Appendix A

Notice of Preparation

City of Palmdale
Palmdale 2045
General Plan Update
(General Plan Amendment 20-003)
(Zoning Ordinance Amendment 21-007)

Notice of Preparation of a
Draft Environmental Impact Report

The City of Palmdale will be the Lead Agency for the preparation of an Environmental Impact Report (EIR) that will analyze the environmental impacts associated with a proposed update to the Palmdale General Plan (Palmdale 2045), referred to herein as the "proposed project" or "General Plan." The actions that make up the proposed project are described below. More information on the proposed project is available on the project website at: https://www.palmdale2045.org/. The Planning Area for the proposed project includes the land within the City Limits, the Sphere of Influence (SOI), and several unincorporated Los Angeles County 'islands.' The proposed General Plan land use map showing the Planning Area is shown at the end of this Notice of Preparation (NOP).

Project Description

The proposed project is a three-plus-year comprehensive update to the City's General Plan, the guiding document for the future of Palmdale over 25 years (2020-2045). The General Plan serves as the City's primary guide for land use and development decisions and is a key tool for influencing and improving the quality of life for residents and businesses. As such, it serves as the "blueprint" for future development and conservation of a community. The General Plan will help the City plan for important community issues such as new growth, housing and infrastructure needs, and environmental protection. It also sets the stage for future social, physical, and economic development of the City. It addresses issues that impact the entire community, such as how land is used, where buildings are constructed, and the locations of infrastructure.

Under State law, the General Plan must serve as the foundation upon which all land use decisions are to be based, and must also be comprehensive, internally consistent, and have a long-term perspective. State law further mandates that the General Plan:

- Identify land use, circulation, environmental, economic, and social goals and policies for the City and its surrounding planning area as they relate to future growth and development;
- Provide a basis for local government decision-making, including decisions on development approvals and exactions;

- Provide citizens the opportunity to participate in the planning and decision-making process of their communities; and
- Inform citizens, developers, decision-makers, and other cities and counties of the ground rules that guide development within a particular community.

According to State law, General Plans are required to cover nine topics: land use, circulation, housing, conservation, open space, noise, air quality, safety, and environmental justice. Jurisdictions may include any other topic that is relevant to planning its future. The updated City of Palmdale General Plan will include the State required topics plus economic development, urban design, infrastructure, military readiness, community facilities, sustainability and resilience, and climate change.

The General Plan will focus on enhancing the community identity, building on planned infrastructure investments, improving multi-modal active transportation and connectivity, integrating health and equity, and capitalizing on the City's unique location in the region. Palmdale 2045's vision for the future includes the following vision themes.

- **Unified and welcoming community.** The Palmdale community values opportunity, diversity, and unity, and seeks to promote Palmdale's positive reputation while boosting community beautification
- **Active and vibrant downtown.** Palmdale residents desire a future downtown that fosters a sense of place, promotes local businesses, provides gathering spaces, and events, and improves the overall appearance of Palmdale
- **Diverse and high-quality job options.** Palmdale seeks to retain and expand its employment base through training for key industries, connecting residents to local jobs, and promoting telecommuting within the City
- **Diverse and resilient local economy.** The City of Palmdale values its existing aerospace presence and aims to leverage and diversify new economic opportunities from expanded transportation connections
- **Safe, healthy place to live and work.** Palmdale residents want to address crime and safety, increase access to parks and open space, and support marginalized communities like foster youth and those experiencing homelessness
- **High quality medical and mental healthcare.** As a medical provider shortage area, Palmdale seeks to improve access to quality medical and mental healthcare services and facilities by attracting physicians, maintaining the Palmdale Regional Medical Center, and expanding services
- **Housing options for residents at different stages of life and ability.** The residents of Palmdale desire to preserve and expand affordable housing and diversify housing types across the City that support residents of all abilities through different stages of life
- **High quality and accessible educational opportunities.** Citizens of Palmdale seek to promote and expand educational opportunities in the City including higher education, trade school, and formal and informal training programs
- **Beautiful natural setting.** The Palmdale community values its natural setting and seeks to improve connectivity to trails and open space, maintain mountain views, healthy air quality, and dark night sky

- **Forefront of transportation innovations.** On the cusp of major regional transportation improvements, Palmdale seeks to leverage planned investments and improve local transit opportunities
- **General Plan implementation.** Residents of Palmdale value the long-term vision of the General Plan Update and desire regular review and update of the Plan including metrics for tracking implementation

Palmdale 2045 identifies major strategies and physical improvements for the City over the next 25 years. These strategies include creating a vibrant downtown near the future multimodal transit station, establishing three health and wellness districts and two education districts, transforming Palmdale Boulevard into a mixed-use corridor, promoting a diversity of housing types in the City, forming village centers that offer a mix of residential choices and daily goods and services near existing neighborhoods, and building off existing industrial and aerospace business opportunities. These strategies will support existing and future employees, businesses, and residents by improving quality of life in Palmdale.

The following actions will also be taken by the City of Palmdale in connection with the General Plan Update and are also considered part of the proposed project to be analyzed in the forthcoming EIR:

- Adoption and implementation of the General Plan Update (Palmdale 2045 Plan)
- Adoption and implementation of the Climate Action Plan
- Adoption and implementation of the Zoning Ordinance Amendment

The Plan will also include an update of the City's Housing Element, in compliance with the requirements of State Housing Element law, which requires the City to adopt an updated Housing Element by October 2021. This Housing Element update will also be analyzed in the EIR.

Environmental Impact Report

The Draft EIR will be a program EIR. Per Section 15168 of the State *CEQA Guidelines*, a program EIR is an EIR that may be prepared on a series of actions that can be characterized as one large project. The purpose of a program EIR is to allow the lead agency to consider broad policy alternatives and program wide mitigation measures early in the process when the agency has greater flexibility to deal with basic problems or cumulative impacts.

The EIR will examine each of the issue areas on the City's environmental checklist. Issues to be discussed include the following:

- Aesthetics
- Agriculture and Forestry Resources
- Air Quality
- Biological Resources
- Cultural Resources
- Energy
- Geology/Soils
- Mineral Resources
- Noise
- Population/Housing
- Public Services
- Recreation
- Transportation
- Tribal Cultural Resources

- Greenhouse Gas Emissions
- Hazards & Hazardous Materials
- Hydrology/Water Quality
- Land Use/Planning
- Utilities/Service Systems
- Wildfire
- Mandatory Findings of Significance

In addition to the CEQA-required "no project" alternative, the EIR will examine a range of land use scenarios that address one or more of the potential environmental effects of the proposed project.

The City of Palmdale would like to know your views or the views of your organization as to the scope and content of the environmental information that should be addressed in connection with the proposed project. Public agencies may need to use the EIR prepared by the City of Palmdale when considering permits or other approvals regarding certain aspects of the proposed actions. Due to time limits mandated by State law, your response must be sent at the earliest possible date but not later than 30 days after receipt of this notice.

Please send your response to Megan Taggart, Planning Manager, at:

City of Palmdale

Department of Economic and Community Development

38250 Sierra Highway

Palmdale, California 93550

Megan Taggart can be reached at 661-267-5213, or by emailing mtaggart@cityofpalmdale.org. When responding to the NOP, please provide the name for a contact person in your agency.

The City of Palmdale will hold an EIR Scoping Meeting to provide an additional opportunity for input on the scope and content of the EIR. The Scoping Meeting is scheduled for Wednesday, June 30, at 5:30 p.m. Please check the project website (https://www.palmdale2045.org/) to confirm this meeting time prior to the meeting. Due to ongoing restriction related to the COVID-19 pandemic, the meeting will be conducted virtually.

To join this meeting, please register in advance by clicking on, or pasting into your web browser, the following link:

https://us02web.zoom.us/meeting/register/tZwocemvrTIsHtYjmm9iVRZyXjtO_-TEK9Rg

After registering, you will receive a confirmation email containing information about joining the meeting. Please note that this meeting will occur prior to a Joint General Plan Advisory Committee and Public Workshop (and will use the same meeting link).

Project Title: City of Palmdale 2045 General Plan Update (GPA 20-003 & ZOA 21-007)

Project Sponsor: City of Palmdale

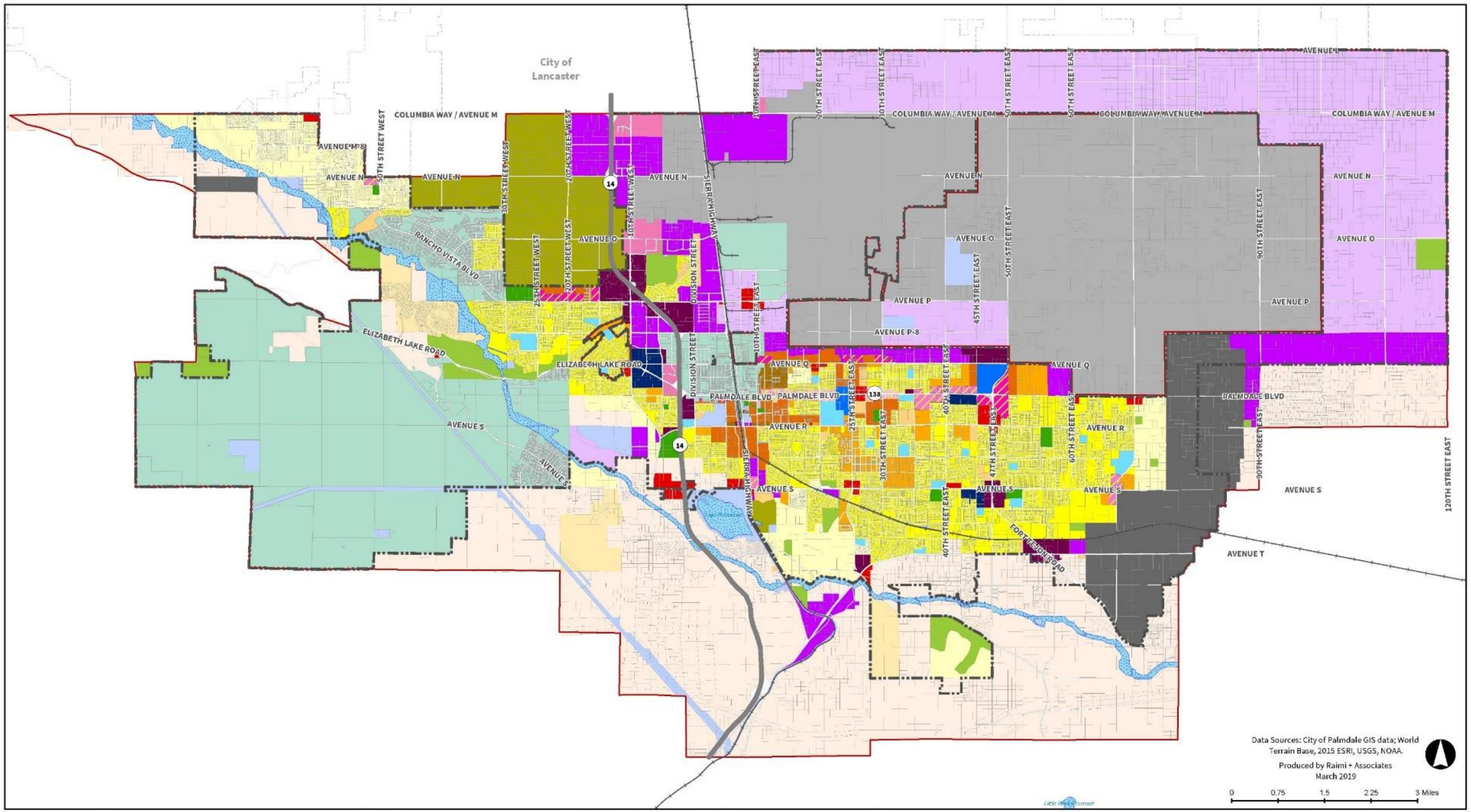
Date 6/23/21

Signature Megan Taggart

Title Planning Manager

Telephone 661-267-5213

City of Palmdale Proposed General Plan Land Use Map



Residential Designations

- Equestrian Residential
- Low Density Residential
- Single Family Residential 1
- Single Family Residential 2
- Single Family Residential 3
- Residential Neighborhood 1
- Residential Neighborhood 2
- Residential Neighborhood 3
- Residential Neighborhood 4

Mixed Use

- Mixed Use 1
- Mixed Use 2
- Mixed Use 3
- Mixed Use 4
- Health and Wellness
- Educational Flex

Commercial/Office/Other

- Neighborhood Commercial
- Regional Commercial
- Visitor Commercial
- Specific Plan

Industrial

- Employment Flex
- Industrial
- Aerospace Industrial
- Mineral Resource Extraction

Public

- Public Facility-School
- Public Facility-Civic
- Public Facility-Park
- Open Space

- City Boundary
- Sphere of Influence
- Major Highway/Arterial
- Railroad
- Water Body/Aqueduct

DEPARTMENT OF TRANSPORTATION
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LOS ANGELES, CA 90012
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Making Conservation a California Way of Life.

June 29, 2021

Megan Taggart
City of Palmdale
38250 Sierra Highway
Palmdale, CA 93550

RE: City of Palmdale 2045 General Plan Update – Notice of Preparation of an Environmental Impact Report (NOP)
SCH # 2021060494
GTS # 07-LA-2021-03634
Vic. LA-138/PM: 44.445

Dear Megan Taggart:

Thank you for including the California Department of Transportation (Caltrans) in the environmental review process for the above referenced NOP. The proposed project (Palmdale 2045) is a three-plus-year comprehensive update to the City's General Plan, the guiding document for the future of Palmdale over 25 years (2020-2045). The General Plan will focus on enhancing community identity, building on planned infrastructure investments, improving multi-modal active transportation and connectivity, integrating health and equity, and capitalizing on the City's unique location in the region. Palmdale 2045 identifies major strategies and physical improvements for the City over the next 25 years. These strategies include creating a vibrant downtown near the future multimodal transit station, establishing three health and wellness districts and two education districts, transforming Palmdale Boulevard into a mixed-use corridor, promoting a diversity of housing types in the City, forming village centers that offer a mix of residential choices and daily goods and services near existing neighborhoods, and building off existing industrial and aerospace business opportunities. The City of Palmdale is the Lead Agency under the California Environmental Quality Act (CEQA).

Since the project covers the entire City, it is located near State Routes 14 and 138. After reviewing the NOP, Caltrans looks forward to reviewing this project's forthcoming Vehicle Miles Traveled (VMT) analysis. As a reminder, Senate Bill 743 (2013) mandates that VMT be used as the primary metric in identifying transportation impacts of all future projects under CEQA, starting July 1, 2020.

For information on determining transportation impacts in terms of VMT on the State Highway System, see the *Technical Advisory on Evaluating Transportation Impacts in CEQA* by the California Governor's Office of Planning and Research (OPR), dated December 2018: http://opr.ca.gov/docs/20190122-743_Technical_Advisory.pdf. The City can also refer to Caltrans' updated *Vehicle Miles Traveled-Focused Transportation Impact Study Guide* (TISG), dated May 2020 and released on Caltrans' website in July 2020: https://dot.ca.gov/-/media/dot-media/programs/transportation-planning/documents/sb-743/2020-05-20-approved-vmt-focused-tisg-a11y.pdf. Caltrans' new TISG is largely based on the OPR 2018 Technical Advisory.

Note that the updated TISG states, "Additional future guidance will include the basis for requesting

transportation impact analysis that is not based on VMT. This guidance will include a simplified safety analysis approach that reduces risks to all road users and that focuses on multi-modal conflict analysis as well as access management issues." Since releasing the TISG, Caltrans has released interim safety analysis guidance, dated December 2020 and found here, for the City's reference: https://dot.ca.gov/-/media/dot-media/programs/transportation-planning/documents/sb-743/2020-12-22-updated-interim-ldigr-safety-review-guidance-a11y.pdf. Caltrans encourages lead agencies to complete traffic safety impact analysis in the CEQA review process so that, through partnerships and collaboration, California can reach zero fatalities and serious injuries by 2050.

Caltrans also encourages lead agencies to promote alternative transportation, as the City of Palmdale will do by supporting local transit opportunities in the General Plan Update. This will increase accessibility and decrease Greenhouse Gas Emissions, which supports Caltrans' mission to provide a safe and reliable transportation network that serves all people and respects the environment. For additional strategies to integrate into the General Plan Update that will promote equity and environmental preservation, please refer to:

- The 2010 *Quantifying Greenhouse Gas Mitigation Measures* report by the California Air Pollution Control Officers Association (CAPCOA), available at http://www.capcoa.org/wp-content/uploads/2010/11/CAPCOA-Quantification-Report-9-14-Final.pdf, or
- *Integrating Demand Management into the Transportation Planning Process: A Desk Reference* (Chapter 8) by the Federal Highway Administration (FHWA), available at https://ops.fhwa.dot.gov/publications/fhwahop12035/index.htm.

If you have any questions about these comments, please contact Emily Gibson, the project coordinator, at Emily.Gibson@dot.ca.gov, and refer to GTS # 07-LA-2021-03634.

Sincerely,

Emily Gibson

EMILY GIBSON
Acting IGR/CEQA Branch Chief

cc: Scott Morgan, State Clearinghouse

STATE OF CALIFORNIA Gavin Newsom, Governor

NATIVE AMERICAN HERITAGE COMMISSION

CHAIRPERSON
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June 30, 2021

RECEIVED
JUL 06 2021
PLANNING DEPT.

Megan Taggart
City of Palmdale
38250 Sierra Highway
Palmdale, CA 93550

Re: 2021060494, City of Palmdale 2045 General Plan Update Project, Los Angeles County

Dear Ms. Taggart:

The Native American Heritage Commission (NAHC) has received the Notice of Preparation (NOP), Draft Environmental Impact Report (DEIR) or Early Consultation for the project referenced above. The California Environmental Quality Act (CEQA) (Pub. Resources Code §21000 et seq.), specifically Public Resources Code §21084.1, states that a project that may cause a substantial adverse change in the significance of a historical resource, is a project that may have a significant effect on the environment. (Pub. Resources Code § 21084.1; Cal. Code Regs., tit.14, §15064.5 (b) (CEQA Guidelines §15064.5 (b)). If there is substantial evidence, in light of the whole record before a lead agency, that a project may have a significant effect on the environment, an Environmental Impact Report (EIR) shall be prepared. (Pub. Resources Code §21080 (d); Cal. Code Regs., tit. 14, § 5064 subd.(a)(1) (CEQA Guidelines §15064 (a)(1)). In order to determine whether a project will cause a substantial adverse change in the significance of a historical resource, a lead agency will need to determine whether there are historical resources within the area of potential effect (APE).

CEQA was amended significantly in 2014. Assembly Bill 52 (Gatto, Chapter 532, Statutes of 2014) (AB 52) amended CEQA to create a separate category of cultural resources, "tribal cultural resources" (Pub. Resources Code §21074) and provides that a project with an effect that may cause a substantial adverse change in the significance of a tribal cultural resource is a project that may have a significant effect on the environment. (Pub. Resources Code §21084.2). Public agencies shall, when feasible, avoid damaging effects to any tribal cultural resource. (Pub. Resources Code §21084.3 (a)). **AB 52 applies to any project for which a notice of preparation, a notice of negative declaration, or a mitigated negative declaration is filed on or after July 1, 2015.** If your project involves the adoption of or amendment to a general plan or a specific plan, or the designation or proposed designation of open space, on or after March 1, 2005, it may also be subject to Senate Bill 18 (Burton, Chapter 905, Statutes of 2004) (SB 18). **Both SB 18 and AB 52 have tribal consultation requirements.** If your project is also subject to the federal National Environmental Policy Act (42 U.S.C. § 4321 et seq.) (NEPA), the tribal consultation requirements of Section 106 of the National Historic Preservation Act of 1966 (154 U.S.C. 300101, 36 C.F.R. §800 et seq.) may also apply.

The NAHC recommends consultation with California Native American tribes that are traditionally and culturally affiliated with the geographic area of your proposed project as early as possible in order to avoid inadvertent discoveries of Native American human remains and best protect tribal cultural resources. Below is a brief summary of portions of AB 52 and SB 18 as well as the NAHC's recommendations for conducting cultural resources assessments.

Consult your legal counsel about compliance with AB 52 and SB 18 as well as compliance with any other applicable laws.

AB 52

AB 52 has added to CEQA the additional requirements listed below, along with many other requirements:

1. Fourteen Day Period to Provide Notice of Completion of an Application/Decision to Undertake a Project: Within fourteen (14) days of determining that an application for a project is complete or of a decision by a public agency to undertake a project, a lead agency shall provide formal notification to a designated contact of, or tribal representative of, traditionally and culturally affiliated California Native American tribes that have requested notice, to be accomplished by at least one written notice that includes:

a. A brief description of the project.

b. The lead agency contact information.

c. Notification that the California Native American tribe has 30 days to request consultation. (Pub. Resources Code §21080.3.1 (d)).

d. A "California Native American tribe" is defined as a Native American tribe located in California that is on the contact list maintained by the NAHC for the purposes of Chapter 905 of Statutes of 2004 (SB 18). (Pub. Resources Code §21073).

2. Begin Consultation Within 30 Days of Receiving a Tribe's Request for Consultation and Before Releasing a Negative Declaration, Mitigated Negative Declaration, or Environmental Impact Report: A lead agency shall begin the consultation process within 30 days of receiving a request for consultation from a California Native American tribe that is traditionally and culturally affiliated with the geographic area of the proposed project. (Pub. Resources Code §21080.3.1, subds. (d) and (e)) and prior to the release of a negative declaration, mitigated negative declaration or Environmental Impact Report. (Pub. Resources Code §21080.3.1(b)).

a. For purposes of AB 52, "consultation shall have the same meaning as provided in Gov. Code §65352.4 (SB 18). (Pub. Resources Code §21080.3.1 (b)).

3. Mandatory Topics of Consultation If Requested by a Tribe: The following topics of consultation, if a tribe requests to discuss them, are mandatory topics of consultation:

a. Alternatives to the project.

b. Recommended mitigation measures.

c. Significant effects. (Pub. Resources Code §21080.3.2 (a)).

4. Discretionary Topics of Consultation: The following topics are discretionary topics of consultation:

a. Type of environmental review necessary.

b. Significance of the tribal cultural resources.

c. Significance of the project's impacts on tribal cultural resources.

d. If necessary, project alternatives or appropriate measures for preservation or mitigation that the tribe may recommend to the lead agency. (Pub. Resources Code §21080.3.2 (a)).

5. Confidentiality of Information Submitted by a Tribe During the Environmental Review Process: With some exceptions, any information, including but not limited to, the location, description, and use of tribal cultural resources submitted by a California Native American tribe during the environmental review process shall not be included in the environmental document or otherwise disclosed by the lead agency or any other public agency to the public, consistent with Government Code §6254 (r) and §6254.10. Any information submitted by a California Native American tribe during the consultation or environmental review process shall be published in a confidential appendix to the environmental document unless the tribe that provided the information consents, in writing, to the disclosure of some or all of the information to the public. (Pub. Resources Code §21082.3 (c)(1)).

6. Discussion of Impacts to Tribal Cultural Resources in the Environmental Document: If a project may have a significant impact on a tribal cultural resource, the lead agency's environmental document shall discuss both of the following:

a. Whether the proposed project has a significant impact on an identified tribal cultural resource.

b. Whether feasible alternatives or mitigation measures, including those measures that may be agreed to pursuant to Public Resources Code §21082.3, subdivision (a), avoid or substantially lessen the impact on the identified tribal cultural resource. (Pub. Resources Code §21082.3 (b)).

7. Conclusion of Consultation: Consultation with a tribe shall be considered concluded when either of the following occurs:

a. The parties agree to measures to mitigate or avoid a significant effect, if a significant effect exists, on a tribal cultural resource; or

b. A party, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached. (Pub. Resources Code §21080.3.2 (b)).

8. Recommending Mitigation Measures Agreed Upon in Consultation in the Environmental Document: Any mitigation measures agreed upon in the consultation conducted pursuant to Public Resources Code §21080.3.2 shall be recommended for inclusion in the environmental document and in an adopted mitigation monitoring and reporting program, if determined to avoid or lessen the impact pursuant to Public Resources Code §21082.3, subdivision (b), paragraph 2, and shall be fully enforceable. (Pub. Resources Code §21082.3 (a)).

9. Required Consideration of Feasible Mitigation: If mitigation measures recommended by the staff of the lead agency as a result of the consultation process are not included in the environmental document or if there are no agreed upon mitigation measures at the conclusion of consultation, or if consultation does not occur, and if substantial evidence demonstrates that a project will cause a significant effect to a tribal cultural resource, the lead agency shall consider feasible mitigation pursuant to Public Resources Code §21084.3 (b). (Pub. Resources Code §21082.3 (e)).

