to-day basis. Residential land uses do not typically routinely transport, use, or dispose of hazardous materials, or dispose of hazardous materials, or present a reasonably foreseeable release of hazardous materials, with the exception of common residential hazardous materials such as cleaners, paint, petroleum products, etc. However, the potential for a significant hazard occurring from the use of everyday household products is low. The use of hazardous materials would mostly be confined to the Project construction period. Any impacts are *less than significant.*

b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?

Less Than Significant. The proposed Project includes the development of a 44-lot single-family detached rental unit development, including a private gated entrance, open landscaping, 117 parking spaces and other associated improvements. As discussed in Impact a) above, the use of hazardous materials would be primarily confined to the Project construction period and those materials would be contained, stored, and handled in compliance with applicable standards and regulations. As such, there are *less than significant impacts* regarding the release of hazardous materials into the environment.

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

Less Than Significant Impact. Easterby Elementary School is located approximately 0.2 miles northeast of the Project site, located at 5211 E. Tulare Avenue. Kings Canyon Middle School is also located just over one-quarter of mile northwest of the Project site, located at 5117 E. Tulare Avenue. Any hazardous materials contained, stored, or handled on site would be in compliance with applicable standards and

regulations established by the Department of Toxic Substances Control (DTSC), the U.S. Environmental Protection Agency (EPA) and the Occupational Safety and Health Administration (OSHA). The immediate area surrounding the Project site is primarily comprised of residential purposes. Any impacts would be *less than significant*.

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

No Impact. The proposed Project site is not located on a site which is included on a list of hazardous materials sites complied pursuant to Government Code Section 65962.5 (Geotracker[5] and Envirostor[6] databases – accessed in May 2025). Therefore, there is *no impact.*

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

Less than Significant Impact. The Project site is located within the Airport Influence Area (AIA) of Fresno-Yosemite International Airport, which lies approximately two miles to the north. The Project site is located within the Traffic Pattern Zone (TPZ) 6 per the Airport Land Use Compatibility Plan (ALUCP).[7] Aircraft accident risk level is considered to be low within the TPZ. The Project will be required to follow Safety Criteria Matrix (Table 3A, ALUCP) for construction within the TPZ which includes but is not limited to:

- Airport disclosure notice required
- Airspace review required for objects >100 feet tall
- New structures are prohibited on existing terrain that penetrates 14 CFR Part 77 surfaces

5 California State Water Resources Control Board, GeoTracker Database. https://geotracker.waterboards.ca.gov/map/?CMD=runreport&myaddress=Fresno. Accessed May 2025.

6 Department of Toxic Substances Control, EnviroStor Database. https://www.envirostor.dtsc.ca.gov/public/map/. Accessed May 2025.

7 Fresno County Airport Land Use Compatibility Plan, December 2018, Part Two. Exhibit D1, Fresno-Yosemite INTL. Airport Influence Area and Safety Zones. https://fresnocog.wpenginepowered.com/wp-content/uploads/2019/01/fresno-final-alucp-113018-r_part2.pdf. Accessed May 2023.

- New structures require additional airspace analysis required within the 50-foot terrain penetration buffer.

As the Project will be in compliance with the required Safety Criteria Matrix of the Fresno-Yosemite International Airport, any impacts would be *less than significant*.

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

Less Than Significant. The City's design and environmental review procedures shall ensure compliance with emergency response and evacuation plans. Additionally, the site plan will be reviewed by the Fire Department per standard City procedure to ensure consistency with emergency response and evacuation needs. Fresno's Emergency Operations Plan is located within the City's General Plan Emergency Response Section. The proposed Project complies with the following policies included in the Emergency Response section of the City of Fresno's General Plan:

> Policy NS-6-b – Disaster Response Coordination. Maintain coordination with other local, State and Federal agencies to provide coordinated disaster response.
>
> Policy NS-6-f. Emergency Vehicle Access. Require adequate access for emergency vehicles in all new developments, including adequate widths, turning radii, hard standing areas, and vertical clearance.

Therefore, the proposed Project would have a *less than significant impact* on emergency evacuation.

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

Less Than Significant Impact. The Project site is located in an area mapped as Local Responsibility Area and is not located within a Very High Fire Hazard Severity Zone,[8] indicating that the area is urbanized and not susceptible to wildland fires. Therefore, the proposed Project would not expose people or structures to a significant loss, injury or death involving wildland fires and the impact would be *less than significant.*

Mitigation Measures

8 California Department of Forestry and Fire Protection. Fire Hazard Severity Zone Viewer. https://experience.arcgis.com/experience/03beab8511814e79a0e4eabf0d3e7247/#data_s=id%3AdataSource_1-18ea091fea0-layer-6%3A10. Accessed May 2025.

None are required.

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

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or			X	
iv) impede or redirect flood flows?			X	
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?			X	
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?			X	

DISCUSSION

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, whichare discussed below.

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.

The proposed Project site is 3.96 acres in size. In compliance with the General Plan, any development project disturbing one or more acres of soil must obtain coverage under the General Permit for Discharges of Storm Water Associated with Construction Activity (Construction General Permit Order 2009-0009-DWQ). Construction activities subject to the Construction General Permit include clearing, grading and other ground-disturbing activities such as stockpiling or excavation. The Construction General Permit requires development and implementation of a Storm Water Pollution Prevention Plan (SWPPP).

A SWPPP includes features designed to eliminate contact of rainfall and stormwater runoff with sources of pollution that occur on construction sites, the main source being soil erosion resulting from unstabilized soils coming in contact with water and wind. These features are known as Best Management Practices (BMPs). Common BMPs to limit pollution in stormwater runoff from construction sites include maintaining or creating drainages to convey and direct surface runoff away from bare areas and installing physical barriers such as berms, silt fencing, waddles, straw bales, and gabions. Regulatory compliance with eh National Pollutant Discharge Elimination System (NPDES) Construction General Permit will ensure the Project's construction activities will not significantly impact water quality. This permit requires the Project to prepare and implement a SWPPP and BMPs to effectively minimize potential water quality impacts.

Long-term operation impacts associated with the proposed Project would be reduced to less than significant levels with implementation of the City's Storm Drainage and Flood Control Master Plan, which manages the City's stormwater drainage systems, and the City's participation in the Phase 1 NPDES Permit for Stormwater Discharges from Municipal Separate Storm Sewer Systems (Phase 1 MS4), which requires the City to implement water quality and watershed protection measures for all development projects. Therefore, impacts associated with the proposed Project would be less than significant.

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

Less Than Significant Impact The proposed Project includes a 44-lot single-family detached rental unit development. Each home will be equipped with typical restroom facilities. The proposed Project consists of 44 dwelling units, and the average

household size in Fresno is 3.09, therefore the Project will house approximately 135 people. Per the City's 2020 Urban Water Management Plan, the City's water use averaged 198 gallons per person per day.[10] Therefore, the proposed Project would result in estimated water demand of 26,730 gallons per day (135 people x 198 gallons/day = 26,730 gallons/day).

Water service would be provided to the Project by the City of Fresno. Based on the assumptions in the City's Urban Water Management Plan (UWMP),[11] the Project would not negatively impact water supplies or otherwise deplete groundwater supplies. Moreover, the proposed Project is not anticipated to interfere with groundwater recharge efforts being implemented by the City. The City's UWMP contains a detailed evaluation of existing sources of water supply, anticipated future water demand, extensive conservation measures, and the development of new water supplies (recycled water, increased recharge, surface water treatment, etc.). Measures contained in the UWMP as well as the City's General Plan are intended to reduce demands on groundwater resources by augmenting supply and introducing conservation measures and other mitigation strategies. Additionally, stormwater flows would be directed through the curb and gutter system in the roadway, which would be directed to a FMFCD retention basin and would enhance groundwater recharge in the area. As such, the Project would result in a *less than significant e* to sustainable groundwater management.

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

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

Less Than Significant Impact. The Project site is comprised of vacant disturbed land and is surrounded by urban development. The Project includes changes to the existing stormwater drainage pattern of the area through site construction activities, the installation of a 44-lot single-family residential development.

The Project requires a Soils Report (i.e., Geotechnical Investigation) prior to granting of a grading permit. Because the Project would disturb more than one acre of land, a National Pollution Discharge Elimination System (NPDES) permit

[9] U.S. Census Bureau. QuickFacts. Fresno City. 2017-2017. https://www.census.gov/quickfacts/fact/table/fresnocitycalifornia,fresnocountycalifornia/PST045222. Accessed November 2024.

10 City of Fresno. 2020 Urban Water Management Plan. July 2021. Page ES-4. chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/https://www.fresno.gov/wp-content/uploads/2023/03/Fresno-2020-UWMP_Final_2021-07-21-1.pdf. Accessed May 2025.

[11] Ibid.

and preparation of a Stormwater Pollution Prevention Plan (SWPPP) would also be required prior to granting a grading permit. Preparation of the Soils Report as well as implementation of standard best management practices (e.g., silt fences, fiber rolls, rumble grate, etc.) which would be identified in the SWPPP would be effective in avoiding erosion and siltation impacts on or off-site to less than significant levels. Therefore, impacts with regard to substantial erosion or siltation on or off-site would be *less than significant.*

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

Less Than Significant Impact. A majority of the Project site is within Zone X, or area having 0.2% Annual Chance of Flood Hazard, areas of 1% Annual Chance Flood with average depth of less than one foot or with drainage areas of less than one square mile and is not considered a flood prone area, as identified by the Federal Emergency Management Agency, Flood Map 06019C2130H, effective 2/18/2009.[12] Project site development would result in the addition of impervious surfaces in the form of 44 residential buildings, internal driveways and a roadway. This would result in an increase in storm water runoff as well as the potential for contaminated runoff to enter FMFCD drainage basins. The Project site is surrounded by existing storm drainage infrastructure which was sized to accommodate future development/buildout of the General Plan. The proposed Project site is designated for urban development. Accordingly, infrastructure has designed to accomodate this level of development. Therefore, the Project would result in a *less than significant* impact regarding on- or off-site flooding.

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

Less Than Significant Impact. Site runoff from precipitation currently either percolates into the ground where there are no impervious surfaces or drains into the City's stormwater system and eventually into drainage basins that serve the area. Site re-development will result in the addition of impervious surfaces in the form of additional foundations, buildings, streets, and other paved surfaces. This would result in an increase in storm water runoff from the site and would increase the potential for contaminated runoff to enter FMFCD drainage basins or for

12 U.S. Department of Homeland Security. FEMA National Flood Hazard Layer Viewer. https://hazards-fema.maps.arcgis.com/apps/webappviewer/index.html?id=8b0adb51996444d4879338b5529aa9cd. Accessed May 2025.

drainage basins to overflow and cause flooding. However, the proposed Project would be designed to FMFCD and City of Fresno standards to prevent drainage overflow and flooding and the potential for contaminated runoff. The Project site has been desinated for residential urban use by the City of Fresno General Plan. As with all developments, existing policies and standards apply, which are assessed during review of entitlement applications by the City and FMFCD to ensure that none of the water quality standards would be violated and that waste discharge requirements would be adhered to during construction and operation of the Project.

The proposed Project would connect to the City of Fresno's existing storm-drain system and pay drainage fees pursuant to the Drainage Fee Ordinance. Impacts resulting from polluted runoff would be *less than significant*.

iv. Impede or redirect flood flows?

Less Than Significant Impact. As discussed above, a majority of the Project site is within Zone X, or area having 0.2% Annual Chance of Flood Hazard, areas of 1% Annual Chance Flood with average depth of less than one foot or with drainage areas of less than one square mile. As discussed in Impacts ii, the Project site would connect to stormwater infrastructure that has been sized to accommodate urban development. The Project would not impede or redirect flood flows as it has been designed with on-site storm drainage infrastructure that would connect with the City's system. The impact would be *less than significant*.

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

Less Than Significant Impact. A majority of the Project site is within Zone X, or area having 0.2% Annual Chance of Flood Hazard, areas of 1% Annual Chance Flood with average depth of less than one foot or with drainage areas of less than one square mile, as identified by the Federal Emergency Management Agency, Flood Map 06019C2130H, effective 2/18/2009. There are no bodies of water near the site that would create a potential risk of hazards from seiche, tsunami or mudflow. As mentioned in Impact c) above, all new development within the City of Fresno Planning Area must conform to standards and plans detailed by the FMFCD. By conforming to all standards and policies as outlined, any impacts would be *less than significant.*

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

Less Than Significant Impact. The City of Fresno is part of the North Kings Groundwater Sustainability Agency (GSA) which is one of the seven GSA's within the Kings Groundwater Subbasin. The North Kings GSA submitted the Groundwater Sustainability Plan to the CA Department of Water Resources in January 2020. The City of Fresno relies on natural groundwater recharge, subsurface inflow, and intentional recharge to replenish groundwater. As the City of Fresno would provide water to the proposed Project (upon approval), and the City is subject to the requirements of the GSA, the proposed Project would not conflict with any adopted water quality or sustainable groundwater management plan.

Potential stormwater flows would discharge to on-site stormwater infrastructure and be conveyed to FMFCD retention basins. No stormwater flows would directly discharge to the San Joaquin River thereby avoiding water quality impacts. Any impacts would be *less than significant.*

Mitigation Measures

None required.

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XI. LAND USE AND PLANNING – Would the project:				
a) Physically divide an established community?			X	
b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?				X

DISCUSSION

a) Physically divide an established community?

Less Than Significant Impact. The Project site is currently designated by the City of Fresno General Plan for Residential, Urban Neighborhood Density planned land use. The site is currently vacant and does not include an established community. The proposed Project land use designation allows for densities between 5 to 12 units per acre, intended to provide for single-family detached housing. The proposed Project would include 44 units on approximately 3.68 acres of currently undeveloped land, for a density of approximately 12 dwelling units per acre. Pursuant to Fresno Municipal Code Section 15-303, fractions of one-half (0.5) or greater shall be rounded up to the nearest whole number and fractions of less than one-half (0.5) shall be rounded down to the nearest whole number. Specific to residential density rounding, fractions only apply to minimum density, but not maximum density. In this case, 11.96 dwelling units per acre would be rounded up to 12 dwelling units per acre, which is consistent with the minimum density requirement per the Fresno General Plan. Within the Project vicinity, there are single-family residential developments, undeveloped land, and a church surrounding the proposed Project. The proposed residential use is allowed

within this land use designation, and the Project does not exceed the maximum density, therefore the Project is not dividing an established community. The Project is not being built in a pre-existing community area and would not create any physical barrier between an established community. Any impacts are *less than significant.*

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?

No Impact. The proposed Project is located in an area that is planned for residential and urban development by the City. The site is currently designated as Medium Density Residential by the City of Fresno and has a zone of RA NB – Single Family Residential, Agricultural and AL 20 Limited Agricultural (Fresno County), and as part of the Project, APNs 463-140-01, 463-140-02, 463-140-03, would be prezoned to RS-5 and 463-140-04 would be prezoned to RS-5/ANX, with development proposed on APNs 463-140-01, -02, and -03 (VTTM No. 6432).

The proposed subdivision is a standard infill development being proposed in compliance with the City's planned land use designation within the City limits. Infill development contributes to environmental preservation by reducing agricultural land conversion, reduce costs to build and maintain infrastructure, and improving air quality by overall reducing travel distances and subsequent greenhouse gas emissions.

Further, through the entitlement process, the Project has been reviewed for compliance with applicable regulations inclusive of those adopted for the purpose of avoiding or mitigating environmental effects. Overall, the entitlement process would ensure that the proposed Project complies with the General Plan, FMC, and any other applicable policies and regulations.

In conclusion, the Project will be consistent with the General Plan and not significantly conflict with applicable land use plans, policies, or regulations of the City of Fresno. *Less than significant* impacts will occur.

Mitigation Measures

None are required.

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XII. MINERAL RESOURCES – Would the project:				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?				X
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?				X

DISCUSSION

a) **Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?**

No Impact. Mineral resources are concentrated along the San Joaquin River Corridor. The proposed Project is not located along the San Joaquin River Corridor, there are no known mineral resources in the proposed Project area, and none are identified in the City's General Plan near the Project site. Therefore, there is *no impact.*

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

No Impact. As discussed in Impact a) above, there are no known mineral resources identified in the City's General Plan in the proposed Project area. There is *no impact.*

Mitigation Measures

None are required.

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

DISCUSSION

a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or in other applicable local, state, or

federal standards?

Less Than Significant Impact.

Short-term (Construction) Noise Impacts

Proposed Project construction related activities will involve temporary noise sources. Typical construction related equipment includes 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 16, 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 16: Typical Construction Noise Levels

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

Construction activities would not occur between the hours of 10:00 PM and 7:00 AM, Monday through Saturday, and not at all on Sundays, in accordance with Fresno

Municipal Code Section 10-109, which limits work hours "to between the hours of 7 AM and 10 PM on any day except Sunday."

Long-term (Operational) Noise Impacts

The proposed Project includes future residential uses. The primary source of on-going noise from the Project will be from vehicles traveling to and from the site and from traffic traveling along E. Tulare Avenue and S. Peach Avenue. The immediate vicinity consists of existing and planned residential uses, which produce noise levels that are likely similar to long-term noise levels produced by the proposed Project. Additionally, all surrounding properties are adjacent to collector and arterial streets, which increase the ambient noise of the Project site. The proposed Project is not projected to be a long-term noise source due to the Project being a use consistent with neighboring land uses.

The proposed Project will not introduce a new significant source of noise that isn't already occurring in the area. Therefore, the impact is considered *less than significant.*

b) Generation of excessive groundborne vibration or groundborne noise levels?

Less Than Significant Impact. The dominant sources of man-made vibration are sonic booms, blasting, pile driving, pavement breaking, demolition, diesel locomotives, and rail-car coupling. None of these activities are anticipated to occur with construction or operation of the proposed Project. Detectable vibration generated from Project operations is not anticipated while vibration from construction activities could include various types of construction heavy equipment, as detailed in Table 17.

Table 17: Typical Vibration Levels During Construction[13]

Equipment	Peak Particle Velocity (PPV) (inches/second) at 25 feet	Approximate Vibration Level (LV) at 25 feet
Bulldozer (Large)	0.089	87
Bulldozer (Small)	0.003	58
Loaded Truck	0.0176	86

[13] US Department of Transportation. Federal Transit Administration. Transit Noise and Vibration Impact Assessment. May 2006. chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/FTA_Noise_and_Vibration_Manual.pdf. Accessed November 2024.

Equipment	Peak Particle Velocity (PPV) (inches/second) at 25 feet	Approximate Vibration Level (LV) at 25 feet
Jackhammer	0.035	79
Vibratory Roller	0.210	94
Caisson Drilling	0.089	87

The primary source of vibration during Project construction would likely be from a large bulldozer (tractor), which would generate 0.089 inch per second PPV at 25 feet with an approximate vibration level of 87 VdB; however, the vibration would be intermittent and not a source of continual vibration. There are no aspects of construction or daily operations that would create excessive groundborne vibration or groundborne noise levels. As such, any impacts would be *less than significant.*

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

Less Than Significant Impact. The closest airport or airstrip is the Fresno Yosemite International Airport, located approximately 2 miles northeast of the Project site. The site is within the Fresno County Airport Land Use Compatibility Plan (ALUCP) Zone 6- Traffic Pattern Zone. Zone 6 encompasses the areas falling within the regular aircraft traffic patterns determined in accordance with the 14 CFR Part 77 Conical Surface. Additionally, it's important to note that, as per the Handbook and the California Code of Regulations, residential uses are not considered suitable in areas with noise levels exceeding 65 dB.

The proposed Project is inside the noise level contour identified in the ALUCP (Figure D2, Fresno Council of Governments, 2018) and forecast at 60 dB CNEL. In conclusion, the proposed Project would not expose people residing or working in the Project site to excessive noise levels associated with such airport facilities, and there would be *less than significant impact.*

Mitigation Measures

None are required.

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

DISCUSSION

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

Less Than Significant Impact. As of 2022, the population in Fresno is 545,567 people with an average household size of 3.07.[14] The Project will construct housing with 44 dwelling units, which will house approximately 135 persons. The City's General Plan encourages residential developments to meet the future population growth needs. This Project accommodates this anticipated increase in City's population by providing 44 new residences for existing and future residents.

The Project site has a proposed designation of Medium Density Residential as per the City's General Plan upon annexation and a proposed rezoning of RS-5 (Medium Density Residential). Upon approval, the Project will be consistent with both the

[14] U.S. Census Bureau. QuickFacts. Fresno City. 2017-2017. https://www.census.gov/quickfacts/fact/table/fresnocitycalifornia,fresnocountycalifornia/PST045222. Accessed November 2024.

General Plan and zoning ordinance. Therefore, the Project would not induce substantial population growth in an area, either directly or indirectly. Impacts would be *less than significant*.

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

No Impact. The Project site is undeveloped and surrounded primarily by residential development. As proposed, the Project will not displace existing housing or people either directly or indirectly. There are currently no residential units on-site, thus no people or existing housing will be displaced. There is *no impact*.

Mitigation Measures

None are required.

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XV. PUBLIC SERVICES – Would the project:				

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

DISCUSSION

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

a) Fire protection?

Less Than Significant. The Project includes construction of a 44-lot single-family detached rental unit development, including a private gated entrance, open landscaping, 117 parking spaces and other associated improvements.

The City of Fresno Fire Department (Fire Department) offers a full range of services including fire prevention, suppression, emergency medical care, hazardous materials, urban search and rescue response, as well as emergency preparedness planning and public education coordination within the Fresno City limit, in addition to having mutual aid agreements with the Fresno County Fire Protection District, and the City of Clovis Fire Departments.

The City of Fresno Fire Department operates its facilities under the guidance set by the National Fire Protection Association in NFPA 1710, the Standard for the Organization and Deployment of Fire Suppression Operations, Emergency Medical Operations, and Special Operation to the Public by Career Fire Departments. NFPA 1710 sets standards for turnout time, travel time, and total response time for fire and emergency medical incidents, as well as other standards for operation and fire service. The Fire Department has established the objectives set forth in NFPA 1710 as department objectives to ensure the public health, safety, and welfare.

The proposed Project would be served by the current Fire Station 8, which is located at 1428 S. Cedar Avenue, approximately 2.1 miles southwest of the Project site. After reviewing the Project, the Fire Department has determined that the Project can be adequately serviced by the current local Fire Facilities and Personnel, consistent with National Fire Protection Association 1710 Objectives. Additionally, the Project will also be subject to Fire Facilities Fees. Project implementation will result in *less than significant impacts.*

b) Police protection?

Less Than Significant. The Project includes construction of a 44-lot single-family detached rental unit development, including a private gated entrance, open landscaping, 117 parking spaces and other associated improvements. The surrounding area is currently protected by the existing Southeast Police District, approximately 1.4 miles to the east at 224 S Argyle Avenue. The Fresno Police Department provides a full range of police services including uniformed patrol response to calls for service, crime prevention, tactical crime and enforcement (including gang and violent crime suppression), and traffic enforcement/accident prevention. The proposed Project would also be protected by the Southeast

Police District and would be subject to pay development impact fees to offset any potential impacts to police protection. Additionally, the Fresno Police Department reviewed the Project and had no comments. Any impacts are considered *less than significant.*

c) Schools?

Less Than Significant. According to the Fresno Unified School District School Boundary Maps, the schools that will serve the proposed Project are Easterby Elementary School, approximately 0.2 miles northeast of the Project, Kings Canyon Middle School approximately 0.2 miles northwest of the Project, and Sunnyside High School approximately 0.5 miles southeast of the Project.

The proposed residential uses result in the generation of students, which would impact the District's student classroom capacity. Any future development occurring as a result of the proposed Project may have an effect on the Clovis Unified School District's student housing capacity. The District, through local funding, is in a position to mitigate its shortage of classrooms to accommodate planned population growth for the foreseeable future. However, the District recognizes that the legislature, as a matter of law, has deemed under Government Code Section 65996 that all school facilities impacts are mitigated as a consequence of SB 50 Level 1, 2, and 3 developer fee legislative provisions. The developer will pay appropriate impact fees at time of building permits. The proposed Project does not result in the construction of new school facilities. Impacts would be *less than significant*.

d) Parks?

Less Than Significant. The Project includes construction of a 44-lot single-family detached rental unit development, including a private gated entrance, open landscaping, 117 parking spaces and other associated improvements. The nearest park is Trolley Creek Park, approximately 0.2 miles southwest of the Project. The City of Fresno maintains a park goal to provide five acres of city park space per 1,000 residents. To meet this park goal, pursuant to FMC Section 12-4.705 a.i – for residential subdivisions with tentative maps containing fifty parcels or less, such as the proposed Project, the subdivider shall pay in-lieu fees only in order to finance park facilities and to pay for the development's fair share of the construction and acquisition costs of these improvements.

The Project review and approval process will ensure that all park related fees are paid by the applicant. These requirements will ensure that the proposed Project does not significantly affect park and recreation facilities. Impacts would be *less*

than significant.

e) Other public facilities?

Less Than Significant. The Department of Public Utilities (DPU) has determined that adequate sanitary sewer and water services are available to serve the Project site subject to compliance with the conditions submitted by the DPU for this Project and implementation of the Fresno General Plan policies and, the construction and installation of public facilities and infrastructure in accordance with Department of Public Works standards, specifications and policies.

For sanitary sewer service, these infrastructure improvements and facilities include typical requirements for the construction and extension of sanitary sewer mains and branches. The proposed Project will also be required to provide payment of sewer connection charges.

No significant adverse impacts are expected to occur as a result of the construction of any such facilities or improvements associated with the proposed Project. Impacts would be *less than significant.*

Mitigation Measures

None are required.

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XVI. RECREATION–- Would the project:				
a) Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?			X	

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?			X	

DISCUSSION

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

Less Than Significant. The Project does not include common activity areas; thus, the proposed Project may result in the physical deterioration of existing parks or recreational facilities.

Trolley Creek Park lies approximately 0.2 miles to the southwest of the Project and Willow Park Tennis Courts are 0.4 miles to the northwest of the Project. There are also four schools with sports fields and other outdoor areas located within a half-mile of the Project; two to the north and two to the south.

As noted in Impact XV(c), the Project would be required to pay in-lieu fees pursuant to FMC Section 12-4.705(a)(i) in order to finance park facilities and to pay for the development's fair share of the construction and acquisition costs of these improvements. Park and recreation fees, per the Quimby Act, are collected for new residential developments. The Project review and approval process will ensure that all park related fees are paid by the applicant. These requirements will ensure that the proposed Project does not significantly affect park and recreation facilities. Impacts would be *less than significant.*

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

Less Than Significant. As discussed above, the Project includes construction of a 44-lot single-family detached rental unit development, including a private gated entrance, open landscaping, 117 parking spaces and other associated improvements; however, no parks are included in Project development. Therefore, through the standard City building process for the future park and payment of the required development fees, the Project will not significantly affect park and recreation facilities. The Project would not result in any new recreational facilities that might have an adverse physical effect on environmental impacts and are considered to be *less than significant.*

Mitigation Measures

None are required.

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XVII. TRANSPORTATION – Would the project:				
a) Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?			X	
b) Conflict or be inconsistent with CEQA Guidelines § 15064.3, subdivision (b)?			X	
c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?			X	

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
d) Result in inadequate emergency access?			X	

DISCUSSION

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

Less Than Significant. Within proximity to the Project, there are several transportation facilities, including transit, roadway, bicycle, and pedestrian facilities.

Transit Services

Fresno Area Express (FAX) is the transit operator in the City of Fresno. The closest bus stop is for FAX Routes 22 and 26, less than one-quarter mile north of the proposed Project site at Peach and Kings Canyon Road. Route 22 operates at 30-minute intervals on weekdays and weekends, and Route 26 operates at 30-minute intervals on weekdays and 60-minute intervals on the weekends. The Project is not expected to disrupt or impede existing transit facilities because few people will use the transit system. The construction of 44 units with an additional 135 people is not anticipated to create delays in bus service in the area.

Bicycle and Pedestrian Facilities

The 2017 City of Fresno Active Transportation Plan (ATP) refers to the Caltrans Highway Design Manual for classification of bicycle facilities as follows:

• Class I Bikeway (Bike Path): Off-street facilities that provide exclusive use for nonmotorized travel, including bicyclists and pedestrians.

• Class II Bikeway (Bike Lane): On-street facilities that use striping, stencils, and signage to denote preferential or exclusive use by bicyclists.

• Class III Bikeway (Bike Route): On-street pavement markings or signage that connect the bicycle roadway network along corridors that do not provide enough space for dedicated lanes on low-speed and low-volume streets.

• Class IV Bikeway (Separated Bikeways): Physically separated bicycle facilities that are distinct from the sidewalk and designed for exclusive use by bicyclists. Commonly known as “cycle tracks,” they are located within the street right-of-way but provide

similar comfort when compared to Class I Bikeways.

The Project is not expected to disrupt or impede existing or planned bicycle facilities.

The proposed Project will not require any changes to existing transportation systems and will have no impact on any plans, ordinances, or policies related to the effectiveness or performance of transit, pedestrian and bicycle facilities. The Project will comply with all applicable City development standards. Any impacts would be *less than significant.*

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

Less Than Significant Impact. Senate Bill (SB) 743 requires that relevant CEQA analysis of transportation impacts be conducted using a metric known as vehicle miles traveled (VMT) instead of Level of Service (LOS). VMT measures how much actual auto travel (additional miles driven) a proposed project would create on California roads. If the Project adds excessive car travel onto our roads, the Project may cause a significant transportation impact.

The State CEQA Guidelines were amended to implement SB 743, by adding Section 15064.3. Among its provisions, Section 15064.3 confirms that, except with respect to transportation projects, a project's effect on automobile delay shall not constitute a significant environmental impact. Therefore, LOS measures of impacts on traffic facilities is no longer a relevant CEQA criteria for transportation impacts.

CEQA Guidelines Section 15064.3(b)(4) states that "[a] lead agency has discretion to evaluate a project's vehicle miles traveled, including whether to express the change in absolute terms, per capita, per household or in any other measure. A lead agency may use models to estimate a project's vehicle miles traveled, and may revise those estimates to reflect professional judgment based on substantial evidence. Any assumptions used to estimate vehicle miles traveled and any revision to model outputs should be documented and explained in the environmental document prepared for the project. The standard of adequacy in Section 15151 shall apply to the analysis described in this section."

On June 25, 2020, the City of Fresno adopted CEQA Guidelines for Vehicle Miles Traveled Thresholds, dated June 25, 2020, pursuant to Senate Bill 743 to be effective of July 1, 2020. The thresholds described therein are referred to herein as the City of Fresno VMT Thresholds. The City of Fresno VMT Thresholds document was prepared and adopted consistent with the requirements of CEQA Guidelines Sections 15064.3

and 15064.7. The December 2018 Technical Advisory on Evaluating Transportation Impacts in CEQA (Technical Advisory) published by the Governor's Office of Planning and Research (OPR), was utilized as a reference and guidance document in the preparation of the Fresno VMT Thresholds.

The City of Fresno VMT Thresholds adopted a screening standard and criteria that can be used to screen out qualified projects that meet the adopted criteria from needing to prepare a detailed VMT analysis.

The City of Fresno VMT Thresholds Section 3.0 regarding Project Screening discusses a variety of projects that may be screened out of a VMT analysis including specific development and transportation projects. For development projects, conditions may exist that would presume that a development project has a less than significant impact. These may be size, location, proximity to transit, or trip-making potential. For transportation projects, the primary attribute to consider with transportation projects is the potential to increase vehicle travel, sometimes referred to as "induced travel."

One of the eligible screening criteria is whether a residential project is located within an area with low VMT, as designated in the screening map for residential uses (Figure 6) in the City of Fresno's CEQA Guidelines for VMT Thresholds Technical Advisory. These low VMT areas were calculated using Fresno County as the region. The Fresno County average VMT per capita is 16.10. Figure 6 indicates that the Project area maintains less than 14.0 VMT per capita, which is less than the County average of 16.10.

Additionally, in evaluating traffic generation for the Project, using the 10th Edition of the ITE Trip Generation Manual, the proposed Project in this area will generate 10.0 trips per unit, with 0.96 peak morning trips per unit and 0.99 peak afternoon trips. This indicates the Project will generate 450 total trips per day, 43 peak morning trips and 45 peak afternoon trips. These levels are below the 500 Average Dailly Trip thresholds within the City's Guidelines for VMT analysis or for requiring the preparation of a traffic impact study. This results in 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. The Project will be designed to current standards and safety regulations. All intersections will be constructed to comply with the City and Caltrans regulations, and design and safety standards of Chapter 33 of the California Building Codes (CBC) and the guidelines of Title 24 in order to create safe

and accessible roadways.

Vehicles exiting the subdivision will be provided with a clear view of the roadway without obstructions. Landscaping associated with the entry driveways could impede such views, if improperly installed. Specific circulation patterns and roadway designs will incorporate all applicable safety measures to ensure that hazardous design features or inadequate emergency access to the site or other areas surrounding the Project area would not occur. Therefore, with the incorporated design features and all applicable rules and regulations, the Project will have a *less-than-significant impact.*

d) Result in inadequate emergency access?

Less Than Significant Impact. State and City Fire Codes establishes standards by which emergency access may be determined. The proposed Project would have to provide adequate unobstructed space for fire trucks to turn around. The Fresno City Fire Department reviered the proposed Project plans and determined access is acceptable as proposed. The proposed Project site would have adequate internal circulation capacity including entrance and exit routes to provide adequate unobstructed space for fire trucks and other emergency vehicles to gain access and to turn around. The proposed Project would not inhibit the ability of local roadways to continue to accommodate emergency response and evacuation activities. Impacts would be *less than significant*.

Mitigation Measures:

None are required.

ENVIRONMENTAL ISSUES	**Potentially Significant Impact**	**Less Than Significant with Mitigation Incorporated**	**Less Than Significant Impact**	**No Impact**
XVIII. TRIBAL CULTURAL RESOURCES – Would the project:				

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Cause a substantial adverse change in the significance of a tribal cultural resource, defined in PRC section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:				
i) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in PRC section 5020.1(k), or,		X		
ii) A resource determined by the lead agency, in its discretion and supported by substantial evi-dence, to be significant pursuant to criteria set forth in subdivisionI) of PRC section 5024.1. In applying the criteria set forth in subdivisI (c) of PRC section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.			X	

DISCUSSION

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**

Less Than Significant Impact with Mitigation. 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 Fresno, acting as the Lead Agency, supported by substantial evidence, chooses at its discretion to treat the resource as a TCR.

The proposed Project site is currently undeveloped and surrounded by residential land uses. A prehistoric and historic site records and literature search was conducted for the Project area through the Southern San Joaquin Valley Information Center of the California Historical Resources Information System on January 30, 2023 (File RS#23-023). Records indicated that there have been no previous cultural resources studies conducted within the Project area. There has been one previous cultural resource study completed that intersects with the eastern boarder of the Project area, FR-01800. It should be noted this report was completed approximately 21 years ago and should be considered out of date for current studies. Additionally, there have been seven cultural resource studies conducted within the one-half mile radius: FR00257, 00296, 020 (See Appendix C). A review of the Sacred Lands Inventory by the Native American Heritage Commission (NAHC) was also performed and the results were negative.

There are no previously recorded cultural resources within the Project area. Furthermore, it is not known if any currently exist there. There have been 11 recorded resources within the one-half mile radius: P-10- 004312, 004762, 004763, 004764, 004765, 004766, 004767, 004769, 004770, 004772, & 005121. These resources consist of historic era single family properties.

Pursuant to Assembly Bill 52 (AB 52), the Table Mountain Rancheria Tribe and the Dumna Wo Wah were invited to consult under AB 52. The City of Fresno

mailed notices of the proposed Project to each of these tribes on February 7, 2025, which included the required 30-day time period for tribes to request consultation. Following the close of the 30-day comment period, City staff confirmed that no comments were received.

It has been determined that there are no known Tribal Cultural Resources on the proposed Project site. Because the Tribes did not request consultation, because of compliance with California Health and Safety Code Section 7050.5 as discussed in Section V, and because of the implementation of CUL-1 which will protect any unknown resources, any impacts to TCR's are *less than significant with mitigation incorporated.*

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 subdilion (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in sulvision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

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

Conducting consultation early in the CEQA process allows tribal governments, lead agencies, and project proponents to discuss the level of environmental

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

Pursuant to AB 32, Native American tribes traditionally and culturally affiliated with the Project area were invited to consult regarding the project based on a list of contacts provided by the Native American Heritage Commission (NAHC). The City of Fresno mailed notices of the proposed project to each of these tribes on February 7, 2025, which included the required 30-day time period for tribes to request consultation, which ended on March 9, 2025. All tribes which were contacted declined consultation.

Additionally, and as described in Impact XVIII (a)(i), above, the proposed Project site is currently undeveloped and surrounded by residential land uses. A CHRIS search was conducted and it was determined that there are no known cultural resources on the site.

As such, it is determined that the residence on-site does not have any elements that would make it eligible for nomination to the California Register of Historic Places or in a local register of historical resources. Therefore, there is a *less than significant impact*.

Mitigation Measures

The proposed Project shall implement and incorporate the tribal cultural resource related mitigation measures as identified in the attached Project Specific Mitigation Monitoring Checklist dated August 7, 2025.

CUL-1: If previously unknown resources are encountered before or during grading activities, construction shall stop in the immediate vicinity of the find and a qualified historical resources specialist shall be consulted to determine whether the resource requires further study. The qualified historical resources specialist shall make recommendations to the City on the measures that shall be implemented to protect the discovered resources, including but not limited to excavation of the finds and evaluation of the finds in accordance with Section 15064.5 of the CEQA Guidelines and the City's Historic Preservation Ordinance.

If the resources are determined to be unique historical resources as defined under Section 15064.5 of the CEQA Guidelines, measures shall be identified by the monitor and recommended to the Lead Agency. Appropriate measures for significant resources could include avoidance or capping, incorporation of the site in green space, parks, or open space, or data recovery excavations of the finds.

No further grading shall occur in the area of the discovery until the Lead Agency approves the measures to protect these. Any historical artifacts recovered as a result of mitigation shall be provided to a City-approved institution or person who is capable of providing long-term preservation to allow future scientific study.

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XIX. UTILITIES AND SERVICE SYSTEMS – Would the project:				
a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effect?			X	
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?			X	

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
c) Result in a determination by the waste water treatment provider, which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?			X	
d) Generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?			X	
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?				X

DISCUSSION

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

Less Than Significant Impact. The proposed Project will require construction of new infrastructure to connect to the existing utility infrastructure. This will include water, wastewater, and storm water drainage connections. Additionally, the Project will include connections for electric power, natural gas, and telecommunications facilities. The installation of this infrastructure will not require any major upsizing or other offsite construction activities that would cause a significant impact. The new

infrastructure would be connected to the existing infrastructure that is adjacent to the Project site.

Impacts to storm drainage facilities have been previously discussed under the Hydrology and Water Quality section included within this analysis herein above. As described in Section VII, Geology and Soils, and in compliance with NPDES General Construction Permit requirements, the proposed Project would design and submit a site-specific SWPPP to minimize the discharge of wastewater during construction and a Water Quality Management Plan that includes best management practices (BMPs) for runoff control as required. Therefore, the proposed Project would not require new stormwater drainage facilities to manage stormwater runoff during construction or operation.

The proposed Project would be subject to the payment of any applicable connection charges and/or fees and extension of services in a manner that is compliant with the Department of Public Utilities standards, specifications, and policies.

Sanitary sewer and water service under City of Fresno jurisdiction delivery is also subject to payment of applicable connection charges and/or fees. Compliance with the Department of Public Utilities standards, specifications, and policies; the rules and regulations of the California Public Utilities Commission and California Health Services; and, implementation of the City-wide program for the completion of incremental expansions to facilities for planned water supply, treatment, and storage ensures that impacts would be *less than significant.*

b. Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?

Less Than Significant Impact. As discussed under the Section VII Hydrology and Water Quality section of this Initial Study, the Fresno General Plan recognizes regional water resource planning efforts, such as, the Kings Basin's Integrated Regional Water Management Plan, the Fresno-Area Regional Groundwater Management Plan, and City of Fresno Metropolitan Water Resource Management Plan and cites the findings of the City of Fresno 2020 UWMP. The purpose of these management plans is to provide safe, adequate, and dependable water supplies in order to adequately meet existing and future needs of the Kings Basin regions and the Fresno-Clovis metropolitan area in an economical manner; protect groundwater quality from further degradation and overdraft; and provide a plan of reasonably implementable measures and facilities. Through routing to the applicable departments and agencies, the City has determined that adequate water supply exists to serve the proposed Project. Additionally, the applicant will be required to

comply with all requirements of the City of Fresno Department of Public Utilities to reduce the Project's water impacts to *less than significant*.

c. Result in a determination by the wastewater treatment provider, which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?

Less Than Significant Impact. See Impact (b) above. The City of Fresno acts as the Regional Sewer Agency and is responsible for operating the Fresno/Clovis Regional Wastewater Reclamation Facility (RWRF) and the North Fresno Wastewater Treatment Facility (NFWTF). The Regional Facility provides wastewater treatment for a service area that includes most of the Cities of Fresno and Clovis, and some unincorporated areas of Fresno County. The City is currently evaluating upgrades and modifications to the existing Regional Facility that may result in a capacity rating increase of 15.0 MGD. The City of Clovis owns 9.3 MGD of wastewater treatment capacity at the Regional Facility, and the City of Fresno owns the remaining capacity.

The NFWTF was constructed in late 2006 to provide wastewater treatment service for residential and commercial development in the surrounding area of north Fresno. The permitted capacity of the NFWTF is 0.71 MGD, as an average monthly flow, and 1.07 MGD, as a maximum daily flow. The City's master plan for the NFWTF calls for ultimate expansion to an average monthly flow capacity of 1.07 MGD upon full development of the NFWRF service area.

The City of Fresno Department of Public Utilities has reviewed the Project and determined that sanitary sewer facilities are available to provide service to the site, subject to the required conditions of approval. The City will provide sewer connection. The conditions of approval include payment of the applicable sanitary sewer fees, which would eventually be used to provide funding for the improvements at the RWRF and NFWTF in order to expand. The proposed Project will not result in a determination by the wastewater treatment provider that it has inadequate capacity to serve the Project's projected demand in addition to the provider's existing commitments. Impacts would be *less than significant.*

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

Less Than Significant Impact. The City of Fresno Department of Public Utilities,

Solid Waste Division has reviewed the Project for compliance with any federal, State, and local management and reduction statutes and regulations related to solid waste. Solid waste disposed of in the City of Fresno is taken to Cedar Avenue Recycling and Transfer Station. Once the trash has been off-loaded at the transfer station, it is sorted, and non-recyclable solid waste is loaded onto large trucks and taken to the American Avenue Landfill located approximately six miles southwest of Kerman. American Avenue Landfill is owned and operated by Fresno County and began operations in 1992 for both public and commercial solid waste haulers. The American Avenue Landfill is a sanitary landfill, meaning that it is a disposal site for a nonhazardous solid waste spread in layers, compacted to the smallest practical volume, and covered by material applied at the end of each operating day.

The American Avenue Landfill (i.e., American Avenue Disposal Site 10-AA-0009) has a maximum permitted capacity of 32,700,000 cubic yards and a remaining capacity of 29,358,535 cubic yards, with an estimated closure date of August 31, 2031. The maximum permitted throughput is 2,200 tons per day.

In the operational phase, typical household refuse would be generated by residences. According to CalRecycle, residential units average 12.23 lbs.[15] of household refuse per day. The proposed 30 units would generate approximately 538.12 lbs. per day, or approximately 98 tons per year. Given the available capacity at the American Avenue Landfill, the additional solid waste generated by the proposed Project is not anticipated to cause the facility to exceed its daily permitted capacity. Furthermore, the site is designated by the General Plan for residential uses and as such, site development has been accounted for in the City's infrastructure planning documents, including waste management. Additionally, the Project would be required to comply provisions of AB 939, which calls for a 50% reduction in the waste sent to landfill.

The Project will comply with any statutes and regulations related to solid waste and as such, the proposed Project would not result in any waste related environmental impacts, and impacts would be *less than significant*.

e. Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?

No Impact. The proposed Project will comply with all applicable federal, state, and

[15] CalRecycle. Estimated Solid Waste Generation Rates. https://www2.calrecycle.ca.gov/wastecharacterization/general/rates. Accessed November 2024.

local regulations pertaining to the disposal of solid waste, including recycling. Therefore, the proposed Project would have no impact on solid waste regulations. Furthermore, Project construction and operational activities that generate solid waste would be handled, transported, and disposed of in accordance with AB 939 and CALGreen regulations related to solid waste.

In compliance with CALGreen Section 4.408, the Project will undertake construction waste management practices, which include recycling and salvaging a minimum of 65 percent of nonhazardous construction and demolition waste. Exceptions are made for excavated soil and landclearing debris. The enforcing agency may identify alternate waste reduction requirements in cases where diversion facilities necessary for compliance are not reasonably available near the job site. To adhere to these requirements, the Project will submit a construction waste management plan signed by the owner, which will identify the materials to be diverted from disposal through recycling, reuse, or salvage, and specify whether materials will be source-separated or bulk mixed. Documentation will be maintained to demonstrate compliance with these regulations. Therefore, the proposed Project would have *no impact* on solid waste regulations.

Mitigation Measures

None are required.

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

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?			X	
c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?				X
d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?			X	

Setting

There are no State Responsibility Areas (SRAs) within the vicinity of the Project site. The Project site is not categorized as a "Very High" Fire Hazard Severity Zone (FHSZ) by CalFire. Although this CEQA topic only applies to areas within an SRA or Very High FHSZ, out of an abundance of caution, these checklist questions are analyzed below.

DISCUSSION

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

No Impact. The City of Fresno does have an adopted Emergency Operations Plan (EOP); however the EOP does not designate evacuation routes, which may not be necessary since Fresno does not face any expected natural hazards from likely sources or locations.[16] The Project site will connect to an existing network of City streets. The Project site is located in an area with several alternative access roads allowing access in the event of an emergency. Access to the alternative access roads would be maintained throughout construction, and appropriate detours would be provided in the event of potential road closures. The City of Fresno Fire Department oversees emergency response and preparedness.

Therefore, no significant impacts related to the impairment of the implementation of or physical interference with an adopted emergency response plan or emergency evacuation plan would occur. The Project would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan. There is *no impact.*

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?

Less Than Significant Impact. The risk of wildfire is related to a variety of parameters, including fuel loading (vegetation), fire weather (winds, temperatures, humidity levels and fuel moisture contents) and topography (degree of slope). Steep slopes contribute to fire hazard by intensifying the effects of wind and making fire suppression difficult. Fuels such as grass are highly flammable because they have a high surface area to mass ratio and require less heat to reach the ignition point. The Project site is located in an area that is predominately urban, which is not considered at a significant risk of wildlife. There are minimal amounts of highly flammable fuels such as dry grasses in the area. Therefore, in the unlikely event of a wildfire, the Project would not expose Project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire. Impacts will be *less than significant.*

c) 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?

---

e Fresno General Plan. Chapter 9: Noise and Safety. Page 9-40. https://www.fresno.gov/wp-content/uploads/2023/03/upload_temp_Consolidated-GP-10-13-2022_compressed.pdf. Accessed May 2024.

No Impact. The Project includes development of infrastructure (water, sewer, and storm drainage) required to support the proposed residential uses. The Project site is surrounded by existing and future urban development. The infrastructure required by the Project is not expected to exacerbate fire risk. The Project would not require the installation or maintenance of infrastructure that may exacerbate fire risk. However, the development will meet local and State development codes and regulations related to fire protection and prevention. There is *no impact.*

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?

Less Than Significant Impact. The proposed Project would require the installation of storm drainage infrastructure to ensure that storm waters properly drain from the Project site and do not result in downstream flooding or major drainage changes. A storm drainage plan would be designed and engineered to ensure the proper construction of storm drainage infrastructure to control runoff and prevent flooding, erosion, and sedimentation.

Upon development of the site, stormwater would flow to the existing storm drains in the adjacent roadways. Any further storm drain requirements will be processed by the Fresno Metropolitan Flood Control District and constructed per the District's standards. Additionally, the majority of the Project site is within Zone X, or area having 0.2% Annual Chance of Flood Hazard, areas of 1% Annual Chance Flood with average depth of less than one foot or with drainage areas of less than one square mile. Further, because the site is essentially flat and located in an existing urbanized area of the City, downstream landslides would not occur.

Landslides include rockfalls, deep slope failure, and shallow slope failure. Factors such as the geological conditions, drainage, slope, vegetation, and others directly affect the potential for landslides. One of the most common causes of landslides is construction activity that is associated with road building (i.e., cut and fill). The Project site is relatively flat; therefore, the potential for a landslide in the Project site is essentially non-existent. Impacts would be *less than significant.*

Mitigation Measures

None are required.

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XIX. MANDATORY FINDINGS OF SIGNIFICANCE				
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?			X	
b) Does the project have impacts that are individually limited, but cumulatively co“siderable? ("Cumulatively”considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?			X	

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?		X		

DISCUSSION

a) Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of an endangered, rare, or threatened species, or eliminate important examples of the major periods of California history or prehistory?

Less than Significant Impact. The proposed Project site is currently undeveloped and surrounded by residential land uses. The Project includes the development of 44 residential units As evaluated in this IS/MND, the proposed Project would not substantially degrade the quality of the environment; substantially reduce the habitat of a fish or wildlife species; cause a fish or wildlife population to drop below self-sustaining levels; threaten to eliminate a plant or animal community; reduce the number or restrict the range of an endangered, rare, or threatened species; or eliminate important examples of the major periods of California history or prehistory. Mitigation measures have been included to lessen the significance of potential impacts. Similar mitigation measures would be expected of other projects in the surrounding area, most of which share a similar cultural paleontological and biological resources. Consequently, the incremental effects of the proposed Project, after mitigation, would not contribute to an adverse cumulative impact on these resources. Therefore, the Project would have a *less than significant impact.*

b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the

effects of past projects, the effects of other current projects, and the effects of probable future projects.)

Less than Significant Impact. CEQA Guidelines Section 15064(i) states that a Lead Agency shall consider whether the cumulative impact of a project is significant and whether the effects of the project are cumulatively considerable. The assessment of the significance of the cumulative effects of a project must, therefore, be conducted in connection with the effects of past projects, other current projects, and probable future projects. Due to the nature of the Project and consistency with environmental policies, incremental contributions to impacts are considered less than cumulatively considerable. All Project- related impacts were determined to be either less than significant, or less than significant after mitigation. 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.). Due to buildout of the area and existing land constraints, it is not anticipated that further unplanned substantial residential development will occur in the area in the foreseeable future. As such, Project impacts are not considered to be cumulatively considerable given the lack of proposed new development in the area and the insignificance of Project-induced impacts. The impact is therefore *less than significant.*

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

Less than Significant Impact. The analyses of environmental issues contained in this Initial Study indicate that the Project is not expected to have substantial impact on human beings, either directly or indirectly. Project-specific mitigation measures have been incorporated as described in each specific impact area which will reduce all potentially significant impacts to *less than significant.*

References

California Air Resources Board (CARB). 1998. The Toxic Air Contaminant Identification Process: Toxic Air Contaminant Emissions from Diesel-fueled Engines. Website: www.arb.ca.gov/toxics/dieseltac/factsht1.pdf.

California Department of Conservation. California Geological Survey. Fault Activity Map of California. https://maps.conservation.ca.gov/cgs/fam/. Accessed May 2024.

California Department of Forestry and Fire Protection. Fire Hazard Severity Zone Viewer. https://experience.arcgis.com/experience/03beab8511814e79a0e4eabf0d3e7247/#data_s=id%3AdataSource_1-18ea091fea0-layer-6%3A10. Accessed May 2025.

California Department of Toxic Substances Control, EnviroStor Database. https://www.envirostor.dtsc.ca.gov/public/map/. Accessed May 2023.

California State Water Resources Control Board, GeoTracker Database. https://geotracker.waterboards.ca.gov/map/?CMD=runreport&myaddress=Fresno. Accessed February 2023.

Fresno County Airport Land Use Compatibility Plan, December 2018, Part Two. Exhibit D1City of Fresno. 2020 Urban Water Management Plan. July 2021. Page ES-4. chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/https://www.fresno.gov/wp-content/uploads/2023/03/Fresno-2020-UWMP_Final_2021-07-21-1.pdf. Accessed May 2025.

Fresno-Yosemite INTL. Airport Influence Area and Safety Zones. https://fresnocog.wpenginepowered.com/wp-content/uploads/2019/01/fresno-final-alucp-113018-r_part2.pdf. Accessed May 2023.

Fresno General Plan. Chapter 9: Noise and Safety. Page 9-40. https://www.fresno.gov/wp-content/uploads/2023/03/upload_temp_Consolidated-GP-10-13-2022_compressed.pdf. Accessed May 2024.

USDA Natural Resources Conservation Service. Custom Soil Resource Report for Eastern Fresno Area, California.

U.S. Census Bureau. QuickFacts. Fresno City. 2017-2017. https://www.census.gov/quickfacts/fact/table/fresnocitycalifornia,fresnocountycalifornia/PST045222. Accessed November 2024.

U.S. Department of Homeland Security. FEMA National Flood Hazard Layer Viewer. https://hazards-fema.maps.arcgis.com/apps/webappviewer/index.html?id=8b0adb51996444d4879338b5529aa9cd. Accessed May 2025.

U.S. Department of Transportation. Federal Transit Administration. Transit Noise and Vibration Impact Assessment. May 2006. chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/FTA_Noise_and_Vibration_Manual.pdf. Accessed November 2024.

U.S. Geological Service. Areas of Land Subsidence in California. https://ca.water.usgs.gov/land_subsidence/california-subsidence-areas.html. Accessed February 2023.

MITIGATION MONITORING AND REPORTING PROGRAM – August 7, 2025

This Mitigation Monitoring and Reporting Program (MMRP) has been formulated based upon the findings of the Initial Study/Mitigated Negative Declaration (IS/MND) for the City of Fresno's T-6432/P23-02269/P23-03234/P23-02268 Residential Project (proposed Project). The MMRP lists mitigation measures recommended in the IS/MND for the proposed Project and identifies monitoring and reporting requirements as well as conditions recommended by responsible agencies who commented on the project.

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

Mitigation Measure	Party responsible for Implementing Mitigation	Implementation Timing	Party responsible for Monitoring	Verification (name/date)
AES-1: Lighting systems for street and parking areas shall include shields to direct light to the roadway surfaces and parking areas. Vertical shields on the light fixtures shall also be used to direct light away from adjacent light sensitive land uses such as residents.	Project Applicant	Prior to issuance of construction permit	City of Fresno, Planning and Development Department	
AIR-1: Before a construction permit is issued for the proposed Project, the Project applicant, Project sponsor, or construction contractor shall provide reasonably detailed proof of compliance with the following requirements to the City of Fresno: Where portable diesel engines are used during construction, all off-road equipment with engines greater than 75 horsepower shall have engines that meet California Air Resources Board (CARB) Tier 4 Interim off-road emission standards. except as otherwise specified herein. If engines that comply with Tier 4 Interim or Tier 4 Final off-road emission standards are not commercially available, then the construction contractor shall use the next cleanest piece of off-road equipment (e.g., Tier 3) that is commercially available. For purposes of this project design feature, “commercially available” shall mean the equipment at issue is available taking into consideration factors such as (i) critical-path timing of construction; and (ii) geographic proximity of equipment to the project site. If the relevant equipment is determined by the project applicant to not be commercially available, the contractor can must	Project Applicant	Prior to issuance of construction permit	City of Fresno, Planning and Development Department	

Mitigation Measure	Party responsible for Implementing Mitigation	Implementation Timing	Party responsible for Monitoring	Verification (name/date)
confirm this conclusion by providing to the City letters from at least two rental companies for each piece of unavailable off-road equipment that is at issue required for the Project.				
AIR-2: Consistent with the SJVAPCD Regulation VIII (Fugitive PM10 Prohibitions), the following controls are required to be included as specifications for the proposed Project and implemented at the construction site: • All disturbed areas, including storage piles, which are not being actively utilized for construction purposes, shall be effectively stabilized of dust emissions using water, chemical stabilizer/suppressant, covered with a tarp or other suitable cover or vegetative ground cover. • All on-site unpaved roads and off-site unpaved access roads shall be effectively stabilized of dust emissions using water or chemical stabilizer/suppressant. • All land clearing, grubbing, scraping, excavation, land leveling, grading, cut and fill, and demolition activities shall be effectively controlled of fugitive dust emissions utilizing application of water or by presoaking. • When materials are transported off-site, all material shall be covered, or effectively wetted to limit visible dust emissions, and at least six	Project Applicant	Prior to issuance of construction permit	City of Fresno, Planning and Development Department	

Mitigation Measure	Party responsible for Implementing Mitigation	Implementation Timing	Party responsible for Monitoring	Verification (name/date)
inches of freeboard space from the top of the container shall be maintained. • All operations shall limit or expeditiously remove the accumulation of mud or dirt from adjacent public streets at the end of each workday. (The use of dry rotary brushes is expressly prohibited except where preceded or accompanied by sufficient wetting to limit the visible dust emissions. Use of blower devices is expressly forbidden.) • Following the addition of materials to, or the removal of materials from, the surface of out-door storage piles, said piles shall be effectively stabilized of fugitive dust emission utilizing sufficient water or chemical stabilizer/suppressant.				
BIO-1: A pre-construction clearance survey shall be conducted by a qualified biologist to ensure that no roosting pallid bats or western mastiff bats will be disturbed during the implementation of the Project. A pre-construction clearance survey shall be conducted no more than 14 days prior to the initiation of construction activities. During this survey, the qualified biologist shall inspect all potential roosting habitat in and immediately adjacent to the impact areas. If an active roost is found close enough to the construction area to be disturbed by these activities, the qualified biologist shall determine the extent of a construction-free buffer to be established around the	Project Applicant and Qualified Biologist	Prior to initiation of any site preparation/construction	City of Fresno, Planning and Development Department	

Mitigation Measure	Party responsible for Implementing Mitigation	Implementation Timing	Party responsible for Monitoring	Verification (name/date)
roost. If work cannot proceed without disturbing the roosting bats, work may need to be halted or redirected to other areas until the roost is no longer in use.				
BIO-2: Conduct focused burrowing owl surveys to assess the presence/absence of burrowing owl in accordance with the Staff Report on Burrowing Owl Mitigation and the Burrowing Owl Survey Protocol and Mitigation Guidelines. These involve conducting four pre-construction survey visits. If a burrowing owl or sign of burrowing owl use (e.g., feathers, guano, pellets) is detected on or within 500 feet of the Project site, and the qualified biologist determines that Project activities would disrupt the owl(s), a construction-free buffer, limited operating period, or passive relocation shall be implemented in consultation with the CDFW.	Project Applicant and Qualified Biologist	Prior to initiation of any site preparation/construction	City of Fresno, Planning and Development Department	
BIO-3: To the extent practicable, construction shall be scheduled to avoid the nesting season, which extends from February through August. If it is not possible to schedule construction between September and January, pre-construction surveys for nesting birds shall be conducted by a qualified biologist to ensure that no active nests will be disturbed during the implementation of the Project. A pre-construction survey shall be conducted no more than 14 days prior	Project Applicant and Qualified Biologist	Prior to initiation of any site preparation/construction	City of Fresno, Planning and Development Department	

Mitigation Measure	Party responsible for Implementing Mitigation	Implementation Timing	Party responsible for Monitoring	Verification (name/date)
to the initiation of construction activities. During this survey, the qualified biologist shall inspect all potential nest substrates in and immediately adjacent to the impact areas. If an active nest is found close enough to the construction area to be disturbed by these activities, the qualified biologist shall determine the extent of a construction-free buffer to be established around the nest. If work cannot proceed without disturbing the nesting birds, work will be halted or redirected to other areas until nesting and fledging are completed or the nest has otherwise failed for non-construction related reasons.				
CUL-1: If previously unknown resources are encountered before or during grading activities, construction shall stop in the immediate vicinity of the find and a qualified historical resources specialist shall be consulted to determine whether the resource requires further study. The qualified historical resources specialist shall make recommendations to the City on the measures that shall be implemented to protect the discovered resources, including but not limited to excavation of the finds and evaluation of the finds in accordance with Section 15064.5 of the CEQA Guidelines and the City's Historic Preservation Ordinance. If the resources are determined to be unique historical resources as defined under Section 15064.5 of the CEQA Guidelines, measures shall be identified by the monitor and recommended to the Lead Agency. Appropriate measures for significant	Project Applicant and qualified historical resources specialist	Planning and Development Department to review construction specifications to ensure inclusion of provisions included in mitigation measure.	City of Fresno, Planning and Development Department	

Mitigation Measure	Party responsible for Implementing Mitigation	Implementation Timing	Party responsible for Monitoring	Verification (name/date)
resources could include avoidance or capping, incorporation of the site in green space, parks, or open space, or data recovery excavations of the finds. No further grading shall occur in the area of the discovery until the Lead Agency approves the measures to protect these resources. Any historical artifacts recovered as a result of mitigation shall be provided to a City-approved institution or person who is capable of providing long-term preservation to allow future scientific study.				
CUL-2: In the event that human remains are unearthed during excavation and grading activities of any future development project, all activity shall cease immediately. Pursuant to Health and Safety Code (HSC) Section 7050.5, no further disturbance shall occur until the County Coroner has made the necessary findings as to origin and disposition pursuant to PRC Section 5097.98(a). If the remains are determined to be of Native American descent, the coroner shall within 24 hours notify the Native American Heritage Commission (NAHC). The NAHC shall then contact the most likely descendent of the deceased Native American, who shall then serve as the consultant on how to proceed with the remains. Pursuant to PRC Section 5097.98(b), upon the discovery of Native American remains, the landowner shall ensure that the immediate vicinity, according to generally accepted cultural or archaeological standards or practices, where the Native American human remains are located is not damaged or	Project Applicant and qualified historical resources specialist	Planning and Development Department to review construction specifications to ensure inclusion of provisions included in mitigation measure.	City of Fresno, Planning and Development Department	

Mitigation Measure	Party responsible for Implementing Mitigation	Implementation Timing	Party responsible for Monitoring	Verification (name/date)
disturbed by further development activity until the landowner has discussed and conferred with the most likely descendants regarding their recommendations, if applicable, taking into account the possibility of multiple human remains. The landowner shall discuss and confer with the descendants all reasonable options regarding the descendants' preferences for treatment.				

To: Emily Bowen, LEED AP, Principal Environmental Planner
Crawford & Bowen Planning, Inc.
113 N. Church Street, Suite 310
Visalia, CA 93291
emily@candbplanning.com

From: Johnson Johnson and Miller Air Quality Consulting Services
Richard Miller, Managing Air Quality and Climate Change Specialist
rmiller.jjm.environmental@gmail.com

Tulare and Peach Vesting Tentative Tract Map for Tract No. 6432 Project in the City of Fresno, California

Date: May 15, 2023

Subject: Air Quality, Greenhouse Gas, and Energy Technical Memorandum

This Air Quality, Greenhouse Gas Emissions, and Energy Analysis Report was prepared to evaluate the estimated criteria air pollutant, ozone precursor, toxic air contaminant (TAC), and greenhouse gas (GHG) emissions generated from construction and operation of the Tulare and Peach Vesting Tentative Tract Map for Tract No. 6432 Project (proposed project or project). The respective analyses were conducted within the context of the California Environmental Quality Act (CEQA) (California Public Resources Code [PRC] § 21000, et seq.). The methodology follows the Guidance for Assessing and Mitigating Air Quality Impacts (GAMAQI) prepared by the San Joaquin Valley Air Pollution Control District (SJVAPCD) for the quantification of emissions and evaluation of potential impacts to air resources.[1] The GHG Analysis follows and the SJVAPCD's Guidance for Valley Land-Use Agencies in Addressing GHG Emission Impacts for New Projects under the California Environmental Quality Act (CEQA)[2] and the City of Fresno Greenhouse Gas Reduction Plan Update to determine significance.

Project Location and Description

Golden State Developers, LLC (Applicant) proposes a Vesting Tentative Tract Map to facilitate a residential development in the City of Fresno, herein referred to throughout this memorandum as "project" or "proposed project".

The proposed Project would consist of a 44-lot single family detached residential rental unit development on approximately 3.68 net acres at a density of approximately 11.96 du/acre, which is within the density range of the existing land use. The units would be a mix of 3-bedroom, 2.5 bathroom and 4-bedroom, 2.5-bathroom floor plan layouts.

The units will be provided with a covered outdoor patio and fenced rear yards to provide private outdoor recreation space. Ample additional common recreation space is provided through the provision of a community center, swimming pool with arbors and bar-b-que amenities within the pool area, and open landscaping that can be utilized for active recreational activities.

The project will be provided with public access from South Peach Avenue and will be gated for project security. In order to minimize maintenance of the gate operators, the gates will be open during daylight

---

[1] San Joaquin Valley Air Pollution Control District (SJVAPCD). 2015. Guidance for Assessing and Mitigating Air Quality Impacts. February 19. Website: https://www.valleyair.org/transportation/GAMAQI-2015/FINAL-DRAFT-GAMAQI.PDF. Accessed May 1, 2023.

[2] San Joaquin Valley Air Pollution Control District (SJVAPCD). 2009. Guidance for Valley Land-use Agencies in Addressing GHG Emission Impacts for New Projects under CEQA. December 17. Website: https://www.valleyair.org/Programs/CCAP/12-17-09/3%20CCAP%20-%20FINAL%20LU%20Guidance%20-%20Dec%2017%202009.pdf. Accessed May 1, 2023.

hours (generally 7am to 7pm). During evening hours, visitors can access the site through the use of a call box located in a pull-out (to allow for through traffic of residents) connected to the residential units. Emergency vehicle access will be provided as required by the City of Fresno Fire Department standards.

Parking will include 88 spaces within garages and 29 open stalls providing an overall parking ratio of 2.66 stalls per unit.

To facilitate development as proposed, the Project will be required to submit the following entitlements:

- Annexation
- Prezone
- Tentative Tract Map
- Planned Development Permit

A general plan amendment is not required or proposed, as the proposed Project is consistent with the existing planned land use.

An aerial view of the project site is shown in Figure 1. This figure and the project site plan are included as part of Attachment A.

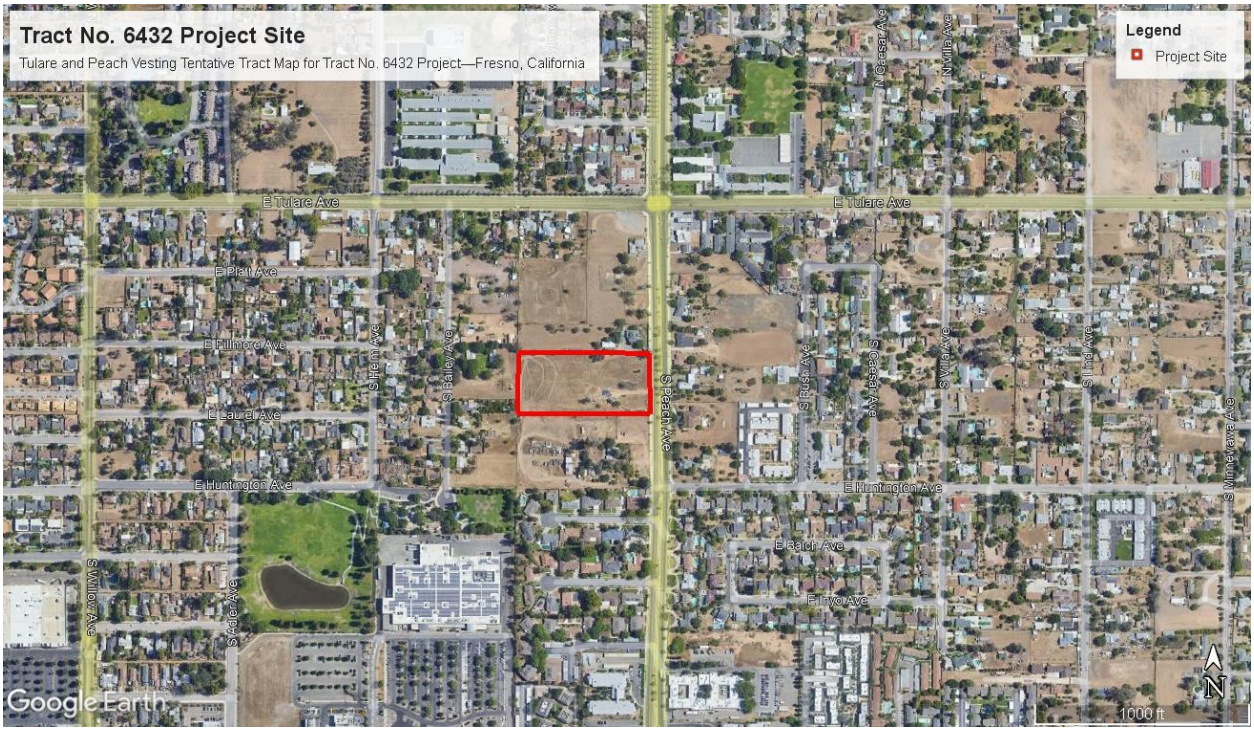


Figure 1 – Aerial View of the Project Site and Local Vicinity Map

Modeling Parameters and Assumptions

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

Air Pollutants and GHGs Assessed

Criteria Pollutants Assessed

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

GHGs Assessed

This analysis was restricted to GHGs identified by AB 32, which include carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), sulfur hexafluoride (SF_6), and nitrogen trifluoride (NF_3). The proposed project would generate a variety of GHGs, including several defined by AB 32 such as CO_2, CH_4, and N_2O.

Certain GHGs defined by AB 32 would not be emitted by the proposed project, which is residential in nature. HFCs, PFCs, SF_6, and NF_3 are typically used in industrial applications, none of which would be used for during operations of typical residential uses. Therefore, it is not anticipated that the proposed project would emit those GHGs.

GHG emissions associated with the proposed project construction as well as future operations were estimated using CO_2 equivalent (CO_2e) emissions as a proxy for all GHG emissions. In order to obtain the CO_2e, an individual GHG is multiplied by its Global Warming Potential (GWP). The GWP designates on a pound for pound basis the potency of the GHG compared to CO_2.

Model Selection

Criteria Pollutants and GHG Emissions

The California Emissions Estimator Model (CalEEMod) is a statewide land use emissions computer model designed to provide a uniform platform for government agencies, land use planners, and environmental professionals to quantify potential criteria pollutant and GHG emissions associated with both construction and operations from a variety of land use projects. CalEEMod quantifies direct emissions from construction and operation activities (including vehicle use), as well as indirect emissions, such as GHG emissions from energy use, solid waste disposal, vegetation planting and/or removal, and water use. Further, CalEEMod identifies mitigation measures to reduce criteria pollutant and GHG emissions along with calculating the benefits achieved from measures chosen by the user.

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

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

CalEEMod version 2020.4.0 was used to estimate construction and operational impacts of the proposed project. CalEEMod version 2020.4.0 was the most recent version currently adopted version of CalEEMod at the time emissions were estimated (August 2022). The web-based version of CalEEMod (CalEEMod 2022) is currently available; however, SJVAPCD is accepting the use of CalEEMod 2020.4.0 at the time modeling was completed for this technical report (May 2023). Furthermore, the SJVAPCD is currently recommending the use of CalEEMod version 2020.4.0, as the web-based version is awaiting approval from EPA.

Construction DPM emissions (represented as PM_{10} exhaust) were estimated using CalEEMod Version 2020.4.0. Emissions were estimated for the unmitigated scenario and a scenario with clean construction equipment engines (mitigated scenario 1: Tier 4 mitigated for a portion of the off-road construction equipment; mitigated scenario 2: Level 3 filters for equipment 75 HP or greater). Equipment tiers refer to a generation of emission standards established by the EPA and CARB that apply to diesel engines in off-road equipment. The "tier" of an engine depends on the model year and horsepower rating; generally, the newer a piece of equipment is, the higher the tier level the equipment is likely to have. Excluding engines greater than 750 horsepower, Tier 1 engines were manufactured generally between 1996 and 2003. Since Tier 1 emission standards were established by the EPA in 1994, increasingly more stringent Tier 2, Tier 3, and Tier 4 (interim and final) standards were adopted by the EPA, as well as CARB.

Toxic Air Containments—Model Selection and Parameters

An air dispersion model is a mathematical formulation used to estimate the air quality impacts at specific locations (receptors) surrounding a source of emissions given the rate of emissions and prevailing meteorological conditions. The air dispersion model applied in this assessment was the United States Environmental Protection Agency (EPA) AERMOD (version 22112) air dispersion model. Specifically, the AERMOD model was used to estimate levels of air emissions at sensitive receptor locations from potential sources of project-generated TACs during the construction period. The use of the AERMOD model provides a refined methodology for estimating construction impacts by utilizing long-term, measured representative meteorological data for the project site and a representative construction schedule.

The modeling analysis also considered the spatial distribution and elevation of each emitting source in relation to the sensitive receptors. Direction-dependent calculations were obtained by identifying the Universal Transverse Mercator (UTM) coordinates for each source location. Terrain elevations were obtained for the project site using the AERMAP model, the AERMOD terrain data pre-processor. To evaluate the proposed project's localized impacts at the point of maximum impact, all receptors were placed within the breathing zone at 1.2 meters above ground level to present a conservative estimate of concentration and associated health risks.

For the construction period, construction emissions were assumed to be distributed over the project site with a working schedule of eight hours per day and five days per week. Emissions were adjusted by a factor of 4.2 to convert for use with a 24-hour-per-day, 365 day-per-year averaging period. Project operations were assessed assuming a 24-hour-per-day, and seven day-per-week schedule. Detailed parameters and complete calculations are contained in Attachment B.

Assumptions

Construction Modeling Assumptions

Schedule

The proposed project would require construction activities, including site preparation, grading, paving, building construction (vertical home construction), and architectural coating (painting) for clearing and

grading of approximately 3.68 acres and the construction of 44 single-family dwelling units. Table 1 shows a summary of the anticipated construction schedule, while a more detailed construction schedule is included in Attachment A. The construction schedule utilized in the analysis represents a "worst-case" analysis scenario since emission factors for construction equipment decrease as the analysis year increases, due to improvements in technology and more stringent regulatory requirements. Therefore, construction emissions would decrease if the construction schedule moved to later years. The duration of construction activity and associated equipment represent a reasonable approximation of the expected construction fleet as required per CEQA guidelines. The site-specific construction fleet may vary due to specific project needs at the time of construction.

Table 1: Project Construction Schedule

Construction Phase	Start Date	End Date	Construction Days
Site Preparation	6/1/2023	6/14/2023	10
Grading	6/15/2023	7/12/2023	20
Building Construction	7/13/2023	5/29/2024	230
Paving	5/30/2024	6/26/2024	20
Architectural Coating	6/27/2024	7/24/2024	20
Source: CalEEMod Output and Additional Supporting Information (Attachment A).			

Equipment

Construction equipment for each construction activity is shown in Attachment A.

Vehicles Trips

Table 2 provides a summary of the construction-related vehicle trips, while the detailed assumptions are provided in Attachment A.

The fleet mix for worker trips is light-duty passenger vehicles to light-duty trucks. The vendor trips fleet mix is composed of a mixture of medium and heavy-duty diesel trucks. The hauling trips were assumed to be 100 percent heavy-duty diesel truck trips. CalEEMod default trip lengths for a project in Fresno County and an urban setting were used for the construction trips.

Table 2: Construction Vehicle Trips

Construction Task	Maximum Worker Trips per Day	Maximum Vendor Trips per Day	Total Haul Truck Trips
Site Preparation	18	0	14
Grading	15	0	637
Paving	15	4	12
Building Construction	34	12	18
Architectural Coating	7	0	2
Source: CalEEMod Output and Additional Supporting Information (Attachment A).			

Operational Modeling Assumptions

Operational emissions are those emissions that occur during long-term operations of the proposed project.

Motor Vehicles

Motor vehicle emissions refer to exhaust and road dust emissions from the automobiles that would travel to and from the proposed project site. Trip generation rates for the project were obtained from the Institute of Transportation Engineers (ITE) Manual, 11th Edition.

Trip Lengths

The CalEEMod default round trip lengths for an urban setting in Fresno County were used in this analysis. Trip lengths are for primary trips. Trip purposes are primary, diverted, and pass-by trips. Diverted trips take a slightly different path than a primary trip. The CalEEMod default rates for percentages of primary, diverted, and pass-by trips were used.

Vehicle Fleet Mix

The vehicle fleet mix is defined as the mix of motor vehicle classes active during the operation of the proposed project. Emission factors are assigned to the expected vehicle mix as a function of vehicle class, speed, and fuel use (gasoline- and diesel-powered vehicles). The vehicle fleet mix was revised to reflect the residential fleet mix approved by SJVAPCD for each year analyzed.

Area Sources

Hearths

The proposed project would not include woodburning fireplaces in the residences. The residences would be built in compliance with SJVAPCD Rule 4910.

Consumer Products

Consumer products are various solvents used in non-industrial applications, which emit VOCs during their product use. “Consumer Product” means a chemically formulated product used by household and institutional consumers, including but not limited to: detergents; cleaning compounds; polishes; floor finishes; cosmetics; personal care products; home, lawn, and garden products; disinfectants; sanitizers; aerosol paints; and automotive specialty products. It does not include other paint products, furniture coatings, or architectural coatings. CalEEMod includes default consumer product use rates based on building square footage. The default emission factors developed for CalEEMod were used for consumer products associated with parking uses and the general consumer product category.

Architectural Coatings (Painting)

Paints release VOC emissions. The parking lot lines and buildings (residential apartment complex and other project buildings) may be repainted on occasion. The project is required to comply with the SJVAPCD Rule 4601—Architectural Coatings. The rule required flat paints to meet a standard of 50 grams per liter (g/l) and gloss paints 100 g/l by 2012 for an average rate of 65 g/l. Effective January 1, 2022, nonflat gloss and semigloss paints will also be required to meet the 50 g/l standard, providing lower VOC emissions for buildings constructed after that date. Therefore, the analysis uses the 50 g/l emission factor for the analysis.

Landscaping Emissions

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

Indirect Emissions

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

Energy Use

The emissions associated with the building electricity and natural gas usage (non-hearth) were estimated based on the land use type and size. Values for a project served by Pacific Gas and Electric (PG&E) were used in the analysis.

The carbon dioxide intensity factor for Pacific Gas & Electric (from the CEC's year 2006 data) is as follows:

- Carbon dioxide: 641.35 pounds per megawatt hour (lbs/MWh)

The Renewable Electricity Standards took effect in 2020. The Renewable Electricity Standard requires that electricity providers include a minimum of 33 percent renewable energy in their portfolios starting in the year 2020. Pacific Gas & Electric provides estimates of its emission factor per megawatt hour of electricity delivered to its customers. PG&E provides emission factors for the electricity it provides to customers for its energy portfolio that is used to estimate project emissions. CalEEMod 2020.4.0 includes PG&E emission factor based on actual rates reported by the utility.

The 2020.4.0 CalEEMod default emission factors for PG&E are as follows:

- Carbon dioxide: 203.98 lbs/MWh
- Methane: 0.033 lb/MWh
- Nitrous oxide: 0.004 lb/MWh

The utilities in California will be required to increase the use of renewable energy sources to 60 percent by 2030.

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

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

Thresholds

Air pollutant emissions have regional effects and localized effects. This analysis assesses the regional effects of the project's criteria pollutant emissions in comparison to SJVAPCD thresholds of significance for short-term construction activities and long-term operation of the project. Localized emissions from project construction and operation are also assessed using concentration-based thresholds that

determine if the project would result in a localized exceedance of any ambient air quality standards or would make a cumulatively considerable contribution to an existing exceedance.

The primary pollutants of concern during project construction and operation are ROG, NO_X, PM_{10}, and $PM_{2.5}$. The SJVAPCD GAMAQI adopted in 2015 contains thresholds for ROG and NO_X; SO_X, CO, PM_{10}, and $PM_{2.5}$.

Ozone is a secondary pollutant that can be formed miles away from the source of emissions through reactions of ROG and NO_X emissions in the presence of sunlight. Therefore, ROG and NO_x are termed ozone precursors. The SJVAB often exceeds the state and national ozone standards. Therefore, if the project emits a substantial quantity of ozone precursors, the project may contribute to an exceedance of the ozone standard. The SJVAB also exceeds air quality standards for PM_{10}, and $PM_{2.5}$; therefore, substantial project emissions may contribute to an exceedance for these pollutants.

The SJVAPCD adopted significance thresholds for construction-related and operational ROG, NO_X, PM, CO, and SO_X, these thresholds are included in Table 3.

Table 3: SJVAPCD Proposed Project-Level Air Quality CEQA Thresholds of Significance

Pollutant	Significance Threshold	
	Construction Emissions (tons/year)	Operational Emission (tons/year)
CO	100	100
NO_X	10	10
ROG	10	10
SO_X	27	27
PM_{10}	15	15
$PM_{2.5}$	15	15

Source: SJVAPCD. 2015. Guidance for Assessing and Mitigating Air Quality Impacts. Website: https://www.valleyair.org/transportation/GAMAQI-2015/FINAL-DRAFT-GAMAQI.PDF. Accessed May 1, 2023.

Fugitive Dust

Construction

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

The SJVAPCD (SJVAPCD or District) adopted Regulation VIII in 1993 and its most recent amendments became effective on October 1, 2004.[3] This is a basic summary of the regulation's requirements as they apply to construction sites. These regulations affect all workers at a regulated construction site, including

[3] San Joaquin Valley Air Pollution Control District (SJVAPCD). 2022. Current District Rules and Regulations. Website: https://www.valleyair.org/rules/1ruleslist.htm#reg8. Accessed May 1, 2023.

everyone from the landowner to the subcontractors. Violations of Regulation VIII are subject to enforcement action including fines.[4]

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

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

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

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

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

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

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

Record Keeping is required to document compliance with the rules and must be kept for each day any dust control measure is used. The SJVAPCD has developed record forms for water application, street sweeping, and "permanent" controls such as applying long term dust palliatives, vegetation, ground cover

[4] San Joaquin Valley Air Pollution Control District (SJVAPCD). 2007. Compliance Assistance Bulletin. Website: http://www.valleyair.org/busind/comply/pm10/forms/RegVIIICAB.pdf. Accessed May 1, 2023.

materials, paving, or other durable materials. Records must be kept for one year after the end of dust generating activities (Title V sources must keep records for five years).

Exemptions exist for several activities. Those occurring above 3,000 feet in elevation are exempt from all Regulation VIII requirements. Further, Rule 8021 – Construction, Demolition, Excavation, Extraction, and Other Earthmoving Activities exempts the following construction and earthmoving activities:

- Blasting activities permitted by California Division of Industrial Safety.
- Maintenance or remodeling of existing buildings provided the addition is less than 50% of the size of the existing building or less than 10,000 square feet (due to asbestos concerns, contact the SJVAPCD at least two weeks ahead of time).
- Additions to single family dwellings.
- The disking of weeds and vegetation for fire prevention on sites smaller than ½ acre.
- Spreading of daily landfill cover to preserve public health and safety and to comply with California Integrated Waste Management Board requirements.

Nuisances are prohibited at all times because District Rule 4102 – Nuisance applies to all construction sources of fugitive dust, whether or not they are exempt from Regulation VIII. It is important to monitor dust-generating activities and implement appropriate dust control measures to limit the public's exposure to fugitive dust.

Criteria Pollutant Emission Estimates

Construction Emissions (Regional)

Construction emissions associated with the project are shown in Table 4. As shown in Table 4, the emissions are below the significance thresholds and, therefore, are less than significant on a project basis.

Table 4: Summary of Construction-Generated Emissions of Criteria Air Pollutants – Unmitigated

Construction Activity	Emissions (Tons/Year)					
	ROG	NO_X	CO	SO_X	PM_{10}	$PM_{2.5}$
Site Preparation	0.01	0.14	0.09	<0.01	0.05	0.03
Grading	0.02	0.22	0.16	<0.01	0.05	0.02
Paving	0.10	0.91	1.05	<0.01	0.06	0.05
Building Construction (2023)	0.09	0.76	0.92	<0.01	0.05	0.04
Building Construction (2024)	0.01	0.10	0.15	<0.01	0.01	<0.01
Architectural Coating	0.29	0.01	0.02	<0.01	<0.01	<0.01
Total Emissions	**0.52**	**2.14**	**2.39**	**0.00**	**0.22**	**0.14**
Significance Thresholds	10	10	100	27	15	15
Exceed Significance Thresholds?	No	No	No	No	No	No

Notes:
PM_{10} and $PM_{2.5}$ emissions are from the mitigated output to reflect compliance with Regulation VIII—Fugitive PM_{10} Prohibitions.
Source of Emissions: CalEEMod Output (Attachment A).
Source of Thresholds: San Joaquin Valley Air Pollution Control District (SJVAPCD). 2015. Guidance for Assessing and Mitigating Air Quality Impacts. February 19. Website: https://www.valleyair.org/transportation/GAMAQI-2015/FINAL-DRAFT-GAMAQI.PDF. Accessed May 1, 2023.

Operational Emissions (Regional)

Operational emissions occur over the lifetime of the project. Operational emissions are shown in Table 5. The SJVAPCD considers construction and operational emissions separately when making significance determinations.

The emissions output for project operation at full buildout assessed in the 2023 operational year are summarized in Table 5. Full buildout is not expected until 2024; however, operations are anticipated to begin as early as 2023. The use of an earlier operational year represents a conservative estimate of emissions, as emissions for the same level of activity for a typical development are expected to decrease in future years due to regulations and advancements and adoption of newer technology. As shown in Table 5, the operational emissions would be less than the thresholds of significance for all criteria air pollutants.

Table 5: Summary of Operational Emissions of Criteria Air Pollutants – Unmitigated

Source	Emissions (tons/year)					
	ROG	**NO_X**	**CO**	**SO_X**	**PM_{10}**	**$PM_{2.5}$**
Area	0.39	0.02	0.33	<0.01	<0.01	<0.01
Energy	0.01	0.05	0.02	<0.01	<0.01	<0.01
Mobile (Vehicle Trips)	0.13	0.25	1.57	<0.01	0.45	0.12
Annual Total	**0.53**	**0.32**	**1.92**	**<0.01**	**0.45**	**0.12**
Significance Thresholds	10	10	100	27	15	15
Exceed Significance Thresholds?	No	No	No	No	No	No

Notes:
Emissions were quantified using the earliest operational year for the proposed project to provide a conservative estimate of emissions.
Source: CalEEMod Output (Attachment A).

Localized Impacts

Emissions occurring at or near the project have the potential to create a localized impact also referred to as an air pollutant hotspot. Localized emissions are considered significant if when combined with background emissions, they would result in exceedance of any health-based air quality standard. In locations that already exceed standards for these pollutants, significance is based on a significant impact level (SIL) that represents the amount that is considered a cumulatively considerable contribution to an existing violation of an air quality standard. The pollutants of concern for localized impact in the SJVAB are NO_2, SO_x, and CO.

The SJVAPCD has provided guidance for screening localized impacts in the GAMAQI that establishes a screening threshold of 100 pounds per day of any criteria pollutant. If a project exceeds 100 pounds per

day of any criteria pollutant, then ambient air quality modeling would be necessary. If the project does not exceed 100 pounds per day of any criteria pollutant, then it can be assumed that it would not cause a violation of an ambient air quality standard.

Construction: Localized Concentrations of NO_X, CO, PM_{10}, and $PM_{2.5}$

Local construction impacts would be short-term in nature lasting only during the duration of construction. As shown in Table 6 below, on-site construction emissions would be less than 100 pounds per day for each of the criteria pollutants. To present a conservative estimate, on-site emissions for on-road construction vehicles were included in the localized analysis. Based on the SJVAPCD's guidance, the construction emissions would not cause an ambient air quality standard violation.

Table 6: Localized Concentrations of NO_X, CO, PM_{10}, and $PM_{2.5}$ for Construction

Source	On-site Emissions (pounds per day)			
	NO_X	CO	PM_{10}	$PM_{2.5}$
Maximum On-site Daily (2023)	27.56	18.37	10.12	5.71
Maximum On-site Daily (2024)	13.63	16.46	0.63	0.58
Maximum Daily On-site Emissions	**27.56**	**18.37**	**10.12**	**5.71**
Significance Thresholds	100	100	100	100
Exceed Significance Thresholds?	No	No	No	No

Note: Assumptions regarding dates of construction activities are based on the construction schedule shown in Table 1.
Source of Emissions: CalEEMod Output and Additional Supporting Information (Attachment A).
Source of Thresholds: San Joaquin Valley Air Pollution Control District (SJVAPCD). 2015. Guidance for Assessing and Mitigating Air Quality Impacts. February 19. Website: https://www.valleyair.org/transportation/GAMAQI-2015/FINAL-DRAFT-GAMAQI.PDF. Accessed May 1, 2023.

Operation: Localized Concentrations of NO_X, CO, PM_{10}, and $PM_{2.5}$

Localized impacts could occur in areas with a single large source of emissions such as a power plant or with multiple sources concentrated in a small area such as a distribution center.

As shown in Table 7 below, operational modeling of on-site emissions for the project indicate that the project would not exceed 100 pounds per day for each of the criteria pollutants. Therefore, based on the SJVAPCD's guidance, the operational emissions would not cause an ambient air quality standard violation. As such, impacts would be less than significant.