10. Examples of Mitigation Measures That, If Feasible, May Be Considered to Avoid or Minimize Significant Adverse Impacts to Tribal Cultural Resources:

a. Avoidance and preservation of the resources in place, including, but not limited to:

i. Planning and construction to avoid the resources and protect the cultural and natural context.

ii. Planning greenspace, parks, or other open space, to incorporate the resources with culturally appropriate protection and management criteria.

b. Treating the resource with culturally appropriate dignity, taking into account the tribal cultural values and meaning of the resource, including, but not limited to, the following:

i. Protecting the cultural character and integrity of the resource.

ii. Protecting the traditional use of the resource.

iii. Protecting the confidentiality of the resource.

c. Permanent conservation easements or other interests in real property, with culturally appropriate management criteria for the purposes of preserving or utilizing the resources or places.

d. Protecting the resource. (Pub. Resource Code §21084.3 (b)).

e. Please note that a federally recognized California Native American tribe or a non-federally recognized California Native American tribe that is on the contact list maintained by the NAHC to protect a California prehistoric, archaeological, cultural, spiritual, or ceremonial place may acquire and hold conservation easements if the conservation easement is voluntarily conveyed. (Civ. Code §815.3 (c)).

f. Please note that it is the policy of the state that Native American remains and associated grave artifacts shall be repatriated. (Pub. Resources Code §5097.991).

11. Prerequisites for Certifying an Environmental Impact Report or Adopting a Mitigated Negative Declaration or Negative Declaration with a Significant Impact on an Identified Tribal Cultural Resource: An Environmental Impact Report may not be certified, nor may a mitigated negative declaration or a negative declaration be adopted unless one of the following occurs:

a. The consultation process between the tribes and the lead agency has occurred as provided in Public Resources Code §21080.3.1 and §21080.3.2 and concluded pursuant to Public Resources Code §21080.3.2.

b. The tribe that requested consultation failed to provide comments to the lead agency or otherwise failed to engage in the consultation process.

c. The lead agency provided notice of the project to the tribe in compliance with Public Resources Code §21080.3.1 (d) and the tribe failed to request consultation within 30 days. (Pub. Resources Code §21082.3 (d)).

The NAHC's PowerPoint presentation titled, "Tribal Consultation Under AB 52: Requirements and Best Practices" may be found online at: http://nahc.ca.gov/wp-content/uploads/2015/10/AB52TribalConsultation_CalEPAPDF.pdf

SB 18

SB 18 applies to local governments and requires local governments to contact, provide notice to, refer plans to, and consult with tribes prior to the adoption or amendment of a general plan or a specific plan, or the designation of open space. (Gov. Code §65352.3). Local governments should consult the Governor's Office of Planning and Research's "Tribal Consultation Guidelines," which can be found online at: https://www.opr.ca.gov/docs/09_14_05_Updated_Guidelines_922.pdf.

Some of SB 18's provisions include:

1. Tribal Consultation: If a local government considers a proposal to adopt or amend a general plan or a specific plan, or to designate open space it is required to contact the appropriate tribes identified by the NAHC by requesting a "Tribal Consultation List." If a tribe, once contacted, requests consultation the local government must consult with the tribe on the plan proposal. **A tribe has 90 days from the date of receipt of notification to request consultation unless a shorter timeframe has been agreed to by the tribe.** (Gov. Code §65352.3 (a)(2)).
2. No Statutory Time Limit on SB 18 Tribal Consultation. There is no statutory time limit on SB 18 tribal consultation.
3. Confidentiality: Consistent with the guidelines developed and adopted by the Office of Planning and Research pursuant to Gov. Code §65040.2, the city or county shall protect the confidentiality of the information concerning the specific identity, location, character, and use of places, features and objects described in Public Resources Code §5097.9 and §5097.993 that are within the city's or county's jurisdiction. (Gov. Code §65352.3 (b)).
4. Conclusion of SB 18 Tribal Consultation: Consultation should be concluded at the point in which:
    a. The parties to the consultation come to a mutual agreement concerning the appropriate measures for preservation or mitigation; or
    b. Either the local government or the tribe, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached concerning the appropriate measures of preservation or mitigation. (Tribal Consultation Guidelines, Governor's Office of Planning and Research (2005) at p. 18).

Agencies should be aware that neither AB 52 nor SB 18 precludes agencies from initiating tribal consultation with tribes that are traditionally and culturally affiliated with their jurisdictions before the timeframes provided in AB 52 and SB 18. For that reason, we urge you to continue to request Native American Tribal Contact Lists and "Sacred Lands File" searches from the NAHC. The request forms can be found online at: http://nahc.ca.gov/resources/forms/.

NAHC Recommendations for Cultural Resources Assessments

To adequately assess the existence and significance of tribal cultural resources and plan for avoidance, preservation in place, or barring both, mitigation of project-related impacts to tribal cultural resources, the NAHC recommends the following actions:

1. Contact the appropriate regional California Historical Research Information System (CHRIS) Center (http://ohp.parks.ca.gov/?page_id=1068) for an archaeological records search. The records search will determine:
    a. If part or all of the APE has been previously surveyed for cultural resources.
    b. If any known cultural resources have already been recorded on or adjacent to the APE.
    c. If the probability is low, moderate, or high that cultural resources are located in the APE.
    d. If a survey is required to determine whether previously unrecorded cultural resources are present.

2. If an archaeological inventory survey is required, the final stage is the preparation of a professional report detailing the findings and recommendations of the records search and field survey.
    a. The final report containing site forms, site significance, and mitigation measures should be submitted immediately to the planning department. All information regarding site locations, Native American human remains, and associated funerary objects should be in a separate confidential addendum and not be made available for public disclosure.
    b. The final written report should be submitted within 3 months after work has been completed to the appropriate regional CHRIS center.

3. Contact the NAHC for:
   a. A Sacred Lands File search. Remember that tribes do not always record their sacred sites in the Sacred Lands File, nor are they required to do so. A Sacred Lands File search is not a substitute for consultation with tribes that are traditionally and culturally affiliated with the geographic area of the project's APE.
   b. A Native American Tribal Consultation List of appropriate tribes for consultation concerning the project site and to assist in planning for avoidance, preservation in place, or, failing both, mitigation measures.

4. Remember that the lack of surface evidence of archaeological resources (including tribal cultural resources) does not preclude their subsurface existence.
   a. Lead agencies should include in their mitigation and monitoring reporting program plan provisions for the identification and evaluation of inadvertently discovered archaeological resources per Cal. Code Regs., tit. 14, §15064.5(f) (CEQA Guidelines §15064.5(f)). In areas of identified archaeological sensitivity, a certified archaeologist and a culturally affiliated Native American with knowledge of cultural resources should monitor all ground-disturbing activities.
   b. Lead agencies should include in their mitigation and monitoring reporting program plans provisions for the disposition of recovered cultural items that are not burial associated in consultation with culturally affiliated Native Americans.
   c. Lead agencies should include in their mitigation and monitoring reporting program plans provisions for the treatment and disposition of inadvertently discovered Native American human remains. Health and Safety Code §7050.5, Public Resources Code §5097.98, and Cal. Code Regs., tit. 14, §15064.5, subdivisions (d) and (e) (CEQA Guidelines §15064.5, subds. (d) and (e)) address the processes to be followed in the event of an inadvertent discovery of any Native American human remains and associated grave goods in a location other than a dedicated cemetery.

If you have any questions or need additional information, please contact me at my email address: Andrew.Green@nahc.ca.gov.

Sincerely,

Andrew Green

Andrew Green
Cultural Resources Analyst

cc: State Clearinghouse

LOS ANGELES COUNTY
SANITATION DISTRICTS
Converting Waste Into Resources

Robert C. Ferrante
Chief Engineer and General Manager

1955 Workman Mill Road, Whittier, CA 90601-1400
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(562) 699-7411 • www.lacsd.org

July 16, 2021

Ref. DOC 6232747

Ms. Megan Taggart, Planning Manager
City of Palmdale
Department of Economic and Community Development
38250 Sierra Highway
Palmdale, CA 93550

Dear Ms. Taggart:

NOP Response for City of Palmdale 2045 General Plan Update

The Los Angeles County Sanitation Districts (Districts) received a Notice of Preparation of a Draft Environmental Impact Report (NOP) for the subject project on June 25, 2021. The City of Palmdale (City) is located within the jurisdictional boundaries of District Nos. 14 and 20. We offer the following comments regarding sewerage service:

1. The Districts own, operate, and maintain the large trunk sewers that form the backbone of the regional wastewater conveyance system. Local collector and/or lateral sewer lines are the responsibility of the jurisdiction in which they are located. As such, the Districts cannot comment on any deficiencies in the sewerage system in the City except to state that presently no deficiencies exist in Districts' facilities that serve the City. For information on deficiencies in the City sewerage system, please contact the City Department of Public Works and/or the Los Angeles County Department of Public Works.

2. The Districts should review individual developments within the City to determine whether or not sufficient trunk sewer capacity exists to serve each project and if Districts' facilities will be affected by the project.

3. The wastewater generated by the City is treated at the Palmdale Water Reclamation Plant, which has a capacity of 12 million gallons per day (mgd) and currently processes an average flow of 9.3 mgd, or the Lancaster Water Reclamation Plant, which has a capacity of 18 mgd and currently processes an average flow of 14.3 mgd.

4. In order to estimate the volume of wastewater the project will generate, go to www.lacsd.org, under Services, then Wastewater Program and Permits, select Will Serve Program, and scroll down to click on the Table 1, Loadings for Each Class of Land Use link for a copy of the Districts' average wastewater generation factors.

5. The Districts are empowered by the California Health and Safety Code to charge a fee to connect facilities (directly or indirectly) to the Districts' Sewerage System or to increase the strength or quantity of wastewater discharged from connected facilities. This connection fee is a capital facilities fee that is used by the Districts to upgrade or expand the Sewerage System. Payment of a connection fee may be required before this project is permitted to discharge to the Districts' Sewerage System. For more information and a copy of the Connection Fee Information Sheet, go to www.lacsd.org, under Services, then Wastewater (Sewage) and select Rates & Fees. In determining the impact to the Sewerage System and applicable connection fees, the Districts will determine the user category (e.g. Condominium, Single Family home, etc.) that best represents the actual or anticipated use of the parcel(s) or facilities on the parcel(s) in the development. For more

specific information regarding the connection fee application procedure and fees, the developer should contact the Districts' Wastewater Fee Public Counter at (562) 908-4288, extension 2727.

6. In order for the Districts to conform to the requirements of the Federal Clean Air Act (CAA), the capacities of the Districts' wastewater treatment facilities are based on the regional growth forecast adopted by the Southern California Association of Governments (SCAG). Specific policies included in the development of the SCAG regional growth forecast are incorporated into clean air plans, which are prepared by the South Coast and Antelope Valley Air Quality Management Districts in order to improve air quality in the South Coast and Mojave Desert Air Basins as mandated by the CCA. All expansions of Districts' facilities must be sized and service phased in a manner that will be consistent with the SCAG regional growth forecast for the counties of Los Angeles, Orange, San Bernardino, Riverside, Ventura, and Imperial. The available capacity of the Districts' treatment facilities will, therefore, be limited to levels associated with the approved growth identified by SCAG. As such, this letter does not constitute a guarantee of wastewater service, but is to advise the developer that the Districts intend to provide this service up to the levels that are legally permitted and to inform the developer of the currently existing capacity and any proposed expansion of the Districts' facilities.

If you have any questions, please contact the undersigned at (562) 908-4288, extension 2743 or at mandyng@lacsd.org.

Very truly yours,

Mandy Ng

Mandy Ng
Environmental Planner
Facilities Planning Department

MMN:mmn

COUNTY OF LOS ANGELES
FIRE DEPARTMENT

1320 NORTH EASTERN AVENUE
LOS ANGELES, CALIFORNIA 90063-3294
(323) 881-2401
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July 20, 2021

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JUL 26 2021
PLANNING DEPT.

Megan Taggart, Planning Manager
City of Palmdale
Department of Economic and Community Development
38250 Sierra Highway
Palmdale, CA 93550

Dear Ms. Taggart:

NOTICE OF PREPARATION OF A DRAFT ENVIRONMENTAL IMPACT REPORT, "PALMDALE 2045 GENERAL PLAN UPDATE," WILL HELP THE CITY PLAN FOR IMPORTANT COMMUNITY ISSUES SUCH AS NEW GROWTH, HOUSING AND INFRASTRUCTURE NEEDS, AND ENVIRONMENTAL PROTECTION, IT ALSO SETS THE STAGE FOR FUTURE SOCIAL, PHYSICAL, AND ECONOMIC DEVELOPMENT OF THE CITY, PALMDALE, FFER 2021006978

The Notice of Preparation of a Draft Environmental Impact Report has been reviewed by the Planning Division, Land Development Unit, Forestry Division, and Health Hazardous Materials Division of the County of Los Angeles Fire Department.

The following are their comments:

PLANNING DIVISION:

We have no comments.

For any questions regarding this response, please contact Kien Chin, Planning Analyst, at (323) 881-2404 or Kien.Chin@fire.lacounty.gov.

LAND DEVELOPMENT UNIT:

1. Each development must comply with all applicable code and ordinance requirements for construction, access, water mains, fire flows, and fire hydrants.

2. Every building constructed shall be accessible to Fire Department apparatus by way of access roadways, with an all-weather surface of not less than 20 feet in width. The roadway width shall be increased based on the type development proposed by the applicant. The roadway shall be extended to within 150 feet of all portions of the exterior walls when measured by an unobstructed route around the exterior of the building. The roadway shall provide approved signs and/or stripping stating, "NO PARKING - FIRE LANE" and shall be maintained in accordance with the County of Los Angeles Fire Code.

3. Every building constructed shall provide an adequate water supply for fire protection purposes. The fire hydrant spacing shall be in compliance with Appendix C in the County of Los Angeles Fire Code (Title 32). The fire flow requirements should be addressed in Appendix B of the County of Los Angeles Fire Code (Title 32).

4. A property which is located within an area described by the Fire Department as a Fire Hazard Severity Zone, a "Fuel Modification Plan" shall be submitted for review by the Fuel Modification Unit prior to building plan approval. Please contact the Department's Fuel Modification Unit for details. The Fuel Modification Plan Review Unit is located at 605 North Angeleno Avenue in the City of Azusa CA 91702-2904. They may be reached at (626) 969-5205 or visit https://www.fire.lacounty.gov/forestry-division/forestry-fuel-modification

5. When involved with subdivision in a city contracting fire protection with the County of Los Angeles Fire Department, Fire Department requirements for access, fire flows, and hydrants are addressed during the subdivision tentative map stage by the Land Development Unit.

6. Specific fire and life safety requirements for the construction phase will be addressed at the Fire Department building plan check review. There may be additional fire and life safety requirements during this time.

The Land Development Unit appreciates the opportunity to comment on this project. Should any questions arise regarding the Land Development Unit response, please contact Wally Collins at (323) 890-4243 or Wally.Collins@fire.lacounty.gov.

FORESTRY DIVISION – OTHER ENVIRONMENTAL CONCERNS:

The statutory responsibilities of the County of Los Angeles Fire Department's Forestry Division include erosion control, watershed management, rare and endangered species, vegetation, fuel modification for Very High Fire Hazard Severity Zones, archeological and cultural resources, and the County Oak Tree Ordinance. Potential impacts in these areas should be addressed.

Under the Los Angeles County Oak tree Ordinance, a permit is required to cut, destroy, remove, relocate, inflict damage or encroach into the protected zone of any tree of the Oak genus which is 25 inches or more in circumference (eight inches in diameter), as measured 4 1/2 feet above mean natural grade.

If Oak trees are known to exist in the proposed project area further field studies should be conducted to determine the presence of this species on the project site.

The County of Los Angeles Fire Department's Forestry Division has no further comments regarding this project.

For any questions regarding this response, please contact Forestry Assistant, Nicholas Alegria at (818) 890-5719.

HEALTH HAZARDOUS MATERIALS DIVISION:

The Health Hazardous Materials Division of the Los Angeles County Fire Department has no comments or requirements for the project at this time.

Please contact HHMD senior typist-clerk, Perla Garcia at (323) 890-4035 or Perla.garcia@fire.lacounty.gov if you have any questions.

If you have any additional questions, please contact this office at (323) 890-4330

Very truly yours,

RONALD M. DURBIN, CHIEF, FORESTRY DIVISION
PREVENTION SERVICES BUREAU

RMD:ac

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State of California – Natural Resources Agency
DEPARTMENT OF FISH AND WILDLIFE
South Coast Region
3883 Ruffin Road
San Diego, CA 92123
(858) 467-4201
www.wildlife.ca.gov

GAVIN NEWSOM, Governor
CHARLTON H. BONHAM, Director

July 21, 2021

Megan Taggert
City of Palmdale
38250 Sierra Highway
Palmdale, CA 93550
MTaggart@cityofpalmdale.org

Subject: Notice of Preparation of a Draft Environmental Impact Report for City of Palmdale General Plan Update (Palmdale 2045) Project, SCH #2021060494, City of Palmdale, Los Angeles County

Dear Ms. Taggert:

The California Department of Fish and Wildlife (CDFW) has reviewed the Notice of Preparation (NOP) of a Draft Environmental Impact Report (DEIR) from the City of Palmdale (City; Lead Agency) for the Palmdale General Plan Update (Project). Thank you for the opportunity to provide comments and recommendations regarding those activities involved in the Project that may affect California fish and wildlife. Likewise, we appreciate the opportunity to provide comments regarding those aspects of the Project that CDFW, by law, may be required to carry out or approve through the exercise of its own regulatory authority under the Fish and Game Code.

CDFW's Role

CDFW is California's Trustee Agency for fish and wildlife resources and holds those resources in trust by statute for all the people of the State [Fish & G. Code, §§ 711.7, subdivision (a) & 1802; Pub. Resources Code, § 21070; California Environmental Quality Act (CEQA) Guidelines, § 15386, subdivision (a)]. CDFW, in its trustee capacity, has jurisdiction over the conservation, protection, and management of fish, wildlife, native plants, and habitat necessary for biologically sustainable populations of those species (Id., § 1802). Similarly, for purposes of CEQA, CDFW is charged by law to provide, as available, biological expertise during public agency environmental review efforts, focusing specifically on projects and related activities that have the potential to adversely affect State fish and wildlife resources.

CDFW is also submitting comments as a Responsible Agency under CEQA (Pub. Resources Code, § 21069; CEQA Guidelines, § 15381). CDFW expects that it may need to exercise regulatory authority as provided by the Fish and Game Code, including lake and streambed alteration regulatory authority (Fish & G. Code, § 1600 *et seq*.). Likewise, to the extent implementation of the Project as proposed may result in "take", as defined by State law, of any species protected under the California Endangered Species Act (CESA) (Fish & G. Code, § 2050 *et seq.*), or CESA-listed rare plant pursuant to the Native Plant Protection Act (NPPA; Fish & G. Code, §1900 *et seq.*), CDFW recommends the Project proponent obtain appropriate authorization under the Fish and Game Code.

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Project Description and Summary

Objective: The proposed Project is a comprehensive update to the City's General Plan, which is the guiding document for the future of Palmdale over 25 years (2020-2045). The General Plan will focus on enhancing community identity, building on planned infrastructure investments, and improving multi-modal active transportation and connectivity. The Project identifies major strategies and physical improvements for the City over the next 25 years. These strategies include creating a downtown near the future multimodal transit station, establishing three health and wellness districts and two education districts, and transforming Palmdale Boulevard into a mixed-use corridor. The Project also aims to promote a diversity of housing types in the City, form village centers that offer a mix of residential choices and daily goods and services near existing neighborhoods, and building off existing industrial and aerospace business opportunities. The following actions will also be taken by the City in connection with the General Plan Update and are also considered part of the proposed Project to be analyzed in the forthcoming DEIR: Adoption and implementation of the General Plan Update; Adoption and implementation of the Climate Action Plan; and Housing Element Update.

Location: The Project would apply to the entire geographic area located within the boundaries of the City of Palmdale. The City is located in the southern region of the Antelope Valley, approximately 60 miles northeast of downtown Los Angeles along State Highway 14.

Comments and Recommendations

CDFW offers the comments and recommendations below to assist the City in adequately identifying, avoiding, and/or mitigating the Project's significant, or potentially significant, direct, and indirect impacts on fish and wildlife (biological) resources.

Specific Comments

1) Joshua tree. Joshua trees (*Yucca brevifolia*) are known to occur on vacant land within the City. Joshua tree is a CESA-listed candidate species. As a CESA-listed candidate species, western Joshua tree is granted full protection of a threatened species under CESA. Activities related to housing or infrastructure development may directly remove habitats or indirectly cause added pressures to the habitats in which these species reside, leading to further species decline. Any project activities that involve grading or vegetation removal would likely result in "take" or adverse impacts to western Joshua tree, its seed bank, and its sole pollinator, the Joshua tree yucca moth (*Tegeticula synthetica*).

   Fish and Game Commission approved a Special Order (2084) on December 10, 2020, which delegated authority to the City of Palmdale for the issuance of some permits pertaining to new and existing single-family residences on behalf of CDFW. Special Order 749.11 authorizes the take of western Joshua trees during the candidacy period when a dead western Joshua tree needs to be removed or a western Joshua tree needs to be trimmed (CDFW 2021a). Special Order 749.12 authorizes the take of western Joshua trees by the City of Palmdale for certain projects pertaining to accessory structures in developed parcels within an existing single-family residence (CDFW 2021a). For this Project, take of western Joshua trees is not authorized by Special Order 749.11 or 749.12. Therefore, CDFW concurs, that the City require the Project Applicant to consult with CDFW for authorization to take western Joshua trees pursuant to Fish and Game Code section

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2080.1.

CDFW primarily recommends the City avoid impacts to western Joshua tree to the greatest extent feasible. If "take" or adverse impacts to western Joshua trees cannot be avoided during any project activities or over the life of the Project, the City should apply for a CESA Incidental Take Permit (ITP), pursuant to Fish and Game Code section 2080 *et seq*. Early consultation is encouraged, as significant modification to a Project and mitigation measures may be required to obtain a CESA Permit. The City should consult with CDFW to obtain additional Joshua tree survey requirements. CDFW may require separate CEQA documentation for the issuance of an ITP unless the Project CEQA document addresses all Project impacts to CESA-listed species and specifies a mitigation monitoring and reporting program that will meet the requirements of an ITP. For these reasons, biological mitigation monitoring and reporting proposals should be of sufficient detail and resolution to satisfy the requirements for a CESA ITP.

2) Additional CESA- and Endangered Species Act (ESA)-Covered Species. The City and its surrounding vicinity may support additional CESA- and ESA-listed species. Activities related to housing or infrastructure development may directly remove habitats or indirectly cause added pressures to the habitats in which these species reside, leading to further species decline. CDFW recommends the DEIR discuss the Project's potential impacts on the following species and associated habitat: tricolored blackbird (*Agelaius tricolor*), Swainson's hawk (*Buteo swainsoni*), and Mohave ground squirrel (*Xerspermophilus mohavensis*), which are CESA-listed; and least Bell's vireo (*Vireo bellii pusillus*), which is ESA- and CESA-listed.

   CDFW considers adverse impacts to a species protected by CESA to be significant without mitigation under CEQA. As to CESA, take of any endangered, threatened, candidate species, or CESA-listed plant species that results from the Project is prohibited, except as authorized by State law (Fish & G. Code §§ 2080, 2085; Cal. Code Regs., tit. 14, §786.9). Consequently, if the Project or any Project-related activity during the life of the Project will result in take of a species designated as endangered or threatened, or a candidate for listing under CESA, CDFW recommends that the Project proponent seek appropriate take authorization under CESA prior to implementing the Project. Appropriate authorization from CDFW may include an ITP or a consistency determination in certain circumstances Please refer to Specific Comment #1 regarding consultation with CDFW on ITPs.

3) Additional Special Status Species. The City and its surrounding vicinity may also support additional special status species, namely, those considered Species of Special Concern by CDFW. Activities related to housing or infrastructure development may directly remove habitats or indirectly cause added pressures to the habitats in which these species reside, leading to further species decline. CDFW recommends the DEIR discuss the Project's potential impacts on the following species and associated habitat: northern California legless lizard (*Anniella pulchra*), California glossy snake (*Arizona elegans occidentalis*), burrowing owl (*Athene cunicularia*), mountain plover (*Charadrius montanus*), western pond turtle (*Emys marmorata*), loggerhead shrike (*Lanius ludovicianus*), coast horned lizard (*Phrynosoma blainvillii*), two-striped garter snake (*Thamnophis hammondii*), and Le Conte's thrasher (*Toxostoma lecontei*).

4) Crotch's Bumble Bee. The City and its surrounding vicinity may also support additional

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special status species, namely, Crotch's bumble bee (*Bombus crotchii*). Project activities related to housing or infrastructure development will involve ground disturbing activities in occupied habitat may result in loss of foraging habitat, crushing or filling of active bee colonies, causing the death or injury of adults, eggs, and larvae.

Crotch's bumble bee has a State ranking of S1/S2. This means that the Crotch's bumble bee is considered critically imperiled or imperiled and is extremely rare (often 5 or fewer populations). Also, Crotch's bumble bee has a very restricted range and steep population declines make the species vulnerable to extirpation from the State (CDFW 2017). Accordingly, Crotch's bumble bee meets the CEQA definition of rare, threatened, or endangered species (CEQA Guidelines, § 15380). Therefore, take of Crotch's bumble bee could require a mandatory finding of significance by the City (CEQA Guidelines, § 15065). The Project's associated housing and infrastructure development activities have the potential to substantially reduce or adversely modify habitat, impair the viability of populations, and reduce the number and range of the Crotch's bumble bee. CDFW recommends the DEIR discuss the Project's potential impacts on the Crotch's bumble bee and associated habitat.

5) Biologically Significant Sites Inventory. CDFW recommends the City identify and prepare a map of the following areas if present within or adjacent to the City boundary. In addition, the City should consider the Project's potential impacts on the following areas if present within or adjacent to the Project boundary:

   a) Conservation easements or mitigation lands;
   b) U.S. Fish and Wildlife Service Threatened & Endangered Species Active Critical Habitat (USFWS 2020);
   c) County of Los Angeles Significant Ecological Areas (SEAs);
   d) Wildlife corridors;
   e) Sensitive Natural Communities [see General Comment #3 (Biological Baseline Assessment)];
   f) Aquatic and riparian resources including (but not limited to) rivers, channels, streams, wetlands, and vernal pools, and associated natural plant communities; and
   g) City parks and open space, particularly areas with undeveloped land.

   CDFW recommends the City avoid sites that may have a direct or indirect impact on conservation easements or lands set aside as mitigation. CDFW recommends the DEIR include measures where future housing development or infrastructure facilitated by the Project mitigate (avoid if feasible) for impacts on biological resources occurring within SEAs and critical habitat, as well as mitigate for impacts on wildlife corridors, sensitive natural communities, aquatic and riparian resources, and urban forests.

6) Development and Conservation. To accommodate increased housing and infrastructure needs, the City is expected to build more units in the coming years. CDFW recommends the City maximize development where it already exists in order to protect natural lands from development and habitat loss. CDFW recommends the City consider regional and State-wide natural resource conservation strategies outlined in the following reports: Safeguarding California Plan: 2018 Update (CNRA 2018); California State Wildlife Action Plan: A Conservation Legacy for Californians (CDFW 2015); and, California 2030 Natural and Working Lands Climate Change Implementation Plan: January 2019 Draft (CalEPA et al.

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2019).

7) Jurisdictional Waters. According to the US Fish and Wildlife Service (USFWS) National Wetlands Inventory, there are multiple segments of streams running throughout the City (USFWS 2021). As a Responsible Agency under CEQA, CDFW has authority over activities in streams and/or lakes that will divert or obstruct the natural flow, or change the bed, channel, or bank (including vegetation associated with the stream or lake) of a river or stream, or use material from a streambed. For any such activities, the project applicant (or "entity") must provide written notification to CDFW pursuant to Fish and Game Code Section 1600 *et seq*.

   a) CDFW's issuance of a Lake and Streambed Alteration (LSA) Agreement for a project that is subject to CEQA will require CEQA compliance actions by CDFW as a Responsible Agency. As a Responsible Agency, CDFW may consider the environmental document of the local jurisdiction (Lead Agency) for the project. To minimize additional requirements by CDFW pursuant to section 1600 *et seq.* and/or under CEQA, the environmental document should fully identify the potential impacts to the stream or riparian resources and provide adequate avoidance, mitigation, monitoring and reporting commitments for issuance of the LSA Agreement. Please visit CDFW's Lake and Streambed Alteration Program webpage for information about LSA Notification (CDFW 2021f).

   b) In the event the project area may support aquatic, riparian, and wetland habitats; a preliminary delineation of the streams and their associated riparian habitats should be included in the environmental document. The delineation should be conducted pursuant to the U.S. Fish and Wildlife Service (USFWS) wetland definition adopted by CDFW (Cowardin et al. 1970). Be advised that some wetland and riparian habitats subject to CDFW's authority may extend beyond the jurisdictional limits of the U.S. Army Corps of Engineers' Section 404 permit and Regional Water Quality Control Board Section 401 Certification.

   c) In project areas which may support ephemeral or episodic streams, herbaceous vegetation, woody vegetation, and woodlands also serve to protect the integrity of these resources and help maintain natural sedimentation processes; therefore, CDFW recommends effective setbacks be established to maintain appropriately sized vegetated buffer areas adjoining ephemeral drainages.

   d) Project-related changes in upstream and downstream drainage patterns, runoff, and sedimentation should be included and evaluated in the environmental document.

   e) As part of the LSA Notification process, CDFW requests a hydrological evaluation of the 100, 50, 25, 10, 5, and 2-year frequency storm event for existing and proposed conditions. CDFW recommends the environmental document evaluate the results and address avoidance, minimization, and/or mitigation measures that may be necessary to reduce potential significant impacts.

8) Wetland Resources. According to the US Fish and Wildlife Service (USFWS) National Wetlands Inventory, there are a number of wetland sites throughout the City (USFWS 2021). CDFW, as described in Fish and Game Code section 703(a), is guided by the Fish and

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Game Commission's (Commission) policies. The Wetlands Resources policy the Commission "…seek[s] to provide for the protection, preservation, restoration, enhancement and expansion of wetland habitat in California. Further, it is the policy of the Fish and Game Commission to strongly discourage development in or conversion of wetlands. It opposes, consistent with its legal authority, any development or conversion that would result in a reduction of wetland acreage or wetland habitat values. To that end, the Commission opposes wetland development proposals unless, at a minimum, project mitigation assures there will be 'no net loss' of either wetland habitat values or acreage. The Commission strongly prefers mitigation which would achieve expansion of wetland acreage and enhancement of wetland habitat values" (CFGC 2005).

a) The Wetlands Resources policy provides a framework for maintaining wetland resources and establishes mitigation guidance. CDFW encourages avoidance of wetland resources as a primary mitigation measure and discourages the development or type conversion of wetlands to uplands. These wetlands include, but are not limited to, those along Anaverde Creek, Amargosa Creek, Lake Palmdale, Little Rock Wash, Rogers Creek, and Pine Creek. CDFW encourages activities that would avoid the reduction of wetland acreage, function, or habitat values. Once avoidance and minimization measures have been exhausted, a project must include mitigation measures to assure a "no net loss" of either wetland habitat values, or acreage, for unavoidable impacts to wetland resources. Conversions include, but are not limited to, conversion to subsurface drains, placement of fill or building of structures within the wetland, and channelization or removal of materials from the streambed. All wetlands and watercourses, whether ephemeral, intermittent, or perennial, should be retained and provided with substantial setbacks, which preserve the riparian and aquatic values and functions for the benefit to on-site and off-site wildlife populations. CDFW recommends mitigation measures to compensate for unavoidable impacts be included in an environmental document and these measures should compensate for the loss of function and value.

b) The Fish and Game Commission's Water policy guides CDFW on the quantity and quality of the waters of this State that should be apportioned and maintained respectively so as to produce and sustain maximum numbers of fish and wildlife; to provide maximum protection and enhancement of fish and wildlife and their habitat; encourage and support programs to maintain or restore a high quality of the waters of this State; prevent the degradation thereof caused by pollution and contamination; and, endeavor to keep as much water as possible open and accessible to the public for the use and enjoyment of fish and wildlife (CFGC 1994). CDFW recommends avoidance of water practices and structures that use excessive amounts of water, and minimization of impacts that negatively affect water quality, to the extent feasible (Fish & G. Code, § 5650).

9) Nesting Birds. The City supports habitats, such as Joshua tree woodland, that numerous bird species depend on. CDFW recommends the DEIR include measures where future housing and infrastructure development facilitated by the Project avoids potential impacts to nesting birds. Project activities occurring during the bird and raptor breeding and nesting season could result in the incidental loss of fertile eggs or nestlings, or otherwise lead to nest abandonment.

a) Migratory nongame native bird species are protected by international treaty under the

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Federal Migratory Bird Treaty Act (MBTA) of 1918 (Code of Federal Regulations, Title 50, § 10.13). Sections 3503, 3503.5, and 3513 of the California Fish and Game Code prohibit take of all birds and their active nests including raptors and other migratory nongame birds (as listed under the Federal MBTA). It is unlawful to take, possess, or needlessly destroy the nest or eggs of any raptor.

b) CDFW recommends that measures be taken to fully avoid impacts to nesting birds and raptors. Ground-disturbing activities (e.g., mobilizing, staging, drilling, and excavating) and vegetation removal should occur outside of the avian breeding season which generally runs from February 15 through September 15 (as early as January 1 for some raptors) to avoid take of birds, raptors, or their eggs.

c) If impacts to nesting birds and raptors cannot be avoided, CDFW recommends the DEIR include measures where future housing development facilitated by the Project mitigates for impacts. CDFW recommends surveys by a qualified biologist with experience conducting breeding bird and raptor surveys. Surveys are needed to detect protected native birds and raptors occurring in suitable nesting habitat that may be disturbed and any other such habitat within 300 feet of the project disturbance area, to the extent allowable and accessible. For raptors, this radius should be expanded to 500 feet and 0.5 mile for special status species, if feasible. Project personnel, including all contractors working on site, should be instructed on the sensitivity of the area. Reductions in the nest buffer distance may be appropriate depending on the avian species involved, ambient levels of human activity, screening vegetation, or possibly other factors.

10) Loss of Bird and Raptor Nesting and Foraging Habitat. Joshua tree woodland habitat in the City supports nesting birds, including sensitive and special status species. Development occurring adjacent to the wildlife urban interface and habitats such as Joshua tree woodland could impact nesting and breeding habitat for birds and raptors. Direct impacts such as habitat loss and indirect impacts such as increased edge effects could eliminate habitat or reduce habitat quality.

a) CDFW recommends the DEIR analyze and discuss the Project's impacts on bird and raptor nesting and breeding habitat. Edge effects should also be analyzed and discussed. CDFW recommends the DEIR disclose the amount of bird and raptor nesting and breeding habitat that would be impacted and lost as a result of the proposed Project.

b) CDFW recommends the Project avoid developing and encroaching onto nesting and breeding habitat for birds and raptors. If avoidance is not feasible, CDFW recommends the DEIR provide measures to mitigate for impacts on bird and raptor nesting and breeding habitat. Depending on the status of the bird or raptor species impacted, replacement habitat acres should increase with the occurrence of a Species of Special Concern. Replacement habitat acres should further increase with the occurrence of a CESA-listed threatened or endangered species.

c) CDFW recommends the DEIR provide measures where future development facilitated by the Project avoids removal of any native trees, large and dense-canopied native and non-native trees, and trees occurring in high density. CDFW also recommends avoiding impacts to understory vegetation (e.g., ground cover, subshrubs, and shrubs). If trees are removed, CDFW recommends future development facilitated by the Project provides

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replacement to compensate for temporal or permanent loss habitat within a project site. CDFW recommends planting native tree and shrub species preferred by birds and are native to the area.

General Comments

1) Disclosure. An environmental document should provide an adequate, complete, and detailed disclosure about the effect which a proposed project is likely to have on the environment (Pub. Resources Code, § 20161; CEQA Guidelines, §15151). Adequate disclosure is necessary so CDFW may provide comments on the adequacy of proposed avoidance, minimization, or mitigation measures, as well as to assess the significance of the specific impact relative to the species (e.g., current range, distribution, population trends, and connectivity).

2) Mitigation Measures. Public agencies have a duty under CEQA to prevent significant, avoidable damage to the environment by requiring changes in projects through the use of feasible alternatives or mitigation measures [CEQA Guidelines, §§ 15002(a)(3), 15021]. Pursuant to CEQA Guidelines section 15126.4, an environmental document shall describe feasible measures which could mitigate for impacts below a significant level under CEQA.

   a) Level of Detail. Mitigation measures must be feasible, effective, implemented, and fully enforceable/imposed by the lead agency through permit conditions, agreements, or other legally binding instruments (Pub. Resources Code, § 21081.6(b); CEQA Guidelines, §§ 15126.4, 15041). A public agency shall provide the measures that are fully enforceable through permit conditions, agreements, or other measures (Pub. Resources Code, § 21081.6). CDFW recommends that the City prepare mitigation measures that are specific, detailed (i.e., responsible party, timing, specific actions, location), and clear in order for a measure to be fully enforceable and implemented successfully via a mitigation monitoring and/or reporting program (CEQA Guidelines, § 15097; Pub. Resources Code, § 21081.6). Adequate disclosure is necessary so CDFW may provide comments on the adequacy and feasibility of proposed mitigation measures.

   b) Disclosure of Impacts. If a proposed mitigation measure would cause one or more significant effects, in addition to impacts caused by the Project as proposed, the environmental document should include a discussion of the effects of proposed mitigation measures [CEQA Guidelines, § 15126.4(a)(1)]. In that regard, the environmental document should provide an adequate, complete, and detailed disclosure about a project's proposed mitigation measure(s). Adequate disclosure is necessary so CDFW may assess the potential impacts of proposed mitigation measures.

3) Biological Baseline Assessment. An adequate biological resources assessment should provide a complete assessment and impact analysis of the flora and fauna within and adjacent to a project site and where a project may result in ground disturbance. The assessment and analysis should place emphasis upon identifying endangered, threatened, sensitive, regionally, and locally unique species, and sensitive habitats. Impact analysis will aid in determining any direct, indirect, and cumulative biological impacts, as well as specific mitigation or avoidance measures necessary to offset those impacts. CDFW recommends avoiding any sensitive natural communities found on or adjacent to a project. CDFW also

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considers impacts to Species of Special Concern a significant direct and cumulative adverse effect without implementing appropriate avoid and/or mitigation measures. A project-level environmental document should include the following information:

a) Information on the regional setting that is critical to an assessment of environmental impacts, with special emphasis on resources that are rare or unique to the region [CEQA Guidelines, § 15125(c)]. An environmental document should include measures to fully avoid and otherwise protect Sensitive Natural Communities from project-related impacts. CDFW considers these communities as threatened habitats having both regional and local significance. Plant communities, alliances, and associations with a state-wide ranking of S1, S2, S3 and S4 should be considered sensitive and declining at the local and regional level. These ranks can be obtained by visiting Vegetation Classification and Mapping Program - Natural Communities webpage (CDFW 2021b);

b) A thorough, recent, floristic-based assessment of special status plants and natural communities following CDFW's Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Sensitive Natural Communities (CDFW 2018). Adjoining habitat areas should be included where project construction and activities could lead to direct or indirect impacts off site;

c) Floristic, alliance- and/or association-based mapping and vegetation impact assessments conducted at a project site and within the neighboring vicinity. The Manual of California Vegetation (MCV), second edition, should also be used to inform this mapping and assessment (Sawyer et al. 2009). Adjoining habitat areas should be included in this assessment where project activities could lead to direct or indirect impacts off site. Habitat mapping at the alliance level will help establish baseline vegetation conditions;

d) A complete, recent, assessment of the biological resources associated with each habitat type on site and within adjacent areas that could also be affected by a project. CDFW's California Natural Diversity Database (CNDDB) in Sacramento should be contacted to obtain current information on any previously reported sensitive species and habitat (CDFW 2021c). An assessment should include a nine-quadrangle search of the CNDDB to determine a list of species potentially present at a project site. A lack of records in the CNDDB does not mean that rare, threatened, or endangered plants and wildlife do not occur in the project site. Field verification for the presence or absence of sensitive species is necessary to provide a complete biological assessment for adequate CEQA review [CEQA Guidelines, § 15003(i)];

e) A complete, recent, assessment of rare, threatened, and endangered, and other sensitive species on site and within the area of potential effect, including California Species of Special Concern, and California Fully Protected Species (Fish & G. Code, §§ 3511, 4700, 5050, and 5515). Species to be addressed should include all those which meet the CEQA definition of endangered, rare, or threatened species (CEQA Guidelines, § 15380). Seasonal variations in use of a project site should also be addressed such as wintering, roosting, nesting, and foraging habitat. Focused species-specific surveys, conducted at the appropriate time of year and time of day when the sensitive species are active or otherwise identifiable, may be required if suitable habitat is present. See CDFW's Survey and Monitoring Protocols and Guidelines for established

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survey protocol for select species (CDFW 2021d). Acceptable species-specific survey procedures may be developed in consultation with CDFW and the U.S. Fish and Wildlife Service; and,

f) A recent wildlife and rare plant survey. CDFW generally considers biological field assessments for wildlife to be valid for a one-year period, and assessments for rare plants may be considered valid for a period of up to three years. Some aspects of a proposed project may warrant periodic updated surveys for certain sensitive taxa, particularly if build out could occur over a protracted time frame or in phases.

g) A biological resources survey should include identification and delineation of any rivers, streams, and lakes and their associated natural plant communities/habitats. This includes any culverts, ditches, storm channels that may transport water, sediment, pollutants, and discharge into rivers, streams, and lakes.

4) Data. CEQA requires that information developed in environmental impact reports be incorporated into a database which may be used to make subsequent or supplemental environmental determinations [Pub. Resources Code, § 21003, subd. (e)]. Accordingly, please report any special status species and natural communities detected by completing and submitting CNDDB Field Survey Forms (CDFW 2021e). The City should ensure data collected at a project-level has been properly submitted, with all data fields applicable filled out. The data entry should also list pending development as a threat and then update this occurrence after impacts have occurred.

5) Biological Direct, Indirect, and Cumulative Impacts. CDFW recommends providing a thorough discussion of direct, indirect, and cumulative impacts expected to adversely affect biological resources, with specific measures to offset such impacts. The DEIR should address the following:

a) A discussion regarding Project-related indirect impacts on biological resources, including resources in nearby public lands, open space, adjacent natural habitats, riparian ecosystems, and any designated and/or proposed or existing reserve lands [e.g., preserve lands associated with a Natural Community Conservation Plan (NCCP, Fish & G. Code, § 2800 et. seq.)]. Impacts on, and maintenance of, wildlife corridor/movement areas, including access to undisturbed habitats in adjacent areas, should be fully evaluated in the DEIR;

b) A discussion of both the short-term and long-term effects to species population distribution and concentration and alterations of the ecosystem supporting the species impacted [CEQA Guidelines, § 15126.2(a)];

c) A discussion of potential adverse impacts from lighting, noise, temporary and permanent human activity, and exotic species, and identification of any mitigation measures;

d) A discussion on Project-related changes on drainage patterns; the volume, velocity, and frequency of existing and post-Project surface flows; polluted runoff; soil erosion and/or sedimentation in streams and water bodies; and, post-Project fate of runoff from the Project sites. The discussion should also address the potential water extraction activities and the potential resulting impacts on the habitat (if any) supported by the groundwater.

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Mitigation measures proposed to alleviate such Project impacts should be included;

e) An analysis of impacts from proposed changes to land use designations and zoning, and existing land use designation and zoning located nearby or adjacent to natural areas that may inadvertently contribute to wildlife-human interactions. A discussion of possible conflicts and mitigation measures to reduce these conflicts should be included in the DEIR; and,

f) A cumulative effects analysis, as described under CEQA Guidelines section 15130. General and specific plans, as well as past, present, and anticipated future projects, should be analyzed relative to their impacts on similar plant and wildlife species, habitat, and vegetation communities. If the City determines that the Project would not have a cumulative impact, the environmental document should indicate why the cumulative impact is not significant. The City's conclusion should be supported by facts and analyses [CEQA Guidelines, § 15130(a)(2)].

6) Project Description and Alternatives. To enable CDFW to adequately review and comment on the proposed Project from the standpoint of the protection of plants, fish, and wildlife, we recommend the following information be included in the DEIR:

a) A complete discussion of the purpose and need for, and description of, the proposed Project;

b) CEQA Guidelines section 15126.6(a) states that an environmental document shall describe a reasonable range of potentially feasible alternatives to the Project, or to the location of the Project, which would feasibly attain most of the basic objectives of the Project but would avoid or substantially lessen any of the significant effects of the Project. CEQA Guidelines section 15126.6(f)(2) states if the Lead Agency concludes that no feasible alternative locations exist, it must disclose the reasons for this conclusion and should include reasons in the environmental document; and,

c) A range of feasible alternatives to Project component location and design features to avoid or otherwise minimize direct and indirect impacts to sensitive biological resources and wildlife movement areas. CDFW recommends the City consider configuring Project construction and activities, as well as the development footprint, in such a way as to fully avoid impacts to sensitive and special status plants and wildlife species, habitat, and sensitive vegetation communities. CDFW also recommends the City consider establishing appropriate setbacks from sensitive and special status biological resources. Setbacks should not be impacted by ground disturbance or hydrological changes for the duration of the Project and from any future development. As a general rule, CDFW recommends reducing or clustering the development footprint to retain unobstructed spaces for vegetation and wildlife and provide connections for wildlife between properties and minimize obstacles to open space.

Project alternatives should be thoroughly evaluated, even if an alternative would impede, to some degree, the attainment of the Project objectives or would be more costly (CEQA Guidelines, § 15126.6).

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d) Where the Project may impact aquatic and riparian resources, CDFW recommends the City consider alternatives that would fully avoid impacts to such resources. CDFW also recommends alternatives that would allow not impede, alter, or otherwise modify existing surface flow; watercourse and meander; and water-dependent ecosystems and vegetation communities. Project-related designs should consider elevated crossings to avoid channelizing or narrowing of streams. Any modifications to a river, creek, or stream may cause or magnify upstream bank erosion, channel incision, and drop in water level and cause the stream to alter its course of flow.

7) Translocation/Salvage of Plants and Animal Species. Translocation and transplantation is the process of moving an individual from a project site and permanently moving it to a new location. CDFW generally does not support the use of, translocation or transplantation as the primary mitigation strategy for unavoidable impacts to rare, threatened, or endangered plant or animal species. Studies have shown that these efforts are experimental and the outcome unreliable. CDFW has found that permanent preservation and management of habitat capable of supporting these species is often a more effective long-term strategy for conserving sensitive plants and animals and their habitats.

8) Compensatory Mitigation. An environmental document should include mitigation measures for adverse Project related direct or indirect impacts to sensitive plants, animals, and habitats. Mitigation measures should emphasize avoidance and reduction of project-related impacts. For unavoidable impacts, on-site habitat restoration or enhancement should be discussed in detail. If on-site mitigation is not feasible or would not be biologically viable and therefore not adequately mitigate the loss of biological functions and values, off-site mitigation through habitat creation and/or acquisition and preservation in perpetuity should be addressed. Areas proposed as mitigation lands should be protected in perpetuity with a conservation easement, financial assurance and dedicated to a qualified entity for long-term management and monitoring. Under Government Code, section 65967, the Lead Agency must exercise due diligence in reviewing the qualifications of a governmental entity, special district, or nonprofit organization to effectively manage and steward land, water, or natural resources on mitigation lands it approves.

9) Long-term Management of Mitigation Lands. For proposed preservation and/or restoration, an environmental document should include measures to protect the targeted habitat values from direct and indirect negative impacts in perpetuity. The objective should be to offset the project-induced qualitative and quantitative losses of wildlife habitat values. Issues that should be addressed include (but are not limited to) restrictions on access, proposed land dedications, monitoring and management programs, control of illegal dumping, water pollution, and increased human intrusion. An appropriate non-wasting endowment should be set aside to provide for long-term management of mitigation lands.

Conclusion

We appreciate the opportunity to comment on the NOP for the Palmdale General Plan Update to assist the City of Palmdale in identifying and mitigating Project impacts on biological resources. If you have any questions or comments regarding this letter, please contact Felicia Silva, Environmental Scientist, at Felicia.Silva@wildlife.ca.gov or (562) 292-8105.

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Sincerely,

DocuSigned by:
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Victoria Tang signing for

Erinn Wilson-Olgin
Environmental Program Manager I
South Coast Region

ec: CDFW
Erinn Wilson-Olgin, Los Alamitos – Erinn.Wilson-Olgin@wildlife.ca.gov
Victoria Tang, Los Alamitos – Victoria.Tang@wildlife.ca.gov
Ruby Kwan-Davis, Los Alamitos – Ruby.Kwan-Davis@wildlife.ca.gov
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CEQA Program Coordinator, Sacramento – CEQACommentLetters@wildlife.ca.gov

State Clearinghouse, Office of Planning and Research – State.Clearinghouse@opr.ca.gov

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July 28, 2021

Ms. Megan Taggart, Planning Manager
City of Palmdale, Department of Economic and Community Development
38250 Sierra Highway
Palmdale, California 93550
Phone: (661) 267-5213
E-mail: mtaggart@cityofpalmdale.org

RE: SCAG Comments on the Notice of Preparation of a Draft Environmental Impact Report for the Palmdale 2045 General Plan Update [SCAG NO. IGR10425]

Dear Ms. Taggart,

Thank you for submitting the Notice of Preparation of a Draft Environmental Impact Report for the Palmdale 2045 General Plan Update ("proposed project") to the Southern California Association of Governments (SCAG) for review and comment. SCAG is responsible for providing informational resources to regionally significant plans, projects, and programs per the California Environmental Quality Act (CEQA) to facilitate the consistency of these projects with SCAG's adopted regional plans, to be determined by the lead agencies.[1]

Pursuant to Senate Bill (SB) 375, SCAG is the designated Regional Transportation Planning Agency under state law and is responsible for preparation of the Regional Transportation Plan (RTP) including the Sustainable Communities Strategy (SCS). SCAG's feedback is intended to assist local jurisdictions and project proponents to implement projects that have the potential to contribute to attainment of Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) goals and align with RTP/SCS policies. Finally, SCAG is also the authorized regional agency for Inter-Governmental Review (IGR) of programs proposed for Federal financial assistance and direct Federal development activities, pursuant to Presidential Executive Order 12372.