Table 7: Localized Concentrations of NO_X, CO, PM_{10}, and $PM_{2.5}$ for Operations

Source	On-site Emissions (pounds per day)			
	NO_X	CO	PM_{10}	$PM_{2.5}$
Area	0.44	3.78	0.05	0.05
Energy	0.27	0.11	0.02	0.02
Mobile (On-site + Localized Vehicle Emissions)	0.49	3.14	0.16	0.05
Daily Total	**1.20**	**7.03**	**0.24**	**0.12**
Significance Thresholds	100	100	100	100
Exceed Significance Thresholds?	No	No	No	No

Source of Emissions: CalEEMod Output and Additional Supporting Information (Attachment A).
Maximum daily emissions of NOX, CO, PM_{10}, and $PM_{2.5}$ were highest in the Winter scenario.
Source of Thresholds: San Joaquin Valley Air Pollution Control District (SJVAPCD). 2015. Guidance for Assessing and Mitigating Air Quality Impacts. February 19. Website: https://www.valleyair.org/transportation/GAMAQI-2015/FINAL-DRAFT-GAMAQI.PDF. Accessed May 1, 2023.

Addressing Air Quality CEQA Impact Questions

Table 8: Summary of Air Quality Impact Analysis

Air Quality *Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make the following determinations.*	
Would the project:	**Significance Finding**
a) Conflict with or obstruct implementation of the applicable air quality plan?	Less than Significant Impact
b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or State ambient air quality standard?	Less than Significant Impact
c) Expose sensitive receptors to substantial pollutant concentrations?	Less than Significant Impact with Mitigation Incorporated
d) Result in other emissions (such as those leading to odors or) adversely affecting a substantial number of people?	Less than Significant Impact

Air Quality Mitigation Measures

MM AIR-C1 is required to reduce the project's potential impacts during construction to less than significant (see Impact Air C).

MM AIR-C1 Before a construction permit is issued for the proposed project, the project applicant, project sponsor, or construction contractor shall submit provide reasonably detailed compliance with one of the following requirements to the City of Fresno:

- **Option 1)** Where portable diesel engines are used during construction, all off-road equipment with engines greater than 75 horsepower shall have engines that meet

either United States Environmental Protection Agency (EPA) or California Air Resources Board (CARB) Tier 4 Interim off-road emission standards except as otherwise specified herein. If engines that comply with Tier 4 Interim or Tier 4 Final off-road emission standards are not commercially available, then the construction contractor shall use the next cleanest piece of off-road equipment (e.g., Tier 3) that is commercially available. For purposes of this project design feature, "commercially available" shall mean the equipment at issue is available taking into consideration factors such as (i) critical-path timing of construction; and (ii) geographic proximity to the project site of equipment. If the relevant equipment is determined by the project applicant to not be commercially available, the contractor can confirm this conclusion by providing letters from at least two rental companies for each piece of off-road equipment that is at issue.

- **Option 2)** Prior to the issuance of any demolition, grading, or building permits (whichever occurs earliest), the project applicant and/or construction contractor shall prepare a construction operations plan that, during construction activities, requires all off-road equipment with engines greater than 75 horsepower to meet either the particulate matter emissions standards for Tier 4 Interim engines or be equipped with Level 3 diesel particulate filters. Tier 4 Interim engines shall, at a minimum, meet EPA or CARB particulate matter emissions standards for Tier 4 Interim engines. Alternatively, use of CARB-certified Level 3 diesel particulate filters on off-road equipment with engines greater than 75 horsepower can be used in lieu of Tier 4 Interim engines or in combination with Tier 4 Interim engines. The construction contractor shall maintain records documenting its efforts to comply with this requirement, including equipment lists. Off-road equipment descriptions and information shall include, but are not limited to, equipment type, equipment manufacturer, equipment identification number, engine model year, engine certification (Tier rating), horsepower, and engine serial number. The project applicant and/or construction contractor shall submit the construction operations plan and records of compliance to the City of Fresno.

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

Less Than Significant Impact.

Air Quality Plans (AQPs) are plans for reaching attainment of air quality standards. The assumptions, inputs, and control measures are analyzed to determine if the Air Basin can reach attainment for the ambient air quality standards. The proposed project site is located within the jurisdictional boundaries of the SJVAPCD. To show attainment of the standards, the SJVAPCD analyzes the growth projections in the Valley, contributing factors in air pollutant emissions and formations, and existing and adopted emissions controls. The SJVAPCD then formulates a control strategy to reach attainment that includes both State and SJVAPCD regulations and other local programs and measures.

The CEQA Guidelines indicate that a significant impact would occur if the project would conflict with or obstruct implementation of the applicable air quality plan. The GAMAQI indicates that projects that do not exceed SJVAPCD regional criteria pollutant emissions quantitative thresholds would not conflict with or obstruct the applicable AQP.

As shown above in Table 4 and Table 5, the project's construction and operational regional emissions would not exceed SJVAPCD's regional criteria pollutant emissions quantitative thresholds. Therefore, the proposed project would not be considered in conflict with or obstruct implementation of the applicable air quality plan.

b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or State ambient air quality standard?

Less Than Significant Impact.

To result in a less than significant impact, emissions of nonattainment pollutants must be below the SJVAPCD's regional significance thresholds. This is an approach recommended by the SJVAPCD's in its GAMAQI. The primary pollutants of concern during project construction and operation are ROG, NO_X, PM_{10}, and $PM_{2.5}$. The SJVAPCD GAMAQI adopted in 2015 contains thresholds for CO, NO_X, ROG, SO_X, PM_{10}, and $PM_{2.5}$.

Air pollutant emissions have both regional and localized effects. As shown in Table 6 and Table 7, the project's regional emissions would not exceed the applicable regional criteria pollutant emissions quantitative thresholds.

c) Expose sensitive receptors to substantial pollutant concentrations?

Less than Significant Impact with Mitigation Incorporated.

Emissions occurring at or near the project have the potential to create a localized impact that could expose sensitive receptors to substantial pollutant concentrations. The SJVAPCD considers a sensitive receptor to be a location that houses or attracts children, the elderly, people with illnesses, or others who are especially sensitive to the effects of air pollutants. Examples of sensitive receptors include hospitals, residences, convalescent facilities, and schools.

The 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 implementation of all enforceable mitigation measures would require additional analysis to determine if the preparation of an ambient air quality analysis is needed. The criteria pollutants of concern for localized impact in the Air Basin are PM_{10}, $PM_{2.5}$, NO_X, and CO. There is no localized emission standard for ROG.

As shown in Table 6, the project would not exceed the emission screening thresholds during project construction. Therefore, the project's localized criteria pollutant impacts from construction of the project would be less than significant.

As shown in Table 7, the project would not exceed SJVAPCD screening thresholds for localized criteria pollutant impacts; therefore, the project's localized criteria pollutant impacts from long-term operations would be less than significant.

Toxic Air Contaminants

Construction

As discussed above, criteria pollutant emissions during construction would not exceed the SJVAPCD's significance thresholds and would not be expected to result in concentrations that would exceed ambient standards or contribute substantially to an existing exceedance of an ambient air quality standard. Therefore, construction of the proposed project would not result in localized emissions that, if when combined with background emissions, would result in exceedance of any health-based air quality standard for any criteria pollutant. As such, health risk impacts related to criteria pollutants emitted during the construction period of the proposed project would be less than significant.

Construction-related activities would result in temporary, short-term project-generated emissions of diesel particulate matter (DPM) from the exhaust of off-road, heavy-duty diesel equipment for site preparation (e.g., clearing, grading); soil hauling truck traffic; paving; home construction; application of architectural coatings; and other miscellaneous activities. For construction activity, DPM is the primary air toxic of concern. Particulate exhaust emissions from diesel-fueled engines (i.e., DPM) were identified as a toxic air contaminant (TAC) by the California Air Resources Board (CARB) in 1998.[5] Due to proposed project's proximity to existing sensitive receptors, a health risk assessment was performed to assess impacts from DPM emissions resulting from construction of the project. The results of the health risk assessment are summarized below, while the calculations used for the health risk assessment are provided as Attachment B.

The construction HRA evaluated DPM (represent as exhaust PM_{10}) emissions generated during construction of the proposed project and the related health risk impacts for sensitive receptors located within 1,000 feet of the project boundary. A project would result in a significant impact if it would individually expose sensitive receptors to TACs resulting in an increased cancer risk greater than 20 in one million or an increased non-cancer risk of greater than 1.0 on the hazard index. It should be noted that the SJVAPCD's latest threshold of significance for TAC emissions is an increase in cancer risk for the maximally exposed individual of 20 in one million (formerly 10 in one million).

To estimate the potential cancer risk associated with construction of the proposed project from equipment exhaust (including DPM), a dispersion model[6] (AERMOD) was used to translate an emission rate from the source location to concentrations at the receptor locations of interest (i.e., receptors at nearby residences). AERMOD provides a refined methodology for estimating localized impacts by utilizing long-term, measured representative meteorological data for the project site and a representative construction schedule. A graphical representation of AERMOD inputs, including the locations of modeled sensitive receptor locations, is included as part of Attachment B.

---

[5] California Air Resources Board (CARB). 1998. The Toxic Air Contaminant Identification Process: Toxic Air Contaminant Emissions from Diesel-fueled Engines. Website: www.arb.ca.gov/toxics/dieseltac/factsht1.pdf.

[6] An air dispersion model is a mathematical formulation used to estimate air quality impacts at specific locations (receptors) surrounding a source of emissions given the rate of emissions and prevailing meteorological conditions. The air dispersion model applied in this assessment was the EPA American Meteorological Society Regulatory Model (AERMOD), Version 21112, which is approved by the SJVAPCD for air dispersion assessments.

Cancer Risk

The Office of Environmental Health Hazard Assessment (OEHHA) has developed guidance for estimating cancer risks that considers the increased sensitivity of infants and adults to TAC emissions, different breathing rates, and time spent at home. This guidance was applied in estimating cancer risks from the construction and operation of the proposed project.

The recommend method for the estimation of cancer risk is shown in the equations.

$$\text{Cancer Risk} = C_{DPM} \times \text{Inhalation Exposure Factor} \qquad \text{(EQ-1)}$$

Where:

Cancer Risk = Total individual excess cancer risk defined as the cancer risk a hypothetical individual faces if exposed to carcinogenic emissions from a particular source for specified exposure durations; this risk is defined as an excess risk because it is above and beyond the background cancer risk to the population; cancer risk is expressed in terms of risk per million exposed individuals.

C_{DPM} = Period average DPM air concentration calculated from the air dispersion model in $\mu g/m^3$

Inhalation is the most important exposure pathway to impact human health from DPM and the inhalation exposure factor is defined as follows:

$$\text{Inhalation Exposure Factor} = CPF \times EF \times ED \times DBR \times AAF/AT \qquad \text{(EQ-2)}$$

Where:

CPF = Inhalation cancer potency factor for the TAC: 1.1 $(mg/kg\text{-}day)^{-1}$ for DPM
EF = Exposure frequency (days/year)
ED = Exposure duration (years of construction)
AAF = set of age-specific adjustment factors that include age sensitivity factors (ASF), daily breathing rates (DBR), and time at home factors (TAH)
AT = Averaging time period over which exposure is averaged (days)

Chronic Non-Cancer Hazard

Non-cancer chronic impacts are calculated by dividing the annual average concentration by the Reference Exposure Level (REL) for that substance. The REL is defined as the concentration at which no adverse non-cancer health effects are anticipated. The following equation was used to determine the non-cancer risk:

$$\text{Hazard Quotient} = Ci/RELi$$

Where:

Ci = Concentration in the air of substance i (annual average concentration in $\mu g/m^3$)

RELi = Chronic noncancer Reference Exposure Level for substance i ($\mu g/m^3$)

Construction Health Risk Assessment Results

The results of the HRA prepared for project construction for cancer risk and long-term chronic cancer risk are summarized below. Construction emissions were estimated assuming adherence to all applicable rules, regulations, and project design features. The construction emissions were assumed to be distributed over the project area with a working schedule of eight hours per day and five days per week. Emissions were adjusted by a factor of 4.2 to convert for use with a 24-hour-per-day, 365 day-per-year averaging period. Detailed parameters and complete calculations are included in Attachment B.

The estimated health and hazard impacts at the Maximally Exposed Receptor (MER) from the project's construction emissions are provided in Table 9.

Table 9: Summary of the Health Impacts from Unmitigated Construction of the Proposed Project

Exposure Scenario	Maximum Cancer Risk (Risk per Million)	Chronic Non-Cancer Hazard Index[1]
Risks and Hazards at the MER	31.35	0.0241
Significance Threshold	20	1
Threshold Exceeded in Any Scenario?	Yes	No

Notes:
MER = maximally exposed receptor
Source: Construction Health Risk Assessment (Attachment B).

As shown in Table 9, estimated health risks from elevated DPM concentrations during construction of the proposed project would exceed the applicable cancer risk significance threshold at the MER. This represents a potentially significant construction TAC exposure impact. Therefore, mitigation is required to reduce the impact during the construction period to below a level of significance.

MM AIR-C1 requires the project applicant, project sponsor, or construction contractor to provide documentation to the City of Fresno that the construction fleet meet one of the following two requirements (1) all off-road diesel-powered construction equipment greater than 75 horsepower meet EPA or CARB Tier 4 Interim off-road emissions standards, or (2) off-road diesel-powered construction equipment greater than 75 horsepower be equipped with Level 3 diesel particulate filters or meet Tier 4 Interim emissions standards. Table 10 shows the health risks and non-cancer hazard index for construction with implementation of MM AIR-C1.

Table 10: Summary of the Health Impacts from Mitigated Construction of the Proposed Project

Exposure Scenario	Maximum Cancer Risk (Risk per Million)	Chronic Non-Cancer Hazard Index[1]
Risks and Hazards at the MER - Mitigated (Tier 4 Option)		
Risks and Hazards at the MER	3.78	0.0029
Risks and Hazards at the MER - Mitigated (Level 3 Filters Option)		
Risks and Hazards at the MER	6.36	0.0049
Maximum Risks and Hazards at the MER[1] After the Incorporation of Mitigation Measure AIR-2		
Highest Risks and Hazards at the MER	6.36	0.0049
Significance Threshold	20	1
Threshold Exceeded in Either Mitigated Scenario?	No	No
Notes: MER = maximally exposed receptor Source: Construction Health Risk Assessment (Attachment B).		

As noted in Table 10, calculated health metrics from the proposed project's construction DPM emissions would not exceed the cancer risk significance threshold or non-cancer hazard index significance threshold at the MER with incorporation of MM AIR-C1. Therefore, the proposed project would not result in a significant impact on nearby sensitive receptors from TACs during construction.

Operations

PM_{10} and $PM_{2.5}$ are commonly used as proxies for Diesel Particulate Matter (DPM), which would be the toxic air containment of concern emitted by the project. Based on the screening analyzes presented in Table 7, estimated localized emissions generated by the proposed project would not reach levels high enough to necessitate further analysis. As such, it is not expected that any TAC concentrations would reach levels that would cause an exceedance of the SJVAPCD's health risk thresholds.

Unlike warehouses or distribution centers, the daily vehicle trips generated by the proposed residential project would be primarily generated by passenger vehicles. Passenger vehicles typically use gasoline engines rather than the diesel engines that are found in heavy-duty trucks. Gasoline-powered vehicles do emit TACs in the form of toxic organic gases, some of which are carcinogenic. Compared to the combustion of diesel, the combustion of gasoline had relatively low emissions of TACs. Thus, residential and produce limited amounts of TAC emissions during operation. Nonetheless, it is anticipated that there would be some heavy-duty trucks visiting the project site during operations. Consistent with SJVAPCD guidance, an operational prioritization screening analysis was completed for the proposed project.

Operational DPM emissions from diesel trucks were estimated using emission factors from CARB's EMFAC and estimated truck travel and idling at the project site based on average daily trips and the SJVAPCD-approved residential fleet mix. The emissions were entered into the SJVAPCD Prioritization Screening Tool to determine the risk scores, with complete calculations and assumptions included as part of Attachment A. The results of the screening analysis are provided in Table 11.

Table 11: Prioritization Tool Health Risk Screening Results

Impact Source	Cancer Risk Score	Chronic Risk Score	Acute Risk Score
Diesel Trucks	0.460	0.005	0.000
Total Risk from Project Operations	**0.460**	**0.005**	**0.000**
Screening Risk Score Threshold	**10**	**1**	**1**
Screening Thresholds Exceeded?	**No**	**No**	**No**
Source: Attachment A – Modeling Assumptions, CalEEMod Output files, and Operational Screening Results			

As shown in Table 11, the project would not exceed the cancer risk or chronic hazard threshold levels. The primary source of the emissions responsible for chronic risk are from diesel trucks. DPM does not have an acute risk factor. Since the project does not exceed the applicable SJVAPCD screening thresholds for cancer risk, acute risk, or chronic risk, this impact would be less than significant.

Valley Fever

Valley fever, or coccidioidomycosis, is an infection caused by inhalation of the spores of the fungus, *Coccidioides immitis* (*C. immitis*). The spores live in soil and can live for an extended time in harsh environmental conditions. Activities or conditions that increase the amount of fugitive dust contribute to greater exposure, and they include dust storms, grading, and recreational off-road activities.

The San Joaquin Valley is considered an endemic area for Valley fever. The San Joaquin Valley is considered an endemic area for Valley fever. During 2000–2018, a total of 65,438 coccidioidomycosis cases were reported in California; median statewide annual incidence was 7.9 per 100,000 population and varied by region from 1.1 in Northern and Eastern California to 90.6 in the Southern San Joaquin Valley, with the largest increase (15-fold) occurring in the Northern San Joaquin Valley. Incidence has been consistently high in six counties in the Southern San Joaquin Valley (Fresno, Kern, Kings, Madera, Tulare, and Merced counties) and Central Coast (San Luis Obispo County) regions.[7] California experienced 7,392 new probable or confirmed cases of Valley fever in 2020. A total of 466 Valley fever cases were reported in Fresno County in 2020.[8]

The distribution of *C. immitis* within endemic areas is not uniform and growth sites are commonly small (a few tens of meters) and widely scattered. Known sites appear to have some ecological factors in common suggesting that certain physical, chemical, and biological conditions are more favorable for *C. immitis* growth. Avoidance, when possible, of sites favorable for the occurrence of *C. immitis* is a prudent risk management strategy. Listed below are ecologic factors and sites favorable for the occurrence of *C. immitis*:

1) Rodent burrows (often a favorable site for *C. immitis*, perhaps because temperatures are more moderate and humidity higher than on the ground surface)
2) Old (prehistoric) Indian campsites near fire pits

[7] Centers for Disease Control and Prevention (CDC). 2020. Regional Analysis of Coccidioidomycosis Incidence—California, 2000–2018. Website: https://www.cdc.gov/mmwr/volumes/69/wr/mm6948a4.htm?s_cid=mm6948a4_e. Accessed May 1, 2023.

[8] California Department of Public Health (CDPH). 2021. Coccidioidomycosis in California Provisional Monthly Report January 2021. Website: https://www.cdph.ca.gov/Programs/CID/DCDC/CDPH%20Document%20Library/CocciinCA ProvisionalMonthlyReport.pdf. Accessed May 1, 2023.

3) Areas with sparse vegetation and alkaline soils
4) Areas with high salinity soils
5) Areas adjacent to arroyos (where residual moisture may be available)
6) Packrat middens
7) Upper 30 centimeters of the soil horizon, especially in virgin undisturbed soils
8) Sandy, well-aerated soil with relatively high water-holding capacities

Sites within endemic areas less favorable for the occurrence of *C. immitis* include:

1) Cultivated fields
2) Heavily vegetated areas (e.g., grassy lawns)
3) Higher elevations (above 7,000 feet)
4) Areas where commercial fertilizers (e.g., ammonium sulfate) have been applied
5) Areas that are continually wet
6) Paved (asphalt or concrete) or oiled areas
7) Soils containing abundant microorganisms
8) Heavily urbanized areas where there is little undisturbed virgin soil.[9]

The project is situated on a site previously disturbed. The current site is primarily vacant, with sparse shrubbery; however, the site has been previously graded. In addition, the project site is surrounded by other parcels that are built-up or have been previously disturbed. The existing conditions do not provide a suitable habitat for spores. Specifically, the conditions are not favorable for the occurrence of *C. immitis* because the project site has been previously disturbed from being tilled. Therefore, implementation of the proposed project would have a low probability of the site having *C. immitis* growth sites and exposure to the spores from disturbed soil.

Although conditions are not favorable, construction activities could generate fugitive dust that contain *C. immitis* spores. The project will minimize the generation of fugitive dust during construction activities by complying with SJVAPCD's Regulation VIII. Therefore, this regulation, combined with the relatively low probability of the presence of *C. immitis* spores would reduce Valley fever impacts to less than significant.

During operations, dust emissions are anticipated to be relatively small, because most of the project area where operational activities would occur would be occupied by the proposed residential homes and pavement. This condition would substantially lessen the possibility of the project from providing habitat suitable for *C. immitis* spores and for generating fugitive dust that may contribute to Valley fever exposure. Impacts would be less than significant.

Naturally Occurring Asbestos

[9] United States Geological Survey (USGS). 2000. Operational Guidelines (Version 1.0) for Geological Fieldwork in Areas Endemic for Coccidioidomycosis (Valley Fever), 2000, Open-File Report 2000-348. Website: https://pubs.usgs.gov/of/2000/0348/pdf/of00-348.pdf. Accessed May 1, 2023.

Review of the map of areas where naturally occurring asbestos in California are likely to occur found no such areas in the project area. Therefore, development of the project is not anticipated to expose receptors to naturally occurring asbestos.[10] Impacts would be less than significant.

Operations—The Project's Potential to Locate Sensitive Receptor Near Existing Sources of TACs

As a residential project, the project would locate sensitive receptors to a site where future project residents could be subject to existing sources of TACs at the project site. However, the California Supreme Court concluded in *California Building Industry Association (CBIA) v. Bay Area Air Quality Management District (BAAQMD)* that agencies subject to CEQA are not required to analyze the impact of existing environmental conditions on a project's future users or residents. Therefore, this impact will not be further addressed in this document.

Impact Analysis Summary

In summary, the project would not exceed SJVAPCD localized emission daily screening levels for any criteria pollutant. The project would not be a significant source of TAC emissions during operations and would be a less than significant source of TAC emissions during construction with implementation of mitigation. The project is not in an area with suitable habitat for Valley fever spores and is not in area known to have naturally occurring asbestos. Therefore, the project would not result in significant impacts to sensitive receptors. MM AIR-C1 is required to reduce the project's potential impacts during construction to less than significant.

MM AIR-C1 Before a construction permit is issued for the proposed project, the project applicant, project sponsor, or construction contractor shall submit provide reasonably detailed compliance with one of the following requirements to the City of Fresno:

- **Option 1)** Where portable diesel engines are used during construction, all off-road equipment with engines greater than 75 horsepower shall have engines that meet either United States Environmental Protection Agency (EPA) or California Air Resources Board (CARB) Tier 4 Interim off-road emission standards except as otherwise specified herein. If engines that comply with Tier 4 Interim or Tier 4 Final off-road emission standards are not commercially available, then the construction contractor shall use the next cleanest piece of off-road equipment (e.g., Tier 3) that is commercially available. For purposes of this project design feature, "commercially available" shall mean the equipment at issue is available taking into consideration factors such as (i) critical-path timing of construction; and (ii) geographic proximity to the project site of equipment. If the relevant equipment is determined by the project applicant to not be commercially available, the contractor can confirm this conclusion by providing letters from at least two rental companies for each piece of off-road equipment that is at issue.

- **Option 2)** Prior to the issuance of any demolition, grading, or building permits (whichever occurs earliest), the project applicant and/or construction contractor shall prepare a construction operations plan that, during construction activities, requires all off-road equipment with engines greater than 75 horsepower to meet either the

[10] U.S. Geological Survey. 2011. Van Gosen, B.S., and Clinkenbeard, J.P. California Geological Survey Map Sheet 59. Reported Historic Asbestos Mines, Historic Asbestos Prospects, and Other Natural Occurrences of Asbestos in California. Open-File Report 2011-1188 Website: https://pubs.usgs.gov/of/2011/1188/. Accessed May 1, 2023.

particulate matter emissions standards for Tier 4 Interim engines or be equipped with Level 3 diesel particulate filters. Tier 4 Interim engines shall, at a minimum, meet EPA or CARB particulate matter emissions standards for Tier 4 Interim engines. Alternatively, use of CARB-certified Level 3 diesel particulate filters on off-road equipment with engines greater than 75 horsepower can be used in lieu of Tier 4 Interim engines or in combination with Tier 4 Interim engines. The construction contractor shall maintain records documenting its efforts to comply with this requirement, including equipment lists. Off-road equipment descriptions and information shall include, but are not limited to, equipment type, equipment manufacturer, equipment identification number, engine model year, engine certification (Tier rating), horsepower, and engine serial number. The project applicant and/or construction contractor shall submit the construction operations plan and records of compliance to the City of Fresno.

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

Less Than Significant Impact.

Two situations create a potential for odor impact. The first occurs when a new odor source is located near an existing sensitive receptor. The second occurs when a new sensitive receptor locates near an existing source of odor. According to the *CBIA v. BAAQMD* ruling, impacts of existing sources of odors on the project are not subject to CEQA review. Therefore, the analysis to determine if the project would locate new sensitive receptors near an existing source of odor is provided for informational purposes only.

Odor impacts on residential areas and other sensitive receptors, such as hospitals, day-care centers, schools, etc. warrant the closest scrutiny, but consideration should also be given to other land uses where people may congregate, such as recreational facilities, worksites, and commercial areas.

For projects involving new receptors locating near an existing odor source where there is currently no nearby development and for new odor sources locating near existing receptors, the SJVAPCD recommends that the analysis should be based on a review of odor complaints for similar facilities. In assessing potential odor impacts, consideration also should be given to local meteorological conditions, particularly the intensity and direction of prevailing winds.

Lead Agencies can also make a determination of significance based on a review of SJVAPCD complaint records. For a project locating near an existing source of odors, the impact is potentially significant when the project site is at least as close as any other site that has already experienced significant odor problems related to the odor source.

Significant odor problems are defined by the SJVAPCD as:

- More than one confirmed complaint per year averaged over a three-year period, or
- Three unconfirmed complaints per year averaged over a three-year period.

An unconfirmed complaint means that either the odor/air contaminant release could not be detected, or the source/facility cannot be determined. Because of the subjective nature of odor impacts and the lack of quantitative or formulaic methodologies, the significance determination of potential odor impacts should be considered on a case-by-case basis.

Although the project is less than one mile from the nearest sensitive receptor, the project is not expected to be a significant source of odors. The screening levels for these land use types are shown in Table 12.

Table 12: Screening Levels for Potential Odor Sources

Odor Generator	Screening Distance
Wastewater Treatment Facilities	2 miles
Sanitary Landfill	1 mile
Transfer Station	1 mile
Composting Facility	1 mile
Petroleum Refinery	2 miles
Asphalt Batch Plant	1 mile
Chemical Manufacturing	1 mile
Fiberglass Manufacturing	1 mile
Painting/Coating Operations (e.g., auto body shop)	1 mile
Food Processing Facility	1 mile
Feed Lot/Dairy	1 mile
Rendering Plant	1 mile
Source of Screening Distances: San Joaquin Valley Air Pollution Control District (SJVAPCD). 2015. Guidance for Assessing and Mitigating Air Quality Impacts. February 19. Website: https://www.valleyair.org/transportation/GAMAQI-2015/FINAL-DRAFT-GAMAQI.PDF. Accessed May 1, 2023.	

Impacts from construction and operations of the proposed project are discussed separately below.

Construction

During construction, various diesel-powered vehicles and equipment in use on-site would create localized odors. These odors would be temporary and intermittent, which would decrease the likelihood of the odors concentrating in a single area or lingering for any notable period of time. As such, these odors would likely not be noticeable for extended periods of time beyond the project's site boundaries. The potential for odor impacts from construction of the proposed project would, therefore, be less than significant.

Operations

Project as a Generator

The occurrence and severity of odor impacts depend on numerous factors, including the nature, frequency, and intensity of the source; wind speed and direction; and the presence of sensitive receptors. Although offensive odors rarely cause any physical harm, they still can be very unpleasant, leading to considerable distress and often generating citizen complaints to local governments and regulatory agencies. The project is residential in nature, and project operations would not be anticipated to produce odorous emissions. Therefore, project operations would not create objectionable odors affecting a substantial number of people; the impact would be less than significant.

Project as a Receptor

With the *CBIA v. BAAQMD* ruling, analysis of odor impacts on receivers is not required for CEQA compliance. Therefore, the following analysis is provided for informational purposes only, while the significance determination for the odor is whether the project would consider an odor generator. As a residential development, the project has the potential to place sensitive receptors near existing and new odor sources.

Potential odor impacts in the City of Fresno were recently reviewed as part of the General Plan Update and related updated Program Environmental Impact Report (PEIR). As detailed in the City's PEIR, there are no major odor-generating sources that have received complaints to an extent that would exceed SJVAPCD-recommended thresholds for assessing odor impacts from odor generators. Furthermore, there are existing residential uses located within the screening distances for all the potential sources in the project vicinity. Considering this information, the uses in the vicinity of the project would not result in substantial odor impacts to the project.

Greenhouse Gas Emissions Estimation Summary and Greenhouse Gas Impact Analysis

CEQA Guidelines

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

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

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

b. Conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases.

Thresholds of Significance

San Joaquin Valley Air Pollution Control District

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

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

City of Fresno

An updated GHG Reduction Plan was included as part of the recirculated Program Environmental Impact Report in March 2021 and adopted in September of 2021.[11] The following is a description of the Updated GHG Reduction Plan.

Since adoption of the GHG Plan (2014), two significant regulations/decisions have been established. First, on September 28, 2016, Governor Brown signed SB 32 into law that sets a Statewide goal of reducing GHG emissions to 40 percent below 1990 levels by 2030. Additionally, on November 30, 2015, the California Supreme Court published its decision on the Newhall Ranch Specific Plan invalidating the EIR for a variety of reasons, including the use of a percent reduction below BAU as a threshold to determine significance of GHG emissions under CEQA without any supporting evidence. The GHG Plan Update ensures conformity with the mandates of California Supreme Court in the Newhall Ranch case and the State of California's latest GHG regulations. The GHG Plan Update re-evaluates the City's GHG reduction targets and existing reduction strategies from the 2014 GHG Plan. New goals and supporting measures are proposed to reflect and ensure compliance with changes in the local and State policies and regulations such as SB 32 and California's 2017 Climate Change Scoping Plan.

[11] City of Fresno. 2021. Plan and Projects Under Review: Program Environmental Impact Report for the City of Fresno General Plan Amendment No. P19-04226. Accessed May 1, 2023.

The GHG Reduction Plan Update was designed to be a "Qualified Plan," according to CEQA Guidelines Section 15183.5.2. As noted in the response to comments for the Recirculated Draft Program EIR (Final Program EIR dated July 2021), the City of Fresno provides substantial evidence that the GHG Reduction Plan meets the requirements provided in CEQA Guidelines Section 15183.5. This demonstrates that the GHG Reduction Plan can be used to evaluate GHG impacts at the project-level for individual development projects within the City.

Newhall Ranch

The California Supreme Court decision in the *Center for Biological Diversity et al. vs. California Department of Fish and Wildlife, the Newhall Land and Farming Company* (62 Cal.4th 204 [2015], and known as the Newhall Ranch decision), confirmed that the use of BAU analysis (e.g., 29 percent below BAU), a performance-based approach, would be satisfactory. However, for a project-level analysis that uses CARB's statewide BAU targets, substantial evidence must be presented to support the use of those targets for a particular project at a specific location. The court noted that this may require examination of the data behind the statewide model and adjustment to the levels of reduction from BAU used for project evaluation. To date, neither CARB nor any lead agencies have provided any guidance on how to adjust AB 32's statewide BAU target for use at the project level.

The regulations in the State's 2008 Scoping Plan have been adopted and the State is on track to meet the 2020 target and achieve continued progress towards meeting the 2017 Scoping Plan target for 2030 and the 2022 Scoping Plan target for 2045.

In the Newhall case, the Supreme Court was concerned that new development may need to reduce GHG emissions more than existing development to demonstrate it is meeting its fair share of reductions. New development does do more than its fair share through compliance with enhanced regulations, particularly with respect to motor vehicles, energy efficiency, and electricity generation. If no additional reductions are required from an individual project beyond that achieved by regulations, then the amount needed to reach the 2020 target is the amount of GHG emissions a project must reduce to comply with Statewide goals.

Project-level Thresholds

Section 15064.4(b) of the CEQA Guidelines' amendments for GHG emissions states that a lead agency may take into account the following three considerations in assessing the significance of impacts from GHG emissions.

- Consideration #1: The extent to which the project may increase or reduce GHG emissions as compared to the existing environmental setting.
- Consideration #2: Whether the project emissions exceed a threshold of significance that the lead agency determines applies to the project.
- Consideration #3: The extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of GHG emissions. Such regulations or requirements must be adopted by the relevant public agency through a public review process and must include specific requirements that reduce or mitigate the project's incremental contribution of GHG emissions. If there is substantial evidence that the possible effects of a particular project are still cumulatively considerable notwithstanding compliance with the adopted regulations or requirements, an Environmental Impact Report (EIR) must be prepared for the project.

The SJVAPCD's Guidance for Valley Land-use Agencies in Addressing GHG Emission Impacts for New Projects under CEQA includes thresholds based on whether the project will reduce or mitigate GHG

levels by 29 percent from BAU levels compared with 2005 levels by 2020.[12] This level of GHG reduction is based on the target established by CARB's AB 32 Scoping Plan, approved in 2008. First occupancy at the project site is expected to occur after the AB 32 2020 milestone year. Additional discussion is provided to show progress towards GHG reduction goals identified in CARB's 2017 Scoping Plan for the year 2030. Although CARB adopted the 2022 Scoping Plan in December 2022 that addresses long-term GHG goals set forth by AB 1279,[13] the 2017 Scoping Plan addresses a future GHG goal and remains relevant to the proposed project. Additionally, the goals of reducing GHG emissions 80 percent below 1990 levels by 2050 and the goal to achieve carbon neutrality statewide by 2045 are addressed in the analysis.

[12] San Joaquin Valley Air Pollution Control District (SJVAPCD). 2009. "Final Staff Report, Addressing Greenhouse Gas Emissions Impacts under the California Environmental Quality Act." Website: http://www.valleyair.org/programs/CCAP/11-05-09/1_CCAP_FINAL_CEQA_GHG_Draft_Staff_Report_Nov_05_2009.pdf. December 2009. Accessed May 1, 2023.

[13] The Final 2022 Scoping Plan was released on November 16, 2022 and adopted by CARB on December 15, 2022.

Addressing Greenhouse Gas CEQA Impact Questions

Table 13: Summary of Greenhouse Gas Impact Analysis

Greenhouse Gas Emissions	
Would the project:	**Significance Finding**
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	Less than Significant Impact
b) Conflict with any applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	Less than Significant Impact with Mitigation Incorporated

Greenhouse Gas Mitigation Measures

MM GHG-B1 is required to reduce the project's potential impacts to conflict with City of Fresno's Updated GHG Reduction Plan to less than significant (see Impact GHG B).

MM GHG-B1 Before a construction permit is issued for the proposed project, the project applicant, project sponsor, or construction contractor shall provide the City of Fresno with documentation of the following requirement:

- The project shall provide recycling canisters in public areas where trashcans are also provided.

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

Less Than Significant Impact.

To determine significance the analysis first quantifies project-related GHG emissions under a business-as-usual scenario, and then compare these emissions with those emissions that would occur when all project-related design features are accounted for, and when compliance with applicable regulatory measures is assumed. The standards and methodology are explained in further detail, below.

The project is assessed for consistency with the City of Fresno's Updated GHG Reduction Plan under Impact GHG b).

Construction

GHG emissions generated during all phases of construction were combined and are shown in Table 14. Neither the City of Fresno nor the SJVAPCD have adopted thresholds of significance for construction-related emissions. In addition, GHG emission reduction measures for construction equipment are relatively limited. Therefore, a standard practice is to amortize construction emissions over the anticipated lifetime of a project, so that GHG reduction measures will address construction GHG emissions as part of the operational GHG reduction strategies. To evaluate construction-related GHG emissions, the total emissions generated during construction were amortized based on the life of the development (30 years for residential development) and added to the operational emissions to determine the total emissions from the project, as shown below.

Table 14: Summary of Construction-Generated Greenhouse Gas Emissions

Construction Activity	MT CO_{2e} per Year
Site Preparation (2023)	18
Grading (2023)	46
Building Construction (2023)	170
Building Construction (2024)	150
Paving (2024)	22
Architectural Coating (2024)	3
Total Construction Duration (2023-2024)	
Total Construction $MTCO_2e$	**409**
Emissions Amortized Over 30 Years[1]	**13.6**

Notes:
MT CO2e = metric tons of carbon dioxide equivalent
[1] Construction GHG emissions are amortized over the 30-year lifetime of the project.
Source: CalEEMod Output and Additional Supporting Information (Attachment A).

Operations

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

Business-as-Usual Operational Emissions

Operational emissions under the business-as-usual scenario were modeled using CalEEMod 2020.4.0. Modeling assumptions for the year 2005 were used to represent business as usual conditions (without the benefit of regulations adopted to reduce GHG emissions). CARB and SJVAPCD guidance recommend using regulatory conditions in 2002-2004 in the baseline scenario to represent conditions as if regulations had not been adopted to allow the effect of projected growth on achieving reduction targets to be clearly defined. CalEEMod defaults were used for project energy usage, water usage, waste generation, and area sources (architectural coating, consumer products, and landscaping). The vehicle fleet mixes were revised to reflect the appropriate residential project fleet mix for each scenario modeled.

Buildout Year Operational Emissions

Operational emissions for full project buildout were modeled for the 2023 operational year (full buildout scenario in the earliest operational year) and 2030 operational year scenarios using CalEEMod. CalEEMod assumes compliance with some, but not all, applicable rules and regulations regarding energy efficiency, vehicle fuel efficiency, renewable energy usage, and other GHG reduction policies, as described in the CalEEMod User's Guide.[14]

The reductions obtained from each regulation and the source of the reduction amount used in the analysis are described below.

[14] California Air Pollution Control Officers Association (CAPCOA). 2021. California Emission Estimator Model (CalEEMod) Version 2020.4.0 User's Guide. Website: https://www.aqmd.gov/docs/default-source/caleemod/user-guide-2021/01_user-39-s-guide2020-4-0.pdf?sfvrsn=6. Accessed May 1, 2023.

The following regulations are incorporated into the CalEEMod emission factors:

- Pavley I and Pavley II (LEV III) motor vehicle emission standards
- CARB Medium and Heavy-Duty Vehicle Regulation
- 2005, 2008, 2013, 2016, and 2019 Title 24 Energy Efficiency Standards

The following regulations have not been incorporated into the CalEEMod emission factors and require alternative methods to account for emission reductions provided by the regulations:

- Renewables Portfolio Standard (RPS) requirements for year 2030
- Green Building Code Standards (indoor water use)
- California Model Water Efficient Landscape Ordinance (outdoor water)
- CalRecycle 75 Percent Initiative (solid waste)
- 2022 Title 24 Energy Efficiency Standards

Title 24 reductions for 2013 and 2016 updates were added to CalEEMod 2016.3.2 and were carried into CalEEMod 2020.4.0. Title 24 reductions for 2019 were added to CalEEMod 2020.4.0; however, the additions do not account for on-site renewable energy that would be included as part of single-family residential projects. Therefore, the CalEEMod mitigation component was used to account for rooftop solar included as part of the proposed project.

RPS is not accounted for in CalEEMod 2020.4.0. Reductions from RPS for operational years 2030 and beyond are addressed by revising the electricity emission intensity factor in CalEEMod to account for the utility RPS rate forecast for 2030. The utilities will be required by SB 100 to increase the use of renewable energy sources to 60 percent by 2030. Data for PG&E was used to estimate a revised CO_2 intensity factor for use in the modeling.

Reductions in emissions from solid waste are based on the County of Fresno achieving the CalRecycle 75 Percent Initiative by 2020 compared with a 50 percent baseline for 2005.[15] No additional reductions were accounted for in the emission estimates prepared for the project.

Energy savings from water conservation resulting from the Green Building Code Standards for indoor water use and California Model Water Efficient Landscape Ordinance for outdoor water use are not included in CalEEMod. The Water Conservation Act of 2009 mandates a 20 percent reduction in urban water use that is implemented with these regulations.[16] Benefits of the water conservation regulations are applied in the CalEEMod mitigation component.

GHG reductions from some design features and compliance with regulations that are not otherwise accounted for can be quantified in CalEEMod. Note that CalEEMod nominally treats these design elements and conditions as “mitigation measures,” despite their inclusion in the project description. Therefore, reported operational emissions are considered to represent unmitigated project conditions.

Operational GHG emissions by source are shown in Table 15 for the buildout year scenarios. Full buildout of the project was modeled in the 2023 operational year, as earliest occupancy is anticipated to occur as early as 2023.

[15] California Department of Resources Recycling and Recovery (CalRecycle). 2023. California’s Short-Lived Climate Pollutant Reduction Strategy. Website: https://calrecycle.ca.gov/organics/slcp/. Accessed May 1, 2023.
[16] California Department of Water Resources (CDWR). 2013. California Water Plan Update 2013, Chapter 3 Urban Water Use Efficiency.

Table 15: Unmitigated Project Operational GHG Emissions (Buildout Year Scenario)

Emission Source	Emissions (MT CO_2e per year)	
	Business as Usual Total Emissions (MT CO_2e per year)	**Buildout Year Total Emissions with Regulations and Design Features (MT CO_2e per year)**
Area	19.73	19.72
Energy	194	62
Mobile (On-road Vehicles)	566	408
Waste	23	17
Water	10	5
Amortized Construction Emissions	14	14
Total (MT CO_2e per year)	**827**	**526**
Reduction from BAU (MT CO_2e per year)		301
Percent Reduction		36.4%
Significance Threshold		29%
Exceeds Significance Threshold?		**No**

MT CO_2e = metric tons of carbon dioxide equivalent.

Totals were calculated using unrounded emissions; totals may not appear to sum exactly due to rounding.

Source of Significance Threshold: San Joaquin Valley Air Pollution Control District (SJVAPCD). 2015. Final Draft Guidance for Assessing and Mitigating Air Quality Impacts. Website: https://www.valleyair.org/transportation/GAMAQI-2015/FINAL-DRAFT-GAMAQI.PDF. Accessed May 1, 2023.

Source of Business-as-Usual Emissions: CalEEMod output for the 2023 BAU scenario (see Attachment A).

Source of Buildout Year Emissions: CalEEMod output for project buildout in 2023 (Attachment A).

As shown in Table 15, the proposed project's total GHG annual emissions would not exceed applicable thresholds of significance in either scenario analyzed.

The 2030 operational year scenarios are summarized in Table 16. As previously noted, the 2030 operational year was used to assess the project's consistency with the SB 32 2030 target. The 2017 Scoping Plan addresses a future GHG goal and remains relevant to assess potential impacts from proposed project, which is expected to be built and operational prior to 2030.

Table 16: Unmitigated Project Operational GHG Emissions (Year 2030 Scenario)

Emission Source	Emissions (MT CO_2e per year)	
	Business as Usual Total Emissions (MT CO_2e per year)	**2030 Year Total Emissions with Regulations and Design Features (MT CO_2e per year)**
Area	19.73	19.72
Energy	194	62
Mobile (On-road Vehicles)	562	333
Waste	23	17
Water	10	5
Amortized Construction Emissions	14	14
Total (MT CO_2e per year)	**823**	**451**
Reduction from BAU (MT CO_2e per year)		372
Percent Reduction		45.2%
Significance Threshold		29%
Exceeds Significance Threshold?		**No**

MT CO_2e = metric tons of carbon dioxide equivalent.
Totals were calculated using unrounded emissions; totals may not appear to sum exactly due to rounding.
[1] Adjusted threshold to account for 2017 Scoping Plan Update 40 percent reduction goal by 2030.
Source of Business-as-Usual Emissions: CalEEMod output for the 2030 BAU scenario (see Attachment A).
Source of 2030 Emissions: CalEEMod output for the year 2030 (Attachment A).

As shown in Table 15 and Table 16, the project would achieve a 36.4 percent reduction from BAU at project buildout (2023) and a 45.2 percent reduction from BAU by the year 2030 with adopted regulations and design features incorporated. These amounts are both exceed the 29 percent reduction required by the SJVAPCD threshold, and above the required 21.7 percent average reduction from all GHG emission sources to meet the AB 32 targets. CARB originally identified a reduction of 29 percent from business as usual as needed to achieve AB 32 targets. The 2008 recession and slower growth in the years since 2008 have reduced the growth forecasted for 2020 and the amount needed to be reduced to achieve 1990 levels as required by AB 32; the target was revised to 21.7 percent.

The 36.4 percent reduction from BAU is 14.7 percent beyond the average reduction required by the State from all sources to achieve the AB 32 2020 target (and 7.4 percent beyond the SJVAPCD's threshold). This surplus addresses the Supreme Court's concern in the Newhall case that new development must do more than average to meet its fair share of emission reductions.

By 2030, the proposed project would achieve a 45.2 percent reduction from BAU or 23.5 percent above the 16.2 percent reduction necessary to meet the AB 32 reduction target.

The project's occupancy is anticipated begin as early as 2023; thus, an additional analysis is provided to show consistency with post-2020 State legislative GHG goals. The SB 32 goal of 40 percent below 1990 emission levels by 2030 is the target established by the 2017 Scoping Plan Update.

The 2017 Scoping Plan includes strategies that are not incorporated in the analysis above. Many measures that are likely to proceed include zero net energy buildings in future updates to Title 24 and

enhanced motor vehicle fuel efficiency standards beyond 2025. The 2017 Scoping Plan identified an emission limit of 260 million metric tons of carbon dioxide equivalents ($MMTCO_2e$). The 2030 BAU Inventory is estimated to be 392 $MMTCO_2e$. The 2017 Scoping Plan identified that the bulk of its reductions would come from the Electric Power, Industrial fuel combustion, and Transportation. The continuance of the Cap and Trade would provide additional reductions. Although the 2017 Scoping Plan largely relies on state actions to achieve the GHG emissions limit, the CARB considers local governments partners in achieving the State's goals for reducing GHG emissions. The 2017 Scoping Plan suggests that all new land use development implement feasible measures to reduce GHG emissions, however, it does not define feasible measures nor assign a required reduction amount to new development. A fair share quantitative threshold based on the 2017 Scoping Plan is not presently feasible as the nexus between a project's contribution and its fair share mitigation is not well defined.

Based on the 36.4 percent reduction from BAU for project buildout in the earliest operational year (2023), the proposed project would not have a significant impact on GHG emissions as it would meet the SJVAPCD's threshold of 29 percent and exceed the CARB's 21.7 percent reduction necessary from all sources to meet the AB 32 emissions limit.

For the year 2030, the project achieves a 45.2 percent reduction from BAU, which demonstrates substantial progress towards achieving the 2030 target.

Regarding the years 2045 and 2050, there have been Executive Orders issued to address carbon neutrality and GHG reduction targets, respectively for those years, however, there are no existing GHG reduction plans that specifically address those Orders. Historically, the State would take the lead in developing regulatory and market measures to achieve the required reductions. The proposed project would participate in the reductions through adherence with regulations and continued improvements to the motor vehicle efficiencies accessing the project site. Studies have shown that in order to meet the 2050 targets, aggressive pursuit of technologies in the transportation and energy sectors, including electrification and the decarbonization of fuel, will be required. Because of the technological shifts required and the unknown parameters of the regulatory framework in 2050, quantitatively analyzing the proposed project's impacts further relative to the 2050 goals is speculative for purposes of CEQA.

Impact Analysis Summary

In summary, the proposed project meets the required 29 percent below BAU guidance provided by the SJVAPCD. Furthermore, the proposed project shows substantial reductions in the year 2030 to demonstrate that it would not inhibit the State's progress in achieving the 2030 GHG emissions target or emissions targets beyond 2030. The GHG emissions impact would be less than significant with respect to Consideration #1 and #2.

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

Less than Significant Impact with Mitigation Incorporated.

The following analysis assesses the proposed project's compliance with Consideration No. 3 regarding consistency with adopted plans to reduce GHG emissions. The City of Fresno adopted its most recent GHG Reduction Plan Update as part of the General Plan Update in September 2021. The proposed project's consistency the GHG Reduction Plan Update is assessed below. The proposed project is also assessed for its consistency with CARB's adopted Scoping Plans, which include the 2008, 2017, and 2022 Scoping Plans.

Consistency with City of Fresno's Adopted Greenhouse Gas Reduction Plan

The Fresno General Plan includes a GHG Reduction Plan that provides the City's primary strategy for reducing GHG emissions. The intent of the GHG Reduction Plan is to achieve compliance with State GHG reduction mandates by focusing on feasible actions the City can take to minimize the adverse impacts of growth and development on climate change. The GHG Reduction Plan Update (2021) provides the following guidance to determine project-level impacts when the project does not require a general plan amendment.

(1) Review the GHG Reduction Plan Project Update CEQA Consistency Checklist that lists the local GHG reduction strategies identified in the GHG Reduction Plan Update to determine applicability to the project.

(2) Incorporate design features or mitigation measures into the project as needed to demonstrate consistency.

(3) Implement project design features suitable for the development type and location.

Proposed development projects that are consistent with the GHG Reduction Plan Update, as determined through the use GHG Plan Update CEQA Consistency Checklist, may rely on the GHG Reduction Plan Update for the cumulative impacts analysis of GHG emissions. Projects that are not consistent with the GHG Reduction Plan Update must prepare a comprehensive project-specific analysis of GHG emissions, including quantification of existing and projected GHG emissions and apply appropriate GHG reduction mitigation measures based on the GHG reduction strategies identified in the GHG Reduction Plan Update and listed in the checklist.

Table 17: GHG Reduction Plan Update Checklist Review—Determining Land Use Consistency

Checklist Item	Project Consistency
1. Is the proposed project consistent with the approved General Plan, Specific Plan, and Community Plan planned land use and zoning designations? If the answer is Yes, then proceed to the GHG Plan Update Consistency Checklist.	The proposed project would consist of a 44-lot single family detached residential rental unit development on approximately 3.68 net acres at a density of approximately 11.96 du/acre, which is within the density range of the existing land use. To facilitate development as proposed, the project will be required to submit the following entitlements: • Annexation • Prezone • Tentative Tract Map • Planned Development Permit A general plan amendment is not required or proposed, as the proposed project is consistent with the existing planned land use. Considering this information, the appropriate step is to **proceed to the GHG Reduction Plan Update Consistency Checklist.**

A review of GHG Reduction Plan Update CEQA Consistency Checklist and an assessment of the project's consistency with the measures are provided below in Table 18.

Table 18: GHG Reduction Plan Update—CEQA Project Consistency Checklist

Checklist Item[1]	Project Consistency
1: Land Use and Transportation Demand Strategies	
a. Does the project include mixed-use, development? For GHG Reduction Plan consistency, mixed-use development is defined as pedestrian-friendly development that blends two or more residential, commercial, cultural, or institutional, uses, one of which must be residential	**Not applicable.** The project is residential in nature and does not include mixed-use development.
b. Is the project high density? For GHG Reduction Plan consistency, is the project developed at 12 units per acre or higher?	**Not applicable.** The project is not high density. The proposed project would allow for the construction of a residential subdivision that consists of a 44-lot single family detached residential rental unit development on approximately 3.68 net acres at a density of approximately 11.96 dwelling units per acre.
c. Is the project infill development, pursuant to the General Plan definition of location within the City limits as of December 31, 2012?	**Consistent.** The project site is an area that has been designated for development in the City of Fresno.
d. Does the project implement pedestrian bicycle, and transit linkages with surrounding land uses and neighborhoods? For GHG Reduction Plan consistency, the project must include all sidewalks, paths, trails, and facilities required by the General Plan and Active Transportation Plan, as implemented through the Fresno Municipal Code and project conditions of approval.	**Consistent.** The proposed project would be designed and would be built in accordance with all applicable regulations. The project will be developed in conformance with all requirements implemented through compliance with the Fresno Municipal Code and through project conditions of approval.
e. If the project includes mixed-use or high density development, is it located within ½ mile of a High Quality Transit Area as defined in the City's CEQA Guidelines for Vehicle Miles Traveled? Or, is the project located within 500 feet of an existing or planned transit stop?	**Consistent.** The project is not mixed-use or high density development (as defined as 12 units per acre or higher). The project would facilitate the construction and development of a 44-lot single family detached residential rental unit development on approximately 3.68 net acres at a density of approximately 11.96 dwelling units per acre. There are several existing transit stops located with ½-mile of the project site, the closet of which is approximately 330 feet southeast feet. Therefore, the project located within 500 feet of an existing or planned transit stop.
f. Will the project accommodate a large employer (over 100 employees) and will it implement trip reduction programs such as increasing transit use, carpooling, vanpooling, bicycling, or other measures to reduce vehicle miles traveled pursuant to San Joaquin Valley Air Pollution Control District Rule 9410? See the SJVAPCD website for details: https://www.valleyair.org/rules/currntrules/r9410.pdf	**Not applicable.** As a 44-unit residential development, the proposed project would not be considered a large employer once operational.
g. If the modifications to the transportation network project includes, do those improvements meet the requirements of the City of Fresno's Complete Streets Policy, adopted in October 2019? According to the policy, a complete street is a transportation facility that is planned, designed, operated, and maintained to provide safe mobility for all users - including bicyclists, pedestrians, transit vehicles, trucks, and	**Not applicable.** The project does not include modifications to the transportation network.

Checklist Item[1]	Project Consistency
motorists - appropriate to the function and context of the facility while connecting to a larger transportation network. See City of Fresno website for details: https://www.fresno.gov/publicworks/wp-content/uploads/sites/17/2019/10/Complete-Streets-091119.pdf	
h. Does the project have a less than significant VMT impact, either through satisfying screening criteria or mitigating VMT impacts, pursuant to the City's adopted VMT thresholds? See City of Fresno website for details: https://www.fresno.gov/darm/wp-content/uploads/sites/10/2021/01/CEQA-Guidelines-for-Vehicle-Miles-Traveled-Final-Adopted-Version.pdf	**Consistent.** See the transportation impact discussion of the environmental document prepared for the proposed project for details.
2: Electric Vehicle Strategies	
a. For new multi-family dwelling units with parking, does the project provide EV charging spaces capable of supporting future EV supply equipment (EV capable) at 10% of the parking spaces per 2019 California Green Building Standards Code (CALGREEN, Title 24, Part 11), Section 4.106.4	**Not applicable.** The project does not include new multi-family dwelling units. Specifically, the proposed project would consist of a 44-lot single family detached residential rental unit development on approximately 3.68 net acres at a density of approximately 11.96 du/acre
b. For new commercial buildings, does project provide EV charging spaces capable of supporting EV capable spaces at 4% to 10% of the parking spaces per 2019 California Green Building Standards Code (CALGREEN, Title 24, Part 11), Section 5.106.5.3	**Not applicable.** The project does not include new commercial buildings.
3: Energy Conservation Strategies	
a. Does the project meet or exceed mandatory state building energy codes? If yes, does the project follow any other GreenPoint ratings such as LEED, Energy Star or others? If yes, indicate level of certification-Silver, gold, platinum if applicable?	**Consistent.** New structures (including new single-family residential homes) are required to comply with Title 24 Energy Efficiency Standards that are expected to increase in stringency over time. New homes constructed as part of the proposed project would comply with the applicable Title 24 Energy Efficiency Standards in effect at the time building permits are received. The current Title 24 regulations are the 2022 Title 24 standards, which become effective January 1, 2023.
b. For commercial projects, does the project achieve net zero emissions electricity? Mark NA if project will be permitted before 2030. Mark Yes if voluntary. Add source and capacity in explanation.	**Not applicable.** It is anticipated that the proposed project would be permitted and developed before 2030. In addition, the project is not a commercial project. However, the homes would be built in accordance with Title 24 Energy Efficiency Standards. Compliance with Title 24 ensures that the residences will include on-site renewable energy to power homes.
4: Water Conservation Strategies	
a. Does the project meet or exceed the mandatory outdoor water use measures of the 2019 California Green Building Standards Code (CALGREEN, Title 24, Part 11), Section 4.304?	**Consistent.** The project would comply with all existing regulations.

Checklist Item[1]	Project Consistency
If the project exceeds CalGreen Code mandatory measures provide methods in excess of requirements in the explanation. Examples include outdoor water conservation measures such as; drought tolerant landscaping plants, compliant irrigation systems, xeriscape, replacing turf etc. Provide the conservation measure that the project will include in the explanation.	
b. Does the project meet or exceed the mandatory indoor water use measures of the 2019 California Green Building Standards Code (CALGREEN, Title 24, Part 11), Section 4.303? If the project exceeds CalGreen Code, mandatory measures provide methods in excess of requirements in the explanation. Examples may include water conserving devices and systems such as water leak detection system, hot water pipe insulation, pressure reducing valves, energy efficient appliances such as Energy Star Certified dishwashers, washing machines, dual flush toilets, point of use and/or tankless water heaters.	**Consistent.** Any new buildings (including new dwelling units) associated with the proposed project would be built to code and would meet or exceed the mandatory indoor use measure of the applicable California Green Building Standards Code.
5: Waste Diversion and Recycling Strategies	
a. Does the project implement techniques of solid waste segregation, disposal and reduction, such as recycling, composting, waste to energy technology, and/or waste separation, to reduce the volume of solid wastes that must be sent to landfill facilities?	**Consistent.** Future residents would be served by City of Fresno for residential recycling and sold waste services. The City of Fresno provides residents with three 96-gallon carts as a basic level of service. There is one cart for trash (gray), one for recyclables (blue), and one for green waste (green). All carts are emptied on the same day by automated collection trucks.[2] As the project consists of a 44-lot single family detached residential rental unit development, waste disposal may be handled by the facility. The facility would implement techniques of solid waste segregation.
b. During construction will the project recycle construction and demolition waste?	**Consistent.** The project would implement techniques to reduce and recycle waste during construction activities.
c. Does the project provide recycling canisters in public areas where trashcans are also provided?	**Consistent with MM GHG-B1.** The project includes common recreation space that may include trashcans for public use. The project description and other project plans do not indicate that recycling canisters would be included. If trashcans are provided along sidewalks or in the pocket park proposed as part of residential project, implementation of MM GHG-B1 would ensure that the project would be consistent with this measure.
Sources: [1] City of Fresno. 2021. Greenhouse Gas Reduction Plan Update. March. [2] City of Fresno. 2022. Trash Disposal & Recycling, Residential Services. Website: https://www.fresno.gov/publicutilities/trash-disposal-recycling/residential-services/. Accessed May 1, 2023.	

As evaluated above in Table 18, the proposed project would not conflict with the GHG reduction goals identified in the City of Fresno's adopted GHG Reduction Plan Update after incorporation of MM GHG-B1. Several of the measures are not applicable to the project. Compliance with regulations enforced by the City of Fresno would ensure the project would not conflict with the City's efforts to reduce community-generated GHG emissions. MM GHG-B1 is included to ensure the project will provide recycling canisters in any public areas where trashcans are also provided.

Consistency with AB 32 and the 2008 Scoping Plan

The State's regulatory program implementing the 2008 Scoping Plan is now fully mature. All regulations envisioned in the Scoping Plan have been adopted, and the effectiveness of those regulations has been estimated by the agencies during the adoption process and then tracked to verify their effectiveness after implementation. The combined effect of this successful effort is that the State projects that it will achieve continued progress toward meeting post-2020 targets. Governor Brown, in the introduction to Executive Order B-30-15, stated "California is on track to meet or exceed the current target of reducing greenhouse gas emissions to 1990 levels by 2020, as established in the California Global Warming Solutions Act of 2006 (AB 32)."

Consistency with SB 32 and the 2017 Scoping Plan

The 2017 Climate Change Scoping Plan Update (2017 Scoping Plan) includes the strategy that the State intends to pursue to achieve the 2030 targets of Executive Order S-3-05 and SB 32. Although CARB adopted the 2022 Scoping Plan in December 2022 that addresses long-term GHG goals set forth by AB 1279,[17] the 2017 Scoping Plan addresses a future GHG goal and remains relevant to the proposed project. The 2017 Scoping Plan includes the following summary of its overall strategy for reaching the 2030 target:

- SB 350
    - Achieve 50 percent Renewables Portfolio Standard (RPS) by 2030.
    - Doubling of energy efficiency savings by 2030.
- Low Carbon Fuel Standard (LCFS)
    - Increased stringency (reducing carbon intensity 18 percent by 2030, up from 10 percent in 2020).
- Mobile Source Strategy (Cleaner Technology and Fuels Scenario)
    - Maintaining existing GHG standards for light- and heavy-duty vehicles.
    - Put 4.2 million zero-emission vehicles (ZEVs) on the roads.
    - Increase ZEV buses, delivery and other trucks.
- Sustainable Freight Action Plan
    - Improve freight system efficiency.
    - Maximize use of near-zero emission vehicles and equipment powered by renewable energy.
    - Deploy over 100,000 zero-emission trucks and equipment by 2030.
- Short-Lived Climate Pollutant (SLCP) Reduction Strategy

[17] The Final 2022 Scoping Plan was released on November 16, 2022 and adopted by CARB on December 15, 2022.

  - Reduce emissions of methane and hydrofluorocarbons 40 percent below 2013 levels by 2030.
  - Reduce emissions of black carbon 50 percent below 2013 levels by 2030.
- SB 375 Sustainable Communities Strategies
  - Increased stringency of 2035 targets.
- Post-2020 Cap-and-Trade Program
  - Declining caps, continued linkage with Québec, and linkage to Ontario, Canada.
  - CARB will look for opportunities to strengthen the program to support more air quality co-benefits, including specific program design elements. In Fall 2016, CARB staff described potential future amendments including reducing the offset usage limit, redesigning the allocation strategy to reduce free allocation to support increased technology and energy investment at covered entities and reducing allocation if the covered entity increases criteria or toxics emissions over some baseline.
- By 2018, develop Integrated Natural and Working Lands Action Plan to secure California's land base as a net carbon sink

Table 19 provides an analysis of the project's consistency with the 2017 Scoping Plan Update measures.

Table 19: Consistency with SB 32 2017 Scoping Plan Update

Scoping Plan Measure	Project Consistency
SB 350 50% Renewable Mandate. Utilities subject to the legislation will be required to increase their renewable energy mix from 33% in 2020 to 50% in 2030. *(The requirement is now 60% in 2030 per SB 100.)*	**Consistent**: The project will purchase electricity from a utility subject to the SB 350 Renewable Mandate.
SB 350 Double Building Energy Efficiency by 2030. This is equivalent to a 20 percent reduction from 2014 building energy usage compared to current projected 2030 levels.	**Not Applicable**. This measure applies to existing buildings. New structures, including new single-family homes, are required to comply with Title 24 Energy Efficiency Standards that are expected to increase in stringency until residential housing achieves zero net energy. The project consists of the construction of 44 new single-family homes and does not include renovations to existing structures.
Low Carbon Fuel Standard. This measure requires fuel providers to meet an 18 percent reduction in carbon content by 2030.	**Consistent**. Vehicles accessing the project site will use fuel containing lower carbon content as the fuel standard is implemented.
Mobile Source Strategy (Cleaner Technology and Fuels Scenario). Vehicle manufacturers will be required to meet existing regulations mandated by the LEV III and Heavy-Duty Vehicle programs. The strategy includes a goal of having 4.2 million ZEVs on the road by 2030 and increasing numbers of ZEV trucks and buses.	**Consistent**. Project residents can be expected to purchase increasing numbers of more fuel efficient and zero emission cars and trucks each year. The CALGreen Code requires electrical service in new single-family housing to be EV charger-ready. In addition, home deliveries will be made by increasing numbers of ZEV delivery trucks.
Sustainable Freight Action Plan. The plan's target is to improve freight system efficiency 25 percent by increasing the value of goods and services produced from the freight sector, relative to the	**Not Applicable**. The measure applies to owners and operators of trucks and freight operations. The project is residential in nature and would not support freight

Scoping Plan Measure	Project Consistency
amount of carbon that it produces by 2030. This would be achieved by deploying over 100,000 freight vehicles and equipment capable of zero emission operation and maximize near-zero emission freight vehicles and equipment powered by renewable energy by 2030.	operations. However, home deliveries are expected to be made by increasing number of ZEV delivery trucks.
Short-Lived Climate Pollutant (SLCP) Reduction Strategy. The strategy requires the reduction of SLCPs by 40 percent from 2013 levels by 2030 and the reduction of black carbon by 50 percent from 2013 levels by 2030.	**Consistent**. The project will only include natural gas hearths that produce very little black carbon compared with wood burning fireplaces and heaters in-line with the SJVAPCD's Guidance for Assessing and Mitigating Air Quality Impacts mitigation measures.[1]
SB 375 Sustainable Communities Strategies. Requires Regional Transportation Plans to include a sustainable communities strategy for reduction of per capita vehicle miles traveled.	**Not applicable**. The project is for tentative tract map to allow for the construction and development of 44 single-family homes and does not include the development of a regional transportation plan. However, the project will provide residential development to increase development densities, which facilitates reductions to VMT.
Post-2020 Cap-and-Trade Program. The Post 2020 Cap-and-Trade Program continues the existing program for another 10 years. The Cap-and-Trade Program applies to large industrial sources such as power plants, refineries, and cement manufacturers.	**Consistent.** The post-2020 Cap-and-Trade Program indirectly affects people who use the products and services produced by the regulated industrial sources when increased cost of products or services (such as electricity and fuel) are transferred to the consumers. The Cap-and-Trade Program covers the GHG emissions associated with electricity consumed in California, whether generated in-state or imported. Accordingly, GHG emissions associated with CEQA projects' electricity usage are covered by the Cap-and-Trade Program. The Cap-and-Trade Program also covers fuel suppliers (natural gas and propane fuel providers and transportation fuel providers) to address emissions from such fuels and from combustion of other fossil fuels not directly covered at large sources in the program's first compliance period.
Natural and Working Lands Action Plan. CARB is working in coordination with several other agencies at the federal, state, and local levels, stakeholders, and with the public, to develop measures as outlined in the Scoping Plan Update and the governor's Executive Order B-30-15 to reduce GHG emissions and to cultivate net carbon sequestration potential for California's natural and working land.	**Not Applicable**. The project is residential development and will not be considered natural or working lands.

Source: California Air Resources Board (CARB). 2017. The 2017 Climate Change Scoping Plan Update. January 20. Website: https://www.arb.ca.gov/cc/scopingplan/2030sp_pp_final.pdf. August 1, 2022.

[1] San Joaquin Valley Air Pollution Control District (SJVAPCD). 2015. Guidance for Assessing and Mitigating Air Quality Impacts. Website: https://www.valleyair.org/transportation/GAMAQI-2015/FINAL-DRAFT-GAMA. Accessed May 1, 2023.

Consistency Regarding GHG Reduction Goals for 2050 under Executive Order S-3-05 and GHG Reduction Goals for 2045 under the 2022 Scoping Plan

CARB adopted the 2022 Scoping Plan in December 2022 that addresses long-term GHG goals set forth by AB 1279.[18] The 2022 Scoping Plan outlines the State's pathway to achieve carbon neutrality and an 85 percent reduction in 1990 emissions goal by 2045. In the 2022 Scoping Plan, CARB advocates for compliance with a local GHG reduction strategy consistent with CEQA Guidelines section 15183.5.

The 2022 Scoping Plan outlines approaches that lead agencies may consider for evaluating the consistency of proposed plans and residential and mixed-use projects with the State's climate goals. In other words, the 2022 Scoping Plan considers approaches to evaluate whether a project may have a less than significant impact on GHG emissions, though it notes that these approaches are recommendations only and that they do not supplant lead agencies' discretion to develop their own evidence-based approaches for determining whether a project would result in a potentially significant impact on GHG emissions.

One approach involves assessing the project's consistency with a GHG reduction plan, such as a CEQA-qualified climate action plan. As previously discussed, the Fresno General Plan includes a GHG Reduction Plan that provides the City's primary strategy for reducing GHG emissions. The intent of the GHG Reduction Plan is to achieve compliance with State GHG reduction mandates by focusing on feasible actions the City can take to minimize the adverse impacts of growth and development on climate change. The GHG Reduction Plan Update (2021) provides the following guidance to determine project-level impacts when the project does not require a general plan amendment. Based on the proposed project's consistency with the City of Fresno's The GHG Reduction Plan Update after incorporation of MM GHG-B1 (see Table 18), the proposed project is considered consistent with the 2022 Scoping Plan and AB 1279's goal of achieving statewide carbon net neutrality by 2045.

Regarding goals for 2050 under Executive Order S-3-05, at this time it is not possible to quantify the emissions savings from future regulatory measures, as they have not yet been developed; nevertheless, it can be anticipated that operation of the project would comply with whatever measures are enacted that state lawmakers decide would lead to an 80 percent reduction below 1990 levels by 2050. In its 2008 Scoping Plan, CARB acknowledged that the "measures needed to meet the 2050 are too far in the future to define in detail." In the First Scoping Plan Update; however, CARB generally described the type of activities required to achieve the 2050 target: "energy demand reduction through efficiency and activity changes; large scale electrification of on-road vehicles, buildings, and industrial machinery; decarbonizing electricity and fuel supplies; and rapid market penetration of efficiency and clean energy technologies that requires significant efforts to deploy and scale markets for the cleanest technologies immediately." The 2017 Scoping Plan provides an intermediate target that is intended to achieve reasonable progress toward the 2050 target. In addition, the 2022 Scoping Plan outlines objectives, regulations, planning efforts, and investments in clean technologies and infrastructure that outlines how the State can achieve carbon-neutrality by 2045.

Accordingly, taking into account the proposed project's emissions, project design features, and the progress being made by the State towards reducing emissions in key sectors such as transportation, industry, and electricity, the project would be consistent with State GHG Plans and would further the State's goals of reducing GHG emissions to 1990 levels by 2020, 40 percent below 1990 levels by 2030,

[18] The Final 2022 Scoping Plan was released on November 16, 2022 and adopted by CARB on December 15, 2022.

carbon neutral by 2045, and 80 percent below 1990 levels by 2050, and does not obstruct their attainment. Impacts would be less than significant.

Impact Analysis Summary

The proposed project would not conflict with the GHG reduction goals identified in the City of Fresno's adopted GHG Reduction Plan Update after incorporation of MM GHG-B1. MM GHG-B1 is included to ensure the project will provide recycling canisters in any public areas where trashcans are also provided. In addition, the project would not conflict with CARB's adopted 2017 Scoping Plan or CARB's 2022 Scoping Plan. Because the project would be consistent with the City of Fresno's GHG Reduction Plan Update, it follows that the project would not conflict with any applicable plan, policy or regulation adopted for the purpose of reducing the emissions of GHGs. MM GHG-B1 is required for the project to be consistent with the City of Fresno's adopted GHG Reduction Plan Update. Therefore, impacts would be less than significant with the incorporation of mitigation.

MM GHG-B1 Before a construction permit is issued for the proposed project, the project applicant, project sponsor, or construction contractor shall provide the City of Fresno with documentation of the following requirement:

- The project shall provide recycling canisters in public areas where trashcans are also provided.

Energy

Environmental Setting

Pacific Gas and Electric Company (PG&E) provides electricity and natural gas service to the City of Lakeport. Upon buildout of the project site, electricity to the project site would be provided by PG&E. All electricity infrastructure would be located underground and would tie-in to existing infrastructure.

In 2020, approximately 85 percent of the electricity PG&E supplied was from GHG-free sources including nuclear, large hydroelectric, and eligible renewable sources of energy.[19]

Methodology

The energy requirements for the proposed project were determined using the construction and operational estimates generated from the Air Quality Analysis (refer to Attachment A for related CalEEMod output files). The calculation worksheets for fuel consumption rates for off-road construction equipment and on-road vehicles are provided in Attachment C. Short-term construction energy consumption is discussed below.

Short-Term Construction

Off-Road Equipment

The proposed project is anticipated to begin construction as early as 2023 and conclude in 2024. Table 20 provides estimates of the project's construction fuel consumption from off-road construction equipment for the entire project, categorized by construction activity.

Table 20: Construction Off-Road Fuel Consumption

Project Component	Construction Phase	Fuel Consumption (gallons)
Tract No. 6432 Project (On-site, Off-road Equipment Use)	Site Preparation	703
	Grading	1,100
	Building Construction	12,781
	Paving	843
	Architectural Coating	124
Total		**15,551**
Notes: Totals may not appear to sum correctly due to rounding. Source: Energy Consumption Calculations (Attachment C).		

As shown in Table 20, use of off-road equipment associated with construction of the proposed project is estimated to consume approximately 15,551 gallons of diesel fuel over the entire construction duration. There are no unusual project characteristics that would necessitate the use of construction equipment that would be less energy efficient than at comparable construction sites in the City of Fresno or the larger Fresno County region. Therefore, it is expected that construction fuel consumption associated with the proposed project would not be any more inefficient, wasteful, or unnecessary than at other construction sites in the region.

[19] Pacific Gas & Electric (PG&E). 2021. Corporate Sustainability Report 2021. Website: https://www.pgecorp.com/corp_responsibility/reports/2021/pf04_renewable_energy.html. Accessed May 1, 2023.

On-Road Vehicles

On-road vehicles for construction workers, vendors, and haulers would require fuel for travel to and from the site during construction. Table 21 provides an estimate of the total on-road vehicle fuel usage during construction. There are no unusual project characteristics that would necessitate the use of construction equipment that would be less energy efficient than at comparable construction sites in other parts of the state. Therefore, it is expected that construction fuel consumption associated with the proposed project would not be any more inefficient, wasteful, or unnecessary than at other construction sites in the region.

Table 21: Construction On-Road Fuel Consumption

Project Component	Construction Phase	Vehicle Miles Traveled (miles over the construction duration)	Total Fuel Consumption (gallons of fuel over the construction duration)
Tract No. 6432 Project (On-site, Off-road Equipment Use)	Site Preparation	2,224	114
	Grading	15,980	2,058
	Building Construction	44,216	2,192
	Paving	9,456	530
	Architectural Coating	1,552	62
Total		**73,428**	**4,956**

Notes:
Totals may not appear to sum correctly due to rounding.
Source: Energy Consumption Calculations (Attachment C).

Long-Term Operations

Transportation Energy Demand

Table 22 provides an estimate of the daily and annual fuel consumed by vehicles traveling to and from the proposed project. These estimates were derived using the same assumptions used in the operational air quality analysis for the proposed project.

Table 22: Long-Term Operational Vehicle Fuel Consumption

Vehicle Type	Percent of Vehicle Trips	Annual VMT	Average Fuel Economy (miles/ gallon)	Total Daily Fuel Consumption (gallons)	Total Annual Fuel Consumption (gallons)
Passenger Cars (LDA)	53.05	636,072	32.59	53.5	19,519
Light Trucks (Pickups) and Medium Vehicles	42.81	513,294	23.82	59.0	21,545
Light-Heavy to Medium-Heavy Diesel Trucks	1.05	12,590	11.59	3.0	1,086
Heavy-heavy Trucks	2.18	26,138	7.03	10.2	3,719
Motorcycles	0.25	2,998	37.85	0.2	79
Other	0.66	7,913	6.75	3.2	1,172
Total	**100.0**	**1,199,005**	**—**	**129.1**	**47,120**

Notes:
VMT = vehicle miles traveled
Percent of Vehicle Trips and VMT provided by CalEEMod.
"Other" consists of buses and motor homes.

Vehicle Type	Percent of Vehicle Trips	Annual VMT	Average Fuel Economy (miles/ gallon)	Total Daily Fuel Consumption (gallons)	Total Annual Fuel Consumption (gallons)
Source: Energy Consumption Calculations (Attachment C).					

As shown above, annual vehicular fuel consumption is estimated to be 47,120 gallons of gasoline and diesel fuel combined. Using rates calculated for the 2023 operational year, daily consumption is estimated at 129 gallons of fuel (see Attachment C).

Building Energy Demand

As shown in Table 23 and Table 24, the proposed project is estimated to demand 366,100 kilowatt-hours (kWh) of electricity and 1,057,650 1,000-British Thermal Units (kBTU) of natural gas, respectively, on an annual basis. It should be noted that the single-family homes would be built with rooftop solar, consistent with applicable Tile 24 building code requirements.

Table 23: Long-Term Electricity Usage

Land Use	Total Electricity Demand (kWh/year)
Internal Paved Roads represented as Parking Lot	15,246
Single Family Housing	350,854
Total	**366,100**
Source: Energy Consumption Calculations (Attachment C).	

Table 24: Long-Term Natural Gas Usage

Land Use	Total Natural Gas Demand (kBTU/year)
Single Family Housing	1,057,650
Total	**1,057,650**
Source: Energy Consumption Calculations (Attachment C).	

Addressing Energy CEQA Impact Questions

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

Table 25: Summary of Energy Impact Analysis

Energy	
Would the project:	**Significance Finding**
a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	Less than Significant Impact
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	Less than Significant Impact

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

Less Than Significant Impact.

This impact addresses the energy consumption from both the short-term construction and long-term operations are discussed separately below.

Construction Energy Demand

As summarized in Table 20 and Table 21, the proposed project would require 15,551 gallons of diesel fuel for construction off-road equipment and 4,956 gallons of gasoline and diesel for on-road vehicles during construction. There are no unusual project characteristics that would necessitate the use of construction equipment that would be less energy efficient than at comparable construction sites in the region or other parts of the state. In addition, the overall construction schedule and process is already designed to be efficient in order to avoid excess monetary costs. For example, equipment and fuel are not typically used wastefully due to the added expense associated with renting the equipment, maintaining it, and fueling it. Therefore, it is expected that construction fuel consumption associated with the proposed project would not be any more inefficient, wasteful, or unnecessary than at other construction sites in the region, and as such, impacts would be less than significant.

Long-Term Energy Demand

Building Energy Demand

Buildings and infrastructure constructed pursuant to the proposed project would comply with the versions of CCR Titles 20 and 24, including California Green Building Standards (CALGreen), that are applicable at the time that building permits are issued. The proposed project is estimated to demand 366,100 kWh of electricity per year (54,915 off-site demand, assuming solar panels will cover approximately 85 percent of the project's electricity demand) and 1,057,650 kBTU of natural gas per year. This would represent an increase in demand for electricity and natural gas.

It would be expected that building energy consumption associated with the proposed project would not be any more inefficient, wasteful, or unnecessary than for any other similar buildings in the region. Current state regulatory requirements for new building construction contained in the 2022 CALGreen and Title 24 standards would increase energy efficiency and reduce energy demand in comparison to existing commercial structures, and therefore would reduce actual environmental effects associated with energy use from the proposed project. Additionally, the CALGreen and Title 24 standards have increased efficiency standards through each update.

Therefore, while the proposed project would result in increased electricity and natural gas demand, the electricity and natural gas would be consumed more efficiently and would be typical of existing industrial development.

Based on the above information, the proposed project would not result in the inefficient or wasteful consumption of electricity or natural gas, and impacts would be less than significant.

Transportation Energy Demands

The daily vehicular fuel consumption is estimated to be 129.1 gallons of gasoline and diesel fuel combined. Annual consumption is estimated at 47,120 gallons. In addition, the proposed project would constitute development within an established community and would not be opening a new geographical area for development. As such, the proposed project would not result in unusually long trip lengths for future residents, visitors, or deliveries to the proposed homes. The project site is located near other

residential land uses and is in close proximity to commercial and public uses. The proposed project would be well-positioned to accommodate an existing community and provide housing for planned growth. Vehicles accessing the site would be typical of vehicles accessing similar residential uses in the City of Fresno and surrounding areas. For these reasons, it would be expected that vehicular fuel consumption associated with the proposed project would not be any more inefficient, wasteful, or unnecessary than for any other similar land use activities in the region, and impacts would be less than significant.

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

Less Than Significant Impact.

The project proposes a tentative tract map that would facilitate the construction and development of 44 new single-family homes, all of which would be built in accordance with all applicable rules and regulations. Compliance with established and applicable regulations would ensure that the project and would not conflict with or obstruct any state or local plan for renewable energy or energy efficiency. Moreover, compliance with Title 24 standards would ensure that the proposed project would not conflict with any energy conservation policies related to the proposed project's building envelope, mechanical systems, and indoor and outdoor lighting. In addition, the proposed project would constitute development within an established community. As such, the project would not be opening a new geographical area for development such that it would not result in unusually long trip lengths for future project residents.

For the above reasons, the proposed project would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency, and impacts would be less than significant.

Attachments

Attachment A – Modeling Assumptions, CalEEMod Output files, and Operational Screening Results

Attachment B – Construction Health Risk Assessment

Attachment C – Energy Consumption Calculations

ATTACHMENT A

Modeling Assumptions, CalEEMod Output files, and Operational Screening Results

CalEEMod Output and Additional Supporting Information

Table of Contents

Additional Supporting Information

- **Tulare & Peach Tract No. 6432 Project Residential Project Construction Assumptions**
- **Project Site Plan**
- **Project Site Vicinity Map**

CalEEMod Output Files

- **Unmitigated Construction & Project Buildout Operations in the Earliest Year (2023)**
- **Mitigated Construction – Tier 4 Scenario**
- **Mitigated Construction – Level 3 Filters Scenario**
- **Maximum Daily On-site and Localized Construction and Operational Emissions**
- **Business as Usual Scenario – 2023 Buildout Operational Year Scenario**
- **Business as Usual Scenario – 2030 Operational Year Scenario**
- **2030 Operational Scenario**

Operational Health Risk Screening

- **Screening Calculations and Prioritization**

Tulare and Peach Vesting Tentative Tract Map for Tract No. 6432 Project
Construction Assumptions

Construction Schedule

Phase Name	Start Date	End Date	Num Days Week	Num Days
Site Preparation	6/1/2023	6/14/2023	5	10
Grading	6/15/2023	7/12/2023	5	20
Building Construction	7/13/2023	5/29/2024	5	230
Paving	5/30/2024	6/26/2024	5	20
Architectural Coating	6/27/2024	7/24/2024	5	20

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8	97	0.37
Grading	Excavators	1	8	158	0.38
Grading	Graders	1	8	187	0.41
Grading	Rubber Tired Dozers	1	8	247	0.40
Grading	Tractors/Loaders/Backhoes	3	8	97	0.37
Paving	Pavers	2	8	130	0.42
Paving	Paving Equipment	2	8	132	0.36
Paving	Rollers	2	8	80	0.38
Building Construction	Cranes	1	7	231	0.29
Building Construction	Forklifts	3	8	89	0.20
Building Construction	Generator Sets	1	8	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7	97	0.37
Building Construction	Welders	1	8	46	0.45
Architectural Coating	Air Compressors	1	6	78	0.48

Construction Trips and VMT

Phase Name	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length
Site Preparation	18	0	14	10.8	7.3	20
Grading	15	0	637	10.8	7.3	20
Paving	15	4	12	10.8	7.3	20
Building Construction	34	12	18	10.8	7.3	20
Architectural Coating	7	0	2	10.8	7.3	20

VESTING TENTATIVE SUBDIVISION MAP FOR TRACT NO. 6432

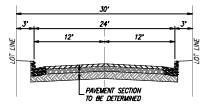
IN THE CITY OF FRESNO
FRESNO COUNTY, CALIFORNIA

ABBREVIATIONS

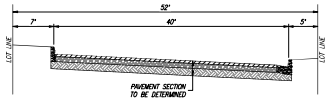
AC	ASPHALT CONCRETE (PAVEMENT)
BW	BACK OF WALK
EG	EDGE OF GUTTER
FL	FLOWLINE
GB	GRADE BREAK
GND	GROUND
LE	LANDSCAPE EASEMENT
ORFC	OFFICIAL RECORDS FRESNO COUNTY
SSMH	SANITARY SEWER MANHOLE
TC	TOP OF CURB

SYMBOLS

- EASEMENT FOR PUBLIC STREET PURPOSES, GRANTED TO COUNTY OF FRESNO, RECORDED JULY 14, 2010, DOCUMENT NO. 2010-0080692, ORFC
- BACKFLOW PREVENTOR
- WATER VALVE
- WATER METER
- ELECTRICAL MANHOLE
- ELECTRICAL RISER
- MAILBOX
- SANITARY SEWER CLEANOUT
- SANITARY SEWER MANHOLE
- TELEPHONE MANHOLE
- TELEPHONE PULLBOX
- TRAFFIC SIGNAL PULLBOX
- STREETLIGHT
- SIGN
- TREE STUMP
- EXISTING TREE (SIZE VARIES)
- MANNER OF DIRECT ACCESS
- SUBJECT PROPERTY BOUNDARY
- SECTION LINE
- EXISTING PROPERTY LINE
- EXISTING RIGHT OF WAY
- EXISTING SANITARY SEWER MAIN

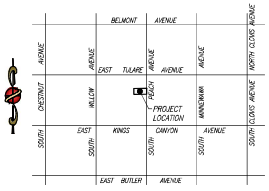


PRIVATE STREETS A & B
NOT TO SCALE
LOOKING EAST



PRIVATE STREET C
NOT TO SCALE
LOOKING NORTH

PRIVATE STREET D
NOT TO SCALE
LOOKING NORTH



VICINITY MAP
NOT TO SCALE

SINGLE FAMILY RESIDENTIAL PLANNED DEVELOPMENT

PROPOSED USE MEDIUM DENSITY RESIDENTIAL	SOURCE OF TELEPHONE SBC
SOURCE OF WATER CITY OF FRESNO	ASSESSOR'S PARCEL NUMBERS 463-140-01, 463-140-02, 463-140-03
SOURCE OF SEWAGE DISPOSAL CITY OF FRESNO	SITE AREA GROSS AREA = ±4.18 ACRES / NET AREA = ±3.97 ACRES
SOURCE OF ELECTRICITY PG&E	NUMBER OF LOTS 44
SOURCE OF GAS PG&E	DENSITY 11 UNITS PER ACRE
SOURCE OF CABLE TV COMCAST	MINIMUM LOT SIZE 2278 SQUARE FEET

GENERAL NOTES:

1. ALL EXISTING TREES AND STRUCTURES SHALL BE REMOVED.
2. EXISTING ZONING IS R-1 (FRESNO COUNTY).
3. PROPOSED ZONING IS R-5 (CITY OF FRESNO).
4. THE EXISTING USE OF THE PROPERTY IS VACANT.
5. SOURCE OF WATER SUPPLY SHALL BE THE CITY OF FRESNO.
6. SOURCE OF SEWER DISPOSAL SHALL BE THE CITY OF FRESNO.
7. SITE ACREAGE IS ±4.18 ACRES (GROSS), ±3.97 ACRES (NET).
8. ASPHODON ALL WELL AND SEPTIC TANKS TO COUNTY STANDARDS.
9. THE DESIGN OF THE PROPOSED SUBDIVISION SHALL PROVIDE TO THE EXTENT FEASIBLE FOR FUTURE PASSIVE OR NATURAL HEATING OR COOLING OPPORTUNITIES AND OTHER MEASURES THAT CONSERVE NON-RENEWABLE ENERGY RESOURCES SUCH AS 33 NORTH/SOUTH FACING LOTS (73% OF TOTAL LOT COUNT).
10. ALL PUBLIC UTILITIES (PG&E, SBC, COMCAST, WATER AND SEWER) SHALL BE INSTALLED.
11. ALL IMPROVEMENTS PROPOSED (SEWER, WATER, STORM DRAIN, CURB, GUTTER, STREETLIGHTS, SIDEWALK AND PERMANENT PAVEMENT) SHALL BE CONSTRUCTED TO CITY STANDARDS.
12. DEVELOPER TO CONSTRUCT 6-FOOT DECORATIVE WALL AT THE BACK OF THE LANDSCAPE EASEMENT ALONG THE REAR OF LOTS 1, 2, 3, 29 AND 30.
13. THIS TRACT IS NOT WITHIN 200 FEET OF ANY RAILROAD, FREEWAY OR EXPRESSWAY.
14. NO CANALS OR PRIVATE DITCHES PRESENT ON SITE.

ADDITIONAL NOTES:

ALL EXISTING ABOVE-GROUND ELECTRICAL UTILITIES TO BE UNDERGROUNDED AND POLES TO BE REMOVED.