SCAG staff has reviewed the Notice of Preparation of a Draft Environmental Impact Report for the Palmdale 2045 General Plan Update in Los Angeles County. The proposed project is a General Plan Update for 2020 – 2045 that covers the state-required nine topics and economic development, urban design, infrastructure, military readiness, community facilities, sustainability and resilience, and climate change.

When available, please email environmental documentation to *IGR@scag.ca.gov* providing, at a minimum, the full public comment period for review.

If you have any questions regarding the attached comments, please contact the Inter-Governmental Review (IGR) Program, attn.: Anita Au, Senior Regional Planner, at (213) 236-1874 or IGR@scag.ca.gov. Thank you.

Sincerely,

Rongsheng Luo
Acting Manager, Compliance and Performance Monitoring

[1] Lead agencies such as local jurisdictions have the sole discretion in determining a local project's consistency with the 2020 RTP/SCS (Connect SoCal) for the purpose of determining consistency for CEQA.

COMMENTS ON THE NOTICE OF PREPARATION OF A DRAFT ENVIRONMENTAL IMPACT REPORT FOR THE PALMDALE 2045 GENERAL PLAN UPDATE [SCAG NO. IGR10425]

CONSISTENCY WITH CONNECT SOCAL

SCAG provides informational resources to facilitate the consistency of the proposed project with the adopted 2020-2045 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS or Connect SoCal). For the purpose of determining consistency with CEQA, lead agencies such as local jurisdictions have the sole discretion in determining a local project's consistency with Connect SoCal.

CONNECT SOCAL GOALS

The SCAG Regional Council fully adopted Connect SoCal in September 2020. Connect SoCal, also known as the 2020 – 2045 RTP/SCS, builds upon and expands land use and transportation strategies established over several planning cycles to increase mobility options and achieve a more sustainable growth pattern. The long-range visioning plan balances future mobility and housing needs with goals for the environment, the regional economy, social equity and environmental justice, and public health. The goals included in Connect SoCal may be pertinent to the proposed project. These goals are meant to provide guidance for considering the proposed project. Among the relevant goals of Connect SoCal are the following:

SCAG CONNECT SOCAL GOALS	
Goal #1:	*Encourage regional economic prosperity and global competitiveness*
Goal #2:	*Improve mobility, accessibility, reliability and travel safety for people and goods*
Goal #3:	*Enhance the preservation, security, and resilience of the regional transportation system*
Goal #4:	*Increase person and goods movement and travel choices within the transportation system*
Goal #5:	*Reduce greenhouse gas emissions and improve air quality*
Goal #6:	*Support healthy and equitable communities*
Goal #7:	*Adapt to a changing climate and support an integrated regional development pattern and transportation network*
Goal #8:	*Leverage new transportation technologies and data-driven solutions that result in more efficient travel*
Goal #9:	*Encourage development of diverse housing types in areas that are supported by multiple transportation options*
Goal #10:	*Promote conservation of natural and agricultural lands and restoration of habitats*

For ease of review, we encourage the use of a side-by-side comparison of SCAG goals with discussions of the consistency, non-consistency or non-applicability of the goals and supportive analysis in a table format. Suggested format is as follows:

SCAG CONNECT SOCAL GOALS		
	Goal	Analysis
Goal #1:	*Encourage regional economic prosperity and global competitiveness*	*Consistent: Statement as to why;* *Not-Consistent: Statement as to why;* *Or* *Not Applicable: Statement as to why;* *DEIR page number reference*
Goal #2:	*Improve mobility, accessibility, reliability and travel safety for people and goods*	*Consistent: Statement as to why;* *Not-Consistent: Statement as to why;* *Or* *Not Applicable: Statement as to why;* *DEIR page number reference*
etc.		etc.

Connect SoCal Strategies

To achieve the goals of Connect SoCal, a wide range of land use and transportation strategies are included in the accompanying twenty (20) technical reports. Of particular note are multiple strategies included in Chapter 3 of Connect SoCal intended to support implementation of the regional Sustainable Communities Strategy (SCS) framed within the context of focusing growth near destinations and mobility options; promoting diverse housing choices; leveraging technology innovations; supporting implementation of sustainability policies; and promoting a Green Region. To view Connect SoCal and the accompanying technical reports, please visit the Connect SoCal webpage. Connect SoCal builds upon the progress from previous RTP/SCS cycles and continues to focus on integrated, coordinated, and balanced planning for land use and transportation that helps the SCAG region strive towards a more sustainable region, while meeting statutory requirements pertinent to RTP/SCSs. These strategies within the regional context are provided as guidance for lead agencies such as local jurisdictions when the proposed project is under consideration.

SCAG staff would like to call your attention to resources available from SCAG's Regional Climate Adaptation Framework including the Southern California Climate Adaptation Planning Guide, Communication and Outreach Toolkit, Library of Model Policies, and SB 379 Compliance Curriculum for Local Jurisdictions.

DEMOGRAPHICS AND GROWTH FORECASTS

A key, formative step in projecting future population, households, and employment through 2045 for Connect SoCal was the generation of a forecast of regional and county level growth in collaboration with expert demographers and economists on Southern California. From there, jurisdictional level forecasts were ground-truthed by subregions and local agencies, which helped SCAG identify opportunities and barriers to future development. This forecast helps the region understand, in a very general sense, where we are expected to grow, and allows SCAG to focus attention on areas that are experiencing change and may have increased transportation needs. After a year-long engagement effort with all 197 jurisdictions one-on-one, 82 percent of SCAG's 197 jurisdictions provided feedback on the forecast of future growth for Connect SoCal. SCAG also sought feedback on potential sustainable growth strategies from a broad range of stakeholder groups – including local jurisdictions, county transportation commissions, other partner agencies, industry groups, community-based organizations, and the general public. Connect SoCal utilizes a bottom-up approach in that total projected growth for each jurisdiction reflects feedback received from jurisdiction staff, including city managers, community development/planning directors, and local staff. Growth at the neighborhood level (i.e., transportation analysis zone (TAZ) reflects entitled projects and adheres to current general and specific plan maximum densities as conveyed by jurisdictions (except in cases where entitled projects and development agreements exceed these capacities as calculated by SCAG). Neighborhood level growth projections also feature strategies that help to reduce greenhouse gas emissions (GHG) from automobiles and light trucks to achieve Southern California's GHG reduction target, approved by the California Air Resources Board (CARB) in accordance

with state planning law. Connect SoCal's Forecasted Development Pattern is utilized for long range modeling purposes and does not supersede actions taken by elected bodies on future development, including entitlements and development agreements. SCAG does not have the authority to implement the plan -- neither through decisions about what type of development is built where, nor what transportation projects are ultimately built, as Connect SoCal is adopted at the jurisdictional level. Achieving a sustained regional outcome depends upon informed and intentional local action. To access jurisdictional level growth estimates and forecasts for years 2016 and 2045, please refer to the Connect SoCal Demographics and Growth Forecast Technical Report. The growth forecasts for the region and applicable jurisdictions are below.

	Adopted SCAG Region Wide Forecasts				Adopted City of Palmdale Forecasts			
	Year 2020	**Year 2030**	**Year 2035**	**Year 2045**	**Year 2020**	**Year 2030**	**Year 2035**	**Year 2045**
Population	19,517,731	20,821,171	21,443,006	22,503,899	162,262	179,535	188,171	207,047
Households	6,333,458	6,902,821	7,170,110	7,633,451	45,820	53,046	56,660	61,798
Employment	8,695,427	9,303,627	9,566,384	10,048,822	38,610	41,655	43,178	45,938

MITIGATION MEASURES

SCAG staff recommends that you review the Final Program Environmental Impact Report (Final PEIR) for Connect SoCal for guidance, as appropriate. SCAG's Regional Council certified the PEIR and adopted the associated Findings of Fact and a Statement of Overriding Considerations (FOF/SOC) and Mitigation Monitoring and Reporting Program (MMRP) on May 7, 2020 and also adopted a PEIR Addendum and amended the MMRP on September 3, 2020 (please see the PEIR webpage and scroll to the bottom of the page for the PEIR Addendum). The PEIR includes a list of project-level performance standards-based mitigation measures that may be considered for adoption and implementation by lead, responsible, or trustee agencies in the region, as applicable and feasible. Project-level mitigation measures are within responsibility, authority, and/or jurisdiction of project-implementing agency or other public agency serving as lead agency under CEQA in subsequent project- and site- specific design, CEQA review, and decision-making processes, to meet the performance standards for each of the CEQA resource categories.

REGIONAL HOUSING NEEDS ALLOCATION

On March 4, 2021 SCAG's Regional Council adopted the 6th cycle Final Regional Housing Needs Assessment (RHNA) Allocation Plan which covers the planning period October 2021 through October 2029. The 6th cycle Final RHNA allocation for the applicable jurisdiction is below.

SCAG 6th Cycle Final RHNA Allocation for City of Palmdale	
Very low income	1,777
Low income	935
Moderate income	1,004
Above moderate income	2,924
Total RHNA Allocation	6,640

Sixth cycle housing elements are due to the California Department of Housing and Community Development (HCD) by October 15, 2021. SCAG encourages jurisdictions to prepare the draft housing element in advance of the due date to ensure adequate time to address HCD comments and adopt a final housing element. Jurisdictions that do not have a compliant housing element may be ineligible for certain State funding and grant opportunities and may be at risk for legal action from stakeholders or HCD.

SCAG staff would like to call your attention to SCAG's HELPR 2.0, a web-mapping tool developed by SCAG to help local jurisdictions and stakeholders understand local land use, site opportunities, and environmental sensitivities for aligning housing planning with the state Department of Housing and Community Development's (HCD) 6th cycle housing element requirements.

ENVIRONMENTAL JUSTICE

Per Senate Bill 1000 (SB 1000), local jurisdictions in California with disadvantaged communities are required to develop an Environmental Justice (EJ) Element or consider EJ goals, policies, and objectives in their General Plans when updating two or more General Plan Elements. SCAG staff recommends that you review the Environmental Justice Technical Report and the updated Environmental Justice Toolbox, which is a resource document to assist local jurisdictions in developing EJ-related goals and policies regarding solutions for EJ-related community issues.

Appendix B

CalEEMod Modeling Outputs

Palmdale GPU - General Office -Construction Only - Los Angeles-Mojave Desert County, Annual

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

Palmdale GPU - General Office -Construction Only

Los Angeles-Mojave Desert County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	171.28	1000sqft	3.93	171,275.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2023
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	390.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - See Assumptions

Land Use - See Assumptions

Construction Phase - See Assumptions

Demolition - See Assumptions

Architectural Coating - Based on AVAQMD requirements for VOC content

Vehicle Trips - Operational Emissions Modeled Separately

Consumer Products - Operational Emissions Modeled Separately

Area Coating - Operational Emissions Modeled Separately

Landscape Equipment - Operational Emissions Modeled Separately

Energy Use - Operational Emissions Modeled Separately

Water And Wastewater - Operational Emissions Modeled Separately

Solid Waste - Operational Emissions Modeled Separately

Palmdale GPU - General Office -Construction Only - Los Angeles-Mojave Desert County, Annual

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

Construction Off-road Equipment Mitigation - Water 2x daily based on AVAQMD regulations for dust control; not mitigation

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	150.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	50.00
tblAreaCoating	ReapplicationRatePercent	10	0
tblConstEquipMitigation	FuelType	Diesel	Electrical
tblConstEquipMitigation	FuelType	Diesel	Electrical
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
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	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	7.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final

Palmdale GPU - General Office -Construction Only - Los Angeles-Mojave Desert County, Annual

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

tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstructionPhase	PhaseEndDate	2/23/2023	12/28/2022
tblConstructionPhase	PhaseEndDate	1/4/2023	12/26/2022
tblConstructionPhase	PhaseEndDate	2/16/2022	2/8/2022
tblConstructionPhase	PhaseEndDate	1/30/2023	3/3/2022
tblConstructionPhase	PhaseStartDate	1/31/2023	12/5/2022
tblConstructionPhase	PhaseStartDate	2/17/2022	2/8/2022
tblConstructionPhase	PhaseStartDate	2/5/2022	1/28/2022
tblConstructionPhase	PhaseStartDate	1/5/2023	2/8/2022
tblConsumerProducts	ROG_EF	2.14E-05	0
tblConsumerProducts	ROG_EF_Degreaser	3.542E-07	0
tblConsumerProducts	ROG_EF_PesticidesFertilizers	5.152E-08	0
tblEnergyUse	LightingElect	3.77	0.00
tblEnergyUse	NT24E	4.62	0.00
tblEnergyUse	NT24NG	0.39	0.00
tblEnergyUse	T24E	4.11	0.00
tblEnergyUse	T24NG	9.92	0.00
tblLandscapeEquipment	NumberSummerDays	180	0
tblSolidWaste	SolidWasteGenerationRate	159.29	0.00
tblVehicleTrips	ST_TR	2.21	0.00
tblVehicleTrips	SU_TR	0.70	0.00
tblVehicleTrips	WD_TR	9.74	0.00
tblWater	IndoorWaterUseRate	30,442,236.36	0.00
tblWater	OutdoorWaterUseRate	18,658,144.86	0.00

Palmdale GPU - General Office -Construction Only - Los Angeles-Mojave Desert County, Annual

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

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2022	0.8624	2.4231	2.5264	4.9600e-003	0.1048	0.1163	0.2211	0.0345	0.1092	0.1437	0.0000	438.1743	438.1743	0.0852	0.0107	443.4869
Maximum	**0.8624**	**2.4231**	**2.5264**	**4.9600e-003**	**0.1048**	**0.1163**	**0.2211**	**0.0345**	**0.1092**	**0.1437**	**0.0000**	**438.1743**	**438.1743**	**0.0852**	**0.0107**	**443.4869**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2022	0.6623	0.3659	2.5294	4.6600e-003	0.0891	7.4200e-003	0.0966	0.0269	7.3200e-003	0.0343	0.0000	415.9099	415.9099	0.0826	0.0107	421.1561
Maximum	**0.6623**	**0.3659**	**2.5294**	**4.6600e-003**	**0.0891**	**7.4200e-003**	**0.0966**	**0.0269**	**7.3200e-003**	**0.0343**	**0.0000**	**415.9099**	**415.9099**	**0.0826**	**0.0107**	**421.1561**

	ROG	NOx	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

Palmdale GPU - General Office -Construction Only - Los Angeles-Mojave Desert County, Annual

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

Percent Reduction	**23.20**	**84.90**	**-0.12**	**6.05**	**14.91**	**93.62**	**56.32**	**21.89**	**93.30**	**76.15**	**0.00**	**5.08**	**5.08**	**3.12**	**0.00**	**5.04**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	**1-1-2022**	**3-31-2022**	0.8292	0.1073
2	**4-1-2022**	**6-30-2022**	0.6201	0.1064
3	**7-1-2022**	**9-30-2022**	0.6269	0.1075
		Highest	0.8292	0.1075

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	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	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**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

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	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	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	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	Demolition	Demolition	1/1/2022	1/28/2022	5	20	
2	Grading	Grading	1/28/2022	2/8/2022	5	8	
3	Building Construction	Building Construction	2/8/2022	12/26/2022	5	230	

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

4	Paving	Paving	2/8/2022	3/3/2022	5	18	
5	Architectural Coating	Architectural Coating	12/5/2022	12/28/2022	5	18	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 8

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 256,913; Non-Residential Outdoor: 85,638; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Cement and Mortar Mixers	2	6.00	9	0.56
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Building Construction	Cranes	1	7.00	231	0.29
Demolition	Excavators	3	8.00	158	0.38
Grading	Excavators	1	8.00	158	0.38
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Grading	Graders	1	8.00	187	0.41
Paving	Pavers	1	8.00	130	0.42
Paving	Paving Equipment	2	6.00	132	0.36
Paving	Rollers	2	6.00	80	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Paving	Tractors/Loaders/Backhoes	1	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	Welders	1	8.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Architectural Coating	1	11.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	55.00	28.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Demolition	6	15.00	0.00	1.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	8	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Alternative Fuel for Construction Equipment

Use Cleaner Engines for Construction Equipment

Water Exposed Area

3.2 Demolition - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					8.0000e-005	0.0000	8.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0264	0.2572	0.2059	3.9000e-004		0.0124	0.0124		0.0116	0.0116	0.0000	33.9902	33.9902	9.5500e-003	0.0000	34.2289
Total	**0.0264**	**0.2572**	**0.2059**	**3.9000e-004**	**8.0000e-005**	**0.0124**	**0.0125**	**1.0000e-005**	**0.0116**	**0.0116**	**0.0000**	**33.9902**	**33.9902**	**9.5500e-003**	**0.0000**	**34.2289**

Palmdale GPU - General Office -Construction Only - Los Angeles-Mojave Desert County, Annual

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

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	2.0000e-005	0.0000	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0309	0.0309	0.0000	0.0000	0.0324
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	4.3000e-004	3.3000e-004	4.2900e-003	1.0000e-005	1.2100e-003	1.0000e-005	1.2200e-003	3.2000e-004	1.0000e-005	3.3000e-004	0.0000	1.0003	1.0003	3.0000e-005	3.0000e-005	1.0099
Total	**4.3000e-004**	**4.2000e-004**	**4.3100e-003**	**1.0000e-005**	**1.2200e-003**	**1.0000e-005**	**1.2300e-003**	**3.2000e-004**	**1.0000e-005**	**3.3000e-004**	**0.0000**	**1.0312**	**1.0312**	**3.0000e-005**	**3.0000e-005**	**1.0423**

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					4.0000e-005	0.0000	4.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.6200e-003	0.0200	0.2328	3.9000e-004		6.2000e-004	6.2000e-004		6.2000e-004	6.2000e-004	0.0000	33.9902	33.9902	9.5500e-003	0.0000	34.2289
Total	**4.6200e-003**	**0.0200**	**0.2328**	**3.9000e-004**	**4.0000e-005**	**6.2000e-004**	**6.6000e-004**	**1.0000e-005**	**6.2000e-004**	**6.3000e-004**	**0.0000**	**33.9902**	**33.9902**	**9.5500e-003**	**0.0000**	**34.2289**

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

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	2.0000e-005	0.0000	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0309	0.0309	0.0000	0.0000	0.0324
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	4.3000e-004	3.3000e-004	4.2900e-003	1.0000e-005	1.2100e-003	1.0000e-005	1.2200e-003	3.2000e-004	1.0000e-005	3.3000e-004	0.0000	1.0003	1.0003	3.0000e-005	3.0000e-005	1.0099
Total	**4.3000e-004**	**4.2000e-004**	**4.3100e-003**	**1.0000e-005**	**1.2200e-003**	**1.0000e-005**	**1.2300e-003**	**3.2000e-004**	**1.0000e-005**	**3.3000e-004**	**0.0000**	**1.0312**	**1.0312**	**3.0000e-005**	**3.0000e-005**	**1.0423**

3.3 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0283	0.0000	0.0283	0.0137	0.0000	0.0137	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	7.7900e-003	0.0834	0.0611	1.2000e-004		3.7600e-003	3.7600e-003		3.4600e-003	3.4600e-003	0.0000	10.4219	10.4219	3.3700e-003	0.0000	10.5062
Total	**7.7900e-003**	**0.0834**	**0.0611**	**1.2000e-004**	**0.0283**	**3.7600e-003**	**0.0321**	**0.0137**	**3.4600e-003**	**0.0172**	**0.0000**	**10.4219**	**10.4219**	**3.3700e-003**	**0.0000**	**10.5062**

Palmdale GPU - General Office -Construction Only - Los Angeles-Mojave Desert County, Annual

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

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.7000e-004	1.3000e-004	1.7200e-003	0.0000	4.8000e-004	0.0000	4.9000e-004	1.3000e-004	0.0000	1.3000e-004	0.0000	0.4001	0.4001	1.0000e-005	1.0000e-005	0.4040
Total	**1.7000e-004**	**1.3000e-004**	**1.7200e-003**	**0.0000**	**4.8000e-004**	**0.0000**	**4.9000e-004**	**1.3000e-004**	**0.0000**	**1.3000e-004**	**0.0000**	**0.4001**	**0.4001**	**1.0000e-005**	**1.0000e-005**	**0.4040**

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					0.0128	0.0000	0.0128	6.1600e-003	0.0000	6.1600e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.4500e-003	6.2900e-003	0.0710	1.2000e-004		1.9000e-004	1.9000e-004		1.9000e-004	1.9000e-004	0.0000	10.4219	10.4219	3.3700e-003	0.0000	10.5062
Total	**1.4500e-003**	**6.2900e-003**	**0.0710**	**1.2000e-004**	**0.0128**	**1.9000e-004**	**0.0129**	**6.1600e-003**	**1.9000e-004**	**6.3500e-003**	**0.0000**	**10.4219**	**10.4219**	**3.3700e-003**	**0.0000**	**10.5062**

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

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.7000e-004	1.3000e-004	1.7200e-003	0.0000	4.8000e-004	0.0000	4.9000e-004	1.3000e-004	0.0000	1.3000e-004	0.0000	0.4001	0.4001	1.0000e-005	1.0000e-005	0.4040
Total	**1.7000e-004**	**1.3000e-004**	**1.7200e-003**	**0.0000**	**4.8000e-004**	**0.0000**	**4.9000e-004**	**1.3000e-004**	**0.0000**	**1.3000e-004**	**0.0000**	**0.4001**	**0.4001**	**1.0000e-005**	**1.0000e-005**	**0.4040**

3.4 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1962	1.7958	1.8818	3.1000e-003		0.0930	0.0930		0.0875	0.0875	0.0000	266.4840	266.4840	0.0638	0.0000	268.0801
Total	**0.1962**	**1.7958**	**1.8818**	**3.1000e-003**		**0.0930**	**0.0930**		**0.0875**	**0.0875**	**0.0000**	**266.4840**	**266.4840**	**0.0638**	**0.0000**	**268.0801**

Palmdale GPU - General Office -Construction Only - Los Angeles-Mojave Desert County, Annual

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

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	6.5300e-003	0.1730	0.0564	6.6000e-004	0.0215	1.5900e-003	0.0231	6.1900e-003	1.5200e-003	7.7200e-003	0.0000	64.7691	64.7691	2.1600e-003	9.3400e-003	67.6060
Worker	0.0180	0.0141	0.1811	4.6000e-004	0.0509	3.4000e-004	0.0513	0.0135	3.1000e-004	0.0138	0.0000	42.1809	42.1809	1.4000e-003	1.2400e-003	42.5852
Total	**0.0245**	**0.1871**	**0.2375**	**1.1200e-003**	**0.0724**	**1.9300e-003**	**0.0743**	**0.0197**	**1.8300e-003**	**0.0216**	**0.0000**	**106.9500**	**106.9500**	**3.5600e-003**	**0.0106**	**110.1912**

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	0.0327	0.1415	1.8358	2.8000e-003		4.3500e-003	4.3500e-003		4.3500e-003	4.3500e-003	0.0000	244.8384	244.8384	0.0613	0.0000	246.3697
Total	**0.0327**	**0.1415**	**1.8358**	**2.8000e-003**		**4.3500e-003**	**4.3500e-003**		**4.3500e-003**	**4.3500e-003**	**0.0000**	**244.8384**	**244.8384**	**0.0613**	**0.0000**	**246.3697**

Palmdale GPU - General Office -Construction Only - Los Angeles-Mojave Desert County, Annual

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

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	6.5300e-003	0.1730	0.0564	6.6000e-004	0.0215	1.5900e-003	0.0231	6.1900e-003	1.5200e-003	7.7200e-003	0.0000	64.7691	64.7691	2.1600e-003	9.3400e-003	67.6060
Worker	0.0180	0.0141	0.1811	4.6000e-004	0.0509	3.4000e-004	0.0513	0.0135	3.1000e-004	0.0138	0.0000	42.1809	42.1809	1.4000e-003	1.2400e-003	42.5852
Total	**0.0245**	**0.1871**	**0.2375**	**1.1200e-003**	**0.0724**	**1.9300e-003**	**0.0743**	**0.0197**	**1.8300e-003**	**0.0216**	**0.0000**	**106.9500**	**106.9500**	**3.5600e-003**	**0.0106**	**110.1912**