WATER MAIN TO BE CONNECTED

SEWER MAIN TO BE CONNECTED

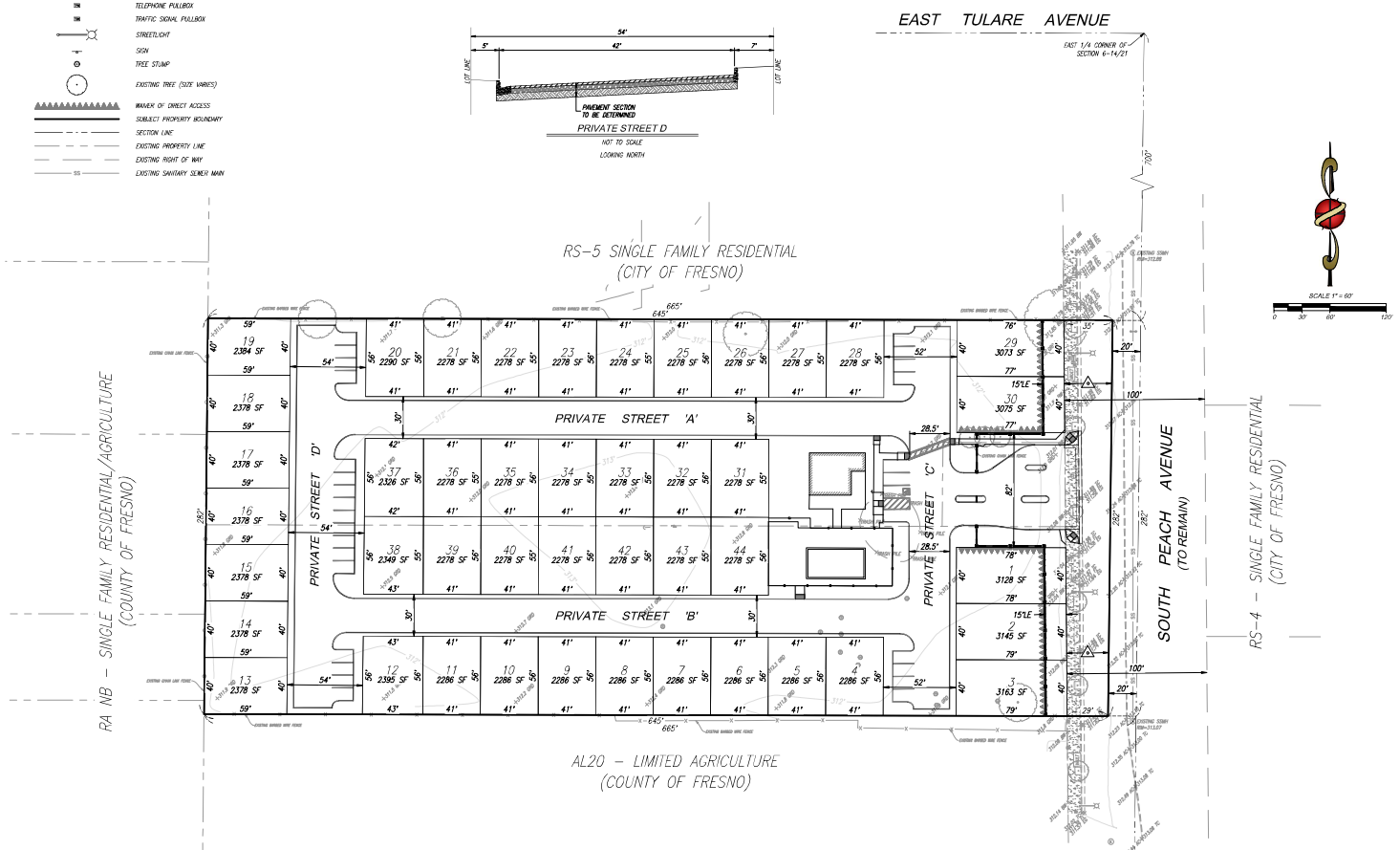
STORM DRAIN MAIN TO BE CONNECTED

LEGAL DESCRIPTION

±4.18 ACRES IN THE NORTHEAST QUARTER OF THE SOUTHEAST QUARTER OF SECTION 6, TOWNSHIP 14 SOUTH, RANGE 21 EAST, MOUNT DIABLO BASE AND MERIDIAN

OWNER/SUBDIVIDER

GOLDEN STATE DEVELOPERS, LLC
680 P STREET, SUITE 210
FRESNO, CALIFORNIA 93721

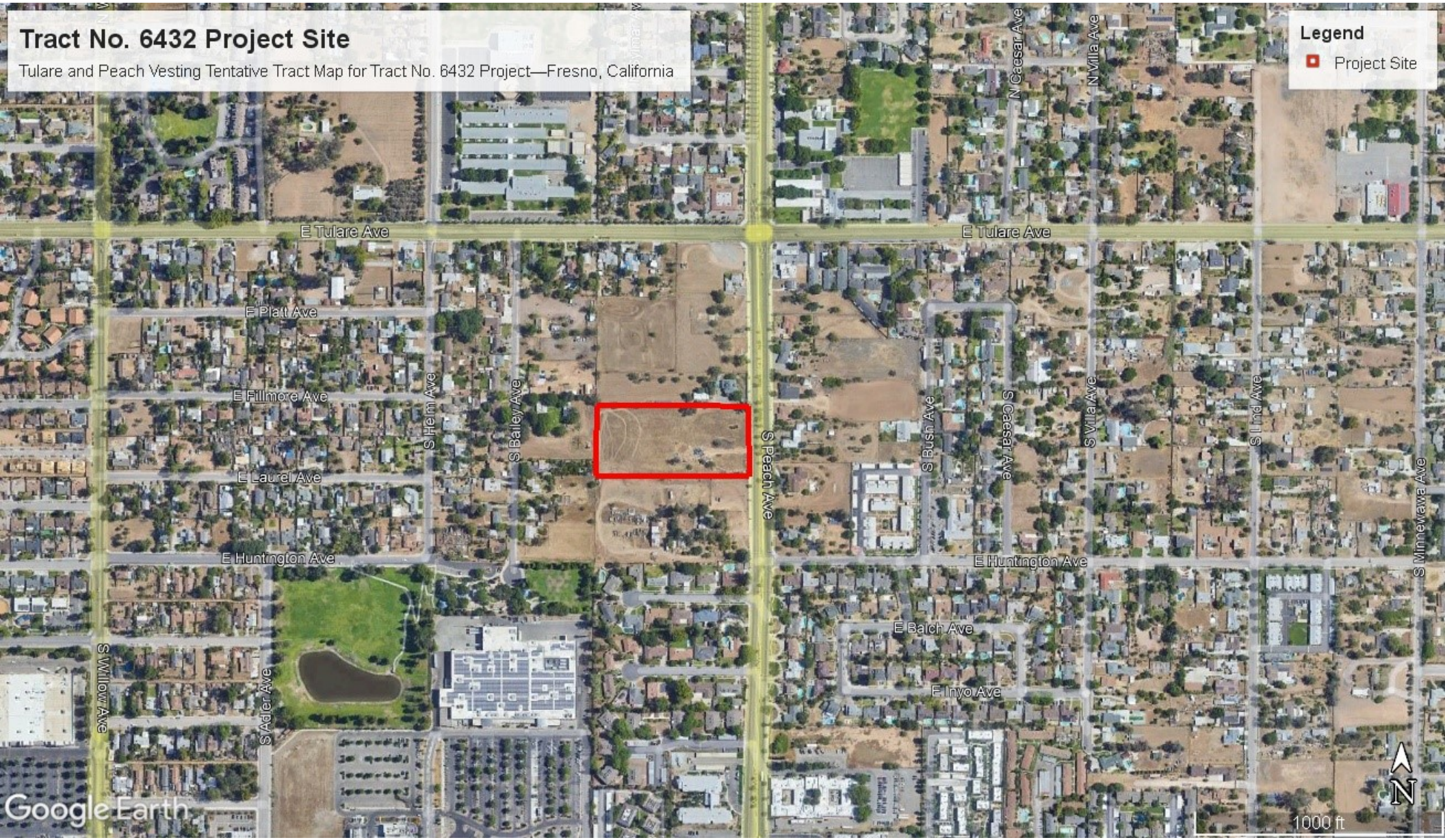


PREPARED BY:

PRECISION CIVIL ENGINEERING, INC.

1234 O STREET, FRESNO, CA. 93721
(559) 449-4500 FAX: (559) 449-4515

PREPARED ON:
JANUARY 24, 2023
PCE JOB NO. 22-054


Tract No. 6432 Project Site
Tulare and Peach Vesting Tentative Tract Map for Tract No. 6432 Project—Fresno, California
Legend
Project Site
E Tulare Ave
E Tulare Ave
E Platt Ave
E Fillmore Ave
E Laurel Ave
E Huntington Ave
E Huntington Ave
E Balch Ave
E Inyo Ave
S Helm Ave
S Bailey Ave
S Peach Ave
S Bush Ave
S Cedar Ave
S Villa Ave
S Thesta Ave
S Minnewawa Ave
N Cedar Ave
N Villa Ave
S Willow Ave
S Ader Ave
Google Earth
1000 ft
N

TT 6432 Residential Project - Unmitigated Construction & Operations - Fresno County, Annual

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

TT 6432 Residential Project - Unmitigated Construction & Operations

Fresno County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	1.00	Acre	1.00	43,560.00	0
Single Family Housing	44.00	Dwelling Unit	4.18	88,000.00	126

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	45
Climate Zone	3			**Operational Year**	2023
Utility Company	Pacific Gas and Electric Company				
CO2 Intensity (lb/MWhr)	203.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Tulare and Peach Vesting Tentative Tract Map for Tract No. 6432 - Unmitigated Construction & Operations
Full buildout in anticipated earliest year of operations (2023)

Land Use - 44 units analyzed, consistent with project description
Tract 6432 Project Site Gross Acres: 4.18 acres
Added additional one (1) acre to account for off-site improvements (curb, gutter, sidewalk, etc.)

Construction Phase - Construction - earlier dates provide a more conservative estimate of emissions

Trips and VMT - Additional truck trips were added to each phase for mobilization/demobilization of on-site equipment (two trips per piece of equipment).
Additional vendor trips added to the paving phase to account for delivery of materials.

Grading - Cut/fill anticipated to balance on-site
Included 2,500 cy of import and 2,500 cy of export to provide a conservative estimate of emissions

Architectural Coating - Rule 4601 Architectural Coatings

Vehicle Trips - ITE 11th Edition Rates for single-family homes (ITE Land Use 210)

Woodstoves - SJVAPCD Rule 4901 Woodburning

TT 6432 Residential Project - Unmitigated Construction & Operations - Fresno County, Annual

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

Area Coating - Rule 4601 Architectural Coatings

Water And Wastewater -

Solid Waste -

Construction Off-road Equipment Mitigation - Compliance with SJVAPCD Regulation VIII

Area Mitigation - Rule 4601 Architectural Coatings, no woodburning fireplaces (only natural gas hearth), and outside outlets

Energy Mitigation - Single-family homes to be built with rooftop solar to provide on-site renewable energy (85% of electricity use generated applied)

Water Mitigation - Compliance with Green Building Code Standards and California Model Water Efficient Landscape Ordinance

Waste Mitigation - CalRecycle 75 Percent Initiative (25% reduction)

Fleet Mix - SJVAPCD-approved Residential Fleet Mix for the 2023 operational year

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Residential_Exterior	150.00	50.00
tblArchitecturalCoating	EF_Residential_Interior	150.00	50.00
tblAreaCoating	Area_EF_Residential_Exterior	150	50
tblAreaCoating	Area_EF_Residential_Interior	150	50
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblFireplaces	FireplaceWoodMass	3,078.40	0.00
tblFleetMix	HHD	0.02	0.02
tblFleetMix	LDA	0.51	0.53
tblFleetMix	LDT1	0.05	0.21
tblFleetMix	LDT2	0.18	0.17
tblFleetMix	LHD1	0.03	1.1000e-003
tblFleetMix	LHD2	7.0060e-003	9.0000e-004
tblFleetMix	MCY	0.02	2.5000e-003
tblFleetMix	MDV	0.16	0.06
tblFleetMix	MH	3.0900e-003	1.9000e-003
tblFleetMix	MHD	0.01	8.5000e-003
tblFleetMix	OBUS	7.1700e-004	0.00
tblFleetMix	SBUS	1.5290e-003	4.0000e-004

TT 6432 Residential Project - Unmitigated Construction & Operations - Fresno County, Annual

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

tblFleetMix	UBUS	2.9100e-004	4.3000e-003
tblGrading	MaterialExported	0.00	2,500.00
tblGrading	MaterialImported	0.00	2,500.00
tblLandUse	LandUseSquareFeet	79,200.00	88,000.00
tblLandUse	LotAcreage	14.29	4.18
tblTripsAndVMT	HaulingTripNumber	0.00	14.00
tblTripsAndVMT	HaulingTripNumber	625.00	637.00
tblTripsAndVMT	HaulingTripNumber	0.00	12.00
tblTripsAndVMT	HaulingTripNumber	0.00	18.00
tblTripsAndVMT	HaulingTripNumber	0.00	2.00
tblTripsAndVMT	VendorTripNumber	0.00	4.00
tblVehicleTrips	ST_TR	9.54	9.48
tblVehicleTrips	SU_TR	8.55	8.48
tblVehicleTrips	WD_TR	9.44	9.43
tblWoodstoves	WoodstoveWoodMass	3,019.20	0.00

2.0 Emissions Summary

TT 6432 Residential Project - Unmitigated Construction & Operations - Fresno County, Annual

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

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2023	0.1350	1.2726	1.3025	2.6300e-003	0.1984	0.0575	0.2559	0.0927	0.0538	0.1465	0.0000	231.5237	231.5237	0.0481	5.4800e-003	234.3607
2024	0.3835	0.8687	1.0912	1.9900e-003	0.0212	0.0387	0.0599	5.7400e-003	0.0363	0.0421	0.0000	173.9097	173.9097	0.0367	2.4000e-003	175.5420
Maximum	**0.3835**	**1.2726**	**1.3025**	**2.6300e-003**	**0.1984**	**0.0575**	**0.2559**	**0.0927**	**0.0538**	**0.1465**	**0.0000**	**231.5237**	**231.5237**	**0.0481**	**5.4800e-003**	**234.3607**

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					
2023	0.1350	1.2726	1.3025	2.6300e-003	0.1052	0.0575	0.1627	0.0460	0.0538	0.0998	0.0000	231.5235	231.5235	0.0481	5.4800e-003	234.3605
2024	0.3835	0.8687	1.0912	1.9900e-003	0.0212	0.0387	0.0599	5.7400e-003	0.0363	0.0421	0.0000	173.9095	173.9095	0.0367	2.4000e-003	175.5418
Maximum	**0.3835**	**1.2726**	**1.3025**	**2.6300e-003**	**0.1052**	**0.0575**	**0.1627**	**0.0460**	**0.0538**	**0.0998**	**0.0000**	**231.5235**	**231.5235**	**0.0481**	**5.4800e-003**	**234.3605**

TT 6432 Residential Project - Unmitigated Construction & Operations - Fresno County, Annual

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**42.43**	**0.00**	**29.51**	**47.40**	**0.00**	**24.74**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	**6-1-2023**	**8-31-2023**	0.6860	0.6860
2	**9-1-2023**	**11-30-2023**	0.5425	0.5425
3	**12-1-2023**	**2-29-2024**	0.5201	0.5201
4	**3-1-2024**	**5-31-2024**	0.5100	0.5100
5	**6-1-2024**	**8-31-2024**	0.4007	0.4007
		Highest	0.6860	0.6860

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	0.3867	0.0202	0.3338	1.2000e-004		3.1400e-003	3.1400e-003		3.1400e-003	3.1400e-003	0.0000	19.5948	19.5948	8.8000e-004	3.5000e-004	19.7209
Energy	5.7000e-003	0.0487	0.0207	3.1000e-004		3.9400e-003	3.9400e-003		3.9400e-003	3.9400e-003	0.0000	90.3133	90.3133	6.5600e-003	1.7000e-003	90.9837
Mobile	0.1344	0.2495	1.5738	4.2900e-003	0.4469	3.1400e-003	0.4501	0.1191	2.9300e-003	0.1221	0.0000	401.1873	401.1873	0.0304	0.0202	407.9625
Waste						0.0000	0.0000		0.0000	0.0000	9.2077	0.0000	9.2077	0.5442	0.0000	22.8116
Water						0.0000	0.0000		0.0000	0.0000	0.9095	2.0205	2.9300	0.0937	2.2500e-003	5.9426
Total	**0.5268**	**0.3185**	**1.9283**	**4.7200e-003**	**0.4469**	**0.0102**	**0.4571**	**0.1191**	**0.0100**	**0.1292**	**10.1172**	**513.1160**	**523.2332**	**0.6758**	**0.0245**	**547.4213**

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

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.3866	0.0202	0.3314	1.2000e-004		3.1300e-003	3.1300e-003		3.1300e-003	3.1300e-003	0.0000	19.5900	19.5900	8.7000e-004	3.5000e-004	19.7159
Energy	5.7000e-003	0.0487	0.0207	3.1000e-004		3.9400e-003	3.9400e-003		3.9400e-003	3.9400e-003	0.0000	61.5213	61.5213	1.9000e-003	1.1300e-003	61.9069
Mobile	0.1344	0.2495	1.5738	4.2900e-003	0.4469	3.1400e-003	0.4501	0.1191	2.9300e-003	0.1221	0.0000	401.1873	401.1873	0.0304	0.0202	407.9625
Waste						0.0000	0.0000		0.0000	0.0000	6.9058	0.0000	6.9058	0.4081	0.0000	17.1087
Water						0.0000	0.0000		0.0000	0.0000	0.7276	1.6164	2.3440	0.0750	1.8000e-003	4.7541
Total	**0.5267**	**0.3185**	**1.9259**	**4.7200e-003**	**0.4469**	**0.0102**	**0.4571**	**0.1191**	**0.0100**	**0.1291**	**7.6334**	**483.9151**	**491.5484**	**0.5163**	**0.0235**	**511.4482**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.03**	**0.01**	**0.12**	**0.00**	**0.00**	**0.10**	**0.00**	**0.00**	**0.10**	**0.01**	**24.55**	**5.69**	**6.06**	**23.60**	**4.17**	**6.57**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	6/1/2023	6/14/2023	5	10	Site preparation and site clearing
2	Grading	Grading	6/15/2023	7/12/2023	5	20	
3	Building Construction	Building Construction	7/13/2023	5/29/2024	5	230	

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

4	Paving	Paving	5/30/2024	6/26/2024	5	20	
5	Architectural Coating	Architectural Coating	6/27/2024	7/24/2024	5	20	

Acres of Grading (Site Preparation Phase): 15

Acres of Grading (Grading Phase): 20

Acres of Paving: 1

Residential Indoor: 178,200; Residential Outdoor: 59,400; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 2,614 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	1	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
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
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
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

TT 6432 Residential Project - Unmitigated Construction & Operations - Fresno County, Annual

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

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	14.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	637.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	4.00	12.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	34.00	12.00	18.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	7.00	0.00	2.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Site Preparation - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0983	0.0000	0.0983	0.0505	0.0000	0.0505	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0133	0.1376	0.0912	1.9000e-004		6.3300e-003	6.3300e-003		5.8200e-003	5.8200e-003	0.0000	16.7254	16.7254	5.4100e-003	0.0000	16.8606
Total	**0.0133**	**0.1376**	**0.0912**	**1.9000e-004**	**0.0983**	**6.3300e-003**	**0.1046**	**0.0505**	**5.8200e-003**	**0.0563**	**0.0000**	**16.7254**	**16.7254**	**5.4100e-003**	**0.0000**	**16.8606**

TT 6432 Residential Project - Unmitigated Construction & Operations - Fresno County, Annual

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

3.2 Site Preparation - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.0000e-005	8.8000e-004	1.8000e-004	0.0000	1.2000e-004	1.0000e-005	1.3000e-004	3.0000e-005	1.0000e-005	4.0000e-005	0.0000	0.3966	0.3966	0.0000	6.0000e-005	0.4152
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.8000e-004	1.8000e-004	2.1200e-003	1.0000e-005	7.2000e-004	0.0000	7.2000e-004	1.9000e-004	0.0000	1.9000e-004	0.0000	0.5659	0.5659	2.0000e-005	2.0000e-005	0.5712
Total	**2.9000e-004**	**1.0600e-003**	**2.3000e-003**	**1.0000e-005**	**8.4000e-004**	**1.0000e-005**	**8.5000e-004**	**2.2000e-004**	**1.0000e-005**	**2.3000e-004**	**0.0000**	**0.9624**	**0.9624**	**2.0000e-005**	**8.0000e-005**	**0.9864**

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					0.0442	0.0000	0.0442	0.0227	0.0000	0.0227	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0133	0.1376	0.0912	1.9000e-004		6.3300e-003	6.3300e-003		5.8200e-003	5.8200e-003	0.0000	16.7253	16.7253	5.4100e-003	0.0000	16.8606
Total	**0.0133**	**0.1376**	**0.0912**	**1.9000e-004**	**0.0442**	**6.3300e-003**	**0.0506**	**0.0227**	**5.8200e-003**	**0.0286**	**0.0000**	**16.7253**	**16.7253**	**5.4100e-003**	**0.0000**	**16.8606**

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

3.2 Site Preparation - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.0000e-005	8.8000e-004	1.8000e-004	0.0000	1.2000e-004	1.0000e-005	1.3000e-004	3.0000e-005	1.0000e-005	4.0000e-005	0.0000	0.3966	0.3966	0.0000	6.0000e-005	0.4152
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.8000e-004	1.8000e-004	2.1200e-003	1.0000e-005	7.2000e-004	0.0000	7.2000e-004	1.9000e-004	0.0000	1.9000e-004	0.0000	0.5659	0.5659	2.0000e-005	2.0000e-005	0.5712
Total	**2.9000e-004**	**1.0600e-003**	**2.3000e-003**	**1.0000e-005**	**8.4000e-004**	**1.0000e-005**	**8.5000e-004**	**2.2000e-004**	**1.0000e-005**	**2.3000e-004**	**0.0000**	**0.9624**	**0.9624**	**2.0000e-005**	**8.0000e-005**	**0.9864**

3.3 Grading - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0711	0.0000	0.0711	0.0343	0.0000	0.0343	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0171	0.1794	0.1475	3.0000e-004		7.7500e-003	7.7500e-003		7.1300e-003	7.1300e-003	0.0000	26.0606	26.0606	8.4300e-003	0.0000	26.2713
Total	**0.0171**	**0.1794**	**0.1475**	**3.0000e-004**	**0.0711**	**7.7500e-003**	**0.0789**	**0.0343**	**7.1300e-003**	**0.0414**	**0.0000**	**26.0606**	**26.0606**	**8.4300e-003**	**0.0000**	**26.2713**

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

3.3 Grading - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	6.8000e-004	0.0399	8.4000e-003	1.9000e-004	5.4500e-003	3.8000e-004	5.8300e-003	1.5000e-003	3.6000e-004	1.8600e-003	0.0000	18.0430	18.0430	1.2000e-004	2.8400e-003	18.8916
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.6000e-004	3.0000e-004	3.5400e-003	1.0000e-005	1.2000e-003	1.0000e-005	1.2000e-003	3.2000e-004	1.0000e-005	3.2000e-004	0.0000	0.9431	0.9431	3.0000e-005	3.0000e-005	0.9519
Total	**1.1400e-003**	**0.0402**	**0.0119**	**2.0000e-004**	**6.6500e-003**	**3.9000e-004**	**7.0300e-003**	**1.8200e-003**	**3.7000e-004**	**2.1800e-003**	**0.0000**	**18.9861**	**18.9861**	**1.5000e-004**	**2.8700e-003**	**19.8436**

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					0.0320	0.0000	0.0320	0.0154	0.0000	0.0154	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0171	0.1794	0.1475	3.0000e-004		7.7500e-003	7.7500e-003		7.1300e-003	7.1300e-003	0.0000	26.0606	26.0606	8.4300e-003	0.0000	26.2713
Total	**0.0171**	**0.1794**	**0.1475**	**3.0000e-004**	**0.0320**	**7.7500e-003**	**0.0398**	**0.0154**	**7.1300e-003**	**0.0226**	**0.0000**	**26.0606**	**26.0606**	**8.4300e-003**	**0.0000**	**26.2713**

TT 6432 Residential Project - Unmitigated Construction & Operations - Fresno County, Annual

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

3.3 Grading - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	6.8000e-004	0.0399	8.4000e-003	1.9000e-004	5.4500e-003	3.8000e-004	5.8300e-003	1.5000e-003	3.6000e-004	1.8600e-003	0.0000	18.0430	18.0430	1.2000e-004	2.8400e-003	18.8916
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.6000e-004	3.0000e-004	3.5400e-003	1.0000e-005	1.2000e-003	1.0000e-005	1.2000e-003	3.2000e-004	1.0000e-005	3.2000e-004	0.0000	0.9431	0.9431	3.0000e-005	3.0000e-005	0.9519
Total	**1.1400e-003**	**0.0402**	**0.0119**	**2.0000e-004**	**6.6500e-003**	**3.9000e-004**	**7.0300e-003**	**1.8200e-003**	**3.7000e-004**	**2.1800e-003**	**0.0000**	**18.9861**	**18.9861**	**1.5000e-004**	**2.8700e-003**	**19.8436**

3.4 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0959	0.8775	0.9909	1.6400e-003		0.0427	0.0427		0.0402	0.0402	0.0000	141.4009	141.4009	0.0336	0.0000	142.2418
Total	**0.0959**	**0.8775**	**0.9909**	**1.6400e-003**		**0.0427**	**0.0427**		**0.0402**	**0.0402**	**0.0000**	**141.4009**	**141.4009**	**0.0336**	**0.0000**	**142.2418**

TT 6432 Residential Project - Unmitigated Construction & Operations - Fresno County, Annual

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

3.4 Building Construction - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.0000e-005	6.0000e-004	1.3000e-004	0.0000	8.0000e-005	1.0000e-005	9.0000e-005	2.0000e-005	1.0000e-005	3.0000e-005	0.0000	0.2704	0.2704	0.0000	4.0000e-005	0.2832
Vendor	7.9000e-004	0.0322	9.6400e-003	1.5000e-004	4.8500e-003	2.1000e-004	5.0600e-003	1.4000e-003	2.0000e-004	1.6000e-003	0.0000	14.0783	14.0783	8.0000e-005	2.1200e-003	14.7116
Worker	6.4200e-003	4.1600e-003	0.0489	1.4000e-004	0.0166	8.0000e-005	0.0167	4.4100e-003	7.0000e-005	4.4800e-003	0.0000	13.0396	13.0396	4.0000e-004	3.8000e-004	13.1622
Total	**7.2200e-003**	**0.0369**	**0.0587**	**2.9000e-004**	**0.0215**	**3.0000e-004**	**0.0218**	**5.8300e-003**	**2.8000e-004**	**6.1100e-003**	**0.0000**	**27.3883**	**27.3883**	**4.8000e-004**	**2.5400e-003**	**28.1570**

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	0.0959	0.8775	0.9909	1.6400e-003		0.0427	0.0427		0.0402	0.0402	0.0000	141.4007	141.4007	0.0336	0.0000	142.2417
Total	**0.0959**	**0.8775**	**0.9909**	**1.6400e-003**		**0.0427**	**0.0427**		**0.0402**	**0.0402**	**0.0000**	**141.4007**	**141.4007**	**0.0336**	**0.0000**	**142.2417**

TT 6432 Residential Project - Unmitigated Construction & Operations - Fresno County, Annual

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

3.4 Building Construction - 2023

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	1.0000e-005	6.0000e-004	1.3000e-004	0.0000	8.0000e-005	1.0000e-005	9.0000e-005	2.0000e-005	1.0000e-005	3.0000e-005	0.0000	0.2704	0.2704	0.0000	4.0000e-005	0.2832
Vendor	7.9000e-004	0.0322	9.6400e-003	1.5000e-004	4.8500e-003	2.1000e-004	5.0600e-003	1.4000e-003	2.0000e-004	1.6000e-003	0.0000	14.0783	14.0783	8.0000e-005	2.1200e-003	14.7116
Worker	6.4200e-003	4.1600e-003	0.0489	1.4000e-004	0.0166	8.0000e-005	0.0167	4.4100e-003	7.0000e-005	4.4800e-003	0.0000	13.0396	13.0396	4.0000e-004	3.8000e-004	13.1622
Total	**7.2200e-003**	**0.0369**	**0.0587**	**2.9000e-004**	**0.0215**	**3.0000e-004**	**0.0218**	**5.8300e-003**	**2.8000e-004**	**6.1100e-003**	**0.0000**	**27.3883**	**27.3883**	**4.8000e-004**	**2.5400e-003**	**28.1570**

3.4 Building Construction - 2024

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	0.0795	0.7260	0.8730	1.4600e-003		0.0331	0.0331		0.0312	0.0312	0.0000	125.1985	125.1985	0.0296	0.0000	125.9387
Total	**0.0795**	**0.7260**	**0.8730**	**1.4600e-003**		**0.0331**	**0.0331**		**0.0312**	**0.0312**	**0.0000**	**125.1985**	**125.1985**	**0.0296**	**0.0000**	**125.9387**

TT 6432 Residential Project - Unmitigated Construction & Operations - Fresno County, Annual

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

3.4 Building Construction - 2024

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	1.0000e-005	5.3000e-004	1.1000e-004	0.0000	7.0000e-005	1.0000e-005	8.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.2350	0.2350	0.0000	4.0000e-005	0.2461
Vendor	6.8000e-004	0.0285	8.3300e-003	1.3000e-004	4.3000e-003	1.8000e-004	4.4800e-003	1.2400e-003	1.8000e-004	1.4200e-003	0.0000	12.2500	12.2500	6.0000e-005	1.8400e-003	12.8011
Worker	5.2500e-003	3.2400e-003	0.0399	1.2000e-004	0.0147	7.0000e-005	0.0148	3.9000e-003	6.0000e-005	3.9600e-003	0.0000	11.1632	11.1632	3.2000e-004	3.1000e-004	11.2634
Total	**5.9400e-003**	**0.0322**	**0.0484**	**2.5000e-004**	**0.0191**	**2.6000e-004**	**0.0193**	**5.1600e-003**	**2.4000e-004**	**5.4000e-003**	**0.0000**	**23.6483**	**23.6483**	**3.8000e-004**	**2.1900e-003**	**24.3106**

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	0.0795	0.7260	0.8730	1.4600e-003		0.0331	0.0331		0.0312	0.0312	0.0000	125.1984	125.1984	0.0296	0.0000	125.9385
Total	**0.0795**	**0.7260**	**0.8730**	**1.4600e-003**		**0.0331**	**0.0331**		**0.0312**	**0.0312**	**0.0000**	**125.1984**	**125.1984**	**0.0296**	**0.0000**	**125.9385**

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

3.4 Building Construction - 2024

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	1.0000e-005	5.3000e-004	1.1000e-004	0.0000	7.0000e-005	1.0000e-005	8.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.2350	0.2350	0.0000	4.0000e-005	0.2461
Vendor	6.8000e-004	0.0285	8.3300e-003	1.3000e-004	4.3000e-003	1.8000e-004	4.4800e-003	1.2400e-003	1.8000e-004	1.4200e-003	0.0000	12.2500	12.2500	6.0000e-005	1.8400e-003	12.8011
Worker	5.2500e-003	3.2400e-003	0.0399	1.2000e-004	0.0147	7.0000e-005	0.0148	3.9000e-003	6.0000e-005	3.9600e-003	0.0000	11.1632	11.1632	3.2000e-004	3.1000e-004	11.2634
Total	**5.9400e-003**	**0.0322**	**0.0484**	**2.5000e-004**	**0.0191**	**2.6000e-004**	**0.0193**	**5.1600e-003**	**2.4000e-004**	**5.4000e-003**	**0.0000**	**23.6483**	**23.6483**	**3.8000e-004**	**2.1900e-003**	**24.3106**

3.5 Paving - 2024

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	9.8800e-003	0.0953	0.1463	2.3000e-004		4.6900e-003	4.6900e-003		4.3100e-003	4.3100e-003	0.0000	20.0265	20.0265	6.4800e-003	0.0000	20.1885
Paving	1.3100e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0112**	**0.0953**	**0.1463**	**2.3000e-004**		**4.6900e-003**	**4.6900e-003**		**4.3100e-003**	**4.3100e-003**	**0.0000**	**20.0265**	**20.0265**	**6.4800e-003**	**0.0000**	**20.1885**

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

3.5 Paving - 2024

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	1.0000e-005	7.5000e-004	1.6000e-004	0.0000	1.0000e-004	1.0000e-005	1.1000e-004	3.0000e-005	1.0000e-005	4.0000e-005	0.0000	0.3337	0.3337	0.0000	5.0000e-005	0.3494
Vendor	4.0000e-005	1.7600e-003	5.1000e-004	1.0000e-005	2.7000e-004	1.0000e-005	2.8000e-004	8.0000e-005	1.0000e-005	9.0000e-005	0.0000	0.7562	0.7562	0.0000	1.1000e-004	0.7902
Worker	4.3000e-004	2.7000e-004	3.2600e-003	1.0000e-005	1.2000e-003	1.0000e-005	1.2000e-003	3.2000e-004	1.0000e-005	3.2000e-004	0.0000	0.9120	0.9120	3.0000e-005	3.0000e-005	0.9202
Total	**4.8000e-004**	**2.7800e-003**	**3.9300e-003**	**2.0000e-005**	**1.5700e-003**	**3.0000e-005**	**1.5900e-003**	**4.3000e-004**	**3.0000e-005**	**4.5000e-004**	**0.0000**	**2.0019**	**2.0019**	**3.0000e-005**	**1.9000e-004**	**2.0598**

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	9.8800e-003	0.0953	0.1463	2.3000e-004		4.6900e-003	4.6900e-003		4.3100e-003	4.3100e-003	0.0000	20.0265	20.0265	6.4800e-003	0.0000	20.1884
Paving	1.3100e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0112**	**0.0953**	**0.1463**	**2.3000e-004**		**4.6900e-003**	**4.6900e-003**		**4.3100e-003**	**4.3100e-003**	**0.0000**	**20.0265**	**20.0265**	**6.4800e-003**	**0.0000**	**20.1884**

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

3.5 Paving - 2024

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	1.0000e-005	7.5000e-004	1.6000e-004	0.0000	1.0000e-004	1.0000e-005	1.1000e-004	3.0000e-005	1.0000e-005	4.0000e-005	0.0000	0.3337	0.3337	0.0000	5.0000e-005	0.3494
Vendor	4.0000e-005	1.7600e-003	5.1000e-004	1.0000e-005	2.7000e-004	1.0000e-005	2.8000e-004	8.0000e-005	1.0000e-005	9.0000e-005	0.0000	0.7562	0.7562	0.0000	1.1000e-004	0.7902
Worker	4.3000e-004	2.7000e-004	3.2600e-003	1.0000e-005	1.2000e-003	1.0000e-005	1.2000e-003	3.2000e-004	1.0000e-005	3.2000e-004	0.0000	0.9120	0.9120	3.0000e-005	3.0000e-005	0.9202
Total	**4.8000e-004**	**2.7800e-003**	**3.9300e-003**	**2.0000e-005**	**1.5700e-003**	**3.0000e-005**	**1.5900e-003**	**4.3000e-004**	**3.0000e-005**	**4.5000e-004**	**0.0000**	**2.0019**	**2.0019**	**3.0000e-005**	**1.9000e-004**	**2.0598**

3.6 Architectural Coating - 2024

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	0.2844					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.8100e-003	0.0122	0.0181	3.0000e-005		6.1000e-004	6.1000e-004		6.1000e-004	6.1000e-004	0.0000	2.5533	2.5533	1.4000e-004	0.0000	2.5569
Total	**0.2862**	**0.0122**	**0.0181**	**3.0000e-005**		**6.1000e-004**	**6.1000e-004**		**6.1000e-004**	**6.1000e-004**	**0.0000**	**2.5533**	**2.5533**	**1.4000e-004**	**0.0000**	**2.5569**

3.6 Architectural Coating - 2024

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	1.2000e-004	3.0000e-005	0.0000	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0000	1.0000e-005	0.0000	0.0556	0.0556	0.0000	1.0000e-005	0.0582
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	1.5200e-003	0.0000	5.6000e-004	0.0000	5.6000e-004	1.5000e-004	0.0000	1.5000e-004	0.0000	0.4256	0.4256	1.0000e-005	1.0000e-005	0.4294
Total	**2.0000e-004**	**2.4000e-004**	**1.5500e-003**	**0.0000**	**5.8000e-004**	**0.0000**	**5.8000e-004**	**1.5000e-004**	**0.0000**	**1.6000e-004**	**0.0000**	**0.4812**	**0.4812**	**1.0000e-005**	**2.0000e-005**	**0.4877**

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	0.2844					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.8100e-003	0.0122	0.0181	3.0000e-005		6.1000e-004	6.1000e-004		6.1000e-004	6.1000e-004	0.0000	2.5533	2.5533	1.4000e-004	0.0000	2.5568
Total	**0.2862**	**0.0122**	**0.0181**	**3.0000e-005**		**6.1000e-004**	**6.1000e-004**		**6.1000e-004**	**6.1000e-004**	**0.0000**	**2.5533**	**2.5533**	**1.4000e-004**	**0.0000**	**2.5568**

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

3.6 Architectural Coating - 2024

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	1.2000e-004	3.0000e-005	0.0000	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0000	1.0000e-005	0.0000	0.0556	0.0556	0.0000	1.0000e-005	0.0582
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	1.5200e-003	0.0000	5.6000e-004	0.0000	5.6000e-004	1.5000e-004	0.0000	1.5000e-004	0.0000	0.4256	0.4256	1.0000e-005	1.0000e-005	0.4294
Total	**2.0000e-004**	**2.4000e-004**	**1.5500e-003**	**0.0000**	**5.8000e-004**	**0.0000**	**5.8000e-004**	**1.5000e-004**	**0.0000**	**1.6000e-004**	**0.0000**	**0.4812**	**0.4812**	**1.0000e-005**	**2.0000e-005**	**0.4877**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.1344	0.2495	1.5738	4.2900e-003	0.4469	3.1400e-003	0.4501	0.1191	2.9300e-003	0.1221	0.0000	401.1873	401.1873	0.0304	0.0202	407.9625
Unmitigated	0.1344	0.2495	1.5738	4.2900e-003	0.4469	3.1400e-003	0.4501	0.1191	2.9300e-003	0.1221	0.0000	401.1873	401.1873	0.0304	0.0202	407.9625

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Parking Lot	0.00	0.00	0.00		
Single Family Housing	414.92	417.12	373.12	1,199,005	1,199,005
Total	414.92	417.12	373.12	1,199,005	1,199,005

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Single Family Housing	10.80	7.30	7.50	48.40	15.90	35.70	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Parking Lot	0.510058	0.053037	0.175964	0.161396	0.026773	0.007006	0.013819	0.022114	0.000717	0.000291	0.024206	0.001529	0.003090
Single Family Housing	0.530500	0.205800	0.167300	0.055000	0.001100	0.000900	0.008500	0.021800	0.000000	0.004300	0.002500	0.000400	0.001900

5.0 Energy Detail

TT 6432 Residential Project - Unmitigated Construction & Operations - Fresno County, Annual

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

Historical Energy Use: N

5.1 Mitigation Measures Energy

Percent of Electricity Use Generated with Renewable 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	5.0810	5.0810	8.2000e-004	1.0000e-004	5.1312
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	33.8730	33.8730	5.4800e-003	6.6000e-004	34.2079
NaturalGas Mitigated	5.7000e-003	0.0487	0.0207	3.1000e-004		3.9400e-003	3.9400e-003		3.9400e-003	3.9400e-003	0.0000	56.4404	56.4404	1.0800e-003	1.0300e-003	56.7758
NaturalGas Unmitigated	5.7000e-003	0.0487	0.0207	3.1000e-004		3.9400e-003	3.9400e-003		3.9400e-003	3.9400e-003	0.0000	56.4404	56.4404	1.0800e-003	1.0300e-003	56.7758

TT 6432 Residential Project - Unmitigated Construction & Operations - Fresno County, Annual

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

5.2 Energy by Land Use - NaturalGas

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					
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Single Family Housing	1.05765e+006	5.7000e-003	0.0487	0.0207	3.1000e-004		3.9400e-003	3.9400e-003		3.9400e-003	3.9400e-003	0.0000	56.4404	56.4404	1.0800e-003	1.0300e-003	56.7758
Total		**5.7000e-003**	**0.0487**	**0.0207**	**3.1000e-004**		**3.9400e-003**	**3.9400e-003**		**3.9400e-003**	**3.9400e-003**	**0.0000**	**56.4404**	**56.4404**	**1.0800e-003**	**1.0300e-003**	**56.7758**

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					
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Single Family Housing	1.05765e+006	5.7000e-003	0.0487	0.0207	3.1000e-004		3.9400e-003	3.9400e-003		3.9400e-003	3.9400e-003	0.0000	56.4404	56.4404	1.0800e-003	1.0300e-003	56.7758
Total		**5.7000e-003**	**0.0487**	**0.0207**	**3.1000e-004**		**3.9400e-003**	**3.9400e-003**		**3.9400e-003**	**3.9400e-003**	**0.0000**	**56.4404**	**56.4404**	**1.0800e-003**	**1.0300e-003**	**56.7758**

TT 6432 Residential Project - Unmitigated Construction & Operations - Fresno County, Annual

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

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Parking Lot	15246	1.4106	2.3000e-004	3.0000e-005	1.4246
Single Family Housing	350854	32.4624	5.2500e-003	6.4000e-004	32.7834
Total		**33.8730**	**5.4800e-003**	**6.7000e-004**	**34.2079**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Parking Lot	2286.9	0.2116	3.0000e-005	0.0000	0.2137
Single Family Housing	52628.1	4.8694	7.9000e-004	1.0000e-004	4.9175
Total		**5.0809**	**8.2000e-004**	**1.0000e-004**	**5.1312**

6.0 Area Detail

TT 6432 Residential Project - Unmitigated Construction & Operations - Fresno County, Annual

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

6.1 Mitigation Measures Area

Use Electric Lawnmower

Use Electric Leafblower

Use Electric Chainsaw

Use Low VOC Paint - Residential Interior

Use Low VOC Paint - Residential Exterior

Use only Natural Gas Hearths

	ROG	NOx	CO	SO2	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	0.3866	0.0202	0.3314	1.2000e-004		3.1300e-003	3.1300e-003		3.1300e-003	3.1300e-003	0.0000	19.5900	19.5900	8.7000e-004	3.5000e-004	19.7159
Unmitigated	0.3867	0.0202	0.3338	1.2000e-004		3.1400e-003	3.1400e-003		3.1400e-003	3.1400e-003	0.0000	19.5948	19.5948	8.8000e-004	3.5000e-004	19.7209

TT 6432 Residential Project - Unmitigated Construction & Operations - Fresno County, Annual

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

6.2 Area by SubCategory

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	0.0284					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.3465					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	1.9300e-003	0.0165	7.0000e-003	1.1000e-004		1.3300e-003	1.3300e-003		1.3300e-003	1.3300e-003	0.0000	19.0611	19.0611	3.7000e-004	3.5000e-004	19.1744
Landscaping	9.8500e-003	3.7700e-003	0.3268	2.0000e-005		1.8100e-003	1.8100e-003		1.8100e-003	1.8100e-003	0.0000	0.5337	0.5337	5.1000e-004	0.0000	0.5465
Total	**0.3867**	**0.0202**	**0.3338**	**1.3000e-004**		**3.1400e-003**	**3.1400e-003**		**3.1400e-003**	**3.1400e-003**	**0.0000**	**19.5948**	**19.5948**	**8.8000e-004**	**3.5000e-004**	**19.7209**

TT 6432 Residential Project - Unmitigated Construction & Operations - Fresno County, Annual

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

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0284					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.3465					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	1.9300e-003	0.0165	7.0000e-003	1.1000e-004		1.3300e-003	1.3300e-003		1.3300e-003	1.3300e-003	0.0000	19.0611	19.0611	3.7000e-004	3.5000e-004	19.1744
Landscaping	9.7100e-003	3.7400e-003	0.3244	2.0000e-005		1.7900e-003	1.7900e-003		1.7900e-003	1.7900e-003	0.0000	0.5289	0.5289	5.1000e-004	0.0000	0.5415
Total	**0.3866**	**0.0202**	**0.3314**	**1.3000e-004**		**3.1200e-003**	**3.1200e-003**		**3.1200e-003**	**3.1200e-003**	**0.0000**	**19.5900**	**19.5900**	**8.8000e-004**	**3.5000e-004**	**19.7159**

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

TT 6432 Residential Project - Unmitigated Construction & Operations - Fresno County, Annual

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

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	2.3440	0.0750	1.8000e-003	4.7541
Unmitigated	2.9300	0.0937	2.2500e-003	5.9426

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	2.86678 / 1.80732	2.9300	0.0937	2.2500e-003	5.9426
Total		**2.9300**	**0.0937**	**2.2500e-003**	**5.9426**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	2.29342 / 1.44585	2.3440	0.0750	1.8000e-003	4.7541
Total		**2.3440**	**0.0750**	**1.8000e-003**	**4.7541**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

TT 6432 Residential Project - Unmitigated Construction & Operations - Fresno County, Annual

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

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	6.9058	0.4081	0.0000	17.1087
Unmitigated	9.2077	0.5442	0.0000	22.8116

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	45.36	9.2077	0.5442	0.0000	22.8116
Total		**9.2077**	**0.5442**	**0.0000**	**22.8116**

TT 6432 Residential Project - Unmitigated Construction & Operations - Fresno County, Annual

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

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	34.02	6.9058	0.4081	0.0000	17.1087
Total		**6.9058**	**0.4081**	**0.0000**	**17.1087**

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

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

TT 6432 Residential Project - Mitigated Construction - Fresno County, Annual

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

TT 6432 Residential Project - Mitigated Construction

Fresno County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	1.00	Acre	1.00	43,560.00	0
Single Family Housing	44.00	Dwelling Unit	4.18	88,000.00	126

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	45
Climate Zone	3			**Operational Year**	2023
Utility Company	Pacific Gas and Electric Company				
CO2 Intensity (lb/MWhr)	203.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Tulare and Peach Vesting Tentative Tract Map for Tract No. 6432 - Mitigated Construction
Full buildout in anticipated earliest year of operations (2023)

Land Use - 44 units analyzed, consistent with project description
Tract 6432 Project Site Gross Acres: 4.18 acres
Added additional one (1) acre to account for off-site improvements (curb, gutter, sidewalk, etc.)

Construction Phase - Construction - earlier dates provide a more conservative estimate of emissions

Trips and VMT - Additional truck trips were added to each phase for mobilization/demobilization of on-site equipment (two trips per piece of equipment).
Additional vendor trips added to the paving phase to account for delivery of materials.

Grading - Cut/fill anticipated to balance on-site
Included 2,500 cy of import and 2,500 cy of export to provide a conservative estimate of emissions

Architectural Coating - Rule 4601 Architectural Coatings

Vehicle Trips - Construction only run (zeroed out operational only parameters)

Woodstoves - Construction only run (zeroed out operational only parameters)

TT 6432 Residential Project - Mitigated Construction - Fresno County, Annual

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

Area Coating - Rule 4601 Architectural Coatings

Water And Wastewater - Construction only run

Solid Waste - Construction only run

Construction Off-road Equipment Mitigation - Compliance with SJVAPCD Regulation VIII
Mitigation: Tier 4 equipment for off-road equipment >75 HP (Tier 4 Interim applied)

Area Mitigation -

Energy Mitigation -

Water Mitigation -

Waste Mitigation -

Fleet Mix -

Landscape Equipment - Construction only run (zeroed out operational only parameters)

Energy Use - Construction only run

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Residential_Exterior	150.00	50.00
tblArchitecturalCoating	EF_Residential_Interior	150.00	50.00
tblAreaCoating	Area_EF_Residential_Exterior	150	50
tblAreaCoating	Area_EF_Residential_Interior	150	50
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00

TT 6432 Residential Project - Mitigated Construction - Fresno County, Annual

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

tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	10.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblEnergyUse	LightingElect	0.35	0.00
tblEnergyUse	LightingElect	1,608.84	0.00
tblEnergyUse	NT24E	6,155.97	0.00
tblEnergyUse	NT24NG	3,723.00	0.00
tblEnergyUse	T24E	209.15	0.00
tblEnergyUse	T24NG	20,314.55	0.00
tblFireplaces	FireplaceWoodMass	3,078.40	0.00
tblGrading	MaterialExported	0.00	2,500.00
tblGrading	MaterialImported	0.00	2,500.00
tblLandscapeEquipment	NumberSummerDays	180	1
tblLandUse	LandUseSquareFeet	79,200.00	88,000.00
tblLandUse	LotAcreage	14.29	4.18
tblSolidWaste	LandfillCaptureGasFlare	94.00	0.00
tblSolidWaste	LandfillCaptureGasFlare	94.00	0.00
tblSolidWaste	LandfillNoGasCapture	6.00	0.00
tblSolidWaste	LandfillNoGasCapture	6.00	0.00
tblSolidWaste	SolidWasteGenerationRate	45.36	0.00

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

tblTripsAndVMT	HaulingTripNumber	0.00	14.00
tblTripsAndVMT	HaulingTripNumber	625.00	637.00
tblTripsAndVMT	HaulingTripNumber	0.00	18.00
tblTripsAndVMT	HaulingTripNumber	0.00	12.00
tblTripsAndVMT	HaulingTripNumber	0.00	2.00
tblTripsAndVMT	VendorTripNumber	0.00	4.00
tblVehicleTrips	ST_TR	9.54	0.00
tblVehicleTrips	SU_TR	8.55	0.00
tblVehicleTrips	WD_TR	9.44	0.00
tblWater	IndoorWaterUseRate	2,866,777.13	0.00
tblWater	OutdoorWaterUseRate	1,807,316.02	0.00
tblWoodstoves	WoodstoveWoodMass	3,019.20	0.00

2.0 Emissions Summary

TT 6432 Residential Project - Mitigated Construction - Fresno County, Annual

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

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2023	0.1350	1.2726	1.3025	2.6300e-003	0.1984	0.0575	0.2559	0.0927	0.0538	0.1465	0.0000	231.5237	231.5237	0.0481	5.4800e-003	234.3607
2024	0.3835	0.8687	1.0912	1.9900e-003	0.0212	0.0387	0.0599	5.7400e-003	0.0363	0.0421	0.0000	173.9097	173.9097	0.0367	2.4000e-003	175.5420
Maximum	**0.3835**	**1.2726**	**1.3025**	**2.6300e-003**	**0.1984**	**0.0575**	**0.2559**	**0.0927**	**0.0538**	**0.1465**	**0.0000**	**231.5237**	**231.5237**	**0.0481**	**5.4800e-003**	**234.3607**

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					
2023	0.0627	0.8932	1.4790	2.6300e-003	0.1052	7.1500e-003	0.1124	0.0460	7.1200e-003	0.0532	0.0000	231.5235	231.5235	0.0481	5.4800e-003	234.3605
2024	0.3354	0.7204	1.2193	1.9900e-003	0.0212	5.3000e-003	0.0265	5.7400e-003	5.2900e-003	0.0110	0.0000	173.9095	173.9095	0.0367	2.4000e-003	175.5418
Maximum	**0.3354**	**0.8932**	**1.4790**	**2.6300e-003**	**0.1052**	**7.1500e-003**	**0.1124**	**0.0460**	**7.1200e-003**	**0.0532**	**0.0000**	**231.5235**	**231.5235**	**0.0481**	**5.4800e-003**	**234.3605**

TT 6432 Residential Project - Mitigated Construction - Fresno County, Annual

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**23.21**	**24.64**	**-12.72**	**0.00**	**42.43**	**87.05**	**56.01**	**47.40**	**86.23**	**65.96**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	**6-1-2023**	**8-31-2023**	0.6860	0.4303
2	**9-1-2023**	**11-30-2023**	0.5425	0.3949
3	**12-1-2023**	**2-29-2024**	0.5201	0.3936
4	**3-1-2024**	**5-31-2024**	0.5100	0.3955
5	**6-1-2024**	**8-31-2024**	0.4007	0.3965
		Highest	0.6860	0.4303

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	0.3769	0.0165	8.8200e-003	1.1000e-004		1.3400e-003	1.3400e-003		1.3400e-003	1.3400e-003	0.0000	19.0641	19.0641	3.7000e-004	3.5000e-004	19.1774
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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.3769**	**0.0165**	**8.8200e-003**	**1.1000e-004**	**0.0000**	**1.3400e-003**	**1.3400e-003**	**0.0000**	**1.3400e-003**	**1.3400e-003**	**0.0000**	**19.0641**	**19.0641**	**3.7000e-004**	**3.5000e-004**	**19.1774**

TT 6432 Residential Project - Mitigated Construction - Fresno County, Annual

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

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.3769	0.0165	8.8200e-003	1.1000e-004		1.3400e-003	1.3400e-003		1.3400e-003	1.3400e-003	0.0000	19.0641	19.0641	3.7000e-004	3.5000e-004	19.1774
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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.3769**	**0.0165**	**8.8200e-003**	**1.1000e-004**	**0.0000**	**1.3400e-003**	**1.3400e-003**	**0.0000**	**1.3400e-003**	**1.3400e-003**	**0.0000**	**19.0641**	**19.0641**	**3.7000e-004**	**3.5000e-004**	**19.1774**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	6/1/2023	6/14/2023	5	10	Site preparation and site clearing
2	Grading	Grading	6/15/2023	7/12/2023	5	20	
3	Building Construction	Building Construction	7/13/2023	5/29/2024	5	230	

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

4	Paving	Paving	5/30/2024	6/26/2024	5	20	
5	Architectural Coating	Architectural Coating	6/27/2024	7/24/2024	5	20	

Acres of Grading (Site Preparation Phase): 15

Acres of Grading (Grading Phase): 20

Acres of Paving: 1

Residential Indoor: 178,200; Residential Outdoor: 59,400; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 2,614 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	1	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	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

TT 6432 Residential Project - Mitigated Construction - Fresno County, Annual

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

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	14.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	637.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	34.00	12.00	18.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	4.00	12.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	7.00	0.00	2.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Site Preparation - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0983	0.0000	0.0983	0.0505	0.0000	0.0505	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0133	0.1376	0.0912	1.9000e-004		6.3300e-003	6.3300e-003		5.8200e-003	5.8200e-003	0.0000	16.7254	16.7254	5.4100e-003	0.0000	16.8606
Total	**0.0133**	**0.1376**	**0.0912**	**1.9000e-004**	**0.0983**	**6.3300e-003**	**0.1046**	**0.0505**	**5.8200e-003**	**0.0563**	**0.0000**	**16.7254**	**16.7254**	**5.4100e-003**	**0.0000**	**16.8606**

TT 6432 Residential Project - Mitigated Construction - Fresno County, Annual

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

3.2 Site Preparation - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.0000e-005	8.8000e-004	1.8000e-004	0.0000	1.2000e-004	1.0000e-005	1.3000e-004	3.0000e-005	1.0000e-005	4.0000e-005	0.0000	0.3966	0.3966	0.0000	6.0000e-005	0.4152
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.8000e-004	1.8000e-004	2.1200e-003	1.0000e-005	7.2000e-004	0.0000	7.2000e-004	1.9000e-004	0.0000	1.9000e-004	0.0000	0.5659	0.5659	2.0000e-005	2.0000e-005	0.5712
Total	**2.9000e-004**	**1.0600e-003**	**2.3000e-003**	**1.0000e-005**	**8.4000e-004**	**1.0000e-005**	**8.5000e-004**	**2.2000e-004**	**1.0000e-005**	**2.3000e-004**	**0.0000**	**0.9624**	**0.9624**	**2.0000e-005**	**8.0000e-005**	**0.9864**

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					0.0442	0.0000	0.0442	0.0227	0.0000	0.0227	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.4800e-003	0.0608	0.1148	1.9000e-004		3.1000e-004	3.1000e-004		3.1000e-004	3.1000e-004	0.0000	16.7253	16.7253	5.4100e-003	0.0000	16.8606
Total	**3.4800e-003**	**0.0608**	**0.1148**	**1.9000e-004**	**0.0442**	**3.1000e-004**	**0.0445**	**0.0227**	**3.1000e-004**	**0.0230**	**0.0000**	**16.7253**	**16.7253**	**5.4100e-003**	**0.0000**	**16.8606**

TT 6432 Residential Project - Mitigated Construction - Fresno County, Annual

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

3.2 Site Preparation - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.0000e-005	8.8000e-004	1.8000e-004	0.0000	1.2000e-004	1.0000e-005	1.3000e-004	3.0000e-005	1.0000e-005	4.0000e-005	0.0000	0.3966	0.3966	0.0000	6.0000e-005	0.4152
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.8000e-004	1.8000e-004	2.1200e-003	1.0000e-005	7.2000e-004	0.0000	7.2000e-004	1.9000e-004	0.0000	1.9000e-004	0.0000	0.5659	0.5659	2.0000e-005	2.0000e-005	0.5712
Total	**2.9000e-004**	**1.0600e-003**	**2.3000e-003**	**1.0000e-005**	**8.4000e-004**	**1.0000e-005**	**8.5000e-004**	**2.2000e-004**	**1.0000e-005**	**2.3000e-004**	**0.0000**	**0.9624**	**0.9624**	**2.0000e-005**	**8.0000e-005**	**0.9864**

3.3 Grading - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0711	0.0000	0.0711	0.0343	0.0000	0.0343	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0171	0.1794	0.1475	3.0000e-004		7.7500e-003	7.7500e-003		7.1300e-003	7.1300e-003	0.0000	26.0606	26.0606	8.4300e-003	0.0000	26.2713
Total	**0.0171**	**0.1794**	**0.1475**	**3.0000e-004**	**0.0711**	**7.7500e-003**	**0.0789**	**0.0343**	**7.1300e-003**	**0.0414**	**0.0000**	**26.0606**	**26.0606**	**8.4300e-003**	**0.0000**	**26.2713**

TT 6432 Residential Project - Mitigated Construction - Fresno County, Annual

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

3.3 Grading - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	6.8000e-004	0.0399	8.4000e-003	1.9000e-004	5.4500e-003	3.8000e-004	5.8300e-003	1.5000e-003	3.6000e-004	1.8600e-003	0.0000	18.0430	18.0430	1.2000e-004	2.8400e-003	18.8916
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.6000e-004	3.0000e-004	3.5400e-003	1.0000e-005	1.2000e-003	1.0000e-005	1.2000e-003	3.2000e-004	1.0000e-005	3.2000e-004	0.0000	0.9431	0.9431	3.0000e-005	3.0000e-005	0.9519
Total	**1.1400e-003**	**0.0402**	**0.0119**	**2.0000e-004**	**6.6500e-003**	**3.9000e-004**	**7.0300e-003**	**1.8200e-003**	**3.7000e-004**	**2.1800e-003**	**0.0000**	**18.9861**	**18.9861**	**1.5000e-004**	**2.8700e-003**	**19.8436**

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					0.0320	0.0000	0.0320	0.0154	0.0000	0.0154	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.2000e-003	0.1033	0.1899	3.0000e-004		4.8000e-004	4.8000e-004		4.8000e-004	4.8000e-004	0.0000	26.0606	26.0606	8.4300e-003	0.0000	26.2713
Total	**5.2000e-003**	**0.1033**	**0.1899**	**3.0000e-004**	**0.0320**	**4.8000e-004**	**0.0325**	**0.0154**	**4.8000e-004**	**0.0159**	**0.0000**	**26.0606**	**26.0606**	**8.4300e-003**	**0.0000**	**26.2713**

TT 6432 Residential Project - Mitigated Construction - Fresno County, Annual

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

3.3 Grading - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	6.8000e-004	0.0399	8.4000e-003	1.9000e-004	5.4500e-003	3.8000e-004	5.8300e-003	1.5000e-003	3.6000e-004	1.8600e-003	0.0000	18.0430	18.0430	1.2000e-004	2.8400e-003	18.8916
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.6000e-004	3.0000e-004	3.5400e-003	1.0000e-005	1.2000e-003	1.0000e-005	1.2000e-003	3.2000e-004	1.0000e-005	3.2000e-004	0.0000	0.9431	0.9431	3.0000e-005	3.0000e-005	0.9519
Total	**1.1400e-003**	**0.0402**	**0.0119**	**2.0000e-004**	**6.6500e-003**	**3.9000e-004**	**7.0300e-003**	**1.8200e-003**	**3.7000e-004**	**2.1800e-003**	**0.0000**	**18.9861**	**18.9861**	**1.5000e-004**	**2.8700e-003**	**19.8436**

3.4 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0959	0.8775	0.9909	1.6400e-003		0.0427	0.0427		0.0402	0.0402	0.0000	141.4009	141.4009	0.0336	0.0000	142.2418
Total	**0.0959**	**0.8775**	**0.9909**	**1.6400e-003**		**0.0427**	**0.0427**		**0.0402**	**0.0402**	**0.0000**	**141.4009**	**141.4009**	**0.0336**	**0.0000**	**142.2418**

TT 6432 Residential Project - Mitigated Construction - Fresno County, Annual

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

3.4 Building Construction - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.0000e-005	6.0000e-004	1.3000e-004	0.0000	8.0000e-005	1.0000e-005	9.0000e-005	2.0000e-005	1.0000e-005	3.0000e-005	0.0000	0.2704	0.2704	0.0000	4.0000e-005	0.2832
Vendor	7.9000e-004	0.0322	9.6400e-003	1.5000e-004	4.8500e-003	2.1000e-004	5.0600e-003	1.4000e-003	2.0000e-004	1.6000e-003	0.0000	14.0783	14.0783	8.0000e-005	2.1200e-003	14.7116
Worker	6.4200e-003	4.1600e-003	0.0489	1.4000e-004	0.0166	8.0000e-005	0.0167	4.4100e-003	7.0000e-005	4.4800e-003	0.0000	13.0396	13.0396	4.0000e-004	3.8000e-004	13.1622
Total	**7.2200e-003**	**0.0369**	**0.0587**	**2.9000e-004**	**0.0215**	**3.0000e-004**	**0.0218**	**5.8300e-003**	**2.8000e-004**	**6.1100e-003**	**0.0000**	**27.3883**	**27.3883**	**4.8000e-004**	**2.5400e-003**	**28.1570**

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	0.0454	0.6510	1.1013	1.6400e-003		5.6700e-003	5.6700e-003		5.6700e-003	5.6700e-003	0.0000	141.4007	141.4007	0.0336	0.0000	142.2417
Total	**0.0454**	**0.6510**	**1.1013**	**1.6400e-003**		**5.6700e-003**	**5.6700e-003**		**5.6700e-003**	**5.6700e-003**	**0.0000**	**141.4007**	**141.4007**	**0.0336**	**0.0000**	**142.2417**

TT 6432 Residential Project - Mitigated Construction - Fresno County, Annual

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

3.4 Building Construction - 2023

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	1.0000e-005	6.0000e-004	1.3000e-004	0.0000	8.0000e-005	1.0000e-005	9.0000e-005	2.0000e-005	1.0000e-005	3.0000e-005	0.0000	0.2704	0.2704	0.0000	4.0000e-005	0.2832
Vendor	7.9000e-004	0.0322	9.6400e-003	1.5000e-004	4.8500e-003	2.1000e-004	5.0600e-003	1.4000e-003	2.0000e-004	1.6000e-003	0.0000	14.0783	14.0783	8.0000e-005	2.1200e-003	14.7116
Worker	6.4200e-003	4.1600e-003	0.0489	1.4000e-004	0.0166	8.0000e-005	0.0167	4.4100e-003	7.0000e-005	4.4800e-003	0.0000	13.0396	13.0396	4.0000e-004	3.8000e-004	13.1622
Total	**7.2200e-003**	**0.0369**	**0.0587**	**2.9000e-004**	**0.0215**	**3.0000e-004**	**0.0218**	**5.8300e-003**	**2.8000e-004**	**6.1100e-003**	**0.0000**	**27.3883**	**27.3883**	**4.8000e-004**	**2.5400e-003**	**28.1570**

3.4 Building Construction - 2024

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	0.0795	0.7260	0.8730	1.4600e-003		0.0331	0.0331		0.0312	0.0312	0.0000	125.1985	125.1985	0.0296	0.0000	125.9387
Total	**0.0795**	**0.7260**	**0.8730**	**1.4600e-003**		**0.0331**	**0.0331**		**0.0312**	**0.0312**	**0.0000**	**125.1985**	**125.1985**	**0.0296**	**0.0000**	**125.9387**

TT 6432 Residential Project - Mitigated Construction - Fresno County, Annual

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

3.4 Building Construction - 2024

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	1.0000e-005	5.3000e-004	1.1000e-004	0.0000	7.0000e-005	1.0000e-005	8.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.2350	0.2350	0.0000	4.0000e-005	0.2461
Vendor	6.8000e-004	0.0285	8.3300e-003	1.3000e-004	4.3000e-003	1.8000e-004	4.4800e-003	1.2400e-003	1.8000e-004	1.4200e-003	0.0000	12.2500	12.2500	6.0000e-005	1.8400e-003	12.8011
Worker	5.2500e-003	3.2400e-003	0.0399	1.2000e-004	0.0147	7.0000e-005	0.0148	3.9000e-003	6.0000e-005	3.9600e-003	0.0000	11.1632	11.1632	3.2000e-004	3.1000e-004	11.2634
Total	**5.9400e-003**	**0.0322**	**0.0484**	**2.5000e-004**	**0.0191**	**2.6000e-004**	**0.0193**	**5.1600e-003**	**2.4000e-004**	**5.4000e-003**	**0.0000**	**23.6483**	**23.6483**	**3.8000e-004**	**2.1900e-003**	**24.3106**

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	0.0392	0.5741	0.9742	1.4600e-003		4.6100e-003	4.6100e-003		4.6100e-003	4.6100e-003	0.0000	125.1984	125.1984	0.0296	0.0000	125.9385
Total	**0.0392**	**0.5741**	**0.9742**	**1.4600e-003**		**4.6100e-003**	**4.6100e-003**		**4.6100e-003**	**4.6100e-003**	**0.0000**	**125.1984**	**125.1984**	**0.0296**	**0.0000**	**125.9385**

TT 6432 Residential Project - Mitigated Construction - Fresno County, Annual

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

3.4 Building Construction - 2024

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	1.0000e-005	5.3000e-004	1.1000e-004	0.0000	7.0000e-005	1.0000e-005	8.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.2350	0.2350	0.0000	4.0000e-005	0.2461
Vendor	6.8000e-004	0.0285	8.3300e-003	1.3000e-004	4.3000e-003	1.8000e-004	4.4800e-003	1.2400e-003	1.8000e-004	1.4200e-003	0.0000	12.2500	12.2500	6.0000e-005	1.8400e-003	12.8011
Worker	5.2500e-003	3.2400e-003	0.0399	1.2000e-004	0.0147	7.0000e-005	0.0148	3.9000e-003	6.0000e-005	3.9600e-003	0.0000	11.1632	11.1632	3.2000e-004	3.1000e-004	11.2634
Total	**5.9400e-003**	**0.0322**	**0.0484**	**2.5000e-004**	**0.0191**	**2.6000e-004**	**0.0193**	**5.1600e-003**	**2.4000e-004**	**5.4000e-003**	**0.0000**	**23.6483**	**23.6483**	**3.8000e-004**	**2.1900e-003**	**24.3106**

3.5 Paving - 2024

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	9.8800e-003	0.0953	0.1463	2.3000e-004		4.6900e-003	4.6900e-003		4.3100e-003	4.3100e-003	0.0000	20.0265	20.0265	6.4800e-003	0.0000	20.1885
Paving	1.3100e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0112**	**0.0953**	**0.1463**	**2.3000e-004**		**4.6900e-003**	**4.6900e-003**		**4.3100e-003**	**4.3100e-003**	**0.0000**	**20.0265**	**20.0265**	**6.4800e-003**	**0.0000**	**20.1885**

TT 6432 Residential Project - Mitigated Construction - Fresno County, Annual

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

3.5 Paving - 2024

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	1.0000e-005	7.5000e-004	1.6000e-004	0.0000	1.0000e-004	1.0000e-005	1.1000e-004	3.0000e-005	1.0000e-005	4.0000e-005	0.0000	0.3337	0.3337	0.0000	5.0000e-005	0.3494
Vendor	4.0000e-005	1.7600e-003	5.1000e-004	1.0000e-005	2.7000e-004	1.0000e-005	2.8000e-004	8.0000e-005	1.0000e-005	9.0000e-005	0.0000	0.7562	0.7562	0.0000	1.1000e-004	0.7902
Worker	4.3000e-004	2.7000e-004	3.2600e-003	1.0000e-005	1.2000e-003	1.0000e-005	1.2000e-003	3.2000e-004	1.0000e-005	3.2000e-004	0.0000	0.9120	0.9120	3.0000e-005	3.0000e-005	0.9202
Total	**4.8000e-004**	**2.7800e-003**	**3.9300e-003**	**2.0000e-005**	**1.5700e-003**	**3.0000e-005**	**1.5900e-003**	**4.3000e-004**	**3.0000e-005**	**4.5000e-004**	**0.0000**	**2.0019**	**2.0019**	**3.0000e-005**	**1.9000e-004**	**2.0598**

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	3.3400e-003	0.1004	0.1730	2.3000e-004		3.7000e-004	3.7000e-004		3.7000e-004	3.7000e-004	0.0000	20.0265	20.0265	6.4800e-003	0.0000	20.1884
Paving	1.3100e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**4.6500e-003**	**0.1004**	**0.1730**	**2.3000e-004**		**3.7000e-004**	**3.7000e-004**		**3.7000e-004**	**3.7000e-004**	**0.0000**	**20.0265**	**20.0265**	**6.4800e-003**	**0.0000**	**20.1884**

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

3.5 Paving - 2024

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	1.0000e-005	7.5000e-004	1.6000e-004	0.0000	1.0000e-004	1.0000e-005	1.1000e-004	3.0000e-005	1.0000e-005	4.0000e-005	0.0000	0.3337	0.3337	0.0000	5.0000e-005	0.3494
Vendor	4.0000e-005	1.7600e-003	5.1000e-004	1.0000e-005	2.7000e-004	1.0000e-005	2.8000e-004	8.0000e-005	1.0000e-005	9.0000e-005	0.0000	0.7562	0.7562	0.0000	1.1000e-004	0.7902
Worker	4.3000e-004	2.7000e-004	3.2600e-003	1.0000e-005	1.2000e-003	1.0000e-005	1.2000e-003	3.2000e-004	1.0000e-005	3.2000e-004	0.0000	0.9120	0.9120	3.0000e-005	3.0000e-005	0.9202
Total	**4.8000e-004**	**2.7800e-003**	**3.9300e-003**	**2.0000e-005**	**1.5700e-003**	**3.0000e-005**	**1.5900e-003**	**4.3000e-004**	**3.0000e-005**	**4.5000e-004**	**0.0000**	**2.0019**	**2.0019**	**3.0000e-005**	**1.9000e-004**	**2.0598**

3.6 Architectural Coating - 2024

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	0.2844					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.8100e-003	0.0122	0.0181	3.0000e-005		6.1000e-004	6.1000e-004		6.1000e-004	6.1000e-004	0.0000	2.5533	2.5533	1.4000e-004	0.0000	2.5569
Total	**0.2862**	**0.0122**	**0.0181**	**3.0000e-005**		**6.1000e-004**	**6.1000e-004**		**6.1000e-004**	**6.1000e-004**	**0.0000**	**2.5533**	**2.5533**	**1.4000e-004**	**0.0000**	**2.5569**

TT 6432 Residential Project - Mitigated Construction - Fresno County, Annual

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

3.6 Architectural Coating - 2024

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	1.2000e-004	3.0000e-005	0.0000	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0000	1.0000e-005	0.0000	0.0556	0.0556	0.0000	1.0000e-005	0.0582
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	1.5200e-003	0.0000	5.6000e-004	0.0000	5.6000e-004	1.5000e-004	0.0000	1.5000e-004	0.0000	0.4256	0.4256	1.0000e-005	1.0000e-005	0.4294
Total	**2.0000e-004**	**2.4000e-004**	**1.5500e-003**	**0.0000**	**5.8000e-004**	**0.0000**	**5.8000e-004**	**1.5000e-004**	**0.0000**	**1.6000e-004**	**0.0000**	**0.4812**	**0.4812**	**1.0000e-005**	**2.0000e-005**	**0.4877**

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	0.2844					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.4000e-004	0.0106	0.0183	3.0000e-005		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	2.5533	2.5533	1.4000e-004	0.0000	2.5568
Total	**0.2850**	**0.0106**	**0.0183**	**3.0000e-005**		**4.0000e-005**	**4.0000e-005**		**4.0000e-005**	**4.0000e-005**	**0.0000**	**2.5533**	**2.5533**	**1.4000e-004**	**0.0000**	**2.5568**

3.6 Architectural Coating - 2024

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	1.2000e-004	3.0000e-005	0.0000	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0000	1.0000e-005	0.0000	0.0556	0.0556	0.0000	1.0000e-005	0.0582
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	1.5200e-003	0.0000	5.6000e-004	0.0000	5.6000e-004	1.5000e-004	0.0000	1.5000e-004	0.0000	0.4256	0.4256	1.0000e-005	1.0000e-005	0.4294
Total	**2.0000e-004**	**2.4000e-004**	**1.5500e-003**	**0.0000**	**5.8000e-004**	**0.0000**	**5.8000e-004**	**1.5000e-004**	**0.0000**	**1.6000e-004**	**0.0000**	**0.4812**	**0.4812**	**1.0000e-005**	**2.0000e-005**	**0.4877**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Parking Lot	0.00	0.00	0.00		
Single Family Housing	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Single Family Housing	10.80	7.30	7.50	48.40	15.90	35.70	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Parking Lot	0.510058	0.053037	0.175964	0.161396	0.026773	0.007006	0.013819	0.022114	0.000717	0.000291	0.024206	0.001529	0.003090
Single Family Housing	0.510058	0.053037	0.175964	0.161396	0.026773	0.007006	0.013819	0.022114	0.000717	0.000291	0.024206	0.001529	0.003090

5.0 Energy Detail

TT 6432 Residential Project - Mitigated Construction - Fresno County, Annual

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

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	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	0.0000	0.0000	0.0000	0.0000
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	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		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

TT 6432 Residential Project - Mitigated Construction - Fresno County, Annual

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

5.2 Energy by Land Use - NaturalGas

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					
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Single Family Housing	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	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					
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Single Family Housing	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

TT 6432 Residential Project - Mitigated Construction - Fresno County, Annual

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

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

TT 6432 Residential Project - Mitigated Construction - Fresno County, Annual

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

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.3769	0.0165	8.8200e-003	1.1000e-004		1.3400e-003	1.3400e-003		1.3400e-003	1.3400e-003	0.0000	19.0641	19.0641	3.7000e-004	3.5000e-004	19.1774
Unmitigated	0.3769	0.0165	8.8200e-003	1.1000e-004		1.3400e-003	1.3400e-003		1.3400e-003	1.3400e-003	0.0000	19.0641	19.0641	3.7000e-004	3.5000e-004	19.1774

TT 6432 Residential Project - Mitigated Construction - Fresno County, Annual

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

6.2 Area by SubCategory

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	0.0284					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.3465					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	1.9300e-003	0.0165	7.0000e-003	1.1000e-004		1.3300e-003	1.3300e-003		1.3300e-003	1.3300e-003	0.0000	19.0611	19.0611	3.7000e-004	3.5000e-004	19.1744
Landscaping	5.0000e-005	2.0000e-005	1.8200e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	2.9600e-003	2.9600e-003	0.0000	0.0000	3.0400e-003
Total	**0.3769**	**0.0165**	**8.8200e-003**	**1.1000e-004**		**1.3400e-003**	**1.3400e-003**		**1.3400e-003**	**1.3400e-003**	**0.0000**	**19.0641**	**19.0641**	**3.7000e-004**	**3.5000e-004**	**19.1774**

TT 6432 Residential Project - Mitigated Construction - Fresno County, Annual

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

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0284					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.3465					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	1.9300e-003	0.0165	7.0000e-003	1.1000e-004		1.3300e-003	1.3300e-003		1.3300e-003	1.3300e-003	0.0000	19.0611	19.0611	3.7000e-004	3.5000e-004	19.1744
Landscaping	5.0000e-005	2.0000e-005	1.8200e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	2.9600e-003	2.9600e-003	0.0000	0.0000	3.0400e-003
Total	**0.3769**	**0.0165**	**8.8200e-003**	**1.1000e-004**		**1.3400e-003**	**1.3400e-003**		**1.3400e-003**	**1.3400e-003**	**0.0000**	**19.0641**	**19.0641**	**3.7000e-004**	**3.5000e-004**	**19.1774**

7.0 Water Detail

7.1 Mitigation Measures Water

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

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

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

TT 6432 Residential Project - Mitigated Construction - Fresno County, Annual

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

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

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

TT 6432 Residential Project - Mitigated Construction - Fresno County, Annual

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

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

9.0 Operational Offroad

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

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

TT 6432 Residential Project - Mitigated Construction (Level 3 Filters) - Fresno County, Annual

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

TT 6432 Residential Project - Mitigated Construction (Level 3 Filters)

Fresno County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	1.00	Acre	1.00	43,560.00	0
Single Family Housing	44.00	Dwelling Unit	4.18	88,000.00	126

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	45
Climate Zone	3			**Operational Year**	2023
Utility Company	Pacific Gas and Electric Company				
CO2 Intensity (lb/MWhr)	203.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Tulare and Peach Vesting Tentative Tract Map for Tract No. 6432 - Mitigated Construction
Mitigated Construction (Level 3 Filters)

Land Use - 44 units analyzed, consistent with project description
Tract 6432 Project Site Gross Acres: 4.18 acres
Added additional one (1) acre to account for off-site improvements (curb, gutter, sidewalk, etc.)

Construction Phase - Construction - earlier dates provide a more conservative estimate of emissions

Trips and VMT - Additional truck trips were added to each phase for mobilization/demobilization of on-site equipment (two trips per piece of equipment).
Additional vendor trips added to the paving phase to account for delivery of materials.