3.5 Paving - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	8.7900e-003	0.0857	0.1098	1.7000e-004		4.3900e-003	4.3900e-003		4.0500e-003	4.0500e-003	0.0000	14.7383	14.7383	4.6300e-003	0.0000	14.8540
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**8.7900e-003**	**0.0857**	**0.1098**	**1.7000e-004**		**4.3900e-003**	**4.3900e-003**		**4.0500e-003**	**4.0500e-003**	**0.0000**	**14.7383**	**14.7383**	**4.6300e-003**	**0.0000**	**14.8540**

Palmdale GPU - General Office -Construction Only - Los Angeles-Mojave Desert County, Annual

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

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.1000e-004	4.0000e-004	5.1500e-003	1.0000e-005	1.4500e-003	1.0000e-005	1.4600e-003	3.9000e-004	1.0000e-005	3.9000e-004	0.0000	1.2004	1.2004	4.0000e-005	4.0000e-005	1.2119
Total	**5.1000e-004**	**4.0000e-004**	**5.1500e-003**	**1.0000e-005**	**1.4500e-003**	**1.0000e-005**	**1.4600e-003**	**3.9000e-004**	**1.0000e-005**	**3.9000e-004**	**0.0000**	**1.2004**	**1.2004**	**4.0000e-005**	**4.0000e-005**	**1.2119**

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	1.9700e-003	8.5600e-003	0.1218	1.6000e-004		2.6000e-004	2.6000e-004		2.6000e-004	2.6000e-004	0.0000	14.1196	14.1196	4.5700e-003	0.0000	14.2338
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**1.9700e-003**	**8.5600e-003**	**0.1218**	**1.6000e-004**		**2.6000e-004**	**2.6000e-004**		**2.6000e-004**	**2.6000e-004**	**0.0000**	**14.1196**	**14.1196**	**4.5700e-003**	**0.0000**	**14.2338**

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

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.1000e-004	4.0000e-004	5.1500e-003	1.0000e-005	1.4500e-003	1.0000e-005	1.4600e-003	3.9000e-004	1.0000e-005	3.9000e-004	0.0000	1.2004	1.2004	4.0000e-005	4.0000e-005	1.2119
Total	**5.1000e-004**	**4.0000e-004**	**5.1500e-003**	**1.0000e-005**	**1.4500e-003**	**1.0000e-005**	**1.4600e-003**	**3.9000e-004**	**1.0000e-005**	**3.9000e-004**	**0.0000**	**1.2004**	**1.2004**	**4.0000e-005**	**4.0000e-005**	**1.2119**

3.6 Architectural Coating - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.5954					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.8400e-003	0.0127	0.0163	3.0000e-005		7.4000e-004	7.4000e-004		7.4000e-004	7.4000e-004	0.0000	2.2979	2.2979	1.5000e-004	0.0000	2.3017
Total	**0.5972**	**0.0127**	**0.0163**	**3.0000e-005**		**7.4000e-004**	**7.4000e-004**		**7.4000e-004**	**7.4000e-004**	**0.0000**	**2.2979**	**2.2979**	**1.5000e-004**	**0.0000**	**2.3017**

Palmdale GPU - General Office -Construction Only - Los Angeles-Mojave Desert County, Annual

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

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.8000e-004	2.2000e-004	2.8300e-003	1.0000e-005	8.0000e-004	1.0000e-005	8.0000e-004	2.1000e-004	0.0000	2.2000e-004	0.0000	0.6602	0.6602	2.0000e-005	2.0000e-005	0.6666
Total	**2.8000e-004**	**2.2000e-004**	**2.8300e-003**	**1.0000e-005**	**8.0000e-004**	**1.0000e-005**	**8.0000e-004**	**2.1000e-004**	**0.0000**	**2.2000e-004**	**0.0000**	**0.6602**	**0.6602**	**2.0000e-005**	**2.0000e-005**	**0.6666**

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	0.5954					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.7000e-004	1.1600e-003	0.0165	3.0000e-005		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	2.2979	2.2979	1.5000e-004	0.0000	2.3017
Total	**0.5957**	**1.1600e-003**	**0.0165**	**3.0000e-005**		**4.0000e-005**	**4.0000e-005**		**4.0000e-005**	**4.0000e-005**	**0.0000**	**2.2979**	**2.2979**	**1.5000e-004**	**0.0000**	**2.3017**

Palmdale GPU - General Office -Construction Only - Los Angeles-Mojave Desert County, Annual

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

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.8000e-004	2.2000e-004	2.8300e-003	1.0000e-005	8.0000e-004	1.0000e-005	8.0000e-004	2.1000e-004	0.0000	2.2000e-004	0.0000	0.6602	0.6602	2.0000e-005	2.0000e-005	0.6666
Total	**2.8000e-004**	**2.2000e-004**	**2.8300e-003**	**1.0000e-005**	**8.0000e-004**	**1.0000e-005**	**8.0000e-004**	**2.1000e-004**	**0.0000**	**2.2000e-004**	**0.0000**	**0.6602**	**0.6602**	**2.0000e-005**	**2.0000e-005**	**0.6666**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

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

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
General Office Building	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
General Office Building	9.50	7.30	7.30	33.00	48.00	19.00	77	19	4

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Office Building	0.544785	0.062844	0.187478	0.127235	0.023089	0.006083	0.010475	0.008012	0.000925	0.000611	0.024394	0.000698	0.003374

5.0 Energy Detail

Historical Energy Use: N

Palmdale GPU - General Office -Construction Only - Los Angeles-Mojave Desert County, Annual

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

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

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
General Office Building	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**

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

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
General Office Building	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**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use		Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	tons/yr	MT/yr			
General Office Building	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	tons/yr	MT/yr			
General Office Building	0		0.0000	0.0000	0.0000	0.0000
Total			**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive 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
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

Palmdale GPU - General Office -Construction Only - Los Angeles-Mojave Desert 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	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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

Mitigated

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

7.0 Water Detail

7.1 Mitigation Measures Water

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

Palmdale GPU - General Office -Construction Only - Los Angeles-Mojave Desert 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

Unmitigated

	Indoor/Outdoor Use		Total CO2	CH4	N2O	CO2e
Land Use	Mgal	tons/yr	MT/yr			
General Office Building	0 / 0		0.0000	0.0000	0.0000	0.0000
Total			**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

Mitigated

	Indoor/Outdoor Use		Total CO2	CH4	N2O	CO2e
Land Use	Mgal	tons/yr	MT/yr			
General Office Building	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
	tons/yr	MT/yr			
Mitigated		0.0000	0.0000	0.0000	0.0000
Unmitigated		0.0000	0.0000	0.0000	0.0000

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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	tons/yr	MT/yr			
General Office Building	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	tons/yr	MT/yr			
General Office Building	0		0.0000	0.0000	0.0000	0.0000
Total			**0.0000**	**0.0000**	**0.0000**	**0.0000**

9.0 Operational Offroad

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

Palmdale GPU - General Office -Construction Only - Los Angeles-Mojave Desert County, Annual

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Palmdale GPU - General Office -Construction Only - Los Angeles-Mojave Desert County, Summer

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

Palmdale GPU - General Office -Construction Only

Los Angeles-Mojave Desert County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	171.28	1000sqft	3.93	171,275.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2023
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	390.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - See Assumptions

Land Use - See Assumptions

Construction Phase - See Assumptions

Demolition - See Assumptions

Architectural Coating - Based on AVAQMD requirements for VOC content

Vehicle Trips - Operational Emissions Modeled Separately

Consumer Products - Operational Emissions Modeled Separately

Area Coating - Operational Emissions Modeled Separately

Landscape Equipment - Operational Emissions Modeled Separately

Energy Use - Operational Emissions Modeled Separately

Water And Wastewater - Operational Emissions Modeled Separately

Solid Waste - Operational Emissions Modeled Separately

Palmdale GPU - General Office -Construction Only - Los Angeles-Mojave Desert County, Summer

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

Construction Off-road Equipment Mitigation - Water 2x daily based on AVAQMD regulations for dust control; not mitigation

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	150.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	50.00
tblAreaCoating	ReapplicationRatePercent	10	0
tblConstEquipMitigation	FuelType	Diesel	Electrical
tblConstEquipMitigation	FuelType	Diesel	Electrical
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
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	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	7.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final

Palmdale GPU - General Office -Construction Only - Los Angeles-Mojave Desert County, Summer

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

tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstructionPhase	PhaseEndDate	2/23/2023	12/28/2022
tblConstructionPhase	PhaseEndDate	1/4/2023	12/26/2022
tblConstructionPhase	PhaseEndDate	2/16/2022	2/8/2022
tblConstructionPhase	PhaseEndDate	1/30/2023	3/3/2022
tblConstructionPhase	PhaseStartDate	1/31/2023	12/5/2022
tblConstructionPhase	PhaseStartDate	2/17/2022	2/8/2022
tblConstructionPhase	PhaseStartDate	2/5/2022	1/28/2022
tblConstructionPhase	PhaseStartDate	1/5/2023	2/8/2022
tblConsumerProducts	ROG_EF	2.14E-05	0
tblConsumerProducts	ROG_EF_Degreaser	3.542E-07	0
tblConsumerProducts	ROG_EF_PesticidesFertilizers	5.152E-08	0
tblEnergyUse	LightingElect	3.77	0.00
tblEnergyUse	NT24E	4.62	0.00
tblEnergyUse	NT24NG	0.39	0.00
tblEnergyUse	T24E	4.11	0.00
tblEnergyUse	T24NG	9.92	0.00
tblLandscapeEquipment	NumberSummerDays	180	0
tblSolidWaste	SolidWasteGenerationRate	159.29	0.00
tblVehicleTrips	ST_TR	2.21	0.00
tblVehicleTrips	SU_TR	0.70	0.00
tblVehicleTrips	WD_TR	9.74	0.00
tblWater	IndoorWaterUseRate	30,442,236.36	0.00
tblWater	OutdoorWaterUseRate	18,658,144.86	0.00

Palmdale GPU - General Office -Construction Only - Los Angeles-Mojave Desert County, Summer

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

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2022	68.3146	47.6035	47.0238	0.0881	8.0116	2.2562	10.2678	3.6755	2.0948	5.7702	0.0000	8,540.3337	8,540.3337	2.1502	0.1074	8,626.0849
Maximum	**68.3146**	**47.6035**	**47.0238**	**0.0881**	**8.0116**	**2.2562**	**10.2678**	**3.6755**	**2.0948**	**5.7702**	**0.0000**	**8,540.3337**	**8,540.3337**	**2.1502**	**0.1074**	**8,626.0849**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2022	66.7175	5.3659	50.4421	0.0845	4.1162	0.1342	4.2504	1.7919	0.1332	1.9251	0.0000	8,257.0815	8,257.0815	2.1175	0.1074	8,342.0154
Maximum	**66.7175**	**5.3659**	**50.4421**	**0.0845**	**4.1162**	**0.1342**	**4.2504**	**1.7919**	**0.1332**	**1.9251**	**0.0000**	**8,257.0815**	**8,257.0815**	**2.1175**	**0.1074**	**8,342.0154**

	ROG	NOx	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

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

Percent Reduction	**2.34**	**88.73**	**-7.27**	**4.11**	**48.62**	**94.05**	**58.60**	**51.25**	**93.64**	**66.64**	**0.00**	**3.32**	**3.32**	**1.52**	**0.00**	**3.29**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	1.6200e-003	1.6000e-004	0.0175	0.0000		6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005		0.0375	0.0375	1.0000e-004		0.0399
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	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	**1.6200e-003**	**1.6000e-004**	**0.0175**	**0.0000**	**0.0000**	**6.0000e-005**	**6.0000e-005**	**0.0000**	**6.0000e-005**	**6.0000e-005**		**0.0375**	**0.0375**	**1.0000e-004**	**0.0000**	**0.0399**

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

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	1.6200e-003	1.6000e-004	0.0175	0.0000		6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005		0.0375	0.0375	1.0000e-004		0.0399
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	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	**1.6200e-003**	**1.6000e-004**	**0.0175**	**0.0000**	**0.0000**	**6.0000e-005**	**6.0000e-005**	**0.0000**	**6.0000e-005**	**6.0000e-005**		**0.0375**	**0.0375**	**1.0000e-004**	**0.0000**	**0.0399**

	ROG	NOx	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	Demolition	Demolition	1/1/2022	1/28/2022	5	20	
2	Grading	Grading	1/28/2022	2/8/2022	5	8	
3	Building Construction	Building Construction	2/8/2022	12/26/2022	5	230	
4	Paving	Paving	2/8/2022	3/3/2022	5	18	
5	Architectural Coating	Architectural Coating	12/5/2022	12/28/2022	5	18	

Palmdale GPU - General Office -Construction Only - Los Angeles-Mojave Desert County, Summer

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

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 8

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 256,913; Non-Residential Outdoor: 85,638; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Cement and Mortar Mixers	2	6.00	9	0.56
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Building Construction	Cranes	1	7.00	231	0.29
Demolition	Excavators	3	8.00	158	0.38
Grading	Excavators	1	8.00	158	0.38
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Grading	Graders	1	8.00	187	0.41
Paving	Pavers	1	8.00	130	0.42
Paving	Paving Equipment	2	6.00	132	0.36
Paving	Rollers	2	6.00	80	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45

Trips and VMT

Palmdale GPU - General Office -Construction Only - Los Angeles-Mojave Desert County, Summer

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
Architectural Coating	1	11.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	55.00	28.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Demolition	6	15.00	0.00	1.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	8	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Alternative Fuel for Construction Equipment

Use Cleaner Engines for Construction Equipment

Water Exposed Area

3.2 Demolition - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.4300e-003	0.0000	8.4300e-003	1.2800e-003	0.0000	1.2800e-003			0.0000			0.0000
Off-Road	2.6392	25.7194	20.5941	0.0388		1.2427	1.2427		1.1553	1.1553		3,746.7812	3,746.7812	1.0524		3,773.0920
Total	**2.6392**	**25.7194**	**20.5941**	**0.0388**	**8.4300e-003**	**1.2427**	**1.2511**	**1.2800e-003**	**1.1553**	**1.1565**		**3,746.7812**	**3,746.7812**	**1.0524**		**3,773.0920**

Palmdale GPU - General Office -Construction Only - Los Angeles-Mojave Desert County, Summer

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

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	2.3000e-004	8.4000e-003	1.9600e-003	3.0000e-005	8.8000e-004	6.0000e-005	9.4000e-004	2.4000e-004	6.0000e-005	3.0000e-004		3.4039	3.4039	1.8000e-004	5.4000e-004	3.5693
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	0.0435	0.0297	0.4517	1.1300e-003	0.1232	8.1000e-004	0.1240	0.0327	7.4000e-004	0.0334		114.6809	114.6809	3.5800e-003	2.9900e-003	115.6624
Total	**0.0437**	**0.0381**	**0.4537**	**1.1600e-003**	**0.1241**	**8.7000e-004**	**0.1250**	**0.0329**	**8.0000e-004**	**0.0337**		**118.0848**	**118.0848**	**3.7600e-003**	**3.5300e-003**	**119.2317**

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					3.7900e-003	0.0000	3.7900e-003	5.7000e-004	0.0000	5.7000e-004			0.0000			0.0000
Off-Road	0.4623	2.0032	23.2798	0.0388		0.0616	0.0616		0.0616	0.0616	0.0000	3,746.7812	3,746.7812	1.0524		3,773.0920
Total	**0.4623**	**2.0032**	**23.2798**	**0.0388**	**3.7900e-003**	**0.0616**	**0.0654**	**5.7000e-004**	**0.0616**	**0.0622**	**0.0000**	**3,746.7812**	**3,746.7812**	**1.0524**		**3,773.0920**

Palmdale GPU - General Office -Construction Only - Los Angeles-Mojave Desert County, Summer

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

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	2.3000e-004	8.4000e-003	1.9600e-003	3.0000e-005	8.8000e-004	6.0000e-005	9.4000e-004	2.4000e-004	6.0000e-005	3.0000e-004		3.4039	3.4039	1.8000e-004	5.4000e-004	3.5693
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	0.0435	0.0297	0.4517	1.1300e-003	0.1232	8.1000e-004	0.1240	0.0327	7.4000e-004	0.0334		114.6809	114.6809	3.5800e-003	2.9900e-003	115.6624
Total	**0.0437**	**0.0381**	**0.4537**	**1.1600e-003**	**0.1241**	**8.7000e-004**	**0.1250**	**0.0329**	**8.0000e-004**	**0.0337**		**118.0848**	**118.0848**	**3.7600e-003**	**3.5300e-003**	**119.2317**

3.3 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					7.0826	0.0000	7.0826	3.4247	0.0000	3.4247			0.0000			0.0000
Off-Road	1.9486	20.8551	15.2727	0.0297		0.9409	0.9409		0.8656	0.8656		2,872.0464	2,872.0464	0.9289		2,895.2684
Total	**1.9486**	**20.8551**	**15.2727**	**0.0297**	**7.0826**	**0.9409**	**8.0234**	**3.4247**	**0.8656**	**4.2903**		**2,872.0464**	**2,872.0464**	**0.9289**		**2,895.2684**

Palmdale GPU - General Office -Construction Only - Los Angeles-Mojave Desert County, Summer

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

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0435	0.0297	0.4517	1.1300e-003	0.1232	8.1000e-004	0.1240	0.0327	7.4000e-004	0.0334		114.6809	114.6809	3.5800e-003	2.9900e-003	115.6624
Total	**0.0435**	**0.0297**	**0.4517**	**1.1300e-003**	**0.1232**	**8.1000e-004**	**0.1240**	**0.0327**	**7.4000e-004**	**0.0334**		**114.6809**	**114.6809**	**3.5800e-003**	**2.9900e-003**	**115.6624**

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					3.1872	0.0000	3.1872	1.5411	0.0000	1.5411			0.0000			0.0000
Off-Road	0.3632	1.5737	17.7527	0.0297		0.0484	0.0484		0.0484	0.0484	0.0000	2,872.0464	2,872.0464	0.9289		2,895.2684
Total	**0.3632**	**1.5737**	**17.7527**	**0.0297**	**3.1872**	**0.0484**	**3.2356**	**1.5411**	**0.0484**	**1.5896**	**0.0000**	**2,872.0464**	**2,872.0464**	**0.9289**		**2,895.2684**

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

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0435	0.0297	0.4517	1.1300e-003	0.1232	8.1000e-004	0.1240	0.0327	7.4000e-004	0.0334		114.6809	114.6809	3.5800e-003	2.9900e-003	115.6624
Total	**0.0435**	**0.0297**	**0.4517**	**1.1300e-003**	**0.1232**	**8.1000e-004**	**0.1240**	**0.0327**	**7.4000e-004**	**0.0334**		**114.6809**	**114.6809**	**3.5800e-003**	**2.9900e-003**	**115.6624**

3.4 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612		2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**1.7062**	**15.6156**	**16.3634**	**0.0269**		**0.8090**	**0.8090**		**0.7612**	**0.7612**		**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

Palmdale GPU - General Office -Construction Only - Los Angeles-Mojave Desert County, Summer

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

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0572	1.4323	0.4833	5.7800e-003	0.1897	0.0138	0.2035	0.0546	0.0132	0.0678		620.7386	620.7386	0.0207	0.0894	647.9009
Worker	0.1595	0.1090	1.6563	4.1600e-003	0.4518	2.9600e-003	0.4548	0.1198	2.7300e-003	0.1226		420.4966	420.4966	0.0131	0.0110	424.0955
Total	**0.2167**	**1.5413**	**2.1396**	**9.9400e-003**	**0.6415**	**0.0168**	**0.6583**	**0.1745**	**0.0159**	**0.1904**		**1,041.2352**	**1,041.2352**	**0.0339**	**0.1004**	**1,071.9964**

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	0.2840	1.2307	15.9634	0.0244		0.0379	0.0379		0.0379	0.0379	0.0000	2,346.8559	2,346.8559	0.5871		2,361.5338
Total	**0.2840**	**1.2307**	**15.9634**	**0.0244**		**0.0379**	**0.0379**		**0.0379**	**0.0379**	**0.0000**	**2,346.8559**	**2,346.8559**	**0.5871**		**2,361.5338**

Palmdale GPU - General Office -Construction Only - Los Angeles-Mojave Desert County, Summer

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

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0572	1.4323	0.4833	5.7800e-003	0.1897	0.0138	0.2035	0.0546	0.0132	0.0678		620.7386	620.7386	0.0207	0.0894	647.9009
Worker	0.1595	0.1090	1.6563	4.1600e-003	0.4518	2.9600e-003	0.4548	0.1198	2.7300e-003	0.1226		420.4966	420.4966	0.0131	0.0110	424.0955
Total	**0.2167**	**1.5413**	**2.1396**	**9.9400e-003**	**0.6415**	**0.0168**	**0.6583**	**0.1745**	**0.0159**	**0.1904**		**1,041.2352**	**1,041.2352**	**0.0339**	**0.1004**	**1,071.9964**

3.5 Paving - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9765	9.5221	12.1940	0.0189		0.4877	0.4877		0.4504	0.4504		1,805.1297	1,805.1297	0.5672		1,819.3091
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9765**	**9.5221**	**12.1940**	**0.0189**		**0.4877**	**0.4877**		**0.4504**	**0.4504**		**1,805.1297**	**1,805.1297**	**0.5672**		**1,819.3091**

Palmdale GPU - General Office -Construction Only - Los Angeles-Mojave Desert County, Summer

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

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0580	0.0396	0.6023	1.5100e-003	0.1643	1.0800e-003	0.1654	0.0436	9.9000e-004	0.0446		152.9079	152.9079	4.7700e-003	3.9900e-003	154.2165
Total	**0.0580**	**0.0396**	**0.6023**	**1.5100e-003**	**0.1643**	**1.0800e-003**	**0.1654**	**0.0436**	**9.9000e-004**	**0.0446**		**152.9079**	**152.9079**	**4.7700e-003**	**3.9900e-003**	**154.2165**

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	0.2194	0.9509	13.5323	0.0179		0.0293	0.0293		0.0293	0.0293	0.0000	1,729.3552	1,729.3552	0.5593		1,743.3379
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.2194**	**0.9509**	**13.5323**	**0.0179**		**0.0293**	**0.0293**		**0.0293**	**0.0293**	**0.0000**	**1,729.3552**	**1,729.3552**	**0.5593**		**1,743.3379**

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

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0580	0.0396	0.6023	1.5100e-003	0.1643	1.0800e-003	0.1654	0.0436	9.9000e-004	0.0446		152.9079	152.9079	4.7700e-003	3.9900e-003	154.2165
Total	**0.0580**	**0.0396**	**0.6023**	**1.5100e-003**	**0.1643**	**1.0800e-003**	**0.1654**	**0.0436**	**9.9000e-004**	**0.0446**		**152.9079**	**152.9079**	**4.7700e-003**	**3.9900e-003**	**154.2165**

3.6 Architectural Coating - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	66.1552					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2045	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817		281.4481	281.4481	0.0183		281.9062
Total	**66.3598**	**1.4085**	**1.8136**	**2.9700e-003**		**0.0817**	**0.0817**		**0.0817**	**0.0817**		**281.4481**	**281.4481**	**0.0183**		**281.9062**

Palmdale GPU - General Office -Construction Only - Los Angeles-Mojave Desert County, Summer

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

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0319	0.0218	0.3313	8.3000e-004	0.0904	5.9000e-004	0.0910	0.0240	5.5000e-004	0.0245		84.0993	84.0993	2.6200e-003	2.2000e-003	84.8191
Total	**0.0319**	**0.0218**	**0.3313**	**8.3000e-004**	**0.0904**	**5.9000e-004**	**0.0910**	**0.0240**	**5.5000e-004**	**0.0245**		**84.0993**	**84.0993**	**2.6200e-003**	**2.2000e-003**	**84.8191**

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	66.1552					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0297	0.1288	1.8324	2.9700e-003		3.9600e-003	3.9600e-003		3.9600e-003	3.9600e-003	0.0000	281.4481	281.4481	0.0183		281.9062
Total	**66.1849**	**0.1288**	**1.8324**	**2.9700e-003**		**3.9600e-003**	**3.9600e-003**		**3.9600e-003**	**3.9600e-003**	**0.0000**	**281.4481**	**281.4481**	**0.0183**		**281.9062**

Palmdale GPU - General Office -Construction Only - Los Angeles-Mojave Desert County, Summer

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

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0319	0.0218	0.3313	8.3000e-004	0.0904	5.9000e-004	0.0910	0.0240	5.5000e-004	0.0245		84.0993	84.0993	2.6200e-003	2.2000e-003	84.8191
Total	**0.0319**	**0.0218**	**0.3313**	**8.3000e-004**	**0.0904**	**5.9000e-004**	**0.0910**	**0.0240**	**5.5000e-004**	**0.0245**		**84.0993**	**84.0993**	**2.6200e-003**	**2.2000e-003**	**84.8191**

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

Palmdale GPU - General Office -Construction Only - Los Angeles-Mojave Desert County, Summer

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

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

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Office Building	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
General Office Building	9.50	7.30	7.30	33.00	48.00	19.00	77	19	4

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Office Building	0.544785	0.062844	0.187478	0.127235	0.023089	0.006083	0.010475	0.008012	0.000925	0.000611	0.024394	0.000698	0.003374

5.0 Energy Detail

Historical Energy Use: N

Palmdale GPU - General Office -Construction Only - Los Angeles-Mojave Desert County, Summer

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

5.1 Mitigation Measures Energy

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

5.2 Energy by Land Use - NaturalGas

Unmitigated

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

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

Mitigated

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

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	1.6200e-003	1.6000e-004	0.0175	0.0000		6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005		0.0375	0.0375	1.0000e-004		0.0399
Unmitigated	1.6200e-003	1.6000e-004	0.0175	0.0000		6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005		0.0375	0.0375	1.0000e-004		0.0399

Palmdale GPU - General Office -Construction Only - Los Angeles-Mojave Desert 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	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.6200e-003	1.6000e-004	0.0175	0.0000		6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005		0.0375	0.0375	1.0000e-004		0.0399
Total	**1.6200e-003**	**1.6000e-004**	**0.0175**	**0.0000**		**6.0000e-005**	**6.0000e-005**		**6.0000e-005**	**6.0000e-005**		**0.0375**	**0.0375**	**1.0000e-004**		**0.0399**

Palmdale GPU - General Office -Construction Only - Los Angeles-Mojave Desert County, Summer

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

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.6200e-003	1.6000e-004	0.0175	0.0000		6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005		0.0375	0.0375	1.0000e-004		0.0399
Total	**1.6200e-003**	**1.6000e-004**	**0.0175**	**0.0000**		**6.0000e-005**	**6.0000e-005**		**6.0000e-005**	**6.0000e-005**		**0.0375**	**0.0375**	**1.0000e-004**		**0.0399**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Palmdale GPU - General Office -Construction Only - Los Angeles-Mojave Desert County, Summer

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

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

Palmdale GPU - General Office -Construction Only - Los Angeles-Mojave Desert County, Winter

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

Palmdale GPU - General Office -Construction Only

Los Angeles-Mojave Desert County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	171.28	1000sqft	3.93	171,275.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2023
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	390.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - See Assumptions

Land Use - See Assumptions

Construction Phase - See Assumptions

Demolition - See Assumptions

Architectural Coating - Based on AVAQMD requirements for VOC content

Vehicle Trips - Operational Emissions Modeled Separately

Consumer Products - Operational Emissions Modeled Separately

Area Coating - Operational Emissions Modeled Separately

Landscape Equipment - Operational Emissions Modeled Separately

Energy Use - Operational Emissions Modeled Separately

Water And Wastewater - Operational Emissions Modeled Separately

Solid Waste - Operational Emissions Modeled Separately

Palmdale GPU - General Office -Construction Only - Los Angeles-Mojave Desert County, Winter

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

Construction Off-road Equipment Mitigation - Water 2x daily based on AVAQMD regulations for dust control; not mitigation

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	150.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	50.00
tblAreaCoating	ReapplicationRatePercent	10	0
tblConstEquipMitigation	FuelType	Diesel	Electrical
tblConstEquipMitigation	FuelType	Diesel	Electrical
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
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	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	7.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final

Palmdale GPU - General Office -Construction Only - Los Angeles-Mojave Desert County, Winter

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

tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstructionPhase	PhaseEndDate	2/23/2023	12/28/2022
tblConstructionPhase	PhaseEndDate	1/4/2023	12/26/2022
tblConstructionPhase	PhaseEndDate	2/16/2022	2/8/2022
tblConstructionPhase	PhaseEndDate	1/30/2023	3/3/2022
tblConstructionPhase	PhaseStartDate	1/31/2023	12/5/2022
tblConstructionPhase	PhaseStartDate	2/17/2022	2/8/2022
tblConstructionPhase	PhaseStartDate	2/5/2022	1/28/2022
tblConstructionPhase	PhaseStartDate	1/5/2023	2/8/2022
tblConsumerProducts	ROG_EF	2.14E-05	0
tblConsumerProducts	ROG_EF_Degreaser	3.542E-07	0
tblConsumerProducts	ROG_EF_PesticidesFertilizers	5.152E-08	0
tblEnergyUse	LightingElect	3.77	0.00
tblEnergyUse	NT24E	4.62	0.00
tblEnergyUse	NT24NG	0.39	0.00
tblEnergyUse	T24E	4.11	0.00
tblEnergyUse	T24NG	9.92	0.00
tblLandscapeEquipment	NumberSummerDays	180	0
tblSolidWaste	SolidWasteGenerationRate	159.29	0.00
tblVehicleTrips	ST_TR	2.21	0.00
tblVehicleTrips	SU_TR	0.70	0.00
tblVehicleTrips	WD_TR	9.74	0.00
tblWater	IndoorWaterUseRate	30,442,236.36	0.00
tblWater	OutdoorWaterUseRate	18,658,144.86	0.00

Palmdale GPU - General Office -Construction Only - Los Angeles-Mojave Desert County, Winter

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

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2022	68.3246	47.6811	46.8481	0.0877	8.0116	2.2562	10.2678	3.6755	2.0948	5.7703	0.0000	8,504.3791	8,504.3791	2.1508	0.1087	8,590.5437
Maximum	**68.3246**	**47.6811**	**46.8481**	**0.0877**	**8.0116**	**2.2562**	**10.2678**	**3.6755**	**2.0948**	**5.7703**	**0.0000**	**8,504.3791**	**8,504.3791**	**2.1508**	**0.1087**	**8,590.5437**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2022	66.7276	5.4436	50.2663	0.0841	4.1162	0.1343	4.2504	1.7919	0.1333	1.9251	0.0000	8,221.1269	8,221.1269	2.1181	0.1087	8,306.4742
Maximum	**66.7276**	**5.4436**	**50.2663**	**0.0841**	**4.1162**	**0.1343**	**4.2504**	**1.7919**	**0.1333**	**1.9251**	**0.0000**	**8,221.1269**	**8,221.1269**	**2.1181**	**0.1087**	**8,306.4742**

	ROG	NOx	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

Palmdale GPU - General Office -Construction Only - Los Angeles-Mojave Desert County, Winter

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

Percent Reduction	**2.34**	**88.58**	**-7.30**	**4.13**	**48.62**	**94.05**	**58.60**	**51.25**	**93.64**	**66.64**	**0.00**	**3.33**	**3.33**	**1.52**	**0.00**	**3.31**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	1.6200e-003	1.6000e-004	0.0175	0.0000		6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005		0.0375	0.0375	1.0000e-004		0.0399
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	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	**1.6200e-003**	**1.6000e-004**	**0.0175**	**0.0000**	**0.0000**	**6.0000e-005**	**6.0000e-005**	**0.0000**	**6.0000e-005**	**6.0000e-005**		**0.0375**	**0.0375**	**1.0000e-004**	**0.0000**	**0.0399**

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

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	1.6200e-003	1.6000e-004	0.0175	0.0000		6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005		0.0375	0.0375	1.0000e-004		0.0399
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	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	**1.6200e-003**	**1.6000e-004**	**0.0175**	**0.0000**	**0.0000**	**6.0000e-005**	**6.0000e-005**	**0.0000**	**6.0000e-005**	**6.0000e-005**		**0.0375**	**0.0375**	**1.0000e-004**	**0.0000**	**0.0399**

	ROG	NOx	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	Demolition	Demolition	1/1/2022	1/28/2022	5	20	
2	Grading	Grading	1/28/2022	2/8/2022	5	8	
3	Building Construction	Building Construction	2/8/2022	12/26/2022	5	230	
4	Paving	Paving	2/8/2022	3/3/2022	5	18	
5	Architectural Coating	Architectural Coating	12/5/2022	12/28/2022	5	18	

Palmdale GPU - General Office -Construction Only - Los Angeles-Mojave Desert County, Winter

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

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 8

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 256,913; Non-Residential Outdoor: 85,638; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Cement and Mortar Mixers	2	6.00	9	0.56
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Building Construction	Cranes	1	7.00	231	0.29
Demolition	Excavators	3	8.00	158	0.38
Grading	Excavators	1	8.00	158	0.38
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Grading	Graders	1	8.00	187	0.41
Paving	Pavers	1	8.00	130	0.42
Paving	Paving Equipment	2	6.00	132	0.36
Paving	Rollers	2	6.00	80	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45

Trips and VMT

Palmdale GPU - General Office -Construction Only - Los Angeles-Mojave Desert County, Winter

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
Architectural Coating	1	11.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	55.00	28.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Demolition	6	15.00	0.00	1.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	8	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Alternative Fuel for Construction Equipment

Use Cleaner Engines for Construction Equipment

Water Exposed Area

3.2 Demolition - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.4300e-003	0.0000	8.4300e-003	1.2800e-003	0.0000	1.2800e-003			0.0000			0.0000
Off-Road	2.6392	25.7194	20.5941	0.0388		1.2427	1.2427		1.1553	1.1553		3,746.7812	3,746.7812	1.0524		3,773.0920
Total	**2.6392**	**25.7194**	**20.5941**	**0.0388**	**8.4300e-003**	**1.2427**	**1.2511**	**1.2800e-003**	**1.1553**	**1.1565**		**3,746.7812**	**3,746.7812**	**1.0524**		**3,773.0920**

Palmdale GPU - General Office -Construction Only - Los Angeles-Mojave Desert County, Winter

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

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	2.3000e-004	8.7400e-003	1.9900e-003	3.0000e-005	8.8000e-004	6.0000e-005	9.4000e-004	2.4000e-004	6.0000e-005	3.0000e-004		3.4049	3.4049	1.8000e-004	5.4000e-004	3.5704
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	0.0459	0.0328	0.4198	1.0700e-003	0.1232	8.1000e-004	0.1240	0.0327	7.4000e-004	0.0334		108.6516	108.6516	3.6800e-003	3.2000e-003	109.6966
Total	**0.0462**	**0.0416**	**0.4217**	**1.1000e-003**	**0.1241**	**8.7000e-004**	**0.1250**	**0.0329**	**8.0000e-004**	**0.0337**		**112.0565**	**112.0565**	**3.8600e-003**	**3.7400e-003**	**113.2670**

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					3.7900e-003	0.0000	3.7900e-003	5.7000e-004	0.0000	5.7000e-004			0.0000			0.0000
Off-Road	0.4623	2.0032	23.2798	0.0388		0.0616	0.0616		0.0616	0.0616	0.0000	3,746.7812	3,746.7812	1.0524		3,773.0920
Total	**0.4623**	**2.0032**	**23.2798**	**0.0388**	**3.7900e-003**	**0.0616**	**0.0654**	**5.7000e-004**	**0.0616**	**0.0622**	**0.0000**	**3,746.7812**	**3,746.7812**	**1.0524**		**3,773.0920**

Palmdale GPU - General Office -Construction Only - Los Angeles-Mojave Desert County, Winter

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

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	2.3000e-004	8.7400e-003	1.9900e-003	3.0000e-005	8.8000e-004	6.0000e-005	9.4000e-004	2.4000e-004	6.0000e-005	3.0000e-004		3.4049	3.4049	1.8000e-004	5.4000e-004	3.5704
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	0.0459	0.0328	0.4198	1.0700e-003	0.1232	8.1000e-004	0.1240	0.0327	7.4000e-004	0.0334		108.6516	108.6516	3.6800e-003	3.2000e-003	109.6966
Total	**0.0462**	**0.0416**	**0.4217**	**1.1000e-003**	**0.1241**	**8.7000e-004**	**0.1250**	**0.0329**	**8.0000e-004**	**0.0337**		**112.0565**	**112.0565**	**3.8600e-003**	**3.7400e-003**	**113.2670**

3.3 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					7.0826	0.0000	7.0826	3.4247	0.0000	3.4247			0.0000			0.0000
Off-Road	1.9486	20.8551	15.2727	0.0297		0.9409	0.9409		0.8656	0.8656		2,872.0464	2,872.0464	0.9289		2,895.2684
Total	**1.9486**	**20.8551**	**15.2727**	**0.0297**	**7.0826**	**0.9409**	**8.0234**	**3.4247**	**0.8656**	**4.2903**		**2,872.0464**	**2,872.0464**	**0.9289**		**2,895.2684**

Palmdale GPU - General Office -Construction Only - Los Angeles-Mojave Desert County, Winter

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

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0459	0.0328	0.4198	1.0700e-003	0.1232	8.1000e-004	0.1240	0.0327	7.4000e-004	0.0334		108.6516	108.6516	3.6800e-003	3.2000e-003	109.6966
Total	**0.0459**	**0.0328**	**0.4198**	**1.0700e-003**	**0.1232**	**8.1000e-004**	**0.1240**	**0.0327**	**7.4000e-004**	**0.0334**		**108.6516**	**108.6516**	**3.6800e-003**	**3.2000e-003**	**109.6966**

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					3.1872	0.0000	3.1872	1.5411	0.0000	1.5411			0.0000			0.0000
Off-Road	0.3632	1.5737	17.7527	0.0297		0.0484	0.0484		0.0484	0.0484	0.0000	2,872.0464	2,872.0464	0.9289		2,895.2684
Total	**0.3632**	**1.5737**	**17.7527**	**0.0297**	**3.1872**	**0.0484**	**3.2356**	**1.5411**	**0.0484**	**1.5896**	**0.0000**	**2,872.0464**	**2,872.0464**	**0.9289**		**2,895.2684**

Palmdale GPU - General Office -Construction Only - Los Angeles-Mojave Desert County, Winter

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

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0459	0.0328	0.4198	1.0700e-003	0.1232	8.1000e-004	0.1240	0.0327	7.4000e-004	0.0334		108.6516	108.6516	3.6800e-003	3.2000e-003	109.6966
Total	**0.0459**	**0.0328**	**0.4198**	**1.0700e-003**	**0.1232**	**8.1000e-004**	**0.1240**	**0.0327**	**7.4000e-004**	**0.0334**		**108.6516**	**108.6516**	**3.6800e-003**	**3.2000e-003**	**109.6966**

3.4 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612		2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**1.7062**	**15.6156**	**16.3634**	**0.0269**		**0.8090**	**0.8090**		**0.7612**	**0.7612**		**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

Palmdale GPU - General Office -Construction Only - Los Angeles-Mojave Desert County, Winter

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

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0566	1.4912	0.4994	5.7800e-003	0.1897	0.0139	0.2036	0.0546	0.0133	0.0679		620.9598	620.9598	0.0207	0.0895	648.1542
Worker	0.1684	0.1204	1.5391	3.9400e-003	0.4518	2.9600e-003	0.4548	0.1198	2.7300e-003	0.1226		398.3892	398.3892	0.0135	0.0117	402.2210
Total	**0.2249**	**1.6116**	**2.0385**	**9.7200e-003**	**0.6415**	**0.0168**	**0.6583**	**0.1745**	**0.0160**	**0.1904**		**1,019.3491**	**1,019.3491**	**0.0342**	**0.1013**	**1,050.3752**

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	0.2840	1.2307	15.9634	0.0244		0.0379	0.0379		0.0379	0.0379	0.0000	2,346.8559	2,346.8559	0.5871		2,361.5338
Total	**0.2840**	**1.2307**	**15.9634**	**0.0244**		**0.0379**	**0.0379**		**0.0379**	**0.0379**	**0.0000**	**2,346.8559**	**2,346.8559**	**0.5871**		**2,361.5338**

Palmdale GPU - General Office -Construction Only - Los Angeles-Mojave Desert County, Winter

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

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0566	1.4912	0.4994	5.7800e-003	0.1897	0.0139	0.2036	0.0546	0.0133	0.0679		620.9598	620.9598	0.0207	0.0895	648.1542
Worker	0.1684	0.1204	1.5391	3.9400e-003	0.4518	2.9600e-003	0.4548	0.1198	2.7300e-003	0.1226		398.3892	398.3892	0.0135	0.0117	402.2210
Total	**0.2249**	**1.6116**	**2.0385**	**9.7200e-003**	**0.6415**	**0.0168**	**0.6583**	**0.1745**	**0.0160**	**0.1904**		**1,019.3491**	**1,019.3491**	**0.0342**	**0.1013**	**1,050.3752**

3.5 Paving - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9765	9.5221	12.1940	0.0189		0.4877	0.4877		0.4504	0.4504		1,805.1297	1,805.1297	0.5672		1,819.3091
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9765**	**9.5221**	**12.1940**	**0.0189**		**0.4877**	**0.4877**		**0.4504**	**0.4504**		**1,805.1297**	**1,805.1297**	**0.5672**		**1,819.3091**

Palmdale GPU - General Office -Construction Only - Los Angeles-Mojave Desert County, Winter

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

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0612	0.0438	0.5597	1.4300e-003	0.1643	1.0800e-003	0.1654	0.0436	9.9000e-004	0.0446		144.8688	144.8688	4.9000e-003	4.2600e-003	146.2622
Total	**0.0612**	**0.0438**	**0.5597**	**1.4300e-003**	**0.1643**	**1.0800e-003**	**0.1654**	**0.0436**	**9.9000e-004**	**0.0446**		**144.8688**	**144.8688**	**4.9000e-003**	**4.2600e-003**	**146.2622**

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	0.2194	0.9509	13.5323	0.0179		0.0293	0.0293		0.0293	0.0293	0.0000	1,729.3552	1,729.3552	0.5593		1,743.3379
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.2194**	**0.9509**	**13.5323**	**0.0179**		**0.0293**	**0.0293**		**0.0293**	**0.0293**	**0.0000**	**1,729.3552**	**1,729.3552**	**0.5593**		**1,743.3379**

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

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0612	0.0438	0.5597	1.4300e-003	0.1643	1.0800e-003	0.1654	0.0436	9.9000e-004	0.0446		144.8688	144.8688	4.9000e-003	4.2600e-003	146.2622
Total	**0.0612**	**0.0438**	**0.5597**	**1.4300e-003**	**0.1643**	**1.0800e-003**	**0.1654**	**0.0436**	**9.9000e-004**	**0.0446**		**144.8688**	**144.8688**	**4.9000e-003**	**4.2600e-003**	**146.2622**

3.6 Architectural Coating - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	66.1552					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2045	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817		281.4481	281.4481	0.0183		281.9062
Total	**66.3598**	**1.4085**	**1.8136**	**2.9700e-003**		**0.0817**	**0.0817**		**0.0817**	**0.0817**		**281.4481**	**281.4481**	**0.0183**		**281.9062**

Palmdale GPU - General Office -Construction Only - Los Angeles-Mojave Desert County, Winter

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

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0337	0.0241	0.3078	7.9000e-004	0.0904	5.9000e-004	0.0910	0.0240	5.5000e-004	0.0245		79.6779	79.6779	2.7000e-003	2.3500e-003	80.4442
Total	**0.0337**	**0.0241**	**0.3078**	**7.9000e-004**	**0.0904**	**5.9000e-004**	**0.0910**	**0.0240**	**5.5000e-004**	**0.0245**		**79.6779**	**79.6779**	**2.7000e-003**	**2.3500e-003**	**80.4442**

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	66.1552					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0297	0.1288	1.8324	2.9700e-003		3.9600e-003	3.9600e-003		3.9600e-003	3.9600e-003	0.0000	281.4481	281.4481	0.0183		281.9062
Total	**66.1849**	**0.1288**	**1.8324**	**2.9700e-003**		**3.9600e-003**	**3.9600e-003**		**3.9600e-003**	**3.9600e-003**	**0.0000**	**281.4481**	**281.4481**	**0.0183**		**281.9062**

Palmdale GPU - General Office -Construction Only - Los Angeles-Mojave Desert County, Winter

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

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0337	0.0241	0.3078	7.9000e-004	0.0904	5.9000e-004	0.0910	0.0240	5.5000e-004	0.0245		79.6779	79.6779	2.7000e-003	2.3500e-003	80.4442
Total	**0.0337**	**0.0241**	**0.3078**	**7.9000e-004**	**0.0904**	**5.9000e-004**	**0.0910**	**0.0240**	**5.5000e-004**	**0.0245**		**79.6779**	**79.6779**	**2.7000e-003**	**2.3500e-003**	**80.4442**

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	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

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

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Office Building	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
General Office Building	9.50	7.30	7.30	33.00	48.00	19.00	77	19	4

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Office Building	0.544785	0.062844	0.187478	0.127235	0.023089	0.006083	0.010475	0.008012	0.000925	0.000611	0.024394	0.000698	0.003374

5.0 Energy Detail

Historical Energy Use: N

Palmdale GPU - General Office -Construction Only - Los Angeles-Mojave Desert County, Winter

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

5.1 Mitigation Measures Energy

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

5.2 Energy by Land Use - NaturalGas

Unmitigated

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

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

Mitigated

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

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	1.6200e-003	1.6000e-004	0.0175	0.0000		6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005		0.0375	0.0375	1.0000e-004		0.0399
Unmitigated	1.6200e-003	1.6000e-004	0.0175	0.0000		6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005		0.0375	0.0375	1.0000e-004		0.0399

Palmdale GPU - General Office -Construction Only - Los Angeles-Mojave Desert 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	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.6200e-003	1.6000e-004	0.0175	0.0000		6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005		0.0375	0.0375	1.0000e-004		0.0399
Total	**1.6200e-003**	**1.6000e-004**	**0.0175**	**0.0000**		**6.0000e-005**	**6.0000e-005**		**6.0000e-005**	**6.0000e-005**		**0.0375**	**0.0375**	**1.0000e-004**		**0.0399**

Palmdale GPU - General Office -Construction Only - Los Angeles-Mojave Desert County, Winter

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

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.6200e-003	1.6000e-004	0.0175	0.0000		6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005		0.0375	0.0375	1.0000e-004		0.0399
Total	**1.6200e-003**	**1.6000e-004**	**0.0175**	**0.0000**		**6.0000e-005**	**6.0000e-005**		**6.0000e-005**	**6.0000e-005**		**0.0375**	**0.0375**	**1.0000e-004**		**0.0399**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Palmdale GPU - General Office -Construction Only - Los Angeles-Mojave Desert County, Winter

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

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

Palmdale GPU - Government Office - Construction - Los Angeles-Mojave Desert County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Palmdale GPU - Government Office - Construction

Los Angeles-Mojave Desert County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Government Office Building	7.30	1000sqft	0.17	7,300.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2023
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	390.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - See Assumptions

Land Use - See Assumptions

Construction Phase - See Assumptions

Demolition - See Assumptions

Architectural Coating - Based on AVAQMD requirements for VOC content

Vehicle Trips - Operational Emissions Modeled Separately

Consumer Products - Operational Emissions Modeled Separately

Area Coating - Operational Emissions Modeled Separately

Landscape Equipment - Operational Emissions Modeled Separately

Energy Use - Operational Emissions Modeled Separately

Water And Wastewater - Operational Emissions Modeled Separately

Solid Waste - Operational Emissions Modeled Separately

Palmdale GPU - Government Office - Construction - Los Angeles-Mojave Desert County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Construction Off-road Equipment Mitigation - Water 2x daily based on AVAQMD regulations for dust control; not mitigation

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	150.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	50.00
tblAreaCoating	ReapplicationRatePercent	10	0
tblConstEquipMitigation	FuelType	Diesel	Electrical
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstructionPhase	PhaseEndDate	6/22/2022	6/8/2022
tblConstructionPhase	PhaseEndDate	6/8/2022	6/7/2022
tblConstructionPhase	PhaseEndDate	1/19/2022	1/18/2022
tblConstructionPhase	PhaseEndDate	6/15/2022	1/25/2022
tblConstructionPhase	PhaseStartDate	6/16/2022	6/2/2022
tblConstructionPhase	PhaseStartDate	1/20/2022	1/19/2022
tblConstructionPhase	PhaseStartDate	1/18/2022	1/15/2022

Palmdale GPU - Government Office - Construction - Los Angeles-Mojave Desert County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tblConstructionPhase	PhaseStartDate	6/9/2022	1/19/2022
tblConsumerProducts	ROG_EF	2.14E-05	0
tblConsumerProducts	ROG_EF_Degreaser	3.542E-07	0
tblConsumerProducts	ROG_EF_PesticidesFertilizers	5.152E-08	0
tblEnergyUse	LightingElect	3.77	0.00
tblEnergyUse	NT24E	4.62	0.00
tblEnergyUse	NT24NG	0.39	0.00
tblEnergyUse	T24E	4.11	0.00
tblEnergyUse	T24NG	9.92	0.00
tblLandscapeEquipment	NumberSummerDays	180	0
tblSolidWaste	SolidWasteGenerationRate	6.79	0.00
tblVehicleTrips	WD_TR	22.59	0.00
tblWater	IndoorWaterUseRate	1,450,215.71	0.00
tblWater	OutdoorWaterUseRate	888,841.88	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2022	0.0672	0.4197	0.4304	7.1000e-004	0.0111	0.0218	0.0329	3.7100e-003	0.0201	0.0239	0.0000	62.8937	62.8937	0.0184	3.5000e-004	63.4574
Maximum	**0.0672**	**0.4197**	**0.4304**	**7.1000e-004**	**0.0111**	**0.0218**	**0.0329**	**3.7100e-003**	**0.0201**	**0.0239**	**0.0000**	**62.8937**	**62.8937**	**0.0184**	**3.5000e-004**	**63.4574**