Grading - Cut/fill anticipated to balance on-site
Included 2,500 cy of import and 2,500 cy of export to provide a conservative estimate of emissions

Architectural Coating - Rule 4601 Architectural Coatings

Vehicle Trips - Construction only run (zeroed out operational only parameters)

Woodstoves - Construction only run (zeroed out operational only parameters)

TT 6432 Residential Project - Mitigated Construction (Level 3 Filters) - Fresno County, Annual

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

Area Coating - Rule 4601 Architectural Coatings

Landscape Equipment - Construction only run (zeroed out operational only parameters)

Energy Use - Construction only run

Water And Wastewater - Construction only run

Solid Waste - Construction only run

Construction Off-road Equipment Mitigation - Compliance with SJVAPCD Regulation VIII
Mitigation option: DPF Level 3 Filters for construction equipment >75 HP

Area Mitigation -

Energy Mitigation -

Water Mitigation -

Waste Mitigation -

Fleet Mix -

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Residential_Exterior	150.00	50.00
tblArchitecturalCoating	EF_Residential_Interior	150.00	50.00
tblAreaCoating	Area_EF_Residential_Exterior	150	50
tblAreaCoating	Area_EF_Residential_Interior	150	50
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3

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

tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	10.00
tblEnergyUse	LightingElect	0.35	0.00
tblEnergyUse	LightingElect	1,608.84	0.00
tblEnergyUse	NT24E	6,155.97	0.00
tblEnergyUse	NT24NG	3,723.00	0.00
tblEnergyUse	T24E	209.15	0.00
tblEnergyUse	T24NG	20,314.55	0.00
tblFireplaces	FireplaceWoodMass	3,078.40	0.00
tblGrading	MaterialExported	0.00	2,500.00
tblGrading	MaterialImported	0.00	2,500.00
tblLandscapeEquipment	NumberSummerDays	180	1
tblLandUse	LandUseSquareFeet	79,200.00	88,000.00
tblLandUse	LotAcreage	14.29	4.18
tblSolidWaste	LandfillCaptureGasFlare	94.00	0.00
tblSolidWaste	LandfillCaptureGasFlare	94.00	0.00
tblSolidWaste	LandfillNoGasCapture	6.00	0.00
tblSolidWaste	LandfillNoGasCapture	6.00	0.00
tblSolidWaste	SolidWasteGenerationRate	45.36	0.00
tblTripsAndVMT	HaulingTripNumber	0.00	14.00

TT 6432 Residential Project - Mitigated Construction (Level 3 Filters) - Fresno County, Annual

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

tblTripsAndVMT	HaulingTripNumber	625.00	637.00
tblTripsAndVMT	HaulingTripNumber	0.00	18.00
tblTripsAndVMT	HaulingTripNumber	0.00	12.00
tblTripsAndVMT	HaulingTripNumber	0.00	2.00
tblTripsAndVMT	VendorTripNumber	0.00	4.00
tblVehicleTrips	ST_TR	9.54	0.00
tblVehicleTrips	SU_TR	8.55	0.00
tblVehicleTrips	WD_TR	9.44	0.00
tblWater	IndoorWaterUseRate	2,866,777.13	0.00
tblWater	OutdoorWaterUseRate	1,807,316.02	0.00
tblWoodstoves	WoodstoveWoodMass	3,019.20	0.00

2.0 Emissions Summary

TT 6432 Residential Project - Mitigated Construction (Level 3 Filters) - Fresno County, Annual

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

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2023	0.1350	1.2726	1.3025	2.6300e-003	0.1984	0.0575	0.2559	0.0927	0.0538	0.1465	0.0000	231.5237	231.5237	0.0481	5.4800e-003	234.3607
2024	0.3835	0.8687	1.0912	1.9900e-003	0.0212	0.0387	0.0599	5.7400e-003	0.0363	0.0421	0.0000	173.9097	173.9097	0.0367	2.4000e-003	175.5420
Maximum	**0.3835**	**1.2726**	**1.3025**	**2.6300e-003**	**0.1984**	**0.0575**	**0.2559**	**0.0927**	**0.0538**	**0.1465**	**0.0000**	**231.5237**	**231.5237**	**0.0481**	**5.4800e-003**	**234.3607**

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					
2023	0.1350	1.2726	1.3025	2.6300e-003	0.1052	0.0121	0.1173	0.0460	0.0115	0.0575	0.0000	231.5235	231.5235	0.0481	5.4800e-003	234.3605
2024	0.3835	0.8687	1.0912	1.9900e-003	0.0212	8.2200e-003	0.0294	5.7400e-003	7.8600e-003	0.0136	0.0000	173.9095	173.9095	0.0367	2.4000e-003	175.5418
Maximum	**0.3835**	**1.2726**	**1.3025**	**2.6300e-003**	**0.1052**	**0.0121**	**0.1173**	**0.0460**	**0.0115**	**0.0575**	**0.0000**	**231.5235**	**231.5235**	**0.0481**	**5.4800e-003**	**234.3605**

TT 6432 Residential Project - Mitigated Construction (Level 3 Filters) - Fresno County, Annual

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**42.43**	**78.91**	**53.54**	**47.40**	**78.54**	**62.28**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	**6-1-2023**	**8-31-2023**	0.6860	0.6860
2	**9-1-2023**	**11-30-2023**	0.5425	0.5425
3	**12-1-2023**	**2-29-2024**	0.5201	0.5201
4	**3-1-2024**	**5-31-2024**	0.5100	0.5100
5	**6-1-2024**	**8-31-2024**	0.4007	0.4007
		Highest	0.6860	0.6860

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	0.3769	0.0165	8.8200e-003	1.1000e-004		1.3400e-003	1.3400e-003		1.3400e-003	1.3400e-003	0.0000	19.0641	19.0641	3.7000e-004	3.5000e-004	19.1774
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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.3769**	**0.0165**	**8.8200e-003**	**1.1000e-004**	**0.0000**	**1.3400e-003**	**1.3400e-003**	**0.0000**	**1.3400e-003**	**1.3400e-003**	**0.0000**	**19.0641**	**19.0641**	**3.7000e-004**	**3.5000e-004**	**19.1774**

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

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.3769	0.0165	8.8200e-003	1.1000e-004		1.3400e-003	1.3400e-003		1.3400e-003	1.3400e-003	0.0000	19.0641	19.0641	3.7000e-004	3.5000e-004	19.1774
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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.3769**	**0.0165**	**8.8200e-003**	**1.1000e-004**	**0.0000**	**1.3400e-003**	**1.3400e-003**	**0.0000**	**1.3400e-003**	**1.3400e-003**	**0.0000**	**19.0641**	**19.0641**	**3.7000e-004**	**3.5000e-004**	**19.1774**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	6/1/2023	6/14/2023	5	10	Site preparation and site clearing
2	Grading	Grading	6/15/2023	7/12/2023	5	20	
3	Building Construction	Building Construction	7/13/2023	5/29/2024	5	230	

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

4	Paving	Paving	5/30/2024	6/26/2024	5	20	
5	Architectural Coating	Architectural Coating	6/27/2024	7/24/2024	5	20	

Acres of Grading (Site Preparation Phase): 15

Acres of Grading (Grading Phase): 20

Acres of Paving: 1

Residential Indoor: 178,200; Residential Outdoor: 59,400; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 2,614 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	1	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	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

TT 6432 Residential Project - Mitigated Construction (Level 3 Filters) - Fresno County, Annual

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

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	14.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	637.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	34.00	12.00	18.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	4.00	12.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	7.00	0.00	2.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use DPF for Construction Equipment

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Site Preparation - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0983	0.0000	0.0983	0.0505	0.0000	0.0505	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0133	0.1376	0.0912	1.9000e-004		6.3300e-003	6.3300e-003		5.8200e-003	5.8200e-003	0.0000	16.7254	16.7254	5.4100e-003	0.0000	16.8606
Total	**0.0133**	**0.1376**	**0.0912**	**1.9000e-004**	**0.0983**	**6.3300e-003**	**0.1046**	**0.0505**	**5.8200e-003**	**0.0563**	**0.0000**	**16.7254**	**16.7254**	**5.4100e-003**	**0.0000**	**16.8606**

TT 6432 Residential Project - Mitigated Construction (Level 3 Filters) - Fresno County, Annual

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

3.2 Site Preparation - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.0000e-005	8.8000e-004	1.8000e-004	0.0000	1.2000e-004	1.0000e-005	1.3000e-004	3.0000e-005	1.0000e-005	4.0000e-005	0.0000	0.3966	0.3966	0.0000	6.0000e-005	0.4152
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.8000e-004	1.8000e-004	2.1200e-003	1.0000e-005	7.2000e-004	0.0000	7.2000e-004	1.9000e-004	0.0000	1.9000e-004	0.0000	0.5659	0.5659	2.0000e-005	2.0000e-005	0.5712
Total	**2.9000e-004**	**1.0600e-003**	**2.3000e-003**	**1.0000e-005**	**8.4000e-004**	**1.0000e-005**	**8.5000e-004**	**2.2000e-004**	**1.0000e-005**	**2.3000e-004**	**0.0000**	**0.9624**	**0.9624**	**2.0000e-005**	**8.0000e-005**	**0.9864**

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					0.0442	0.0000	0.0442	0.0227	0.0000	0.0227	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0133	0.1376	0.0912	1.9000e-004		9.5000e-004	9.5000e-004		8.7000e-004	8.7000e-004	0.0000	16.7253	16.7253	5.4100e-003	0.0000	16.8606
Total	**0.0133**	**0.1376**	**0.0912**	**1.9000e-004**	**0.0442**	**9.5000e-004**	**0.0452**	**0.0227**	**8.7000e-004**	**0.0236**	**0.0000**	**16.7253**	**16.7253**	**5.4100e-003**	**0.0000**	**16.8606**

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

3.2 Site Preparation - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.0000e-005	8.8000e-004	1.8000e-004	0.0000	1.2000e-004	1.0000e-005	1.3000e-004	3.0000e-005	1.0000e-005	4.0000e-005	0.0000	0.3966	0.3966	0.0000	6.0000e-005	0.4152
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.8000e-004	1.8000e-004	2.1200e-003	1.0000e-005	7.2000e-004	0.0000	7.2000e-004	1.9000e-004	0.0000	1.9000e-004	0.0000	0.5659	0.5659	2.0000e-005	2.0000e-005	0.5712
Total	**2.9000e-004**	**1.0600e-003**	**2.3000e-003**	**1.0000e-005**	**8.4000e-004**	**1.0000e-005**	**8.5000e-004**	**2.2000e-004**	**1.0000e-005**	**2.3000e-004**	**0.0000**	**0.9624**	**0.9624**	**2.0000e-005**	**8.0000e-005**	**0.9864**

3.3 Grading - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0711	0.0000	0.0711	0.0343	0.0000	0.0343	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0171	0.1794	0.1475	3.0000e-004		7.7500e-003	7.7500e-003		7.1300e-003	7.1300e-003	0.0000	26.0606	26.0606	8.4300e-003	0.0000	26.2713
Total	**0.0171**	**0.1794**	**0.1475**	**3.0000e-004**	**0.0711**	**7.7500e-003**	**0.0789**	**0.0343**	**7.1300e-003**	**0.0414**	**0.0000**	**26.0606**	**26.0606**	**8.4300e-003**	**0.0000**	**26.2713**

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

3.3 Grading - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	6.8000e-004	0.0399	8.4000e-003	1.9000e-004	5.4500e-003	3.8000e-004	5.8300e-003	1.5000e-003	3.6000e-004	1.8600e-003	0.0000	18.0430	18.0430	1.2000e-004	2.8400e-003	18.8916
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.6000e-004	3.0000e-004	3.5400e-003	1.0000e-005	1.2000e-003	1.0000e-005	1.2000e-003	3.2000e-004	1.0000e-005	3.2000e-004	0.0000	0.9431	0.9431	3.0000e-005	3.0000e-005	0.9519
Total	**1.1400e-003**	**0.0402**	**0.0119**	**2.0000e-004**	**6.6500e-003**	**3.9000e-004**	**7.0300e-003**	**1.8200e-003**	**3.7000e-004**	**2.1800e-003**	**0.0000**	**18.9861**	**18.9861**	**1.5000e-004**	**2.8700e-003**	**19.8436**

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					0.0320	0.0000	0.0320	0.0154	0.0000	0.0154	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0171	0.1794	0.1475	3.0000e-004		1.1600e-003	1.1600e-003		1.0700e-003	1.0700e-003	0.0000	26.0606	26.0606	8.4300e-003	0.0000	26.2713
Total	**0.0171**	**0.1794**	**0.1475**	**3.0000e-004**	**0.0320**	**1.1600e-003**	**0.0332**	**0.0154**	**1.0700e-003**	**0.0165**	**0.0000**	**26.0606**	**26.0606**	**8.4300e-003**	**0.0000**	**26.2713**

3.3 Grading - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	6.8000e-004	0.0399	8.4000e-003	1.9000e-004	5.4500e-003	3.8000e-004	5.8300e-003	1.5000e-003	3.6000e-004	1.8600e-003	0.0000	18.0430	18.0430	1.2000e-004	2.8400e-003	18.8916
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.6000e-004	3.0000e-004	3.5400e-003	1.0000e-005	1.2000e-003	1.0000e-005	1.2000e-003	3.2000e-004	1.0000e-005	3.2000e-004	0.0000	0.9431	0.9431	3.0000e-005	3.0000e-005	0.9519
Total	**1.1400e-003**	**0.0402**	**0.0119**	**2.0000e-004**	**6.6500e-003**	**3.9000e-004**	**7.0300e-003**	**1.8200e-003**	**3.7000e-004**	**2.1800e-003**	**0.0000**	**18.9861**	**18.9861**	**1.5000e-004**	**2.8700e-003**	**19.8436**

3.4 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0959	0.8775	0.9909	1.6400e-003		0.0427	0.0427		0.0402	0.0402	0.0000	141.4009	141.4009	0.0336	0.0000	142.2418
Total	**0.0959**	**0.8775**	**0.9909**	**1.6400e-003**		**0.0427**	**0.0427**		**0.0402**	**0.0402**	**0.0000**	**141.4009**	**141.4009**	**0.0336**	**0.0000**	**142.2418**

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

3.4 Building Construction - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.0000e-005	6.0000e-004	1.3000e-004	0.0000	8.0000e-005	1.0000e-005	9.0000e-005	2.0000e-005	1.0000e-005	3.0000e-005	0.0000	0.2704	0.2704	0.0000	4.0000e-005	0.2832
Vendor	7.9000e-004	0.0322	9.6400e-003	1.5000e-004	4.8500e-003	2.1000e-004	5.0600e-003	1.4000e-003	2.0000e-004	1.6000e-003	0.0000	14.0783	14.0783	8.0000e-005	2.1200e-003	14.7116
Worker	6.4200e-003	4.1600e-003	0.0489	1.4000e-004	0.0166	8.0000e-005	0.0167	4.4100e-003	7.0000e-005	4.4800e-003	0.0000	13.0396	13.0396	4.0000e-004	3.8000e-004	13.1622
Total	**7.2200e-003**	**0.0369**	**0.0587**	**2.9000e-004**	**0.0215**	**3.0000e-004**	**0.0218**	**5.8300e-003**	**2.8000e-004**	**6.1100e-003**	**0.0000**	**27.3883**	**27.3883**	**4.8000e-004**	**2.5400e-003**	**28.1570**

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	0.0959	0.8775	0.9909	1.6400e-003		9.2600e-003	9.2600e-003		8.8800e-003	8.8800e-003	0.0000	141.4007	141.4007	0.0336	0.0000	142.2417
Total	**0.0959**	**0.8775**	**0.9909**	**1.6400e-003**		**9.2600e-003**	**9.2600e-003**		**8.8800e-003**	**8.8800e-003**	**0.0000**	**141.4007**	**141.4007**	**0.0336**	**0.0000**	**142.2417**

TT 6432 Residential Project - Mitigated Construction (Level 3 Filters) - Fresno County, Annual

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

3.4 Building Construction - 2023

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	1.0000e-005	6.0000e-004	1.3000e-004	0.0000	8.0000e-005	1.0000e-005	9.0000e-005	2.0000e-005	1.0000e-005	3.0000e-005	0.0000	0.2704	0.2704	0.0000	4.0000e-005	0.2832
Vendor	7.9000e-004	0.0322	9.6400e-003	1.5000e-004	4.8500e-003	2.1000e-004	5.0600e-003	1.4000e-003	2.0000e-004	1.6000e-003	0.0000	14.0783	14.0783	8.0000e-005	2.1200e-003	14.7116
Worker	6.4200e-003	4.1600e-003	0.0489	1.4000e-004	0.0166	8.0000e-005	0.0167	4.4100e-003	7.0000e-005	4.4800e-003	0.0000	13.0396	13.0396	4.0000e-004	3.8000e-004	13.1622
Total	**7.2200e-003**	**0.0369**	**0.0587**	**2.9000e-004**	**0.0215**	**3.0000e-004**	**0.0218**	**5.8300e-003**	**2.8000e-004**	**6.1100e-003**	**0.0000**	**27.3883**	**27.3883**	**4.8000e-004**	**2.5400e-003**	**28.1570**

3.4 Building Construction - 2024

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	0.0795	0.7260	0.8730	1.4600e-003		0.0331	0.0331		0.0312	0.0312	0.0000	125.1985	125.1985	0.0296	0.0000	125.9387
Total	**0.0795**	**0.7260**	**0.8730**	**1.4600e-003**		**0.0331**	**0.0331**		**0.0312**	**0.0312**	**0.0000**	**125.1985**	**125.1985**	**0.0296**	**0.0000**	**125.9387**

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

3.4 Building Construction - 2024

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	1.0000e-005	5.3000e-004	1.1000e-004	0.0000	7.0000e-005	1.0000e-005	8.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.2350	0.2350	0.0000	4.0000e-005	0.2461
Vendor	6.8000e-004	0.0285	8.3300e-003	1.3000e-004	4.3000e-003	1.8000e-004	4.4800e-003	1.2400e-003	1.8000e-004	1.4200e-003	0.0000	12.2500	12.2500	6.0000e-005	1.8400e-003	12.8011
Worker	5.2500e-003	3.2400e-003	0.0399	1.2000e-004	0.0147	7.0000e-005	0.0148	3.9000e-003	6.0000e-005	3.9600e-003	0.0000	11.1632	11.1632	3.2000e-004	3.1000e-004	11.2634
Total	**5.9400e-003**	**0.0322**	**0.0484**	**2.5000e-004**	**0.0191**	**2.6000e-004**	**0.0193**	**5.1600e-003**	**2.4000e-004**	**5.4000e-003**	**0.0000**	**23.6483**	**23.6483**	**3.8000e-004**	**2.1900e-003**	**24.3106**

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	0.0795	0.7260	0.8730	1.4600e-003		7.1500e-003	7.1500e-003		6.8500e-003	6.8500e-003	0.0000	125.1984	125.1984	0.0296	0.0000	125.9385
Total	**0.0795**	**0.7260**	**0.8730**	**1.4600e-003**		**7.1500e-003**	**7.1500e-003**		**6.8500e-003**	**6.8500e-003**	**0.0000**	**125.1984**	**125.1984**	**0.0296**	**0.0000**	**125.9385**

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

3.4 Building Construction - 2024

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	1.0000e-005	5.3000e-004	1.1000e-004	0.0000	7.0000e-005	1.0000e-005	8.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.2350	0.2350	0.0000	4.0000e-005	0.2461
Vendor	6.8000e-004	0.0285	8.3300e-003	1.3000e-004	4.3000e-003	1.8000e-004	4.4800e-003	1.2400e-003	1.8000e-004	1.4200e-003	0.0000	12.2500	12.2500	6.0000e-005	1.8400e-003	12.8011
Worker	5.2500e-003	3.2400e-003	0.0399	1.2000e-004	0.0147	7.0000e-005	0.0148	3.9000e-003	6.0000e-005	3.9600e-003	0.0000	11.1632	11.1632	3.2000e-004	3.1000e-004	11.2634
Total	**5.9400e-003**	**0.0322**	**0.0484**	**2.5000e-004**	**0.0191**	**2.6000e-004**	**0.0193**	**5.1600e-003**	**2.4000e-004**	**5.4000e-003**	**0.0000**	**23.6483**	**23.6483**	**3.8000e-004**	**2.1900e-003**	**24.3106**

3.5 Paving - 2024

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	9.8800e-003	0.0953	0.1463	2.3000e-004		4.6900e-003	4.6900e-003		4.3100e-003	4.3100e-003	0.0000	20.0265	20.0265	6.4800e-003	0.0000	20.1885
Paving	1.3100e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0112**	**0.0953**	**0.1463**	**2.3000e-004**		**4.6900e-003**	**4.6900e-003**		**4.3100e-003**	**4.3100e-003**	**0.0000**	**20.0265**	**20.0265**	**6.4800e-003**	**0.0000**	**20.1885**

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

3.5 Paving - 2024

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	1.0000e-005	7.5000e-004	1.6000e-004	0.0000	1.0000e-004	1.0000e-005	1.1000e-004	3.0000e-005	1.0000e-005	4.0000e-005	0.0000	0.3337	0.3337	0.0000	5.0000e-005	0.3494
Vendor	4.0000e-005	1.7600e-003	5.1000e-004	1.0000e-005	2.7000e-004	1.0000e-005	2.8000e-004	8.0000e-005	1.0000e-005	9.0000e-005	0.0000	0.7562	0.7562	0.0000	1.1000e-004	0.7902
Worker	4.3000e-004	2.7000e-004	3.2600e-003	1.0000e-005	1.2000e-003	1.0000e-005	1.2000e-003	3.2000e-004	1.0000e-005	3.2000e-004	0.0000	0.9120	0.9120	3.0000e-005	3.0000e-005	0.9202
Total	**4.8000e-004**	**2.7800e-003**	**3.9300e-003**	**2.0000e-005**	**1.5700e-003**	**3.0000e-005**	**1.5900e-003**	**4.3000e-004**	**3.0000e-005**	**4.5000e-004**	**0.0000**	**2.0019**	**2.0019**	**3.0000e-005**	**1.9000e-004**	**2.0598**

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	9.8800e-003	0.0953	0.1463	2.3000e-004		7.0000e-004	7.0000e-004		6.5000e-004	6.5000e-004	0.0000	20.0265	20.0265	6.4800e-003	0.0000	20.1884
Paving	1.3100e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0112**	**0.0953**	**0.1463**	**2.3000e-004**		**7.0000e-004**	**7.0000e-004**		**6.5000e-004**	**6.5000e-004**	**0.0000**	**20.0265**	**20.0265**	**6.4800e-003**	**0.0000**	**20.1884**

3.5 Paving - 2024

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	1.0000e-005	7.5000e-004	1.6000e-004	0.0000	1.0000e-004	1.0000e-005	1.1000e-004	3.0000e-005	1.0000e-005	4.0000e-005	0.0000	0.3337	0.3337	0.0000	5.0000e-005	0.3494
Vendor	4.0000e-005	1.7600e-003	5.1000e-004	1.0000e-005	2.7000e-004	1.0000e-005	2.8000e-004	8.0000e-005	1.0000e-005	9.0000e-005	0.0000	0.7562	0.7562	0.0000	1.1000e-004	0.7902
Worker	4.3000e-004	2.7000e-004	3.2600e-003	1.0000e-005	1.2000e-003	1.0000e-005	1.2000e-003	3.2000e-004	1.0000e-005	3.2000e-004	0.0000	0.9120	0.9120	3.0000e-005	3.0000e-005	0.9202
Total	**4.8000e-004**	**2.7800e-003**	**3.9300e-003**	**2.0000e-005**	**1.5700e-003**	**3.0000e-005**	**1.5900e-003**	**4.3000e-004**	**3.0000e-005**	**4.5000e-004**	**0.0000**	**2.0019**	**2.0019**	**3.0000e-005**	**1.9000e-004**	**2.0598**

3.6 Architectural Coating - 2024

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	0.2844					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.8100e-003	0.0122	0.0181	3.0000e-005		6.1000e-004	6.1000e-004		6.1000e-004	6.1000e-004	0.0000	2.5533	2.5533	1.4000e-004	0.0000	2.5569
Total	**0.2862**	**0.0122**	**0.0181**	**3.0000e-005**		**6.1000e-004**	**6.1000e-004**		**6.1000e-004**	**6.1000e-004**	**0.0000**	**2.5533**	**2.5533**	**1.4000e-004**	**0.0000**	**2.5569**

3.6 Architectural Coating - 2024

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	1.2000e-004	3.0000e-005	0.0000	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0000	1.0000e-005	0.0000	0.0556	0.0556	0.0000	1.0000e-005	0.0582
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	1.5200e-003	0.0000	5.6000e-004	0.0000	5.6000e-004	1.5000e-004	0.0000	1.5000e-004	0.0000	0.4256	0.4256	1.0000e-005	1.0000e-005	0.4294
Total	**2.0000e-004**	**2.4000e-004**	**1.5500e-003**	**0.0000**	**5.8000e-004**	**0.0000**	**5.8000e-004**	**1.5000e-004**	**0.0000**	**1.6000e-004**	**0.0000**	**0.4812**	**0.4812**	**1.0000e-005**	**2.0000e-005**	**0.4877**

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	0.2844					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.8100e-003	0.0122	0.0181	3.0000e-005		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005	0.0000	2.5533	2.5533	1.4000e-004	0.0000	2.5568
Total	**0.2862**	**0.0122**	**0.0181**	**3.0000e-005**		**9.0000e-005**	**9.0000e-005**		**9.0000e-005**	**9.0000e-005**	**0.0000**	**2.5533**	**2.5533**	**1.4000e-004**	**0.0000**	**2.5568**

3.6 Architectural Coating - 2024

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	1.2000e-004	3.0000e-005	0.0000	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0000	1.0000e-005	0.0000	0.0556	0.0556	0.0000	1.0000e-005	0.0582
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	1.5200e-003	0.0000	5.6000e-004	0.0000	5.6000e-004	1.5000e-004	0.0000	1.5000e-004	0.0000	0.4256	0.4256	1.0000e-005	1.0000e-005	0.4294
Total	**2.0000e-004**	**2.4000e-004**	**1.5500e-003**	**0.0000**	**5.8000e-004**	**0.0000**	**5.8000e-004**	**1.5000e-004**	**0.0000**	**1.6000e-004**	**0.0000**	**0.4812**	**0.4812**	**1.0000e-005**	**2.0000e-005**	**0.4877**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Parking Lot	0.00	0.00	0.00		
Single Family Housing	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Single Family Housing	10.80	7.30	7.50	48.40	15.90	35.70	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Parking Lot	0.510058	0.053037	0.175964	0.161396	0.026773	0.007006	0.013819	0.022114	0.000717	0.000291	0.024206	0.001529	0.003090
Single Family Housing	0.510058	0.053037	0.175964	0.161396	0.026773	0.007006	0.013819	0.022114	0.000717	0.000291	0.024206	0.001529	0.003090

5.0 Energy Detail

TT 6432 Residential Project - Mitigated Construction (Level 3 Filters) - Fresno County, Annual

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

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	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	0.0000	0.0000	0.0000	0.0000
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	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		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

TT 6432 Residential Project - Mitigated Construction (Level 3 Filters) - Fresno County, Annual

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

5.2 Energy by Land Use - NaturalGas

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					
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Single Family Housing	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	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					
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Single Family Housing	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

TT 6432 Residential Project - Mitigated Construction (Level 3 Filters) - Fresno County, Annual

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

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

TT 6432 Residential Project - Mitigated Construction (Level 3 Filters) - Fresno County, Annual

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

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.3769	0.0165	8.8200e-003	1.1000e-004		1.3400e-003	1.3400e-003		1.3400e-003	1.3400e-003	0.0000	19.0641	19.0641	3.7000e-004	3.5000e-004	19.1774
Unmitigated	0.3769	0.0165	8.8200e-003	1.1000e-004		1.3400e-003	1.3400e-003		1.3400e-003	1.3400e-003	0.0000	19.0641	19.0641	3.7000e-004	3.5000e-004	19.1774

TT 6432 Residential Project - Mitigated Construction (Level 3 Filters) - Fresno County, Annual

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

6.2 Area by SubCategory

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	0.0284					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.3465					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	1.9300e-003	0.0165	7.0000e-003	1.1000e-004		1.3300e-003	1.3300e-003		1.3300e-003	1.3300e-003	0.0000	19.0611	19.0611	3.7000e-004	3.5000e-004	19.1744
Landscaping	5.0000e-005	2.0000e-005	1.8200e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	2.9600e-003	2.9600e-003	0.0000	0.0000	3.0400e-003
Total	**0.3769**	**0.0165**	**8.8200e-003**	**1.1000e-004**		**1.3400e-003**	**1.3400e-003**		**1.3400e-003**	**1.3400e-003**	**0.0000**	**19.0641**	**19.0641**	**3.7000e-004**	**3.5000e-004**	**19.1774**

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	0.0284					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.3465					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	1.9300e-003	0.0165	7.0000e-003	1.1000e-004		1.3300e-003	1.3300e-003		1.3300e-003	1.3300e-003	0.0000	19.0611	19.0611	3.7000e-004	3.5000e-004	19.1744
Landscaping	5.0000e-005	2.0000e-005	1.8200e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	2.9600e-003	2.9600e-003	0.0000	0.0000	3.0400e-003
Total	**0.3769**	**0.0165**	**8.8200e-003**	**1.1000e-004**		**1.3400e-003**	**1.3400e-003**		**1.3400e-003**	**1.3400e-003**	**0.0000**	**19.0641**	**19.0641**	**3.7000e-004**	**3.5000e-004**	**19.1774**

7.0 Water Detail

7.1 Mitigation Measures Water

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

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

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

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

TT 6432 Residential Project - Mitigated Construction (Level 3 Filters) - Fresno County, Annual

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

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

9.0 Operational Offroad

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

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

TT 6432 Residential Project - Localized Assessment - Fresno County, Annual

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

TT 6432 Residential Project - Localized Assessment

Fresno County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	1.00	Acre	1.00	43,560.00	0
Single Family Housing	44.00	Dwelling Unit	4.18	88,000.00	126

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	45
Climate Zone	3			**Operational Year**	2023
Utility Company	Pacific Gas and Electric Company				
CO2 Intensity (lb/MWhr)	203.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Tulare and Peach Vesting Tentative Tract Map for Tract No. 6432 - Unmitigated Construction & Operations - Localized Assessment
Full buildout in anticipated earliest year of operations (2023)

Land Use - 44 units analyzed, consistent with project description
Tract 6432 Project Site Gross Acres: 4.18 acres
Added additional one (1) acre to account for off-site improvements (curb, gutter, sidewalk, etc.)

Construction Phase - Construction - earlier dates provide a more conservative estimate of emissions

Trips and VMT - Trip lengths updated to 0.5 mile to account for on-site and localized emissions from construction vehicles.

Grading - Cut/fill anticipated to balance on-site
Included 2,500 cy of import and 2,500 cy of export to provide a conservative estimate of emissions

Architectural Coating - Rule 4601 Architectural Coatings

Vehicle Trips - Trip lengths updated to 0.5 mile to account for on-site and localized emissions from mobile sources.
ITE 11th Edition Rates for single-family homes (ITE Land Use 210)

Woodstoves - SJVAPCD Rule 4901 Woodburning

TT 6432 Residential Project - Localized Assessment - Fresno County, Annual

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

Area Coating - Rule 4601 Architectural Coatings

Water And Wastewater -

Solid Waste -

Construction Off-road Equipment Mitigation - Compliance with SJVAPCD Regulation VIII

Area Mitigation - Rule 4601 Architectural Coatings, no woodburning fireplaces (only natural gas hearth), and outside outlets

Energy Mitigation - Single-family homes to be built with rooftop solar to provide on-site renewable energy (85% of electricity use generated applied)

Water Mitigation - Compliance with Green Building Code Standards and California Model Water Efficient Landscape Ordinance

Waste Mitigation - CalRecycle 75 Percent Initiative (25% reduction)

Fleet Mix - SJVAPCD-approved Residential Fleet Mix for the 2023 operational year

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Residential_Exterior	150.00	50.00
tblArchitecturalCoating	EF_Residential_Interior	150.00	50.00
tblAreaCoating	Area_EF_Residential_Exterior	150	50
tblAreaCoating	Area_EF_Residential_Interior	150	50
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblFireplaces	FireplaceWoodMass	3,078.40	0.00
tblFleetMix	HHD	0.02	0.02
tblFleetMix	LDA	0.51	0.53
tblFleetMix	LDT1	0.05	0.21
tblFleetMix	LDT2	0.18	0.17
tblFleetMix	LHD1	0.03	1.1000e-003
tblFleetMix	LHD2	7.0060e-003	9.0000e-004
tblFleetMix	MCY	0.02	2.5000e-003
tblFleetMix	MDV	0.16	0.06
tblFleetMix	MH	3.0900e-003	1.9000e-003
tblFleetMix	MHD	0.01	8.5000e-003
tblFleetMix	OBUS	7.1700e-004	0.00
tblFleetMix	SBUS	1.5290e-003	4.0000e-004

TT 6432 Residential Project - Localized Assessment - Fresno County, Annual

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

tblFleetMix	UBUS	2.9100e-004	4.3000e-003
tblGrading	MaterialExported	0.00	2,500.00
tblGrading	MaterialImported	0.00	2,500.00
tblLandUse	LandUseSquareFeet	79,200.00	88,000.00
tblLandUse	LotAcreage	14.29	4.18
tblTripsAndVMT	HaulingTripLength	20.00	0.50
tblTripsAndVMT	HaulingTripLength	20.00	0.50
tblTripsAndVMT	HaulingTripLength	20.00	0.50
tblTripsAndVMT	HaulingTripLength	20.00	0.50
tblTripsAndVMT	HaulingTripLength	20.00	0.50
tblTripsAndVMT	HaulingTripNumber	0.00	14.00
tblTripsAndVMT	HaulingTripNumber	625.00	637.00
tblTripsAndVMT	HaulingTripNumber	0.00	18.00
tblTripsAndVMT	HaulingTripNumber	0.00	12.00
tblTripsAndVMT	HaulingTripNumber	0.00	2.00
tblTripsAndVMT	VendorTripLength	7.30	0.50
tblTripsAndVMT	VendorTripLength	7.30	0.50
tblTripsAndVMT	VendorTripLength	7.30	0.50
tblTripsAndVMT	VendorTripLength	7.30	0.50
tblTripsAndVMT	VendorTripLength	7.30	0.50
tblTripsAndVMT	VendorTripNumber	0.00	4.00
tblTripsAndVMT	WorkerTripLength	10.80	0.50
tblTripsAndVMT	WorkerTripLength	10.80	0.50
tblTripsAndVMT	WorkerTripLength	10.80	0.50
tblTripsAndVMT	WorkerTripLength	10.80	0.50
tblTripsAndVMT	WorkerTripLength	10.80	0.50
tblVehicleTrips	DV_TP	11.00	0.00
tblVehicleTrips	HO_TL	7.50	0.50
tblVehicleTrips	HS_TL	7.30	0.50

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

tblVehicleTrips	HW_TL	10.80	0.50
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	86.00	100.00
tblVehicleTrips	ST_TR	9.54	9.48
tblVehicleTrips	SU_TR	8.55	8.48
tblVehicleTrips	WD_TR	9.44	9.43
tblWoodstoves	WoodstoveWoodMass	3,019.20	0.00

2.0 Emissions Summary

TT 6432 Residential Project - Localized Assessment - Fresno County, Annual

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

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2023	0.1306	1.2136	1.2567	2.1800e-003	0.1708	0.0568	0.2276	0.0852	0.0532	0.1383	0.0000	188.6117	188.6117	0.0478	6.7000e-004	190.0065
2024	0.3801	0.8446	1.0564	1.7400e-003	1.1100e-003	0.0384	0.0396	3.1000e-004	0.0361	0.0364	0.0000	150.5985	150.5985	0.0365	4.2000e-004	151.6353
Maximum	**0.3801**	**1.2136**	**1.2567**	**2.1800e-003**	**0.1708**	**0.0568**	**0.2276**	**0.0852**	**0.0532**	**0.1383**	**0.0000**	**188.6117**	**188.6117**	**0.0478**	**6.7000e-004**	**190.0065**

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					
2023	0.1306	1.2136	1.2567	2.1800e-003	0.0776	0.0568	0.1344	0.0385	0.0532	0.0917	0.0000	188.6114	188.6114	0.0478	6.7000e-004	190.0062
2024	0.3801	0.8446	1.0564	1.7400e-003	1.1100e-003	0.0384	0.0396	3.1000e-004	0.0361	0.0364	0.0000	150.5983	150.5983	0.0365	4.2000e-004	151.6351
Maximum	**0.3801**	**1.2136**	**1.2567**	**2.1800e-003**	**0.0776**	**0.0568**	**0.1344**	**0.0385**	**0.0532**	**0.0917**	**0.0000**	**188.6114**	**188.6114**	**0.0478**	**6.7000e-004**	**190.0062**

TT 6432 Residential Project - Localized Assessment - Fresno County, Annual

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**54.21**	**0.00**	**34.88**	**54.56**	**0.00**	**26.69**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	**6-1-2023**	**8-31-2023**	0.6448	0.6448
2	**9-1-2023**	**11-30-2023**	0.5270	0.5270
3	**12-1-2023**	**2-29-2024**	0.5044	0.5044
4	**3-1-2024**	**5-31-2024**	0.4952	0.4952
5	**6-1-2024**	**8-31-2024**	0.3984	0.3984
		Highest	0.6448	0.6448

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	0.3867	0.0202	0.3338	1.2000e-004		3.1400e-003	3.1400e-003		3.1400e-003	3.1400e-003	0.0000	19.5948	19.5948	8.8000e-004	3.5000e-004	19.7209
Energy	5.7000e-003	0.0487	0.0207	3.1000e-004		3.9400e-003	3.9400e-003		3.9400e-003	3.9400e-003	0.0000	90.3133	90.3133	6.5600e-003	1.7000e-003	90.9837
Mobile	0.1112	0.0816	0.4794	3.9000e-004	0.0278	5.0000e-004	0.0283	7.4000e-003	4.6000e-004	7.8600e-003	0.0000	36.8255	36.8255	0.0102	5.6300e-003	38.7580
Waste						0.0000	0.0000		0.0000	0.0000	9.2077	0.0000	9.2077	0.5442	0.0000	22.8116
Water						0.0000	0.0000		0.0000	0.0000	0.9095	2.0205	2.9300	0.0937	2.2500e-003	5.9426
Total	**0.5036**	**0.1506**	**0.8339**	**8.2000e-004**	**0.0278**	**7.5800e-003**	**0.0353**	**7.4000e-003**	**7.5400e-003**	**0.0149**	**10.1172**	**148.7541**	**158.8713**	**0.6556**	**9.9300e-003**	**178.2168**

TT 6432 Residential Project - Localized Assessment - Fresno County, Annual

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

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.3866	0.0202	0.3314	1.2000e-004		3.1300e-003	3.1300e-003		3.1300e-003	3.1300e-003	0.0000	19.5900	19.5900	8.7000e-004	3.5000e-004	19.7159
Energy	5.7000e-003	0.0487	0.0207	3.1000e-004		3.9400e-003	3.9400e-003		3.9400e-003	3.9400e-003	0.0000	61.5213	61.5213	1.9000e-003	1.1300e-003	61.9069
Mobile	0.1112	0.0816	0.4794	3.9000e-004	0.0278	5.0000e-004	0.0283	7.4000e-003	4.6000e-004	7.8600e-003	0.0000	36.8255	36.8255	0.0102	5.6300e-003	38.7580
Waste						0.0000	0.0000		0.0000	0.0000	6.9058	0.0000	6.9058	0.4081	0.0000	17.1087
Water						0.0000	0.0000		0.0000	0.0000	0.7276	1.6164	2.3440	0.0750	1.8000e-003	4.7541
Total	**0.5035**	**0.1506**	**0.8316**	**8.2000e-004**	**0.0278**	**7.5700e-003**	**0.0353**	**7.4000e-003**	**7.5300e-003**	**0.0149**	**7.6334**	**119.5532**	**127.1865**	**0.4961**	**8.9100e-003**	**142.2437**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.03**	**0.02**	**0.28**	**0.00**	**0.00**	**0.13**	**0.03**	**0.00**	**0.13**	**0.07**	**24.55**	**19.63**	**19.94**	**24.32**	**10.27**	**20.19**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	6/1/2023	6/14/2023	5	10	Site preparation and site clearing
2	Grading	Grading	6/15/2023	7/12/2023	5	20	
3	Building Construction	Building Construction	7/13/2023	5/29/2024	5	230	

TT 6432 Residential Project - Localized Assessment - Fresno County, Annual

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

4	Paving	Paving	5/30/2024	6/26/2024	5	20	
5	Architectural Coating	Architectural Coating	6/27/2024	7/24/2024	5	20	

Acres of Grading (Site Preparation Phase): 15

Acres of Grading (Grading Phase): 20

Acres of Paving: 1

Residential Indoor: 178,200; Residential Outdoor: 59,400; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 2,614 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	1	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	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

TT 6432 Residential Project - Localized Assessment - Fresno County, Annual

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

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	14.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	637.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Building Construction	9	34.00	12.00	18.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	4.00	12.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	7.00	0.00	2.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Site Preparation - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0983	0.0000	0.0983	0.0505	0.0000	0.0505	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0133	0.1376	0.0912	1.9000e-004		6.3300e-003	6.3300e-003		5.8200e-003	5.8200e-003	0.0000	16.7254	16.7254	5.4100e-003	0.0000	16.8606
Total	**0.0133**	**0.1376**	**0.0912**	**1.9000e-004**	**0.0983**	**6.3300e-003**	**0.1046**	**0.0505**	**5.8200e-003**	**0.0563**	**0.0000**	**16.7254**	**16.7254**	**5.4100e-003**	**0.0000**	**16.8606**

TT 6432 Residential Project - Localized Assessment - Fresno County, Annual

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

3.2 Site Preparation - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.0000e-005	1.5000e-004	1.2000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0285	0.0285	0.0000	0.0000	0.0298
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	1.3000e-004	5.0000e-005	5.6000e-004	0.0000	3.0000e-005	0.0000	3.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0413	0.0413	1.0000e-005	1.0000e-005	0.0433
Total	**1.4000e-004**	**2.0000e-004**	**6.8000e-004**	**0.0000**	**3.0000e-005**	**0.0000**	**3.0000e-005**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0698**	**0.0698**	**1.0000e-005**	**1.0000e-005**	**0.0731**

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					0.0442	0.0000	0.0442	0.0227	0.0000	0.0227	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0133	0.1376	0.0912	1.9000e-004		6.3300e-003	6.3300e-003		5.8200e-003	5.8200e-003	0.0000	16.7253	16.7253	5.4100e-003	0.0000	16.8606
Total	**0.0133**	**0.1376**	**0.0912**	**1.9000e-004**	**0.0442**	**6.3300e-003**	**0.0506**	**0.0227**	**5.8200e-003**	**0.0286**	**0.0000**	**16.7253**	**16.7253**	**5.4100e-003**	**0.0000**	**16.8606**

TT 6432 Residential Project - Localized Assessment - Fresno County, Annual

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

3.2 Site Preparation - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.0000e-005	1.5000e-004	1.2000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0285	0.0285	0.0000	0.0000	0.0298
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	1.3000e-004	5.0000e-005	5.6000e-004	0.0000	3.0000e-005	0.0000	3.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0413	0.0413	1.0000e-005	1.0000e-005	0.0433
Total	**1.4000e-004**	**2.0000e-004**	**6.8000e-004**	**0.0000**	**3.0000e-005**	**0.0000**	**3.0000e-005**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0698**	**0.0698**	**1.0000e-005**	**1.0000e-005**	**0.0731**

3.3 Grading - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0711	0.0000	0.0711	0.0343	0.0000	0.0343	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0171	0.1794	0.1475	3.0000e-004		7.7500e-003	7.7500e-003		7.1300e-003	7.1300e-003	0.0000	26.0606	26.0606	8.4300e-003	0.0000	26.2713
Total	**0.0171**	**0.1794**	**0.1475**	**3.0000e-004**	**0.0711**	**7.7500e-003**	**0.0789**	**0.0343**	**7.1300e-003**	**0.0414**	**0.0000**	**26.0606**	**26.0606**	**8.4300e-003**	**0.0000**	**26.2713**

TT 6432 Residential Project - Localized Assessment - Fresno County, Annual

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

3.3 Grading - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	3.7000e-004	6.9200e-003	5.3400e-003	1.0000e-005	1.4000e-004	1.0000e-005	1.6000e-004	4.0000e-005	1.0000e-005	5.0000e-005	0.0000	1.2959	1.2959	2.0000e-005	2.0000e-004	1.3571
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	2.2000e-004	9.0000e-005	9.3000e-004	0.0000	6.0000e-005	0.0000	6.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0688	0.0688	2.0000e-005	1.0000e-005	0.0721
Total	**5.9000e-004**	**7.0100e-003**	**6.2700e-003**	**1.0000e-005**	**2.0000e-004**	**1.0000e-005**	**2.2000e-004**	**6.0000e-005**	**1.0000e-005**	**7.0000e-005**	**0.0000**	**1.3647**	**1.3647**	**4.0000e-005**	**2.1000e-004**	**1.4292**

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					0.0320	0.0000	0.0320	0.0154	0.0000	0.0154	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0171	0.1794	0.1475	3.0000e-004		7.7500e-003	7.7500e-003		7.1300e-003	7.1300e-003	0.0000	26.0606	26.0606	8.4300e-003	0.0000	26.2713
Total	**0.0171**	**0.1794**	**0.1475**	**3.0000e-004**	**0.0320**	**7.7500e-003**	**0.0398**	**0.0154**	**7.1300e-003**	**0.0226**	**0.0000**	**26.0606**	**26.0606**	**8.4300e-003**	**0.0000**	**26.2713**

TT 6432 Residential Project - Localized Assessment - Fresno County, Annual

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

3.3 Grading - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	3.7000e-004	6.9200e-003	5.3400e-003	1.0000e-005	1.4000e-004	1.0000e-005	1.6000e-004	4.0000e-005	1.0000e-005	5.0000e-005	0.0000	1.2959	1.2959	2.0000e-005	2.0000e-004	1.3571
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	2.2000e-004	9.0000e-005	9.3000e-004	0.0000	6.0000e-005	0.0000	6.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0688	0.0688	2.0000e-005	1.0000e-005	0.0721
Total	**5.9000e-004**	**7.0100e-003**	**6.2700e-003**	**1.0000e-005**	**2.0000e-004**	**1.0000e-005**	**2.2000e-004**	**6.0000e-005**	**1.0000e-005**	**7.0000e-005**	**0.0000**	**1.3647**	**1.3647**	**4.0000e-005**	**2.1000e-004**	**1.4292**

3.4 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0959	0.8775	0.9909	1.6400e-003		0.0427	0.0427		0.0402	0.0402	0.0000	141.4009	141.4009	0.0336	0.0000	142.2418
Total	**0.0959**	**0.8775**	**0.9909**	**1.6400e-003**		**0.0427**	**0.0427**		**0.0402**	**0.0402**	**0.0000**	**141.4009**	**141.4009**	**0.0336**	**0.0000**	**142.2418**

TT 6432 Residential Project - Localized Assessment - Fresno County, Annual

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

3.4 Building Construction - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.0000e-005	1.0000e-004	8.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0194	0.0194	0.0000	0.0000	0.0203
Vendor	4.9000e-004	0.0105	7.1600e-003	2.0000e-005	3.5000e-004	2.0000e-005	3.7000e-004	1.0000e-004	2.0000e-005	1.2000e-004	0.0000	2.0194	2.0194	3.0000e-005	3.1000e-004	2.1131
Worker	3.0500e-003	1.2400e-003	0.0129	1.0000e-005	7.9000e-004	1.0000e-005	8.0000e-004	2.1000e-004	1.0000e-005	2.2000e-004	0.0000	0.9515	0.9515	2.6000e-004	1.3000e-004	0.9970
Total	**3.5500e-003**	**0.0119**	**0.0201**	**3.0000e-005**	**1.1400e-003**	**3.0000e-005**	**1.1700e-003**	**3.1000e-004**	**3.0000e-005**	**3.4000e-004**	**0.0000**	**2.9903**	**2.9903**	**2.9000e-004**	**4.4000e-004**	**3.1305**

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	0.0959	0.8775	0.9909	1.6400e-003		0.0427	0.0427		0.0402	0.0402	0.0000	141.4007	141.4007	0.0336	0.0000	142.2417
Total	**0.0959**	**0.8775**	**0.9909**	**1.6400e-003**		**0.0427**	**0.0427**		**0.0402**	**0.0402**	**0.0000**	**141.4007**	**141.4007**	**0.0336**	**0.0000**	**142.2417**

TT 6432 Residential Project - Localized Assessment - Fresno County, Annual

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

3.4 Building Construction - 2023

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	1.0000e-005	1.0000e-004	8.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0194	0.0194	0.0000	0.0000	0.0203
Vendor	4.9000e-004	0.0105	7.1600e-003	2.0000e-005	3.5000e-004	2.0000e-005	3.7000e-004	1.0000e-004	2.0000e-005	1.2000e-004	0.0000	2.0194	2.0194	3.0000e-005	3.1000e-004	2.1131
Worker	3.0500e-003	1.2400e-003	0.0129	1.0000e-005	7.9000e-004	1.0000e-005	8.0000e-004	2.1000e-004	1.0000e-005	2.2000e-004	0.0000	0.9515	0.9515	2.6000e-004	1.3000e-004	0.9970
Total	**3.5500e-003**	**0.0119**	**0.0201**	**3.0000e-005**	**1.1400e-003**	**3.0000e-005**	**1.1700e-003**	**3.1000e-004**	**3.0000e-005**	**3.4000e-004**	**0.0000**	**2.9903**	**2.9903**	**2.9000e-004**	**4.4000e-004**	**3.1305**

3.4 Building Construction - 2024

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	0.0795	0.7260	0.8730	1.4600e-003		0.0331	0.0331		0.0312	0.0312	0.0000	125.1985	125.1985	0.0296	0.0000	125.9387
Total	**0.0795**	**0.7260**	**0.8730**	**1.4600e-003**		**0.0331**	**0.0331**		**0.0312**	**0.0312**	**0.0000**	**125.1985**	**125.1985**	**0.0296**	**0.0000**	**125.9387**

TT 6432 Residential Project - Localized Assessment - Fresno County, Annual

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

3.4 Building Construction - 2024

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	9.0000e-005	7.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0169	0.0169	0.0000	0.0000	0.0177
Vendor	4.3000e-004	9.2900e-003	6.2400e-003	2.0000e-005	3.1000e-004	2.0000e-005	3.3000e-004	9.0000e-005	2.0000e-005	1.1000e-004	0.0000	1.7547	1.7547	2.0000e-005	2.7000e-004	1.8362
Worker	2.4800e-003	1.0000e-003	0.0109	1.0000e-005	7.0000e-004	1.0000e-005	7.1000e-004	1.9000e-004	1.0000e-005	2.0000e-004	0.0000	0.8147	0.8147	2.1000e-004	1.1000e-004	0.8527
Total	**2.9100e-003**	**0.0104**	**0.0172**	**3.0000e-005**	**1.0100e-003**	**3.0000e-005**	**1.0400e-003**	**2.8000e-004**	**3.0000e-005**	**3.1000e-004**	**0.0000**	**2.5863**	**2.5863**	**2.3000e-004**	**3.8000e-004**	**2.7066**

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	0.0795	0.7260	0.8730	1.4600e-003		0.0331	0.0331		0.0312	0.0312	0.0000	125.1984	125.1984	0.0296	0.0000	125.9385
Total	**0.0795**	**0.7260**	**0.8730**	**1.4600e-003**		**0.0331**	**0.0331**		**0.0312**	**0.0312**	**0.0000**	**125.1984**	**125.1984**	**0.0296**	**0.0000**	**125.9385**

TT 6432 Residential Project - Localized Assessment - Fresno County, Annual

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

3.4 Building Construction - 2024

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	9.0000e-005	7.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0169	0.0169	0.0000	0.0000	0.0177
Vendor	4.3000e-004	9.2900e-003	6.2400e-003	2.0000e-005	3.1000e-004	2.0000e-005	3.3000e-004	9.0000e-005	2.0000e-005	1.1000e-004	0.0000	1.7547	1.7547	2.0000e-005	2.7000e-004	1.8362
Worker	2.4800e-003	1.0000e-003	0.0109	1.0000e-005	7.0000e-004	1.0000e-005	7.1000e-004	1.9000e-004	1.0000e-005	2.0000e-004	0.0000	0.8147	0.8147	2.1000e-004	1.1000e-004	0.8527
Total	**2.9100e-003**	**0.0104**	**0.0172**	**3.0000e-005**	**1.0100e-003**	**3.0000e-005**	**1.0400e-003**	**2.8000e-004**	**3.0000e-005**	**3.1000e-004**	**0.0000**	**2.5863**	**2.5863**	**2.3000e-004**	**3.8000e-004**	**2.7066**

3.5 Paving - 2024

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	9.8800e-003	0.0953	0.1463	2.3000e-004		4.6900e-003	4.6900e-003		4.3100e-003	4.3100e-003	0.0000	20.0265	20.0265	6.4800e-003	0.0000	20.1885
Paving	1.3100e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0112**	**0.0953**	**0.1463**	**2.3000e-004**		**4.6900e-003**	**4.6900e-003**		**4.3100e-003**	**4.3100e-003**	**0.0000**	**20.0265**	**20.0265**	**6.4800e-003**	**0.0000**	**20.1885**

TT 6432 Residential Project - Localized Assessment - Fresno County, Annual

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

3.5 Paving - 2024

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	1.0000e-005	1.3000e-004	1.0000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0239	0.0239	0.0000	0.0000	0.0251
Vendor	3.0000e-005	5.7000e-004	3.9000e-004	0.0000	2.0000e-005	0.0000	2.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.1083	0.1083	0.0000	2.0000e-005	0.1133
Worker	2.0000e-004	8.0000e-005	8.9000e-004	0.0000	6.0000e-005	0.0000	6.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0666	0.0666	2.0000e-005	1.0000e-005	0.0697
Total	**2.4000e-004**	**7.8000e-004**	**1.3800e-003**	**0.0000**	**8.0000e-005**	**0.0000**	**8.0000e-005**	**3.0000e-005**	**0.0000**	**3.0000e-005**	**0.0000**	**0.1988**	**0.1988**	**2.0000e-005**	**3.0000e-005**	**0.2081**

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	9.8800e-003	0.0953	0.1463	2.3000e-004		4.6900e-003	4.6900e-003		4.3100e-003	4.3100e-003	0.0000	20.0265	20.0265	6.4800e-003	0.0000	20.1884
Paving	1.3100e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0112**	**0.0953**	**0.1463**	**2.3000e-004**		**4.6900e-003**	**4.6900e-003**		**4.3100e-003**	**4.3100e-003**	**0.0000**	**20.0265**	**20.0265**	**6.4800e-003**	**0.0000**	**20.1884**

TT 6432 Residential Project - Localized Assessment - Fresno County, Annual

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

3.5 Paving - 2024

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	1.0000e-005	1.3000e-004	1.0000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0239	0.0239	0.0000	0.0000	0.0251
Vendor	3.0000e-005	5.7000e-004	3.9000e-004	0.0000	2.0000e-005	0.0000	2.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.1083	0.1083	0.0000	2.0000e-005	0.1133
Worker	2.0000e-004	8.0000e-005	8.9000e-004	0.0000	6.0000e-005	0.0000	6.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0666	0.0666	2.0000e-005	1.0000e-005	0.0697
Total	**2.4000e-004**	**7.8000e-004**	**1.3800e-003**	**0.0000**	**8.0000e-005**	**0.0000**	**8.0000e-005**	**3.0000e-005**	**0.0000**	**3.0000e-005**	**0.0000**	**0.1988**	**0.1988**	**2.0000e-005**	**3.0000e-005**	**0.2081**

3.6 Architectural Coating - 2024

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	0.2844					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.8100e-003	0.0122	0.0181	3.0000e-005		6.1000e-004	6.1000e-004		6.1000e-004	6.1000e-004	0.0000	2.5533	2.5533	1.4000e-004	0.0000	2.5569
Total	**0.2862**	**0.0122**	**0.0181**	**3.0000e-005**		**6.1000e-004**	**6.1000e-004**		**6.1000e-004**	**6.1000e-004**	**0.0000**	**2.5533**	**2.5533**	**1.4000e-004**	**0.0000**	**2.5569**

TT 6432 Residential Project - Localized Assessment - Fresno County, Annual

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

3.6 Architectural Coating - 2024

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	2.0000e-005	2.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	3.9900e-003	3.9900e-003	0.0000	0.0000	4.1800e-003
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	9.0000e-005	4.0000e-005	4.2000e-004	0.0000	3.0000e-005	0.0000	3.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0311	0.0311	1.0000e-005	0.0000	0.0325
Total	**9.0000e-005**	**6.0000e-005**	**4.4000e-004**	**0.0000**	**3.0000e-005**	**0.0000**	**3.0000e-005**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0351**	**0.0351**	**1.0000e-005**	**0.0000**	**0.0367**

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	0.2844					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.8100e-003	0.0122	0.0181	3.0000e-005		6.1000e-004	6.1000e-004		6.1000e-004	6.1000e-004	0.0000	2.5533	2.5533	1.4000e-004	0.0000	2.5568
Total	**0.2862**	**0.0122**	**0.0181**	**3.0000e-005**		**6.1000e-004**	**6.1000e-004**		**6.1000e-004**	**6.1000e-004**	**0.0000**	**2.5533**	**2.5533**	**1.4000e-004**	**0.0000**	**2.5568**

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

3.6 Architectural Coating - 2024

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	2.0000e-005	2.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	3.9900e-003	3.9900e-003	0.0000	0.0000	4.1800e-003
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	9.0000e-005	4.0000e-005	4.2000e-004	0.0000	3.0000e-005	0.0000	3.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0311	0.0311	1.0000e-005	0.0000	0.0325
Total	**9.0000e-005**	**6.0000e-005**	**4.4000e-004**	**0.0000**	**3.0000e-005**	**0.0000**	**3.0000e-005**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0351**	**0.0351**	**1.0000e-005**	**0.0000**	**0.0367**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

TT 6432 Residential Project - Localized Assessment - Fresno County, Annual

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.1112	0.0816	0.4794	3.9000e-004	0.0278	5.0000e-004	0.0283	7.4000e-003	4.6000e-004	7.8600e-003	0.0000	36.8255	36.8255	0.0102	5.6300e-003	38.7580
Unmitigated	0.1112	0.0816	0.4794	3.9000e-004	0.0278	5.0000e-004	0.0283	7.4000e-003	4.6000e-004	7.8600e-003	0.0000	36.8255	36.8255	0.0102	5.6300e-003	38.7580

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Parking Lot	0.00	0.00	0.00		
Single Family Housing	414.92	417.12	373.12	74,486	74,486
Total	414.92	417.12	373.12	74,486	74,486

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Single Family Housing	0.50	0.50	0.50	48.40	15.90	35.70	100	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Parking Lot	0.510058	0.053037	0.175964	0.161396	0.026773	0.007006	0.013819	0.022114	0.000717	0.000291	0.024206	0.001529	0.003090
Single Family Housing	0.530500	0.205800	0.167300	0.055000	0.001100	0.000900	0.008500	0.021800	0.000000	0.004300	0.002500	0.000400	0.001900

5.0 Energy Detail

TT 6432 Residential Project - Localized Assessment - Fresno County, Annual

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

Historical Energy Use: N

5.1 Mitigation Measures Energy

Percent of Electricity Use Generated with Renewable 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	5.0810	5.0810	8.2000e-004	1.0000e-004	5.1312
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	33.8730	33.8730	5.4800e-003	6.6000e-004	34.2079
NaturalGas Mitigated	5.7000e-003	0.0487	0.0207	3.1000e-004		3.9400e-003	3.9400e-003		3.9400e-003	3.9400e-003	0.0000	56.4404	56.4404	1.0800e-003	1.0300e-003	56.7758
NaturalGas Unmitigated	5.7000e-003	0.0487	0.0207	3.1000e-004		3.9400e-003	3.9400e-003		3.9400e-003	3.9400e-003	0.0000	56.4404	56.4404	1.0800e-003	1.0300e-003	56.7758

TT 6432 Residential Project - Localized Assessment - Fresno County, Annual

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

5.2 Energy by Land Use - NaturalGas

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					
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Single Family Housing	1.05765e+006	5.7000e-003	0.0487	0.0207	3.1000e-004		3.9400e-003	3.9400e-003		3.9400e-003	3.9400e-003	0.0000	56.4404	56.4404	1.0800e-003	1.0300e-003	56.7758
Total		**5.7000e-003**	**0.0487**	**0.0207**	**3.1000e-004**		**3.9400e-003**	**3.9400e-003**		**3.9400e-003**	**3.9400e-003**	**0.0000**	**56.4404**	**56.4404**	**1.0800e-003**	**1.0300e-003**	**56.7758**

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					
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Single Family Housing	1.05765e+006	5.7000e-003	0.0487	0.0207	3.1000e-004		3.9400e-003	3.9400e-003		3.9400e-003	3.9400e-003	0.0000	56.4404	56.4404	1.0800e-003	1.0300e-003	56.7758
Total		**5.7000e-003**	**0.0487**	**0.0207**	**3.1000e-004**		**3.9400e-003**	**3.9400e-003**		**3.9400e-003**	**3.9400e-003**	**0.0000**	**56.4404**	**56.4404**	**1.0800e-003**	**1.0300e-003**	**56.7758**

TT 6432 Residential Project - Localized Assessment - Fresno County, Annual

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

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Parking Lot	15246	1.4106	2.3000e-004	3.0000e-005	1.4246
Single Family Housing	350854	32.4624	5.2500e-003	6.4000e-004	32.7834
Total		**33.8730**	**5.4800e-003**	**6.7000e-004**	**34.2079**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Parking Lot	2286.9	0.2116	3.0000e-005	0.0000	0.2137
Single Family Housing	52628.1	4.8694	7.9000e-004	1.0000e-004	4.9175
Total		**5.0809**	**8.2000e-004**	**1.0000e-004**	**5.1312**

6.0 Area Detail

TT 6432 Residential Project - Localized Assessment - Fresno County, Annual

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

6.1 Mitigation Measures Area

Use Electric Lawnmower

Use Electric Leafblower

Use Electric Chainsaw

Use Low VOC Paint - Residential Interior

Use Low VOC Paint - Residential Exterior

Use only Natural Gas Hearths

	ROG	NOx	CO	SO2	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	0.3866	0.0202	0.3314	1.2000e-004		3.1300e-003	3.1300e-003		3.1300e-003	3.1300e-003	0.0000	19.5900	19.5900	8.7000e-004	3.5000e-004	19.7159
Unmitigated	0.3867	0.0202	0.3338	1.2000e-004		3.1400e-003	3.1400e-003		3.1400e-003	3.1400e-003	0.0000	19.5948	19.5948	8.8000e-004	3.5000e-004	19.7209

TT 6432 Residential Project - Localized Assessment - Fresno County, Annual

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

6.2 Area by SubCategory

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	0.0284					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.3465					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	1.9300e-003	0.0165	7.0000e-003	1.1000e-004		1.3300e-003	1.3300e-003		1.3300e-003	1.3300e-003	0.0000	19.0611	19.0611	3.7000e-004	3.5000e-004	19.1744
Landscaping	9.8500e-003	3.7700e-003	0.3268	2.0000e-005		1.8100e-003	1.8100e-003		1.8100e-003	1.8100e-003	0.0000	0.5337	0.5337	5.1000e-004	0.0000	0.5465
Total	**0.3867**	**0.0202**	**0.3338**	**1.3000e-004**		**3.1400e-003**	**3.1400e-003**		**3.1400e-003**	**3.1400e-003**	**0.0000**	**19.5948**	**19.5948**	**8.8000e-004**	**3.5000e-004**	**19.7209**

TT 6432 Residential Project - Localized Assessment - Fresno County, Annual

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

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0284					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.3465					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	1.9300e-003	0.0165	7.0000e-003	1.1000e-004		1.3300e-003	1.3300e-003		1.3300e-003	1.3300e-003	0.0000	19.0611	19.0611	3.7000e-004	3.5000e-004	19.1744
Landscaping	9.7100e-003	3.7400e-003	0.3244	2.0000e-005		1.7900e-003	1.7900e-003		1.7900e-003	1.7900e-003	0.0000	0.5289	0.5289	5.1000e-004	0.0000	0.5415
Total	**0.3866**	**0.0202**	**0.3314**	**1.3000e-004**		**3.1200e-003**	**3.1200e-003**		**3.1200e-003**	**3.1200e-003**	**0.0000**	**19.5900**	**19.5900**	**8.8000e-004**	**3.5000e-004**	**19.7159**

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

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

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	2.3440	0.0750	1.8000e-003	4.7541
Unmitigated	2.9300	0.0937	2.2500e-003	5.9426

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	2.86678 / 1.80732	2.9300	0.0937	2.2500e-003	5.9426
Total		**2.9300**	**0.0937**	**2.2500e-003**	**5.9426**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	2.29342 / 1.44585	2.3440	0.0750	1.8000e-003	4.7541
Total		**2.3440**	**0.0750**	**1.8000e-003**	**4.7541**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

TT 6432 Residential Project - Localized Assessment - Fresno County, Annual

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

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	6.9058	0.4081	0.0000	17.1087
Unmitigated	9.2077	0.5442	0.0000	22.8116

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	45.36	9.2077	0.5442	0.0000	22.8116
Total		**9.2077**	**0.5442**	**0.0000**	**22.8116**

TT 6432 Residential Project - Localized Assessment - Fresno County, Annual

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

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	34.02	6.9058	0.4081	0.0000	17.1087
Total		**6.9058**	**0.4081**	**0.0000**	**17.1087**

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

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

TT 6432 Residential Project - Localized Assessment - Fresno County, Summer

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

TT 6432 Residential Project - Localized Assessment

Fresno County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	1.00	Acre	1.00	43,560.00	0
Single Family Housing	44.00	Dwelling Unit	4.18	88,000.00	126

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	45
Climate Zone	3			**Operational Year**	2023
Utility Company	Pacific Gas and Electric Company				
CO2 Intensity (lb/MWhr)	203.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Tulare and Peach Vesting Tentative Tract Map for Tract No. 6432 - Unmitigated Construction & Operations - Localized Assessment
Full buildout in anticipated earliest year of operations (2023)

Land Use - 44 units analyzed, consistent with project description
Tract 6432 Project Site Gross Acres: 4.18 acres
Added additional one (1) acre to account for off-site improvements (curb, gutter, sidewalk, etc.)

Construction Phase - Construction - earlier dates provide a more conservative estimate of emissions

Trips and VMT - Trip lengths updated to 0.5 mile to account for on-site and localized emissions from construction vehicles.

Grading - Cut/fill anticipated to balance on-site
Included 2,500 cy of import and 2,500 cy of export to provide a conservative estimate of emissions

Architectural Coating - Rule 4601 Architectural Coatings

Vehicle Trips - Trip lengths updated to 0.5 mile to account for on-site and localized emissions from mobile sources.
ITE 11th Edition Rates for single-family homes (ITE Land Use 210)

Woodstoves - SJVAPCD Rule 4901 Woodburning

TT 6432 Residential Project - Localized Assessment - Fresno County, Summer

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

Area Coating - Rule 4601 Architectural Coatings

Water And Wastewater -

Solid Waste -

Construction Off-road Equipment Mitigation - Compliance with SJVAPCD Regulation VIII

Area Mitigation - Rule 4601 Architectural Coatings, no woodburning fireplaces (only natural gas hearth), and outside outlets

Energy Mitigation - Single-family homes to be built with rooftop solar to provide on-site renewable energy (85% of electricity use generated applied)

Water Mitigation - Compliance with Green Building Code Standards and California Model Water Efficient Landscape Ordinance

Waste Mitigation - CalRecycle 75 Percent Initiative (25% reduction)

Fleet Mix - SJVAPCD-approved Residential Fleet Mix for the 2023 operational year

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Residential_Exterior	150.00	50.00
tblArchitecturalCoating	EF_Residential_Interior	150.00	50.00
tblAreaCoating	Area_EF_Residential_Exterior	150	50
tblAreaCoating	Area_EF_Residential_Interior	150	50
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblFireplaces	FireplaceWoodMass	3,078.40	0.00
tblFleetMix	HHD	0.02	0.02
tblFleetMix	LDA	0.51	0.53
tblFleetMix	LDT1	0.05	0.21
tblFleetMix	LDT2	0.18	0.17
tblFleetMix	LHD1	0.03	1.1000e-003
tblFleetMix	LHD2	7.0060e-003	9.0000e-004
tblFleetMix	MCY	0.02	2.5000e-003
tblFleetMix	MDV	0.16	0.06
tblFleetMix	MH	3.0900e-003	1.9000e-003
tblFleetMix	MHD	0.01	8.5000e-003
tblFleetMix	OBUS	7.1700e-004	0.00
tblFleetMix	SBUS	1.5290e-003	4.0000e-004

TT 6432 Residential Project - Localized Assessment - Fresno County, Summer

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

tblFleetMix	UBUS	2.9100e-004	4.3000e-003
tblGrading	MaterialExported	0.00	2,500.00
tblGrading	MaterialImported	0.00	2,500.00
tblLandUse	LandUseSquareFeet	79,200.00	88,000.00
tblLandUse	LotAcreage	14.29	4.18
tblTripsAndVMT	HaulingTripLength	20.00	0.50
tblTripsAndVMT	HaulingTripLength	20.00	0.50
tblTripsAndVMT	HaulingTripLength	20.00	0.50
tblTripsAndVMT	HaulingTripLength	20.00	0.50
tblTripsAndVMT	HaulingTripLength	20.00	0.50
tblTripsAndVMT	HaulingTripNumber	0.00	14.00
tblTripsAndVMT	HaulingTripNumber	625.00	637.00
tblTripsAndVMT	HaulingTripNumber	0.00	18.00
tblTripsAndVMT	HaulingTripNumber	0.00	12.00
tblTripsAndVMT	HaulingTripNumber	0.00	2.00
tblTripsAndVMT	VendorTripLength	7.30	0.50
tblTripsAndVMT	VendorTripLength	7.30	0.50
tblTripsAndVMT	VendorTripLength	7.30	0.50
tblTripsAndVMT	VendorTripLength	7.30	0.50
tblTripsAndVMT	VendorTripLength	7.30	0.50
tblTripsAndVMT	VendorTripNumber	0.00	4.00
tblTripsAndVMT	WorkerTripLength	10.80	0.50
tblTripsAndVMT	WorkerTripLength	10.80	0.50
tblTripsAndVMT	WorkerTripLength	10.80	0.50
tblTripsAndVMT	WorkerTripLength	10.80	0.50
tblTripsAndVMT	WorkerTripLength	10.80	0.50
tblVehicleTrips	DV_TP	11.00	0.00
tblVehicleTrips	HO_TL	7.50	0.50
tblVehicleTrips	HS_TL	7.30	0.50

TT 6432 Residential Project - Localized Assessment - Fresno County, Summer

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

tblVehicleTrips	HW_TL	10.80	0.50
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	86.00	100.00
tblVehicleTrips	ST_TR	9.54	9.48
tblVehicleTrips	SU_TR	8.55	8.48
tblVehicleTrips	WD_TR	9.44	9.43
tblWoodstoves	WoodstoveWoodMass	3,019.20	0.00

2.0 Emissions Summary

TT 6432 Residential Project - Localized Assessment - Fresno County, Summer

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

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2023	2.6961	27.5636	18.3684	0.0382	19.6647	1.2662	20.9309	10.1045	1.1649	11.2694	0.0000	3,703.2138	3,703.2138	1.1948	0.0233	3,733.7321
2024	28.6340	13.6293	16.4628	0.0275	0.0192	0.6138	0.6330	5.2900e-003	0.5774	0.5827	0.0000	2,609.3293	2,609.3293	0.7158	7.7000e-003	2,626.8378
Maximum	**28.6340**	**27.5636**	**18.3684**	**0.0382**	**19.6647**	**1.2662**	**20.9309**	**10.1045**	**1.1649**	**11.2694**	**0.0000**	**3,703.2138**	**3,703.2138**	**1.1948**	**0.0233**	**3,733.7321**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2023	2.6961	27.5636	18.3684	0.0382	8.8533	1.2662	10.1195	4.5482	1.1649	5.7131	0.0000	3,703.2138	3,703.2138	1.1948	0.0233	3,733.7321
2024	28.6340	13.6293	16.4628	0.0275	0.0192	0.6138	0.6330	5.2900e-003	0.5774	0.5827	0.0000	2,609.3293	2,609.3293	0.7158	7.7000e-003	2,626.8378
Maximum	**28.6340**	**27.5636**	**18.3684**	**0.0382**	**8.8533**	**1.2662**	**10.1195**	**4.5482**	**1.1649**	**5.7131**	**0.0000**	**3,703.2138**	**3,703.2138**	**1.1948**	**0.0233**	**3,733.7321**

TT 6432 Residential Project - Localized Assessment - Fresno County, Summer

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	54.93	0.00	50.14	54.96	0.00	46.88	0.00	0.00	0.00	0.00	0.00	0.00

TT 6432 Residential Project - Localized Assessment - Fresno County, Summer

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

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	2.2108	0.4433	3.8018	2.7500e-003		0.0526	0.0526		0.0526	0.0526	0.0000	519.0071	519.0071	0.0161	9.4000e-003	522.2096
Energy	0.0313	0.2670	0.1136	1.7000e-003		0.0216	0.0216		0.0216	0.0216		340.9032	340.9032	6.5300e-003	6.2500e-003	342.9290
Mobile	0.8135	0.4355	2.4191	2.3100e-003	0.1597	2.7900e-003	0.1625	0.0425	2.5800e-003	0.0451		237.7521	237.7521	0.0548	0.0336	249.1241
Total	**3.0556**	**1.1459**	**6.3346**	**6.7600e-003**	**0.1597**	**0.0769**	**0.2367**	**0.0425**	**0.0767**	**0.1192**	**0.0000**	**1,097.6624**	**1,097.6624**	**0.0775**	**0.0492**	**1,114.2627**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	2.2093	0.4430	3.7757	2.7500e-003		0.0524	0.0524		0.0524	0.0524	0.0000	518.9482	518.9482	0.0160	9.4000e-003	522.1485
Energy	0.0313	0.2670	0.1136	1.7000e-003		0.0216	0.0216		0.0216	0.0216		340.9032	340.9032	6.5300e-003	6.2500e-003	342.9290
Mobile	0.8135	0.4355	2.4191	2.3100e-003	0.1597	2.7900e-003	0.1625	0.0425	2.5800e-003	0.0451		237.7521	237.7521	0.0548	0.0336	249.1241
Total	**3.0541**	**1.1456**	**6.3084**	**6.7600e-003**	**0.1597**	**0.0768**	**0.2365**	**0.0425**	**0.0766**	**0.1191**	**0.0000**	**1,097.6036**	**1,097.6036**	**0.0774**	**0.0492**	**1,114.2016**

TT 6432 Residential Project - Localized Assessment - Fresno County, Summer

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.05	0.02	0.41	0.00	0.00	0.19	0.06	0.00	0.20	0.13	0.00	0.01	0.01	0.12	0.00	0.01

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	6/1/2023	6/14/2023	5	10	Site preparation and site clearing
2	Grading	Grading	6/15/2023	7/12/2023	5	20	
3	Building Construction	Building Construction	7/13/2023	5/29/2024	5	230	
4	Paving	Paving	5/30/2024	6/26/2024	5	20	
5	Architectural Coating	Architectural Coating	6/27/2024	7/24/2024	5	20	

Acres of Grading (Site Preparation Phase): 15

Acres of Grading (Grading Phase): 20

Acres of Paving: 1

Residential Indoor: 178,200; Residential Outdoor: 59,400; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 2,614 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	1	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37

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

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	14.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	637.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Building Construction	9	34.00	12.00	18.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	4.00	12.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	7.00	0.00	2.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

TT 6432 Residential Project - Localized Assessment - Fresno County, Summer

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

3.2 Site Preparation - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					19.6570	0.0000	19.6570	10.1025	0.0000	10.1025			0.0000			0.0000
Off-Road	2.6595	27.5242	18.2443	0.0381		1.2660	1.2660		1.1647	1.1647		3,687.3081	3,687.3081	1.1926		3,717.1219
Total	**2.6595**	**27.5242**	**18.2443**	**0.0381**	**19.6570**	**1.2660**	**20.9230**	**10.1025**	**1.1647**	**11.2672**		**3,687.3081**	**3,687.3081**	**1.1926**		**3,717.1219**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	1.7000e-003	0.0293	0.0232	6.0000e-005	6.4000e-004	6.0000e-005	7.0000e-004	1.8000e-004	5.0000e-005	2.3000e-004		6.2317	6.2317	9.0000e-005	9.8000e-004	6.5261
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0350	0.0101	0.1010	1.0000e-004	7.0100e-003	1.1000e-004	7.1300e-003	1.8800e-003	1.0000e-004	1.9900e-003		9.6740	9.6740	2.1300e-003	1.2000e-003	10.0841
Total	**0.0367**	**0.0394**	**0.1241**	**1.6000e-004**	**7.6500e-003**	**1.7000e-004**	**7.8300e-003**	**2.0600e-003**	**1.5000e-004**	**2.2200e-003**		**15.9057**	**15.9057**	**2.2200e-003**	**2.1800e-003**	**16.6102**

TT 6432 Residential Project - Localized Assessment - Fresno County, Summer

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

3.2 Site Preparation - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.8457	0.0000	8.8457	4.5461	0.0000	4.5461			0.0000			0.0000
Off-Road	2.6595	27.5242	18.2443	0.0381		1.2660	1.2660		1.1647	1.1647	0.0000	3,687.3081	3,687.3081	1.1926		3,717.1219
Total	**2.6595**	**27.5242**	**18.2443**	**0.0381**	**8.8457**	**1.2660**	**10.1117**	**4.5461**	**1.1647**	**5.7108**	**0.0000**	**3,687.3081**	**3,687.3081**	**1.1926**		**3,717.1219**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	1.7000e-003	0.0293	0.0232	6.0000e-005	6.4000e-004	6.0000e-005	7.0000e-004	1.8000e-004	5.0000e-005	2.3000e-004		6.2317	6.2317	9.0000e-005	9.8000e-004	6.5261
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0350	0.0101	0.1010	1.0000e-004	7.0100e-003	1.1000e-004	7.1300e-003	1.8800e-003	1.0000e-004	1.9900e-003		9.6740	9.6740	2.1300e-003	1.2000e-003	10.0841
Total	**0.0367**	**0.0394**	**0.1241**	**1.6000e-004**	**7.6500e-003**	**1.7000e-004**	**7.8300e-003**	**2.0600e-003**	**1.5000e-004**	**2.2200e-003**		**15.9057**	**15.9057**	**2.2200e-003**	**2.1800e-003**	**16.6102**

TT 6432 Residential Project - Localized Assessment - Fresno County, Summer

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

3.3 Grading - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					7.1109	0.0000	7.1109	3.4290	0.0000	3.4290			0.0000			0.0000
Off-Road	1.7109	17.9359	14.7507	0.0297		0.7749	0.7749		0.7129	0.7129		2,872.6910	2,872.6910	0.9291		2,895.9182
Total	**1.7109**	**17.9359**	**14.7507**	**0.0297**	**7.1109**	**0.7749**	**7.8858**	**3.4290**	**0.7129**	**4.1420**		**2,872.6910**	**2,872.6910**	**0.9291**		**2,895.9182**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0387	0.6670	0.5267	1.3400e-003	0.0146	1.2700e-003	0.0159	4.0700e-003	1.2200e-003	5.2900e-003		141.7717	141.7717	2.1300e-003	0.0223	148.4687
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0292	8.3900e-003	0.0841	8.0000e-005	5.8500e-003	9.0000e-005	5.9400e-003	1.5700e-003	9.0000e-005	1.6600e-003		8.0617	8.0617	1.7800e-003	1.0000e-003	8.4034
Total	**0.0678**	**0.6754**	**0.6108**	**1.4200e-003**	**0.0205**	**1.3600e-003**	**0.0218**	**5.6400e-003**	**1.3100e-003**	**6.9500e-003**		**149.8333**	**149.8333**	**3.9100e-003**	**0.0233**	**156.8721**

TT 6432 Residential Project - Localized Assessment - Fresno County, Summer

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

3.3 Grading - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.1999	0.0000	3.1999	1.5431	0.0000	1.5431			0.0000			0.0000
Off-Road	1.7109	17.9359	14.7507	0.0297		0.7749	0.7749		0.7129	0.7129	0.0000	2,872.6910	2,872.6910	0.9291		2,895.9182
Total	**1.7109**	**17.9359**	**14.7507**	**0.0297**	**3.1999**	**0.7749**	**3.9748**	**1.5431**	**0.7129**	**2.2560**	**0.0000**	**2,872.6910**	**2,872.6910**	**0.9291**		**2,895.9182**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0387	0.6670	0.5267	1.3400e-003	0.0146	1.2700e-003	0.0159	4.0700e-003	1.2200e-003	5.2900e-003		141.7717	141.7717	2.1300e-003	0.0223	148.4687
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0292	8.3900e-003	0.0841	8.0000e-005	5.8500e-003	9.0000e-005	5.9400e-003	1.5700e-003	9.0000e-005	1.6600e-003		8.0617	8.0617	1.7800e-003	1.0000e-003	8.4034
Total	**0.0678**	**0.6754**	**0.6108**	**1.4200e-003**	**0.0205**	**1.3600e-003**	**0.0218**	**5.6400e-003**	**1.3100e-003**	**6.9500e-003**		**149.8333**	**149.8333**	**3.9100e-003**	**0.0233**	**156.8721**

TT 6432 Residential Project - Localized Assessment - Fresno County, Summer

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

3.4 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584		2,555.2099	2,555.2099	0.6079		2,570.4061
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**		**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	1.0000e-004	1.6400e-003	1.2900e-003	0.0000	4.0000e-005	0.0000	4.0000e-005	1.0000e-005	0.0000	1.0000e-005		0.3484	0.3484	1.0000e-005	5.0000e-005	0.3648
Vendor	8.4800e-003	0.1671	0.1147	3.4000e-004	5.8700e-003	3.1000e-004	6.1700e-003	1.7200e-003	2.9000e-004	2.0100e-003		36.2875	36.2875	5.3000e-004	5.6000e-003	37.9704
Worker	0.0661	0.0190	0.1907	1.8000e-004	0.0133	2.1000e-004	0.0135	3.5600e-003	2.0000e-004	3.7500e-003		18.2732	18.2732	4.0300e-003	2.2600e-003	19.0478
Total	**0.0747**	**0.1878**	**0.3067**	**5.2000e-004**	**0.0192**	**5.2000e-004**	**0.0197**	**5.2900e-003**	**4.9000e-004**	**5.7700e-003**		**54.9090**	**54.9090**	**4.5700e-003**	**7.9100e-003**	**57.3830**

TT 6432 Residential Project - Localized Assessment - Fresno County, Summer

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

3.4 Building Construction - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584	0.0000	2,555.2099	2,555.2099	0.6079		2,570.4061
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**	**0.0000**	**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	1.0000e-004	1.6400e-003	1.2900e-003	0.0000	4.0000e-005	0.0000	4.0000e-005	1.0000e-005	0.0000	1.0000e-005		0.3484	0.3484	1.0000e-005	5.0000e-005	0.3648
Vendor	8.4800e-003	0.1671	0.1147	3.4000e-004	5.8700e-003	3.1000e-004	6.1700e-003	1.7200e-003	2.9000e-004	2.0100e-003		36.2875	36.2875	5.3000e-004	5.6000e-003	37.9704
Worker	0.0661	0.0190	0.1907	1.8000e-004	0.0133	2.1000e-004	0.0135	3.5600e-003	2.0000e-004	3.7500e-003		18.2732	18.2732	4.0300e-003	2.2600e-003	19.0478
Total	**0.0747**	**0.1878**	**0.3067**	**5.2000e-004**	**0.0192**	**5.2000e-004**	**0.0197**	**5.2900e-003**	**4.9000e-004**	**5.7700e-003**		**54.9090**	**54.9090**	**4.5700e-003**	**7.9100e-003**	**57.3830**

TT 6432 Residential Project - Localized Assessment - Fresno County, Summer

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

3.4 Building Construction - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769		2,555.6989	2,555.6989	0.6044		2,570.8077
Total	**1.4716**	**13.4438**	**16.1668**	**0.0270**		**0.6133**	**0.6133**		**0.5769**	**0.5769**		**2,555.6989**	**2,555.6989**	**0.6044**		**2,570.8077**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	9.0000e-005	1.6300e-003	1.2900e-003	0.0000	4.0000e-005	0.0000	4.0000e-005	1.0000e-005	0.0000	1.0000e-005		0.3416	0.3416	1.0000e-005	5.0000e-005	0.3578
Vendor	8.3400e-003	0.1665	0.1130	3.4000e-004	5.8700e-003	3.1000e-004	6.1700e-003	1.7200e-003	2.9000e-004	2.0100e-003		35.6173	35.6173	5.1000e-004	5.5000e-003	37.2691
Worker	0.0607	0.0174	0.1817	1.7000e-004	0.0133	2.0000e-004	0.0135	3.5600e-003	1.9000e-004	3.7400e-003		17.6715	17.6715	3.7000e-003	2.1500e-003	18.4033
Total	**0.0691**	**0.1855**	**0.2960**	**5.1000e-004**	**0.0192**	**5.1000e-004**	**0.0197**	**5.2900e-003**	**4.8000e-004**	**5.7600e-003**		**53.6304**	**53.6304**	**4.2200e-003**	**7.7000e-003**	**56.0302**

TT 6432 Residential Project - Localized Assessment - Fresno County, Summer

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

3.4 Building Construction - 2024

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769	0.0000	2,555.6989	2,555.6989	0.6044		2,570.8077
Total	**1.4716**	**13.4438**	**16.1668**	**0.0270**		**0.6133**	**0.6133**		**0.5769**	**0.5769**	**0.0000**	**2,555.6989**	**2,555.6989**	**0.6044**		**2,570.8077**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	9.0000e-005	1.6300e-003	1.2900e-003	0.0000	4.0000e-005	0.0000	4.0000e-005	1.0000e-005	0.0000	1.0000e-005		0.3416	0.3416	1.0000e-005	5.0000e-005	0.3578
Vendor	8.3400e-003	0.1665	0.1130	3.4000e-004	5.8700e-003	3.1000e-004	6.1700e-003	1.7200e-003	2.9000e-004	2.0100e-003		35.6173	35.6173	5.1000e-004	5.5000e-003	37.2691
Worker	0.0607	0.0174	0.1817	1.7000e-004	0.0133	2.0000e-004	0.0135	3.5600e-003	1.9000e-004	3.7400e-003		17.6715	17.6715	3.7000e-003	2.1500e-003	18.4033
Total	**0.0691**	**0.1855**	**0.2960**	**5.1000e-004**	**0.0192**	**5.1000e-004**	**0.0197**	**5.2900e-003**	**4.8000e-004**	**5.7600e-003**		**53.6304**	**53.6304**	**4.2200e-003**	**7.7000e-003**	**56.0302**

TT 6432 Residential Project - Localized Assessment - Fresno County, Summer

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

3.5 Paving - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9882	9.5246	14.6258	0.0228		0.4685	0.4685		0.4310	0.4310		2,207.5472	2,207.5472	0.7140		2,225.3963
Paving	0.1310					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.1192**	**9.5246**	**14.6258**	**0.0228**		**0.4685**	**0.4685**		**0.4310**	**0.4310**		**2,207.5472**	**2,207.5472**	**0.7140**		**2,225.3963**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	7.2000e-004	0.0125	9.8600e-003	2.0000e-005	2.8000e-004	2.0000e-005	3.0000e-004	8.0000e-005	2.0000e-005	1.0000e-004		2.6192	2.6192	4.0000e-005	4.1000e-004	2.7429
Vendor	2.7800e-003	0.0555	0.0377	1.1000e-004	1.9600e-003	1.0000e-004	2.0600e-003	5.7000e-004	1.0000e-004	6.7000e-004		11.8724	11.8724	1.7000e-004	1.8300e-003	12.4230
Worker	0.0268	7.6900e-003	0.0802	8.0000e-005	5.8500e-003	9.0000e-005	5.9400e-003	1.5700e-003	8.0000e-005	1.6500e-003		7.7962	7.7962	1.6300e-003	9.5000e-004	8.1191
Total	**0.0303**	**0.0757**	**0.1277**	**2.1000e-004**	**8.0900e-003**	**2.1000e-004**	**8.3000e-003**	**2.2200e-003**	**2.0000e-004**	**2.4200e-003**		**22.2879**	**22.2879**	**1.8400e-003**	**3.1900e-003**	**23.2851**

TT 6432 Residential Project - Localized Assessment - Fresno County, Summer

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

3.5 Paving - 2024

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9882	9.5246	14.6258	0.0228		0.4685	0.4685		0.4310	0.4310	0.0000	2,207.5472	2,207.5472	0.7140		2,225.3963
Paving	0.1310					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.1192**	**9.5246**	**14.6258**	**0.0228**		**0.4685**	**0.4685**		**0.4310**	**0.4310**	**0.0000**	**2,207.5472**	**2,207.5472**	**0.7140**		**2,225.3963**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	7.2000e-004	0.0125	9.8600e-003	2.0000e-005	2.8000e-004	2.0000e-005	3.0000e-004	8.0000e-005	2.0000e-005	1.0000e-004		2.6192	2.6192	4.0000e-005	4.1000e-004	2.7429
Vendor	2.7800e-003	0.0555	0.0377	1.1000e-004	1.9600e-003	1.0000e-004	2.0600e-003	5.7000e-004	1.0000e-004	6.7000e-004		11.8724	11.8724	1.7000e-004	1.8300e-003	12.4230
Worker	0.0268	7.6900e-003	0.0802	8.0000e-005	5.8500e-003	9.0000e-005	5.9400e-003	1.5700e-003	8.0000e-005	1.6500e-003		7.7962	7.7962	1.6300e-003	9.5000e-004	8.1191
Total	**0.0303**	**0.0757**	**0.1277**	**2.1000e-004**	**8.0900e-003**	**2.1000e-004**	**8.3000e-003**	**2.2200e-003**	**2.0000e-004**	**2.4200e-003**		**22.2879**	**22.2879**	**1.8400e-003**	**3.1900e-003**	**23.2851**

TT 6432 Residential Project - Localized Assessment - Fresno County, Summer

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

3.6 Architectural Coating - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	28.4406					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609		281.4481	281.4481	0.0159		281.8443
Total	**28.6214**	**1.2188**	**1.8101**	**2.9700e-003**		**0.0609**	**0.0609**		**0.0609**	**0.0609**		**281.4481**	**281.4481**	**0.0159**		**281.8443**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	1.2000e-004	2.0800e-003	1.6400e-003	0.0000	5.0000e-005	0.0000	5.0000e-005	1.0000e-005	0.0000	2.0000e-005		0.4365	0.4365	1.0000e-005	7.0000e-005	0.4572
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0125	3.5900e-003	0.0374	4.0000e-005	2.7300e-003	4.0000e-005	2.7700e-003	7.3000e-004	4.0000e-005	7.7000e-004		3.6383	3.6383	7.6000e-004	4.4000e-004	3.7889
Total	**0.0126**	**5.6700e-003**	**0.0391**	**4.0000e-005**	**2.7800e-003**	**4.0000e-005**	**2.8200e-003**	**7.4000e-004**	**4.0000e-005**	**7.9000e-004**		**4.0748**	**4.0748**	**7.7000e-004**	**5.1000e-004**	**4.2461**

TT 6432 Residential Project - Localized Assessment - Fresno County, Summer

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

3.6 Architectural Coating - 2024

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	28.4406					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609	0.0000	281.4481	281.4481	0.0159		281.8443
Total	**28.6214**	**1.2188**	**1.8101**	**2.9700e-003**		**0.0609**	**0.0609**		**0.0609**	**0.0609**	**0.0000**	**281.4481**	**281.4481**	**0.0159**		**281.8443**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	1.2000e-004	2.0800e-003	1.6400e-003	0.0000	5.0000e-005	0.0000	5.0000e-005	1.0000e-005	0.0000	2.0000e-005		0.4365	0.4365	1.0000e-005	7.0000e-005	0.4572
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0125	3.5900e-003	0.0374	4.0000e-005	2.7300e-003	4.0000e-005	2.7700e-003	7.3000e-004	4.0000e-005	7.7000e-004		3.6383	3.6383	7.6000e-004	4.4000e-004	3.7889
Total	**0.0126**	**5.6700e-003**	**0.0391**	**4.0000e-005**	**2.7800e-003**	**4.0000e-005**	**2.8200e-003**	**7.4000e-004**	**4.0000e-005**	**7.9000e-004**		**4.0748**	**4.0748**	**7.7000e-004**	**5.1000e-004**	**4.2461**

TT 6432 Residential Project - Localized Assessment - Fresno County, Summer

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

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.8135	0.4355	2.4191	2.3100e-003	0.1597	2.7900e-003	0.1625	0.0425	2.5800e-003	0.0451		237.7521	237.7521	0.0548	0.0336	249.1241
Unmitigated	0.8135	0.4355	2.4191	2.3100e-003	0.1597	2.7900e-003	0.1625	0.0425	2.5800e-003	0.0451		237.7521	237.7521	0.0548	0.0336	249.1241

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Parking Lot	0.00	0.00	0.00		
Single Family Housing	414.92	417.12	373.12	74,486	74,486
Total	414.92	417.12	373.12	74,486	74,486

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Single Family Housing	0.50	0.50	0.50	48.40	15.90	35.70	100	0	0

4.4 Fleet Mix

TT 6432 Residential Project - Localized Assessment - Fresno County, Summer

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

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Parking Lot	0.510058	0.053037	0.175964	0.161396	0.026773	0.007006	0.013819	0.022114	0.000717	0.000291	0.024206	0.001529	0.003090
Single Family Housing	0.530500	0.205800	0.167300	0.055000	0.001100	0.000900	0.008500	0.021800	0.000000	0.004300	0.002500	0.000400	0.001900

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Percent of Electricity Use Generated with Renewable Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0313	0.2670	0.1136	1.7000e-003		0.0216	0.0216		0.0216	0.0216		340.9032	340.9032	6.5300e-003	6.2500e-003	342.9290
NaturalGas Unmitigated	0.0313	0.2670	0.1136	1.7000e-003		0.0216	0.0216		0.0216	0.0216		340.9032	340.9032	6.5300e-003	6.2500e-003	342.9290

TT 6432 Residential Project - Localized Assessment - Fresno County, Summer

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

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Single Family Housing	2897.68	0.0313	0.2670	0.1136	1.7000e-003		0.0216	0.0216		0.0216	0.0216		340.9032	340.9032	6.5300e-003	6.2500e-003	342.9290
Total		**0.0313**	**0.2670**	**0.1136**	**1.7000e-003**		**0.0216**	**0.0216**		**0.0216**	**0.0216**		**340.9032**	**340.9032**	**6.5300e-003**	**6.2500e-003**	**342.9290**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Single Family Housing	2.89768	0.0313	0.2670	0.1136	1.7000e-003		0.0216	0.0216		0.0216	0.0216		340.9032	340.9032	6.5300e-003	6.2500e-003	342.9290
Total		**0.0313**	**0.2670**	**0.1136**	**1.7000e-003**		**0.0216**	**0.0216**		**0.0216**	**0.0216**		**340.9032**	**340.9032**	**6.5300e-003**	**6.2500e-003**	**342.9290**

6.0 Area Detail

TT 6432 Residential Project - Localized Assessment - Fresno County, Summer

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

6.1 Mitigation Measures Area

Use Electric Lawnmower

Use Electric Leafblower

Use Electric Chainsaw

Use Low VOC Paint - Residential Interior

Use Low VOC Paint - Residential Exterior

Use only Natural Gas Hearths

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	2.2093	0.4430	3.7757	2.7500e-003		0.0524	0.0524		0.0524	0.0524	0.0000	518.9482	518.9482	0.0160	9.4000e-003	522.1485
Unmitigated	2.2108	0.4433	3.8018	2.7500e-003		0.0526	0.0526		0.0526	0.0526	0.0000	519.0071	519.0071	0.0161	9.4000e-003	522.2096

TT 6432 Residential Project - Localized Assessment - Fresno County, Summer

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

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.1558					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.8986					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0470	0.4014	0.1708	2.5600e-003		0.0325	0.0325		0.0325	0.0325	0.0000	512.4706	512.4706	9.8200e-003	9.4000e-003	515.5159
Landscaping	0.1094	0.0419	3.6310	1.9000e-004		0.0201	0.0201		0.0201	0.0201		6.5365	6.5365	6.2900e-003		6.6937
Total	**2.2108**	**0.4433**	**3.8018**	**2.7500e-003**		**0.0526**	**0.0526**		**0.0526**	**0.0526**	**0.0000**	**519.0071**	**519.0071**	**0.0161**	**9.4000e-003**	**522.2096**

TT 6432 Residential Project - Localized Assessment - Fresno County, Summer

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

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.1558					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.8986					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0470	0.4014	0.1708	2.5600e-003		0.0325	0.0325		0.0325	0.0325	0.0000	512.4706	512.4706	9.8200e-003	9.4000e-003	515.5159
Landscaping	0.1079	0.0416	3.6048	1.9000e-004		0.0199	0.0199		0.0199	0.0199		6.4776	6.4776	6.2000e-003		6.6325
Total	**2.2093**	**0.4430**	**3.7756**	**2.7500e-003**		**0.0524**	**0.0524**		**0.0524**	**0.0524**	**0.0000**	**518.9482**	**518.9482**	**0.0160**	**9.4000e-003**	**522.1485**

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

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

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

TT 6432 Residential Project - Localized Assessment - Fresno County, Winter

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

TT 6432 Residential Project - Localized Assessment

Fresno County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	1.00	Acre	1.00	43,560.00	0
Single Family Housing	44.00	Dwelling Unit	4.18	88,000.00	126

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	45
Climate Zone	3			**Operational Year**	2023
Utility Company	Pacific Gas and Electric Company				
CO2 Intensity (lb/MWhr)	203.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Tulare and Peach Vesting Tentative Tract Map for Tract No. 6432 - Unmitigated Construction & Operations - Localized Assessment
Full buildout in anticipated earliest year of operations (2023)

Land Use - 44 units analyzed, consistent with project description
Tract 6432 Project Site Gross Acres: 4.18 acres
Added additional one (1) acre to account for off-site improvements (curb, gutter, sidewalk, etc.)

Construction Phase - Construction - earlier dates provide a more conservative estimate of emissions

Trips and VMT - Trip lengths updated to 0.5 mile to account for on-site and localized emissions from construction vehicles.