Palmdale GPU - Government Office - Construction - Los Angeles-Mojave Desert County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2022	0.0499	0.2275	0.4483	7.1000e-004	6.2400e-003	0.0115	0.0178	2.0100e-003	0.0106	0.0126	0.0000	62.5500	62.5500	0.0184	3.5000e-004	63.1127
Maximum	**0.0499**	**0.2275**	**0.4483**	**7.1000e-004**	**6.2400e-003**	**0.0115**	**0.0178**	**2.0100e-003**	**0.0106**	**0.0126**	**0.0000**	**62.5500**	**62.5500**	**0.0184**	**3.5000e-004**	**63.1127**

	ROG	NOx	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	**25.70**	**45.79**	**-4.16**	**0.00**	**43.83**	**47.20**	**46.07**	**45.82**	**47.22**	**47.02**	**0.00**	**0.55**	**0.55**	**0.22**	**0.00**	**0.54**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	**1-1-2022**	**3-31-2022**	0.2742	0.1564
2	**4-1-2022**	**6-30-2022**	0.2182	0.1249
		Highest	0.2742	0.1564

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					

Palmdale GPU - Government Office - Construction - Los Angeles-Mojave Desert County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Area	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	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	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**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 Applied

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	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	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	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	Demolition	Demolition	1/1/2022	1/14/2022	5	10	
2	Grading	Grading	1/15/2022	1/18/2022	5	2	
3	Building Construction	Building Construction	1/19/2022	6/7/2022	5	100	

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

4	Paving	Paving	1/19/2022	1/25/2022	5	5	
5	Architectural Coating	Architectural Coating	6/2/2022	6/8/2022	5	5	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 1.5

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 10,950; Non-Residential Outdoor: 3,650; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Cement and Mortar Mixers	4	6.00	9	0.56
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Building Construction	Cranes	1	4.00	231	0.29
Building Construction	Forklifts	2	6.00	89	0.20
Grading	Graders	1	6.00	187	0.41
Paving	Pavers	1	7.00	130	0.42
Paving	Rollers	1	7.00	80	0.38
Demolition	Rubber Tired Dozers	1	1.00	247	0.40
Grading	Rubber Tired Dozers	1	6.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Demolition	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Grading	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Paving	Tractors/Loaders/Backhoes	1	7.00	97	0.37

Trips and VMT

Palmdale GPU - Government Office - Construction - Los Angeles-Mojave Desert County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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
Architectural Coating	1	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	5	2.00	1.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Demolition	4	10.00	0.00	33.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	3	8.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Alternative Fuel for Construction Equipment

Use Cleaner Engines for Construction Equipment

Water Exposed Area

3.2 Demolition - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					3.5400e-003	0.0000	3.5400e-003	5.4000e-004	0.0000	5.4000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.5500e-003	0.0321	0.0374	6.0000e-005		1.6900e-003	1.6900e-003		1.6100e-003	1.6100e-003	0.0000	5.2068	5.2068	9.6000e-004	0.0000	5.2308
Total	**3.5500e-003**	**0.0321**	**0.0374**	**6.0000e-005**	**3.5400e-003**	**1.6900e-003**	**5.2300e-003**	**5.4000e-004**	**1.6100e-003**	**2.1500e-003**	**0.0000**	**5.2068**	**5.2068**	**9.6000e-004**	**0.0000**	**5.2308**

Palmdale GPU - Government Office - Construction - Los Angeles-Mojave Desert County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	8.0000e-005	2.9200e-003	6.5000e-004	1.0000e-005	2.8000e-004	2.0000e-005	3.0000e-004	8.0000e-005	2.0000e-005	1.0000e-004	0.0000	1.0192	1.0192	5.0000e-005	1.6000e-004	1.0687
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	1.4000e-004	1.1000e-004	1.4300e-003	0.0000	4.0000e-004	0.0000	4.1000e-004	1.1000e-004	0.0000	1.1000e-004	0.0000	0.3356	0.3356	1.0000e-005	1.0000e-005	0.3388
Total	**2.2000e-004**	**3.0300e-003**	**2.0800e-003**	**1.0000e-005**	**6.8000e-004**	**2.0000e-005**	**7.1000e-004**	**1.9000e-004**	**2.0000e-005**	**2.1000e-004**	**0.0000**	**1.3548**	**1.3548**	**6.0000e-005**	**1.7000e-004**	**1.4075**

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					1.5900e-003	0.0000	1.5900e-003	2.4000e-004	0.0000	2.4000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.0700e-003	0.0194	0.0383	6.0000e-005		9.8000e-004	9.8000e-004		9.0000e-004	9.0000e-004	0.0000	5.2068	5.2068	9.6000e-004	0.0000	5.2308
Total	**2.0700e-003**	**0.0194**	**0.0383**	**6.0000e-005**	**1.5900e-003**	**9.8000e-004**	**2.5700e-003**	**2.4000e-004**	**9.0000e-004**	**1.1400e-003**	**0.0000**	**5.2068**	**5.2068**	**9.6000e-004**	**0.0000**	**5.2308**

Palmdale GPU - Government Office - Construction - Los Angeles-Mojave Desert County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	8.0000e-005	2.9200e-003	6.5000e-004	1.0000e-005	2.8000e-004	2.0000e-005	3.0000e-004	8.0000e-005	2.0000e-005	1.0000e-004	0.0000	1.0192	1.0192	5.0000e-005	1.6000e-004	1.0687
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	1.4000e-004	1.1000e-004	1.4300e-003	0.0000	4.0000e-004	0.0000	4.1000e-004	1.1000e-004	0.0000	1.1000e-004	0.0000	0.3356	0.3356	1.0000e-005	1.0000e-005	0.3388
Total	**2.2000e-004**	**3.0300e-003**	**2.0800e-003**	**1.0000e-005**	**6.8000e-004**	**2.0000e-005**	**7.1000e-004**	**1.9000e-004**	**2.0000e-005**	**2.1000e-004**	**0.0000**	**1.3548**	**1.3548**	**6.0000e-005**	**1.7000e-004**	**1.4075**

3.3 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					5.3100e-003	0.0000	5.3100e-003	2.5700e-003	0.0000	2.5700e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.0800e-003	0.0120	5.9400e-003	1.0000e-005		5.2000e-004	5.2000e-004		4.8000e-004	4.8000e-004	0.0000	1.2381	1.2381	4.0000e-004	0.0000	1.2482
Total	**1.0800e-003**	**0.0120**	**5.9400e-003**	**1.0000e-005**	**5.3100e-003**	**5.2000e-004**	**5.8300e-003**	**2.5700e-003**	**4.8000e-004**	**3.0500e-003**	**0.0000**	**1.2381**	**1.2381**	**4.0000e-004**	**0.0000**	**1.2482**

Palmdale GPU - Government Office - Construction - Los Angeles-Mojave Desert County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.0000e-005	2.0000e-005	2.3000e-004	0.0000	6.0000e-005	0.0000	6.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0537	0.0537	0.0000	0.0000	0.0542
Total	**2.0000e-005**	**2.0000e-005**	**2.3000e-004**	**0.0000**	**6.0000e-005**	**0.0000**	**6.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0537**	**0.0537**	**0.0000**	**0.0000**	**0.0542**

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					2.3900e-003	0.0000	2.3900e-003	1.1600e-003	0.0000	1.1600e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	8.3000e-004	8.3300e-003	6.8800e-003	1.0000e-005		4.0000e-004	4.0000e-004		3.7000e-004	3.7000e-004	0.0000	1.2381	1.2381	4.0000e-004	0.0000	1.2482
Total	**8.3000e-004**	**8.3300e-003**	**6.8800e-003**	**1.0000e-005**	**2.3900e-003**	**4.0000e-004**	**2.7900e-003**	**1.1600e-003**	**3.7000e-004**	**1.5300e-003**	**0.0000**	**1.2381**	**1.2381**	**4.0000e-004**	**0.0000**	**1.2482**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.0000e-005	2.0000e-005	2.3000e-004	0.0000	6.0000e-005	0.0000	6.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0537	0.0537	0.0000	0.0000	0.0542
Total	**2.0000e-005**	**2.0000e-005**	**2.3000e-004**	**0.0000**	**6.0000e-005**	**0.0000**	**6.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0537**	**0.0537**	**0.0000**	**0.0000**	**0.0542**

3.4 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0343	0.3513	0.3576	5.7000e-004		0.0186	0.0186		0.0171	0.0171	0.0000	50.0739	50.0739	0.0162	0.0000	50.4787
Total	**0.0343**	**0.3513**	**0.3576**	**5.7000e-004**		**0.0186**	**0.0186**		**0.0171**	**0.0171**	**0.0000**	**50.0739**	**50.0739**	**0.0162**	**0.0000**	**50.4787**

Palmdale GPU - Government Office - Construction - Los Angeles-Mojave Desert County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.0000e-004	2.6900e-003	8.8000e-004	1.0000e-005	3.3000e-004	2.0000e-005	3.6000e-004	1.0000e-004	2.0000e-005	1.2000e-004	0.0000	1.0057	1.0057	3.0000e-005	1.5000e-004	1.0498
Worker	2.8000e-004	2.2000e-004	2.8700e-003	1.0000e-005	8.1000e-004	1.0000e-005	8.1000e-004	2.1000e-004	0.0000	2.2000e-004	0.0000	0.6712	0.6712	2.0000e-005	2.0000e-005	0.6776
Total	**3.8000e-004**	**2.9100e-003**	**3.7500e-003**	**2.0000e-005**	**1.1400e-003**	**3.0000e-005**	**1.1700e-003**	**3.1000e-004**	**2.0000e-005**	**3.4000e-004**	**0.0000**	**1.6769**	**1.6769**	**5.0000e-005**	**1.7000e-004**	**1.7274**

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	0.0197	0.1814	0.3759	5.7000e-004		9.4400e-003	9.4400e-003		8.7200e-003	8.7200e-003	0.0000	50.0738	50.0738	0.0162	0.0000	50.4787
Total	**0.0197**	**0.1814**	**0.3759**	**5.7000e-004**		**9.4400e-003**	**9.4400e-003**		**8.7200e-003**	**8.7200e-003**	**0.0000**	**50.0738**	**50.0738**	**0.0162**	**0.0000**	**50.4787**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.0000e-004	2.6900e-003	8.8000e-004	1.0000e-005	3.3000e-004	2.0000e-005	3.6000e-004	1.0000e-004	2.0000e-005	1.2000e-004	0.0000	1.0057	1.0057	3.0000e-005	1.5000e-004	1.0498
Worker	2.8000e-004	2.2000e-004	2.8700e-003	1.0000e-005	8.1000e-004	1.0000e-005	8.1000e-004	2.1000e-004	0.0000	2.2000e-004	0.0000	0.6712	0.6712	2.0000e-005	2.0000e-005	0.6776
Total	**3.8000e-004**	**2.9100e-003**	**3.7500e-003**	**2.0000e-005**	**1.1400e-003**	**3.0000e-005**	**1.1700e-003**	**3.1000e-004**	**2.0000e-005**	**3.4000e-004**	**0.0000**	**1.6769**	**1.6769**	**5.0000e-005**	**1.7000e-004**	**1.7274**

3.5 Paving - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	1.6200e-003	0.0148	0.0176	3.0000e-005		7.4000e-004	7.4000e-004		6.9000e-004	6.9000e-004	0.0000	2.3492	2.3492	6.8000e-004	0.0000	2.3663
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**1.6200e-003**	**0.0148**	**0.0176**	**3.0000e-005**		**7.4000e-004**	**7.4000e-004**		**6.9000e-004**	**6.9000e-004**	**0.0000**	**2.3492**	**2.3492**	**6.8000e-004**	**0.0000**	**2.3663**

Palmdale GPU - Government Office - Construction - Los Angeles-Mojave Desert County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.3000e-004	1.0000e-004	1.2900e-003	0.0000	3.6000e-004	0.0000	3.6000e-004	1.0000e-004	0.0000	1.0000e-004	0.0000	0.3020	0.3020	1.0000e-005	1.0000e-005	0.3049
Total	**1.3000e-004**	**1.0000e-004**	**1.2900e-003**	**0.0000**	**3.6000e-004**	**0.0000**	**3.6000e-004**	**1.0000e-004**	**0.0000**	**1.0000e-004**	**0.0000**	**0.3020**	**0.3020**	**1.0000e-005**	**1.0000e-005**	**0.3049**

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	1.1800e-003	0.0120	0.0153	2.0000e-005		6.3000e-004	6.3000e-004		5.8000e-004	5.8000e-004	0.0000	2.0055	2.0055	6.5000e-004	0.0000	2.0217
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**1.1800e-003**	**0.0120**	**0.0153**	**2.0000e-005**		**6.3000e-004**	**6.3000e-004**		**5.8000e-004**	**5.8000e-004**	**0.0000**	**2.0055**	**2.0055**	**6.5000e-004**	**0.0000**	**2.0217**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.3000e-004	1.0000e-004	1.2900e-003	0.0000	3.6000e-004	0.0000	3.6000e-004	1.0000e-004	0.0000	1.0000e-004	0.0000	0.3020	0.3020	1.0000e-005	1.0000e-005	0.3049
Total	**1.3000e-004**	**1.0000e-004**	**1.2900e-003**	**0.0000**	**3.6000e-004**	**0.0000**	**3.6000e-004**	**1.0000e-004**	**0.0000**	**1.0000e-004**	**0.0000**	**0.3020**	**0.3020**	**1.0000e-005**	**1.0000e-005**	**0.3049**

3.6 Architectural Coating - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.0254					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.1000e-004	3.5200e-003	4.5300e-003	1.0000e-005		2.0000e-004	2.0000e-004		2.0000e-004	2.0000e-004	0.0000	0.6383	0.6383	4.0000e-005	0.0000	0.6394
Total	**0.0259**	**3.5200e-003**	**4.5300e-003**	**1.0000e-005**		**2.0000e-004**	**2.0000e-004**		**2.0000e-004**	**2.0000e-004**	**0.0000**	**0.6383**	**0.6383**	**4.0000e-005**	**0.0000**	**0.6394**

Palmdale GPU - Government Office - Construction - Los Angeles-Mojave Desert County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**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	0.0254					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	7.0000e-005	3.2000e-004	4.5800e-003	1.0000e-005		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	0.6383	0.6383	4.0000e-005	0.0000	0.6394
Total	**0.0255**	**3.2000e-004**	**4.5800e-003**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**	**0.0000**	**0.6383**	**0.6383**	**4.0000e-005**	**0.0000**	**0.6394**

Palmdale GPU - Government Office - Construction - Los Angeles-Mojave Desert County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Mitigated Construction Off-Site

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

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

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

Palmdale GPU - Government Office - Construction - Los Angeles-Mojave Desert County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Government Office Building	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
Government Office Building	9.50	7.30	7.30	33.00	62.00	5.00	50	34	16

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Government Office Building	0.544785	0.062844	0.187478	0.127235	0.023089	0.006083	0.010475	0.008012	0.000925	0.000611	0.024394	0.000698	0.003374

5.0 Energy Detail

Historical Energy Use: N

Palmdale GPU - Government Office - Construction - Los Angeles-Mojave Desert County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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

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					
Government Office Building	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					
Government Office Building	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**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use		Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	tons/yr	MT/yr			
Government Office Building	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	tons/yr	MT/yr			
Government Office Building	0		0.0000	0.0000	0.0000	0.0000
Total			**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive 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
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

Palmdale GPU - Government Office - Construction - Los Angeles-Mojave Desert County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

6.2 Area by SubCategory

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	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Mitigated

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

7.0 Water Detail

7.1 Mitigation Measures Water

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

Palmdale GPU - Government Office - Construction - Los Angeles-Mojave Desert County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use		Total CO2	CH4	N2O	CO2e
Land Use	Mgal	tons/yr	MT/yr			
Government Office Building	0 / 0		0.0000	0.0000	0.0000	0.0000
Total			**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 Applied

Mitigated

	Indoor/Outdoor Use		Total CO2	CH4	N2O	CO2e
Land Use	Mgal	tons/yr	MT/yr			
Government Office Building	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
	tons/yr	MT/yr			
Mitigated		0.0000	0.0000	0.0000	0.0000
Unmitigated		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 Applied

8.2 Waste by Land Use

Unmitigated

	Waste Disposed		Total CO2	CH4	N2O	CO2e
Land Use	tons	tons/yr	MT/yr			
Government Office Building	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	tons/yr	MT/yr			
Government Office Building	0		0.0000	0.0000	0.0000	0.0000
Total			**0.0000**	**0.0000**	**0.0000**	**0.0000**

9.0 Operational Offroad

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

Palmdale GPU - Government Office - Construction - Los Angeles-Mojave Desert County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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

Palmdale GPU - Government Office - Construction - Los Angeles-Mojave Desert County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Palmdale GPU - Government Office - Construction

Los Angeles-Mojave Desert County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Government Office Building	7.30	1000sqft	0.17	7,300.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2023
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	390.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - See Assumptions

Land Use - See Assumptions

Construction Phase - See Assumptions

Demolition - See Assumptions

Architectural Coating - Based on AVAQMD requirements for VOC content

Vehicle Trips - Operational Emissions Modeled Separately

Consumer Products - Operational Emissions Modeled Separately

Area Coating - Operational Emissions Modeled Separately

Landscape Equipment - Operational Emissions Modeled Separately

Energy Use - Operational Emissions Modeled Separately

Water And Wastewater - Operational Emissions Modeled Separately

Solid Waste - Operational Emissions Modeled Separately

Palmdale GPU - Government Office - Construction - Los Angeles-Mojave Desert County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Construction Off-road Equipment Mitigation - Water 2x daily based on AVAQMD regulations for dust control; not mitigation

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	150.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	50.00
tblAreaCoating	ReapplicationRatePercent	10	0
tblConstEquipMitigation	FuelType	Diesel	Electrical
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstructionPhase	PhaseEndDate	6/22/2022	6/8/2022
tblConstructionPhase	PhaseEndDate	6/8/2022	6/7/2022
tblConstructionPhase	PhaseEndDate	1/19/2022	1/18/2022
tblConstructionPhase	PhaseEndDate	6/15/2022	1/25/2022
tblConstructionPhase	PhaseStartDate	6/16/2022	6/2/2022
tblConstructionPhase	PhaseStartDate	1/20/2022	1/19/2022
tblConstructionPhase	PhaseStartDate	1/18/2022	1/15/2022

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tblConstructionPhase	PhaseStartDate	6/9/2022	1/19/2022
tblConsumerProducts	ROG_EF	2.14E-05	0
tblConsumerProducts	ROG_EF_Degreaser	3.542E-07	0
tblConsumerProducts	ROG_EF_PesticidesFertilizers	5.152E-08	0
tblEnergyUse	LightingElect	3.77	0.00
tblEnergyUse	NT24E	4.62	0.00
tblEnergyUse	NT24NG	0.39	0.00
tblEnergyUse	T24E	4.11	0.00
tblEnergyUse	T24NG	9.92	0.00
tblLandscapeEquipment	NumberSummerDays	180	0
tblSolidWaste	SolidWasteGenerationRate	6.79	0.00
tblVehicleTrips	WD_TR	22.59	0.00
tblWater	IndoorWaterUseRate	1,450,215.71	0.00
tblWater	OutdoorWaterUseRate	888,841.88	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2022	11.0493	13.0340	14.8079	0.0244	5.3777	0.6696	5.8954	2.5860	0.6195	3.0623	0.0000	2,315.8301	2,315.8301	0.6643	0.0376	2,334.5779
Maximum	**11.0493**	**13.0340**	**14.8079**	**0.0244**	**5.3777**	**0.6696**	**5.8954**	**2.5860**	**0.6195**	**3.0623**	**0.0000**	**2,315.8301**	**2,315.8301**	**0.6643**	**0.0376**	**2,334.5779**

Palmdale GPU - Government Office - Construction - Los Angeles-Mojave Desert County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2022	10.5813	8.5310	14.2477	0.0223	2.4561	0.4434	2.8565	1.1733	0.4087	1.5423	0.0000	2,164.2812	2,164.2812	0.6485	0.0376	2,182.6357
Maximum	**10.5813**	**8.5310**	**14.2477**	**0.0223**	**2.4561**	**0.4434**	**2.8565**	**1.1733**	**0.4087**	**1.5423**	**0.0000**	**2,164.2812**	**2,164.2812**	**0.6485**	**0.0376**	**2,182.6357**

	ROG	NOx	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	**4.24**	**34.55**	**3.78**	**8.77**	**54.33**	**33.77**	**51.55**	**54.63**	**34.03**	**49.63**	**0.00**	**6.54**	**6.54**	**2.37**	**0.00**	**6.51**

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	7.0000e-005	1.0000e-005	7.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.6000e-003	1.6000e-003	0.0000		1.7000e-003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	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 Applied

Total	**7.0000e-005**	**1.0000e-005**	**7.5000e-004**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**1.6000e-003**	**1.6000e-003**	**0.0000**	**0.0000**	**1.7000e-003**

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	7.0000e-005	1.0000e-005	7.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.6000e-003	1.6000e-003	0.0000		1.7000e-003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	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	**7.0000e-005**	**1.0000e-005**	**7.5000e-004**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**1.6000e-003**	**1.6000e-003**	**0.0000**	**0.0000**	**1.7000e-003**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	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	Demolition	Demolition	1/1/2022	1/14/2022	5	10	
2	Grading	Grading	1/15/2022	1/18/2022	5	2	
3	Building Construction	Building Construction	1/19/2022	6/7/2022	5	100	
4	Paving	Paving	1/19/2022	1/25/2022	5	5	
5	Architectural Coating	Architectural Coating	6/2/2022	6/8/2022	5	5	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 1.5

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 10,950; Non-Residential Outdoor: 3,650; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Cement and Mortar Mixers	4	6.00	9	0.56
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Building Construction	Cranes	1	4.00	231	0.29
Building Construction	Forklifts	2	6.00	89	0.20
Grading	Graders	1	6.00	187	0.41

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Paving	Pavers	1	7.00	130	0.42
Paving	Rollers	1	7.00	80	0.38
Demolition	Rubber Tired Dozers	1	1.00	247	0.40
Grading	Rubber Tired Dozers	1	6.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Demolition	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Grading	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Paving	Tractors/Loaders/Backhoes	1	7.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Architectural Coating	1	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	5	2.00	1.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Demolition	4	10.00	0.00	33.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	3	8.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Alternative Fuel for Construction Equipment

Use Cleaner Engines for Construction Equipment

Water Exposed Area

3.2 Demolition - 2022

Unmitigated Construction On-Site

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

Palmdale GPU - Government Office - Construction - Los Angeles-Mojave Desert County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Category	lb/day										lb/day					
Fugitive Dust					0.7087	0.0000	0.7087	0.1073	0.0000	0.1073			0.0000			0.0000
Off-Road	0.7094	6.4138	7.4693	0.0120		0.3375	0.3375		0.3225	0.3225		1,147.9025	1,147.9025	0.2119		1,153.2001
Total	**0.7094**	**6.4138**	**7.4693**	**0.0120**	**0.7087**	**0.3375**	**1.0463**	**0.1073**	**0.3225**	**0.4299**		**1,147.9025**	**1,147.9025**	**0.2119**		**1,153.2001**

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	0.0154	0.5542	0.1292	2.0500e-003	0.0578	4.1200e-003	0.0619	0.0158	3.9400e-003	0.0198		224.6560	224.6560	0.0119	0.0356	235.5763
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	0.0290	0.0198	0.3016	7.6000e-004	0.0822	5.4000e-004	0.0827	0.0218	5.0000e-004	0.0223		76.9485	76.9485	2.3800e-003	2.0000e-003	77.6028
Total	**0.0444**	**0.5741**	**0.4308**	**2.8100e-003**	**0.1399**	**4.6600e-003**	**0.1446**	**0.0376**	**4.4400e-003**	**0.0421**		**301.6045**	**301.6045**	**0.0143**	**0.0376**	**313.1792**

Palmdale GPU - Government Office - Construction - Los Angeles-Mojave Desert County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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					0.3189	0.0000	0.3189	0.0483	0.0000	0.0483			0.0000			0.0000
Off-Road	0.4143	3.8838	7.6633	0.0120		0.1957	0.1957		0.1807	0.1807	0.0000	1,147.9025	1,147.9025	0.2119		1,153.2001
Total	**0.4143**	**3.8838**	**7.6633**	**0.0120**	**0.3189**	**0.1957**	**0.5146**	**0.0483**	**0.1807**	**0.2290**	**0.0000**	**1,147.9025**	**1,147.9025**	**0.2119**		**1,153.2001**