Grading - Cut/fill anticipated to balance on-site
Included 2,500 cy of import and 2,500 cy of export to provide a conservative estimate of emissions

Architectural Coating - Rule 4601 Architectural Coatings

Vehicle Trips - Trip lengths updated to 0.5 mile to account for on-site and localized emissions from mobile sources.
ITE 11th Edition Rates for single-family homes (ITE Land Use 210)

Woodstoves - SJVAPCD Rule 4901 Woodburning

TT 6432 Residential Project - Localized Assessment - Fresno County, Winter

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

Area Coating - Rule 4601 Architectural Coatings

Water And Wastewater -

Solid Waste -

Construction Off-road Equipment Mitigation - Compliance with SJVAPCD Regulation VIII

Area Mitigation - Rule 4601 Architectural Coatings, no woodburning fireplaces (only natural gas hearth), and outside outlets

Energy Mitigation - Single-family homes to be built with rooftop solar to provide on-site renewable energy (85% of electricity use generated applied)

Water Mitigation - Compliance with Green Building Code Standards and California Model Water Efficient Landscape Ordinance

Waste Mitigation - CalRecycle 75 Percent Initiative (25% reduction)

Fleet Mix - SJVAPCD-approved Residential Fleet Mix for the 2023 operational year

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Residential_Exterior	150.00	50.00
tblArchitecturalCoating	EF_Residential_Interior	150.00	50.00
tblAreaCoating	Area_EF_Residential_Exterior	150	50
tblAreaCoating	Area_EF_Residential_Interior	150	50
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblFireplaces	FireplaceWoodMass	3,078.40	0.00
tblFleetMix	HHD	0.02	0.02
tblFleetMix	LDA	0.51	0.53
tblFleetMix	LDT1	0.05	0.21
tblFleetMix	LDT2	0.18	0.17
tblFleetMix	LHD1	0.03	1.1000e-003
tblFleetMix	LHD2	7.0060e-003	9.0000e-004
tblFleetMix	MCY	0.02	2.5000e-003
tblFleetMix	MDV	0.16	0.06
tblFleetMix	MH	3.0900e-003	1.9000e-003
tblFleetMix	MHD	0.01	8.5000e-003
tblFleetMix	OBUS	7.1700e-004	0.00
tblFleetMix	SBUS	1.5290e-003	4.0000e-004

TT 6432 Residential Project - Localized Assessment - Fresno County, Winter

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

tblFleetMix	UBUS	2.9100e-004	4.3000e-003
tblGrading	MaterialExported	0.00	2,500.00
tblGrading	MaterialImported	0.00	2,500.00
tblLandUse	LandUseSquareFeet	79,200.00	88,000.00
tblLandUse	LotAcreage	14.29	4.18
tblTripsAndVMT	HaulingTripLength	20.00	0.50
tblTripsAndVMT	HaulingTripLength	20.00	0.50
tblTripsAndVMT	HaulingTripLength	20.00	0.50
tblTripsAndVMT	HaulingTripLength	20.00	0.50
tblTripsAndVMT	HaulingTripLength	20.00	0.50
tblTripsAndVMT	HaulingTripNumber	0.00	14.00
tblTripsAndVMT	HaulingTripNumber	625.00	637.00
tblTripsAndVMT	HaulingTripNumber	0.00	18.00
tblTripsAndVMT	HaulingTripNumber	0.00	12.00
tblTripsAndVMT	HaulingTripNumber	0.00	2.00
tblTripsAndVMT	VendorTripLength	7.30	0.50
tblTripsAndVMT	VendorTripLength	7.30	0.50
tblTripsAndVMT	VendorTripLength	7.30	0.50
tblTripsAndVMT	VendorTripLength	7.30	0.50
tblTripsAndVMT	VendorTripLength	7.30	0.50
tblTripsAndVMT	VendorTripNumber	0.00	4.00
tblTripsAndVMT	WorkerTripLength	10.80	0.50
tblTripsAndVMT	WorkerTripLength	10.80	0.50
tblTripsAndVMT	WorkerTripLength	10.80	0.50
tblTripsAndVMT	WorkerTripLength	10.80	0.50
tblTripsAndVMT	WorkerTripLength	10.80	0.50
tblVehicleTrips	DV_TP	11.00	0.00
tblVehicleTrips	HO_TL	7.50	0.50
tblVehicleTrips	HS_TL	7.30	0.50

TT 6432 Residential Project - Localized Assessment - Fresno County, Winter

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

tblVehicleTrips	HW_TL	10.80	0.50
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	86.00	100.00
tblVehicleTrips	ST_TR	9.54	9.48
tblVehicleTrips	SU_TR	8.55	8.48
tblVehicleTrips	WD_TR	9.44	9.43
tblWoodstoves	WoodstoveWoodMass	3,019.20	0.00

2.0 Emissions Summary

TT 6432 Residential Project - Localized Assessment - Fresno County, Winter

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

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2023	2.6847	27.5678	18.3996	0.0382	19.6647	1.2662	20.9309	10.1045	1.1649	11.2694	0.0000	3,702.5541	3,702.5541	1.1955	0.0238	3,733.1397
2024	28.6299	13.6442	16.5243	0.0275	0.0192	0.6138	0.6330	5.2900e-003	0.5774	0.5827	0.0000	2,608.4109	2,608.4109	0.7164	8.0400e-003	2,626.0541
Maximum	**28.6299**	**27.5678**	**18.3996**	**0.0382**	**19.6647**	**1.2662**	**20.9309**	**10.1045**	**1.1649**	**11.2694**	**0.0000**	**3,702.5541**	**3,702.5541**	**1.1955**	**0.0238**	**3,733.1397**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2023	2.6847	27.5678	18.3996	0.0382	8.8533	1.2662	10.1195	4.5482	1.1649	5.7131	0.0000	3,702.5541	3,702.5541	1.1955	0.0238	3,733.1397
2024	28.6299	13.6442	16.5243	0.0275	0.0192	0.6138	0.6330	5.2900e-003	0.5774	0.5827	0.0000	2,608.4109	2,608.4109	0.7164	8.0400e-003	2,626.0541
Maximum	**28.6299**	**27.5678**	**18.3996**	**0.0382**	**8.8533**	**1.2662**	**10.1195**	**4.5482**	**1.1649**	**5.7131**	**0.0000**	**3,702.5541**	**3,702.5541**	**1.1955**	**0.0238**	**3,733.1397**

TT 6432 Residential Project - Localized Assessment - Fresno County, Winter

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	54.93	0.00	50.14	54.96	0.00	46.88	0.00	0.00	0.00	0.00	0.00	0.00

TT 6432 Residential Project - Localized Assessment - Fresno County, Winter

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

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	2.2108	0.4433	3.8018	2.7500e-003		0.0526	0.0526		0.0526	0.0526	0.0000	519.0071	519.0071	0.0161	9.4000e-003	522.2096
Energy	0.0313	0.2670	0.1136	1.7000e-003		0.0216	0.0216		0.0216	0.0216		340.9032	340.9032	6.5300e-003	6.2500e-003	342.9290
Mobile	0.5631	0.4910	3.1407	2.1800e-003	0.1597	2.8100e-003	0.1625	0.0425	2.6000e-003	0.0451		224.4510	224.4510	0.0717	0.0369	237.2341
Total	**2.8052**	**1.2013**	**7.0561**	**6.6300e-003**	**0.1597**	**0.0770**	**0.2367**	**0.0425**	**0.0767**	**0.1192**	**0.0000**	**1,084.3614**	**1,084.3614**	**0.0944**	**0.0525**	**1,102.3727**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	2.2093	0.4430	3.7757	2.7500e-003		0.0524	0.0524		0.0524	0.0524	0.0000	518.9482	518.9482	0.0160	9.4000e-003	522.1485
Energy	0.0313	0.2670	0.1136	1.7000e-003		0.0216	0.0216		0.0216	0.0216		340.9032	340.9032	6.5300e-003	6.2500e-003	342.9290
Mobile	0.5631	0.4910	3.1407	2.1800e-003	0.1597	2.8100e-003	0.1625	0.0425	2.6000e-003	0.0451		224.4510	224.4510	0.0717	0.0369	237.2341
Total	**2.8037**	**1.2010**	**7.0300**	**6.6300e-003**	**0.1597**	**0.0768**	**0.2365**	**0.0425**	**0.0766**	**0.1191**	**0.0000**	**1,084.3025**	**1,084.3025**	**0.0943**	**0.0525**	**1,102.3116**

TT 6432 Residential Project - Localized Assessment - Fresno County, Winter

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.05	0.02	0.37	0.00	0.00	0.19	0.06	0.00	0.20	0.13	0.00	0.01	0.01	0.10	0.00	0.01

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	6/1/2023	6/14/2023	5	10	Site preparation and site clearing
2	Grading	Grading	6/15/2023	7/12/2023	5	20	
3	Building Construction	Building Construction	7/13/2023	5/29/2024	5	230	
4	Paving	Paving	5/30/2024	6/26/2024	5	20	
5	Architectural Coating	Architectural Coating	6/27/2024	7/24/2024	5	20	

Acres of Grading (Site Preparation Phase): 15

Acres of Grading (Grading Phase): 20

Acres of Paving: 1

Residential Indoor: 178,200; Residential Outdoor: 59,400; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 2,614 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	1	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37

TT 6432 Residential Project - Localized Assessment - Fresno County, Winter

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

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	14.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	637.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Building Construction	9	34.00	12.00	18.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	4.00	12.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	7.00	0.00	2.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

TT 6432 Residential Project - Localized Assessment - Fresno County, Winter

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

3.2 Site Preparation - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					19.6570	0.0000	19.6570	10.1025	0.0000	10.1025			0.0000			0.0000
Off-Road	2.6595	27.5242	18.2443	0.0381		1.2660	1.2660		1.1647	1.1647		3,687.3081	3,687.3081	1.1926		3,717.1219
Total	**2.6595**	**27.5242**	**18.2443**	**0.0381**	**19.6570**	**1.2660**	**20.9230**	**10.1025**	**1.1647**	**11.2672**		**3,687.3081**	**3,687.3081**	**1.1926**		**3,717.1219**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	1.4800e-003	0.0318	0.0239	6.0000e-005	6.4000e-004	6.0000e-005	7.0000e-004	1.8000e-004	6.0000e-005	2.3000e-004		6.3441	6.3441	8.0000e-005	1.0000e-003	6.6435
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0237	0.0119	0.1314	9.0000e-005	7.0100e-003	1.1000e-004	7.1300e-003	1.8800e-003	1.0000e-004	1.9900e-003		8.9019	8.9019	2.8900e-003	1.3400e-003	9.3744
Total	**0.0252**	**0.0436**	**0.1553**	**1.5000e-004**	**7.6500e-003**	**1.7000e-004**	**7.8300e-003**	**2.0600e-003**	**1.6000e-004**	**2.2200e-003**		**15.2460**	**15.2460**	**2.9700e-003**	**2.3400e-003**	**16.0179**

TT 6432 Residential Project - Localized Assessment - Fresno County, Winter

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

3.2 Site Preparation - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.8457	0.0000	8.8457	4.5461	0.0000	4.5461			0.0000			0.0000
Off-Road	2.6595	27.5242	18.2443	0.0381		1.2660	1.2660		1.1647	1.1647	0.0000	3,687.3081	3,687.3081	1.1926		3,717.1219
Total	**2.6595**	**27.5242**	**18.2443**	**0.0381**	**8.8457**	**1.2660**	**10.1117**	**4.5461**	**1.1647**	**5.7108**	**0.0000**	**3,687.3081**	**3,687.3081**	**1.1926**		**3,717.1219**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	1.4800e-003	0.0318	0.0239	6.0000e-005	6.4000e-004	6.0000e-005	7.0000e-004	1.8000e-004	6.0000e-005	2.3000e-004		6.3441	6.3441	8.0000e-005	1.0000e-003	6.6435
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0237	0.0119	0.1314	9.0000e-005	7.0100e-003	1.1000e-004	7.1300e-003	1.8800e-003	1.0000e-004	1.9900e-003		8.9019	8.9019	2.8900e-003	1.3400e-003	9.3744
Total	**0.0252**	**0.0436**	**0.1553**	**1.5000e-004**	**7.6500e-003**	**1.7000e-004**	**7.8300e-003**	**2.0600e-003**	**1.6000e-004**	**2.2200e-003**		**15.2460**	**15.2460**	**2.9700e-003**	**2.3400e-003**	**16.0179**

TT 6432 Residential Project - Localized Assessment - Fresno County, Winter

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

3.3 Grading - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					7.1109	0.0000	7.1109	3.4290	0.0000	3.4290			0.0000			0.0000
Off-Road	1.7109	17.9359	14.7507	0.0297		0.7749	0.7749		0.7129	0.7129		2,872.6910	2,872.6910	0.9291		2,895.9182
Total	**1.7109**	**17.9359**	**14.7507**	**0.0297**	**7.1109**	**0.7749**	**7.8858**	**3.4290**	**0.7129**	**4.1420**		**2,872.6910**	**2,872.6910**	**0.9291**		**2,895.9182**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0337	0.7224	0.5434	1.3600e-003	0.0146	1.3200e-003	0.0159	4.0700e-003	1.2700e-003	5.3400e-003		144.3278	144.3278	1.9000e-003	0.0227	151.1388
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0198	9.8800e-003	0.1095	7.0000e-005	5.8500e-003	9.0000e-005	5.9400e-003	1.5700e-003	9.0000e-005	1.6600e-003		7.4183	7.4183	2.4100e-003	1.1200e-003	7.8120
Total	**0.0534**	**0.7322**	**0.6529**	**1.4300e-003**	**0.0205**	**1.4100e-003**	**0.0219**	**5.6400e-003**	**1.3600e-003**	**7.0000e-003**		**151.7461**	**151.7461**	**4.3100e-003**	**0.0238**	**158.9508**

TT 6432 Residential Project - Localized Assessment - Fresno County, Winter

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

3.3 Grading - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.1999	0.0000	3.1999	1.5431	0.0000	1.5431			0.0000			0.0000
Off-Road	1.7109	17.9359	14.7507	0.0297		0.7749	0.7749		0.7129	0.7129	0.0000	2,872.6910	2,872.6910	0.9291		2,895.9182
Total	**1.7109**	**17.9359**	**14.7507**	**0.0297**	**3.1999**	**0.7749**	**3.9748**	**1.5431**	**0.7129**	**2.2560**	**0.0000**	**2,872.6910**	**2,872.6910**	**0.9291**		**2,895.9182**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0337	0.7224	0.5434	1.3600e-003	0.0146	1.3200e-003	0.0159	4.0700e-003	1.2700e-003	5.3400e-003		144.3278	144.3278	1.9000e-003	0.0227	151.1388
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0198	9.8800e-003	0.1095	7.0000e-005	5.8500e-003	9.0000e-005	5.9400e-003	1.5700e-003	9.0000e-005	1.6600e-003		7.4183	7.4183	2.4100e-003	1.1200e-003	7.8120
Total	**0.0534**	**0.7322**	**0.6529**	**1.4300e-003**	**0.0205**	**1.4100e-003**	**0.0219**	**5.6400e-003**	**1.3600e-003**	**7.0000e-003**		**151.7461**	**151.7461**	**4.3100e-003**	**0.0238**	**158.9508**

TT 6432 Residential Project - Localized Assessment - Fresno County, Winter

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

3.4 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584		2,555.2099	2,555.2099	0.6079		2,570.4061
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**		**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	8.0000e-005	1.7700e-003	1.3400e-003	0.0000	4.0000e-005	0.0000	4.0000e-005	1.0000e-005	0.0000	1.0000e-005		0.3546	0.3546	0.0000	6.0000e-005	0.3714
Vendor	7.5300e-003	0.1788	0.1207	3.5000e-004	5.8700e-003	3.2000e-004	6.1800e-003	1.7200e-003	3.0000e-004	2.0200e-003		36.7758	36.7758	5.0000e-004	5.6900e-003	38.4830
Worker	0.0448	0.0224	0.2482	1.7000e-004	0.0133	2.1000e-004	0.0135	3.5600e-003	2.0000e-004	3.7500e-003		16.8148	16.8148	5.4600e-003	2.5400e-003	17.7072
Total	**0.0525**	**0.2029**	**0.3702**	**5.2000e-004**	**0.0192**	**5.3000e-004**	**0.0197**	**5.2900e-003**	**5.0000e-004**	**5.7800e-003**		**53.9452**	**53.9452**	**5.9600e-003**	**8.2900e-003**	**56.5616**

TT 6432 Residential Project - Localized Assessment - Fresno County, Winter

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

3.4 Building Construction - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584	0.0000	2,555.2099	2,555.2099	0.6079		2,570.4061
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**	**0.0000**	**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	8.0000e-005	1.7700e-003	1.3400e-003	0.0000	4.0000e-005	0.0000	4.0000e-005	1.0000e-005	0.0000	1.0000e-005		0.3546	0.3546	0.0000	6.0000e-005	0.3714
Vendor	7.5300e-003	0.1788	0.1207	3.5000e-004	5.8700e-003	3.2000e-004	6.1800e-003	1.7200e-003	3.0000e-004	2.0200e-003		36.7758	36.7758	5.0000e-004	5.6900e-003	38.4830
Worker	0.0448	0.0224	0.2482	1.7000e-004	0.0133	2.1000e-004	0.0135	3.5600e-003	2.0000e-004	3.7500e-003		16.8148	16.8148	5.4600e-003	2.5400e-003	17.7072
Total	**0.0525**	**0.2029**	**0.3702**	**5.2000e-004**	**0.0192**	**5.3000e-004**	**0.0197**	**5.2900e-003**	**5.0000e-004**	**5.7800e-003**		**53.9452**	**53.9452**	**5.9600e-003**	**8.2900e-003**	**56.5616**

TT 6432 Residential Project - Localized Assessment - Fresno County, Winter

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

3.4 Building Construction - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769		2,555.6989	2,555.6989	0.6044		2,570.8077
Total	**1.4716**	**13.4438**	**16.1668**	**0.0270**		**0.6133**	**0.6133**		**0.5769**	**0.5769**		**2,555.6989**	**2,555.6989**	**0.6044**		**2,570.8077**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	8.0000e-005	1.7700e-003	1.3300e-003	0.0000	4.0000e-005	0.0000	4.0000e-005	1.0000e-005	0.0000	1.0000e-005		0.3478	0.3478	0.0000	5.0000e-005	0.3642
Vendor	7.4000e-003	0.1781	0.1188	3.4000e-004	5.8700e-003	3.2000e-004	6.1800e-003	1.7200e-003	3.0000e-004	2.0200e-003		36.1006	36.1006	4.8000e-004	5.5800e-003	37.7763
Worker	0.0410	0.0205	0.2374	1.6000e-004	0.0133	2.0000e-004	0.0135	3.5600e-003	1.9000e-004	3.7400e-003		16.2635	16.2635	5.0100e-003	2.4100e-003	17.1059
Total	**0.0485**	**0.2004**	**0.3575**	**5.0000e-004**	**0.0192**	**5.2000e-004**	**0.0197**	**5.2900e-003**	**4.9000e-004**	**5.7700e-003**		**52.7120**	**52.7120**	**5.4900e-003**	**8.0400e-003**	**55.2464**

TT 6432 Residential Project - Localized Assessment - Fresno County, Winter

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

3.4 Building Construction - 2024

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769	0.0000	2,555.6989	2,555.6989	0.6044		2,570.8077
Total	**1.4716**	**13.4438**	**16.1668**	**0.0270**		**0.6133**	**0.6133**		**0.5769**	**0.5769**	**0.0000**	**2,555.6989**	**2,555.6989**	**0.6044**		**2,570.8077**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	8.0000e-005	1.7700e-003	1.3300e-003	0.0000	4.0000e-005	0.0000	4.0000e-005	1.0000e-005	0.0000	1.0000e-005		0.3478	0.3478	0.0000	5.0000e-005	0.3642
Vendor	7.4000e-003	0.1781	0.1188	3.4000e-004	5.8700e-003	3.2000e-004	6.1800e-003	1.7200e-003	3.0000e-004	2.0200e-003		36.1006	36.1006	4.8000e-004	5.5800e-003	37.7763
Worker	0.0410	0.0205	0.2374	1.6000e-004	0.0133	2.0000e-004	0.0135	3.5600e-003	1.9000e-004	3.7400e-003		16.2635	16.2635	5.0100e-003	2.4100e-003	17.1059
Total	**0.0485**	**0.2004**	**0.3575**	**5.0000e-004**	**0.0192**	**5.2000e-004**	**0.0197**	**5.2900e-003**	**4.9000e-004**	**5.7700e-003**		**52.7120**	**52.7120**	**5.4900e-003**	**8.0400e-003**	**55.2464**

TT 6432 Residential Project - Localized Assessment - Fresno County, Winter

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

3.5 Paving - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9882	9.5246	14.6258	0.0228		0.4685	0.4685		0.4310	0.4310		2,207.5472	2,207.5472	0.7140		2,225.3963
Paving	0.1310					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.1192**	**9.5246**	**14.6258**	**0.0228**		**0.4685**	**0.4685**		**0.4310**	**0.4310**		**2,207.5472**	**2,207.5472**	**0.7140**		**2,225.3963**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	6.3000e-004	0.0135	0.0102	3.0000e-005	2.8000e-004	3.0000e-005	3.0000e-004	8.0000e-005	2.0000e-005	1.0000e-004		2.6666	2.6666	4.0000e-005	4.2000e-004	2.7925
Vendor	2.4700e-003	0.0594	0.0396	1.1000e-004	1.9600e-003	1.1000e-004	2.0600e-003	5.7000e-004	1.0000e-004	6.7000e-004		12.0335	12.0335	1.6000e-004	1.8600e-003	12.5921
Worker	0.0181	9.0600e-003	0.1047	7.0000e-005	5.8500e-003	9.0000e-005	5.9400e-003	1.5700e-003	8.0000e-005	1.6500e-003		7.1751	7.1751	2.2100e-003	1.0600e-003	7.5467
Total	**0.0212**	**0.0820**	**0.1545**	**2.1000e-004**	**8.0900e-003**	**2.3000e-004**	**8.3000e-003**	**2.2200e-003**	**2.0000e-004**	**2.4200e-003**		**21.8752**	**21.8752**	**2.4100e-003**	**3.3400e-003**	**22.9313**

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

3.5 Paving - 2024

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9882	9.5246	14.6258	0.0228		0.4685	0.4685		0.4310	0.4310	0.0000	2,207.5472	2,207.5472	0.7140		2,225.3963
Paving	0.1310					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.1192**	**9.5246**	**14.6258**	**0.0228**		**0.4685**	**0.4685**		**0.4310**	**0.4310**	**0.0000**	**2,207.5472**	**2,207.5472**	**0.7140**		**2,225.3963**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	6.3000e-004	0.0135	0.0102	3.0000e-005	2.8000e-004	3.0000e-005	3.0000e-004	8.0000e-005	2.0000e-005	1.0000e-004		2.6666	2.6666	4.0000e-005	4.2000e-004	2.7925
Vendor	2.4700e-003	0.0594	0.0396	1.1000e-004	1.9600e-003	1.1000e-004	2.0600e-003	5.7000e-004	1.0000e-004	6.7000e-004		12.0335	12.0335	1.6000e-004	1.8600e-003	12.5921
Worker	0.0181	9.0600e-003	0.1047	7.0000e-005	5.8500e-003	9.0000e-005	5.9400e-003	1.5700e-003	8.0000e-005	1.6500e-003		7.1751	7.1751	2.2100e-003	1.0600e-003	7.5467
Total	**0.0212**	**0.0820**	**0.1545**	**2.1000e-004**	**8.0900e-003**	**2.3000e-004**	**8.3000e-003**	**2.2200e-003**	**2.0000e-004**	**2.4200e-003**		**21.8752**	**21.8752**	**2.4100e-003**	**3.3400e-003**	**22.9313**

TT 6432 Residential Project - Localized Assessment - Fresno County, Winter

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

3.6 Architectural Coating - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	28.4406					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609		281.4481	281.4481	0.0159		281.8443
Total	**28.6214**	**1.2188**	**1.8101**	**2.9700e-003**		**0.0609**	**0.0609**		**0.0609**	**0.0609**		**281.4481**	**281.4481**	**0.0159**		**281.8443**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	1.0000e-004	2.2600e-003	1.7000e-003	0.0000	5.0000e-005	0.0000	5.0000e-005	1.0000e-005	0.0000	2.0000e-005		0.4444	0.4444	1.0000e-005	7.0000e-005	0.4654
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.4500e-003	4.2300e-003	0.0489	3.0000e-005	2.7300e-003	4.0000e-005	2.7700e-003	7.3000e-004	4.0000e-005	7.7000e-004		3.3484	3.3484	1.0300e-003	5.0000e-004	3.5218
Total	**8.5500e-003**	**6.4900e-003**	**0.0506**	**3.0000e-005**	**2.7800e-003**	**4.0000e-005**	**2.8200e-003**	**7.4000e-004**	**4.0000e-005**	**7.9000e-004**		**3.7928**	**3.7928**	**1.0400e-003**	**5.7000e-004**	**3.9872**

TT 6432 Residential Project - Localized Assessment - Fresno County, Winter

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

3.6 Architectural Coating - 2024

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	28.4406					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609	0.0000	281.4481	281.4481	0.0159		281.8443
Total	**28.6214**	**1.2188**	**1.8101**	**2.9700e-003**		**0.0609**	**0.0609**		**0.0609**	**0.0609**	**0.0000**	**281.4481**	**281.4481**	**0.0159**		**281.8443**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	1.0000e-004	2.2600e-003	1.7000e-003	0.0000	5.0000e-005	0.0000	5.0000e-005	1.0000e-005	0.0000	2.0000e-005		0.4444	0.4444	1.0000e-005	7.0000e-005	0.4654
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.4500e-003	4.2300e-003	0.0489	3.0000e-005	2.7300e-003	4.0000e-005	2.7700e-003	7.3000e-004	4.0000e-005	7.7000e-004		3.3484	3.3484	1.0300e-003	5.0000e-004	3.5218
Total	**8.5500e-003**	**6.4900e-003**	**0.0506**	**3.0000e-005**	**2.7800e-003**	**4.0000e-005**	**2.8200e-003**	**7.4000e-004**	**4.0000e-005**	**7.9000e-004**		**3.7928**	**3.7928**	**1.0400e-003**	**5.7000e-004**	**3.9872**

TT 6432 Residential Project - Localized Assessment - Fresno County, Winter

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

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.5631	0.4910	3.1407	2.1800e-003	0.1597	2.8100e-003	0.1625	0.0425	2.6000e-003	0.0451		224.4510	224.4510	0.0717	0.0369	237.2341
Unmitigated	0.5631	0.4910	3.1407	2.1800e-003	0.1597	2.8100e-003	0.1625	0.0425	2.6000e-003	0.0451		224.4510	224.4510	0.0717	0.0369	237.2341

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Parking Lot	0.00	0.00	0.00		
Single Family Housing	414.92	417.12	373.12	74,486	74,486
Total	414.92	417.12	373.12	74,486	74,486

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Single Family Housing	0.50	0.50	0.50	48.40	15.90	35.70	100	0	0

4.4 Fleet Mix

TT 6432 Residential Project - Localized Assessment - Fresno County, Winter

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

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Parking Lot	0.510058	0.053037	0.175964	0.161396	0.026773	0.007006	0.013819	0.022114	0.000717	0.000291	0.024206	0.001529	0.003090
Single Family Housing	0.530500	0.205800	0.167300	0.055000	0.001100	0.000900	0.008500	0.021800	0.000000	0.004300	0.002500	0.000400	0.001900

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Percent of Electricity Use Generated with Renewable Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0313	0.2670	0.1136	1.7000e-003		0.0216	0.0216		0.0216	0.0216		340.9032	340.9032	6.5300e-003	6.2500e-003	342.9290
NaturalGas Unmitigated	0.0313	0.2670	0.1136	1.7000e-003		0.0216	0.0216		0.0216	0.0216		340.9032	340.9032	6.5300e-003	6.2500e-003	342.9290

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

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Single Family Housing	2897.68	0.0313	0.2670	0.1136	1.7000e-003		0.0216	0.0216		0.0216	0.0216		340.9032	340.9032	6.5300e-003	6.2500e-003	342.9290
Total		**0.0313**	**0.2670**	**0.1136**	**1.7000e-003**		**0.0216**	**0.0216**		**0.0216**	**0.0216**		**340.9032**	**340.9032**	**6.5300e-003**	**6.2500e-003**	**342.9290**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Single Family Housing	2.89768	0.0313	0.2670	0.1136	1.7000e-003		0.0216	0.0216		0.0216	0.0216		340.9032	340.9032	6.5300e-003	6.2500e-003	342.9290
Total		**0.0313**	**0.2670**	**0.1136**	**1.7000e-003**		**0.0216**	**0.0216**		**0.0216**	**0.0216**		**340.9032**	**340.9032**	**6.5300e-003**	**6.2500e-003**	**342.9290**

6.0 Area Detail

TT 6432 Residential Project - Localized Assessment - Fresno County, Winter

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

6.1 Mitigation Measures Area

Use Electric Lawnmower

Use Electric Leafblower

Use Electric Chainsaw

Use Low VOC Paint - Residential Interior

Use Low VOC Paint - Residential Exterior

Use only Natural Gas Hearths

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	2.2093	0.4430	3.7757	2.7500e-003		0.0524	0.0524		0.0524	0.0524	0.0000	518.9482	518.9482	0.0160	9.4000e-003	522.1485
Unmitigated	2.2108	0.4433	3.8018	2.7500e-003		0.0526	0.0526		0.0526	0.0526	0.0000	519.0071	519.0071	0.0161	9.4000e-003	522.2096

TT 6432 Residential Project - Localized Assessment - Fresno County, Winter

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

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.1558					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.8986					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0470	0.4014	0.1708	2.5600e-003		0.0325	0.0325		0.0325	0.0325	0.0000	512.4706	512.4706	9.8200e-003	9.4000e-003	515.5159
Landscaping	0.1094	0.0419	3.6310	1.9000e-004		0.0201	0.0201		0.0201	0.0201		6.5365	6.5365	6.2900e-003		6.6937
Total	**2.2108**	**0.4433**	**3.8018**	**2.7500e-003**		**0.0526**	**0.0526**		**0.0526**	**0.0526**	**0.0000**	**519.0071**	**519.0071**	**0.0161**	**9.4000e-003**	**522.2096**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.1558					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.8986					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0470	0.4014	0.1708	2.5600e-003		0.0325	0.0325		0.0325	0.0325	0.0000	512.4706	512.4706	9.8200e-003	9.4000e-003	515.5159
Landscaping	0.1079	0.0416	3.6048	1.9000e-004		0.0199	0.0199		0.0199	0.0199		6.4776	6.4776	6.2000e-003		6.6325
Total	**2.2093**	**0.4430**	**3.7756**	**2.7500e-003**		**0.0524**	**0.0524**		**0.0524**	**0.0524**	**0.0000**	**518.9482**	**518.9482**	**0.0160**	**9.4000e-003**	**522.1485**

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

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

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

TT 6432 Residential Project - Buildout (2023) Operations BAU Scenario - Fresno County, Annual

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

TT 6432 Residential Project - Buildout (2023) Operations BAU Scenario

Fresno County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	1.00	Acre	1.00	43,560.00	0
Single Family Housing	44.00	Dwelling Unit	4.18	88,000.00	126

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 and Electric Company				
CO2 Intensity (lb/MWhr)	641.35	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Tract No. 6432 Residential Project - Earliest Operational Year Business as Usual (BAU) Scenario
PG&E CO2 Intensity Factors for 2005

Land Use - 44 units analyzed, consistent with project description
Tract 6432 Project Site Gross Acres: 4.18 acres
Added additional one (1) acre to account for off-site improvements (curb, gutter, sidewalk, etc.)

Construction Phase - Operational run only - zeroed out construction only parameters

Off-road Equipment - Operational run only

Off-road Equipment -

Trips and VMT - Operational run only - zeroed out construction only parameters

Demolition -

Grading -

Architectural Coating -

TT 6432 Residential Project - Buildout (2023) Operations BAU Scenario - Fresno County, Annual

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

Vehicle Trips - ITE 11th Edition Rates for single-family homes (ITE Land Use 210)

Woodstoves -

Area Coating -

Water And Wastewater -

Solid Waste -

Construction Off-road Equipment Mitigation -

Area Mitigation -

Energy Mitigation -

Water Mitigation -

Waste Mitigation -

Fleet Mix - SJVAPCD-approved Residential Fleet Mix for the 2023 operational year

Energy Use -

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	20.00	1.00
tblFleetMix	HHD	0.02	0.02
tblFleetMix	LDA	0.48	0.53
tblFleetMix	LDT1	0.08	0.21
tblFleetMix	LDT2	0.16	0.17
tblFleetMix	LHD1	0.04	1.1000e-003
tblFleetMix	LHD2	6.7150e-003	9.0000e-004
tblFleetMix	MCY	0.02	2.5000e-003
tblFleetMix	MDV	0.17	0.06
tblFleetMix	MH	7.9820e-003	1.9000e-003
tblFleetMix	MHD	0.02	8.5000e-003
tblFleetMix	OBUS	8.9300e-004	0.00
tblFleetMix	SBUS	9.6600e-004	4.0000e-004
tblFleetMix	UBUS	3.0700e-004	4.3000e-003
tblLandUse	LandUseSquareFeet	79,200.00	88,000.00

TT 6432 Residential Project - Buildout (2023) Operations BAU Scenario - Fresno County, Annual

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

tblLandUse	LotAcreage	14.29	4.18
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	UsageHours	6.00	0.00
tblProjectCharacteristics	CO2IntensityFactor	203.98	641.35
tblTripsAndVMT	WorkerTripNumber	7.00	0.00
tblVehicleTrips	ST_TR	9.54	9.48
tblVehicleTrips	SU_TR	8.55	8.48
tblVehicleTrips	WD_TR	9.44	9.43

2.0 Emissions Summary

TT 6432 Residential Project - Buildout (2023) Operations BAU Scenario - Fresno County, Annual

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

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2023											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					
2023											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**

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

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

TT 6432 Residential Project - Buildout (2023) Operations BAU Scenario - Fresno County, Annual

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

		Highest		

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area											0.0000	19.5948	19.5948	1.2200e-003	3.5000e-004	19.7295
Energy											0.0000	193.0012	193.0012	7.3400e-003	2.1700e-003	193.8325
Mobile											0.0000	544.3285	544.3285	0.0830	0.0667	566.2904
Waste											9.2077	0.0000	9.2077	0.5442	0.0000	22.8116
Water											0.9095	6.3529	7.2623	0.0937	2.2500e-003	10.2750
Total											**10.1172**	**763.2773**	**773.3945**	**0.7295**	**0.0715**	**812.9389**

TT 6432 Residential Project - Buildout (2023) Operations BAU Scenario - Fresno County, Annual

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

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area											0.0000	19.5948	19.5948	1.2200e-003	3.5000e-004	19.7295
Energy											0.0000	193.0012	193.0012	7.3400e-003	2.1700e-003	193.8325
Mobile											0.0000	544.3285	544.3285	0.0830	0.0667	566.2904
Waste											9.2077	0.0000	9.2077	0.5442	0.0000	22.8116
Water											0.9095	6.3529	7.2623	0.0937	2.2500e-003	10.2750
Total											**10.1172**	**763.2773**	**773.3945**	**0.7295**	**0.0715**	**812.9389**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Architectural Coating	Architectural Coating	6/1/2023	6/2/2023	5	1	

Acres of Grading (Site Preparation Phase): 0

TT 6432 Residential Project - Buildout (2023) Operations BAU Scenario - Fresno County, Annual

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

Acres of Grading (Grading Phase): 0

Acres of Paving: 1

Residential Indoor: 178,200; Residential Outdoor: 59,400; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 2,614 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	0	0.00	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
Architectural Coating	0	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Architectural Coating - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total											**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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

3.2 Architectural Coating - 2023

Unmitigated Construction Off-Site

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

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											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total											**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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

3.2 Architectural Coating - 2023

Mitigated Construction Off-Site

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

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated											0.0000	544.3285	544.3285	0.0830	0.0667	566.2904
Unmitigated											0.0000	544.3285	544.3285	0.0830	0.0667	566.2904

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Parking Lot	0.00	0.00	0.00		
Single Family Housing	414.92	417.12	373.12	1,199,005	1,199,005
Total	414.92	417.12	373.12	1,199,005	1,199,005

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Single Family Housing	10.80	7.30	7.50	48.40	15.90	35.70	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Parking Lot	0.477591	0.081668	0.164575	0.168109	0.036290	0.006715	0.016687	0.017024	0.000893	0.000307	0.021194	0.000966	0.007982
Single Family Housing	0.530500	0.205800	0.167300	0.055000	0.001100	0.000900	0.008500	0.021800	0.000000	0.004300	0.002500	0.000400	0.001900

5.0 Energy Detail

TT 6432 Residential Project - Buildout (2023) Operations BAU Scenario - Fresno County, Annual

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

Historical Energy Use: Y

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	112.8089	112.8089	5.8000e-003	7.0000e-004	113.1636
Electricity Unmitigated											0.0000	112.8089	112.8089	5.8000e-003	7.0000e-004	113.1636
NaturalGas Mitigated											0.0000	80.1923	80.1923	1.5400e-003	1.4700e-003	80.6689
NaturalGas Unmitigated											0.0000	80.1923	80.1923	1.5400e-003	1.4700e-003	80.6689

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

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Parking Lot	0											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Single Family Housing	1.50275e+006											0.0000	80.1923	80.1923	1.5400e-003	1.4700e-003	80.6689
Total												**0.0000**	**80.1923**	**80.1923**	**1.5400e-003**	**1.4700e-003**	**80.6689**

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					
Parking Lot	0											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Single Family Housing	1.50275e+006											0.0000	80.1923	80.1923	1.5400e-003	1.4700e-003	80.6689
Total												**0.0000**	**80.1923**	**80.1923**	**1.5400e-003**	**1.4700e-003**	**80.6689**

TT 6432 Residential Project - Buildout (2023) Operations BAU Scenario - Fresno County, Annual

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

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Parking Lot	38158.6	11.1008	5.7000e-004	7.0000e-005	11.1357
Single Family Housing	349619	101.7081	5.2300e-003	6.3000e-004	102.0280
Total		**112.8089**	**5.8000e-003**	**7.0000e-004**	**113.1636**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Parking Lot	38158.6	11.1008	5.7000e-004	7.0000e-005	11.1357
Single Family Housing	349619	101.7081	5.2300e-003	6.3000e-004	102.0280
Total		**112.8089**	**5.8000e-003**	**7.0000e-004**	**113.1636**

6.0 Area Detail

TT 6432 Residential Project - Buildout (2023) Operations BAU Scenario - Fresno County, Annual

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

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated											0.0000	19.5948	19.5948	1.2200e-003	3.5000e-004	19.7295
Unmitigated											0.0000	19.5948	19.5948	1.2200e-003	3.5000e-004	19.7295

TT 6432 Residential Project - Buildout (2023) Operations BAU Scenario - Fresno County, Annual

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

6.2 Area by SubCategory

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
Hearth											0.0000	19.0611	19.0611	3.7000e-004	3.5000e-004	19.1744
Landscaping											0.0000	0.5337	0.5337	8.5000e-004	0.0000	0.5551
Total											**0.0000**	**19.5948**	**19.5948**	**1.2200e-003**	**3.5000e-004**	**19.7295**

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

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth											0.0000	19.0611	19.0611	3.7000e-004	3.5000e-004	19.1744
Landscaping											0.0000	0.5337	0.5337	8.5000e-004	0.0000	0.5551
Total											**0.0000**	**19.5948**	**19.5948**	**1.2200e-003**	**3.5000e-004**	**19.7295**

7.0 Water Detail

7.1 Mitigation Measures Water

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

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	7.2623	0.0937	2.2500e-003	10.2750
Unmitigated	7.2623	0.0937	2.2500e-003	10.2750

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	2.86678 / 1.80732	7.2623	0.0937	2.2500e-003	10.2750
Total		**7.2623**	**0.0937**	**2.2500e-003**	**10.2750**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	2.86678 / 1.80732	7.2623	0.0937	2.2500e-003	10.2750
Total		**7.2623**	**0.0937**	**2.2500e-003**	**10.2750**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	9.2077	0.5442	0.0000	22.8116
Unmitigated	9.2077	0.5442	0.0000	22.8116

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	45.36	9.2077	0.5442	0.0000	22.8116
Total		**9.2077**	**0.5442**	**0.0000**	**22.8116**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	45.36	9.2077	0.5442	0.0000	22.8116
Total		**9.2077**	**0.5442**	**0.0000**	**22.8116**

9.0 Operational Offroad

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

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

TT 6432 Residential Project- 2030 Operations BAU Scenario - Fresno County, Annual

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

TT 6432 Residential Project- 2030 Operations BAU Scenario

Fresno County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	1.00	Acre	1.00	43,560.00	0
Single Family Housing	44.00	Dwelling Unit	4.18	88,000.00	126

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 and Electric Company				
CO2 Intensity (lb/MWhr)	641.35	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Tract No. 6432 Residential Project - 2030 Operational Year Business as Usual (BAU) Scenario
PG&E CO2 Intensity Factors for 2005

Land Use - 44 units analyzed, consistent with project description
Tract 6432 Project Site Gross Acres: 4.18 acres
Added additional one (1) acre to account for off-site improvements (curb, gutter, sidewalk, etc.)

Construction Phase - Operational run only - zeroed out construction only parameters

Off-road Equipment - Operational run only

Off-road Equipment -

Trips and VMT - Operational run only - zeroed out construction only parameters

Demolition -

Grading -

Architectural Coating -

TT 6432 Residential Project- 2030 Operations BAU Scenario - Fresno County, Annual

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

Vehicle Trips - ITE 11th Edition Rates for single-family homes (ITE Land Use 210)

Woodstoves -

Area Coating -

Energy Use -

Water And Wastewater -

Solid Waste -

Construction Off-road Equipment Mitigation -

Area Mitigation -

Energy Mitigation -

Water Mitigation -

Waste Mitigation -

Fleet Mix - SJVAPCD-approved Residential Fleet Mix for the 2030 operational year

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	20.00	1.00
tblFleetMix	HHD	0.02	0.02
tblFleetMix	LDA	0.48	0.51
tblFleetMix	LDT1	0.08	0.22
tblFleetMix	LDT2	0.16	0.17
tblFleetMix	LHD1	0.04	8.0000e-004
tblFleetMix	LHD2	6.7150e-003	1.0000e-003
tblFleetMix	MCY	0.02	2.5000e-003
tblFleetMix	MDV	0.17	0.06
tblFleetMix	MH	7.9820e-003	3.0000e-003
tblFleetMix	MHD	0.02	7.4000e-003
tblFleetMix	OBUS	8.9300e-004	0.00
tblFleetMix	SBUS	9.6600e-004	1.2000e-003
tblFleetMix	UBUS	3.0700e-004	4.4000e-003
tblLandUse	LandUseSquareFeet	79,200.00	88,000.00

TT 6432 Residential Project- 2030 Operations BAU Scenario - Fresno County, Annual

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

tblLandUse	LotAcreage	14.29	4.18
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	UsageHours	6.00	0.00
tblProjectCharacteristics	CO2IntensityFactor	203.98	641.35
tblTripsAndVMT	WorkerTripNumber	7.00	0.00
tblVehicleTrips	ST_TR	9.54	9.48
tblVehicleTrips	SU_TR	8.55	8.48
tblVehicleTrips	WD_TR	9.44	9.43

2.0 Emissions Summary

TT 6432 Residential Project- 2030 Operations BAU Scenario - Fresno County, Annual

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

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2023											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					
2023											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**

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

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

TT 6432 Residential Project- 2030 Operations BAU Scenario - Fresno County, Annual

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

		Highest		

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area											0.0000	19.5948	19.5948	1.2200e-003	3.5000e-004	19.7295
Energy											0.0000	193.0519	193.0519	7.3400e-003	2.1700e-003	193.8833
Mobile											0.0000	539.7581	539.7581	0.0839	0.0659	561.5076
Waste											9.2077	0.0000	9.2077	0.5442	0.0000	22.8116
Water											0.9095	6.3529	7.2623	0.0937	2.2500e-003	10.2750
Total											**10.1172**	**758.7577**	**768.8748**	**0.7304**	**0.0707**	**808.2069**

TT 6432 Residential Project- 2030 Operations BAU Scenario - Fresno County, Annual

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

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area											0.0000	19.5948	19.5948	1.2200e-003	3.5000e-004	19.7295
Energy											0.0000	193.0519	193.0519	7.3400e-003	2.1700e-003	193.8833
Mobile											0.0000	539.7581	539.7581	0.0839	0.0659	561.5076
Waste											9.2077	0.0000	9.2077	0.5442	0.0000	22.8116
Water											0.9095	6.3529	7.2623	0.0937	2.2500e-003	10.2750
Total											**10.1172**	**758.7577**	**768.8748**	**0.7304**	**0.0707**	**808.2069**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Architectural Coating	Architectural Coating	6/1/2023	6/1/2023	5	1	

Acres of Grading (Site Preparation Phase): 0

TT 6432 Residential Project- 2030 Operations BAU Scenario - Fresno County, Annual

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

Acres of Grading (Grading Phase): 0

Acres of Paving: 1

Residential Indoor: 178,200; Residential Outdoor: 59,400; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 2,614 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	0	0.00	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
Architectural Coating	0	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Architectural Coating - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total											**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

TT 6432 Residential Project- 2030 Operations BAU Scenario - Fresno County, Annual

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

3.2 Architectural Coating - 2023

Unmitigated Construction Off-Site

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

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											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total											**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

TT 6432 Residential Project- 2030 Operations BAU Scenario - Fresno County, Annual

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

3.2 Architectural Coating - 2023

Mitigated Construction Off-Site

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

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

TT 6432 Residential Project- 2030 Operations BAU Scenario - Fresno County, Annual

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated											0.0000	539.7581	539.7581	0.0839	0.0659	561.5076
Unmitigated											0.0000	539.7581	539.7581	0.0839	0.0659	561.5076

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Parking Lot	0.00	0.00	0.00		
Single Family Housing	414.92	417.12	373.12	1,199,005	1,199,005
Total	414.92	417.12	373.12	1,199,005	1,199,005

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Single Family Housing	10.80	7.30	7.50	48.40	15.90	35.70	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Parking Lot	0.477591	0.081668	0.164575	0.168109	0.036290	0.006715	0.016687	0.017024	0.000893	0.000307	0.021194	0.000966	0.007982
Single Family Housing	0.511000	0.223100	0.169000	0.059300	0.000800	0.001000	0.007400	0.017300	0.000000	0.004400	0.002500	0.001200	0.003000

5.0 Energy Detail

TT 6432 Residential Project- 2030 Operations BAU Scenario - Fresno County, Annual

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

Historical Energy Use: Y

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	112.8596	112.8596	5.8100e-003	7.0000e-004	113.2145
Electricity Unmitigated											0.0000	112.8596	112.8596	5.8100e-003	7.0000e-004	113.2145
NaturalGas Mitigated											0.0000	80.1923	80.1923	1.5400e-003	1.4700e-003	80.6688
NaturalGas Unmitigated											0.0000	80.1923	80.1923	1.5400e-003	1.4700e-003	80.6688

TT 6432 Residential Project- 2030 Operations BAU Scenario - Fresno County, Annual

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

5.2 Energy by Land Use - NaturalGas

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					
Parking Lot	0											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Single Family Housing	1.50275e+006											0.0000	80.1923	80.1923	1.5400e-003	1.4700e-003	80.6688
Total												**0.0000**	**80.1923**	**80.1923**	**1.5400e-003**	**1.4700e-003**	**80.6688**

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					
Parking Lot	0											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Single Family Housing	1.50275e+006											0.0000	80.1923	80.1923	1.5400e-003	1.4700e-003	80.6688
Total												**0.0000**	**80.1923**	**80.1923**	**1.5400e-003**	**1.4700e-003**	**80.6688**

TT 6432 Residential Project- 2030 Operations BAU Scenario - Fresno County, Annual

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

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Parking Lot	38332.8	11.1515	5.7000e-004	7.0000e-005	11.1865
Single Family Housing	349619	101.7081	5.2300e-003	6.3000e-004	102.0280
Total		**112.8595**	**5.8000e-003**	**7.0000e-004**	**113.2145**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Parking Lot	38332.8	11.1515	5.7000e-004	7.0000e-005	11.1865
Single Family Housing	349619	101.7081	5.2300e-003	6.3000e-004	102.0280
Total		**112.8595**	**5.8000e-003**	**7.0000e-004**	**113.2145**

6.0 Area Detail

TT 6432 Residential Project- 2030 Operations BAU Scenario - Fresno County, Annual

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

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated											0.0000	19.5948	19.5948	1.2200e-003	3.5000e-004	19.7295
Unmitigated											0.0000	19.5948	19.5948	1.2200e-003	3.5000e-004	19.7295

TT 6432 Residential Project- 2030 Operations BAU Scenario - Fresno County, Annual

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

6.2 Area by SubCategory

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
Hearth											0.0000	19.0611	19.0611	3.7000e-004	3.5000e-004	19.1744
Landscaping											0.0000	0.5337	0.5337	8.5000e-004	0.0000	0.5551
Total											**0.0000**	**19.5948**	**19.5948**	**1.2200e-003**	**3.5000e-004**	**19.7295**

TT 6432 Residential Project- 2030 Operations BAU Scenario - Fresno County, Annual

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

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth											0.0000	19.0611	19.0611	3.7000e-004	3.5000e-004	19.1744
Landscaping											0.0000	0.5337	0.5337	8.5000e-004	0.0000	0.5551
Total											**0.0000**	**19.5948**	**19.5948**	**1.2200e-003**	**3.5000e-004**	**19.7295**

7.0 Water Detail

7.1 Mitigation Measures Water

TT 6432 Residential Project- 2030 Operations BAU Scenario - Fresno County, Annual

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

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	7.2623	0.0937	2.2500e-003	10.2750
Unmitigated	7.2623	0.0937	2.2500e-003	10.2750

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	2.86678 / 1.80732	7.2623	0.0937	2.2500e-003	10.2750
Total		**7.2623**	**0.0937**	**2.2500e-003**	**10.2750**

TT 6432 Residential Project- 2030 Operations BAU Scenario - Fresno County, Annual

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

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	2.86678 / 1.80732	7.2623	0.0937	2.2500e-003	10.2750
Total		**7.2623**	**0.0937**	**2.2500e-003**	**10.2750**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	9.2077	0.5442	0.0000	22.8116
Unmitigated	9.2077	0.5442	0.0000	22.8116

TT 6432 Residential Project- 2030 Operations BAU Scenario - Fresno County, Annual

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

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	45.36	9.2077	0.5442	0.0000	22.8116
Total		**9.2077**	**0.5442**	**0.0000**	**22.8116**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	45.36	9.2077	0.5442	0.0000	22.8116
Total		**9.2077**	**0.5442**	**0.0000**	**22.8116**

9.0 Operational Offroad

TT 6432 Residential Project- 2030 Operations BAU Scenario - Fresno County, Annual

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

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

TT 6432 Residential Project - 2030 Operational Year - Fresno County, Annual

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

TT 6432 Residential Project - 2030 Operational Year

Fresno County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	1.00	Acre	1.00	43,560.00	0
Single Family Housing	44.00	Dwelling Unit	4.18	88,000.00	126

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	45
Climate Zone	3			**Operational Year**	2030
Utility Company	Pacific Gas and Electric Company				
CO2 Intensity (lb/MWhr)	191	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Tract No. 6432 Residential Project - 2030 Operations

Land Use - 44 units analyzed, consistent with project description
Tract 6432 Project Site Gross Acres: 4.18 acres
Added additional one (1) acre to account for off-site improvements (curb, gutter, sidewalk, etc.)

Construction Phase - Operational run only - zeroed out construction only parameters

Off-road Equipment - Operational run only

Off-road Equipment -

Trips and VMT - Operational run only - zeroed out construction only parameters

Demolition -

Grading -

Architectural Coating - Rule 4601 Architectural Coatings

Vehicle Trips - ITE 11th Edition Rates for single-family homes (ITE Land Use 210)

TT 6432 Residential Project - 2030 Operational Year - Fresno County, Annual

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

Woodstoves - SJVAPCD Rule 4901 Woodburning

Area Coating - Rule 4601 Architectural Coatings

Water And Wastewater -

Solid Waste -

Construction Off-road Equipment Mitigation -

Area Mitigation - Rule 4601 Architectural Coatings, no woodburning fireplaces (only natural gas hearth), and outside outlet

Energy Mitigation - Single-family homes to be built with rooftop solar to provide on-site renewable energy (85% of electricity use generated applied)

Water Mitigation - Compliance with Green Building Code Standards and California Model Water Efficient Landscape Ordinance

Waste Mitigation - CalRecycle 75 Percent Initiative (25% reduction)

Fleet Mix - SJVAPCD-approved Residential Fleet Mix for the 2030 operational year

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Residential_Exterior	150.00	50.00
tblArchitecturalCoating	EF_Residential_Interior	150.00	50.00
tblAreaCoating	Area_EF_Residential_Exterior	150	50
tblAreaCoating	Area_EF_Residential_Interior	150	50
tblConstructionPhase	NumDays	20.00	1.00
tblFireplaces	FireplaceWoodMass	3,078.40	0.00
tblFleetMix	HHD	0.02	0.02
tblFleetMix	LDA	0.54	0.51
tblFleetMix	LDT1	0.05	0.22
tblFleetMix	LDT2	0.18	0.17
tblFleetMix	LHD1	0.02	8.0000e-004
tblFleetMix	LHD2	5.9260e-003	1.0000e-003
tblFleetMix	MCY	0.02	2.5000e-003
tblFleetMix	MDV	0.13	0.06
tblFleetMix	MH	2.4420e-003	3.0000e-003
tblFleetMix	MHD	0.02	7.4000e-003
tblFleetMix	OBUS	6.7900e-004	0.00

TT 6432 Residential Project - 2030 Operational Year - Fresno County, Annual

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

tblFleetMix	SBUS	1.3250e-003	1.2000e-003
tblFleetMix	UBUS	2.7800e-004	4.4000e-003
tblLandUse	LandUseSquareFeet	79,200.00	88,000.00
tblLandUse	LotAcreage	14.29	4.18
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	UsageHours	6.00	0.00
tblProjectCharacteristics	CO2IntensityFactor	203.98	191
tblTripsAndVMT	WorkerTripNumber	7.00	0.00
tblVehicleTrips	ST_TR	9.54	9.48
tblVehicleTrips	SU_TR	8.55	8.48
tblVehicleTrips	WD_TR	9.44	9.43
tblWoodstoves	WoodstoveWoodMass	3,019.20	0.00

2.0 Emissions Summary

TT 6432 Residential Project - 2030 Operational Year - Fresno County, Annual

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

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2023											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					
2023											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**

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

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

TT 6432 Residential Project - 2030 Operational Year - Fresno County, Annual

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

		Highest		

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area											0.0000	19.5948	19.5948	8.7000e-004	3.5000e-004	19.7208
Energy											0.0000	88.1579	88.1579	6.5600e-003	1.7000e-003	88.8282
Mobile											0.0000	328.4631	328.4631	0.0237	0.0148	333.4579
Waste											9.2077	0.0000	9.2077	0.5442	0.0000	22.8116
Water											0.9095	1.8919	2.8014	0.0937	2.2500e-003	5.8141
Total											**10.1172**	**438.1078**	**448.2249**	**0.6690**	**0.0191**	**470.6326**

TT 6432 Residential Project - 2030 Operational Year - Fresno County, Annual

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

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area											0.0000	19.5900	19.5900	8.7000e-004	3.5000e-004	19.7158
Energy											0.0000	61.1980	61.1980	1.9000e-003	1.1300e-003	61.5836
Mobile											0.0000	328.4631	328.4631	0.0237	0.0148	333.4579
Waste											6.9058	0.0000	6.9058	0.4081	0.0000	17.1087
Water											0.7276	1.5136	2.2412	0.0750	1.8000e-003	4.6513
Total											**7.6334**	**410.7647**	**418.3980**	**0.5096**	**0.0181**	**436.5173**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**24.55**	**6.24**	**6.65**	**23.83**	**5.35**	**7.25**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Architectural Coating	Architectural Coating	6/1/2023	6/2/2023	5	1	

Acres of Grading (Site Preparation Phase): 0

TT 6432 Residential Project - 2030 Operational Year - Fresno County, Annual

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

Acres of Grading (Grading Phase): 0

Acres of Paving: 1

Residential Indoor: 178,200; Residential Outdoor: 59,400; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 2,614 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	0	0.00	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
Architectural Coating	0	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Architectural Coating - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total											**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.2 Architectural Coating - 2023

Unmitigated Construction Off-Site

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

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											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total											**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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

3.2 Architectural Coating - 2023

Mitigated Construction Off-Site

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

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

TT 6432 Residential Project - 2030 Operational Year - Fresno County, Annual

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated											0.0000	328.4631	328.4631	0.0237	0.0148	333.4579
Unmitigated											0.0000	328.4631	328.4631	0.0237	0.0148	333.4579

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Parking Lot	0.00	0.00	0.00		
Single Family Housing	414.92	417.12	373.12	1,199,005	1,199,005
Total	414.92	417.12	373.12	1,199,005	1,199,005

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Single Family Housing	10.80	7.30	7.50	48.40	15.90	35.70	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Parking Lot	0.542478	0.054482	0.176258	0.134700	0.021641	0.005926	0.015139	0.022678	0.000679	0.000278	0.021974	0.001325	0.002442
Single Family Housing	0.511000	0.223100	0.169000	0.059300	0.000800	0.001000	0.007400	0.017300	0.000000	0.004400	0.002500	0.001200	0.003000

5.0 Energy Detail

TT 6432 Residential Project - 2030 Operational Year - Fresno County, Annual

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

Historical Energy Use: N

5.1 Mitigation Measures Energy

Percent of Electricity Use Generated with Renewable 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	4.7576	4.7576	8.2000e-004	1.0000e-004	4.8079
Electricity Unmitigated											0.0000	31.7175	31.7175	5.4800e-003	6.6000e-004	32.0525
NaturalGas Mitigated											0.0000	56.4404	56.4404	1.0800e-003	1.0300e-003	56.7758
NaturalGas Unmitigated											0.0000	56.4404	56.4404	1.0800e-003	1.0300e-003	56.7758

TT 6432 Residential Project - 2030 Operational Year - Fresno County, Annual

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

5.2 Energy by Land Use - NaturalGas

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					
Parking Lot	0											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Single Family Housing	1.05765e+006											0.0000	56.4404	56.4404	1.0800e-003	1.0300e-003	56.7758
Total												**0.0000**	**56.4404**	**56.4404**	**1.0800e-003**	**1.0300e-003**	**56.7758**

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					
Parking Lot	0											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Single Family Housing	1.05765e+006											0.0000	56.4404	56.4404	1.0800e-003	1.0300e-003	56.7758
Total												**0.0000**	**56.4404**	**56.4404**	**1.0800e-003**	**1.0300e-003**	**56.7758**

TT 6432 Residential Project - 2030 Operational Year - Fresno County, Annual

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

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Parking Lot	15246	1.3209	2.3000e-004	3.0000e-005	1.3348
Single Family Housing	350854	30.3967	5.2500e-003	6.4000e-004	30.7177
Total		**31.7175**	**5.4800e-003**	**6.7000e-004**	**32.0525**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Parking Lot	2286.9	0.1981	3.0000e-005	0.0000	0.2002
Single Family Housing	52628.1	4.5595	7.9000e-004	1.0000e-004	4.6077
Total		**4.7576**	**8.2000e-004**	**1.0000e-004**	**4.8079**

6.0 Area Detail

TT 6432 Residential Project - 2030 Operational Year - Fresno County, Annual

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

6.1 Mitigation Measures Area

Use Electric Lawnmower

Use Electric Leafblower

Use Electric Chainsaw

Use Low VOC Paint - Residential Interior

Use Low VOC Paint - Residential Exterior

Use only Natural Gas Hearths

	ROG	NOx	CO	SO2	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	19.5900	19.5900	8.7000e-004	3.5000e-004	19.7158
Unmitigated											0.0000	19.5948	19.5948	8.7000e-004	3.5000e-004	19.7208

TT 6432 Residential Project - 2030 Operational Year - Fresno County, Annual

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

6.2 Area by SubCategory

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
Hearth											0.0000	19.0611	19.0611	3.7000e-004	3.5000e-004	19.1744
Landscaping											0.0000	0.5337	0.5337	5.1000e-004	0.0000	0.5464
Total											**0.0000**	**19.5948**	**19.5948**	**8.8000e-004**	**3.5000e-004**	**19.7208**

TT 6432 Residential Project - 2030 Operational Year - Fresno County, Annual

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

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth											0.0000	19.0611	19.0611	3.7000e-004	3.5000e-004	19.1744
Landscaping											0.0000	0.5289	0.5289	5.0000e-004	0.0000	0.5414
Total											**0.0000**	**19.5900**	**19.5900**	**8.7000e-004**	**3.5000e-004**	**19.7158**

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

TT 6432 Residential Project - 2030 Operational Year - Fresno County, Annual

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

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	2.2412	0.0750	1.8000e-003	4.6513
Unmitigated	2.8014	0.0937	2.2500e-003	5.8141

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	2.86678 / 1.80732	2.8014	0.0937	2.2500e-003	5.8141
Total		**2.8014**	**0.0937**	**2.2500e-003**	**5.8141**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	2.29342 / 1.44585	2.2412	0.0750	1.8000e-003	4.6513
Total		**2.2412**	**0.0750**	**1.8000e-003**	**4.6513**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

TT 6432 Residential Project - 2030 Operational Year - Fresno County, Annual

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

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	6.9058	0.4081	0.0000	17.1087
Unmitigated	9.2077	0.5442	0.0000	22.8116

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	45.36	9.2077	0.5442	0.0000	22.8116
Total		**9.2077**	**0.5442**	**0.0000**	**22.8116**

TT 6432 Residential Project - 2030 Operational Year - Fresno County, Annual

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

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	34.02	6.9058	0.4081	0.0000	17.1087
Total		**6.9058**	**0.4081**	**0.0000**	**17.1087**

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

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

Health Risk Screening

Screening Calculations and Prioritization

Diesel PM Screening — Prioritization Calculator

Applicability	Use to provide a Prioritization score based on the emission potency method. Entries required in yellow areas, output in grey areas.
Author (Prioritization Calculator)	Matthew Cegielski *Last Update* October 13, 2016
Date Updated with Project Emissions	May 14, 2023
Facility:	**Tract No. 6432 Residential Project (Diesel PM Screening Analysis)**
ID#:	—
Project #:	**Truck Run and Idle Emissions**
Unit and Process#	**Mobile Source Diesel (Trucks Visiting the Residential Project)**

Operating Hours hr/yr 1,206.00 **(operating hours assumed based on idle hours)**

Receptor Proximity and Proximity Factors	Cancer Score	Chronic Score	Acute Score	Max Score
0< R<100 1.000	4.60E-01	4.95E-03	0.00E+00	4.60E-01
100≤R<250 0.250	1.15E-01	1.24E-03	0.00E+00	1.15E-01
250≤R<500 0.040	1.84E-02	1.98E-04	0.00E+00	1.84E-02
500≤R<1000 0.011	5.06E-03	5.45E-05	0.00E+00	5.06E-03
1000≤R<1500 0.003	1.38E-03	1.49E-05	0.00E+00	1.38E-03
1500≤R<2000 0.002	9.20E-04	9.91E-06	0.00E+00	9.20E-04
2000<R 0.001	4.60E-04	4.95E-06	0.00E+00	4.60E-04

Receptor proximity is in meters. Priortization scores are calculated by multiplying the total scores summed below by the proximity factors. Record the Max score for your receptor distance. If the substance list for the unit is longer than the number of rows here or if there are multiple processes use additional worksheets and sum the totals of the Max Scores.

ource Diesel (Trucks Visiting the Residenti

Enter the unit's CAS# of the substances emitted and their amounts.

Prioritzation score for each substance generated below. Totals on last row.

Substance	CAS#	Annual Emissions (lbs/yr)	Maximum Hourly (lbs/hr)	Average Hourly (lbs/hr)	Cancer	Chronic	Acute
Diesel engine exhaust, particulate matter (Diesel PM)	**9901**	1.99E-01	1.48E-04	1.65E-04	4.60E-01	4.95E-03	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				Totals	**4.60E-01**	**4.95E-03**	**0.00E+00**

Tract No. 6432 Residential Project—Health Risk Screening Analysis for Project Operations

Diesel Truck Trips

	Trucks Onsite Daily	Average Daily Truck Trips
Heavy Truck Trips	**6.61**	**13.22**

Truck Assumptions

Trucks Onsite per Day	6.61
Trucks Onsite per Year	2,412.5
Idling Events per Truck per day	2
Idling Time per Event (minutes)	15
Idling Minutes/Year	72,375
Idling Hours/Year	1,206

	Truck Entering	Trucks Exiting	Total
Average Travel Distance Onsite (ft)	660	660	1,320

(0.25 mile on-site and 0.25 mile off-site assumed for this localized assessment - residential project)

	Miles/Trip	Truck Trips/Year	Miles/Year
Offsite Miles Estimate	0.25	4,825.0	1,206.3

	Distance Onsite (ft) in and out	Distance to Receptor Meters	Direction to Receptor	Idling Emissions (lbs/year)	Running Emissions (lbs/yr)	Total Truck Emissions (lbs/year)	Grand Total (lbs/yr)	Average Lbs/Day	Max Lbs/Day*	Max lbs/Hr
Emissions	1,320	<100 M	All	0.15	0.05	**0.1992**	0.20	0.00055	0.00164	0.00014

*Max daily assumed to be 3 times the daily average. Max hr based on 12 hrs/day

Running Emission Calculations	**EMFAC2017 Rates**
Idling Emission Rate for Diesel g/day	0.18318
g/lb conversion factor	0.00220
HDT Onsite Running Emissions 5 mph g/mile	0.01697
HDT Running Emissions Onroad 5-25 mph	0.01099

EMFAC 2017 PM10 running emissions Aggregated Fleet Age in 2023

EMFAC 2017 Average Running Emissions

	PM10_RUNEX 5-25 MPH	**PM10 RUNEX 5 MPH**
Weighted Averages (Based on Project Fleet)	**0.01099**	**0.01697**

	Distance (Feet)	**Distance (Miles)**	**Miles/Year/ Truck**	**Trucks/Day**	**Emission (g/mi)**	**Emissions g/year**	**Emission lbs/year**	**Emissions lbs/hour**
Onsite Running Emissions	1,320.00	0.25	91.3	6.6	0.01697	10.23	0.02	5.1507E-06

	Distance (Feet)	**Miles/ Round Trip**	**Miles/Year/ Truck**	**Trucks/Day**	**Emissions Rate (g/mi)**	**Emissions g/year**	**Emission lbs/year**	**Emissions lbs/hour**
Offsite Running Emissions	2,640.00	0.50	182.50	6.6	0.01099	13.25	0.03	6.6708E-06
						Total Running	**0.05178**	**0.00001**

Total Emissions	**Lbs/Year**	**Max Lbs/Hours**
Onsite Running Emissions	0.0226	0.0000052
Offsite Running Emissions	0.0292	0.0000067
Idling Emissions	0.1474	0.0001364
Total	**0.1991807**	**0.0001482**

Health Risk Prioritization Results (Receptor 0-100 M)

	Cancer Score	**Chronic Score**	**Acute Score**
Prioritization Score Truck Run and Idle	0.46011	0.00495	0.00000

Operational Fuel Calculation—Project-generated Operational Trips

Daily Truck Trips

Tulare and Peach Vesting Tentative Tract Map for Tract No. 6432 Project - Buildout Year Operations

	Weekday	Saturday	Sunday
Trips per Day	414.92	417.12	373.12

	Total Daily Trips
Total Average Daily Trips	**409.26**

By Vehicle Type (Average Fleet Mix for the 2023 Operational Year for Passenger Vehicles)

	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Percentage	0.530500	0.205800	0.167300	0.055000	0.001100	0.000900	0.008500	0.021800	0.000000	0.004300	0.002500	0.000400	0.001900
Daily Trips	217.113946	84.226296	68.469676	22.509457	0.450189	0.368337	3.478734	8.921930	0.000000	1.759830	1.023157	0.163705	0.777599

Heavy Trucks Only	
LHD1	0.450
LHD2	0.368
MHD	3.479
HHD	8.922
Heavy Trucks Total	13.219

On-site Truck Running and Idling Emissions for the Health Risk Screening Analysis—Tract No. 6432 Residential Project

EMFAC2017 (v1.0.2) Emission Rates
Region Type: County
Region: FRESNO
Calendar Year: 2023
Season: Annual
Vehicle Classification: EMFAC2007 Categories
Units: miles/day for VMT, g/mile for RUNEX, PMBW and PMTW. Note 'day' in the unit is operation day.

Region	Calendar Year	Vehicle Category	Model Year	Speed	Fuel	VMT	NOx_RUNEX	PM2.5_RUNEX	PM10_RUNEX	CO2_RUNEX	CH4_RUNEX	N2O_RUNEX	ROG_RUNEX	TOG_RUNEX	CO_RUNEX	SOx_RUNEX
FRESNO	2023	HHDT	Aggregated	5	DSL	37131.58519	13.08445167	0.014823507	0.01549376	3468.021017	0.006759906	0.545124609	0.145538919	0.16568498	2.058443973	0.032764143
FRESNO	2023	HHDT	Aggregated	10	DSL	53398.05085	10.18371081	0.012014152	0.012557378	2877.489823	0.004184916	0.452301329	0.090100085	0.102572088	1.275404796	0.027185097
FRESNO	2023	HHDT	Aggregated	15	DSL	43626.73593	7.273210423	0.008716785	0.009110919	2276.289004	0.002221426	0.357800932	0.047826693	0.054447049	0.693519357	0.02150525
FRESNO	2023	HHDT	Aggregated	20	DSL	69342.35083	5.39232653	0.006260738	0.006543821	1908.678681	0.001366411	0.300017709	0.029418459	0.033490677	0.447668061	0.01803225
FRESNO	2023	HHDT	Aggregated	25	DSL	55207.15826	4.510089354	0.006657893	0.006958933	1679.236753	0.001142964	0.263952633	0.024607701	0.028013995	0.353648605	0.015864596
						Total	40.44378878	0.048473074	0.050664811	12209.71528	0.015675623	1.919197211	0.337491857	0.384208789	4.828684792	0.115351336
FRESNO	2023	LHDT1	Aggregated	5	DSL	6199.181844	2.037385805	0.073505272	0.076828855	1229.7033	0.036309545	0.193292234	0.781723133	0.889939814	3.344059139	0.011625118
FRESNO	2023	LHDT1	Aggregated	10	DSL	20615.10507	2.063303599	0.05460114	0.057069962	1033.757494	0.026469237	0.162492282	0.569867098	0.648755804	2.455046599	0.009772726
FRESNO	2023	LHDT1	Aggregated	15	DSL	44646.41182	2.056246579	0.041676271	0.043560687	675.1301498	0.015193654	0.106121058	0.327110424	0.37239347	1.431059279	0.006382408
FRESNO	2023	LHDT1	Aggregated	20	DSL	48946.88807	2.078246816	0.032821104	0.034305128	575.4465035	0.008477683	0.090452177	0.182519516	0.207786335	0.823284629	0.005440039
FRESNO	2023	LHDT1	Aggregated	25	DSL	52386.22844	2.146129687	0.026768549	0.027978904	510.3662442	0.006124734	0.080222466	0.131861918	0.150116027	0.615025011	0.004824796
						Total	10.38131249	0.229372336	0.239743535	4024.403692	0.092574853	0.632580217	1.993082089	2.26899145	8.668474658	0.038045088
FRESNO	2023	LHDT2	Aggregated	5	DSL	2188.558898	1.763058599	0.066305075	0.069303096	1292.234948	0.03597013	0.203121338	0.774415729	0.88162082	3.330980185	0.012216267
FRESNO	2023	LHDT2	Aggregated	10	DSL	7277.955828	1.764958998	0.050451887	0.052733097	1148.449572	0.026350188	0.18052028	0.567304039	0.645837931	2.454518109	0.010856979
FRESNO	2023	LHDT2	Aggregated	15	DSL	15761.96735	1.728329377	0.039131716	0.040901078	764.4883454	0.01470506	0.120166922	0.316591287	0.360418132	1.386247324	0.007227164
FRESNO	2023	LHDT2	Aggregated	20	DSL	17280.20731	1.724651482	0.031145727	0.032553998	652.0523175	0.007800074	0.102493544	0.167931007	0.191178287	0.754670636	0.006164239
FRESNO	2023	LHDT2	Aggregated	25	DSL	18494.43189	1.769775461	0.025579631	0.026736228	581.0806367	0.00552148	0.091337784	0.118874209	0.135330383	0.550662741	0.005493302
						Total	8.750773916	0.212614036	0.222227499	4438.305819	0.090346933	0.697639868	1.94511627	2.214385554	8.477078996	0.041957951
FRESNO	2023	MHDT	Aggregated	5	DSL	26857.75475	6.732713845	0.007133996	0.007456564	2367.151421	0.002993835	0.372083239	0.06445645	0.073378762	0.792451862	0.022363673
FRESNO	2023	MHDT	Aggregated	10	DSL	31658.85234	5.116527556	0.006040571	0.006313698	1950.069328	0.001929961	0.306523742	0.04155154	0.047303265	0.488899288	0.018423288
FRESNO	2023	MHDT	Aggregated	15	DSL	25544.27351	3.583542562	0.004108544	0.004294314	1527.157644	0.000994994	0.240047915	0.021421945	0.024387254	0.264734044	0.014427828
FRESNO	2023	MHDT	Aggregated	20	DSL	31724.96823	2.829984849	0.003056676	0.003194885	1301.882533	0.000617081	0.204637804	0.01328559	0.015124633	0.176068211	0.012299541
FRESNO	2023	MHDT	Aggregated	25	DSL	43409.12548	2.225060885	0.002868911	0.00299863	1137.316744	0.000482352	0.178770354	0.010384896	0.011822413	0.134857234	0.010744805
						Total	20.4878297	0.023208697	0.024258091	8283.577669	0.007018223	1.302063054	0.151100422	0.172016328	1.857010639	0.078259134

Running Emissions 5-25 MPH Averaged

	NOx_RUNEX	PM2.5_RUNEX	PM10_RUNEX	CO2_RUNEX	CH4_RUNEX	N2O_RUNEX	ROG_RUNEX	TOG_RUNEX	CO_RUNEX	SOx_RUNEX
HHDT	**8.0888**	**0.0097**	**0.0101**	**2441.9431**	**0.0031**	**0.3838**	**0.0675**	**0.0768**	**0.9657**	**0.0231**
LHDT1	**2.0763**	**0.0459**	**0.0479**	**804.8807**	**0.0185**	**0.1265**	**0.3986**	**0.4538**	**1.7337**	**0.0076**
LHDT2	**1.7502**	**0.0425**	**0.0444**	**887.6612**	**0.0181**	**0.1395**	**0.3890**	**0.4429**	**1.6954**	**0.0084**
MHDT	**4.0976**	**0.0046**	**0.0049**	**1656.7155**	**0.0014**	**0.2604**	**0.0302**	**0.0344**	**0.3714**	**0.0157**

HHDT		**LHDT1**		**LHDT2**		**MHDT**	
Localized Miles per Trip	0.50	Miles per Trip	0.50	Miles per Trip	0.50	Miles per Trip	0.50
Daily Trucks	4.46	Daily Trucks	0.23	Daily Trucks	0.18	Daily Trucks	1.74
Daily Trips	8.92	Daily Trips	0.45	Daily Trips	0.37	Daily Trips	3.48

Onsite Truck Max Daily Emissions	**ROG**	**NO_x**	**CO**	**SO2**	**PM10**	**PM2.5**
HHDT (g/day)	0.3011	36.0837	4.3081	0.1029	0.0452	0.0432
LHDT1 (g/day)	0.0897	0.4674	0.3902	0.0017	0.0108	0.0103
LHDT2 (g/day)	0.0716	0.3223	0.3122	0.0015	0.0082	0.0078
MHDT (g/day)	0.0526	7.1272	0.6460	0.0272	0.0084	0.0081
Total Trucks (g/day)	0.5150	44.0005	5.6566	0.1334	0.0726	0.0695
Running Emissions lbs/day	0.0011	0.0970	0.0125	0.0003	0.0002	0.0002
Idling Emissions Lbs/Day	0.058	0.713	0.857	0.001	0.000	0.000
Total Emissions/Day	**0.059**	**0.810**	**0.869**	**0.0016**	**0.000**	**0.000**

g/lb conversion factor 0.00220

Idling Minutes/Day Per Truck	15
Max Trucks per Day	6.61
Number Idling Trucks per Day	6.61
Max Trucks per Day—HHDT	4.46
Max Trucks per Day—LHDT1	0.23
Max Trucks per Day—LHDT2	0.18
Max Trucks per Day—MHDT	1.74

Idling Emissions	Calendar Year	Season	Region	Vehicle Category	Fuel	Pollutant	g/vehicle/day	g/day	Max lbs/day
IDLEX	2023	Annual	FRESNO	HHDT	DSL	ROG	5.8518	26.1047	0.057551
IDLEX	2023	Annual	FRESNO	LHDT1	DSL	ROG	0.1098	0.0247	0.000054
IDLEX	2023	Annual	FRESNO	LHDT2	DSL	ROG	0.1098	0.0202	0.000045
IDLEX	2023	Annual	FRESNO	MHDT	DSL	ROG	0.0656	0.1141	0.000252
IDLEX	2023	Annual	FRESNO	HHDT	DSL	NOx	70.4062	314.0798	0.692427
IDLEX	2023	Annual	FRESNO	LHDT1	DSL	NOx	2.2570	0.5080	0.001120
IDLEX	2023	Annual	FRESNO	LHDT2	DSL	NOx	2.2218	0.4092	0.000902
IDLEX	2023	Annual	FRESNO	MHDT	DSL	NOx	4.7589	8.2774	0.018249
IDLEX	2023	Annual	FRESNO	HHDT	DSL	CO	86.1079	384.1242	0.846849
IDLEX	2023	Annual	FRESNO	LHDT1	DSL	CO	0.9097	0.2048	0.000451
IDLEX	2023	Annual	FRESNO	LHDT2	DSL	CO	0.9097	0.1675	0.000369
IDLEX	2023	Annual	FRESNO	MHDT	DSL	CO	2.3434	4.0761	0.008986
IDLEX	2023	Annual	FRESNO	HHDT	DSL	SO2	0.1335	0.5956	0.001313
IDLEX	2023	Annual	FRESNO	LHDT1	DSL	SO2	0.0013	0.0003	0.000001
IDLEX	2023	Annual	FRESNO	LHDT2	DSL	SO2	0.0021	0.0004	0.000001
IDLEX	2023	Annual	FRESNO	MHDT	DSL	SO2	0.0072	0.0125	0.000028
IDLEX	2023	Annual	FRESNO	HHDT	DSL	PM10	0.0285	0.1272	0.000280
IDLEX	2023	Annual	FRESNO	LHDT1	DSL	PM10	0.0277	0.0062	0.000014
IDLEX	2023	Annual	FRESNO	LHDT2	DSL	PM10	0.0278	0.0051	0.000011
IDLEX	2023	Annual	FRESNO	MHDT	DSL	PM10	0.0043	0.0074	0.000016
IDLEX	2023	Annual	FRESNO	HHDT	DSL	PM2.5	0.0273	0.1217	0.000268
IDLEX	2023	Annual	FRESNO	LHDT1	DSL	PM2.5	0.0265	0.0060	0.000013
IDLEX	2023	Annual	FRESNO	LHDT2	DSL	PM2.5	0.0266	0.0049	0.000011
IDLEX	2023	Annual	FRESNO	MHDT	DSL	PM2.5	0.0041	0.0071	0.000016

For Weighted Average for Project (5-25 MPH)

	NOx_RUNEX	PM2.5_RUNEX	PM10_RUNEX	CO2_RUNEX	CH4_RUNEX	N2O_RUNEX	ROG_RUNEX	TOG_RUNEX	CO_RUNEX	SOx_RUNEX
Weighted Average Using Project Truck Fleet Percentages										
HHDT	8.088757757	0.009694615	0.010132962	2441.943056	0.003135125	0.383839442	0.067498371	0.076841758	0.965736958	0.023070267
LHDT1	2.076262497	0.045874467	0.047948707	804.8807383	0.018514971	0.126516043	0.398616418	0.45379829	1.733694932	0.007609018
LHDT2	1.750154783	0.042522807	0.0444455	887.6611637	0.018069387	0.139527974	0.389023254	0.442877111	1.695415799	0.00839159
MHDT	4.097565939	0.004641739	0.004851618	1656.715534	0.001403645	0.260412611	0.030220084	0.034403266	0.371402128	0.015651827
HHDT	36.0836664	0.043247339	0.045202792	10893.42285	0.013985681	1.712294372	0.301107882	0.342788403	4.308118909	0.102915658
LHDT1	0.467355417	0.010326094	0.010792994	181.1742848	0.004167619	0.028478075	0.089726392	0.102147532	0.390245318	0.001712749
LHDT2	0.322323006	0.007831353	0.008185452	163.4790348	0.003327808	0.025696628	0.071645746	0.081563918	0.312241821	0.001545465
MHDT	7.127171561	0.008073689	0.008438745	2881.636565	0.002441453	0.452953139	0.052563822	0.05983991	0.646004658	0.027224273
Total	44.00051639	0.069478474	0.072619982	14119.71274	0.023922562	2.219422214	0.515043841	0.586339763	5.656610706	0.133398144
Weighted Average	6.6570668	0.010511759	0.010987055	2136.244722	0.003619369	0.335787921	0.07792366	0.08871039	0.855818032	0.020182499

Max Trucks per Day—HHDT	4.46
Max Trucks per Day—LHDT1	0.23
Max Trucks per Day—LHDT2	0.18
Max Trucks per Day—MHDT	1.74
Total	6.61

For Weighted Average for Project (5 MPH)

	NOx_RUNEX	PM2.5_RUNEX	PM10_RUNEX	CO2_RUNEX	CH4_RUNEX	N2O_RUNEX	ROG_RUNEX	TOG_RUNEX	CO_RUNEX	SOx_RUNEX
Weighted Average Using Project Truck Fleet Percentages										
HHDT	13.08445167	0.014823507	0.01549376	3468.021017	0.006759906	0.545124609	0.145538919	0.16568498	2.058443973	0.032764143
LHDT1	2.037385805	0.073505272	0.076828855	1229.7033	0.036309545	0.193292234	0.781723133	0.889939814	3.344059139	0.011625118
LHDT2	1.763058599	0.066305075	0.069303096	1292.234948	0.03597013	0.203121338	0.774415729	0.88162082	3.330980185	0.012216267
MHDT	6.732713845	0.007133996	0.007456564	2367.151421	0.002993835	0.372083239	0.06445645	0.073378762	0.792451862	0.022363673
HHDT	58.36928281	0.066127147	0.069117123	15470.72087	0.030155704	2.431781879	0.649244044	0.739114923	9.18264681	0.1461597
LHDT1	0.458604485	0.016545638	0.017293758	276.7995374	0.008173082	0.043509033	0.175961634	0.200320621	0.752729559	0.002616751
LHDT2	0.32469948	0.012211292	0.012763432	237.988695	0.006624557	0.037408509	0.142622817	0.162366595	0.61346091	0.002249849
MHDT	11.71066124	0.012408638	0.012969702	4117.345403	0.005207379	0.64718936	0.112113432	0.127632608	1.378364731	0.038898638
Total	70.86324802	0.107292715	0.112144015	20102.85451	0.050160722	3.15988878	1.079941926	1.229434747	11.92720201	0.189924938
Weighted Average	10.72126908	0.016232872	0.016966851	3041.465336	0.007589076	0.478075996	0.163390027	0.186007572	1.804528379	0.028734731

Max Trucks per Day—HHDT	4.46
Max Trucks per Day—LHDT1	0.23
Max Trucks per Day—LHDT2	0.18
Max Trucks per Day—MHDT	1.74
Total	6.61

For Weighted Average for Project (Idle)

	PM10_IDLEX (g/d)
Weighted Average Using Project Truck Fleet Percentages	
HHDT	0.264141027
LHDT1	0.013869088
LHDT2	0.013885624
MHDT	0.015374418
HHDT	1.178323912
LHDT1	0.003121856
LHDT2	0.002557292
MHDT	0.026741757
Total	1.210744817
Weighted Average	0.183179876

ATTACHMENT B

Construction Health Risk Assessment

Health Risk Assessment

General Parameters

PROJECT TITLE:

Graphical Representation of AERMOD Inputs (Construction)

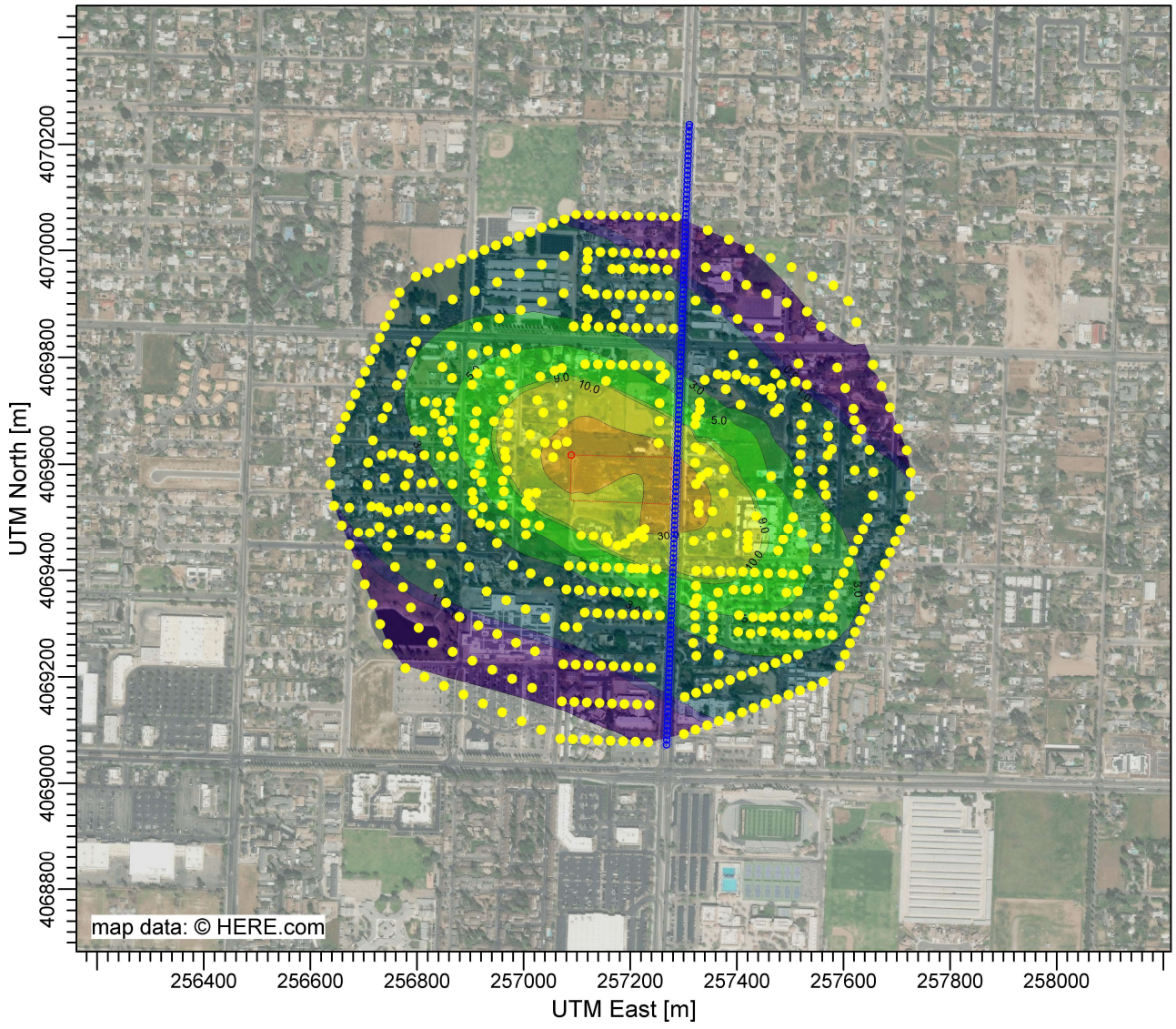
COMMENTS:	SOURCES: **2**	COMPANY NAME:	
	RECEPTORS: **511**	MODELER:	
		SCALE: 1:6,290 0 0.2 km	
		DATE: **5/14/2023**	PROJECT NO.:

AERMOD View - Lakes Environmental Software

D:\Move\0014-028\Construction\Construction.isc

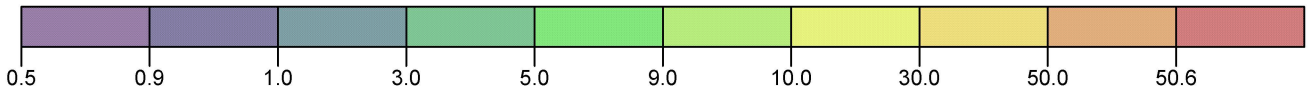
PROJECT TITLE:

Air Dispersion Concentration Trend (Unit Emissions)



PLOT FILE OF ANNUAL VALUES AVERAGED ACROSS 5 YEARS FOR SOURCE GROUP: AREA ug/m^3

Max: 50.6 [ug/m^3] at (257080.92, 4069641.99)



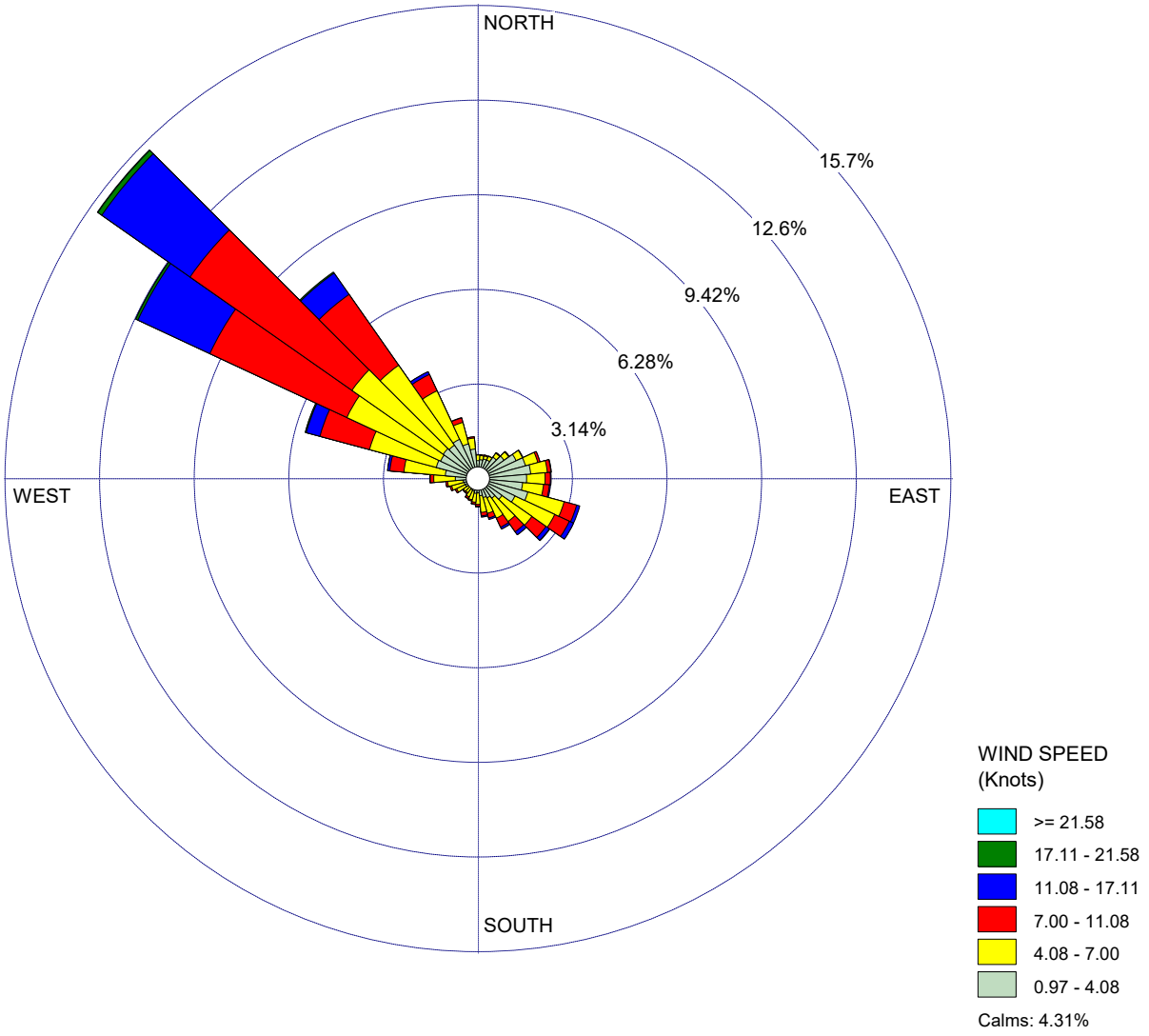
COMMENTS:	SOURCES: **2**	COMPANY NAME:	
	RECEPTORS: **511**	MODELER:	
	OUTPUT TYPE: **Concentration**	SCALE: 1:12,906 0 0.4 km	
	MAX: **50.6 ug/m^3**	DATE: **5/14/2023**	PROJECT NO.:

WIND ROSE PLOT:

Wind Rose - Fresno Station (#93193) – Blowing From

DISPLAY:

Wind Speed
Direction (blowing from)



COMMENTS:	DATA PERIOD: **Start Date: 1/1/2013 - 00:00** **End Date: 12/31/2017 - 23:59**	COMPANY NAME:	
		MODELER:	
	CALM WINDS: **4.31%**	TOTAL COUNT: **43534 hrs.**	
	AVG. WIND SPEED: **5.73 Knots**	DATE: **5/14/2023**	PROJECT NO.:

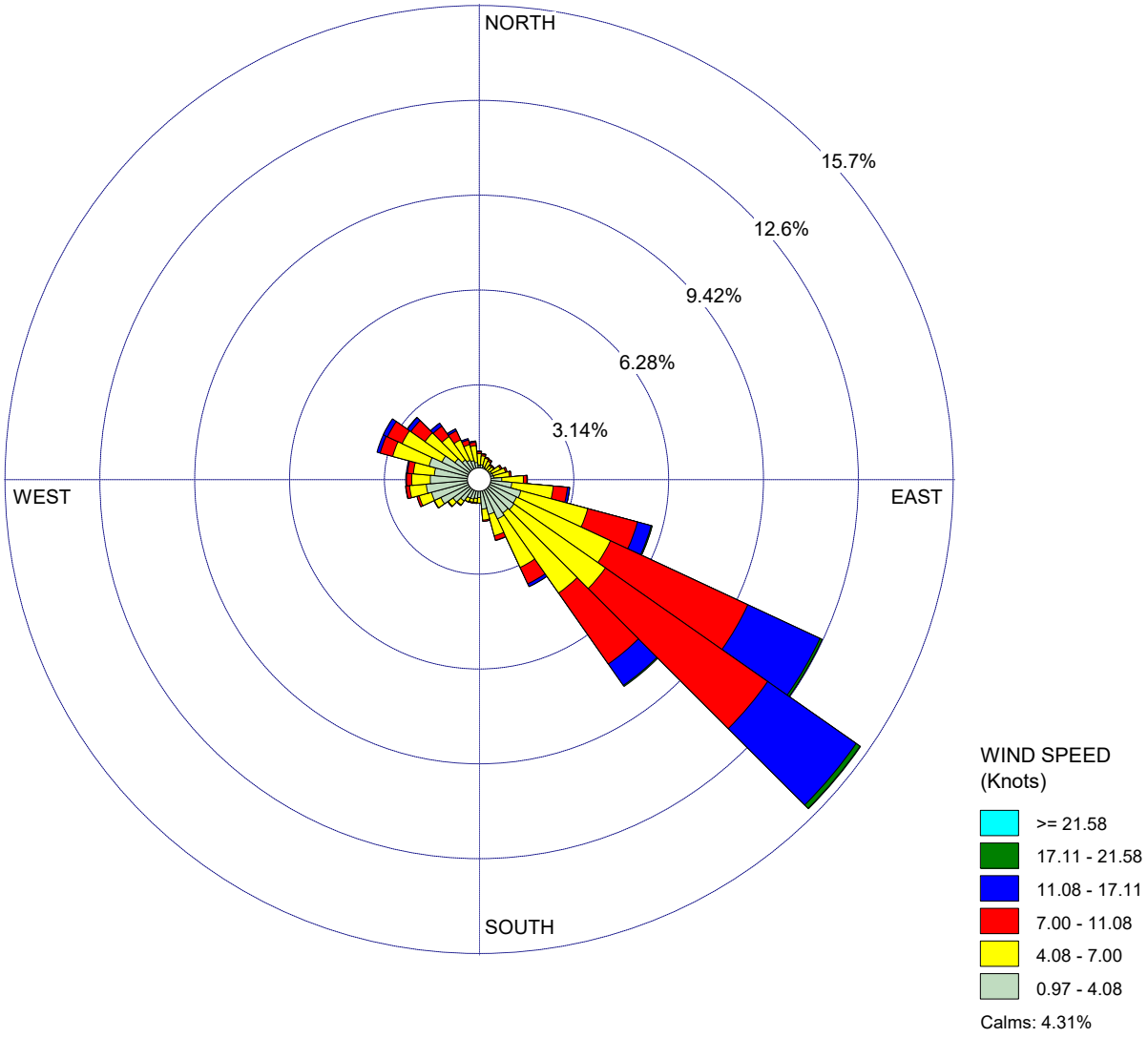
WRPLOT View - Lakes Environmental Software

WIND ROSE PLOT:

Wind Rose - Fresno Station (#93193) – Blowing To

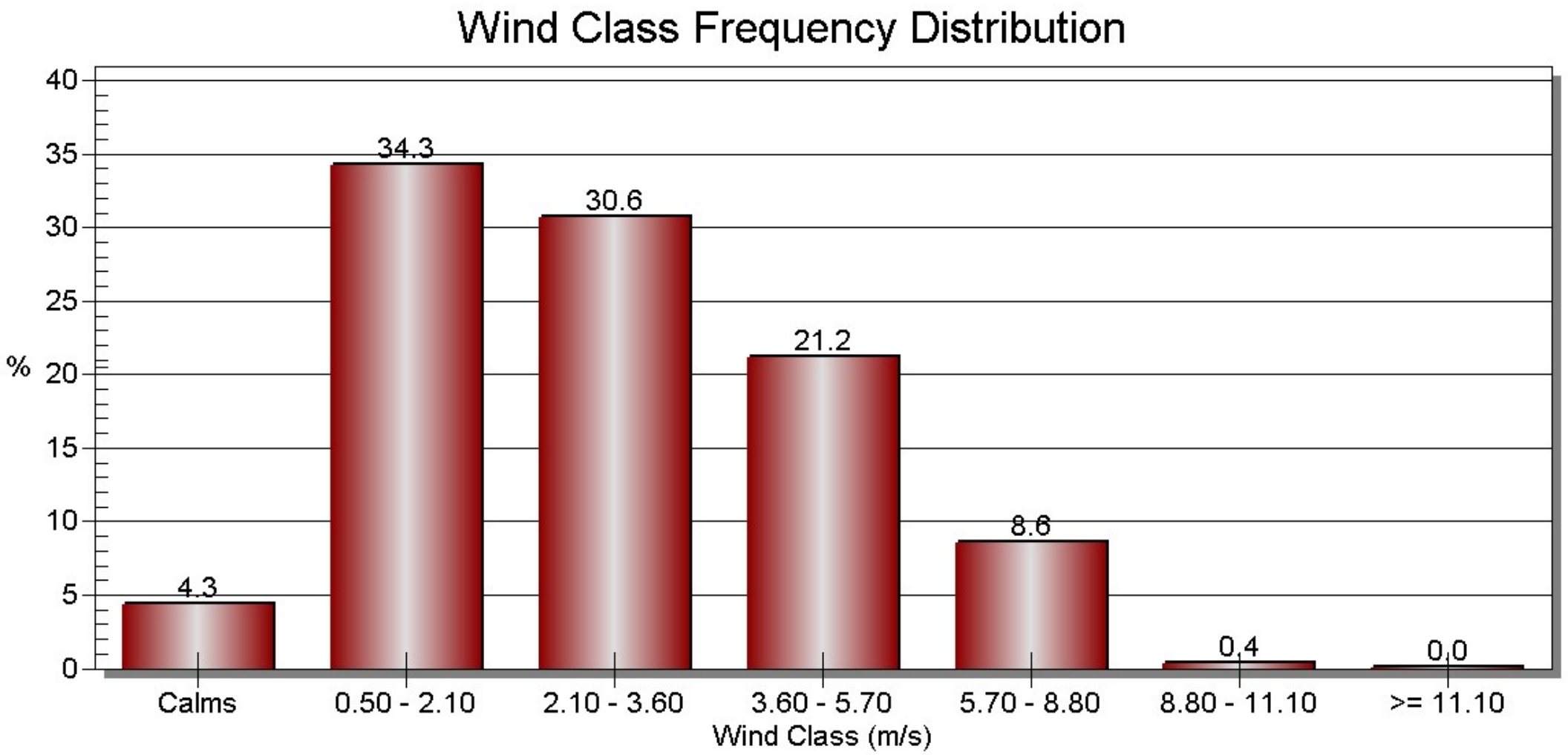
DISPLAY:

Wind Speed
Flow Vector (blowing to)



COMMENTS:	DATA PERIOD: **Start Date: 1/1/2013 - 00:00** **End Date: 12/31/2017 - 23:59**	COMPANY NAME:	
		MODELER:	
	CALM WINDS: **4.31%**	TOTAL COUNT: **43534 hrs.**	
	AVG. WIND SPEED: **5.73 Knots**	DATE: **5/14/2023**	PROJECT NO.:

WRPLOT View - Lakes Environmental Software


Wind Class Frequency Distribution
40
35
30
25
20
15
10
5
0
%
34.3
30.6
21.2
8.6
4.3
0.4
0.0
Calms
0.50 - 2.10
2.10 - 3.60
3.60 - 5.70
5.70 - 8.80
8.80 - 11.10
>= 11.10
Wind Class (m/s)

Health Risk Assessment

Unmitigated Construction

Tract No. 6432 Project (Unmitigated Construction)

Estimation of Annual Onsite Construction Emissions

Start of Construction	6/1/2023	
End of Construction	7/24/2024	**Total**
Number of Days	419	419
Number of Hours	10,056	10,056

Size of the construction area source: **16,230.1** **sq-meters**

Year	**On-site Construction Activity**	**Unmitigated On-site DPM (tons)**
2023	On-site Site Preparation	0.00633
2023	On-site Grading	0.00775
2023	On-site Building Construction 2023	0.04270
2024	On-site Building Construction 2024	0.03310
2024	On-site Paving	0.00469
2024	On-site Architectural Coating	0.00061

Total Unmitigated DPM (On-site) 9.518E-02 tons

Factor in AERMOD to Account for 5 days per week/8 hours per day: 4.2

Average Emission for AREA1	8.642E+04	grams
	2.387E-03	grams/sec
	1.471E-07	grams/m2-sec

Tons/Construction Period	9.518E-02
Pounds/Construction Period	1.904E+02
Pounds/Day	4.543E-01
Pounds/Hour	1.893E-02
Pounds/Year	1.658E+02
Years	1.14795

Tract No. 6432 Project (Unmitigated Construction)

Estimation of Annual Offsite Construction DPM Emissions (Unmitigated)

Start of Construction		6/1/2023		
End of Construction		7/24/2024		**Total**
Number of Days		419		419
Number of Hours		10,056		10,056

Construction Trip Type	2023 Site Preparation	2023 Grading	2023 Building Construction
Haul Truck	0.00001	0.00038	0.00001
Vendor Truck	0.00000	0.00000	0.00021
Worker	0.00000	0.00001	0.00008
Total	0.00001	0.00039	0.00030

	2024 Building Construction	2024 Paving	2024 Architectural Coating
Haul Truck	0.00001	0.00001	0.00000
Vendor Truck	0.00018	0.00001	0.00000
Worker	0.00007	0.00001	0.00000
Total	0.00026	0.00003	0.00000

	Haul Truck (tons)	**Vendor Truck (tons)**	**Worker (tons)**	**Total (tons)**	
Total DPM	4.200E-04	4.000E-04	1.700E-04	9.900E-04	
Average Emissions					
Grams	3.814E+02	3.632E+02	1.544E+02		
Grams/sec	1.053E-05	1.003E-05	4.264E-06		
Default Distance	20	7.3	10.8	Default Vehicle Travel Distance in CalEEMod	
Vehicle Travel Distances in the Construction HRA (miles)					
Road Segment 1 (mi)	0.73	0.73	0.73	miles	
Trip Distribution (percent)					
Off-site Road Segment 1	100.0%	100.0%	100.0%	off-site	
Total Average Offsite Vehicle Emissions Along Travel Distance (g/sec)				**Total**	
Road Segment 1	3.837E-07	1.001E-06	2.876E-07	1.672E-06	Off1

	Grams/sec	Pounds/Hour	Pounds/Day	Pounds/year	Tons/year	Max Pounds/Hour
Road Segment 1	1.672E-06	1.327E-05	3.185E-04	1.335E-01	6.673E-05	3.982E-05

Health Risk Summary - Unmitigated Construction (Summary of HARP2 Results)

Tract No. 6432 Project (Unmitigated Construction)

	RISK_SUM	Cancer Risk/million	MAXHI NonCancer Chronic	MAXHI Acute
Maximum Risk	3.1354E-05	31.35	2.4122E-02	0.00E+00

	X	Y
MEI UTM	257080.92	4069641.99
Receptor # 211		

*HARP - HRACalc v22118 5/14/2023 11:38:40 PM - Cancer Risk - Input File: F:\Move\0014-028\HARP (Unmit)\TRACT 6432 UNMITIGATED CONSTRUCTION\hra\Unmit ConHRAInput.hra
*HARP - HRACalc v22118 5/14/2023 11:38:40 PM - Chronic Risk - Input File: F:\Move\0014-028\HARP (Unmit)\TRACT 6432 UNMITIGATED CONSTRUCTION\hra\Unmit ConHRAInput.hra
*HARP - HRACalc v22118 5/14/2023 11:38:40 PM - Acute Risk - Input File: F:\Move\0014-028\HARP (Unmit)\TRACT 6432 UNMITIGATED CONSTRUCTION\hra\Unmit ConHRAInput.hra

REC	GRP	X	Y	RISK_SUM	SCENARIO	MAXHI NonCancerChronic	MAXHI Acute
1	ALL	257218.74	4069474.22	1.9106E-05	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.47E-02	0.00E+00
2	ALL	257319.28	4069454.74	1.4766E-05	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.14E-02	0.00E+00
3	ALL	257225.19	4069461.07	1.4806E-05	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.14E-02	0.00E+00
4	ALL	257201.67	4069462.01	1.3276E-05	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.02E-02	0.00E+00
5	ALL	257175.67	4069445.88	7.5796E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	5.83E-03	0.00E+00
6	ALL	257154.64	4069463.90	9.0828E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	6.99E-03	0.00E+00
7	ALL	257131.12	4069464.84	6.8886E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	5.30E-03	0.00E+00
8	ALL	257107.60	4069465.78	5.2191E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	4.02E-03	0.00E+00
9	ALL	257352.65	4069464.50	1.3604E-05	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.05E-02	0.00E+00
10	ALL	257354.26	4069511.84	1.7002E-05	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.31E-02	0.00E+00
11	ALL	257249.34	4069401.37	5.8399E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	4.49E-03	0.00E+00
12	ALL	257225.82	4069402.31	5.1390E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	3.95E-03	0.00E+00
13	ALL	257202.30	4069403.25	4.3958E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	3.38E-03	0.00E+00
14	ALL	257178.78	4069404.19	3.6734E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.83E-03	0.00E+00
15	ALL	257155.26	4069405.14	3.0400E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.34E-03	0.00E+00
16	ALL	257131.74	4069406.08	2.5441E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.96E-03	0.00E+00
17	ALL	257108.22	4069407.02	2.1932E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.69E-03	0.00E+00
18	ALL	257084.70	4069407.96	1.9533E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.50E-03	0.00E+00
19	ALL	257323.23	4069370.41	5.0645E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	3.90E-03	0.00E+00
20	ALL	257369.12	4069398.73	6.9114E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	5.32E-03	0.00E+00
21	ALL	257389.47	4069397.29	6.4624E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	4.97E-03	0.00E+00
22	ALL	257420.74	4069467.59	7.5735E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	5.83E-03	0.00E+00
23	ALL	257436.01	4069502.93	6.2688E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	4.82E-03	0.00E+00
24	ALL	257244.57	4069356.88	3.0426E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.34E-03	0.00E+00
25	ALL	257221.06	4069357.82	2.6408E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.03E-03	0.00E+00
26	ALL	257197.54	4069358.76	2.2676E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.74E-03	0.00E+00
27	ALL	257174.02	4069359.71	1.9448E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.50E-03	0.00E+00
28	ALL	257150.50	4069360.65	1.6848E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.30E-03	0.00E+00
29	ALL	257126.98	4069361.59	1.4890E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.15E-03	0.00E+00
30	ALL	257103.46	4069362.53	1.3459E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.04E-03	0.00E+00
31	ALL	257079.94	4069363.48	1.2391E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	9.53E-04	0.00E+00
32	ALL	257320.21	4069337.39	3.4375E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.64E-03	0.00E+00
33	ALL	257324.64	4069347.60	3.9061E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	3.01E-03	0.00E+00
34	ALL	257353.69	4069333.18	3.5774E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.75E-03	0.00E+00
35	ALL	257364.50	4069358.16	4.6618E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	3.59E-03	0.00E+00
36	ALL	257392.97	4069363.14	4.8161E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	3.71E-03	0.00E+00
37	ALL	257417.10	4069362.92	4.6027E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	3.54E-03	0.00E+00
38	ALL	257439.89	4069364.90	4.3841E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	3.37E-03	0.00E+00
39	ALL	257458.55	4069394.04	4.7120E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	3.63E-03	0.00E+00
40	ALL	257484.92	4069394.60	4.1047E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	3.16E-03	0.00E+00
41	ALL	257477.32	4069436.67	4.6498E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	3.58E-03	0.00E+00
42	ALL	257486.71	4069457.99	4.3098E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	3.32E-03	0.00E+00
43	ALL	257496.10	4069479.31	3.8312E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.95E-03	0.00E+00
44	ALL	257505.48	4069500.62	3.2886E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.53E-03	0.00E+00
45	ALL	257255.50	4069314.71	1.9794E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.52E-03	0.00E+00
46	ALL	257231.98	4069315.66	1.7353E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.34E-03	0.00E+00
47	ALL	257208.46	4069316.60	1.5187E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.17E-03	0.00E+00
48	ALL	257184.94	4069317.54	1.3344E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.03E-03	0.00E+00
49	ALL	257161.42	4069318.48	1.1859E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	9.12E-04	0.00E+00
50	ALL	257137.91	4069319.43	1.0718E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	8.25E-04	0.00E+00
51	ALL	257114.39	4069320.37	9.8324E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	7.56E-04	0.00E+00
52	ALL	257100.66	4069292.59	7.6545E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	5.89E-04	0.00E+00
53	ALL	257077.14	4069293.53	7.2220E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	5.56E-04	0.00E+00
54	ALL	257323.95	4069239.09	1.3176E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.01E-03	0.00E+00
55	ALL	257365.80	4069241.42	1.5630E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.20E-03	0.00E+00
56	ALL	257402.43	4069284.29	2.4533E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.89E-03	0.00E+00
57	ALL	257446.89	4069285.17	2.5230E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.94E-03	0.00E+00
58	ALL	257490.55	4069312.54	2.8356E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.18E-03	0.00E+00
59	ALL	257514.32	4069360.61	3.2130E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.47E-03	0.00E+00
60	ALL	257531.95	4069400.66	3.1650E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.43E-03	0.00E+00
61	ALL	257549.59	4069440.71	2.7823E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.14E-03	0.00E+00
62	ALL	257567.22	4069480.77	2.2159E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.70E-03	0.00E+00

63	ALL	257238.97	4069216.99	7.6493E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	5.88E-04	0.00E+00
64	ALL	257215.45	4069217.93	6.9356E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	5.34E-04	0.00E+00
65	ALL	257191.93	4069218.88	6.3559E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	4.89E-04	0.00E+00
66	ALL	257168.41	4069219.82	5.8835E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	4.53E-04	0.00E+00
67	ALL	257144.89	4069220.76	5.5009E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	4.23E-04	0.00E+00
68	ALL	257121.37	4069221.70	5.1908E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	3.99E-04	0.00E+00
69	ALL	257097.86	4069222.65	4.9367E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	3.80E-04	0.00E+00
70	ALL	257074.34	4069223.59	4.7238E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	3.63E-04	0.00E+00
71	ALL	257302.19	4069162.04	6.7420E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	5.19E-04	0.00E+00
72	ALL	257323.44	4069170.00	7.6470E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	5.88E-04	0.00E+00
73	ALL	257344.69	4069177.97	8.7514E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	6.73E-04	0.00E+00
74	ALL	257365.94	4069185.94	1.0008E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	7.70E-04	0.00E+00
75	ALL	257387.19	4069193.90	1.1382E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	8.76E-04	0.00E+00
76	ALL	257408.45	4069201.87	1.2824E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	9.87E-04	0.00E+00
77	ALL	257429.70	4069209.83	1.4268E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.10E-03	0.00E+00
78	ALL	257450.95	4069217.80	1.5620E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.20E-03	0.00E+00
79	ALL	257472.20	4069225.77	1.6813E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.29E-03	0.00E+00
80	ALL	257493.45	4069233.73	1.7805E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.37E-03	0.00E+00
81	ALL	257514.70	4069241.70	1.8512E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.42E-03	0.00E+00
82	ALL	257531.89	4069277.51	2.1767E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.67E-03	0.00E+00
83	ALL	257556.13	4069281.30	2.0944E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.61E-03	0.00E+00
84	ALL	257563.39	4069311.98	2.2841E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.76E-03	0.00E+00
85	ALL	257572.54	4069332.75	2.3297E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.79E-03	0.00E+00
86	ALL	257581.68	4069353.52	2.3195E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.78E-03	0.00E+00
87	ALL	257590.83	4069374.29	2.2558E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.74E-03	0.00E+00
88	ALL	257599.98	4069395.06	2.1425E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.65E-03	0.00E+00
89	ALL	257609.12	4069415.84	1.9898E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.53E-03	0.00E+00
90	ALL	257618.27	4069436.61	1.8125E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.39E-03	0.00E+00
91	ALL	257627.41	4069457.38	1.6219E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.25E-03	0.00E+00
92	ALL	257636.56	4069478.15	1.4337E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.10E-03	0.00E+00
93	ALL	257645.71	4069498.92	1.2547E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	9.65E-04	0.00E+00
94	ALL	257236.17	4069147.05	4.8429E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	3.73E-04	0.00E+00
95	ALL	257212.65	4069147.99	4.4740E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	3.44E-04	0.00E+00
96	ALL	257189.13	4069148.93	4.1839E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	3.22E-04	0.00E+00
97	ALL	257165.61	4069149.87	3.9482E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	3.04E-04	0.00E+00
98	ALL	257142.09	4069150.82	3.7541E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.89E-04	0.00E+00
99	ALL	257118.57	4069151.76	3.5920E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.76E-04	0.00E+00
100	ALL	257095.05	4069152.70	3.4556E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.66E-04	0.00E+00
101	ALL	257071.53	4069153.64	3.3393E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.57E-04	0.00E+00
102	ALL	257300.50	4069092.51	4.3977E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	3.38E-04	0.00E+00
103	ALL	257322.31	4069100.69	4.8816E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	3.76E-04	0.00E+00
104	ALL	257344.12	4069108.86	5.4894E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	4.22E-04	0.00E+00
105	ALL	257365.94	4069117.04	6.2022E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	4.77E-04	0.00E+00
106	ALL	257387.75	4069125.22	7.0106E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	5.39E-04	0.00E+00
107	ALL	257409.56	4069133.39	7.9006E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	6.08E-04	0.00E+00
108	ALL	257431.37	4069141.57	8.8510E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	6.81E-04	0.00E+00
109	ALL	257453.18	4069149.74	9.8298E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	7.56E-04	0.00E+00
110	ALL	257474.99	4069157.92	1.0800E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	8.31E-04	0.00E+00
111	ALL	257496.80	4069166.10	1.1709E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	9.01E-04	0.00E+00
112	ALL	257518.61	4069174.27	1.2507E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	9.62E-04	0.00E+00
113	ALL	257540.42	4069182.45	1.3183E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.01E-03	0.00E+00
114	ALL	257562.23	4069190.62	1.3689E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.05E-03	0.00E+00
115	ALL	257593.43	4069220.12	1.5167E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.17E-03	0.00E+00
116	ALL	257602.82	4069241.43	1.6163E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.24E-03	0.00E+00
117	ALL	257612.20	4069262.75	1.6942E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.30E-03	0.00E+00
118	ALL	257621.59	4069284.07	1.7431E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.34E-03	0.00E+00
119	ALL	257630.98	4069305.39	1.7578E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.35E-03	0.00E+00
120	ALL	257640.36	4069326.71	1.7371E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.34E-03	0.00E+00
121	ALL	257649.75	4069348.02	1.6838E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.30E-03	0.00E+00
122	ALL	257659.14	4069369.34	1.6018E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.23E-03	0.00E+00
123	ALL	257668.52	4069390.66	1.4951E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.15E-03	0.00E+00
124	ALL	257677.91	4069411.98	1.3742E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.06E-03	0.00E+00
125	ALL	257687.30	4069433.30	1.2454E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	9.58E-04	0.00E+00
126	ALL	257696.68	4069454.61	1.1152E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	8.58E-04	0.00E+00
127	ALL	257706.07	4069475.93	9.9065E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	7.62E-04	0.00E+00
128	ALL	257715.46	4069497.25	8.7437E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	6.73E-04	0.00E+00
129	ALL	257233.36	4069077.10	3.3150E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.55E-04	0.00E+00
130	ALL	257209.84	4069078.05	3.1204E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.40E-04	0.00E+00
131	ALL	257186.32	4069078.99	2.9666E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.28E-04	0.00E+00
132	ALL	257162.81	4069079.93	2.8393E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.18E-04	0.00E+00
133	ALL	257139.29	4069080.87	2.7318E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.10E-04	0.00E+00
134	ALL	257115.77	4069081.82	2.6444E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.03E-04	0.00E+00
135	ALL	257092.25	4069082.76	2.5651E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.97E-04	0.00E+00
136	ALL	257068.73	4069083.70	2.4936E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.92E-04	0.00E+00
137	ALL	257023.53	4069546.99	9.0088E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	6.93E-03	0.00E+00
138	ALL	257055.22	4069612.96	2.8730E-05	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.21E-02	0.00E+00
139	ALL	257004.64	4069530.56	5.5779E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	4.29E-03	0.00E+00
140	ALL	257008.70	4069545.24	7.0778E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	5.45E-03	0.00E+00
141	ALL	257023.37	4069620.41	1.5736E-05	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.21E-02	0.00E+00
142	ALL	257012.98	4069520.80	5.3791E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	4.14E-03	0.00E+00
143	ALL	257003.50	4069489.37	3.3111E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.55E-03	0.00E+00

144	ALL	257004.37	4069467.17	2.5833E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.99E-03	0.00E+00
145	ALL	256962.92	4069549.18	4.2989E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	3.31E-03	0.00E+00
146	ALL	256969.35	4069588.22	6.2813E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	4.83E-03	0.00E+00
147	ALL	256923.40	4069519.10	2.4157E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.86E-03	0.00E+00
148	ALL	256936.66	4069484.93	2.0485E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.58E-03	0.00E+00
149	ALL	256949.92	4069450.76	1.6735E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.29E-03	0.00E+00
150	ALL	256979.86	4069409.00	1.3315E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.02E-03	0.00E+00
151	ALL	257013.22	4069393.83	1.3048E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.00E-03	0.00E+00
152	ALL	257046.58	4069378.65	1.2687E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	9.76E-04	0.00E+00
153	ALL	256921.07	4069566.64	3.2752E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.52E-03	0.00E+00
154	ALL	256917.83	4069599.49	3.8429E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.96E-03	0.00E+00
155	ALL	256854.06	4069518.59	1.5430E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.19E-03	0.00E+00
156	ALL	256854.94	4069479.18	1.2741E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	9.80E-04	0.00E+00
157	ALL	256883.18	4069443.55	1.1883E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	9.14E-04	0.00E+00
158	ALL	256897.74	4069406.04	9.9485E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	7.65E-04	0.00E+00
159	ALL	256930.61	4069360.19	8.1026E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	6.23E-04	0.00E+00
160	ALL	256967.24	4069343.52	7.8756E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	6.06E-04	0.00E+00
161	ALL	257003.88	4069326.86	7.6256E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	5.87E-04	0.00E+00
162	ALL	257040.51	4069310.20	7.3924E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	5.69E-04	0.00E+00
163	ALL	256866.10	4069562.88	2.0802E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.60E-03	0.00E+00
164	ALL	256844.64	4069615.19	2.2660E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.74E-03	0.00E+00
165	ALL	256783.85	4069520.34	1.0760E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	8.28E-04	0.00E+00
166	ALL	256806.91	4069467.01	9.6823E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	7.45E-04	0.00E+00
167	ALL	256823.85	4069467.00	1.0412E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	8.01E-04	0.00E+00
168	ALL	256826.16	4069411.31	8.0887E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	6.22E-04	0.00E+00
169	ALL	256840.26	4069374.96	7.0269E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	5.41E-04	0.00E+00
170	ALL	256854.36	4069338.62	6.0098E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	4.62E-04	0.00E+00
171	ALL	256879.16	4069312.37	5.4878E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	4.22E-04	0.00E+00
172	ALL	256914.65	4069296.23	5.3487E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	4.11E-04	0.00E+00
173	ALL	256950.13	4069280.09	5.1892E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	3.99E-04	0.00E+00
174	ALL	256985.62	4069263.95	5.0266E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	3.87E-04	0.00E+00
175	ALL	257021.11	4069247.80	4.8805E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	3.75E-04	0.00E+00
176	ALL	256777.15	4069559.62	1.2068E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	9.28E-04	0.00E+00
177	ALL	256774.65	4069616.36	1.4615E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.12E-03	0.00E+00
178	ALL	256714.21	4069520.59	7.9175E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	6.09E-04	0.00E+00
179	ALL	256729.03	4069482.40	7.4724E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	5.75E-04	0.00E+00
180	ALL	256743.85	4069444.22	6.9720E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	5.36E-04	0.00E+00
181	ALL	256758.67	4069406.03	6.3774E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	4.91E-04	0.00E+00
182	ALL	256773.49	4069367.84	5.7038E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	4.39E-04	0.00E+00
183	ALL	256788.31	4069329.65	5.0053E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	3.85E-04	0.00E+00
184	ALL	256803.12	4069291.47	4.3389E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	3.34E-04	0.00E+00
185	ALL	256829.18	4069263.89	3.9861E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	3.07E-04	0.00E+00
186	ALL	256866.46	4069246.93	3.8781E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.98E-04	0.00E+00
187	ALL	256903.75	4069229.97	3.7606E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.89E-04	0.00E+00
188	ALL	256941.03	4069213.01	3.6453E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.80E-04	0.00E+00
189	ALL	256978.32	4069196.05	3.5398E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.72E-04	0.00E+00
190	ALL	257015.61	4069179.09	3.4490E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.65E-04	0.00E+00
191	ALL	256707.16	4069560.79	8.6968E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	6.69E-04	0.00E+00
192	ALL	256707.86	4069602.99	9.9478E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	7.65E-04	0.00E+00
193	ALL	256644.04	4069522.23	6.0989E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	4.69E-04	0.00E+00
194	ALL	256658.49	4069484.99	5.8384E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	4.49E-04	0.00E+00
195	ALL	256672.94	4069447.75	5.5613E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	4.28E-04	0.00E+00
196	ALL	256687.39	4069410.51	5.2336E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	4.03E-04	0.00E+00
197	ALL	256701.85	4069373.27	4.8442E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	3.73E-04	0.00E+00
198	ALL	256716.30	4069336.02	4.4037E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	3.39E-04	0.00E+00
199	ALL	256730.75	4069298.78	3.9439E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	3.03E-04	0.00E+00
200	ALL	256745.20	4069261.54	3.4951E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.69E-04	0.00E+00
201	ALL	256777.83	4069216.03	3.0463E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.34E-04	0.00E+00
202	ALL	256814.19	4069199.49	2.9683E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.28E-04	0.00E+00
203	ALL	256850.56	4069182.95	2.8841E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.22E-04	0.00E+00
204	ALL	256886.92	4069166.41	2.8010E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.15E-04	0.00E+00
205	ALL	256923.28	4069149.86	2.7220E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.09E-04	0.00E+00
206	ALL	256959.64	4069133.32	2.6518E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.04E-04	0.00E+00
207	ALL	256996.01	4069116.78	2.5904E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.99E-04	0.00E+00
208	ALL	257032.37	4069100.24	2.5376E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.95E-04	0.00E+00
209	ALL	256637.17	4069561.96	6.5947E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	5.07E-04	0.00E+00
210	ALL	256637.87	4069604.16	7.4122E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	5.70E-04	0.00E+00
211	ALL	257080.92	4069641.99	3.1354E-05	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.41E-02	0.00E+00
212	ALL	257062.41	4069636.94	2.7232E-05	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.10E-02	0.00E+00
213	ALL	257252.86	4069639.53	2.1086E-05	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.62E-02	0.00E+00
214	ALL	257073.76	4069678.20	1.5958E-05	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.23E-02	0.00E+00
215	ALL	257039.81	4069640.31	1.8874E-05	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.45E-02	0.00E+00
216	ALL	257254.29	4069680.69	7.8196E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	6.02E-03	0.00E+00
217	ALL	257072.52	4069710.75	9.9732E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	7.67E-03	0.00E+00
218	ALL	257036.74	4069696.81	1.0374E-05	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	7.98E-03	0.00E+00
219	ALL	257011.92	4069655.49	1.2016E-05	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	9.24E-03	0.00E+00
220	ALL	256964.82	4069623.97	7.0064E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	5.39E-03	0.00E+00
221	ALL	257255.04	4069714.01	4.5900E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	3.53E-03	0.00E+00
222	ALL	257071.71	4069779.80	4.3918E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	3.38E-03	0.00E+00
223	ALL	257031.16	4069764.00	5.0483E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	3.88E-03	0.00E+00
224	ALL	256974.06	4069748.37	4.8795E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	3.75E-03	0.00E+00

225	ALL	256961.64	4069720.34	5.4929E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	4.23E-03	0.00E+00
226	ALL	256944.26	4069680.44	5.6950E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	4.38E-03	0.00E+00
227	ALL	256926.88	4069640.54	4.8690E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	3.75E-03	0.00E+00
228	ALL	257115.51	4069787.18	3.8227E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.94E-03	0.00E+00
229	ALL	257139.03	4069786.65	3.6095E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.78E-03	0.00E+00
230	ALL	257162.55	4069786.12	3.3417E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.57E-03	0.00E+00
231	ALL	257186.07	4069785.59	3.0393E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.34E-03	0.00E+00
232	ALL	257209.58	4069785.06	2.7171E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.09E-03	0.00E+00
233	ALL	257233.10	4069784.53	2.3952E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.84E-03	0.00E+00
234	ALL	257256.62	4069784.00	2.0999E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.62E-03	0.00E+00
235	ALL	256986.22	4069815.85	3.0151E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.32E-03	0.00E+00
236	ALL	256964.75	4069807.49	3.0932E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.38E-03	0.00E+00
237	ALL	256932.86	4069812.35	2.7802E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.14E-03	0.00E+00
238	ALL	256912.61	4069769.63	3.3077E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.54E-03	0.00E+00
239	ALL	256903.41	4069748.50	3.4856E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.68E-03	0.00E+00
240	ALL	256866.60	4069664.01	3.0603E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.35E-03	0.00E+00
241	ALL	256857.40	4069642.88	2.7288E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.10E-03	0.00E+00
242	ALL	257093.57	4069857.69	2.0414E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.57E-03	0.00E+00
243	ALL	257117.09	4069857.16	1.9479E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.50E-03	0.00E+00
244	ALL	257140.60	4069856.63	1.8370E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.41E-03	0.00E+00
245	ALL	257164.12	4069856.10	1.7142E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.32E-03	0.00E+00
246	ALL	257187.64	4069855.57	1.5848E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.22E-03	0.00E+00
247	ALL	257211.16	4069855.04	1.4529E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.12E-03	0.00E+00
248	ALL	257234.68	4069854.51	1.3227E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.02E-03	0.00E+00
249	ALL	257258.20	4069853.98	1.1979E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	9.22E-04	0.00E+00
250	ALL	257281.72	4069853.45	1.0897E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	8.38E-04	0.00E+00
251	ALL	257074.98	4069919.81	1.3145E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.01E-03	0.00E+00
252	ALL	257034.64	4069904.09	1.5505E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.19E-03	0.00E+00
253	ALL	256994.31	4069888.37	1.7730E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.36E-03	0.00E+00
254	ALL	256953.97	4069872.65	1.9479E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.50E-03	0.00E+00
255	ALL	256913.63	4069856.93	2.0427E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.57E-03	0.00E+00
256	ALL	256864.65	4069821.37	2.1845E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.68E-03	0.00E+00
257	ALL	256847.36	4069781.68	2.3926E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.84E-03	0.00E+00
258	ALL	256865.45	4069761.33	2.7671E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.13E-03	0.00E+00
259	ALL	256814.56	4069717.25	2.2608E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.74E-03	0.00E+00
260	ALL	256795.49	4069662.62	1.8937E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.46E-03	0.00E+00
261	ALL	257118.66	4069927.14	1.1457E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	8.81E-04	0.00E+00
262	ALL	257132.64	4069918.09	1.1785E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	9.07E-04	0.00E+00
263	ALL	257156.15	4069917.56	1.1117E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	8.55E-04	0.00E+00
264	ALL	257179.67	4069917.03	1.0421E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	8.02E-04	0.00E+00
265	ALL	257203.19	4069916.50	9.7098E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	7.47E-04	0.00E+00
266	ALL	257226.71	4069915.97	8.9875E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	6.91E-04	0.00E+00
267	ALL	257250.23	4069915.44	8.3269E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	6.41E-04	0.00E+00
268	ALL	257273.75	4069914.91	7.7347E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	5.95E-04	0.00E+00
269	ALL	257075.80	4069989.50	8.4497E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	6.50E-04	0.00E+00
270	ALL	257033.97	4069973.20	9.8918E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	7.61E-04	0.00E+00
271	ALL	256992.13	4069956.89	1.1374E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	8.75E-04	0.00E+00
272	ALL	256950.29	4069940.59	1.2776E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	9.83E-04	0.00E+00
273	ALL	256908.46	4069924.28	1.3826E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.06E-03	0.00E+00
274	ALL	256866.62	4069907.97	1.4410E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.11E-03	0.00E+00
275	ALL	256815.82	4069871.09	1.5477E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.19E-03	0.00E+00
276	ALL	256797.88	4069829.92	1.7086E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.31E-03	0.00E+00
277	ALL	256788.91	4069809.34	1.7561E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.35E-03	0.00E+00
278	ALL	256770.98	4069768.17	1.7586E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.35E-03	0.00E+00
279	ALL	256762.01	4069747.59	1.7106E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.32E-03	0.00E+00
280	ALL	256744.08	4069706.43	1.5335E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.18E-03	0.00E+00
281	ALL	256735.11	4069685.84	1.4186E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.09E-03	0.00E+00
282	ALL	256717.18	4069644.68	1.1761E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	9.05E-04	0.00E+00
283	ALL	257120.24	4069997.12	7.4465E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	5.73E-04	0.00E+00
284	ALL	257143.76	4069996.59	7.0991E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	5.46E-04	0.00E+00
285	ALL	257167.28	4069996.06	6.7385E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	5.18E-04	0.00E+00
286	ALL	257190.80	4069995.53	6.3557E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	4.89E-04	0.00E+00
287	ALL	257214.31	4069995.00	5.9886E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	4.61E-04	0.00E+00
288	ALL	257237.83	4069994.47	5.6421E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	4.34E-04	0.00E+00
289	ALL	257261.35	4069993.94	5.3297E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	4.10E-04	0.00E+00
290	ALL	257284.87	4069993.41	5.0991E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	3.92E-04	0.00E+00
291	ALL	257076.83	4070059.27	5.8342E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	4.49E-04	0.00E+00
292	ALL	257055.36	4070050.90	6.2805E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	4.83E-04	0.00E+00
293	ALL	257033.89	4070042.53	6.7480E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	5.19E-04	0.00E+00
294	ALL	257012.42	4070034.17	7.2328E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	5.56E-04	0.00E+00
295	ALL	256990.95	4070025.80	7.7292E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	5.95E-04	0.00E+00
296	ALL	256969.48	4070017.43	8.2425E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	6.34E-04	0.00E+00
297	ALL	256948.02	4070009.07	8.7391E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	6.72E-04	0.00E+00
298	ALL	256926.55	4070000.70	9.2019E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	7.08E-04	0.00E+00
299	ALL	256905.08	4069992.33	9.6243E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	7.40E-04	0.00E+00
300	ALL	256883.61	4069983.96	9.9929E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	7.69E-04	0.00E+00
301	ALL	256862.14	4069975.60	1.0297E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	7.92E-04	0.00E+00
302	ALL	256840.67	4069967.23	1.0532E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	8.10E-04	0.00E+00
303	ALL	256819.20	4069958.86	1.0694E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	8.23E-04	0.00E+00
304	ALL	256797.73	4069950.50	1.0780E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	8.29E-04	0.00E+00
305	ALL	256767.06	4069921.00	1.1511E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	8.86E-04	0.00E+00

306	ALL	256757.86	4069899.88	1.2177E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	9.37E-04	0.00E+00
307	ALL	256748.66	4069878.76	1.2752E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	9.81E-04	0.00E+00
308	ALL	256739.45	4069857.63	1.3197E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.02E-03	0.00E+00
309	ALL	256730.25	4069836.51	1.3474E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.04E-03	0.00E+00
310	ALL	256721.05	4069815.38	1.3553E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.04E-03	0.00E+00
311	ALL	256711.85	4069794.26	1.3419E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.03E-03	0.00E+00
312	ALL	256702.64	4069773.14	1.3076E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.01E-03	0.00E+00
313	ALL	256693.44	4069752.01	1.2548E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	9.65E-04	0.00E+00
314	ALL	256684.24	4069730.89	1.1873E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	9.13E-04	0.00E+00
315	ALL	256675.03	4069709.76	1.1095E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	8.54E-04	0.00E+00
316	ALL	256665.83	4069688.64	1.0262E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	7.89E-04	0.00E+00
317	ALL	256656.63	4069667.51	9.4191E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	7.25E-04	0.00E+00
318	ALL	256647.43	4069646.39	8.6031E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	6.62E-04	0.00E+00
319	ALL	257098.30	4070067.64	5.4110E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	4.16E-04	0.00E+00
320	ALL	257121.82	4070067.11	5.2021E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	4.00E-04	0.00E+00
321	ALL	257145.34	4070066.58	4.9835E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	3.83E-04	0.00E+00
322	ALL	257168.85	4070066.05	4.7591E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	3.66E-04	0.00E+00
323	ALL	257192.37	4070065.52	4.5222E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	3.48E-04	0.00E+00
324	ALL	257215.89	4070064.99	4.2983E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	3.31E-04	0.00E+00
325	ALL	257239.41	4070064.46	4.0908E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	3.15E-04	0.00E+00
326	ALL	257262.93	4070063.93	3.9120E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	3.01E-04	0.00E+00
327	ALL	257286.45	4070063.40	3.8088E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.93E-04	0.00E+00
328	ALL	257321.89	4069602.63	1.4125E-05	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.09E-02	0.00E+00
329	ALL	257323.57	4069562.53	2.5334E-05	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.95E-02	0.00E+00
330	ALL	257322.11	4069631.61	7.5958E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	5.84E-03	0.00E+00
331	ALL	257345.68	4069585.06	1.1967E-05	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	9.21E-03	0.00E+00
332	ALL	257328.28	4069524.85	2.6334E-05	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.03E-02	0.00E+00
333	ALL	257321.81	4069674.24	3.9196E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	3.02E-03	0.00E+00
334	ALL	257375.94	4069589.98	6.8486E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	5.27E-03	0.00E+00
335	ALL	257375.24	4069546.12	1.0989E-05	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	8.45E-03	0.00E+00
336	ALL	257406.73	4069711.28	1.3607E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.05E-03	0.00E+00
337	ALL	257379.04	4069740.06	1.3153E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.01E-03	0.00E+00
338	ALL	257339.48	4069757.42	1.5133E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.16E-03	0.00E+00
339	ALL	257464.34	4069577.61	2.9039E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.23E-03	0.00E+00
340	ALL	257445.23	4069544.99	4.5427E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	3.49E-03	0.00E+00
341	ALL	257519.66	4069618.14	1.3766E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.06E-03	0.00E+00
342	ALL	257521.22	4069645.55	1.1135E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	8.57E-04	0.00E+00
343	ALL	257479.05	4069704.24	9.3294E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	7.18E-04	0.00E+00
344	ALL	257464.15	4069742.07	7.9283E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	6.10E-04	0.00E+00
345	ALL	257430.64	4069788.08	7.3052E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	5.62E-04	0.00E+00
346	ALL	257393.41	4069804.42	8.1345E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	6.26E-04	0.00E+00
347	ALL	257515.93	4069587.72	1.7699E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.36E-03	0.00E+00
348	ALL	257515.22	4069543.87	2.4098E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.85E-03	0.00E+00
349	ALL	257578.40	4069628.52	9.0685E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	6.98E-04	0.00E+00
350	ALL	257571.20	4069671.71	7.1761E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	5.52E-04	0.00E+00
351	ALL	257530.88	4069706.48	7.0510E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	5.42E-04	0.00E+00
352	ALL	257531.18	4069748.47	5.5734E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	4.29E-04	0.00E+00
353	ALL	257515.44	4069788.46	4.9131E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	3.78E-04	0.00E+00
354	ALL	257480.03	4069837.08	4.6421E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	3.57E-04	0.00E+00
355	ALL	257440.68	4069854.35	5.1165E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	3.94E-04	0.00E+00
356	ALL	257401.34	4069871.62	5.6459E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	4.34E-04	0.00E+00
357	ALL	257361.99	4069888.89	6.1808E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	4.76E-04	0.00E+00
358	ALL	257322.64	4069906.16	6.7516E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	5.19E-04	0.00E+00
359	ALL	257560.65	4069589.41	1.2950E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	9.96E-04	0.00E+00
360	ALL	257567.16	4069542.34	1.6582E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.28E-03	0.00E+00
361	ALL	257648.68	4069626.66	6.4640E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	4.97E-04	0.00E+00
362	ALL	257633.52	4069665.17	5.6006E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	4.31E-04	0.00E+00
363	ALL	257618.36	4069703.68	4.8633E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	3.74E-04	0.00E+00
364	ALL	257603.20	4069742.19	4.2733E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	3.29E-04	0.00E+00
365	ALL	257588.04	4069780.70	3.8138E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.93E-04	0.00E+00
366	ALL	257557.73	4069857.72	3.1794E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.45E-04	0.00E+00
367	ALL	257531.20	4069885.29	3.1836E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.45E-04	0.00E+00
368	ALL	257493.30	4069901.93	3.4634E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.66E-04	0.00E+00
369	ALL	257455.41	4069918.56	3.7668E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.90E-04	0.00E+00
370	ALL	257417.51	4069935.19	4.0842E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	3.14E-04	0.00E+00
371	ALL	257379.61	4069951.83	4.3824E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	3.37E-04	0.00E+00
372	ALL	257341.72	4069968.46	4.6896E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	3.61E-04	0.00E+00
373	ALL	257655.91	4069585.47	7.8414E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	6.03E-04	0.00E+00
374	ALL	257655.20	4069541.62	9.8270E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	7.56E-04	0.00E+00
375	ALL	257718.40	4069626.23	4.8348E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	3.72E-04	0.00E+00
376	ALL	257702.69	4069666.13	4.2322E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	3.26E-04	0.00E+00
377	ALL	257686.98	4069706.04	3.7199E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.86E-04	0.00E+00
378	ALL	257671.28	4069745.94	3.3013E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.54E-04	0.00E+00
379	ALL	257655.57	4069785.84	2.9615E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.28E-04	0.00E+00
380	ALL	257624.15	4069865.65	2.4898E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.92E-04	0.00E+00
381	ALL	257608.44	4069905.56	2.3198E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.78E-04	0.00E+00
382	ALL	257580.96	4069934.13	2.3299E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.79E-04	0.00E+00
383	ALL	257541.69	4069951.36	2.5179E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.94E-04	0.00E+00
384	ALL	257502.42	4069968.60	2.7251E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.10E-04	0.00E+00
385	ALL	257463.15	4069985.83	2.9357E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.26E-04	0.00E+00
386	ALL	257423.89	4070003.07	3.1427E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.42E-04	0.00E+00

387	ALL	257384.62	4070020.31	3.3325E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.56E-04	0.00E+00
388	ALL	257345.35	4070037.54	3.5301E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.72E-04	0.00E+00
389	ALL	257725.90	4069584.35	5.7390E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	4.42E-04	0.00E+00
390	ALL	257725.19	4069540.49	6.9988E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	5.38E-04	0.00E+00
391	ALL	257332.31	4069626.78	7.1716E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	5.52E-03	0.00E+00
392	ALL	257332.31	4069576.00	1.7862E-05	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.37E-02	0.00E+00
393	ALL	257328.56	4069509.56	2.4811E-05	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.91E-02	0.00E+00
394	ALL	257380.93	4069470.37	1.1038E-05	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	8.49E-03	0.00E+00
395	ALL	257420.33	4069441.82	7.1549E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	5.50E-03	0.00E+00
396	ALL	257420.57	4069455.36	7.4237E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	5.71E-03	0.00E+00
397	ALL	257323.57	4069398.98	7.1538E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	5.50E-03	0.00E+00
398	ALL	257343.76	4069398.98	7.1729E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	5.52E-03	0.00E+00
399	ALL	257411.22	4069397.01	5.9597E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	4.58E-03	0.00E+00
400	ALL	257433.37	4069395.53	5.3681E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	4.13E-03	0.00E+00
401	ALL	257212.78	4069402.92	4.7351E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	3.64E-03	0.00E+00
402	ALL	257029.63	4069485.02	3.7777E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.91E-03	0.00E+00
403	ALL	257157.54	4069453.75	7.4373E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	5.72E-03	0.00E+00
404	ALL	257190.63	4069449.84	9.4071E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	7.24E-03	0.00E+00
405	ALL	257213.75	4069467.81	1.6182E-05	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.24E-02	0.00E+00
406	ALL	257227.27	4069478.48	2.1720E-05	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.67E-02	0.00E+00
407	ALL	257355.05	4069313.11	2.9337E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.26E-03	0.00E+00
408	ALL	257355.33	4069288.48	2.3132E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.78E-03	0.00E+00
409	ALL	257352.73	4069270.81	1.9458E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.50E-03	0.00E+00
410	ALL	257321.15	4069315.13	2.7074E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.08E-03	0.00E+00
411	ALL	257322.31	4069290.80	2.1178E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.63E-03	0.00E+00
412	ALL	257317.68	4069263.57	1.6000E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.23E-03	0.00E+00
413	ALL	257403.91	4069315.34	3.1861E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.45E-03	0.00E+00
414	ALL	257430.32	4069311.57	3.0802E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.37E-03	0.00E+00
415	ALL	257425.61	4069280.91	2.4360E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.87E-03	0.00E+00
416	ALL	257449.19	4069311.10	3.0223E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.33E-03	0.00E+00
417	ALL	257465.23	4069312.98	2.9923E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.30E-03	0.00E+00
418	ALL	257473.25	4069283.27	2.4556E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.89E-03	0.00E+00
419	ALL	257490.23	4069279.02	2.3507E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.81E-03	0.00E+00
420	ALL	257515.23	4069313.46	2.6738E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.06E-03	0.00E+00
421	ALL	257515.23	4069281.38	2.2917E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.76E-03	0.00E+00
422	ALL	257578.90	4069278.55	1.9526E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.50E-03	0.00E+00
423	ALL	257579.85	4069310.62	2.1475E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.65E-03	0.00E+00
424	ALL	257533.15	4069317.70	2.5775E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.98E-03	0.00E+00
425	ALL	257492.59	4069357.79	3.4885E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.68E-03	0.00E+00
426	ALL	257506.27	4069391.75	3.6243E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.79E-03	0.00E+00
427	ALL	256966.23	4069611.72	6.8424E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	5.26E-03	0.00E+00
428	ALL	256968.20	4069652.35	7.4620E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	5.74E-03	0.00E+00
429	ALL	256971.64	4069676.97	7.2930E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	5.61E-03	0.00E+00
430	ALL	256971.40	4069695.93	6.6898E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	5.15E-03	0.00E+00
431	ALL	256919.20	4069626.50	4.3593E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	3.35E-03	0.00E+00
432	ALL	256960.56	4069569.12	4.9370E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	3.80E-03	0.00E+00
433	ALL	256905.90	4069649.15	4.0888E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	3.15E-03	0.00E+00
434	ALL	256908.11	4069675.74	4.2552E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	3.27E-03	0.00E+00
435	ALL	256911.81	4069698.89	4.2713E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	3.29E-03	0.00E+00
436	ALL	256862.25	4069715.82	3.0004E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.31E-03	0.00E+00
437	ALL	256861.00	4069698.91	3.0107E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.32E-03	0.00E+00
438	ALL	256836.98	4069715.64	2.5762E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.98E-03	0.00E+00
439	ALL	256833.43	4069694.47	2.5176E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.94E-03	0.00E+00
440	ALL	256809.41	4069661.73	2.0599E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.58E-03	0.00E+00
441	ALL	256847.84	4069658.88	2.6465E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.04E-03	0.00E+00
442	ALL	256846.59	4069681.30	2.7155E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.09E-03	0.00E+00
443	ALL	257025.49	4069719.96	7.7148E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	5.94E-03	0.00E+00
444	ALL	257058.04	4069774.82	4.6342E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	3.57E-03	0.00E+00
445	ALL	256904.05	4069806.10	2.6551E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.04E-03	0.00E+00
446	ALL	256955.78	4069773.22	3.8318E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.95E-03	0.00E+00
447	ALL	256869.01	4069614.56	2.7081E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.08E-03	0.00E+00
448	ALL	256830.10	4069566.29	1.6695E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.28E-03	0.00E+00
449	ALL	256808.18	4069563.58	1.4499E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.12E-03	0.00E+00
450	ALL	256813.59	4069616.78	1.8497E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.42E-03	0.00E+00
451	ALL	256783.80	4069582.30	1.3622E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.05E-03	0.00E+00
452	ALL	256788.47	4069611.12	1.5539E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.20E-03	0.00E+00
453	ALL	256733.56	4069616.29	1.1732E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	9.03E-04	0.00E+00
454	ALL	256753.26	4069620.23	1.3161E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.01E-03	0.00E+00
455	ALL	256739.47	4069573.93	1.0521E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	8.09E-04	0.00E+00
456	ALL	256828.37	4069515.56	1.3214E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.02E-03	0.00E+00
457	ALL	256804.24	4069518.52	1.1810E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	9.09E-04	0.00E+00
458	ALL	256766.06	4069514.82	9.7066E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	7.47E-04	0.00E+00
459	ALL	256743.65	4069510.88	8.6804E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	6.68E-04	0.00E+00
460	ALL	256729.62	4069519.25	8.4036E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	6.47E-04	0.00E+00
461	ALL	256960.28	4069523.08	3.3299E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.56E-03	0.00E+00
462	ALL	256964.32	4069488.28	2.5043E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.93E-03	0.00E+00
463	ALL	256906.04	4069532.69	2.3321E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.79E-03	0.00E+00
464	ALL	256903.82	4069547.68	2.5190E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.94E-03	0.00E+00
465	ALL	256908.26	4069581.54	3.1984E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.46E-03	0.00E+00
466	ALL	256904.37	4069507.16	1.9604E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.51E-03	0.00E+00
467	ALL	256918.80	4069489.95	1.9104E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.47E-03	0.00E+00

468	ALL	256852.80	4069460.61	1.1468E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	8.82E-04	0.00E+00
469	ALL	256784.38	4069476.65	9.1505E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	7.04E-04	0.00E+00
470	ALL	256752.76	4069469.10	7.8408E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	6.03E-04	0.00E+00
471	ALL	256711.24	4069470.99	6.7567E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	5.20E-04	0.00E+00
472	ALL	256689.54	4069471.46	6.2663E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	4.82E-04	0.00E+00
473	ALL	256673.02	4069518.65	6.7091E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	5.16E-04	0.00E+00
474	ALL	257119.69	4069872.42	1.7076E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.31E-03	0.00E+00
475	ALL	257173.22	4069880.60	1.3731E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.06E-03	0.00E+00
476	ALL	257218.56	4069891.17	1.0863E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	8.36E-04	0.00E+00
477	ALL	257270.04	4069964.13	6.0276E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	4.64E-04	0.00E+00
478	ALL	257166.40	4069965.15	8.0260E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	6.17E-04	0.00E+00
479	ALL	257117.64	4069964.81	9.0279E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	6.95E-04	0.00E+00
480	ALL	257120.03	4069983.22	8.0579E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	6.20E-04	0.00E+00
481	ALL	257180.03	4069964.81	7.7488E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	5.96E-04	0.00E+00
482	ALL	257207.65	4069966.52	7.0946E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	5.46E-04	0.00E+00
483	ALL	257224.70	4069964.47	6.8320E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	5.26E-04	0.00E+00
484	ALL	257246.52	4069965.50	6.3810E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	4.91E-04	0.00E+00
485	ALL	257323.55	4069688.41	3.2470E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.50E-03	0.00E+00
486	ALL	257330.69	4069701.47	2.6396E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.03E-03	0.00E+00
487	ALL	257330.20	4069715.51	2.3061E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.77E-03	0.00E+00
488	ALL	257470.86	4069697.03	1.0266E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	7.90E-04	0.00E+00
489	ALL	257465.69	4069726.35	8.6572E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	6.66E-04	0.00E+00
490	ALL	257449.43	4069739.40	8.7123E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	6.70E-04	0.00E+00
491	ALL	257363.98	4069767.96	1.1971E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	9.21E-04	0.00E+00
492	ALL	257256.48	4069759.94	2.6473E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.04E-03	0.00E+00
493	ALL	257265.30	4069768.77	2.2894E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.76E-03	0.00E+00
494	ALL	257154.59	4069755.93	4.9167E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	3.78E-03	0.00E+00
495	ALL	257379.62	4069765.96	1.1012E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	8.47E-04	0.00E+00
496	ALL	257399.28	4069767.16	9.7259E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	7.48E-04	0.00E+00
497	ALL	257416.12	4069758.34	9.3201E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	7.17E-04	0.00E+00
498	ALL	257434.18	4069755.13	8.6092E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	6.62E-04	0.00E+00
499	ALL	257483.51	4069749.51	6.9031E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	5.31E-04	0.00E+00
500	ALL	257471.88	4069769.17	6.5707E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	5.06E-04	0.00E+00
501	ALL	257509.99	4069754.73	5.9326E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	4.56E-04	0.00E+00
502	ALL	257520.42	4069674.10	9.1670E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	7.05E-04	0.00E+00
503	ALL	257565.98	4069500.70	2.0654E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.59E-03	0.00E+00
504	ALL	257520.25	4069563.28	2.0393E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.57E-03	0.00E+00
505	ALL	257570.83	4069651.41	8.1608E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	6.28E-04	0.00E+00
506	ALL	257570.11	4069616.88	1.0225E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	7.87E-04	0.00E+00
507	ALL	257621.02	4069588.40	9.2137E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	7.09E-04	0.00E+00
508	ALL	257624.94	4069646.25	6.4630E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	4.97E-04	0.00E+00
509	ALL	257620.31	4069682.38	5.3995E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	4.15E-04	0.00E+00
510	ALL	257563.49	4069561.37	1.5191E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.17E-03	0.00E+00
511	ALL	257522.40	4069469.75	3.1858E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.45E-03	0.00E+00

HARP2 - HRACalc (dated 22118) 5/14/2023 11:38:40 PM - Output Log

GLCs loaded successfully
Pollutants loaded successfully
Pathway receptors loaded successfully
****
RISK SCENARIO SETTINGS

Receptor Type: Resident
Scenario: All
Calculation Method: HighEnd

****
EXPOSURE DURATION PARAMETERS FOR CANCER

Start Age: -0.25
Total Exposure Duration: 1.5

Exposure Duration Bin Distribution
3rd Trimester Bin: 0.25
0<2 Years Bin: 1.5
2<9 Years Bin: 0
2<16 Years Bin: 0
16<30 Years Bin: 0
16 to 70 Years Bin: 0

****
PATHWAYS ENABLED

NOTE: Inhalation is always enabled and used for all assessments. The remaining pathways are only used for cancer and noncancer chronic assessments.

Inhalation: True
Soil: True
Dermal: True
Mother's milk: True
Water: False
Fish: False
Homegrown crops: True
Beef: False
Dairy: False
Pig: False
Chicken: False
Egg: False

****
INHALATION

Daily breathing rate: LongTerm24HR

Worker Adjustment Factors
Worker adjustment factors enabled: NO

Fraction at time at home
3rd Trimester to 16 years: OFF
16 years to 70 years: OFF

****
SOIL & DERMAL PATHWAY SETTINGS

Deposition rate (m/s): 0.02
Soil mixing depth (m): 0.01
Dermal climate: Mixed

****
HOMEGROWN CROP PATHWAY SETTINGS

Household type: HouseholdsthatGarden
Fraction leafy: 0.137
Fraction exposed: 0.137
Fraction protected: 0.137
Fraction root: 0.137

****
TIER 2 SETTINGS

Tier2 adjustments were used in this assessment. Please see the input file for details.
Tier2 - What was changed: ED or start age changed|
Calculating cancer risk
Cancer risk breakdown by pollutant and receptor saved to: F:\Move\0014-028\HARP (Unmit)\TRACT 6432 UNMITIGATED CONSTRUCTION\hra\Unmit ConCancerRisk.csv
Cancer risk total by receptor saved to: F:\Move\0014-028\HARP (Unmit)\TRACT 6432 UNMITIGATED CONSTRUCTION\hra\Unmit ConCancerRiskSumByRec.csv
Calculating chronic risk
Chronic risk breakdown by pollutant and receptor saved to: F:\Move\0014-028\HARP (Unmit)\TRACT 6432 UNMITIGATED CONSTRUCTION\hra\Unmit ConNCChronicRisk.csv
Chronic risk total by receptor saved to: F:\Move\0014-028\HARP (Unmit)\TRACT 6432 UNMITIGATED CONSTRUCTION\hra\Unmit ConNCChronicRiskSumByRec.csv
Calculating acute risk
Acute risk breakdown by pollutant and receptor saved to: F:\Move\0014-028\HARP (Unmit)\TRACT 6432 UNMITIGATED CONSTRUCTION\hra\Unmit ConNCAcuteRisk.csv
Acute risk total by receptor saved to: F:\Move\0014-028\HARP (Unmit)\TRACT 6432 UNMITIGATED CONSTRUCTION\hra\Unmit ConNCAcuteRiskSumByRec.csv
HRA ran successfully

Health Risk Assessment

Mitigated Construction

Tract No. 6432 Project (Mitigated Construction)

Estimation of Annual Onsite Construction Emissions - Tier 4 Mitigated Scenario

Start of Construction	6/1/2023	
End of Construction	7/24/2024	**Total**
Number of Days	419	419
Number of Hours	10,056	10,056

Size of the construction area source: **16,230.1** **sq-meters**

Year	**On-site Construction Activity**	**Tier 4 Mitigated On-site DPM (tons)**
2023	On-site Site Preparation	0.00031
2023	On-site Grading	0.00048
2023	On-site Building Construction 2023	0.00567
2024	On-site Building Construction 2024	0.00461
2024	On-site Paving	0.00037
2024	On-site Architectural Coating	0.00004

Total Mitigated DPM (On-site) 1.148E-02 tons

Factor in AERMOD to Account for 5 days per week/8 hours per day: 4.2

Average Emission for AREA1	1.042E+04	grams
	2.879E-04	grams/sec
	1.774E-08	grams/m2-sec

Tons/Construction Period	1.148E-02
Pounds/Construction Period	2.296E+01
Pounds/Day	5.480E-02
Pounds/Hour	2.283E-03
Pounds/Year	2.000E+01
Years	1.14795

Tract No. 6432 Project (Mitigated Construction)

Estimation of Annual Offsite Construction DPM Emissions (No Change Compared to Unmitigated Scenario)

Start of Construction		6/1/2023		
End of Construction		7/24/2024		**Total**
Number of Days		419		419
Number of Hours		10,056		10,056

Construction Trip Type	2023 Site Preparation	2023 Grading	2023 Building Construction
Haul Truck	0.00001	0.00038	0.00001
Vendor Truck	0.00000	0.00000	0.00021
Worker	0.00000	0.00001	0.00008
Total	0.00001	0.00039	0.00030

	2024 Building Construction	2024 Paving	2024 Architectural Coating
Haul Truck	0.00001	0.00001	0.00000
Vendor Truck	0.00018	0.00001	0.00000
Worker	0.00007	0.00001	0.00000
Total	0.00026	0.00003	0.00000

	Haul Truck (tons)	**Vendor Truck (tons)**	**Worker (tons)**	**Total (tons)**	
Total DPM	4.200E-04	4.000E-04	1.700E-04	9.900E-04	
Average Emissions					
Grams	3.814E+02	3.632E+02	1.544E+02		
Grams/sec	1.053E-05	1.003E-05	4.264E-06		
Default Distance	20	7.3	10.8	Default Vehicle Travel Distance in CalEEMod	
Vehicle Travel Distances in the Construction HRA (miles)					
Road Segment 1 (mi)	0.73	0.73	0.73	miles	
Trip Distribution (percent)					
Off-site Road Segment 1	100.0%	100.0%	100.0%	off-site	

Total Average Offsite Vehicle Emissions Along Travel Distance (g/sec)				**Total**		
Road Segment 1	3.837E-07	1.001E-06	2.876E-07	1.672E-06	Off1	
	Grams/sec	Pounds/Hour	Pounds/Day	Pounds/year	Tons/year	Max Pounds/Hour
Road Segment 1	1.672E-06	1.327E-05	3.185E-04	1.335E-01	6.673E-05	3.982E-05

Health Risk Summary - Mitigated Construction - Tier 4 Scenario (Summary of HARP2 Results)

Tract No. 6432 Project (Mitigated Construction)

	RISK_SUM	Cancer Risk/million	MAXHI NonCancer Chronic	MAXHI Acute
Maximum Risk	3.7832E-06	3.78	2.9105E-03	0.00E+00

	X	Y
MEI UTM Receptor # 211	257080.92	4069641.99

*HARP - HRACalc v22118 5/15/2023 5:36:19 AM - Cancer Risk - Input File: F:\Move\0014-028\HARP (Mit)\TRACT 6432 - T4 MITIGATED\hra\T4 MitigatedHRAInput.hra
*HARP - HRACalc v22118 5/15/2023 5:36:19 AM - Chronic Risk - Input File: F:\Move\0014-028\HARP (Mit)\TRACT 6432 - T4 MITIGATED\hra\T4 MitigatedHRAInput.hra
*HARP - HRACalc v22118 5/15/2023 5:36:19 AM - Acute Risk - Input File: F:\Move\0014-028\HARP (Mit)\TRACT 6432 - T4 MITIGATED\hra\T4 MitigatedHRAInput.hra

REC	GRP	X	Y	RISK_SUM	SCENARIO	MAXHI NonCancerChronic	MAXHI Acute
1	ALL	257218.74	4069474.22	2.310E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.78E-03	0.00E+00
2	ALL	257319.28	4069454.74	1.792E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.38E-03	0.00E+00
3	ALL	257225.19	4069461.07	1.792E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.38E-03	0.00E+00
4	ALL	257201.67	4069462.01	1.606E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.24E-03	0.00E+00
5	ALL	257175.67	4069445.88	9.174E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	7.06E-04	0.00E+00
6	ALL	257154.64	4069463.90	1.098E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	8.45E-04	0.00E+00
7	ALL	257131.12	4069464.84	8.329E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	6.41E-04	0.00E+00
8	ALL	257107.60	4069465.78	6.312E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	4.86E-04	0.00E+00
9	ALL	257352.65	4069464.50	1.647E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.27E-03	0.00E+00
10	ALL	257354.26	4069511.84	2.056E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.58E-03	0.00E+00
11	ALL	257249.34	4069401.37	7.168E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	5.51E-04	0.00E+00
12	ALL	257225.82	4069402.31	6.267E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	4.82E-04	0.00E+00
13	ALL	257202.30	4069403.25	5.348E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	4.11E-04	0.00E+00
14	ALL	257178.78	4069404.19	4.464E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	3.43E-04	0.00E+00
15	ALL	257155.26	4069405.14	3.692E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.84E-04	0.00E+00
16	ALL	257131.74	4069406.08	3.089E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.38E-04	0.00E+00
17	ALL	257108.22	4069407.02	2.662E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.05E-04	0.00E+00
18	ALL	257084.70	4069407.96	2.370E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.82E-04	0.00E+00
19	ALL	257323.23	4069370.41	6.199E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	4.77E-04	0.00E+00
20	ALL	257369.12	4069398.73	8.379E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	6.45E-04	0.00E+00
21	ALL	257389.47	4069397.29	7.828E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	6.02E-04	0.00E+00
22	ALL	257420.74	4069467.59	9.161E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	7.05E-04	0.00E+00
23	ALL	257436.01	4069502.93	7.584E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	5.83E-04	0.00E+00
24	ALL	257244.57	4069356.88	3.783E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.91E-04	0.00E+00
25	ALL	257221.06	4069357.82	3.249E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.50E-04	0.00E+00
26	ALL	257197.54	4069358.76	2.778E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.14E-04	0.00E+00
27	ALL	257174.02	4069359.71	2.377E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.83E-04	0.00E+00
28	ALL	257150.50	4069360.65	2.056E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.58E-04	0.00E+00
29	ALL	257126.98	4069361.59	1.816E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.40E-04	0.00E+00
30	ALL	257103.46	4069362.53	1.639E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.26E-04	0.00E+00
31	ALL	257079.94	4069363.48	1.508E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.16E-04	0.00E+00
32	ALL	257320.21	4069337.39	4.240E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	3.26E-04	0.00E+00
33	ALL	257324.64	4069347.60	4.797E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	3.69E-04	0.00E+00
34	ALL	257353.69	4069333.18	4.365E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	3.36E-04	0.00E+00
35	ALL	257364.50	4069358.16	5.667E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	4.36E-04	0.00E+00
36	ALL	257392.97	4069363.14	5.841E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	4.49E-04	0.00E+00
37	ALL	257417.10	4069362.92	5.577E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	4.29E-04	0.00E+00
38	ALL	257439.89	4069364.90	5.309E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	4.08E-04	0.00E+00
39	ALL	257458.55	4069394.04	5.702E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	4.39E-04	0.00E+00
40	ALL	257484.92	4069394.60	4.967E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	3.82E-04	0.00E+00
41	ALL	257477.32	4069436.67	5.625E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	4.33E-04	0.00E+00
42	ALL	257486.71	4069457.99	5.214E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	4.01E-04	0.00E+00
43	ALL	257496.10	4069479.31	4.636E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	3.57E-04	0.00E+00
44	ALL	257505.48	4069500.62	3.981E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	3.06E-04	0.00E+00
45	ALL	257255.50	4069314.71	2.556E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.97E-04	0.00E+00
46	ALL	257231.98	4069315.66	2.177E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.67E-04	0.00E+00
47	ALL	257208.46	4069316.60	1.884E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.45E-04	0.00E+00
48	ALL	257184.94	4069317.54	1.646E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.27E-04	0.00E+00
49	ALL	257161.42	4069318.48	1.458E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.12E-04	0.00E+00
50	ALL	257137.91	4069319.43	1.314E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.01E-04	0.00E+00
51	ALL	257114.39	4069320.37	1.203E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	9.26E-05	0.00E+00
52	ALL	257100.66	4069292.59	9.382E-08	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	7.22E-05	0.00E+00
53	ALL	257077.14	4069293.53	8.835E-08	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	6.80E-05	0.00E+00
54	ALL	257323.95	4069239.09	1.667E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.28E-04	0.00E+00
55	ALL	257365.80	4069241.42	1.925E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.48E-04	0.00E+00
56	ALL	257402.43	4069284.29	2.987E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.30E-04	0.00E+00
57	ALL	257446.89	4069285.17	3.062E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.36E-04	0.00E+00

58	ALL	257490.55	4069312.54	3.435E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.64E-04	0.00E+00
59	ALL	257514.32	4069360.61	3.889E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.99E-04	0.00E+00
60	ALL	257531.95	4069400.66	3.830E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.95E-04	0.00E+00
61	ALL	257549.59	4069440.71	3.367E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.59E-04	0.00E+00
62	ALL	257567.22	4069480.77	2.683E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.06E-04	0.00E+00
63	ALL	257238.97	4069216.99	1.031E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	7.93E-05	0.00E+00
64	ALL	257215.45	4069217.93	8.972E-08	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	6.90E-05	0.00E+00
65	ALL	257191.93	4069218.88	8.061E-08	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	6.20E-05	0.00E+00
66	ALL	257168.41	4069219.82	7.376E-08	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	5.67E-05	0.00E+00
67	ALL	257144.89	4069220.76	6.844E-08	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	5.27E-05	0.00E+00
68	ALL	257121.37	4069221.70	6.423E-08	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	4.94E-05	0.00E+00
69	ALL	257097.86	4069222.65	6.084E-08	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	4.68E-05	0.00E+00
70	ALL	257074.34	4069223.59	5.804E-08	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	4.47E-05	0.00E+00
71	ALL	257302.19	4069162.04	9.345E-08	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	7.19E-05	0.00E+00
72	ALL	257323.44	4069170.00	9.948E-08	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	7.65E-05	0.00E+00
73	ALL	257344.69	4069177.97	1.106E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	8.51E-05	0.00E+00
74	ALL	257365.94	4069185.94	1.245E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	9.58E-05	0.00E+00
75	ALL	257387.19	4069193.90	1.403E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.08E-04	0.00E+00
76	ALL	257408.45	4069201.87	1.571E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.21E-04	0.00E+00
77	ALL	257429.70	4069209.83	1.742E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.34E-04	0.00E+00
78	ALL	257450.95	4069217.80	1.902E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.46E-04	0.00E+00
79	ALL	257472.20	4069225.77	2.043E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.57E-04	0.00E+00
80	ALL	257493.45	4069233.73	2.161E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.66E-04	0.00E+00
81	ALL	257514.70	4069241.70	2.245E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.73E-04	0.00E+00
82	ALL	257531.89	4069277.51	2.637E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.03E-04	0.00E+00
83	ALL	257556.13	4069281.30	2.537E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.95E-04	0.00E+00
84	ALL	257563.39	4069311.98	2.765E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.13E-04	0.00E+00
85	ALL	257572.54	4069332.75	2.820E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.17E-04	0.00E+00
86	ALL	257581.68	4069353.52	2.807E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.16E-04	0.00E+00
87	ALL	257590.83	4069374.29	2.730E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.10E-04	0.00E+00
88	ALL	257599.98	4069395.06	2.593E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.00E-04	0.00E+00
89	ALL	257609.12	4069415.84	2.409E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.85E-04	0.00E+00
90	ALL	257618.27	4069436.61	2.195E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.69E-04	0.00E+00
91	ALL	257627.41	4069457.38	1.964E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.51E-04	0.00E+00
92	ALL	257636.56	4069478.15	1.737E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.34E-04	0.00E+00
93	ALL	257645.71	4069498.92	1.521E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.17E-04	0.00E+00
94	ALL	257236.17	4069147.05	6.844E-08	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	5.27E-05	0.00E+00
95	ALL	257212.65	4069147.99	5.926E-08	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	4.56E-05	0.00E+00
96	ALL	257189.13	4069148.93	5.373E-08	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	4.13E-05	0.00E+00
97	ALL	257165.61	4069149.87	4.983E-08	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	3.83E-05	0.00E+00
98	ALL	257142.09	4069150.82	4.689E-08	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	3.61E-05	0.00E+00
99	ALL	257118.57	4069151.76	4.455E-08	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	3.43E-05	0.00E+00
100	ALL	257095.05	4069152.70	4.265E-08	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	3.28E-05	0.00E+00
101	ALL	257071.53	4069153.64	4.108E-08	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	3.16E-05	0.00E+00
102	ALL	257300.50	4069092.51	6.340E-08	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	4.88E-05	0.00E+00
103	ALL	257322.31	4069100.69	6.515E-08	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	5.01E-05	0.00E+00
104	ALL	257344.12	4069108.86	7.060E-08	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	5.43E-05	0.00E+00
105	ALL	257365.94	4069117.04	7.814E-08	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	6.01E-05	0.00E+00
106	ALL	257387.75	4069125.22	8.722E-08	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	6.71E-05	0.00E+00
107	ALL	257409.56	4069133.39	9.750E-08	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	7.50E-05	0.00E+00
108	ALL	257431.37	4069141.57	1.086E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	8.36E-05	0.00E+00
109	ALL	257453.18	4069149.74	1.202E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	9.25E-05	0.00E+00
110	ALL	257474.99	4069157.92	1.317E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.01E-04	0.00E+00
111	ALL	257496.80	4069166.10	1.425E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.10E-04	0.00E+00
112	ALL	257518.61	4069174.27	1.520E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.17E-04	0.00E+00
113	ALL	257540.42	4069182.45	1.600E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.23E-04	0.00E+00
114	ALL	257562.23	4069190.62	1.661E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.28E-04	0.00E+00
115	ALL	257593.43	4069220.12	1.838E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.41E-04	0.00E+00
116	ALL	257602.82	4069241.43	1.958E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.51E-04	0.00E+00
117	ALL	257612.20	4069262.75	2.052E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.58E-04	0.00E+00
118	ALL	257621.59	4069284.07	2.110E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.62E-04	0.00E+00
119	ALL	257630.98	4069305.39	2.128E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.64E-04	0.00E+00
120	ALL	257640.36	4069326.71	2.103E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.62E-04	0.00E+00
121	ALL	257649.75	4069348.02	2.038E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.57E-04	0.00E+00
122	ALL	257659.14	4069369.34	1.939E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.49E-04	0.00E+00
123	ALL	257668.52	4069390.66	1.810E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.39E-04	0.00E+00
124	ALL	257677.91	4069411.98	1.664E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.28E-04	0.00E+00
125	ALL	257687.30	4069433.30	1.509E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.16E-04	0.00E+00
126	ALL	257696.68	4069454.61	1.351E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.04E-04	0.00E+00
127	ALL	257706.07	4069475.93	1.201E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	9.24E-05	0.00E+00
128	ALL	257715.46	4069497.25	1.061E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	8.16E-05	0.00E+00
129	ALL	257233.36	4069077.10	4.498E-08	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	3.46E-05	0.00E+00
130	ALL	257209.84	4069078.05	4.023E-08	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	3.09E-05	0.00E+00
131	ALL	257186.32	4069078.99	3.745E-08	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.88E-05	0.00E+00
132	ALL	257162.81	4069079.93	3.545E-08	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.73E-05	0.00E+00
133	ALL	257139.29	4069080.87	3.388E-08	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.61E-05	0.00E+00

134	ALL	257115.77	4069081.82	3.265E-08	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.51E-05	0.00E+00
135	ALL	257092.25	4069082.76	3.157E-08	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.43E-05	0.00E+00
136	ALL	257068.73	4069083.70	3.061E-08	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.35E-05	0.00E+00
137	ALL	257023.53	4069546.99	1.088E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	8.37E-04	0.00E+00
138	ALL	257055.22	4069612.96	3.466E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.67E-03	0.00E+00
139	ALL	257004.64	4069530.56	6.737E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	5.18E-04	0.00E+00
140	ALL	257008.70	4069545.24	8.546E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	6.57E-04	0.00E+00
141	ALL	257023.37	4069620.41	1.899E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.46E-03	0.00E+00
142	ALL	257012.98	4069520.80	6.498E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	5.00E-04	0.00E+00
143	ALL	257003.50	4069489.37	4.003E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	3.08E-04	0.00E+00
144	ALL	257004.37	4069467.17	3.125E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.40E-04	0.00E+00
145	ALL	256962.92	4069549.18	5.193E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	3.99E-04	0.00E+00
146	ALL	256969.35	4069588.22	7.584E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	5.83E-04	0.00E+00
147	ALL	256923.40	4069519.10	2.920E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.25E-04	0.00E+00
148	ALL	256936.66	4069484.93	2.477E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.91E-04	0.00E+00
149	ALL	256949.92	4069450.76	2.025E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.56E-04	0.00E+00
150	ALL	256979.86	4069409.00	1.614E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.24E-04	0.00E+00
151	ALL	257013.22	4069393.83	1.583E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.22E-04	0.00E+00
152	ALL	257046.58	4069378.65	1.541E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.19E-04	0.00E+00
153	ALL	256921.07	4069566.64	3.957E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	3.04E-04	0.00E+00
154	ALL	256917.83	4069599.49	4.641E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	3.57E-04	0.00E+00
155	ALL	256854.06	4069518.59	1.866E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.44E-04	0.00E+00
156	ALL	256854.94	4069479.18	1.541E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.19E-04	0.00E+00
157	ALL	256883.18	4069443.55	1.438E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.11E-04	0.00E+00
158	ALL	256897.74	4069406.04	1.205E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	9.27E-05	0.00E+00
159	ALL	256930.61	4069360.19	9.830E-08	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	7.56E-05	0.00E+00
160	ALL	256967.24	4069343.52	9.566E-08	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	7.36E-05	0.00E+00
161	ALL	257003.88	4069326.86	9.278E-08	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	7.14E-05	0.00E+00
162	ALL	257040.51	4069310.20	9.014E-08	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	6.94E-05	0.00E+00
163	ALL	256866.10	4069562.88	2.514E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.93E-04	0.00E+00
164	ALL	256844.64	4069615.19	2.738E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.11E-04	0.00E+00
165	ALL	256783.85	4069520.34	1.302E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.00E-04	0.00E+00
166	ALL	256806.91	4069467.01	1.172E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	9.01E-05	0.00E+00
167	ALL	256823.85	4069467.00	1.260E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	9.69E-05	0.00E+00
168	ALL	256826.16	4069411.31	9.796E-08	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	7.54E-05	0.00E+00
169	ALL	256840.26	4069374.96	8.515E-08	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	6.55E-05	0.00E+00
170	ALL	256854.36	4069338.62	7.288E-08	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	5.61E-05	0.00E+00
171	ALL	256879.16	4069312.37	6.661E-08	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	5.12E-05	0.00E+00
172	ALL	256914.65	4069296.23	6.499E-08	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	5.00E-05	0.00E+00
173	ALL	256950.13	4069280.09	6.314E-08	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	4.86E-05	0.00E+00
174	ALL	256985.62	4069263.95	6.127E-08	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	4.71E-05	0.00E+00
175	ALL	257021.11	4069247.80	5.963E-08	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	4.59E-05	0.00E+00
176	ALL	256777.15	4069559.62	1.459E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.12E-04	0.00E+00
177	ALL	256774.65	4069616.36	1.767E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.36E-04	0.00E+00
178	ALL	256714.21	4069520.59	9.580E-08	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	7.37E-05	0.00E+00
179	ALL	256729.03	4069482.40	9.044E-08	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	6.96E-05	0.00E+00
180	ALL	256743.85	4069444.22	8.440E-08	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	6.49E-05	0.00E+00
181	ALL	256758.67	4069406.03	7.723E-08	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	5.94E-05	0.00E+00
182	ALL	256773.49	4069367.84	6.910E-08	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	5.32E-05	0.00E+00
183	ALL	256788.31	4069329.65	6.067E-08	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	4.67E-05	0.00E+00
184	ALL	256803.12	4069291.47	5.263E-08	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	4.05E-05	0.00E+00
185	ALL	256829.18	4069263.89	4.838E-08	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	3.72E-05	0.00E+00
186	ALL	256866.46	4069246.93	4.712E-08	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	3.62E-05	0.00E+00
187	ALL	256903.75	4069229.97	4.574E-08	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	3.52E-05	0.00E+00
188	ALL	256941.03	4069213.01	4.440E-08	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	3.42E-05	0.00E+00
189	ALL	256978.32	4069196.05	4.320E-08	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	3.32E-05	0.00E+00
190	ALL	257015.61	4069179.09	4.220E-08	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	3.25E-05	0.00E+00
191	ALL	256707.16	4069560.79	1.052E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	8.09E-05	0.00E+00
192	ALL	256707.86	4069602.99	1.203E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	9.26E-05	0.00E+00
193	ALL	256644.04	4069522.23	7.381E-08	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	5.68E-05	0.00E+00
194	ALL	256658.49	4069484.99	7.067E-08	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	5.44E-05	0.00E+00
195	ALL	256672.94	4069447.75	6.733E-08	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	5.18E-05	0.00E+00
196	ALL	256687.39	4069410.51	6.337E-08	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	4.88E-05	0.00E+00
197	ALL	256701.85	4069373.27	5.867E-08	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	4.51E-05	0.00E+00
198	ALL	256716.30	4069336.02	5.336E-08	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	4.10E-05	0.00E+00
199	ALL	256730.75	4069298.78	4.780E-08	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	3.68E-05	0.00E+00
200	ALL	256745.20	4069261.54	4.238E-08	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	3.26E-05	0.00E+00
201	ALL	256777.83	4069216.03	3.697E-08	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.84E-05	0.00E+00
202	ALL	256814.19	4069199.49	3.605E-08	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.77E-05	0.00E+00
203	ALL	256850.56	4069182.95	3.506E-08	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.70E-05	0.00E+00
204	ALL	256886.92	4069166.41	3.408E-08	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.62E-05	0.00E+00
205	ALL	256923.28	4069149.86	3.316E-08	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.55E-05	0.00E+00
206	ALL	256959.64	4069133.32	3.235E-08	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.49E-05	0.00E+00
207	ALL	256996.01	4069116.78	3.165E-08	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.44E-05	0.00E+00
208	ALL	257032.37	4069100.24	3.107E-08	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.39E-05	0.00E+00
209	ALL	256637.17	4069561.96	7.980E-08	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	6.14E-05	0.00E+00

210	ALL	256637.87	4069604.16	8.967E-08	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	6.90E-05	0.00E+00
211	ALL	257080.92	4069641.99	3.783E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.91E-03	0.00E+00
212	ALL	257062.41	4069636.94	3.286E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.53E-03	0.00E+00
213	ALL	257252.86	4069639.53	2.554E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.96E-03	0.00E+00
214	ALL	257073.76	4069678.20	1.926E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.48E-03	0.00E+00
215	ALL	257039.81	4069640.31	2.278E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.75E-03	0.00E+00
216	ALL	257254.29	4069680.69	9.540E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	7.34E-04	0.00E+00
217	ALL	257072.52	4069710.75	1.204E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	9.26E-04	0.00E+00
218	ALL	257036.74	4069696.81	1.252E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	9.63E-04	0.00E+00
219	ALL	257011.92	4069655.49	1.450E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.12E-03	0.00E+00
220	ALL	256964.82	4069623.97	8.459E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	6.51E-04	0.00E+00
221	ALL	257255.04	4069714.01	5.643E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	4.34E-04	0.00E+00
222	ALL	257071.71	4069779.80	5.310E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	4.09E-04	0.00E+00
223	ALL	257031.16	4069764.00	6.099E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	4.69E-04	0.00E+00
224	ALL	256974.06	4069748.37	5.893E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	4.53E-04	0.00E+00
225	ALL	256961.64	4069720.34	6.633E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	5.10E-04	0.00E+00
226	ALL	256944.26	4069680.44	6.876E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	5.29E-04	0.00E+00
227	ALL	256926.88	4069640.54	5.879E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	4.52E-04	0.00E+00
228	ALL	257115.51	4069787.18	4.628E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	3.56E-04	0.00E+00
229	ALL	257139.03	4069786.65	4.374E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	3.37E-04	0.00E+00
230	ALL	257162.55	4069786.12	4.056E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	3.12E-04	0.00E+00
231	ALL	257186.07	4069785.59	3.698E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.84E-04	0.00E+00
232	ALL	257209.58	4069785.06	3.320E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.55E-04	0.00E+00
233	ALL	257233.10	4069784.53	2.951E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.27E-04	0.00E+00
234	ALL	257256.62	4069784.00	2.637E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.03E-04	0.00E+00
235	ALL	256986.22	4069815.85	3.645E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.80E-04	0.00E+00
236	ALL	256964.75	4069807.49	3.739E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.88E-04	0.00E+00
237	ALL	256932.86	4069812.35	3.360E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.59E-04	0.00E+00
238	ALL	256912.61	4069769.63	3.996E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	3.07E-04	0.00E+00
239	ALL	256903.41	4069748.50	4.210E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	3.24E-04	0.00E+00
240	ALL	256866.60	4069664.01	3.697E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.84E-04	0.00E+00
241	ALL	256857.40	4069642.88	3.296E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.54E-04	0.00E+00
242	ALL	257093.57	4069857.69	2.477E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.91E-04	0.00E+00
243	ALL	257117.09	4069857.16	2.367E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.82E-04	0.00E+00
244	ALL	257140.60	4069856.63	2.236E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.72E-04	0.00E+00
245	ALL	257164.12	4069856.10	2.092E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.61E-04	0.00E+00
246	ALL	257187.64	4069855.57	1.943E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.49E-04	0.00E+00
247	ALL	257211.16	4069855.04	1.794E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.38E-04	0.00E+00
248	ALL	257234.68	4069854.51	1.656E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.27E-04	0.00E+00
249	ALL	257258.20	4069853.98	1.546E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.19E-04	0.00E+00
250	ALL	257281.72	4069853.45	1.531E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.18E-04	0.00E+00
251	ALL	257074.98	4069919.81	1.598E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.23E-04	0.00E+00
252	ALL	257034.64	4069904.09	1.880E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.45E-04	0.00E+00
253	ALL	256994.31	4069888.37	2.147E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.65E-04	0.00E+00
254	ALL	256953.97	4069872.65	2.357E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.81E-04	0.00E+00
255	ALL	256913.63	4069856.93	2.470E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.90E-04	0.00E+00
256	ALL	256864.65	4069821.37	2.640E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.03E-04	0.00E+00
257	ALL	256847.36	4069781.68	2.891E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.22E-04	0.00E+00
258	ALL	256865.45	4069761.33	3.343E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.57E-04	0.00E+00
259	ALL	256814.56	4069717.25	2.731E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.10E-04	0.00E+00
260	ALL	256795.49	4069662.62	2.288E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.76E-04	0.00E+00
261	ALL	257118.66	4069927.14	1.399E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.08E-04	0.00E+00
262	ALL	257132.64	4069918.09	1.440E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.11E-04	0.00E+00
263	ALL	257156.15	4069917.56	1.363E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.05E-04	0.00E+00
264	ALL	257179.67	4069917.03	1.285E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	9.89E-05	0.00E+00
265	ALL	257203.19	4069916.50	1.208E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	9.29E-05	0.00E+00
266	ALL	257226.71	4069915.97	1.135E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	8.73E-05	0.00E+00
267	ALL	257250.23	4069915.44	1.083E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	8.33E-05	0.00E+00
268	ALL	257273.75	4069914.91	1.082E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	8.33E-05	0.00E+00
269	ALL	257075.80	4069989.50	1.032E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	7.94E-05	0.00E+00
270	ALL	257033.97	4069973.20	1.203E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	9.26E-05	0.00E+00
271	ALL	256992.13	4069956.89	1.380E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.06E-04	0.00E+00
272	ALL	256950.29	4069940.59	1.548E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.19E-04	0.00E+00
273	ALL	256908.46	4069924.28	1.674E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.29E-04	0.00E+00
274	ALL	256866.62	4069907.97	1.743E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.34E-04	0.00E+00
275	ALL	256815.82	4069871.09	1.871E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.44E-04	0.00E+00
276	ALL	256797.88	4069829.92	2.065E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.59E-04	0.00E+00
277	ALL	256788.91	4069809.34	2.122E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.63E-04	0.00E+00
278	ALL	256770.98	4069768.17	2.125E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.63E-04	0.00E+00
279	ALL	256762.01	4069747.59	2.067E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.59E-04	0.00E+00
280	ALL	256744.08	4069706.43	1.853E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.43E-04	0.00E+00
281	ALL	256735.11	4069685.84	1.715E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.32E-04	0.00E+00
282	ALL	256717.18	4069644.68	1.422E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.09E-04	0.00E+00
283	ALL	257120.24	4069997.12	9.145E-08	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	7.04E-05	0.00E+00
284	ALL	257143.76	4069996.59	8.757E-08	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	6.74E-05	0.00E+00
285	ALL	257167.28	4069996.06	8.366E-08	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	6.44E-05	0.00E+00

286	ALL	257190.80	4069995.53	7.966E-08	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	6.13E-05	0.00E+00
287	ALL	257214.31	4069995.00	7.623E-08	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	5.86E-05	0.00E+00
288	ALL	257237.83	4069994.47	7.381E-08	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	5.68E-05	0.00E+00
289	ALL	257261.35	4069993.94	7.381E-08	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	5.68E-05	0.00E+00
290	ALL	257284.87	4069993.41	8.141E-08	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	6.26E-05	0.00E+00
291	ALL	257076.83	4070059.27	7.156E-08	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	5.51E-05	0.00E+00
292	ALL	257055.36	4070050.90	7.681E-08	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	5.91E-05	0.00E+00
293	ALL	257033.89	4070042.53	8.235E-08	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	6.34E-05	0.00E+00
294	ALL	257012.42	4070034.17	8.811E-08	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	6.78E-05	0.00E+00
295	ALL	256990.95	4070025.80	9.402E-08	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	7.23E-05	0.00E+00
296	ALL	256969.48	4070017.43	1.002E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	7.70E-05	0.00E+00
297	ALL	256948.02	4070009.07	1.061E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	8.16E-05	0.00E+00
298	ALL	256926.55	4070000.70	1.116E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	8.59E-05	0.00E+00
299	ALL	256905.08	4069992.33	1.167E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	8.98E-05	0.00E+00
300	ALL	256883.61	4069983.96	1.211E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	9.31E-05	0.00E+00
301	ALL	256862.14	4069975.60	1.247E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	9.59E-05	0.00E+00
302	ALL	256840.67	4069967.23	1.275E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	9.81E-05	0.00E+00
303	ALL	256819.20	4069958.86	1.294E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	9.96E-05	0.00E+00
304	ALL	256797.73	4069950.50	1.305E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.00E-04	0.00E+00
305	ALL	256767.06	4069921.00	1.392E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.07E-04	0.00E+00
306	ALL	256757.86	4069899.88	1.473E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.13E-04	0.00E+00
307	ALL	256748.66	4069878.76	1.542E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.19E-04	0.00E+00
308	ALL	256739.45	4069857.63	1.595E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.23E-04	0.00E+00
309	ALL	256730.25	4069836.51	1.629E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.25E-04	0.00E+00
310	ALL	256721.05	4069815.38	1.638E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.26E-04	0.00E+00
311	ALL	256711.85	4069794.26	1.622E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.25E-04	0.00E+00
312	ALL	256702.64	4069773.14	1.581E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.22E-04	0.00E+00
313	ALL	256693.44	4069752.01	1.517E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.17E-04	0.00E+00
314	ALL	256684.24	4069730.89	1.435E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.10E-04	0.00E+00
315	ALL	256675.03	4069709.76	1.341E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.03E-04	0.00E+00
316	ALL	256665.83	4069688.64	1.241E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	9.55E-05	0.00E+00
317	ALL	256656.63	4069667.51	1.139E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	8.76E-05	0.00E+00
318	ALL	256647.43	4069646.39	1.040E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	8.00E-05	0.00E+00
319	ALL	257098.30	4070067.64	6.661E-08	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	5.12E-05	0.00E+00
320	ALL	257121.82	4070067.11	6.432E-08	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	4.95E-05	0.00E+00
321	ALL	257145.34	4070066.58	6.198E-08	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	4.77E-05	0.00E+00
322	ALL	257168.85	4070066.05	5.970E-08	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	4.59E-05	0.00E+00
323	ALL	257192.37	4070065.52	5.744E-08	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	4.42E-05	0.00E+00
324	ALL	257215.89	4070064.99	5.571E-08	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	4.29E-05	0.00E+00
325	ALL	257239.41	4070064.46	5.491E-08	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	4.22E-05	0.00E+00
326	ALL	257262.93	4070063.93	5.637E-08	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	4.34E-05	0.00E+00
327	ALL	257286.45	4070063.40	6.498E-08	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	5.00E-05	0.00E+00
328	ALL	257321.89	4069602.63	1.715E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.32E-03	0.00E+00
329	ALL	257323.57	4069562.53	3.066E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.36E-03	0.00E+00
330	ALL	257322.11	4069631.61	9.280E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	7.14E-04	0.00E+00
331	ALL	257345.68	4069585.06	1.450E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.12E-03	0.00E+00
332	ALL	257328.28	4069524.85	3.185E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.45E-03	0.00E+00
333	ALL	257321.81	4069674.24	4.852E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	3.73E-04	0.00E+00
334	ALL	257375.94	4069589.98	8.304E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	6.39E-04	0.00E+00
335	ALL	257375.24	4069546.12	1.330E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.02E-03	0.00E+00
336	ALL	257406.73	4069711.28	1.673E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.29E-04	0.00E+00
337	ALL	257379.04	4069740.06	1.631E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.25E-04	0.00E+00
338	ALL	257339.48	4069757.42	1.912E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.47E-04	0.00E+00
339	ALL	257464.34	4069577.61	3.522E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.71E-04	0.00E+00
340	ALL	257445.23	4069544.99	5.501E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	4.23E-04	0.00E+00
341	ALL	257519.66	4069618.14	1.674E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.29E-04	0.00E+00
342	ALL	257521.22	4069645.55	1.357E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.04E-04	0.00E+00
343	ALL	257479.05	4069704.24	1.143E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	8.79E-05	0.00E+00
344	ALL	257464.15	4069742.07	9.762E-08	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	7.51E-05	0.00E+00
345	ALL	257430.64	4069788.08	9.074E-08	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	6.98E-05	0.00E+00
346	ALL	257393.41	4069804.42	1.019E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	7.84E-05	0.00E+00
347	ALL	257515.93	4069587.72	2.149E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.65E-04	0.00E+00
348	ALL	257515.22	4069543.87	2.921E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.25E-04	0.00E+00
349	ALL	257578.40	4069628.52	1.104E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	8.49E-05	0.00E+00
350	ALL	257571.20	4069671.71	8.762E-08	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	6.74E-05	0.00E+00
351	ALL	257530.88	4069706.48	8.636E-08	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	6.64E-05	0.00E+00
352	ALL	257531.18	4069748.47	6.854E-08	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	5.27E-05	0.00E+00
353	ALL	257515.44	4069788.46	6.070E-08	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	4.67E-05	0.00E+00
354	ALL	257480.03	4069837.08	5.780E-08	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	4.45E-05	0.00E+00
355	ALL	257440.68	4069854.35	6.415E-08	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	4.94E-05	0.00E+00
356	ALL	257401.34	4069871.62	7.168E-08	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	5.51E-05	0.00E+00
357	ALL	257361.99	4069888.89	8.071E-08	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	6.21E-05	0.00E+00
358	ALL	257322.64	4069906.16	9.716E-08	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	7.47E-05	0.00E+00
359	ALL	257560.65	4069589.41	1.573E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.21E-04	0.00E+00
360	ALL	257567.16	4069542.34	2.011E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.55E-04	0.00E+00
361	ALL	257648.68	4069626.66	7.873E-08	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	6.06E-05	0.00E+00

362	ALL	257633.52	4069665.17	6.836E-08	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	5.26E-05	0.00E+00
363	ALL	257618.36	4069703.68	5.952E-08	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	4.58E-05	0.00E+00
364	ALL	257603.20	4069742.19	5.246E-08	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	4.04E-05	0.00E+00
365	ALL	257588.04	4069780.70	4.698E-08	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	3.61E-05	0.00E+00
366	ALL	257557.73	4069857.72	3.948E-08	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	3.04E-05	0.00E+00
367	ALL	257531.20	4069885.29	3.970E-08	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	3.05E-05	0.00E+00
368	ALL	257493.30	4069901.93	4.342E-08	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	3.34E-05	0.00E+00
369	ALL	257455.41	4069918.56	4.761E-08	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	3.66E-05	0.00E+00
370	ALL	257417.51	4069935.19	5.233E-08	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	4.03E-05	0.00E+00
371	ALL	257379.61	4069951.83	5.769E-08	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	4.44E-05	0.00E+00
372	ALL	257341.72	4069968.46	6.635E-08	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	5.10E-05	0.00E+00
373	ALL	257655.91	4069585.47	9.533E-08	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	7.33E-05	0.00E+00
374	ALL	257655.20	4069541.62	1.193E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	9.18E-05	0.00E+00
375	ALL	257718.40	4069626.23	5.891E-08	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	4.53E-05	0.00E+00
376	ALL	257702.69	4069666.13	5.167E-08	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	3.98E-05	0.00E+00
377	ALL	257686.98	4069706.04	4.552E-08	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	3.50E-05	0.00E+00
378	ALL	257671.28	4069745.94	4.051E-08	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	3.12E-05	0.00E+00
379	ALL	257655.57	4069785.84	3.645E-08	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.80E-05	0.00E+00
380	ALL	257624.15	4069865.65	3.083E-08	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.37E-05	0.00E+00
381	ALL	257608.44	4069905.56	2.882E-08	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.22E-05	0.00E+00
382	ALL	257580.96	4069934.13	2.905E-08	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.23E-05	0.00E+00
383	ALL	257541.69	4069951.36	3.155E-08	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.43E-05	0.00E+00
384	ALL	257502.42	4069968.60	3.437E-08	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.64E-05	0.00E+00
385	ALL	257463.15	4069985.83	3.742E-08	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.88E-05	0.00E+00
386	ALL	257423.89	4070003.07	4.078E-08	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	3.14E-05	0.00E+00
387	ALL	257384.62	4070020.31	4.479E-08	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	3.45E-05	0.00E+00
388	ALL	257345.35	4070037.54	5.203E-08	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	4.00E-05	0.00E+00
389	ALL	257725.90	4069584.35	6.981E-08	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	5.37E-05	0.00E+00
390	ALL	257725.19	4069540.49	8.500E-08	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	6.54E-05	0.00E+00
391	ALL	257332.31	4069626.78	8.741E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	6.72E-04	0.00E+00
392	ALL	257332.31	4069576.00	2.163E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.66E-03	0.00E+00
393	ALL	257328.56	4069509.56	3.002E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.31E-03	0.00E+00
394	ALL	257380.93	4069470.37	1.335E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.03E-03	0.00E+00
395	ALL	257420.33	4069441.82	8.656E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	6.66E-04	0.00E+00
396	ALL	257420.57	4069455.36	8.980E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	6.91E-04	0.00E+00
397	ALL	257323.57	4069398.98	8.720E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	6.71E-04	0.00E+00
398	ALL	257343.76	4069398.98	8.713E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	6.70E-04	0.00E+00
399	ALL	257411.22	4069397.01	7.215E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	5.55E-04	0.00E+00
400	ALL	257433.37	4069395.53	6.497E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	5.00E-04	0.00E+00
401	ALL	257212.78	4069402.92	5.765E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	4.44E-04	0.00E+00
402	ALL	257029.63	4069485.02	4.567E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	3.51E-04	0.00E+00
403	ALL	257157.54	4069453.75	8.997E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	6.92E-04	0.00E+00
404	ALL	257190.63	4069449.84	1.138E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	8.76E-04	0.00E+00
405	ALL	257213.75	4069467.81	1.957E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.51E-03	0.00E+00
406	ALL	257227.27	4069478.48	2.627E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.02E-03	0.00E+00
407	ALL	257355.05	4069313.11	3.587E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.76E-04	0.00E+00
408	ALL	257355.33	4069288.48	2.838E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.18E-04	0.00E+00
409	ALL	257352.73	4069270.81	2.396E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.84E-04	0.00E+00
410	ALL	257321.15	4069315.13	3.355E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.58E-04	0.00E+00
411	ALL	257322.31	4069290.80	2.640E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.03E-04	0.00E+00
412	ALL	257317.68	4069263.57	2.022E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.56E-04	0.00E+00
413	ALL	257403.91	4069315.34	3.871E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.98E-04	0.00E+00
414	ALL	257430.32	4069311.57	3.737E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.88E-04	0.00E+00
415	ALL	257425.61	4069280.91	2.961E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.28E-04	0.00E+00
416	ALL	257449.19	4069311.10	3.665E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.82E-04	0.00E+00
417	ALL	257465.23	4069312.98	3.626E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.79E-04	0.00E+00
418	ALL	257473.25	4069283.27	2.978E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.29E-04	0.00E+00
419	ALL	257490.23	4069279.02	2.850E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.19E-04	0.00E+00
420	ALL	257515.23	4069313.46	3.238E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.49E-04	0.00E+00
421	ALL	257515.23	4069281.38	2.777E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.14E-04	0.00E+00
422	ALL	257578.90	4069278.55	2.365E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.82E-04	0.00E+00
423	ALL	257579.85	4069310.62	2.600E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.00E-04	0.00E+00
424	ALL	257533.15	4069317.70	3.121E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.40E-04	0.00E+00
425	ALL	257492.59	4069357.79	4.223E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	3.25E-04	0.00E+00
426	ALL	257506.27	4069391.75	4.386E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	3.37E-04	0.00E+00
427	ALL	256966.23	4069611.72	8.261E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	6.36E-04	0.00E+00
428	ALL	256968.20	4069652.35	9.008E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	6.93E-04	0.00E+00
429	ALL	256971.64	4069676.97	8.804E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	6.77E-04	0.00E+00
430	ALL	256971.40	4069695.93	8.077E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	6.21E-04	0.00E+00
431	ALL	256919.20	4069626.50	5.264E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	4.05E-04	0.00E+00
432	ALL	256960.56	4069569.12	5.962E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	4.59E-04	0.00E+00
433	ALL	256905.90	4069649.15	4.938E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	3.80E-04	0.00E+00
434	ALL	256908.11	4069675.74	5.139E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	3.95E-04	0.00E+00
435	ALL	256911.81	4069698.89	5.158E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	3.97E-04	0.00E+00
436	ALL	256862.25	4069715.82	3.624E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.79E-04	0.00E+00
437	ALL	256861.00	4069698.91	3.637E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.80E-04	0.00E+00

438	ALL	256836.98	4069715.64	3.112E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.39E-04	0.00E+00
439	ALL	256833.43	4069694.47	3.041E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.34E-04	0.00E+00
440	ALL	256809.41	4069661.73	2.489E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.91E-04	0.00E+00
441	ALL	256847.84	4069658.88	3.197E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.46E-04	0.00E+00
442	ALL	256846.59	4069681.30	3.280E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.52E-04	0.00E+00
443	ALL	257025.49	4069719.96	9.315E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	7.17E-04	0.00E+00
444	ALL	257058.04	4069774.82	5.602E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	4.31E-04	0.00E+00
445	ALL	256904.05	4069806.10	3.209E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.47E-04	0.00E+00
446	ALL	256955.78	4069773.22	4.629E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	3.56E-04	0.00E+00
447	ALL	256869.01	4069614.56	3.272E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.52E-04	0.00E+00
448	ALL	256830.10	4069566.29	2.018E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.55E-04	0.00E+00
449	ALL	256808.18	4069563.58	1.753E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.35E-04	0.00E+00
450	ALL	256813.59	4069616.78	2.235E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.72E-04	0.00E+00
451	ALL	256783.80	4069582.30	1.647E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.27E-04	0.00E+00
452	ALL	256788.47	4069611.12	1.878E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.45E-04	0.00E+00
453	ALL	256733.56	4069616.29	1.419E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.09E-04	0.00E+00
454	ALL	256753.26	4069620.23	1.591E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.22E-04	0.00E+00
455	ALL	256739.47	4069573.93	1.272E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	9.79E-05	0.00E+00
456	ALL	256828.37	4069515.56	1.598E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.23E-04	0.00E+00
457	ALL	256804.24	4069518.52	1.429E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.10E-04	0.00E+00
458	ALL	256766.06	4069514.82	1.174E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	9.03E-05	0.00E+00
459	ALL	256743.65	4069510.88	1.050E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	8.08E-05	0.00E+00
460	ALL	256729.62	4069519.25	1.017E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	7.82E-05	0.00E+00
461	ALL	256960.28	4069523.08	4.024E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	3.10E-04	0.00E+00
462	ALL	256964.32	4069488.28	3.028E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.33E-04	0.00E+00
463	ALL	256906.04	4069532.69	2.819E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.17E-04	0.00E+00
464	ALL	256903.82	4069547.68	3.044E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.34E-04	0.00E+00
465	ALL	256908.26	4069581.54	3.864E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.97E-04	0.00E+00
466	ALL	256904.37	4069507.16	2.370E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.82E-04	0.00E+00
467	ALL	256918.80	4069489.95	2.310E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.78E-04	0.00E+00
468	ALL	256852.80	4069460.61	1.388E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.07E-04	0.00E+00
469	ALL	256784.38	4069476.65	1.107E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	8.52E-05	0.00E+00
470	ALL	256752.76	4069469.10	9.490E-08	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	7.30E-05	0.00E+00
471	ALL	256711.24	4069470.99	8.178E-08	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	6.29E-05	0.00E+00
472	ALL	256689.54	4069471.46	7.585E-08	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	5.84E-05	0.00E+00
473	ALL	256673.02	4069518.65	8.119E-08	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	6.25E-05	0.00E+00
474	ALL	257119.69	4069872.42	2.077E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.60E-04	0.00E+00
475	ALL	257173.22	4069880.60	1.683E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.29E-04	0.00E+00
476	ALL	257218.56	4069891.17	1.356E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.04E-04	0.00E+00
477	ALL	257270.04	4069964.13	8.522E-08	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	6.56E-05	0.00E+00
478	ALL	257166.40	4069965.15	9.921E-08	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	7.63E-05	0.00E+00
479	ALL	257117.64	4069964.81	1.105E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	8.50E-05	0.00E+00
480	ALL	257120.03	4069983.22	9.883E-08	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	7.60E-05	0.00E+00
481	ALL	257180.03	4069964.81	9.620E-08	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	7.40E-05	0.00E+00
482	ALL	257207.65	4069966.52	8.930E-08	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	6.87E-05	0.00E+00
483	ALL	257224.70	4069964.47	8.714E-08	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	6.70E-05	0.00E+00
484	ALL	257246.52	4069965.50	8.393E-08	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	6.46E-05	0.00E+00
485	ALL	257323.55	4069688.41	4.037E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	3.11E-04	0.00E+00
486	ALL	257330.69	4069701.47	3.285E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.53E-04	0.00E+00
487	ALL	257330.20	4069715.51	2.885E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.22E-04	0.00E+00
488	ALL	257470.86	4069697.03	1.257E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	9.67E-05	0.00E+00
489	ALL	257465.69	4069726.35	1.064E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	8.18E-05	0.00E+00
490	ALL	257449.43	4069739.40	1.073E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	8.26E-05	0.00E+00
491	ALL	257363.98	4069767.96	1.500E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.15E-04	0.00E+00
492	ALL	257256.48	4069759.94	3.299E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.54E-04	0.00E+00
493	ALL	257265.30	4069768.77	2.897E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.23E-04	0.00E+00
494	ALL	257154.59	4069755.93	5.954E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	4.58E-04	0.00E+00
495	ALL	257379.62	4069765.96	1.373E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.06E-04	0.00E+00
496	ALL	257399.28	4069767.16	1.208E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	9.30E-05	0.00E+00
497	ALL	257416.12	4069758.34	1.154E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	8.88E-05	0.00E+00
498	ALL	257434.18	4069755.13	1.064E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	8.18E-05	0.00E+00
499	ALL	257483.51	4069749.51	8.501E-08	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	6.54E-05	0.00E+00
500	ALL	257471.88	4069769.17	8.115E-08	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	6.24E-05	0.00E+00
501	ALL	257509.99	4069754.73	7.304E-08	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	5.62E-05	0.00E+00
502	ALL	257520.42	4069674.10	1.120E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	8.61E-05	0.00E+00
503	ALL	257565.98	4069500.70	2.502E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.92E-04	0.00E+00
504	ALL	257520.25	4069563.28	2.473E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.90E-04	0.00E+00
505	ALL	257570.83	4069651.41	9.950E-08	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	7.65E-05	0.00E+00
506	ALL	257570.11	4069616.88	1.244E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	9.57E-05	0.00E+00
507	ALL	257621.02	4069588.40	1.120E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	8.62E-05	0.00E+00
508	ALL	257624.94	4069646.25	7.880E-08	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	6.06E-05	0.00E+00
509	ALL	257620.31	4069682.38	6.598E-08	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	5.08E-05	0.00E+00
510	ALL	257563.49	4069561.37	1.843E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.42E-04	0.00E+00
511	ALL	257522.40	4069469.75	3.856E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.97E-04	0.00E+00

HARP2 - HRACalc (dated 22118) 5/15/2023 5:36:19 AM - Output Log

GLCs loaded successfully
Pollutants loaded successfully
Pathway receptors loaded successfully
****
RISK SCENARIO SETTINGS

Receptor Type: Resident
Scenario: All
Calculation Method: HighEnd

****
EXPOSURE DURATION PARAMETERS FOR CANCER

Start Age: -0.25
Total Exposure Duration: 1.5

Exposure Duration Bin Distribution
3rd Trimester Bin: 0.25
0<2 Years Bin: 1.5
2<9 Years Bin: 0
2<16 Years Bin: 0
16<30 Years Bin: 0
16 to 70 Years Bin: 0

****
PATHWAYS ENABLED

NOTE: Inhalation is always enabled and used for all assessments. The remaining pathways are only used for cancer and noncancer chronic assessments.

Inhalation: True
Soil: True
Dermal: True
Mother's milk: True
Water: False
Fish: False
Homegrown crops: True

Beef: False
Dairy: False
Pig: False
Chicken: False
Egg: False

****
INHALATION

Daily breathing rate: LongTerm24HR

Worker Adjustment Factors
Worker adjustment factors enabled: NO

Fraction at time at home
3rd Trimester to 16 years: OFF
16 years to 70 years: OFF

****
SOIL & DERMAL PATHWAY SETTINGS

Deposition rate (m/s): 0.02
Soil mixing depth (m): 0.01
Dermal climate: Mixed

****
HOMEGROWN CROP PATHWAY SETTINGS

Household type: HouseholdsthatGarden
Fraction leafy: 0.137
Fraction exposed: 0.137
Fraction protected: 0.137
Fraction root: 0.137

****
TIER 2 SETTINGS

Tier2 adjustments were used in this assessment. Please see the input file for details.
Tier2 - What was changed: ED or start age changed

```
Calculating cancer risk
Cancer risk breakdown by pollutant and receptor saved to: F:\Move\0014-028\HARP (Mit)\TRACT 6432 - T4
MITIGATED\hra\T4 MitigatedCancerRisk.csv
Cancer risk total by receptor saved to: F:\Move\0014-028\HARP (Mit)\TRACT 6432 - T4 MITIGATED\hra\T4
MitigatedCancerRiskSumByRec.csv
Calculating chronic risk
Chronic risk breakdown by pollutant and receptor saved to: F:\Move\0014-028\HARP (Mit)\TRACT 6432 - T4
MITIGATED\hra\T4 MitigatedNCChronicRisk.csv
Chronic risk total by receptor saved to: F:\Move\0014-028\HARP (Mit)\TRACT 6432 - T4 MITIGATED\hra\T4
MitigatedNCChronicRiskSumByRec.csv
Calculating acute risk
Acute risk breakdown by pollutant and receptor saved to: F:\Move\0014-028\HARP (Mit)\TRACT 6432 - T4
MITIGATED\hra\T4 MitigatedNCAcuteRisk.csv
Acute risk total by receptor saved to: F:\Move\0014-028\HARP (Mit)\TRACT 6432 - T4 MITIGATED\hra\T4
MitigatedNCAcuteRiskSumByRec.csv
HRA ran successfully
```

Tract No. 6432 Project (Mitigated Construction - Level 3 Filters Option)

Estimation of Annual Onsite Construction Emissions - Level 3 Filters Mitigated Scenario

Start of Construction	6/1/2023	
End of Construction	7/24/2024	**Total**
Number of Days	419	419
Number of Hours	10,056	10,056

Size of the construction area source: **16,230.1** **sq-meters**

Year	**On-site Construction Activity**	**Level 3 Filters Mitigated On-site DPM (tons)**
2023	On-site Site Preparation	0.00095
2023	On-site Grading	0.00116
2023	On-site Building Construction 2023	0.00926
2024	On-site Building Construction 2024	0.00715
2024	On-site Paving	0.00070
2024	On-site Architectural Coating	0.00009

Total Mitigated DPM (On-site) 1.931E-02 tons

Factor in AERMOD to Account for 5 days per week/8 hours per day: 4.2

Average Emission for AREA1	1.753E+04	grams
	4.843E-04	grams/sec
	2.984E-08	grams/m2-sec

Tons/Construction Period	1.931E-02
Pounds/Construction Period	3.862E+01
Pounds/Day	9.217E-02
Pounds/Hour	3.840E-03
Pounds/Year	3.364E+01
Years	1.14795

Tract No. 6432 Project (Mitigated Construction - Level 3 Filters Option)

Estimation of Annual Offsite Construction DPM Emissions (No Change Compared to Unmitigated Scenario)

Start of Construction		6/1/2023		
End of Construction		7/24/2024		**Total**
Number of Days		419		419
Number of Hours		10,056		10,056

Construction Trip Type	2023 Site Preparation	2023 Grading	2023 Building Construction
Haul Truck	0.00001	0.00038	0.00001
Vendor Truck	0.00000	0.00000	0.00021
Worker	0.00000	0.00001	0.00008
Total	0.00001	0.00039	0.00030

	2024 Building Construction	2024 Paving	2024 Architectural Coating
Haul Truck	0.00001	0.00001	0.00000
Vendor Truck	0.00018	0.00001	0.00000
Worker	0.00007	0.00001	0.00000
Total	0.00026	0.00003	0.00000

	Haul Truck (tons)	**Vendor Truck (tons)**	**Worker (tons)**	**Total (tons)**	
Total DPM	4.200E-04	4.000E-04	1.700E-04	9.900E-04	
Average Emissions					
Grams	3.814E+02	3.632E+02	1.544E+02		
Grams/sec	1.053E-05	1.003E-05	4.264E-06		
Default Distance	20	7.3	10.8	Default Vehicle Travel Distance in CalEEMod	
Vehicle Travel Distances in the Construction HRA (miles)					
Road Segment 1 (mi)	0.73	0.73	0.73	miles	
Trip Distribution (percent)					
Off-site Road Segment 1	100.0%	100.0%	100.0%	off-site	
Total Average Offsite Vehicle Emissions Along Travel Distance (g/sec)				**Total**	
Road Segment 1	3.837E-07	1.001E-06	2.876E-07	1.672E-06	Off1

	Grams/sec	Pounds/Hour	Pounds/Day	Pounds/year	Tons/year	Max Pounds/Hour
Road Segment 1	1.672E-06	1.327E-05	3.185E-04	1.335E-01	6.673E-05	3.982E-05

Health Risk Summary - Mitigated Construction - Level 3 Filters Scenario (Summary of HARP2 Results)

Tract No. 6432 Project (Mitigated Construction - Level 3 Filters Option)

	RISK_SUM	Cancer Risk/million	MAXHI NonCancer Chronic	MAXHI Acute
Maximum Risk	6.3624E-06	6.36	4.8948E-03	0.00E+00

	X	Y
MEI UTM	257080.92	4069641.99
Receptor # 211		

*HARP - HRACalc v22118 5/15/2023 7:16:22 AM - Cancer Risk - Input File: F:\Move\0014-028\HARP (Mit - L3)\TRACT 6432 PROJECT - LEVEL 3 FILTERS OPTION\hra\Level 3 OptionHRAInput.hra
*HARP - HRACalc v22118 5/15/2023 7:16:22 AM - Chronic Risk - Input File: F:\Move\0014-028\HARP (Mit - L3)\TRACT 6432 PROJECT - LEVEL 3 FILTERS OPTION\hra\Level 3 OptionHRAInput.hra
*HARP - HRACalc v22118 5/15/2023 7:16:22 AM - Acute Risk - Input File: F:\Move\0014-028\HARP (Mit - L3)\TRACT 6432 PROJECT - LEVEL 3 FILTERS OPTION\hra\Level 3 OptionHRAInput.hra

REC	GRP	X	Y	RISK_SUM	SCENARIO	MAXHI NonCancerChronic	MAXHI Acute
1	ALL	257218.74	4069474.22	3.8815E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.986E-03	0.00E+00
2	ALL	257319.28	4069454.74	3.0055E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.312E-03	0.00E+00
3	ALL	257225.19	4069461.07	3.0098E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.316E-03	0.00E+00
4	ALL	257201.67	4069462.01	2.6975E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.075E-03	0.00E+00
5	ALL	257175.67	4069445.88	1.5406E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.185E-03	0.00E+00
6	ALL	257154.64	4069463.90	1.8450E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.419E-03	0.00E+00
7	ALL	257131.12	4069464.84	1.3994E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.077E-03	0.00E+00
8	ALL	257107.60	4069465.78	1.0604E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	8.158E-04	0.00E+00
9	ALL	257352.65	4069464.50	2.7651E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.127E-03	0.00E+00
10	ALL	257354.26	4069511.84	3.4545E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.658E-03	0.00E+00
11	ALL	257249.34	4069401.37	1.1960E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	9.201E-04	0.00E+00
12	ALL	257225.82	4069402.31	1.0488E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	8.069E-04	0.00E+00
13	ALL	257202.30	4069403.25	8.9594E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	6.893E-04	0.00E+00
14	ALL	257178.78	4069404.19	7.4826E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	5.757E-04	0.00E+00
15	ALL	257155.26	4069405.14	6.1907E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	4.763E-04	0.00E+00
16	ALL	257131.74	4069406.08	5.1800E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	3.985E-04	0.00E+00
17	ALL	257108.22	4069407.02	4.4649E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	3.435E-04	0.00E+00
18	ALL	257084.70	4069407.96	3.9758E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	3.059E-04	0.00E+00
19	ALL	257323.23	4069370.41	1.0357E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	7.968E-04	0.00E+00
20	ALL	257369.12	4069398.73	1.4060E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.082E-03	0.00E+00
21	ALL	257389.47	4069397.29	1.3141E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.011E-03	0.00E+00
22	ALL	257420.74	4069467.59	1.5388E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.184E-03	0.00E+00
23	ALL	257436.01	4069502.93	1.2739E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	9.800E-04	0.00E+00
24	ALL	257244.57	4069356.88	6.2749E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	4.827E-04	0.00E+00
25	ALL	257221.06	4069357.82	5.4158E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	4.167E-04	0.00E+00
26	ALL	257197.54	4069358.76	4.6394E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	3.569E-04	0.00E+00
27	ALL	257174.02	4069359.71	3.9740E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	3.057E-04	0.00E+00
28	ALL	257150.50	4069360.65	3.4401E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.647E-04	0.00E+00
29	ALL	257126.98	4069361.59	3.0386E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.338E-04	0.00E+00
30	ALL	257103.46	4069362.53	2.7451E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.112E-04	0.00E+00
31	ALL	257079.94	4069363.48	2.5262E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.943E-04	0.00E+00
32	ALL	257320.21	4069337.39	7.0589E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	5.431E-04	0.00E+00
33	ALL	257324.64	4069347.60	8.0022E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	6.156E-04	0.00E+00
34	ALL	257353.69	4069333.18	7.3037E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	5.619E-04	0.00E+00
35	ALL	257364.50	4069358.16	9.4980E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	7.307E-04	0.00E+00
36	ALL	257392.97	4069363.14	9.7998E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	7.539E-04	0.00E+00
37	ALL	257417.10	4069362.92	9.3609E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	7.202E-04	0.00E+00
38	ALL	257439.89	4069364.90	8.9137E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	6.858E-04	0.00E+00
39	ALL	257458.55	4069394.04	9.5768E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	7.368E-04	0.00E+00
40	ALL	257484.92	4069394.60	8.3420E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	6.418E-04	0.00E+00
41	ALL	257477.32	4069436.67	9.4487E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	7.269E-04	0.00E+00
42	ALL	257486.71	4069457.99	8.7583E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	6.738E-04	0.00E+00
43	ALL	257496.10	4069479.31	7.7865E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	5.990E-04	0.00E+00
44	ALL	257505.48	4069500.62	6.6851E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	5.143E-04	0.00E+00
45	ALL	257255.50	4069314.71	4.1682E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	3.207E-04	0.00E+00
46	ALL	257231.98	4069315.66	3.5965E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.767E-04	0.00E+00
47	ALL	257208.46	4069316.60	3.1282E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.407E-04	0.00E+00
48	ALL	257184.94	4069317.54	2.7400E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.108E-04	0.00E+00
49	ALL	257161.42	4069318.48	2.4305E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.870E-04	0.00E+00
50	ALL	257137.91	4069319.43	2.1937E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.688E-04	0.00E+00
51	ALL	257114.39	4069320.37	2.0104E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.547E-04	0.00E+00
52	ALL	257100.66	4069292.59	1.5665E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.205E-04	0.00E+00
53	ALL	257077.14	4069293.53	1.4765E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.136E-04	0.00E+00
54	ALL	257323.95	4069239.09	2.7441E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.111E-04	0.00E+00
55	ALL	257365.80	4069241.42	3.2071E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.467E-04	0.00E+00
56	ALL	257402.43	4069284.29	5.0023E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	3.848E-04	0.00E+00
57	ALL	257446.89	4069285.17	5.1362E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	3.951E-04	0.00E+00
58	ALL	257490.55	4069312.54	5.7662E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	4.436E-04	0.00E+00
59	ALL	257514.32	4069360.61	6.5304E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	5.024E-04	0.00E+00
60	ALL	257531.95	4069400.66	6.4321E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	4.948E-04	0.00E+00
61	ALL	257549.59	4069440.71	5.6551E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	4.351E-04	0.00E+00
62	ALL	257567.22	4069480.77	4.5052E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	3.466E-04	0.00E+00

63	ALL	257238.97	4069216.99	1.6504E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.270E-04	0.00E+00
64	ALL	257215.45	4069217.93	1.4621E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.125E-04	0.00E+00
65	ALL	257191.93	4069218.88	1.3252E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.020E-04	0.00E+00
66	ALL	257168.41	4069219.82	1.2190E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	9.378E-05	0.00E+00
67	ALL	257144.89	4069220.76	1.1350E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	8.732E-05	0.00E+00
68	ALL	257121.37	4069221.70	1.0678E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	8.215E-05	0.00E+00
69	ALL	257097.86	4069222.65	1.0133E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	7.796E-05	0.00E+00
70	ALL	257074.34	4069223.59	9.6800E-08	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	7.447E-05	0.00E+00
71	ALL	257302.19	4069162.04	1.4778E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.137E-04	0.00E+00
72	ALL	257323.44	4069170.00	1.6171E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.244E-04	0.00E+00
73	ALL	257344.69	4069177.97	1.8208E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.401E-04	0.00E+00
74	ALL	257365.94	4069185.94	2.0645E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.588E-04	0.00E+00
75	ALL	257387.19	4069193.90	2.3361E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.797E-04	0.00E+00
76	ALL	257408.45	4069201.87	2.6239E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.019E-04	0.00E+00
77	ALL	257429.70	4069209.83	2.9135E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.241E-04	0.00E+00
78	ALL	257450.95	4069217.80	3.1850E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.450E-04	0.00E+00
79	ALL	257472.20	4069225.77	3.4250E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.635E-04	0.00E+00
80	ALL	257493.45	4069233.73	3.6247E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.789E-04	0.00E+00
81	ALL	257514.70	4069241.70	3.7669E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.898E-04	0.00E+00
82	ALL	257531.89	4069277.51	4.4265E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	3.405E-04	0.00E+00
83	ALL	257556.13	4069281.30	4.2585E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	3.276E-04	0.00E+00
84	ALL	257563.39	4069311.98	4.6432E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	3.572E-04	0.00E+00
85	ALL	257572.54	4069332.75	4.7354E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	3.643E-04	0.00E+00
86	ALL	257581.68	4069353.52	4.7145E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	3.627E-04	0.00E+00
87	ALL	257590.83	4069374.29	4.5849E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	3.527E-04	0.00E+00
88	ALL	257599.98	4069395.06	4.3549E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	3.350E-04	0.00E+00
89	ALL	257609.12	4069415.84	4.0449E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	3.112E-04	0.00E+00
90	ALL	257618.27	4069436.61	3.6849E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.835E-04	0.00E+00
91	ALL	257627.41	4069457.38	3.2978E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.537E-04	0.00E+00
92	ALL	257636.56	4069478.15	2.9160E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.243E-04	0.00E+00
93	ALL	257645.71	4069498.92	2.5524E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.964E-04	0.00E+00
94	ALL	257236.17	4069147.05	1.0734E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	8.258E-05	0.00E+00
95	ALL	257212.65	4069147.99	9.5572E-08	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	7.353E-05	0.00E+00
96	ALL	257189.13	4069148.93	8.7839E-08	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	6.758E-05	0.00E+00
97	ALL	257165.61	4069149.87	8.2105E-08	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	6.317E-05	0.00E+00
98	ALL	257142.09	4069150.82	7.7618E-08	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	5.971E-05	0.00E+00
99	ALL	257118.57	4069151.76	7.3985E-08	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	5.692E-05	0.00E+00
100	ALL	257095.05	4069152.70	7.0988E-08	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	5.461E-05	0.00E+00
101	ALL	257071.53	4069153.64	6.8471E-08	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	5.268E-05	0.00E+00
102	ALL	257300.50	4069092.51	9.8604E-08	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	7.586E-05	0.00E+00
103	ALL	257322.31	4069100.69	1.0472E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	8.056E-05	0.00E+00
104	ALL	257344.12	4069108.86	1.1534E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	8.874E-05	0.00E+00
105	ALL	257365.94	4069117.04	1.2885E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	9.913E-05	0.00E+00
106	ALL	257387.75	4069125.22	1.4465E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.113E-04	0.00E+00
107	ALL	257409.56	4069133.39	1.6229E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.249E-04	0.00E+00
108	ALL	257431.37	4069141.57	1.8127E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.395E-04	0.00E+00
109	ALL	257453.18	4069149.74	2.0090E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.546E-04	0.00E+00
110	ALL	257474.99	4069157.92	2.2040E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.696E-04	0.00E+00
111	ALL	257496.80	4069166.10	2.3870E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.836E-04	0.00E+00
112	ALL	257518.61	4069174.27	2.5478E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.960E-04	0.00E+00
113	ALL	257540.42	4069182.45	2.6838E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.065E-04	0.00E+00
114	ALL	257562.23	4069190.62	2.7857E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.143E-04	0.00E+00
115	ALL	257593.43	4069220.12	3.0848E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.373E-04	0.00E+00
116	ALL	257602.82	4069241.43	3.2866E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.528E-04	0.00E+00
117	ALL	257612.20	4069262.75	3.4445E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.650E-04	0.00E+00
118	ALL	257621.59	4069284.07	3.5435E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.726E-04	0.00E+00
119	ALL	257630.98	4069305.39	3.5732E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.749E-04	0.00E+00
120	ALL	257640.36	4069326.71	3.5310E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.717E-04	0.00E+00
121	ALL	257649.75	4069348.02	3.4227E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.633E-04	0.00E+00
122	ALL	257659.14	4069369.34	3.2562E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.505E-04	0.00E+00
123	ALL	257668.52	4069390.66	3.0395E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.338E-04	0.00E+00
124	ALL	257677.91	4069411.98	2.7941E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.150E-04	0.00E+00
125	ALL	257687.30	4069433.30	2.5325E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.948E-04	0.00E+00
126	ALL	257696.68	4069454.61	2.2682E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.745E-04	0.00E+00
127	ALL	257706.07	4069475.93	2.0154E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.551E-04	0.00E+00
128	ALL	257715.46	4069497.25	1.7794E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.369E-04	0.00E+00
129	ALL	257233.36	4069077.10	7.1782E-08	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	5.522E-05	0.00E+00
130	ALL	257209.84	4069078.05	6.5654E-08	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	5.051E-05	0.00E+00
131	ALL	257186.32	4069078.99	6.1697E-08	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	4.747E-05	0.00E+00
132	ALL	257162.81	4069079.93	5.8693E-08	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	4.515E-05	0.00E+00
133	ALL	257139.29	4069080.87	5.6263E-08	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	4.328E-05	0.00E+00
134	ALL	257115.77	4069081.82	5.4332E-08	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	4.180E-05	0.00E+00
135	ALL	257092.25	4069082.76	5.2608E-08	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	4.047E-05	0.00E+00
136	ALL	257068.73	4069083.70	5.1074E-08	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	3.929E-05	0.00E+00
137	ALL	257023.53	4069546.99	1.8286E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.407E-03	0.00E+00
138	ALL	257055.22	4069612.96	5.8298E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	4.485E-03	0.00E+00
139	ALL	257004.64	4069530.56	1.1325E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	8.712E-04	0.00E+00
140	ALL	257008.70	4069545.24	1.4368E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.105E-03	0.00E+00
141	ALL	257023.37	4069620.41	3.1935E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.457E-03	0.00E+00
142	ALL	257012.98	4069520.80	1.0922E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	8.402E-04	0.00E+00
143	ALL	257003.50	4069489.37	6.7258E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	5.174E-04	0.00E+00

144	ALL	257004.37	4069467.17	5.2491E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	4.038E-04	0.00E+00
145	ALL	256962.92	4069549.18	8.7285E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	6.715E-04	0.00E+00
146	ALL	256969.35	4069588.22	1.2751E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	9.809E-04	0.00E+00
147	ALL	256923.40	4069519.10	4.9067E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	3.775E-04	0.00E+00
148	ALL	256936.66	4069484.93	4.1619E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	3.202E-04	0.00E+00
149	ALL	256949.92	4069450.76	3.4014E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.617E-04	0.00E+00
150	ALL	256979.86	4069409.00	2.7083E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.084E-04	0.00E+00
151	ALL	257013.22	4069393.83	2.6553E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.043E-04	0.00E+00
152	ALL	257046.58	4069378.65	2.5838E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.988E-04	0.00E+00
153	ALL	256921.07	4069566.64	6.6504E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	5.116E-04	0.00E+00
154	ALL	256917.83	4069599.49	7.8022E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	6.002E-04	0.00E+00
155	ALL	256854.06	4069518.59	3.1347E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.412E-04	0.00E+00
156	ALL	256854.94	4069479.18	2.5890E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.992E-04	0.00E+00
157	ALL	256883.18	4069443.55	2.4154E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.858E-04	0.00E+00
158	ALL	256897.74	4069406.04	2.0231E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.556E-04	0.00E+00
159	ALL	256930.61	4069360.19	1.6490E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.269E-04	0.00E+00
160	ALL	256967.24	4069343.52	1.6039E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.234E-04	0.00E+00
161	ALL	257003.88	4069326.86	1.5543E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.196E-04	0.00E+00
162	ALL	257040.51	4069310.20	1.5087E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.161E-04	0.00E+00
163	ALL	256866.10	4069562.88	4.2249E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	3.250E-04	0.00E+00
164	ALL	256844.64	4069615.19	4.6016E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	3.540E-04	0.00E+00
165	ALL	256783.85	4069520.34	2.1865E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.682E-04	0.00E+00
166	ALL	256806.91	4069467.01	1.9679E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.514E-04	0.00E+00
167	ALL	256823.85	4069467.00	2.1161E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.628E-04	0.00E+00
168	ALL	256826.16	4069411.31	1.6446E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.265E-04	0.00E+00
169	ALL	256840.26	4069374.96	1.4292E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.100E-04	0.00E+00
170	ALL	256854.36	4069338.62	1.2228E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	9.408E-05	0.00E+00
171	ALL	256879.16	4069312.37	1.1171E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	8.594E-05	0.00E+00
172	ALL	256914.65	4069296.23	1.0894E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	8.381E-05	0.00E+00
173	ALL	256950.13	4069280.09	1.0578E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	8.138E-05	0.00E+00
174	ALL	256985.62	4069263.95	1.0256E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	7.890E-05	0.00E+00
175	ALL	257021.11	4069247.80	9.9711E-08	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	7.671E-05	0.00E+00
176	ALL	256777.15	4069559.62	2.4517E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.886E-04	0.00E+00
177	ALL	256774.65	4069616.36	2.9685E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.284E-04	0.00E+00
178	ALL	256714.21	4069520.59	1.6091E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.238E-04	0.00E+00
179	ALL	256729.03	4069482.40	1.5188E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.168E-04	0.00E+00
180	ALL	256743.85	4069444.22	1.4173E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.090E-04	0.00E+00
181	ALL	256758.67	4069406.03	1.2966E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	9.975E-05	0.00E+00
182	ALL	256773.49	4069367.84	1.1600E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	8.924E-05	0.00E+00
183	ALL	256788.31	4069329.65	1.0182E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	7.833E-05	0.00E+00
184	ALL	256803.12	4069291.47	8.8295E-08	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	6.793E-05	0.00E+00
185	ALL	256829.18	4069263.89	8.1147E-08	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	6.243E-05	0.00E+00
186	ALL	256866.46	4069246.93	7.8988E-08	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	6.077E-05	0.00E+00
187	ALL	256903.75	4069229.97	7.6642E-08	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	5.896E-05	0.00E+00
188	ALL	256941.03	4069213.01	7.4351E-08	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	5.720E-05	0.00E+00
189	ALL	256978.32	4069196.05	7.2274E-08	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	5.560E-05	0.00E+00
190	ALL	257015.61	4069179.09	7.0512E-08	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	5.425E-05	0.00E+00
191	ALL	256707.16	4069560.79	1.7672E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.360E-04	0.00E+00
192	ALL	256707.86	4069602.99	2.0211E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.555E-04	0.00E+00
193	ALL	256644.04	4069522.23	1.2396E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	9.537E-05	0.00E+00
194	ALL	256658.49	4069484.99	1.1868E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	9.130E-05	0.00E+00
195	ALL	256672.94	4069447.75	1.1305E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	8.698E-05	0.00E+00
196	ALL	256687.39	4069410.51	1.0640E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	8.186E-05	0.00E+00
197	ALL	256701.85	4069373.27	9.8501E-08	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	7.578E-05	0.00E+00
198	ALL	256716.30	4069336.02	8.9560E-08	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	6.890E-05	0.00E+00
199	ALL	256730.75	4069298.78	8.0227E-08	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	6.172E-05	0.00E+00
200	ALL	256745.20	4069261.54	7.1116E-08	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	5.471E-05	0.00E+00
201	ALL	256777.83	4069216.03	6.2011E-08	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	4.771E-05	0.00E+00
202	ALL	256814.19	4069199.49	6.0444E-08	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	4.650E-05	0.00E+00
203	ALL	256850.56	4069182.95	5.8757E-08	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	4.520E-05	0.00E+00
204	ALL	256886.92	4069166.41	5.7094E-08	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	4.392E-05	0.00E+00
205	ALL	256923.28	4069149.86	5.5520E-08	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	4.271E-05	0.00E+00
206	ALL	256959.64	4069133.32	5.4130E-08	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	4.164E-05	0.00E+00
207	ALL	256996.01	4069116.78	5.2926E-08	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	4.072E-05	0.00E+00
208	ALL	257032.37	4069100.24	5.1903E-08	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	3.993E-05	0.00E+00
209	ALL	256637.17	4069561.96	1.3402E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.031E-04	0.00E+00
210	ALL	256637.87	4069604.16	1.5062E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.159E-04	0.00E+00
211	ALL	257080.92	4069641.99	6.3624E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	4.895E-03	0.00E+00
212	ALL	257062.41	4069636.94	5.5260E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	4.251E-03	0.00E+00
213	ALL	257252.86	4069639.53	4.2878E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	3.299E-03	0.00E+00
214	ALL	257073.76	4069678.20	3.2388E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.492E-03	0.00E+00
215	ALL	257039.81	4069640.31	3.8302E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.947E-03	0.00E+00
216	ALL	257254.29	4069680.69	1.5962E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.228E-03	0.00E+00
217	ALL	257072.52	4069710.75	2.0246E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.558E-03	0.00E+00
218	ALL	257036.74	4069696.81	2.1057E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.620E-03	0.00E+00
219	ALL	257011.92	4069655.49	2.4386E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.876E-03	0.00E+00
220	ALL	256964.82	4069623.97	1.4222E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.094E-03	0.00E+00
221	ALL	257255.04	4069714.01	9.4088E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	7.238E-04	0.00E+00
222	ALL	257071.71	4069779.80	8.9217E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	6.864E-04	0.00E+00
223	ALL	257031.16	4069764.00	1.0251E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	7.887E-04	0.00E+00
224	ALL	256974.06	4069748.37	9.9068E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	7.622E-04	0.00E+00

225	ALL	256961.64	4069720.34	1.1151E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	8.579E-04	0.00E+00
226	ALL	256944.26	4069680.44	1.1560E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	8.894E-04	0.00E+00
227	ALL	256926.88	4069640.54	9.8842E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	7.604E-04	0.00E+00
228	ALL	257115.51	4069787.18	7.7710E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	5.978E-04	0.00E+00
229	ALL	257139.03	4069786.65	7.3416E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	5.648E-04	0.00E+00
230	ALL	257162.55	4069786.12	6.8023E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	5.233E-04	0.00E+00
231	ALL	257186.07	4069785.59	6.1949E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	4.766E-04	0.00E+00
232	ALL	257209.58	4069785.06	5.5510E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	4.271E-04	0.00E+00
233	ALL	257233.10	4069784.53	4.9152E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	3.781E-04	0.00E+00
234	ALL	257256.62	4069784.00	4.3543E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	3.350E-04	0.00E+00
235	ALL	256986.22	4069815.85	6.1247E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	4.712E-04	0.00E+00
236	ALL	256964.75	4069807.49	6.2824E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	4.833E-04	0.00E+00
237	ALL	256932.86	4069812.35	5.6467E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	4.344E-04	0.00E+00
238	ALL	256912.61	4069769.63	6.7163E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	5.167E-04	0.00E+00
239	ALL	256903.41	4069748.50	7.0770E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	5.445E-04	0.00E+00
240	ALL	256866.60	4069664.01	6.2135E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	4.780E-04	0.00E+00
241	ALL	256857.40	4069642.88	5.5408E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	4.263E-04	0.00E+00
242	ALL	257093.57	4069857.69	4.1548E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	3.196E-04	0.00E+00
243	ALL	257117.09	4069857.16	3.9673E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	3.052E-04	0.00E+00
244	ALL	257140.60	4069856.63	3.7453E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.881E-04	0.00E+00
245	ALL	257164.12	4069856.10	3.5002E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.693E-04	0.00E+00
246	ALL	257187.64	4069855.57	3.2438E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.496E-04	0.00E+00
247	ALL	257211.16	4069855.04	2.9857E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.297E-04	0.00E+00
248	ALL	257234.68	4069854.51	2.7386E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.107E-04	0.00E+00
249	ALL	257258.20	4069853.98	2.5221E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.940E-04	0.00E+00
250	ALL	257281.72	4069853.45	2.4067E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.852E-04	0.00E+00
251	ALL	257074.98	4069919.81	2.6784E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.061E-04	0.00E+00
252	ALL	257034.64	4069904.09	3.1549E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.427E-04	0.00E+00
253	ALL	256994.31	4069888.37	3.6048E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.773E-04	0.00E+00
254	ALL	256953.97	4069872.65	3.9585E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	3.045E-04	0.00E+00
255	ALL	256913.63	4069856.93	4.1499E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	3.193E-04	0.00E+00
256	ALL	256864.65	4069821.37	4.4368E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	3.413E-04	0.00E+00
257	ALL	256847.36	4069781.68	4.8586E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	3.738E-04	0.00E+00
258	ALL	256865.45	4069761.33	5.6188E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	4.323E-04	0.00E+00
259	ALL	256814.56	4069717.25	4.5909E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	3.532E-04	0.00E+00
260	ALL	256795.49	4069662.62	3.8457E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.959E-04	0.00E+00
261	ALL	257118.66	4069927.14	2.3395E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.800E-04	0.00E+00
262	ALL	257132.64	4069918.09	2.4077E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.852E-04	0.00E+00
263	ALL	257156.15	4069917.56	2.2757E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.751E-04	0.00E+00
264	ALL	257179.67	4069917.03	2.1396E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.646E-04	0.00E+00
265	ALL	257203.19	4069916.50	2.0030E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.541E-04	0.00E+00
266	ALL	257226.71	4069915.97	1.8692E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.438E-04	0.00E+00
267	ALL	257250.23	4069915.44	1.7607E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.355E-04	0.00E+00
268	ALL	257273.75	4069914.91	1.7047E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.312E-04	0.00E+00
269	ALL	257075.80	4069989.50	1.7255E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.327E-04	0.00E+00
270	ALL	257033.97	4069973.20	2.0159E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.551E-04	0.00E+00
271	ALL	256992.13	4069956.89	2.3151E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.781E-04	0.00E+00
272	ALL	256950.29	4069940.59	2.5983E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.999E-04	0.00E+00
273	ALL	256908.46	4069924.28	2.8105E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.162E-04	0.00E+00
274	ALL	256866.62	4069907.97	2.9283E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.253E-04	0.00E+00
275	ALL	256815.82	4069871.09	3.1441E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.419E-04	0.00E+00
276	ALL	256797.88	4069829.92	3.4703E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.670E-04	0.00E+00
277	ALL	256788.91	4069809.34	3.5666E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.744E-04	0.00E+00
278	ALL	256770.98	4069768.17	3.5715E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.748E-04	0.00E+00
279	ALL	256762.01	4069747.59	3.4740E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.673E-04	0.00E+00
280	ALL	256744.08	4069706.43	3.1144E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.396E-04	0.00E+00
281	ALL	256735.11	4069685.84	2.8812E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.217E-04	0.00E+00
282	ALL	256717.18	4069644.68	2.3891E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.838E-04	0.00E+00
283	ALL	257120.24	4069997.12	1.5255E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.174E-04	0.00E+00
284	ALL	257143.76	4069996.59	1.4579E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.122E-04	0.00E+00
285	ALL	257167.28	4069996.06	1.3887E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.068E-04	0.00E+00
286	ALL	257190.80	4069995.53	1.3166E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.013E-04	0.00E+00
287	ALL	257214.31	4069995.00	1.2512E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	9.626E-05	0.00E+00
288	ALL	257237.83	4069994.47	1.1969E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	9.208E-05	0.00E+00
289	ALL	257261.35	4069993.94	1.1676E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	8.983E-05	0.00E+00
290	ALL	257284.87	4069993.41	1.2150E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	9.347E-05	0.00E+00
291	ALL	257076.83	4070059.27	1.1944E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	9.189E-05	0.00E+00
292	ALL	257055.36	4070050.90	1.2838E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	9.877E-05	0.00E+00
293	ALL	257033.89	4070042.53	1.3777E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.060E-04	0.00E+00
294	ALL	257012.42	4070034.17	1.4753E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.135E-04	0.00E+00
295	ALL	256990.95	4070025.80	1.5753E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.212E-04	0.00E+00
296	ALL	256969.48	4070017.43	1.6789E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.292E-04	0.00E+00
297	ALL	256948.02	4070009.07	1.7791E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.369E-04	0.00E+00
298	ALL	256926.55	4070000.70	1.8726E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.441E-04	0.00E+00
299	ALL	256905.08	4069992.33	1.9579E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.506E-04	0.00E+00
300	ALL	256883.61	4069983.96	2.0323E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.564E-04	0.00E+00
301	ALL	256862.14	4069975.60	2.0937E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.611E-04	0.00E+00
302	ALL	256840.67	4069967.23	2.1411E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.647E-04	0.00E+00
303	ALL	256819.20	4069958.86	2.1737E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.672E-04	0.00E+00
304	ALL	256797.73	4069950.50	2.1909E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.686E-04	0.00E+00
305	ALL	256767.06	4069921.00	2.3388E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.799E-04	0.00E+00

306	ALL	256757.86	4069899.88	2.4738E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.903E-04	0.00E+00
307	ALL	256748.66	4069878.76	2.5904E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.993E-04	0.00E+00
308	ALL	256739.45	4069857.63	2.6807E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.062E-04	0.00E+00
309	ALL	256730.25	4069836.51	2.7368E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.106E-04	0.00E+00
310	ALL	256721.05	4069815.38	2.7527E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.118E-04	0.00E+00
311	ALL	256711.85	4069794.26	2.7254E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.097E-04	0.00E+00
312	ALL	256702.64	4069773.14	2.6558E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.043E-04	0.00E+00
313	ALL	256693.44	4069752.01	2.5488E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.961E-04	0.00E+00
314	ALL	256684.24	4069730.89	2.4116E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.855E-04	0.00E+00
315	ALL	256675.03	4069709.76	2.2536E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.734E-04	0.00E+00
316	ALL	256665.83	4069688.64	2.0846E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.604E-04	0.00E+00
317	ALL	256656.63	4069667.51	1.9135E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.472E-04	0.00E+00
318	ALL	256647.43	4069646.39	1.7479E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.345E-04	0.00E+00
319	ALL	257098.30	4070067.64	1.1099E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	8.539E-05	0.00E+00
320	ALL	257121.82	4070067.11	1.0696E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	8.229E-05	0.00E+00
321	ALL	257145.34	4070066.58	1.0280E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	7.909E-05	0.00E+00
322	ALL	257168.85	4070066.05	9.8632E-08	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	7.588E-05	0.00E+00
323	ALL	257192.37	4070065.52	9.4374E-08	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	7.260E-05	0.00E+00
324	ALL	257215.89	4070064.99	9.0705E-08	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	6.978E-05	0.00E+00
325	ALL	257239.41	4070064.46	8.8045E-08	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	6.774E-05	0.00E+00
326	ALL	257262.93	4070063.93	8.7691E-08	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	6.746E-05	0.00E+00
327	ALL	257286.45	4070063.40	9.4535E-08	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	7.273E-05	0.00E+00
328	ALL	257321.89	4069602.63	2.8761E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.213E-03	0.00E+00
329	ALL	257323.57	4069562.53	5.1494E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	3.962E-03	0.00E+00
330	ALL	257322.11	4069631.61	1.5518E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.194E-03	0.00E+00
331	ALL	257345.68	4069585.06	2.4340E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.873E-03	0.00E+00
332	ALL	257328.28	4069524.85	5.3509E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	4.117E-03	0.00E+00
333	ALL	257321.81	4069674.24	8.0651E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	6.205E-04	0.00E+00
334	ALL	257375.94	4069589.98	1.3934E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.072E-03	0.00E+00
335	ALL	257375.24	4069546.12	2.2334E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.718E-03	0.00E+00
336	ALL	257406.73	4069711.28	2.7896E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.146E-04	0.00E+00
337	ALL	257379.04	4069740.06	2.7087E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.084E-04	0.00E+00
338	ALL	257339.48	4069757.42	3.1487E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.422E-04	0.00E+00
339	ALL	257464.34	4069577.61	5.9088E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	4.546E-04	0.00E+00
340	ALL	257445.23	4069544.99	9.2359E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	7.105E-04	0.00E+00
341	ALL	257519.66	4069618.14	2.8054E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.158E-04	0.00E+00
342	ALL	257521.22	4069645.55	2.2716E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.748E-04	0.00E+00
343	ALL	257479.05	4069704.24	1.9090E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.469E-04	0.00E+00
344	ALL	257464.15	4069742.07	1.6266E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.251E-04	0.00E+00
345	ALL	257430.64	4069788.08	1.5059E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.159E-04	0.00E+00
346	ALL	257393.41	4069804.42	1.6850E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.296E-04	0.00E+00
347	ALL	257515.93	4069587.72	3.6034E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.772E-04	0.00E+00
348	ALL	257515.22	4069543.87	4.9016E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	3.771E-04	0.00E+00
349	ALL	257578.40	4069628.52	1.8492E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.423E-04	0.00E+00
350	ALL	257571.20	4069671.71	1.4656E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.128E-04	0.00E+00
351	ALL	257530.88	4069706.48	1.4424E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.110E-04	0.00E+00
352	ALL	257531.18	4069748.47	1.1427E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	8.791E-05	0.00E+00
353	ALL	257515.44	4069788.46	1.0098E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	7.769E-05	0.00E+00
354	ALL	257480.03	4069837.08	9.5819E-08	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	7.372E-05	0.00E+00
355	ALL	257440.68	4069854.35	1.0602E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	8.156E-05	0.00E+00
356	ALL	257401.34	4069871.62	1.1779E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	9.062E-05	0.00E+00
357	ALL	257361.99	4069888.89	1.3098E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.008E-04	0.00E+00
358	ALL	257322.64	4069906.16	1.5123E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.163E-04	0.00E+00
359	ALL	257560.65	4069589.41	2.6374E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.029E-04	0.00E+00
360	ALL	257567.16	4069542.34	3.3739E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.596E-04	0.00E+00
361	ALL	257648.68	4069626.66	1.3184E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.014E-04	0.00E+00
362	ALL	257633.52	4069665.17	1.1436E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	8.798E-05	0.00E+00
363	ALL	257618.36	4069703.68	9.9449E-08	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	7.651E-05	0.00E+00
364	ALL	257603.20	4069742.19	8.7531E-08	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	6.734E-05	0.00E+00
365	ALL	257588.04	4069780.70	7.8266E-08	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	6.021E-05	0.00E+00
366	ALL	257557.73	4069857.72	6.5526E-08	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	5.041E-05	0.00E+00
367	ALL	257531.20	4069885.29	6.5767E-08	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	5.060E-05	0.00E+00
368	ALL	257493.30	4069901.93	7.1758E-08	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	5.521E-05	0.00E+00
369	ALL	257455.41	4069918.56	7.8391E-08	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	6.031E-05	0.00E+00
370	ALL	257417.51	4069935.19	8.5639E-08	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	6.588E-05	0.00E+00
371	ALL	257379.61	4069951.83	9.3294E-08	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	7.177E-05	0.00E+00
372	ALL	257341.72	4069968.46	1.0402E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	8.002E-05	0.00E+00
373	ALL	257655.91	4069585.47	1.5976E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.229E-04	0.00E+00
374	ALL	257655.20	4069541.62	2.0005E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.539E-04	0.00E+00
375	ALL	257718.40	4069626.23	9.8628E-08	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	7.588E-05	0.00E+00
376	ALL	257702.69	4069666.13	8.6429E-08	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	6.649E-05	0.00E+00
377	ALL	257686.98	4069706.04	7.6063E-08	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	5.852E-05	0.00E+00
378	ALL	257671.28	4069745.94	6.7602E-08	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	5.201E-05	0.00E+00
379	ALL	257655.57	4069785.84	6.0740E-08	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	4.673E-05	0.00E+00
380	ALL	257624.15	4069865.65	5.1242E-08	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	3.942E-05	0.00E+00
381	ALL	257608.44	4069905.56	4.7826E-08	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	3.679E-05	0.00E+00
382	ALL	257580.96	4069934.13	4.8127E-08	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	3.703E-05	0.00E+00
383	ALL	257541.69	4069951.36	5.2149E-08	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	4.012E-05	0.00E+00
384	ALL	257502.42	4069968.60	5.6651E-08	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	4.358E-05	0.00E+00
385	ALL	257463.15	4069985.83	6.1381E-08	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	4.722E-05	0.00E+00
386	ALL	257423.89	4070003.07	6.6361E-08	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	5.105E-05	0.00E+00

387	ALL	257384.62	4070020.31	7.1773E-08	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	5.522E-05	0.00E+00
388	ALL	257345.35	4070037.54	8.0182E-08	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	6.169E-05	0.00E+00
389	ALL	257725.90	4069584.35	1.1696E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	8.998E-05	0.00E+00
390	ALL	257725.19	4069540.49	1.4252E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.097E-04	0.00E+00
391	ALL	257332.31	4069626.78	1.4633E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.126E-03	0.00E+00
392	ALL	257332.31	4069576.00	3.6317E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.794E-03	0.00E+00
393	ALL	257328.56	4069509.56	5.0419E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	3.879E-03	0.00E+00
394	ALL	257380.93	4069470.37	2.2429E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.726E-03	0.00E+00
395	ALL	257420.33	4069441.82	1.4539E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.119E-03	0.00E+00
396	ALL	257420.57	4069455.36	1.5085E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.161E-03	0.00E+00
397	ALL	257323.57	4069398.98	1.4597E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.123E-03	0.00E+00
398	ALL	257343.76	4069398.98	1.4608E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.124E-03	0.00E+00
399	ALL	257411.22	4069397.01	1.2116E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	9.321E-04	0.00E+00
400	ALL	257433.37	4069395.53	1.0911E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	8.394E-04	0.00E+00
401	ALL	257212.78	4069402.92	9.6555E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	7.428E-04	0.00E+00
402	ALL	257029.63	4069485.02	7.6735E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	5.903E-04	0.00E+00
403	ALL	257157.54	4069453.75	1.5112E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.163E-03	0.00E+00
404	ALL	257190.63	4069449.84	1.9119E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.471E-03	0.00E+00
405	ALL	257213.75	4069467.81	3.2878E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.529E-03	0.00E+00
406	ALL	257227.27	4069478.48	4.4127E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	3.395E-03	0.00E+00
407	ALL	257355.05	4069313.11	5.9961E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	4.613E-04	0.00E+00
408	ALL	257355.33	4069288.48	4.7362E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	3.644E-04	0.00E+00
409	ALL	257352.73	4069270.81	3.9920E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	3.071E-04	0.00E+00
410	ALL	257321.15	4069315.13	5.5742E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	4.288E-04	0.00E+00
411	ALL	257322.31	4069290.80	4.3741E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	3.365E-04	0.00E+00
412	ALL	257317.68	4069263.57	3.3297E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.562E-04	0.00E+00
413	ALL	257403.91	4069315.34	6.4893E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	4.992E-04	0.00E+00
414	ALL	257430.32	4069311.57	6.2691E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	4.823E-04	0.00E+00
415	ALL	257425.61	4069280.91	4.9626E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	3.818E-04	0.00E+00
416	ALL	257449.19	4069311.10	6.1490E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	4.731E-04	0.00E+00
417	ALL	257465.23	4069312.98	6.0863E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	4.682E-04	0.00E+00
418	ALL	257473.25	4069283.27	4.9964E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	3.844E-04	0.00E+00
419	ALL	257490.23	4069279.02	4.7822E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	3.679E-04	0.00E+00
420	ALL	257515.23	4069313.46	5.4362E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	4.182E-04	0.00E+00
421	ALL	257515.23	4069281.38	4.6608E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	3.586E-04	0.00E+00
422	ALL	257578.90	4069278.55	3.9699E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	3.054E-04	0.00E+00
423	ALL	257579.85	4069310.62	4.3654E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	3.358E-04	0.00E+00
424	ALL	257533.15	4069317.70	5.2398E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	4.031E-04	0.00E+00
425	ALL	257492.59	4069357.79	7.0910E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	5.455E-04	0.00E+00
426	ALL	257506.27	4069391.75	7.3657E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	5.667E-04	0.00E+00
427	ALL	256966.23	4069611.72	1.3889E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.069E-03	0.00E+00
428	ALL	256968.20	4069652.35	1.5146E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.165E-03	0.00E+00
429	ALL	256971.64	4069676.97	1.4803E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.139E-03	0.00E+00
430	ALL	256971.40	4069695.93	1.3580E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.045E-03	0.00E+00
431	ALL	256919.20	4069626.50	8.8499E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	6.808E-04	0.00E+00
432	ALL	256960.56	4069569.12	1.0023E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	7.711E-04	0.00E+00
433	ALL	256905.90	4069649.15	8.3009E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	6.386E-04	0.00E+00
434	ALL	256908.11	4069675.74	8.6385E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	6.646E-04	0.00E+00
435	ALL	256911.81	4069698.89	8.6712E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	6.671E-04	0.00E+00
436	ALL	256862.25	4069715.82	6.0919E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	4.687E-04	0.00E+00
437	ALL	256861.00	4069698.91	6.1128E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	4.703E-04	0.00E+00
438	ALL	256836.98	4069715.64	5.2309E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	4.024E-04	0.00E+00
439	ALL	256833.43	4069694.47	5.1121E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	3.933E-04	0.00E+00
440	ALL	256809.41	4069661.73	4.1832E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	3.218E-04	0.00E+00
441	ALL	256847.84	4069658.88	5.3737E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	4.134E-04	0.00E+00
442	ALL	256846.59	4069681.30	5.5137E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	4.242E-04	0.00E+00
443	ALL	257025.49	4069719.96	1.5661E-06	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.205E-03	0.00E+00
444	ALL	257058.04	4069774.82	9.4128E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	7.241E-04	0.00E+00
445	ALL	256904.05	4069806.10	5.3922E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	4.148E-04	0.00E+00
446	ALL	256955.78	4069773.22	7.7806E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	5.986E-04	0.00E+00
447	ALL	256869.01	4069614.56	5.4990E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	4.231E-04	0.00E+00
448	ALL	256830.10	4069566.29	3.3912E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.609E-04	0.00E+00
449	ALL	256808.18	4069563.58	2.9454E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.266E-04	0.00E+00
450	ALL	256813.59	4069616.78	3.7566E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.890E-04	0.00E+00
451	ALL	256783.80	4069582.30	2.7672E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.129E-04	0.00E+00
452	ALL	256788.47	4069611.12	3.1563E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.428E-04	0.00E+00
453	ALL	256733.56	4069616.29	2.3833E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.834E-04	0.00E+00
454	ALL	256753.26	4069620.23	2.6734E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.057E-04	0.00E+00
455	ALL	256739.47	4069573.93	2.1376E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.645E-04	0.00E+00
456	ALL	256828.37	4069515.56	2.6848E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.066E-04	0.00E+00
457	ALL	256804.24	4069518.52	2.3998E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.846E-04	0.00E+00
458	ALL	256766.06	4069514.82	1.9725E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.518E-04	0.00E+00
459	ALL	256743.65	4069510.88	1.7641E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.357E-04	0.00E+00
460	ALL	256729.62	4069519.25	1.7078E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.314E-04	0.00E+00
461	ALL	256960.28	4069523.08	6.7623E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	5.202E-04	0.00E+00
462	ALL	256964.32	4069488.28	5.0875E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	3.914E-04	0.00E+00
463	ALL	256906.04	4069532.69	4.7368E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	3.644E-04	0.00E+00
464	ALL	256903.82	4069547.68	5.1159E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	3.936E-04	0.00E+00
465	ALL	256908.26	4069581.54	6.4945E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	4.996E-04	0.00E+00
466	ALL	256904.37	4069507.16	3.9824E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	3.064E-04	0.00E+00
467	ALL	256918.80	4069489.95	3.8813E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.986E-04	0.00E+00

468	ALL	256852.80	4069460.61	2.3307E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.793E-04	0.00E+00
469	ALL	256784.38	4069476.65	1.8598E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.431E-04	0.00E+00
470	ALL	256752.76	4069469.10	1.5937E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.226E-04	0.00E+00
471	ALL	256711.24	4069470.99	1.3734E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.057E-04	0.00E+00
472	ALL	256689.54	4069471.46	1.2738E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	9.799E-05	0.00E+00
473	ALL	256673.02	4069518.65	1.3636E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.049E-04	0.00E+00
474	ALL	257119.69	4069872.42	3.4800E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.677E-04	0.00E+00
475	ALL	257173.22	4069880.60	2.8099E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.162E-04	0.00E+00
476	ALL	257218.56	4069891.17	2.2450E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.727E-04	0.00E+00
477	ALL	257270.04	4069964.13	1.3364E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.028E-04	0.00E+00
478	ALL	257166.40	4069965.15	1.6501E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.270E-04	0.00E+00
479	ALL	257117.64	4069964.81	1.8464E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.420E-04	0.00E+00
480	ALL	257120.03	4069983.22	1.6496E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.269E-04	0.00E+00
481	ALL	257180.03	4069964.81	1.5969E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.229E-04	0.00E+00
482	ALL	257207.65	4069966.52	1.4732E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.133E-04	0.00E+00
483	ALL	257224.70	4069964.47	1.4290E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.099E-04	0.00E+00
484	ALL	257246.52	4069965.50	1.3577E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.045E-04	0.00E+00
485	ALL	257323.55	4069688.41	6.6970E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	5.152E-04	0.00E+00
486	ALL	257330.69	4069701.47	5.4473E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	4.191E-04	0.00E+00
487	ALL	257330.20	4069715.51	4.7727E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	3.672E-04	0.00E+00
488	ALL	257470.86	4069697.03	2.0998E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.615E-04	0.00E+00
489	ALL	257465.69	4069726.35	1.7742E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.365E-04	0.00E+00
490	ALL	257449.43	4069739.40	1.7877E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.375E-04	0.00E+00
491	ALL	257363.98	4069767.96	2.4792E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.907E-04	0.00E+00
492	ALL	257256.48	4069759.94	5.4667E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	4.206E-04	0.00E+00
493	ALL	257265.30	4069768.77	4.7679E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	3.668E-04	0.00E+00
494	ALL	257154.59	4069755.93	9.9963E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	7.690E-04	0.00E+00
495	ALL	257379.62	4069765.96	2.2745E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.750E-04	0.00E+00
496	ALL	257399.28	4069767.16	2.0052E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.543E-04	0.00E+00
497	ALL	257416.12	4069758.34	1.9178E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.475E-04	0.00E+00
498	ALL	257434.18	4069755.13	1.7695E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.361E-04	0.00E+00
499	ALL	257483.51	4069749.51	1.4164E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.090E-04	0.00E+00
500	ALL	257471.88	4069769.17	1.3503E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.039E-04	0.00E+00
501	ALL	257509.99	4069754.73	1.2171E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	9.363E-05	0.00E+00
502	ALL	257520.42	4069674.10	1.8724E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.441E-04	0.00E+00
503	ALL	257565.98	4069500.70	4.1999E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	3.231E-04	0.00E+00
504	ALL	257520.25	4069563.28	4.1497E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	3.193E-04	0.00E+00
505	ALL	257570.83	4069651.41	1.6654E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.281E-04	0.00E+00
506	ALL	257570.11	4069616.88	2.0841E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.603E-04	0.00E+00
507	ALL	257621.02	4069588.40	1.8770E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.444E-04	0.00E+00
508	ALL	257624.94	4069646.25	1.3189E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	1.015E-04	0.00E+00
509	ALL	257620.31	4069682.38	1.1032E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	8.487E-05	0.00E+00
510	ALL	257563.49	4069561.37	3.0918E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	2.379E-04	0.00E+00
511	ALL	257522.40	4069469.75	6.4753E-07	1.5YrCancerHighEnd_InhSoilDermMMilkCrops	4.982E-04	0.00E+00

HARP2 - HRACalc (dated 22118) 5/15/2023 7:16:22 AM - Output Log

GLCs loaded successfully
Pollutants loaded successfully
Pathway receptors loaded successfully
****
RISK SCENARIO SETTINGS

Receptor Type: Resident
Scenario: All
Calculation Method: HighEnd

****
EXPOSURE DURATION PARAMETERS FOR CANCER

Start Age: -0.25
Total Exposure Duration: 1.5

Exposure Duration Bin Distribution
3rd Trimester Bin: 0.25
0<2 Years Bin: 1.5
2<9 Years Bin: 0
2<16 Years Bin: 0
16<30 Years Bin: 0
16 to 70 Years Bin: 0

****
PATHWAYS ENABLED

NOTE: Inhalation is always enabled and used for all assessments. The remaining pathways are only used for cancer and noncancer chronic assessments.

Inhalation: True
Soil: True
Dermal: True
Mother's milk: True

Water: False
Fish: False
Homegrown crops: True
Beef: False
Dairy: False
Pig: False
Chicken: False
Egg: False

****
INHALATION

Daily breathing rate: LongTerm24HR

Worker Adjustment Factors
Worker adjustment factors enabled: NO

Fraction at time at home
3rd Trimester to 16 years: OFF
16 years to 70 years: OFF

****
SOIL & DERMAL PATHWAY SETTINGS

Deposition rate (m/s): 0.02
Soil mixing depth (m): 0.01
Dermal climate: Mixed

****
HOMEGROWN CROP PATHWAY SETTINGS

Household type: HouseholdsthatGarden
Fraction leafy: 0.137
Fraction exposed: 0.137
Fraction protected: 0.137
Fraction root: 0.137

```
**********
TIER 2 SETTINGS

Tier2 adjustments were used in this assessment.  Please see the input file for details.
Tier2 - What was changed: ED or start age changed
Calculating cancer risk
Cancer risk breakdown by pollutant and receptor saved to: F:\Move\0014-028\HARP (Mit - L3)\TRACT 6432 PROJECT -
LEVEL 3 FILTERS OPTION\hra\Level 3 OptionCancerRisk.csv
Cancer risk total by receptor saved to: F:\Move\0014-028\HARP (Mit - L3)\TRACT 6432 PROJECT - LEVEL 3 FILTERS
OPTION\hra\Level 3 OptionCancerRiskSumByRec.csv
Calculating chronic risk
Chronic risk breakdown by pollutant and receptor saved to: F:\Move\0014-028\HARP (Mit - L3)\TRACT 6432 PROJECT -
LEVEL 3 FILTERS OPTION\hra\Level 3 OptionNCChronicRisk.csv
Chronic risk total by receptor saved to: F:\Move\0014-028\HARP (Mit - L3)\TRACT 6432 PROJECT - LEVEL 3 FILTERS
OPTION\hra\Level 3 OptionNCChronicRiskSumByRec.csv
Calculating acute risk
Acute risk breakdown by pollutant and receptor saved to: F:\Move\0014-028\HARP (Mit - L3)\TRACT 6432 PROJECT -
LEVEL 3 FILTERS OPTION\hra\Level 3 OptionNCAcuteRisk.csv
Acute risk total by receptor saved to: F:\Move\0014-028\HARP (Mit - L3)\TRACT 6432 PROJECT - LEVEL 3 FILTERS
OPTION\hra\Level 3 OptionNCAcuteRiskSumByRec.csv
HRA ran successfully
```

ATTACHMENT C

Energy Consumption Calculations

TT 6432 Residential Project—Energy Consumption Summary

Summary of Energy Use During Construction		(Annually)
Construction vehicle fuel	4,956	gallons (gasoline, diesel)
Construction equipment fuel	15,551	gallons (diesel)
Construction office trailer electricity	7,306	kilowatt hours

Summary of Energy Use During Proposed Operations		(Annually)
Operational vehicle fuel consumption	47,119	gallons (gasoline, diesel)
Operational natural gas consumption	1,057,650	kilo-British Thermal Units
Operational electricity consumption	366,100	kilowatt hours

Construction Vehicle Fuel Calculations (Page 1 of 2)

California Air Resource Board (CARB). EMFAC2017 Web Database. Website: https://arb.ca.gov/emfac/2017/. Accessed May 2023.

EMFAC2017 (v1.0.2) Emissions Inventory
Region Type: County
Region: FRESNO
Calendar Year: 2023
Season: Annual
Vehicle Classification: EMFAC2007 Categories
Units: miles/day for VMT, trips/day for Trips, tons/day for Emissions, 1000 gallons/day for Fuel Consumption. Note 'day' in the unit is operation day.

VMT = Vehicle Miles Traveled
FE = Fuel Economy

Given *Calculations*

Region	Calendar Year	Vehicle Class	Model Year	Speed	Fuel	Population	VMT (mi/day)	Fuel Consumption (1000 gallons/day)	FE (mi/gallon)	VMT*FE
FRESNO	2023	HHDT	Aggregated	Aggregated	GAS	3.5782796	472.6746	0.119101015	3.9686863	1875.89707
FRESNO	2023	HHDT	Aggregated	Aggregated	DSL	16286.775	2254835	343.1505226	6.5709803	14816478.5
FRESNO	2023	LDA	Aggregated	Aggregated	GAS	360187.01	13826269	450.5829573	30.6852916	424263110
FRESNO	2023	LDA	Aggregated	Aggregated	DSL	2734.6688	113419.6	2.240176367	50.6297489	5742404.2
FRESNO	2023	LDT1	Aggregated	Aggregated	GAS	39099.954	1354857	52.1252267	25.9923405	35215895
FRESNO	2023	LDT1	Aggregated	Aggregated	DSL	29.873939	419.4733	0.01653543	25.3681542	10641.264
FRESNO	2023	LDT2	Aggregated	Aggregated	GAS	129640.03	4712300	198.0045045	23.7989558	112147830
FRESNO	2023	LDT2	Aggregated	Aggregated	DSL	548.33145	23832.77	0.640468806	37.211438	886851.466
FRESNO	2023	LHDT1	Aggregated	Aggregated	GAS	10624.694	355805.2	42.963626	8.28154456	2946616.48
FRESNO	2023	LHDT1	Aggregated	Aggregated	DSL	10656.827	371708.6	21.02038574	17.6832447	6573014.58
FRESNO	2023	LHDT2	Aggregated	Aggregated	GAS	1825.478	59952.67	8.323817429	7.20254474	431811.769
FRESNO	2023	LHDT2	Aggregated	Aggregated	DSL	3628.5616	128355.2	8.141716014	15.7651287	2023536.27
FRESNO	2023	MDV	Aggregated	Aggregated	GAS	124848.66	4140988	215.1808357	19.244221	79690080.1
FRESNO	2023	MDV	Aggregated	Aggregated	DSL	2105.9419	86518.71	3.196155058	27.0696208	2342028.55
FRESNO	2023	MHDT	Aggregated	Aggregated	GAS	926.14745	51879.66	10.96463468	4.73154504	245470.961
FRESNO	2023	MHDT	Aggregated	Aggregated	DSL	9736.5049	659605.7	71.4206232	9.23550746	6091793.35

Worker
Weighted Average Fuel Economy **27.21916**

Vendor
Weighted Average Fuel Economy **8.53306276**

Haul
Weighted Average Fuel Economy **6.5704349**

Construction Vehicle Fuel Calculations (Page 2 of 2)

Construction Schedule

Source: CalEEMod Output

TT 6432 Residential Project

CalEEMod Run	Phase Name	Start Date	End Date	Num Days Week	Num Days
Project Construction	Site Preparation	6/1/2023	6/14/2023	5	10
Project Construction	Grading	6/15/2023	7/12/2023	5	20
Project Construction	Building Construction	7/13/2023	5/29/2024	5	230
Project Construction	Paving	5/30/2024	6/26/2024	5	20
Project Construction	Architectural Coating	6/27/2024	7/24/2024	5	20

Construction Trips and VMT

	Trips per Day		Total Trips	Construction Trip Length in Miles				Trips per Phase			VMT per Phase			Fuel Consumption (gallons)		
Phase Name	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Number of Days per Phase	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trips	Vendor Trips	Hauling Trips	Worker Trips	Vendor Trips	Hauling Trips
Site Preparation	18	0	14	10.8	7.3	20	10	180	0	14	1,944	0	280	71.42	0.00	42.62
Grading	15	0	637	10.8	7.3	20	20	300	0	637	3,240	0	12,740	119.03	0.00	1,938.99
Building Construction	15	4	12	10.8	7.3	20	230	3,450	920	12	37,260	6,716	240	1,368.89	787.06	36.53
Paving	34	12	18	10.8	7.3	20	20	680	240	18	7,344	1,752	360	269.81	205.32	54.79
Architectural Coating	7	0	2	10.8	7.3	20	20	140	0	2	1,512	0	40	55.55	0.00	6.09

Total Project Construction VMT (miles)

73,428

Total Project Fuel Consumption (gallons)

4,956

Construction Equipment Fuel Calculation (Page 1 of 2)

Source: CalEEMod Output
TT 6432 Residential Project
Construction Schedule

Construction Area	Phase Type	Start Date	End Date	Num Days Week	Num Days
Project Construction	Site Preparation	6/1/2023	6/14/2023	5	10
Project Construction	Grading	6/15/2023	7/12/2023	5	20
Project Construction	Building Construction	7/13/2023	5/29/2024	5	230
Project Construction	Paving	5/30/2024	6/26/2024	5	20
Project Construction	Architectural Coating	6/27/2024	7/24/2024	5	20

Construction Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor	Number of Days	HP Hours	Fuel (gallons/HP-hour)	Diesel Fuel Usage
Site Preparation	Rubber Tired Dozers	3	8	247	0.40	10	23,712.00	0.02046	485.18
Site Preparation	Tractors/Loaders/Backhoes	4	8	97	0.37	10	11,484.80	0.01894	217.54
Grading	Excavators	1	8	158	0.38	20	9,606.40	0.01976	189.85
Grading	Graders	1	8	187	0.41	20	12,267.20	0.02120	260.05
Grading	Rubber Tired Dozers	1	8	247	0.40	20	15,808.00	0.02046	323.46
Grading	Tractors/Loaders/Backhoes	3	8	97	0.37	20	17,227.20	0.01894	326.31
Paving	Pavers	2	8	130	0.42	20	17,472.00	0.02151	375.87
Paving	Paving Equipment	2	8	132	0.36	20	15,206.40	0.01833	278.73
Paving	Rollers	2	8	80	0.38	20	9,728.00	0.01942	188.89
Building Construction	Cranes	1	7	231	0.29	230	107,853.90	0.01500	1,617.30
Building Construction	Forklifts	3	8	89	0.20	230	98,256.00	0.02081	2,044.62
Building Construction	Generator Sets	1	8	84	0.74	230	114,374.40	0.04240	4,849.81
Building Construction	Tractors/Loaders/Backhoes	3	7	97	0.37	230	173,348.70	0.01894	3,283.45
Building Construction	Welders	1	8	46	0.45	230	38,088.00	0.02588	985.81
Architectural Coating	Air Compressors	1	6	78	0.48	20	4,492.80	0.02766	124.26

Total Construction Equipment Fuel Consumption (gallons) **15,551.12**

Notes:
Equipment assumptions are provided in the CalEEMod output files.
Source of usage estimates: California Air Resource Board (CARB). 2022. OFFROAD2017 (v1.0.1) Emissions Inventory
Website: https://www.arb.ca.gov/orion/. Accessed May 1, 2023.

Construction Equipment Fuel Calculation (Page 2 of 2)

OFFROAD2017 (v1.0.1) Emissions Inventory
Region Type: County
Region: Fresno
Scenario: All Adopted Rules - Exhaust
Vehicle Classification: OFFROAD2017 Equipment Types
Units: Emissions: tons/day, Fuel Consumption: gallons/year, Activity: hours/year, HP-Hours: HP-hours/year

Region	Vehicle Class	Model Year	HP_Bin	Fuel	Fuel (gallons/year)	Horsepower Hours (HP-hours/year)	Fuel (gallons/HP-hour)
Fresno	ConstMin - Cranes	Aggregated	75	Diesel	283.187	18885.015	0.014995321
Fresno	ConstMin - Excavators	Aggregated	175	Diesel	247434.805	12520180.193	0.019762879
Fresno	ConstMin - Graders	Aggregated	175	Diesel	151368.953	7140536.907	0.021198539
Fresno	ConstMin - Pavers	Aggregated	175	Diesel	32732.189	1521509.140	0.021512976
Fresno	ConstMin - Paving Equipment	Aggregated	175	Diesel	13696.518	747231.968	0.018329673
Fresno	ConstMin - Rollers	Aggregated	100	Diesel	79011.010	4069235.397	0.019416672
Fresno	ConstMin - Rough Terrain Forklifts	Aggregated	100	Diesel	200971.731	9657888.419	0.020809076
Fresno	ConstMin - Rubber Tired Dozers	Aggregated	300	Diesel	10331.179	504908.236	0.020461498
Fresno	ConstMin - Scrapers	Aggregated	300	Diesel	90981.977	3659218.054	0.024863776
Fresno	ConstMin - Tractors/Loaders/Backhoes	Aggregated	175	Diesel	211438.622	11162834.316	0.018941303
Fresno	ConstMin - Tractors/Loaders/Backhoes	Aggregated	300	Diesel	127421.155	6692059.770	0.019040648
Fresno	ConstMin - Trenchers	Aggregated	100	Diesel	17961.409	689768.533	0.026039763
Fresno	OFF - ConstMin - Cement and Mortar Mixers	Aggregated	25	Diesel	1766.600	55224.500	0.031989425
Fresno	OFF - ConstMin - Concrete/Industrial Saws	Aggregated	50	Diesel	901.550	21319.650	0.04228728
Fresno	OFF - Light Commercial - Generator Sets	Aggregated	50	Diesel	49348.000	1163787.900	0.042402916
Fresno	OFF - Light Commercial - Welders	Aggregated	50	Diesel	82263.700	3178347.000	0.025882542
Fresno	OFF - Light Commercial - Air Compressors	Aggregated	50	Diesel	17928.800	648240.000	0.027657658

Construction Office Electricity Calculation

Energy Appendix: CalEEMod Typical Construction Trailer
Typical Construction Trailer - Fresno County, Annual

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Office Building	6364.8	0.5889	1.0000e-004	1.0000e-005	0.5947
Total		**0.5889**	**1.0000e-004**	**1.0000e-005**	**0.5947**

kWh/yr = kilowatt hours per year

Energy by Land Use - Electricity

Annual	6,365 kWh/yr
Total Over Construction	**7,306 kWh**

Total Construction Schedule	
Start	6/1/2023
End	7/24/2024
Total Calendar Days	419
Years	1.15

Operational Fuel Calculation—Project-generated Operational Trips (Passenger Vehicles)

California Air Resource Board (CARB). 2021. EMFAC2017 Web Database. Website: https://arb.ca.gov/emfac/2017/. Accessed May 1, 2023.

EMFAC2017 (v1.0.2) Emissions Inventory
Region Type: County
Region: FRESNO
Calendar Year: 2023
Season: Annual
Vehicle Classification: EMFAC2007 Categories
Units: miles/day for VMT, trips/day for Trips, tons/day for Emissions, 1000 gallons/day for Fuel Consumption. Note 'day' in the unit is operation day.

VMT = Vehicle Miles Traveled
FE = Fuel Economy

				Given						*Calculations*	
Region	Calendar Year	Vehicle Class	Model Year	Speed	Fuel	Population	VMT	Fuel Consumption		FE	VMT*FE
FRESNO	2023	LDA	Aggregated	Aggregated	DSL	3302.660735	133912.4456	2.514683705		53.25220237	7131132.651
FRESNO	2023	LDA	Aggregated	Aggregated	GAS	381514.1018	14386739.1	444.0992546		32.39532368	466063069.7
										Total VMT	**14520651.54**
									Weighted Average Fuel Economy		**32.58767012**
FRESNO	2023	LDT1	Aggregated	Aggregated	DSL	24.83090015	351.9522611	0.013512256		26.04689069	9167.262072
FRESNO	2023	LDT1	Aggregated	Aggregated	GAS	40569.89066	1398435.767	51.00537588		27.41741911	38341499.52
FRESNO	2023	LDT2	Aggregated	Aggregated	DSL	705.945595	29597.10399	0.751922877		39.36188791	1164997.89
FRESNO	2023	LDT2	Aggregated	Aggregated	GAS	133632.97	4763918.967	187.1991367		25.44840244	121234127.1
FRESNO	2023	MDV	Aggregated	Aggregated	DSL	2404.509802	93969.83403	3.300438284		28.47192583	2675502.144
FRESNO	2023	MDV	Aggregated	Aggregated	GAS	121259.0487	3909230.021	192.2808685		20.33083193	79477898.52
										Total VMT	**10195503.65**
									Weighted Average Fuel Economy		**23.82454078**
FRESNO	2023	LHDT1	Aggregated	Aggregated	DSL	10460.98457	352535.8974	19.51817227		18.06193185	6367479.354
FRESNO	2023	LHDT1	Aggregated	Aggregated	GAS	10173.79335	336229.2535	39.83292259		8.440988801	2838107.363
FRESNO	2023	LHDT2	Aggregated	Aggregated	DSL	3649.071124	124459.2584	7.721566412		16.11839513	2006083.504
FRESNO	2023	LHDT2	Aggregated	Aggregated	GAS	1750.83855	55993.64297	7.645968382		7.323289893	410057.6797
FRESNO	2023	MHDT	Aggregated	Aggregated	DSL	9740.148656	681549.9704	69.24030636		9.843254691	6708669.943
FRESNO	2023	MHDT	Aggregated	Aggregated	GAS	910.5946581	52284.62899	10.73048081		4.872533663	254758.6148
										Total VMT	**1603052.652**
									Weighted Average Fuel Economy		**11.59360327**
FRESNO	2023	HHDT	Aggregated	Aggregated	DSL	16977.00595	2350104.202	334.3262679		7.029373482	16519760.16
FRESNO	2023	HHDT	Aggregated	Aggregated	GAS	3.506504299	492.7245231	0.119335015		4.128918277	2034.419289
										Total VMT	**2350596.926**
									Weighted Average Fuel Economy		**7.028765498**
FRESNO	2023	OBUS	Aggregated	Aggregated	GAS	325.7645497	16047.09199	3.369954405		4.761812792	76413.24792
FRESNO	2023	OBUS	Aggregated	Aggregated	DSL	227.0034654	18507.64056	2.324280165		7.962740824	147371.545
FRESNO	2023	SBUS	Aggregated	Aggregated	GAS	88.35964756	4845.891119	0.514584547		9.417094134	45634.21283
FRESNO	2023	SBUS	Aggregated	Aggregated	DSL	1089.932258	34013.33503	4.234798939		8.03186539	273190.5284
FRESNO	2023	UBUS	Aggregated	Aggregated	GAS	80.65819086	6954.311448	1.536922718		4.524828326	31467.06543
FRESNO	2023	UBUS	Aggregated	Aggregated	DSL	19.74029096	2065.425531	0.267532548		7.72027757	15945.6584
FRESNO	2023	UBUS	Aggregated	Aggregated	NG	123.7651722	13851.46251	3.183507439		4.351006797	60267.80752
										Total VMT	**96285.15819**
									Weighted Average Fuel Economy		**6.753793396**
FRESNO	2023	MCY	Aggregated	Aggregated	GAS	18656.02358	145228.6289	3.83706363		37.84889771	5496743.519
										Total VMT	**145228.6289**
									Weighted Average Fuel Economy		**37.84889771**

Operational Fuel Calculation—Project-generated Operational Trips

Total Operational VMT

TT 6432 Residential Project - Buildout Year Operations

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Parking Lot	0.00	0.00	0.00		
Single Family Housing	414.92	417.12	373.12	1,199,005	1,199,005
Total	414.92	417.12	373.12	1,199,005	1,199,005

	Annual VMT (miles)
Total VMT	**1,199,005**

By Vehicle Type (Average Fleet Mix for the 2023 Operational Year for Passenger Vehicles)

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.530500	0.205800	0.167300	0.055000	0.001100	0.000900	0.008500	0.021800	0.000000	0.004300	0.002500	0.000400	0.001900

	Fraction of 1	Percent of Vehicle Trips	Annual VMT	Daily VMT	Average Fuel Economy (miles/gallon)	Total Daily Fuel Consumption (gallons)	Total Annual Fuel Consumption (gallons)
Passenger Cars (LDA)	0.5305	53.05	636,072	1,743	32.59	53.5	19,519
Light Trucks and Medium Vehicles (LDT1, LDT2, and MDV)	0.4281	42.81	513,294	1,406	23.82	59.0	21,545
LHDT1, LHDT2, and MHDT	0.0105	1.05	12,590	34	11.59	3.0	1,086
HHDT	0.0218	2.18	26,138	72	7.03	10.2	3,719
MCY	0.0025	0.25	2,998	8	37.85	0.2	79
Buses/Other	0.0066	0.66	7,913	22	6.75	3.2	1,172
Total	—	100.0	1,199,005	3,285		129.1	47,119

Project Operations Natural Gas Use

Source: CalEEMod Output

TT 6432 Residential Project - Buildout Year Operations

kBTU/yr = kilo-British Thermal Units/year

CalEEMod Land Use	Natural Gas Use (kBTU/yr)
Parking Lot	0
Single Family Housing	1,057,650
Total	**1,057,650 kBTU/yr**

Project Operations Electricity Use

Source: CalEEMod Output

TT 6432 Residential Project - Buildout Year Operations

kWh/yr = kilowatt hours per year

CalEEMod Land Use	Electricity Use (kWh/yr)	
Parking Lot	15,246	
Single Family Housing	350,854	
Total	**366,100**	**kWh/yr**

EnergyUseLandUseSubType	T24E	NT24E	Lighting Elect	T24NG	NT24NG
Parking Lot	0	0	0.35	0	0
Single Family Housing	209.15	6155.97	1608.84	20314.55	3723

*The estimates above account for total consumption and not demand after incorporation of renewable energy. Demand from the utility after accounting for on-site renewable energy is provided below.

CalEEMod Land Use	Electricity Use (kWh/yr)	
Parking Lot	2,287	
Single Family Housing	52,628	
Total	**54,915**	**kWh/yr**

BIOLOGICAL RESOURCE EVALUATION

January 2023

TULARE AND PEACH RESIDENTIAL DEVELOPMENT
FRESNO COUNTY, CALIFORNIA

PREPARED FOR:
Crawford & Bowen Planning, Inc.
113 N. Church Street, Suite 310
Visalia, CA 93291

PREPARED BY:
Colibri Ecological Consulting, LLC
9493 N Fort Washington Road, Suite 108
Fresno, CA 93730
www.colibri-ecology.com

Contents

Executive Summary iii
Abbreviations iv
1.0 Introduction 1
1.1 Background 1
1.2 Project Description 1
1.3 Project Location 1
1.4 Regulatory Framework 4
1.4.2 Federal Requirements 6
2.0 Methods 8
2.1 Desktop Review 8
2.2 Reconnaissance Survey 8
2.3 Significance Criteria 8
3.0 Results 11
3.1 Desktop Review 11
3.2 Reconnaissance Survey 19
3.2.1 Land Use and Habitats 19
3.2.2 Plant and Animal Species Observed 22
3.2.3 Nesting Birds 23
3.2.4 Regulated Habitats 23
3.3 Special-Status Species 24
3.3.1 Pallid bat 24
3.3.2 Western mastiff bat 24
4.0 Environmental Impacts 25
4.1 Significance Determinations 25
4.1.1 Direct and Indirect Impacts 26
4.1.2 Cumulative Impacts 27
4.1.3 Unavoidable Significant Adverse Impacts 27
5.0 Literature Cited 28

Figures

Figure 1. Project site vicinity map. 2
Figure 2. Project site map. 3
Figure 3. Reconnaissance survey area map. 10
Figure 4. CNDDB occurrence map. 18
Figure 5. Photograph of the Project site, looking northwest from South Peach Avenue, showing disturbed land cover with ruderal vegetation. 19
Figure 6. Photograph of the Project site, looking northeast, showing disturbed land cover with ruderal vegetation. 20
Figure 7. Photograph of overgrown shrubs in the eastern half of the Project site, looking northeast. 20
Figure 8. Photograph of the Project site, looking northeast, showing trash and scattered debris. 21

Tables

Table 1. Special-status species, their listing status, habitats, and potential to occur on or near the Project site. 12

Table 2. Plant and animal species observed during the reconnaissance survey.... 22

Appendices

Appendix A. USFWS list of threatened and endangered species. 30

Appendix B. CNDDB occurrence records. 39

Appendix C. CNPS plant list. 45

Executive Summary

The project applicant proposes to construct 44 single-family residences in southeast Fresno, Fresno County, California. The proposed residential development project (Project) will involve construction on an approximately 3.68-acre parcel that currently supports ruderal vegetation.

To evaluate whether the Project may affect biological resources under California Environmental Quality Act (CEQA) purview, we (1) obtained lists of special-status species from the United States Fish and Wildlife Service, the California Department of Fish and Wildlife, and the California Native Plant Society; (2) reviewed other relevant background information such as satellite imagery and topographic maps; and (3) conducted a field reconnaissance survey at the Project site.

This biological resource evaluation summarizes (1) existing biological conditions on the Project site, (2) the potential for special-status species and regulated habitats to occur on or near the Project site, (3) the potential impacts of the proposed Project on biological resources and regulated habitats, and (4) measures to reduce those potential impacts to less-than-significant levels under CEQA.

We concluded the Project will not affect regulated habitats but could affect two special-status wildlife species: pallid bat (*Antrozous pallidus*) and western mastiff bat (*Eumops perotis californicus*), both state species of special concern. Nesting migratory birds could also be impacted. However, effects can be reduced to less-than-significant levels with mitigation.

Abbreviations

Abbreviation	Definition
CCR	California Code of Regulations
CDFG	California Department of Fish and Game
CDFW	California Department of Fish and Wildlife
CESA	California Endangered Species Act
CEQA	California Environmental Quality Act
CFGC	California Fish and Game Code
CFR	Code of Federal Regulations
CNDDB	California Natural Diversity Database
CNPS	California Native Plant Society
FC	Federal Candidate for listing under the FESA
FE	Federally listed as Endangered
FESA	Federal Endangered Species Act
FP	State Fully Protected
FT	Federally listed as Threatened
MBTA	Migratory Bird Treaty Act
NRCS	Natural Resources Conservation Service
SE	State listed as Endangered
SSSC	State Species of Special Concern
ST	State listed as Threatened
SWRCB	State Water Resources Control Board
USACE	United States Army Corps of Engineers
USC	United States Code
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey

1.0 Introduction

1.1 Background

The project applicant proposes to construct a residential development project (Project) on an approximately 3.68-acre parcel in southeast Fresno, Fresno County, California. The Project site currently supports ruderal vegetation.

The purpose of this biological resource evaluation is to assess whether the Project will affect protected biological resources pursuant to California Environmental Quality Act (CEQA) guidelines. Such resources include species of plants or animals listed or proposed for listing under the Federal Endangered Species Act (FESA) or the California Endangered Species Act (CESA) as well as those covered under the Migratory Bird Treaty Act (MBTA), the California Native Plant Protection Act, and various other sections of California Fish and Game Code (CFGC). This biological resource evaluation also addresses Project-related impacts to regulated habitats, which are those under the jurisdiction of the United States Army Corps of Engineers (USACE), State Water Resources Control Board (SWRCB), or California Department of Fish and Wildlife (CDFW).

1.2 Project Description

The Project will involve constructing 44 single-family residences and four private streets. The residences will include covered outdoor patios and fenced rear yards. A community center, swimming pool, and open landscaping will provide common recreation space within the residential development.

1.3 Project Location

The 3.68-acre Project site is approximately 700 feet south of East Tulare Avenue and immediately west of South Peach Avenue in southeast Fresno, Fresno County, California (Figures 1 and 2). The Project site is accessed from South Peach Avenue and will be gated for Project security.

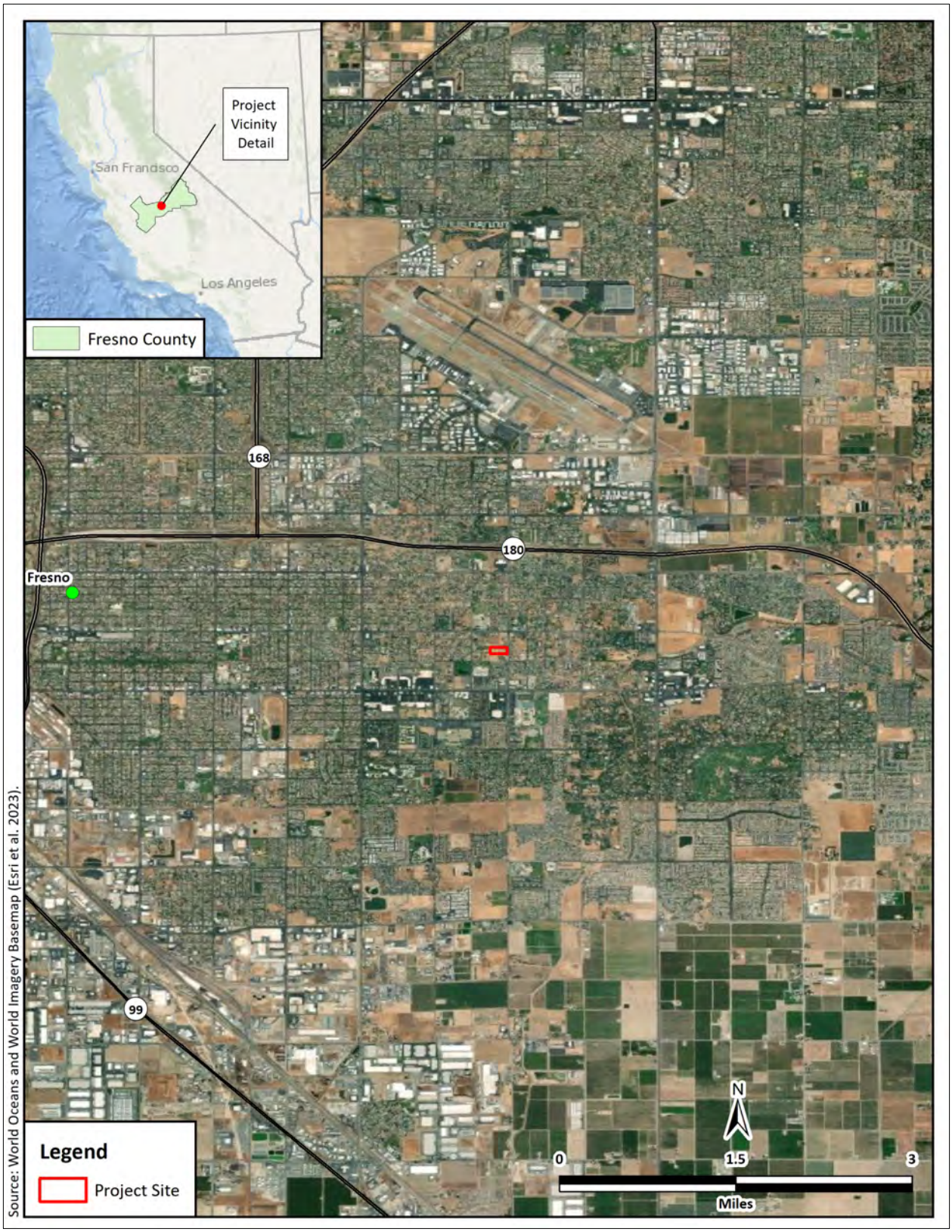


Figure 1. Project site vicinity map.

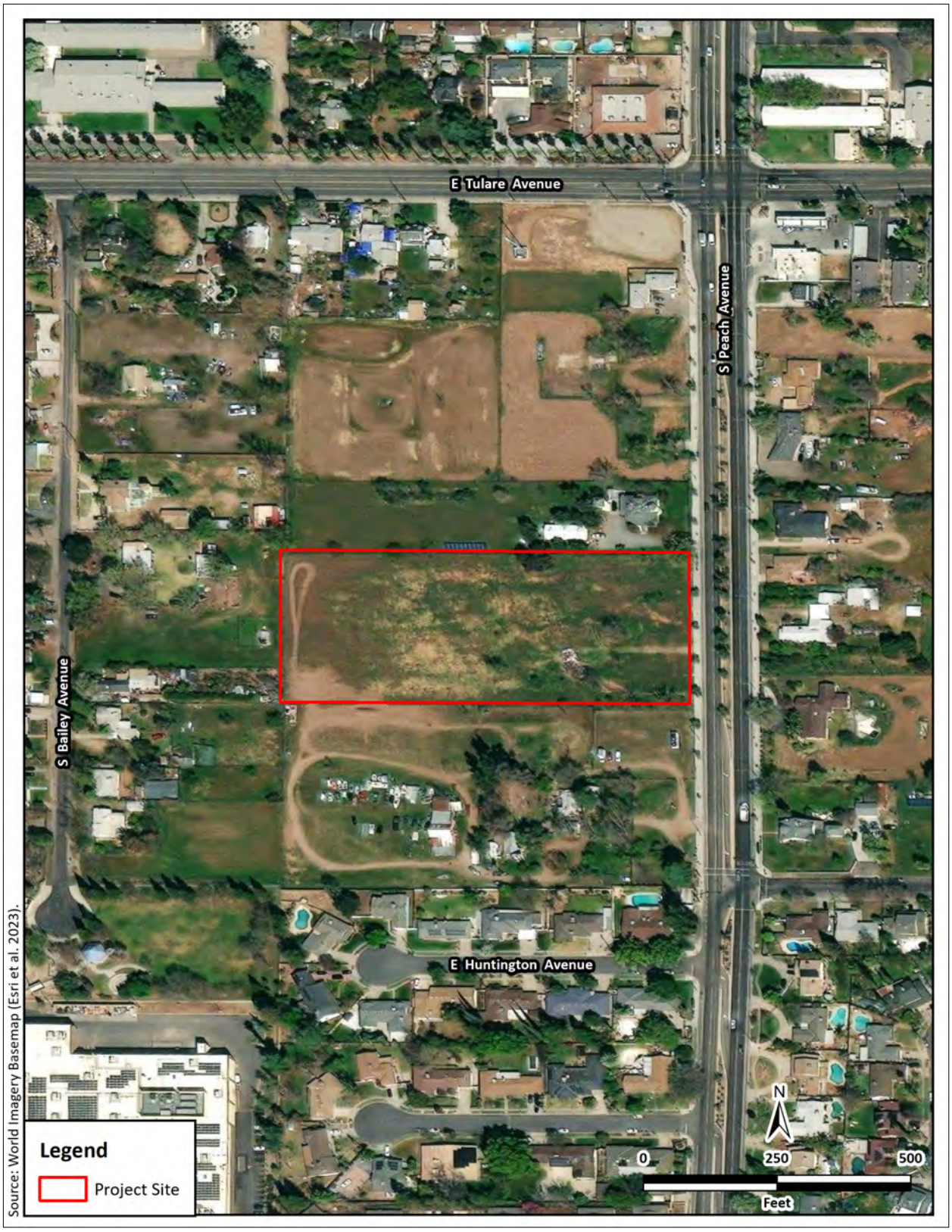


Figure 2. Project site map.

1.4 Regulatory Framework

The relevant state and federal regulatory requirements and policies that guide the impact analysis of the Project are summarized below.

1.4.1 State Requirements

California Department of Fish and Wildlife Jurisdiction. The CDFW has regulatory jurisdiction over lakes and streams in California. Activities that divert or obstruct the natural flow of a stream; substantially change its bed, channel, or bank; or use any materials (including vegetation) from the streambed, may require that the project applicant enter into a Lake and Streambed Alteration Agreement with the CDFW in accordance with California Fish and Game Code [CFGC] Section 1602.

California Endangered Species Act. The California Endangered Species Act (CESA) of 1970 (CFGC § 2050 et seq. and California Code of Regulations (CCR) Title 14, Subsection 670.2, 670.51) prohibits the take of species listed under CESA (14 CCR Subsection 670.2, 670.5). Take is defined as hunt, pursue, catch, capture, or kill or attempt to hunt, pursue, catch, capture, or kill. Under CESA, state agencies are required to consult with the CDFW when preparing CEQA documents. Consultation ensures that proposed projects or actions do not have a negative effect on state listed species. During consultation, CDFW determines whether take would occur and identifies "reasonable and prudent alternatives" for the project and conservation of special-status species. CDFW can authorize take of state listed species under Sections 2080.1 and 2081(b) of the CFGC in those cases where it is demonstrated that the impacts are minimized and mitigated. Take authorized under section 2081(b) must be minimized and fully mitigated. A CESA permit must be obtained if a project will result in take of listed species, either during construction or over the life of the project. Under CESA, CDFW is responsible for maintaining a list of threatened and endangered species designated under state law (CFGC § 2070). CDFW also maintains lists of species of special concern, which serve as "watch lists." Pursuant to the requirements of CESA, a state or local agency reviewing a proposed project within its jurisdiction must determine whether the proposed project will have a potentially significant impact upon such species. Project-related impacts to species on the CESA list would be considered significant and would require mitigation. Impacts to species of concern or fully protected species would be considered significant under certain circumstances.

California Environmental Quality Act. The California Environmental Quality Act (CEQA) of 1970 (Subsections 21000–21178) requires that CDFW be consulted during the CEQA review process regarding impacts of proposed projects on special-status species. Special-status species are defined under CEQA Guidelines subsection 15380(b) and (d) as those listed under FESA and CESA and species that are not currently protected by statute or regulation but would be considered rare, threatened, or endangered under these criteria or by the scientific community. Therefore, species considered rare or endangered are addressed in this biological resource evaluation regardless of whether they are afforded protection through any other statute or regulation. The

California Native Plant Society (CNPS) inventories the native flora of California and ranks species according to rarity (CNPS 2023). Plants with Rare Plant Ranks 1A, 1B, 2A, or 2B are considered special-status species under CEQA.

Although threatened and endangered species are protected by specific federal and state statutes, CEQA Guidelines Section 15380(d) provides that a species not listed on the federal or state list of protected species may be considered rare or endangered if it can be shown to meet certain specified criteria. These criteria have been modeled after the definition in the FESA and the section of the CFGC dealing with rare and endangered plants and animals. Section 15380(d) allows a public agency to undertake a review to determine if a significant effect on species that have not yet been listed by either the USFW Service or CDFW (i.e., candidate species) would occur. Thus, CEQA provides an agency with the ability to protect a species from the potential impacts of a project until the respective government agency has an opportunity to designate the species as protected, if warranted.

California Native Plant Protection Act. The California Native Plant Protection Act of 1977 (CFGC §§ 1900–1913) requires all state agencies to use their authority to carry out programs to conserve endangered and otherwise rare species of native plants. Provisions of the act prohibit the taking of listed plants from the wild and require the project proponent to notify CDFW at least 10 days in advance of any change in land use, which allows CDFW to salvage listed plants that would otherwise be destroyed.

Nesting birds. CFGC Sections 3503, 3503.5, and 3800 prohibit the possession, incidental take, or needless destruction of birds, their nests, and eggs. CFGC Section 3511 lists birds that are "Fully Protected" as those that may not be taken or possessed except under specific permit.

***Porter-Cologne Water Quality Control Act*.** The Porter-Cologne Water Quality Control Act (California Water Code § 13000 et. sec.) was established in 1969 and entrusts the SWRCB and nine Regional Water Quality Control Boards (collectively Water Boards) with the responsibility to preserve and enhance all beneficial uses of California's diverse waters. The Act grants the Water Boards authority to establish water quality objectives and regulate point- and nonpoint-source pollution discharge to the state's surface and ground waters. Under the auspices of the United States Environmental Protection Agency, the Water Boards are responsible for certifying, under Section 401 of the federal Clean Water Act, that activities affecting waters of the United States comply California water quality standards. The Porter-Cologne Water Quality Control Act addresses all "waters of the State," which are more broadly defined than waters of the Unites States. Waters of the State include any surface water or groundwater, including saline waters, within the boundaries of the state. They include artificial as well as natural water bodies and federally jurisdictional and federally non-jurisdictional waters. The Water Boards may issue a Waste Discharge Requirement permit for projects that will affect only federally non-jurisdictional waters of the State.

1.4.2 Federal Requirements

Federal Endangered Species Act. The United States Fish and Wildlife Service (USFWS) and the National Oceanographic and Atmospheric Association and National Marine Fisheries Service enforce the provisions stipulated in the FESA of 1973 (FESA, 16 United States Code [USC] § 1531 et seq.). Threatened and endangered species on the federal list (50 Code of Federal Regulations [CFR] 17.11 and 17.12) are protected from take unless a Section 10 permit is granted to an entity other than a federal agency or a Biological Opinion with incidental take provisions is rendered to a federal lead agency via a Section 7 consultation. Take is defined as harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect or attempt to engage in any such conduct. Pursuant to the requirements of the FESA, an agency reviewing a proposed action within its jurisdiction must determine whether any federally listed species may be present in the proposed action area and determine whether the proposed action may affect such species. Under the FESA, habitat loss is considered an effect to a species. In addition, the agency is required to determine whether the proposed action is likely to jeopardize the continued existence of any species that is listed or proposed for listing under the FESA (16 USC § 1536[3], [4]). Therefore, proposed action-related effects to these species or their habitats would be considered significant and would require mitigation.

Migratory Bird Treaty Act. The federal MBTA (16 USC § 703, Supp. I, 1989) prohibits killing, possessing, trading, or other forms of take of migratory birds except in accordance with regulations prescribed by the Secretary of the Interior. "Take" is defined as the pursuing, hunting, shooting, capturing, collecting, or killing of birds, their nests, eggs, or young (16 USC § 703 and § 715n). This act encompasses whole birds, parts of birds, and bird nests and eggs. The MBTA specifically protects migratory bird nests from possession, sale, purchase, barter transport, import, and export, and take. For nests, the definition of take per 50 CFR 10.12 is to collect. The MBTA does not include a definition of an "active nest." However, the "Migratory Bird Permit Memorandum" issued by the USFWS in 2003 and updated in 2018 clarifies the MBTA in that regard and states that the removal of nests, without eggs or birds, is legal under the MBTA, provided no possession (which is interpreted as holding the nest with the intent of retaining it) occurs during the destruction (USFWS 2018).

United States Army Corps of Engineers Jurisdiction. Areas meeting the regulatory definition of "waters of the United States" (jurisdictional waters) are subject to the jurisdiction of the USACE under provisions of Section 404 of the Clean Water Act (1972) and Section 10 of the Rivers and Harbors Act (1899). These waters may include all waters used, or potentially used, for interstate commerce, including all waters subject to the ebb and flow of the tide, all interstate waters, all other waters (intrastate lakes, rivers, streams, mudflats, sandflats, playa lakes, natural ponds, etc.), all impoundments of waters otherwise defined as waters of the United States, tributaries of waters otherwise defined as waters of the United States, the territorial seas, and wetlands adjacent to waters of the United States (33 CFR part 328.3). Wetlands on non-agricultural lands are identified using the *Corps of Engineers Wetlands Delineation Manual* and related Regional Supplement (USACE 1987 and 2008). Construction activities, including direct removal, filling, hydrologic disruption, or other means in jurisdictional waters are regulated by the USACE. The

placement of dredged or fill material into such waters must comply with permit requirements of the USACE. No USACE permit will be effective in the absence of state water quality certification pursuant to Section 401 of the Clean Water Act. The SWRCB is the state agency (together with the Regional Water Quality Control Boards) charged with implementing water quality certification in California.

2.0 Methods

2.1 Desktop Review

As a framework for the evaluation and reconnaissance survey, we obtained an official USFWS species list for the Project (USFWS 2023a, Appendix A). In addition, we searched the California Natural Diversity Database (CNDDB, CDFW 2023, Appendix B) and the CNPS Inventory of Rare and Endangered Plants (CNPS 2023, Appendix C) for records of special-status plant and animal species from the vicinity of the Project site. Regional lists of special-status species were compiled using CNDDB and CNPS database searches confined to the Malaga 7.5-minute United States Geological Survey (USGS) topographic quadrangle, which encompasses the Project site, and the eight surrounding quadrangles (Caruthers, Clovis, Conejo, Fresno North, Fresno South, Round Mountain, Sanger, and Selma). A local list of special-status species was compiled using CNDDB records from within 5 miles of the Project site. Species that lacked a CEQA-recognized special-status designation by state or federal regulatory agencies or public interest groups were omitted from the final list. Species for which the Project site does not provide habitat were eliminated from further consideration. We also reviewed aerial imagery from Google Earth (Google 2023) and other sources, USGS topographic maps, the Web Soil Survey (NRCS 2023), the National Wetlands Inventory (USFWS 2023b), and relevant literature.

2.2 Reconnaissance Survey

Colibri Senior Scientist Ryan Slezak conducted a field reconnaissance survey of the Project site on 18 January 2023. The Project site and a 50-foot buffer surrounding the Project site (Figure 3) were walked and thoroughly inspected to evaluate and document the potential for the area to support state or federally protected resources. All plants except those under cultivation or planted in residential areas and all vertebrate wildlife species observed within the survey area were identified and documented. The survey area was evaluated for the presence of regulated habitats, including lakes, streams, and other waters using methods described in the *Wetlands Delineation Manual* and regional supplement (USACE 1987, 2008) and as defined by the CDFW (https://www.wildlife.ca.gov/conservation/lsa) or under the Porter-Cologne Water Quality Control Act. An additional buffer of 0.5 miles around the Project site was inspected for potential nesting habitat for special-status raptors. The 0.5-mile buffer was surveyed by driving public roads and identifying the presence of large trees or other potentially suitable substrates for nesting raptors as well as open areas that could provide foraging habitat.

2.3 Significance Criteria

CEQA defines “significant effect on the environment” as “a substantial, or potentially substantial, adverse change in the environment” (California Public Resource Code § 21068). Under CEQA

Guidelines Section 15065, a Project's effects on biological resources are deemed significant where the Project would do the following:

a) Substantially reduce the habitat of a fish or wildlife species,
b) Cause a fish or wildlife population to drop below self-sustaining levels,
c) Threaten to eliminate a plant or animal community, or
d) Substantially reduce the number or restrict the range of a rare or endangered plant or animal.

In addition to the Section 15065 criteria, Appendix G within the CEQA Guidelines includes six additional impacts to consider when analyzing the effects of a project. Under Appendix G, a project's effects on biological resources are deemed significant where the project would do any of the following:

e) 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 CDFW or USFWS;

f) 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 CDFW or USFWS;

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

h) 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;

i) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance; or

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

These criteria were used to determine whether the potential effects of the Project on biological resources qualify as significant.

Figure 3. Reconnaissance survey area map.

3.0 Results

3.1 Desktop Review

The USFWS species list for the Project included nine species listed as threatened or endangered under the FESA (USFWS 2023a, Table 1, Appendix A). None of those species could occur on or near the Project site due to either due to either (1) the lack of habitat, (2) the Project site being outside the current range of the species, or (3) the presence of development that would otherwise preclude occurrence (Table 1). As identified in the species list, the Project site does not occur in USFWS-designated or proposed critical habitat for any species (USFWS 2023a, Appendix A).

Searching the CNDDB for records of special-status species from the Malaga 7.5-minute USGS topographic quadrangle and the eight surrounding quadrangles produced 131 records of 42 species (Table 1, Appendix B). Of those 42 species, 11 were not considered further because they are not CEQA-recognized as special-status species by state or federal regulatory agencies or public interest groups or are considered extirpated in California (Appendix B). Of the remaining 31 species, 17 are known from within 5 miles of the Project site (Table 1, Figure 4). Of those species only two, pallid bat (*Antrozous pallidus* – SSSC) and western mastiff bat (*Eumops perotis californicus* – SSSC), could occur on or near the Project site (Table 1).

Searching the CNPS inventory of rare and endangered plants of California yielded 12 species (CNPS 2023, Appendix C) which have a CRPR of 1 or 2 (Table 1). None of these species are expected to occur on or near the Project site due to either (1) lack of habitat, (2) the Project site being outside the current range of the species, or (3) lack of detection during the 18 January 2023 field survey (Table 1).

The Project site is underlain by Atwater loamy sand, 0 to 3 percent slopes and Greenfield sandy loam, 0 to 3 percent slopes (NCRS 2023). The Project site is at an elevation of 316–318 feet above mean sea level (Google 2023).

Table 1. Special-status species, their listing status, habitats, and potential to occur on or near the Project site.

Species	Status[1]	Habitat	Potential to Occur[2]
Federally and State-Listed Endangered or Threatened Species			
California jewelflower[3] (*Caulanthus californicus*)	FE, SE, 1B.1	Chenopod scrub, pinyon and juniper woodland, and valley and foothill grassland at 150–3300 feet elevation.	**None.** Habitat lacking; the Project site consisted of ruderal vegetation surrounded by residential development.
Greene's tuctoria (*Tuctoria greenei*)	FE, 1B.1	Vernal pools in open grasslands below 3445 feet elevation.	**None.** Habitat lacking; the Project site lacked vernal pools.
Hairy Orcutt grass (*Orcuttia pilosa*)	FE, SE, 1B.1	Vernal pools below 650 feet elevation.	**None.** Habitat lacking; the Project site lacked vernal pools.
San Joaquin adobe sunburst (*Pseudobahia peirsonii*)	FT, SE, 1B.1	Grassland and bare dark clay.	**None.** Habitat lacking; the Project site lacked bare dark clay.
San Joaquin Valley Orcutt grass (*Orcuttia inaequalis*)	FT, SE, 1B.1	Vernal pools at or below 2700 feet elevation.	**None.** Habitat lacking; the Project site lacked vernal pools.
Succulent owl's clover (*Castilleja campestris* var. *succulenta*)	FT, SE, 1B.2	Vernal pools and moist places at or below 2460 feet elevation.	**None.** Habitat lacking; the Project site lacked vernal pools and moist places.
Crotch bumble bee[3] (*Bombus crotchii*)	SC	Nests or overwinters in open grassland and scrub habitats with *Antirrhinum*, *Phacelia*, *Clarkia*, *Dendromecon*, *Eschscholzia*, and *Eriogonum* as food plants.	**None.** Habitat lacking; the Project site lacked *Antirrhinum*, *Phacelia*, *Clarkia*, *Dendromecon*, *Eschscholzia*, or *Eriogonum*.
Monarch California overwintering population (*Danaus plexippus*)	FC	Groves of trees within 1.5 miles of the ocean that produce suitable micro-climates for overwintering such as high humidity, dappled sunlight,	**None.** Habitat lacking; the Project site is not within 1.5 miles of the ocean.

		access to water and nectar, and protection from wind.	
Valley elderberry longhorn beetle (*Desmocerus californicus dimorphus*)	FT	Elderberry (*Sambucus* sp.) plants with stems > 1-inch diameter at ground level.	**None.** The Project site is outside the currently recognized range of this species, and no elderberry plants were found in the survey area.
Vernal pool fairy shrimp (*Branchinecta lynchi*)	FT	Vernal pools and ponds.	**None.** Habitat lacking; the Project site lacked vernal pools or ponds.
Delta smelt (*Hypomesus transpacificus*)	FT, SE	Shallow, fresh, or slightly brackish backwater sloughs and edgewaters.	**None.** Habitat lacking; the Project site lacked connectivity to the aquatic habitat this species requires.
Blunt-nosed leopard lizard (*Gambelia sila*)	FE, SE	Upland scrub and sparsely vegetated grassland with small mammal burrows below 2400 feet elevation.	**None.** Habitat lacking; the Project site is outside the current known range of this species.
California tiger salamander[3] (*Ambystoma californiense*)	FT, ST	Vernal pools or seasonal ponds for breeding; small mammal burrows for upland refugia in natural grasslands.	**None.** Habitat lacking; the Project site is outside the current known local range of this species.
California condor (*Gymnogyps californianus*)	FE, SE	Mountain and foothill rangeland with cliffs for nesting and grassland and open woodland for foraging.	**None.** Habitat lacking; the Project site is about 12 miles west of potential foothill habitat.
Least Bell's vireo[3] (*Vireo bellii pusillus*)	FE, SE	Riparian habitat dominated by willows with dense understory vegetation.	**None.** Habitat lacking; the Project site lacked riparian habitat with dense understory vegetation.

Swainson's hawk[3] (*Buteo swainsoni*)	ST	Large trees for nesting with adjacent grasslands, alfalfa fields, or grain fields.	**None.** Habitat lacking; the Project site is in a residential landscape lacking foraging areas of sufficient size to support nesting.
Tricolored blackbird[3] (*Agelaius tricolor*)	ST, SSSC	Freshwater emergent wetlands and silage fields near dairies for nesting and nearby agricultural fields, irrigated pastures, and grassland for foraging.	**None.** Habitat lacking; no aquatic resources or suitable agricultural land was present in the survey area.
Western yellow-billed cuckoo[3] (*Coccyzus americanus occidentalis*)	FT, SE	Open woodlands with dense, low vegetation along waterways, orchards, and dense leafy groves and thickets.	**None.** Habitat lacking, the Project site is outside the current known range of this species. Nearby CNDDB occurrence records are historic and presumed extirpated due to habitat modification.
Fresno kangaroo rat (*Dipodomys nitratoides exilis*)	FE, SE	Sandy, alkaline, saline, and clay soils in upland scrub and grassland.	**None.** Habitat lacking; the Project site is outside the current known range of this species.
San Joaquin kit fox (*Vulpes macrotis mutica*)	FE, ST	Grassland and fallowed agricultural lands adjacent to natural grasslands or upland scrub.	**None.** Habitat lacking; the Project site is outside the current known range of this species.
State Species of Special Concern			
California glossy snake[3] (*Arizona elegans occidentalis*)	SSSC	Arid scrub, rocky washes, grasslands, and chaparral with microhabitats of open areas and areas with soil loose enough for easy burrowing	**None.** Habitat lacking; the Project site is outside the current known range of this species.

Coast horned lizard[3] (*Phrynosoma blainvillii*)	SSSC	Grasslands, woodlands, and upland scrub, with open areas and patches of loose, sandy soil.	**None.** Habitat lacking; the Project site is outside the current known range of this species.
Northern California legless lizard[3] (*Anniella pulchra*)	SSSC	Moist, warm, loose soil with plant cover in beach dunes, chaparral, pine-oak woodlands, sandy areas, and stream terraces.	**None.** Habitat lacking; the Project site is outside the current known range of this species.
Northwestern pond turtle (*Actinemys marmorata*)	SSSC	Ponds, rivers, marshes, streams, and irrigation ditches, usually with aquatic vegetation and woody debris for basking, and adjacent natural upland areas for egg laying.	**None.** Habitat lacking; this species requires permanent or nearly permanent aquatic habitat, which was not present in the survey area.
Western spadefoot (*Spea hammondii*)	SSSC	Rain pools for breeding and small mammal burrows or other suitable refugia for nonbreeding upland cover.	**None.** Habitat lacking; vernal pools or other ephemeral pools were absent from the Project site.
Burrowing owl[3] (*Athene cunicularia*)	SSSC	Grassland and upland scrub with friable soil; agricultural or other developed and disturbed areas with ground squirrel burrows.	**None.** Habitat lacking; the Project site lacked burrows that could support the species.
American badger[3] (*Taxidea taxus*)	SSSC	Open, dry areas with friable soils and small mammal populations in grassland, conifer forests, and desert.	**None.** Habitat lacking; the Project site and surrounding area were routinely disturbed and too fragmented to support this species.

Pallid bat[3] (*Antrozous pallidus*)	SSSC	Arid or semi-arid locations in rocky areas and sparsely vegetated grassland near water. Rock crevices, caves, mine shafts, bridges, building, and tree hollows for roosting.	**Low.** Large trees and snags along the perimeter of the Project site may provide roosting habitat for this species.
Western mastiff bat[3] (*Eumops perotis californicus*)	SSSC	Roosts in crevices in cliff faces, tall buildings, trees, and tunnels in open semi-arid habitats.	**Low.** Large trees and snags along the perimeter of the Project site may provide roosting habitat for this species.
California Rare Plants			
Alkali-sink goldfields (*Lasthenia chrysantha*)	1B.1	Vernal pools and wet saline flats below 320 feet elevation.	**None.** Habitat lacking; the Project site lacked saline flats.
Bristly sedge (*Carex comosa*)	2B.1	Wet places, lake margins below 1312 feet elevation.	**None.** Habitat lacking the Project site lacked wet places or lake margins.
California satintail[3] (*Imperata brevifolia*)	2B.1	Mesic areas in chaparral or riparian scrub below 3985 feet elevation.	**None.** Habitat lacking; the Project site lacked chaparral or riparian scrub.
Forked hare-leaf (*Lagophylla dichotoma*)	1B.1	Grassland and woodland openings at 164–1312 feet elevation.	**None.** Habitat lacking; the Project site is outside the current known range of this species.
Madera leptosiphon[3] (*Leptosiphon serrulatus*)	1B.2	Woodlands, chaparral, and yellow pine forests in the Sierra Nevada foothills from Madera to Kern counties.	**None.** Habitat lacking; the Project site lacked woodlands, chaparral, or yellow pine forest.

Sanford's arrowhead[3] (*Sagittaria sanfordii*)	1B.2	Ponds, sloughs, and ditches at sea level to 650 feet elevation.	**None.** Habitat lacking; the Project site lacked ponds, sloughs, and ditches.
Spiny-sepaled button-celery (*Eryngium spinosepalum*)	1B.2	Vernal pools and swales in valley and foothill grassland at 330–4200 feet elevation.	**None.** Habitat lacking; the Project site lacked vernal pools or swales.

CDFW (2023), CNPS (2023), USFWS (2023).

Status[1]	**Potential to Occur[2]**	
FE = Federally listed Endangered	None:	Species or sign not observed; conditions unsuitable for occurrence.
FT = Federally listed Threatened	Low:	Neither species nor sign observed; conditions marginal for occurrence.
FP = State Fully Protected	Moderate:	Neither species nor sign observed; conditions suitable for occurrence.
FC = Federal Candidate of listing under the FESA	High:	Neither species nor sign observed; conditions highly suitable for occurrence.
SE = State listed Endangered	Present:	Species or sign observed; conditions suitable for occurrence.
SC = State Candidate for listing under the CESA		
ST = State listed Threatened		
SSSC = State Species of Special Concern		

CNPS California Rare Plant Rank[1]:	**Threat Ranks[1]:**
1B – plants rare, threatened, or endangered in California and elsewhere.	0.1 – seriously threatened in California (> 80% of occurrences).
2B – plants rare, threatened, or endangered in California but more common elsewhere.	0.2 – moderately threatened in California (20-80% of occurrences).
3 – plants about which more information is needed.	0.3 – not very threatened in California (<20% of occurrences).
4 – plants have limited distribution in California.	

[3]Record from within 5 miles of the Project site.

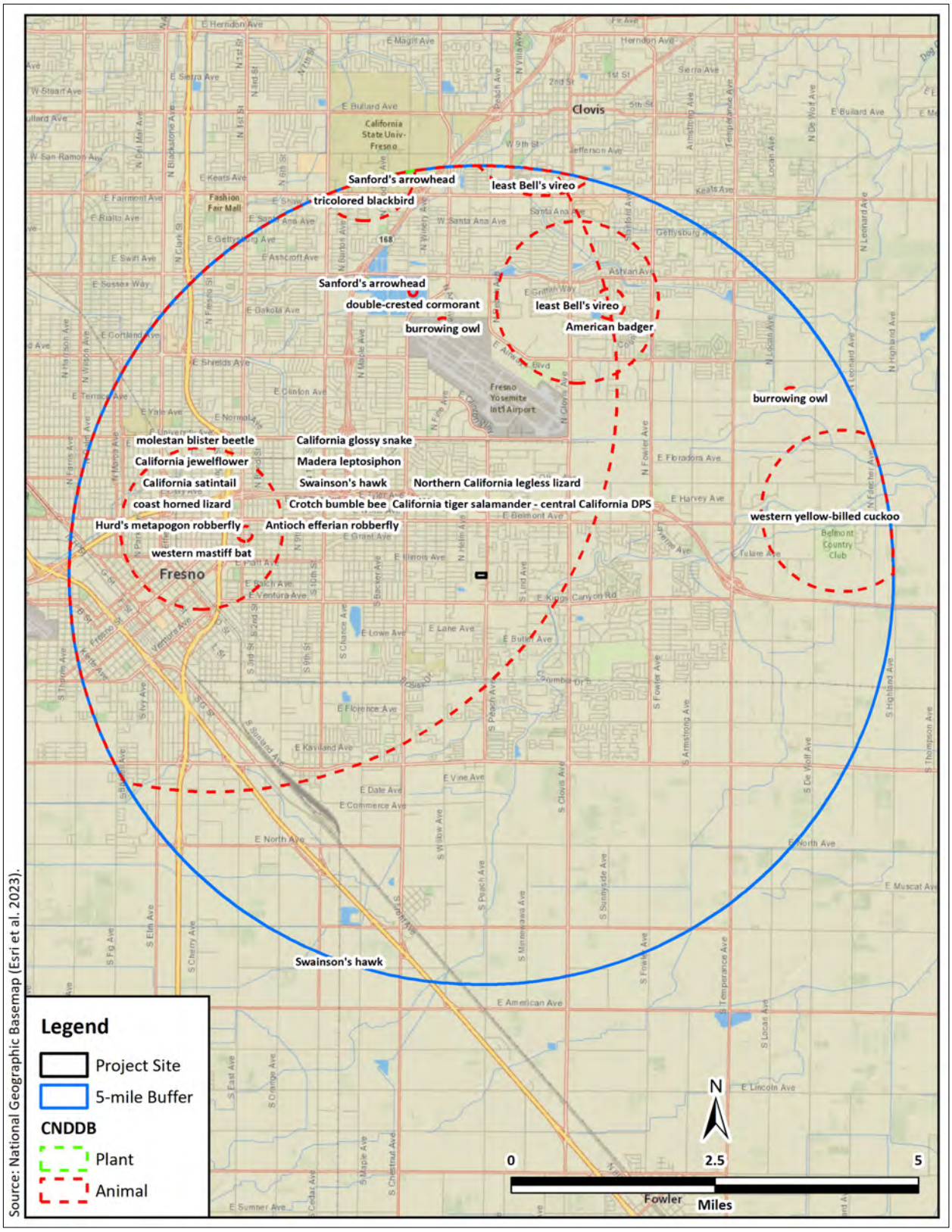


Figure 4. CNDDB occurrence map.

3.2 Reconnaissance Survey

3.2.1 Land Use and Habitats

The Project site supported ruderal vegetation dominated by nonnative grasses and forbs (Figures 5 and 6). It was bordered by rural residential development in all directions. Unmaintained ornamental trees and shrubs were sparsely distributed throughout the eastern half and around the perimeter of the Project site (Figure 7). Trash and debris were scattered throughout the entire Project site (Figure 8).

Satellite imagery indicates the Project site was formerly a rural residence. A house and shed, demolished between 2009 and 2012, were present in the southeast quadrant of the Project site. The site is periodically disked and was last disked in 2018 (Google 2023).

Figure 5. Photograph of the Project site, looking northwest from South Peach Avenue, showing disturbed land cover with ruderal vegetation.

Figure 6. Photograph of the Project site, looking northeast, showing disturbed landcover with ruderal vegetation.

Figure 7. Photograph of overgrown shrubs in the eastern half of the Project site, looking northeast.

Figure 8. Photograph of the Project site, looking northeast, showing trash and scattered debris.

3.2.2 Plant and Animal Species Observed

A total of 19 plant species (four native and 15 nonnative) and 14 bird species were observed during the survey (Table 2).

Table 2. Plant and animal species observed during the reconnaissance survey.

Common Name	Scientific Name	Status
Plants		
Family Asteraceae		
Common dandelion	*Taraxacum officinale*	Nonnative
Common sunflower	*Helianthus annuus*	Native
Milk thistle	*Silybum marianum*	Nonnative
Family Boraginaceae		
Common fiddleneck	*Amsinckia intermedia*	Native
Family Brassicaceae		
Black mustard	*Brassica nigra*	Nonnative
Family Chenopodiaceae		
Lamb's quarters	*Chenopodium album*	Nonnative
Family Fabaceae		
California burclover	*Medicago polymorpha*	Nonnative
Family Fagaceae		
Valley oak	*Quercus lobata*	Native
Family Geraniaceae		
Musky stork's bill	*Erodium moschatum*	Nonnative
Family Malvaceae		
Cheeseweed	*Malva parviflora*	Nonnative
Family Meliaceae		
Miner s lettuce	*Claytonia perfoliata*	Native
Family Montiaceae		
Chinaberry	*Melia azedarach*	Nonnative
Family Myrtaceae		
Silver dollar gum	*Eucalyptus polyanthemos*	Nonnative
Family Oleaceae		
Olive	*Olea europaea*	Nonnative
Family Poaceae		
Bluegrass	*Poa* sp.	Nonnative
Ripgut brome	*Bromus diandrus*	Nonnative
Slender wild oat	*Avena barbata*	Nonnative
Family Rosaceae		
Scarlet firethorn	*Pyracantha coccinea*	Nonnative
Family Urticaceae		
Dwarf nettle	*Urtica urens*	Nonnative

Common Name	Scientific Name	Status
Birds		
Family Accipitridae		
Red-tailed hawk	*Buteo jamaicensis*	MBTA, CFGC
Family Columbidae		
Rock pigeon	*Columba livia*	Nonnative
Family Corvidae		
California scrub-jay	*Aphelocoma californica*	MBTA, CFGC
Family Fringillidae		
House finch	*Haemorhous mexicanus*	MBTA, CFGC
Family Laridae		
California gull	*Larus californicus*	MBTA, CFGC
Family Mimidae		
Northern mockingbird	*Mimus polyglottos*	MBTA, CFGC
Family Motacillidae		
American pipit	*Anthus rubescens*	MBTA, CFGC
Family Parulidae		
Yellow-rumped warbler	*Setophaga coronata*	MBTA, CFGC
Family Picidae		
Acorn woodpecker	*Melanerpes formicivorus*	MBTA, CFGC
Northern flicker	*Colaptes auratus*	MBTA, CFGC
Family Regulidae		
Ruby-crowned kinglet	*Corthylio calendula*	MBTA, CFGC
Family Sturnidae		
European starling	*Sturnus vulgaris*	Nonnative
Family Trochilidae		
Anna's hummingbird	*Calypte anna*	MBTA, CFGC
Family Tyrannidae		
Say's phoebe	*Sayornis saya*	MBTA, CFGC

MBTA = Protected under the Migratory Bird Treaty Act (16 USC § 703 et seq.); CFGC = Protected under the California Fish and Game Code (FGC §§ 3503 and 3513); ST = State listed as Threatened.

3.2.3 Nesting Birds

Migratory birds could nest on or near the Project site. Bird species that may nest on or near the property include, but are not limited to, northern mockingbird (*Mimus polyglottos*), California scrub-jay (*Aphelocoma californica*), and house finch (*Haemorhous mexicanus*). Large trees within 0.5 miles of the Project site could provide nesting substrates for raptors.

3.2.4 Regulated Habitats

No habitats potentially regulated under the jurisdiction of the CDFW, SWRCB, or USACE were present in the survey area.

3.3 Special-Status Species

The following special-status species could occur on or near the Project site based on the presence of habitat:

3.3.1 Pallid bat

Pallid bat is a member of the family Vespertilionidae and is recognized as a Species of Special Concern by the CDFW (CDFW 2023). It is widespread in the western United States from southern British Columbia, Canada to northern Baja California, Mexico (Hermanson and O'Shea 1983). In California, pallid bat is locally common year-round at low elevations, where it occupies dry, open areas in grassland, shrubland, woodland, and forest (Zeiner et al. 1988–1990). Pallid bat is nocturnal and roosts during the day in caves, crevices in rocky outcrops, mines, and occasionally tree hollows and buildings; night roosts tend to be in more open areas including porches (Zeiner et al. 1988–1990). It forages almost exclusively on the ground, where it preys on insects, arachnids, beetles, moths, and scorpions; few prey items are taken aerially (Zeiner et al. 1988–1990). Pallid bat hibernates during winter, usually near a day roost that it occupies in summer (Hermanson and O'Shea 1983).

There is one CNDDB occurrence record of pallid bat from within 5 miles of the Project site (CDFW 2023). The Project site supports potential day roost habitat in the form of a few large, mature trees and snags with tree hollows. The Project site contains dry, open areas that may provide foraging habitat. Therefore, the species has a low potential to occur on the Project site.

3.3.2 Western mastiff bat

Western mastiff bat is most common in the southern half of California, but its range extends almost to the Oregon border (Cockrum 1960). This species forages in large, open areas in habitats such as desert washes, floodplains, conifer and deciduous woodlands, coastal scrub, grasslands, chaparral, and agricultural lands (Cockrum 1960; Ross 1961). Roosts include the undersides of large slabs or boulders, trees, cliff faces, and cracks in buildings (Howell 1920; Dalquest 1946; Barbour and Davis 1969). This species typically selects roost sites high above the ground that allow a vertical drop of at least 10 feet to initiate flight (Howell 1920).

There is one CNDDB occurrence record of western mastiff bat from within 5 miles of the Project site (CDFW 2023). The few mature trees and snags on the perimeter of the Project site provide potential day roost habitat, and the open areas may provide foraging habitat. Therefore, the species has a low potential to occur on the Project site.

4.0 Environmental Impacts

4.1 Significance Determinations

This Project, which will result in temporary and permanent impacts to disturbed land cover, will not: (1) substantially reduce the habitat of a fish or wildlife species (criterion a) as no such habitat is present on the Project site; (2) cause a fish or wildlife population to drop below self-sustaining levels (criterion b) as no such potentially vulnerable population is known from the area; (3) threaten to eliminate a plant or animal community (criterion c) as no such potentially vulnerable communities are known from the area; (4) substantially reduce the number or restrict the range of a rare or endangered plant or animal (criterion d) as no such potentially vulnerable species are known from the area; (5) 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 CDFW or USFWS (criterion f) as no riparian habitat or other sensitive natural community was present in the survey area; (6) have a substantial adverse effect on state or federally protected wetlands (including, but not limited to marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means (criterion g) as no impacts to wetlands will occur; (7) conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance (criterion i) as no trees or biologically sensitive areas will be impacted; or (8) conflict with the provisions of an adopted Habitat Conservation Plan, Natural Communities Conservation Plan, or other approved local, regional, or state habitat conservation plan (criterion j) as no such plan has been adopted. Thus, these significance criteria are not analyzed further.

The remaining statutorily defined criteria provided the framework for Criterion BIO1 and Criterion BIO2 below. These criteria are used to assess the impacts to biological resources stemming from the Project and provide the basis for determinations of significance:

- Criterion BIO1: 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 CDFW or USFWS (significance criterion e).

- Criterion BIO2: 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 (significance criterion h).

4.1.1 Direct and Indirect Impacts

4.1.1.1 Potential Impact: Have a substantial Effect on any Special-Status Species (Criterion BIO1)

The Project could adversely affect two special-status animal species that could occur on or near the Project site. Construction activities such as excavating, trenching, or using other heavy equipment that disturbs or harms a special-status species could constitute a significant impact. We recommend that Mitigation Measure BIO1 (below) be included in the conditions of approval to reduce the potential impacts to a less-than-significant level.

Mitigation Measure BIO1. Protect roosting pallid bat and western mastiff bat.

1. A pre-construction clearance survey shall be conducted by a qualified biologist to ensure that no roosting pallid bats or western mastiff bats will be disturbed during the implementation of the Project. A pre-construction clearance survey shall be conducted no more than 14 days prior to the initiation of construction activities. During this survey, the qualified biologist shall inspect all potential roosting habitat in and immediately adjacent to the impact areas. If an active roost is found close enough to the construction area to be disturbed by these activities, the qualified biologist shall determine the extent of a construction-free buffer to be established around the roost. If work cannot proceed without disturbing the roosting bats, work may need to be halted or redirected to other areas until the roost is no longer in use.

4.1.1.2 Potential Impact: Interfere Substantially with Native Wildlife Movements, Corridors, or Nursery Sites (Criterion BIO2)

The Project could impede the use of nursery sites for native birds protected under the MBTA and CFGC. Migratory birds are expected to nest on and near the Project site. Construction disturbance during the breeding season could result in the incidental loss of fertile eggs or nestlings or otherwise lead to nest abandonment. Disturbance that causes nest abandonment or loss of reproductive effort can be considered take under the MBTA and CFGC. Loss of fertile eggs or nesting birds, or any activities resulting in nest abandonment, could constitute a significant effect if the species is particularly rare in the region. Construction activities such as excavating, trenching, and grading that disturb a nesting bird on the Project site or immediately adjacent to the construction zone could constitute a significant impact. We recommend that Mitigation Measure BIO2 (below) be included in the conditions of approval to reduce the potential effect to a less-than-significant level.

Mitigation Measure BIO2. Protect nesting birds.

1. To the extent practicable, construction shall be scheduled to avoid the nesting season, which extends from February through August.

2. If it is not possible to schedule construction between September and January, pre-construction surveys for nesting birds shall be conducted by a qualified biologist to ensure that no active nests will be disturbed during the implementation of the Project. A pre-construction survey shall be conducted no more than 14 days prior to the initiation of construction activities. During this survey, the qualified biologist shall inspect all potential nest substrates in and immediately adjacent to the impact areas. If an active nest is found close enough to the construction area to be disturbed by these activities, the qualified biologist shall determine the extent of a construction-free buffer to be established around the nest. If work cannot proceed without disturbing the nesting birds, work may need to be halted or redirected to other areas until nesting and fledging are completed or the nest has otherwise failed for non-construction related reasons.

4.1.2 Cumulative Impacts

The Project will involve constructing a new housing development on 3.68 acres of disturbed land cover with ruderal vegetation. The Project site and surrounding lands provide potential foraging and breeding habitat for pallid bat, western mastiff bat, and migratory birds. However, implementing Mitigation Measures BIO1 and BIO2 would reduce any contribution to cumulative impacts on biological resources to a less-than-significant level.

4.1.3 Unavoidable Significant Adverse Impacts

No unavoidable significant adverse effects on biological resources would occur from implementing the Project.

5.0 Literature Cited

Barbour, R. W., and W. H. Davis. 1969. Bats of America. University of Kentucky Press, Lexington. 286 pp.

California Department of Fish and Wildlife (CDFW). 2023. California Natural Diversity Database (CNDDB) RareFind 5. https://wildlife.ca.gov/Data/CNDDB/Maps-and-Data. Accessed 17 January 2023.

California Native Plant Society, Rare Plant Program (CNPS). 2023. Inventory of Rare and Endangered Plants (online edition, v9.5). California Native Plant Society, Sacramento, CA. http://www.rareplants.cnps.org. Accessed 17 January 2023.

Cockrum, E. L. 1960. Distribution, habitat, and habits of the mastiff bat, *Eumops perotis*, in North America. Journal of the Arizona Academy of Sciences 1:79–84.

Dalquest, W. W. 1946. The daytime retreat of a California mastiff bat. Journal of Mammalogy 27:87–88.

Google. 2023. Google Earth Pro. Version 7.3.6.9345 (https://www.google.com/earth/download/gep/agree.html). Accessed 17 January 2023.

Hermanson, J. W. and T. J. O'Shea. 1983. *Antrozous pallidus*. American Society of Mammalogists. Mammalian Species 213:1–8.

Howell, A. B. 1920. Contributions to the life history of the California mastiff bat. Journal of Mammalogy 1:111–117.

Natural Resources Conservation Service (NRCS), U.S. Department of Agriculture. 2023. Web Soil Survey, National Cooperative Soil Survey: http://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx. Accessed 19 January 2023.

United States Army Corps of Engineers (USACE). 1987. Corps of Engineers Wetlands Delineation Manual. Wetland Research Program Technical Report Y-87-1.

_____. 2008. Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (Version 2.0). ERDC/EL TR-08-28. https://www.usace.army.mil/Missions/Civil-Works/Regulatory-Program-and-Permits/reg_supp/. Accessed 17 January 2023.

_____. 2018. Migratory Bird Permit Memorandum: Destruction and Relocation of Migratory Bird Nest Contents. FWS/DMBM/AMB/068029, 4 pages.

_____. 2023a. IPaC: Information for Planning and Conservation. https://ecos.fws.gov/ipac/. Accessed 17 January 2023.

_____. 2023b. National Wetlands Inventory website. U.S. Department of the Interior, Fish and Wildlife Service, Washington, D.C. http://www.fws.gov/wetlands/. Accessed 17 January 2023.

Zeiner, D.C., W. F. Laudenslayer, Jr., K. E. Mayer, and M. White, eds. 1988–1990. California's Wildlife. Vol. I-III. California Depart. of Fish and Game, Sacramento, California.

Appendix A. USFWS list of threatened and endangered species.

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Sacramento Fish And Wildlife Office
Federal Building
2800 Cottage Way, Room W-2605
Sacramento, CA 95825-1846
Phone: (916) 414-6600 Fax: (916) 414-6713

In Reply Refer To: January 18, 2023
Project Code: 2023-0034980
Project Name: Tulare and Peach Residential Project

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)

(c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF

Migratory Birds: In addition to responsibilities to protect threatened and endangered species under the Endangered Species Act (ESA), there are additional responsibilities under the Migratory Bird Treaty Act (MBTA) and the Bald and Golden Eagle Protection Act (BGEPA) to protect native birds from project-related impacts. Any activity, intentional or unintentional, resulting in take of migratory birds, including eagles, is prohibited unless otherwise permitted by the U.S. Fish and Wildlife Service (50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)). For more information regarding these Acts see https://www.fws.gov/birds/policies-and-regulations.php.

The MBTA has no provision for allowing take of migratory birds that may be unintentionally killed or injured by otherwise lawful activities. It is the responsibility of the project proponent to comply with these Acts by identifying potential impacts to migratory birds and eagles within applicable NEPA documents (when there is a federal nexus) or a Bird/Eagle Conservation Plan (when there is no federal nexus). Proponents should implement conservation measures to avoid or minimize the production of project-related stressors or minimize the exposure of birds and their resources to the project-related stressors. For more information on avian stressors and recommended conservation measures see https://www.fws.gov/birds/bird-enthusiasts/threats-to-birds.php.

In addition to MBTA and BGEPA, Executive Order 13186: *Responsibilities of Federal Agencies to Protect Migratory Birds*, obligates all Federal agencies that engage in or authorize activities that might affect migratory birds, to minimize those effects and encourage conservation measures that will improve bird populations. Executive Order 13186 provides for the protection of both migratory birds and migratory bird habitat. For information regarding the implementation of Executive Order 13186, please visit https://www.fws.gov/birds/policies-and-regulations/executive-orders/e0-13186.php.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Code in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List

Official Species List

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Sacramento Fish And Wildlife Office
Federal Building
2800 Cottage Way, Room W-2605
Sacramento, CA 95825-1846
(916) 414-6600

Project Summary

Project Code: 2023-0034980
Project Name: Tulare and Peach Residential Project
Project Type: Residential Construction
Project Description: . The proposed project will involve constructing 44 single-family residences on approximately 4 acres. The project site is on the west side of South Peach Avenue between East Tulare Avenue and East Huntington Avenue in Fresno, Fresno County, California.
Project Location:

Approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@36.74085205,-119.71955132743787,14z

Counties: Fresno County, California

Endangered Species Act Species

There is a total of 9 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries[1], as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

---

1. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

Mammals

NAME	STATUS
Fresno Kangaroo Rat *Dipodomys nitratoides exilis* There is **final** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/5150	Endangered
San Joaquin Kit Fox *Vulpes macrotis mutica* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/2873	Endangered

Birds

NAME	STATUS
California Condor *Gymnogyps californianus* Population: U.S.A. only, except where listed as an experimental population There is **final** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/8193	Endangered
Yellow-billed Cuckoo *Coccyzus americanus* Population: Western U.S. DPS There is **final** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/3911	Threatened

Reptiles

NAME	STATUS
Blunt-nosed Leopard Lizard *Gambelia silus*	Endangered

No critical habitat has been designated for this species.
Species profile: https://ecos.fws.gov/ecp/species/625

Amphibians

NAME	STATUS
California Tiger Salamander *Ambystoma californiense*	Threatened

Population: U.S.A. (Central CA DPS)
There is **final** critical habitat for this species. Your location does not overlap the critical habitat.
Species profile: https://ecos.fws.gov/ecp/species/2076

Fishes

NAME	STATUS
Delta Smelt *Hypomesus transpacificus*	Threatened

There is **final** critical habitat for this species. Your location does not overlap the critical habitat.
Species profile: https://ecos.fws.gov/ecp/species/321

Insects

NAME	STATUS
Monarch Butterfly *Danaus plexippus*	Candidate

No critical habitat has been designated for this species.
Species profile: https://ecos.fws.gov/ecp/species/9743

Crustaceans

NAME	STATUS
Vernal Pool Fairy Shrimp *Branchinecta lynchi*	Threatened

There is **final** critical habitat for this species. Your location does not overlap the critical habitat.
Species profile: https://ecos.fws.gov/ecp/species/498

Critical habitats

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

IPaC User Contact Information

Agency: Colibri Ecological Services
Name: Ryan Slezak
Address: 9493 N Ft Washington Rd
City: Fresno
State: CA
Zip: 93730
Email rslezak@colibri-ecology.com
Phone: 5592426178

Appendix B. CNDDB occurrence records.

Summary Table Report

California Department of Fish and Wildlife

California Natural Diversity Database

Query Criteria: Quad IS (Malaga (3611966) OR Sanger (3611965) OR Clovis (3611976) OR Fresno North (3611977) OR Fresno South (3611967) OR Round Mountain (3611975) OR Selma (3611955) OR Conejo (3611956) OR Caruthers (3611957))

Name (Scientific/Common)	CNDDB Ranks	Listing Status (Fed/State)	Other Lists	Elev. Range (ft.)	Total EO's	Element Occ. Ranks						Population Status		Presence		
						A	B	C	D	X	U	Historic > 20 yr	Recent <= 20 yr	Extant	Poss. Extirp.	Extirp.
Agelaius tricolor tricolored blackbird	G1G2 S1S2	None Threatened	BLM_S-Sensitive CDFW_SSC-Species of Special Concern IUCN_EN-Endangered NABCI_RWL-Red Watch List USFWS_BCC-Birds of Conservation Concern	0 460	955 S:7	0	0	0	0	2	5	6	1	5	1	1
Ambystoma californiense pop. 1 California tiger salamander - central California DPS	G2G3T3 S3	Threatened Threatened	CDFW_WL-Watch List IUCN_VU-Vulnerable	297 490	1271 S:13	2	3	1	0	2	5	4	9	11	0	2
Anniella pulchra Northern California legless lizard	G3 S2S3	None None	CDFW_SSC-Species of Special Concern USFS_S-Sensitive	300 300	383 S:1	0	0	0	0	0	1	1	0	1	0	0
Antrozous pallidus pallid bat	G4 S3	None None	BLM_S-Sensitive CDFW_SSC-Species of Special Concern IUCN_LC-Least Concern USFS_S-Sensitive	310 310	420 S:1	0	0	0	0	0	1	1	0	1	0	0
Ardea alba great egret	G5 S4	None None	CDF_S-Sensitive IUCN_LC-Least Concern	296 296	43 S:1	0	0	0	0	0	1	0	1	1	0	0
Arizona elegans occidentalis California glossy snake	G5T2 S2	None None	CDFW_SSC-Species of Special Concern	250 300	260 S:2	0	0	0	0	0	2	2	0	2	0	0
Athene cunicularia burrowing owl	G4 S3	None None	BLM_S-Sensitive CDFW_SSC-Species of Special Concern IUCN_LC-Least Concern USFWS_BCC-Birds of Conservation Concern	331 500	2011 S:3	0	1	0	0	0	2	2	1	3	0	0
Bombus crotchii Crotch bumble bee	G2 S2	None Candidate Endangered	IUCN_EN-Endangered	300 300	437 S:2	0	0	0	0	0	2	2	0	2	0	0

Summary Table Report

California Department of Fish and Wildlife

California Natural Diversity Database

Name (Scientific/Common)	CNDDB Ranks	Listing Status (Fed/State)	Other Lists	Elev. Range (ft.)	Total EO's	Element Occ. Ranks						Population Status		Presence		
						A	B	C	D	X	U	Historic > 20 yr	Recent <= 20 yr	Extant	Poss. Extirp.	Extirp.
Branchinecta lynchi vernal pool fairy shrimp	G3 S3	Threatened None	IUCN_VU-Vulnerable	385 480	796 S:9	1	1	0	1	0	6	2	7	9	0	0
Branchinecta mesovallensis midvalley fairy shrimp	G2 S2S3	None None		425 470	144 S:4	0	0	0	0	0	4	0	4	4	0	0
Buteo swainsoni Swainson's hawk	G5 S3	None Threatened	BLM_S-Sensitive IUCN_LC-Least Concern	250 300	2548 S:7	0	2	1	1	0	3	4	3	7	0	0
Carex comosa bristly sedge	G5 S2	None None	Rare Plant Rank - 2B.1 IUCN_LC-Least Concern	330 330	31 S:1	0	0	0	0	0	1	1	0	1	0	0
Castilleja campestris var. succulenta succulent owl's-clover	G4?T2T3 S2S3	Threatened Endangered	Rare Plant Rank - 1B.2	350 440	99 S:3	0	0	1	0	1	1	2	1	2	1	0
Caulanthus californicus California jewelflower	G1 S1	Endangered Endangered	Rare Plant Rank - 1B.1 SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden SB_SBBG-Santa Barbara Botanic Garden SB_UCBG-UC Botanical Garden at Berkeley		67 S:1	0	0	0	0	1	0	1	0	0	0	1
Coccyzus americanus occidentalis western yellow-billed cuckoo	G5T2T3 S1	Threatened Endangered	BLM_S-Sensitive NABCI_RWL-Red Watch List USFS_S-Sensitive	300 345	165 S:2	0	0	0	0	2	0	2	0	0	1	1
Desmocerus californicus dimorphus valley elderberry longhorn beetle	G3T2T3 S3	Threatened None		256 370	271 S:8	1	0	0	0	0	7	6	2	8	0	0
Dipodomys nitratoides exilis Fresno kangaroo rat	G3TH SH	Endangered Endangered	IUCN_VU-Vulnerable		12 S:1	0	0	0	0	1	0	1	0	0	0	1
Efferia antiochi Antioch efferian robberfly	G1G2 S1S2	None None		260 300	4 S:2	0	0	0	0	0	2	2	0	2	0	0
Egretta thula snowy egret	G5 S4	None None	IUCN_LC-Least Concern	296 296	20 S:1	0	0	0	0	0	1	0	1	1	0	0

Summary Table Report

California Department of Fish and Wildlife

California Natural Diversity Database

Name (Scientific/Common)	CNDDB Ranks	Listing Status (Fed/State)	Other Lists	Elev. Range (ft.)	Total EO's	Element Occ. Ranks						Population Status		Presence		
						A	B	C	D	X	U	Historic > 20 yr	Recent <= 20 yr	Extant	Poss. Extirp.	Extirp.
Emys marmorata western pond turtle	G3G4 S3	None None	BLM_S-Sensitive CDFW_SSC-Species of Special Concern IUCN_VU-Vulnerable USFS_S-Sensitive	388 388	1421 S:1	0	0	0	0	0	1	0	1	1	0	0
Eryngium spinosepalum spiny-sepaled button-celery	G2 S2	None None	Rare Plant Rank - 1B.2 BLM_S-Sensitive SB_SBBG-Santa Barbara Botanic Garden	400 400	108 S:1	0	0	0	0	1	0	1	0	0	1	0
Eumops perotis californicus western mastiff bat	G4G5T4 S3S4	None None	BLM_S-Sensitive CDFW_SSC-Species of Special Concern	310 320	296 S:4	0	0	0	0	0	4	4	0	4	0	0
Imperata brevifolia California satintail	G3 S3	None None	Rare Plant Rank - 2B.1 SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden SB_SBBG-Santa Barbara Botanic Garden USFS_S-Sensitive	300 300	32 S:1	0	0	0	0	0	1	1	0	1	0	0
Lagophylla dichotoma forked hare-leaf	G2 S2	None None	Rare Plant Rank - 1B.1	630 630	7 S:1	0	0	0	0	0	1	0	1	1	0	0
Lasiurus cinereus hoary bat	G3G4 S4	None None	IUCN_LC-Least Concern	270 270	238 S:1	0	0	0	0	0	1	1	0	1	0	0
Lasthenia chrysantha alkali-sink goldfields	G2 S2	None None	Rare Plant Rank - 1B.1		55 S:1	0	0	0	0	1	0	1	0	0	1	0
Leptosiphon serrulatus Madera leptosiphon	G3 S3	None None	Rare Plant Rank - 1B.2 BLM_S-Sensitive SB_SBBG-Santa Barbara Botanic Garden USFS_S-Sensitive		27 S:1	0	0	0	0	0	1	1	0	1	0	0
Linderiella occidentalis California linderiella	G2G3 S2S3	None None	IUCN_NT-Near Threatened	400 4,621	508 S:10	0	0	0	0	0	10	3	7	10	0	0
Lytta molesta molestan blister beetle	G2 S2	None None		275 360	17 S:2	0	0	0	0	0	2	2	0	1	1	0

Summary Table Report

California Department of Fish and Wildlife

California Natural Diversity Database

Name (Scientific/Common)	CNDDB Ranks	Listing Status (Fed/State)	Other Lists	Elev. Range (ft.)	Total EO's	Element Occ. Ranks						Population Status		Presence		
						A	B	C	D	X	U	Historic > 20 yr	Recent <= 20 yr	Extant	Poss. Extirp.	Extirp.
Metapogon hurdi Hurd's metapogon robberfly	G1G2 S1S2	None None		325 325	3 S:1	0	0	0	0	0	1	1	0	0	1	0
Nannopterum auritum double-crested cormorant	G5 S4	None None	CDFW_WL-Watch List IUCN_LC-Least Concern	332 332	39 S:1	0	0	0	0	0	1	0	1	1	0	0
Northern Claypan Vernal Pool Northern Claypan Vernal Pool	G1 S1.1	None None		350 350	21 S:1	0	0	0	0	0	1	1	0	1	0	0
Northern Hardpan Vernal Pool Northern Hardpan Vernal Pool	G3 S3.1	None None		450 450	126 S:1	0	0	0	0	0	1	1	0	1	0	0
Nycticorax nycticorax black-crowned night heron	G5 S4	None None	IUCN_LC-Least Concern	296 296	37 S:1	0	0	0	0	0	1	0	1	1	0	0
Orcuttia inaequalis San Joaquin Valley Orcutt grass	G1 S1	Threatened Endangered	Rare Plant Rank - 1B.1	300 300	47 S:1	0	0	0	0	1	0	1	0	0	0	1
Perognathus inornatus San Joaquin pocket mouse	G2G3 S2S3	None None	BLM_S-Sensitive IUCN_LC-Least Concern		140 S:2	0	0	0	0	0	2	2	0	2	0	0
Phrynosoma blainvillii coast horned lizard	G3G4 S4	None None	BLM_S-Sensitive CDFW_SSC-Species of Special Concern IUCN_LC-Least Concern	300 300	784 S:1	0	0	0	0	1	0	1	0	0	1	0
Pseudobahia peirsonii San Joaquin adobe sunburst	G1 S1	Threatened Endangered	Rare Plant Rank - 1B.1 SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden	390 495	51 S:5	0	1	3	1	0	0	2	3	5	0	0
Sagittaria sanfordii Sanford's arrowhead	G3 S3	None None	Rare Plant Rank - 1B.2 BLM_S-Sensitive	310 360	143 S:8	0	2	1	0	0	5	6	2	8	0	0
Spea hammondii western spadefoot	G2G3 S3S4	None None	BLM_S-Sensitive CDFW_SSC-Species of Special Concern IUCN_NT-Near Threatened	259 490	1425 S:12	0	5	1	0	0	6	2	10	12	0	0
Taxidea taxus American badger	G5 S3	None None	CDFW_SSC-Species of Special Concern IUCN_LC-Least Concern	250 250	594 S:1	0	0	0	0	0	1	1	0	1	0	0

Summary Table Report

California Department of Fish and Wildlife

California Natural Diversity Database

Name (Scientific/Common)	CNDDB Ranks	Listing Status (Fed/State)	Other Lists	Elev. Range (ft.)	Total EO's	Element Occ. Ranks						Population Status		Presence		
						A	B	C	D	X	U	Historic > 20 yr	Recent <= 20 yr	Extant	Poss. Extirp.	Extirp.
Tuctoria greenei Greene's tuctoria	G1 S1	Endangered Rare	Rare Plant Rank - 1B.1	385 405	50 S:3	0	0	0	0	3	0	3	0	0	0	3
Vireo bellii pusillus least Bell's vireo	G5T2 S2	Endangered Endangered	NABCI_YWL-Yellow Watch List	345 360	504 S:2	0	0	0	0	2	0	2	0	0	2	0
Vulpes macrotis mutica San Joaquin kit fox	G4T2 S2	Endangered Threatened		365 365	1020 S:1	0	0	0	0	0	1	1	0	1	0	0

Appendix C. CNPS plant list.

CNPS Rare Plant Inventory

California Native Plant Society

Search Results

12 matches found. Click on scientific name for details

Search Criteria: 9-Quad include [**3611966:3611965:3611976:3611975:3611967:3611977:3611955:3611956:3611957**]

▲ SCIENTIFIC NAME	COMMON NAME	FAMILY	LIFEFORM	BLOOMING PERIOD	FED LIST	STATE LIST	GLOBAL RANK	STATE RANK	CA RARE PLANT RANK	CA ENDEMIC	DATE ADDED
Carex comosa	bristly sedge	Cyperaceae	perennial rhizomatous herb	May-Sep	None	None	G5	S2	2B.1		1994-01-01
Castilleja campestris var. *succulenta*	succulent owl's-clover	Orobanchaceae	annual herb (hemiparasitic)	(Mar)Apr-May	FT	CE	G4? T2T3	S2S3	1B.2	Yes	1984-01-01
Caulanthus californicus	California jewelflower	Brassicaceae	annual herb	Feb-May	FE	CE	G1	S1	1B.1	Yes	1984-01-01
Eryngium spinosepalum	spiny-sepaled button-celery	Apiaceae	annual/perennial herb	Apr-Jun	None	None	G2	S2	1B.2	Yes	1980-01-01
Imperata brevifolia	California satintail	Poaceae	perennial rhizomatous herb	Sep-May	None	None	G3	S3	2B.1		2006-12-26
Lagophylla dichotoma	forked hare-leaf	Asteraceae	annual herb	Apr-May	None	None	G2	S2	1B.1	Yes	2012-03-13
Lasthenia chrysantha	alkali-sink goldfields	Asteraceae	annual herb	Feb-Apr	None	None	G2	S2	1B.1	Yes	2019-09-30
Leptosiphon serrulatus	Madera leptosiphon	Polemoniaceae	annual herb	Apr-May	None	None	G3	S3	1B.2	Yes	1980-01-01
Orcuttia inaequalis	San Joaquin Valley Orcutt grass	Poaceae	annual herb	Apr-Sep	FT	CE	G1	S1	1B.1	Yes	1974-01-01
Pseudobahia peirsonii	San Joaquin adobe sunburst	Asteraceae	annual herb	Feb-Apr	FT	CE	G1	S1	1B.1	Yes	1974-01-01
Sagittaria sanfordii	Sanford's arrowhead	Alismataceae	perennial rhizomatous herb (emergent)	May-Oct(Nov)	None	None	G3	S3	1B.2	Yes	1984-01-01
Tuctoria greenei	Greene's tuctoria	Poaceae	annual herb	May-Jul(Sep)	FE	CR	G1	S1	1B.1	Yes	1974-01-01

Showing 1 to 12 of 12 entries

Suggested Citation:

California Native Plant Society, Rare Plant Program. 2023. Rare Plant Inventory (online edition, v9.5). Website https://www.rareplants.cnps.org [accessed 18 January 2023].

California Historical Resources Information System

Fresno
Kern
Kings
Madera
Tulare

Southern San Joaquin Valley Information Center
California State University, Bakersfield
Mail Stop: 72 DOB
9001 Stockdale Highway
Bakersfield, California 93311-1022
(661) 654-2289
E-mail: ssjvic@csub.edu
Website: www.csub.edu/ssjvic

To: Emily Bowen
Crawford & Bowen Planning, Inc.
113 N. Church Street, Suite 310
Visalia, CA 93291

Record Search 23-023

Date: January 30, 2023

Re: Golden State South Peach Avenue Residential Project

County: Fresno

Map(s): Malaga 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 has been one previous cultural resource study completed that intersects with the eastern boarder of the project area, FR-01800. It should be noted this report was completed approximately 21 years ago and should be considered out of date for current studies. Additionally, there have been seven cultural resource studies conducted within the one-half mile radius: FR-00257, 00296, 02073, 02109, 02192, 02228, & 02655.

KNOWN/RECORDED CULTURAL RESOURCES WITHIN THE PROJECT AREA AND THE ONE-HALF MILE RADIUS

According to the information in our files, there are no recorded resources within the project area, and it is unknown if any exist there. There have been 11 recorded resources within the one-half mile radius: P-10-004312, 004762, 004763, 004764, 004765, 004766, 004767, 004769, 004770, 004772, & 005121. These resources consist of historic era single family properties.

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, for the California State Historic Landmarks.

COMMENTS AND RECOMMENDATIONS

We understand this project consists of a residential development on an approximately 3.95-acre site, west of South Peach Avenue. Also, we understand the development will include up to 44 medium density single-family residential units along with a recreation area, and associated street, lighting, and landscaping improvements. Further, we are aware that the current project site is vacant land, with minimal vegetation. Because the entire project area has not been surveyed for cultural resources, and the current study that intersects the eastern boarder is out of date; it is unknown if cultural resources exist there. As such, prior to ground disturbance activities, we recommend a qualified, professional consultant conduct a field survey to determine if cultural resources are present. A list of qualified consultants can be found at www.chrisinfo.org.

We also recommend that you contact the Native American Heritage Commission in Sacramento. They will provide you with a current list of Native American individuals/organizations that can assist you with information regarding cultural resources that may not be included in the CHRIS Inventory and that may be of concern to the Native groups in the area. The Commission can consult their "Sacred Lands Inventory" file to determine what sacred resources, if any, exist within this project area and the way in which these resources might be managed. Finally, please consult with the lead agency on this project to determine if any other cultural resource investigation is required. If you need any additional information or have any questions or concerns, please contact our office at (661) 654-2289.

By:

Jeremy E David, Assistant Coordinator **Date**: January 30, 2023

Please note that invoices for Information Center services will be sent under separate cover from the California State University, Bakersfield Accounting Office.