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	0.0154	0.5542	0.1292	2.0500e-003	0.0578	4.1200e-003	0.0619	0.0158	3.9400e-003	0.0198		224.6560	224.6560	0.0119	0.0356	235.5763
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	0.0290	0.0198	0.3016	7.6000e-004	0.0822	5.4000e-004	0.0827	0.0218	5.0000e-004	0.0223		76.9485	76.9485	2.3800e-003	2.0000e-003	77.6028
Total	**0.0444**	**0.5741**	**0.4308**	**2.8100e-003**	**0.1399**	**4.6600e-003**	**0.1446**	**0.0376**	**4.4400e-003**	**0.0421**		**301.6045**	**301.6045**	**0.0143**	**0.0376**	**313.1792**

Palmdale GPU - Government Office - Construction - Los Angeles-Mojave Desert County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					5.3119	0.0000	5.3119	2.5686	0.0000	2.5686			0.0000			0.0000
Off-Road	1.0832	12.0046	5.9360	0.0141		0.5173	0.5173		0.4759	0.4759		1,364.8198	1,364.8198	0.4414		1,375.8551
Total	**1.0832**	**12.0046**	**5.9360**	**0.0141**	**5.3119**	**0.5173**	**5.8292**	**2.5686**	**0.4759**	**3.0445**		**1,364.8198**	**1,364.8198**	**0.4414**		**1,375.8551**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0232	0.0159	0.2413	6.1000e-004	0.0657	4.3000e-004	0.0662	0.0174	4.0000e-004	0.0178		61.5588	61.5588	1.9100e-003	1.6000e-003	62.0823
Total	**0.0232**	**0.0159**	**0.2413**	**6.1000e-004**	**0.0657**	**4.3000e-004**	**0.0662**	**0.0174**	**4.0000e-004**	**0.0178**		**61.5588**	**61.5588**	**1.9100e-003**	**1.6000e-003**	**62.0823**

Palmdale GPU - Government Office - Construction - Los Angeles-Mojave Desert County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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					2.3904	0.0000	2.3904	1.1559	0.0000	1.1559			0.0000			0.0000
Off-Road	0.8328	8.3251	6.8759	0.0141		0.4000	0.4000		0.3686	0.3686	0.0000	1,364.8198	1,364.8198	0.4414		1,375.8551
Total	**0.8328**	**8.3251**	**6.8759**	**0.0141**	**2.3904**	**0.4000**	**2.7904**	**1.1559**	**0.3686**	**1.5245**	**0.0000**	**1,364.8198**	**1,364.8198**	**0.4414**		**1,375.8551**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0232	0.0159	0.2413	6.1000e-004	0.0657	4.3000e-004	0.0662	0.0174	4.0000e-004	0.0178		61.5588	61.5588	1.9100e-003	1.6000e-003	62.0823
Total	**0.0232**	**0.0159**	**0.2413**	**6.1000e-004**	**0.0657**	**4.3000e-004**	**0.0662**	**0.0174**	**4.0000e-004**	**0.0178**		**61.5588**	**61.5588**	**1.9100e-003**	**1.6000e-003**	**62.0823**

Palmdale GPU - Government Office - Construction - Los Angeles-Mojave Desert County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.6863	7.0258	7.1527	0.0114		0.3719	0.3719		0.3422	0.3422		1,103.9393	1,103.9393	0.3570		1,112.8652
Total	**0.6863**	**7.0258**	**7.1527**	**0.0114**		**0.3719**	**0.3719**		**0.3422**	**0.3422**		**1,103.9393**	**1,103.9393**	**0.3570**		**1,112.8652**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.0400e-003	0.0512	0.0173	2.1000e-004	6.7800e-003	4.9000e-004	7.2700e-003	1.9500e-003	4.7000e-004	2.4200e-003		22.1692	22.1692	7.4000e-004	3.1900e-003	23.1393
Worker	5.8000e-003	3.9600e-003	0.0603	1.5000e-004	0.0164	1.1000e-004	0.0165	4.3600e-003	1.0000e-004	4.4600e-003		15.3897	15.3897	4.8000e-004	4.0000e-004	15.5206
Total	**7.8400e-003**	**0.0551**	**0.0776**	**3.6000e-004**	**0.0232**	**6.0000e-004**	**0.0238**	**6.3100e-003**	**5.7000e-004**	**6.8800e-003**		**37.5589**	**37.5589**	**1.2200e-003**	**3.5900e-003**	**38.6599**

Palmdale GPU - Government Office - Construction - Los Angeles-Mojave Desert County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	0.3931	3.6273	7.5179	0.0114		0.1887	0.1887		0.1743	0.1743	0.0000	1,103.9393	1,103.9393	0.3570		1,112.8652
Total	**0.3931**	**3.6273**	**7.5179**	**0.0114**		**0.1887**	**0.1887**		**0.1743**	**0.1743**	**0.0000**	**1,103.9393**	**1,103.9393**	**0.3570**		**1,112.8652**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.0400e-003	0.0512	0.0173	2.1000e-004	6.7800e-003	4.9000e-004	7.2700e-003	1.9500e-003	4.7000e-004	2.4200e-003		22.1692	22.1692	7.4000e-004	3.1900e-003	23.1393
Worker	5.8000e-003	3.9600e-003	0.0603	1.5000e-004	0.0164	1.1000e-004	0.0165	4.3600e-003	1.0000e-004	4.4600e-003		15.3897	15.3897	4.8000e-004	4.0000e-004	15.5206
Total	**7.8400e-003**	**0.0551**	**0.0776**	**3.6000e-004**	**0.0232**	**6.0000e-004**	**0.0238**	**6.3100e-003**	**5.7000e-004**	**6.8800e-003**		**37.5589**	**37.5589**	**1.2200e-003**	**3.5900e-003**	**38.6599**

Palmdale GPU - Government Office - Construction - Los Angeles-Mojave Desert County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Paving - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.6469	5.9174	7.0348	0.0113		0.2961	0.2961		0.2758	0.2758		1,035.8246	1,035.8246	0.3017		1,043.3677
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.6469**	**5.9174**	**7.0348**	**0.0113**		**0.2961**	**0.2961**		**0.2758**	**0.2758**		**1,035.8246**	**1,035.8246**	**0.3017**		**1,043.3677**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0522	0.0357	0.5428	1.3600e-003	0.1479	9.7000e-004	0.1488	0.0392	8.9000e-004	0.0401		138.5073	138.5073	4.2900e-003	3.5900e-003	139.6851
Total	**0.0522**	**0.0357**	**0.5428**	**1.3600e-003**	**0.1479**	**9.7000e-004**	**0.1488**	**0.0392**	**8.9000e-004**	**0.0401**		**138.5073**	**138.5073**	**4.2900e-003**	**3.5900e-003**	**139.6851**

Palmdale GPU - Government Office - Construction - Los Angeles-Mojave Desert County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	0.4707	4.8129	6.1094	9.1300e-003		0.2531	0.2531		0.2329	0.2329	0.0000	884.2756	884.2756	0.2860		891.4254
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.4707**	**4.8129**	**6.1094**	**9.1300e-003**		**0.2531**	**0.2531**		**0.2329**	**0.2329**	**0.0000**	**884.2756**	**884.2756**	**0.2860**		**891.4254**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0522	0.0357	0.5428	1.3600e-003	0.1479	9.7000e-004	0.1488	0.0392	8.9000e-004	0.0401		138.5073	138.5073	4.2900e-003	3.5900e-003	139.6851
Total	**0.0522**	**0.0357**	**0.5428**	**1.3600e-003**	**0.1479**	**9.7000e-004**	**0.1488**	**0.0392**	**8.9000e-004**	**0.0401**		**138.5073**	**138.5073**	**4.2900e-003**	**3.5900e-003**	**139.6851**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	10.1507					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2045	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817		281.4481	281.4481	0.0183		281.9062
Total	**10.3552**	**1.4085**	**1.8136**	**2.9700e-003**		**0.0817**	**0.0817**		**0.0817**	**0.0817**		**281.4481**	**281.4481**	**0.0183**		**281.9062**

Unmitigated Construction Off-Site

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

Palmdale GPU - Government Office - Construction - Los Angeles-Mojave Desert County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	10.1507					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0297	0.1288	1.8324	2.9700e-003		3.9600e-003	3.9600e-003		3.9600e-003	3.9600e-003	0.0000	281.4481	281.4481	0.0183		281.9062
Total	**10.1804**	**0.1288**	**1.8324**	**2.9700e-003**		**3.9600e-003**	**3.9600e-003**		**3.9600e-003**	**3.9600e-003**	**0.0000**	**281.4481**	**281.4481**	**0.0183**		**281.9062**

Mitigated Construction Off-Site

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

Palmdale GPU - Government Office - Construction - Los Angeles-Mojave Desert County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

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

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Government Office Building	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
Government Office Building	9.50	7.30	7.30	33.00	62.00	5.00	50	34	16

4.4 Fleet Mix

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

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Government Office Building	0.544785	0.062844	0.187478	0.127235	0.023089	0.006083	0.010475	0.008012	0.000925	0.000611	0.024394	0.000698	0.003374

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

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

5.2 Energy by Land Use - NaturalGas

Unmitigated

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

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					
Government Office Building	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

6.1 Mitigation Measures Area

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	7.0000e-005	1.0000e-005	7.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.6000e-003	1.6000e-003	0.0000		1.7000e-003
Unmitigated	7.0000e-005	1.0000e-005	7.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.6000e-003	1.6000e-003	0.0000		1.7000e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	7.0000e-005	1.0000e-005	7.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.6000e-003	1.6000e-003	0.0000		1.7000e-003
Total	**7.0000e-005**	**1.0000e-005**	**7.5000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**1.6000e-003**	**1.6000e-003**	**0.0000**		**1.7000e-003**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	7.0000e-005	1.0000e-005	7.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.6000e-003	1.6000e-003	0.0000		1.7000e-003
Total	**7.0000e-005**	**1.0000e-005**	**7.5000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**1.6000e-003**	**1.6000e-003**	**0.0000**		**1.7000e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Palmdale GPU - Government Office - Construction - Los Angeles-Mojave Desert County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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

Palmdale GPU - Government Office - Construction - Los Angeles-Mojave Desert County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Palmdale GPU - Government Office - Construction

Los Angeles-Mojave Desert County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Government Office Building	7.30	1000sqft	0.17	7,300.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2023
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	390.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - See Assumptions

Land Use - See Assumptions

Construction Phase - See Assumptions

Demolition - See Assumptions

Architectural Coating - Based on AVAQMD requirements for VOC content

Vehicle Trips - Operational Emissions Modeled Separately

Consumer Products - Operational Emissions Modeled Separately

Area Coating - Operational Emissions Modeled Separately

Landscape Equipment - Operational Emissions Modeled Separately

Energy Use - Operational Emissions Modeled Separately

Water And Wastewater - Operational Emissions Modeled Separately

Solid Waste - Operational Emissions Modeled Separately

Palmdale GPU - Government Office - Construction - Los Angeles-Mojave Desert County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Construction Off-road Equipment Mitigation - Water 2x daily based on AVAQMD regulations for dust control; not mitigation

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	150.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	50.00
tblAreaCoating	ReapplicationRatePercent	10	0
tblConstEquipMitigation	FuelType	Diesel	Electrical
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstructionPhase	PhaseEndDate	6/22/2022	6/8/2022
tblConstructionPhase	PhaseEndDate	6/8/2022	6/7/2022
tblConstructionPhase	PhaseEndDate	1/19/2022	1/18/2022
tblConstructionPhase	PhaseEndDate	6/15/2022	1/25/2022
tblConstructionPhase	PhaseStartDate	6/16/2022	6/2/2022
tblConstructionPhase	PhaseStartDate	1/20/2022	1/19/2022
tblConstructionPhase	PhaseStartDate	1/18/2022	1/15/2022

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tblConstructionPhase	PhaseStartDate	6/9/2022	1/19/2022
tblConsumerProducts	ROG_EF	2.14E-05	0
tblConsumerProducts	ROG_EF_Degreaser	3.542E-07	0
tblConsumerProducts	ROG_EF_PesticidesFertilizers	5.152E-08	0
tblEnergyUse	LightingElect	3.77	0.00
tblEnergyUse	NT24E	4.62	0.00
tblEnergyUse	NT24NG	0.39	0.00
tblEnergyUse	T24E	4.11	0.00
tblEnergyUse	T24NG	9.92	0.00
tblLandscapeEquipment	NumberSummerDays	180	0
tblSolidWaste	SolidWasteGenerationRate	6.79	0.00
tblVehicleTrips	WD_TR	22.59	0.00
tblWater	IndoorWaterUseRate	1,450,215.71	0.00
tblWater	OutdoorWaterUseRate	888,841.88	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2022	11.0496	13.0402	14.7657	0.0243	5.3777	0.6696	5.8954	2.5860	0.6195	3.0623	0.0000	2,307.7467	2,307.7467	0.6644	0.0378	2,326.5804
Maximum	**11.0496**	**13.0402**	**14.7657**	**0.0243**	**5.3777**	**0.6696**	**5.8954**	**2.5860**	**0.6195**	**3.0623**	**0.0000**	**2,307.7467**	**2,307.7467**	**0.6644**	**0.0378**	**2,326.5804**

Palmdale GPU - Government Office - Construction - Los Angeles-Mojave Desert County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2022	10.5816	8.5372	14.2056	0.0222	2.4561	0.4435	2.8565	1.1733	0.4087	1.5423	0.0000	2,156.1978	2,156.1978	0.6487	0.0378	2,174.6381
Maximum	**10.5816**	**8.5372**	**14.2056**	**0.0222**	**2.4561**	**0.4435**	**2.8565**	**1.1733**	**0.4087**	**1.5423**	**0.0000**	**2,156.1978**	**2,156.1978**	**0.6487**	**0.0378**	**2,174.6381**

	ROG	NOx	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	**4.24**	**34.53**	**3.79**	**8.80**	**54.33**	**33.77**	**51.55**	**54.63**	**34.03**	**49.63**	**0.00**	**6.57**	**6.57**	**2.37**	**0.00**	**6.53**

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	7.0000e-005	1.0000e-005	7.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.6000e-003	1.6000e-003	0.0000		1.7000e-003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

Palmdale GPU - Government Office - Construction - Los Angeles-Mojave Desert County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Total	**7.0000e-005**	**1.0000e-005**	**7.5000e-004**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**1.6000e-003**	**1.6000e-003**	**0.0000**	**0.0000**	**1.7000e-003**

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	7.0000e-005	1.0000e-005	7.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.6000e-003	1.6000e-003	0.0000		1.7000e-003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	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	**7.0000e-005**	**1.0000e-005**	**7.5000e-004**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**1.6000e-003**	**1.6000e-003**	**0.0000**	**0.0000**	**1.7000e-003**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	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	Demolition	Demolition	1/1/2022	1/14/2022	5	10	
2	Grading	Grading	1/15/2022	1/18/2022	5	2	
3	Building Construction	Building Construction	1/19/2022	6/7/2022	5	100	
4	Paving	Paving	1/19/2022	1/25/2022	5	5	
5	Architectural Coating	Architectural Coating	6/2/2022	6/8/2022	5	5	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 1.5

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 10,950; Non-Residential Outdoor: 3,650; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Cement and Mortar Mixers	4	6.00	9	0.56
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Building Construction	Cranes	1	4.00	231	0.29
Building Construction	Forklifts	2	6.00	89	0.20
Grading	Graders	1	6.00	187	0.41

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Paving	Pavers	1	7.00	130	0.42
Paving	Rollers	1	7.00	80	0.38
Demolition	Rubber Tired Dozers	1	1.00	247	0.40
Grading	Rubber Tired Dozers	1	6.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Demolition	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Grading	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Paving	Tractors/Loaders/Backhoes	1	7.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Architectural Coating	1	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	5	2.00	1.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Demolition	4	10.00	0.00	33.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	3	8.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Alternative Fuel for Construction Equipment

Use Cleaner Engines for Construction Equipment

Water Exposed Area

3.2 Demolition - 2022

Unmitigated Construction On-Site

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

Palmdale GPU - Government Office - Construction - Los Angeles-Mojave Desert County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Category	lb/day										lb/day					
Fugitive Dust					0.7087	0.0000	0.7087	0.1073	0.0000	0.1073			0.0000			0.0000
Off-Road	0.7094	6.4138	7.4693	0.0120		0.3375	0.3375		0.3225	0.3225		1,147.9025	1,147.9025	0.2119		1,153.2001
Total	**0.7094**	**6.4138**	**7.4693**	**0.0120**	**0.7087**	**0.3375**	**1.0463**	**0.1073**	**0.3225**	**0.4299**		**1,147.9025**	**1,147.9025**	**0.2119**		**1,153.2001**

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	0.0150	0.5767	0.1315	2.0500e-003	0.0578	4.1300e-003	0.0619	0.0158	3.9500e-003	0.0198		224.7218	224.7218	0.0119	0.0357	235.6452
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	0.0306	0.0219	0.2802	7.2000e-004	0.0822	5.4000e-004	0.0827	0.0218	5.0000e-004	0.0223		72.9029	72.9029	2.4500e-003	2.1300e-003	73.5996
Total	**0.0456**	**0.5986**	**0.4117**	**2.7700e-003**	**0.1399**	**4.6700e-003**	**0.1446**	**0.0376**	**4.4500e-003**	**0.0421**		**297.6247**	**297.6247**	**0.0144**	**0.0378**	**309.2447**

Palmdale GPU - Government Office - Construction - Los Angeles-Mojave Desert County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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					0.3189	0.0000	0.3189	0.0483	0.0000	0.0483			0.0000			0.0000
Off-Road	0.4143	3.8838	7.6633	0.0120		0.1957	0.1957		0.1807	0.1807	0.0000	1,147.9025	1,147.9025	0.2119		1,153.2001
Total	**0.4143**	**3.8838**	**7.6633**	**0.0120**	**0.3189**	**0.1957**	**0.5146**	**0.0483**	**0.1807**	**0.2290**	**0.0000**	**1,147.9025**	**1,147.9025**	**0.2119**		**1,153.2001**

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	0.0150	0.5767	0.1315	2.0500e-003	0.0578	4.1300e-003	0.0619	0.0158	3.9500e-003	0.0198		224.7218	224.7218	0.0119	0.0357	235.6452
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	0.0306	0.0219	0.2802	7.2000e-004	0.0822	5.4000e-004	0.0827	0.0218	5.0000e-004	0.0223		72.9029	72.9029	2.4500e-003	2.1300e-003	73.5996
Total	**0.0456**	**0.5986**	**0.4117**	**2.7700e-003**	**0.1399**	**4.6700e-003**	**0.1446**	**0.0376**	**4.4500e-003**	**0.0421**		**297.6247**	**297.6247**	**0.0144**	**0.0378**	**309.2447**

Palmdale GPU - Government Office - Construction - Los Angeles-Mojave Desert County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					5.3119	0.0000	5.3119	2.5686	0.0000	2.5686			0.0000			0.0000
Off-Road	1.0832	12.0046	5.9360	0.0141		0.5173	0.5173		0.4759	0.4759		1,364.8198	1,364.8198	0.4414		1,375.8551
Total	**1.0832**	**12.0046**	**5.9360**	**0.0141**	**5.3119**	**0.5173**	**5.8292**	**2.5686**	**0.4759**	**3.0445**		**1,364.8198**	**1,364.8198**	**0.4414**		**1,375.8551**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0245	0.0175	0.2242	5.7000e-004	0.0657	4.3000e-004	0.0662	0.0174	4.0000e-004	0.0178		58.3223	58.3223	1.9600e-003	1.7100e-003	58.8796
Total	**0.0245**	**0.0175**	**0.2242**	**5.7000e-004**	**0.0657**	**4.3000e-004**	**0.0662**	**0.0174**	**4.0000e-004**	**0.0178**		**58.3223**	**58.3223**	**1.9600e-003**	**1.7100e-003**	**58.8796**

Palmdale GPU - Government Office - Construction - Los Angeles-Mojave Desert County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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					2.3904	0.0000	2.3904	1.1559	0.0000	1.1559			0.0000			0.0000
Off-Road	0.8328	8.3251	6.8759	0.0141		0.4000	0.4000		0.3686	0.3686	0.0000	1,364.8198	1,364.8198	0.4414		1,375.8551
Total	**0.8328**	**8.3251**	**6.8759**	**0.0141**	**2.3904**	**0.4000**	**2.7904**	**1.1559**	**0.3686**	**1.5245**	**0.0000**	**1,364.8198**	**1,364.8198**	**0.4414**		**1,375.8551**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0245	0.0175	0.2242	5.7000e-004	0.0657	4.3000e-004	0.0662	0.0174	4.0000e-004	0.0178		58.3223	58.3223	1.9600e-003	1.7100e-003	58.8796
Total	**0.0245**	**0.0175**	**0.2242**	**5.7000e-004**	**0.0657**	**4.3000e-004**	**0.0662**	**0.0174**	**4.0000e-004**	**0.0178**		**58.3223**	**58.3223**	**1.9600e-003**	**1.7100e-003**	**58.8796**

Palmdale GPU - Government Office - Construction - Los Angeles-Mojave Desert County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.6863	7.0258	7.1527	0.0114		0.3719	0.3719		0.3422	0.3422		1,103.9393	1,103.9393	0.3570		1,112.8652
Total	**0.6863**	**7.0258**	**7.1527**	**0.0114**		**0.3719**	**0.3719**		**0.3422**	**0.3422**		**1,103.9393**	**1,103.9393**	**0.3570**		**1,112.8652**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.0200e-003	0.0533	0.0178	2.1000e-004	6.7800e-003	4.9000e-004	7.2700e-003	1.9500e-003	4.7000e-004	2.4200e-003		22.1771	22.1771	7.4000e-004	3.2000e-003	23.1484
Worker	6.1200e-003	4.3800e-003	0.0560	1.4000e-004	0.0164	1.1000e-004	0.0165	4.3600e-003	1.0000e-004	4.4600e-003		14.5806	14.5806	4.9000e-004	4.3000e-004	14.7199
Total	**8.1400e-003**	**0.0576**	**0.0739**	**3.5000e-004**	**0.0232**	**6.0000e-004**	**0.0238**	**6.3100e-003**	**5.7000e-004**	**6.8800e-003**		**36.7577**	**36.7577**	**1.2300e-003**	**3.6300e-003**	**37.8683**

Palmdale GPU - Government Office - Construction - Los Angeles-Mojave Desert County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	0.3931	3.6273	7.5179	0.0114		0.1887	0.1887		0.1743	0.1743	0.0000	1,103.9393	1,103.9393	0.3570		1,112.8652
Total	**0.3931**	**3.6273**	**7.5179**	**0.0114**		**0.1887**	**0.1887**		**0.1743**	**0.1743**	**0.0000**	**1,103.9393**	**1,103.9393**	**0.3570**		**1,112.8652**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.0200e-003	0.0533	0.0178	2.1000e-004	6.7800e-003	4.9000e-004	7.2700e-003	1.9500e-003	4.7000e-004	2.4200e-003		22.1771	22.1771	7.4000e-004	3.2000e-003	23.1484
Worker	6.1200e-003	4.3800e-003	0.0560	1.4000e-004	0.0164	1.1000e-004	0.0165	4.3600e-003	1.0000e-004	4.4600e-003		14.5806	14.5806	4.9000e-004	4.3000e-004	14.7199
Total	**8.1400e-003**	**0.0576**	**0.0739**	**3.5000e-004**	**0.0232**	**6.0000e-004**	**0.0238**	**6.3100e-003**	**5.7000e-004**	**6.8800e-003**		**36.7577**	**36.7577**	**1.2300e-003**	**3.6300e-003**	**37.8683**

Palmdale GPU - Government Office - Construction - Los Angeles-Mojave Desert County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Paving - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.6469	5.9174	7.0348	0.0113		0.2961	0.2961		0.2758	0.2758		1,035.8246	1,035.8246	0.3017		1,043.3677
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.6469**	**5.9174**	**7.0348**	**0.0113**		**0.2961**	**0.2961**		**0.2758**	**0.2758**		**1,035.8246**	**1,035.8246**	**0.3017**		**1,043.3677**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0551	0.0394	0.5044	1.2900e-003	0.1479	9.7000e-004	0.1488	0.0392	8.9000e-004	0.0401		131.2251	131.2251	4.4100e-003	3.8400e-003	132.4792
Total	**0.0551**	**0.0394**	**0.5044**	**1.2900e-003**	**0.1479**	**9.7000e-004**	**0.1488**	**0.0392**	**8.9000e-004**	**0.0401**		**131.2251**	**131.2251**	**4.4100e-003**	**3.8400e-003**	**132.4792**

Palmdale GPU - Government Office - Construction - Los Angeles-Mojave Desert County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	0.4707	4.8129	6.1094	9.1300e-003		0.2531	0.2531		0.2329	0.2329	0.0000	884.2756	884.2756	0.2860		891.4254
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.4707**	**4.8129**	**6.1094**	**9.1300e-003**		**0.2531**	**0.2531**		**0.2329**	**0.2329**	**0.0000**	**884.2756**	**884.2756**	**0.2860**		**891.4254**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0551	0.0394	0.5044	1.2900e-003	0.1479	9.7000e-004	0.1488	0.0392	8.9000e-004	0.0401		131.2251	131.2251	4.4100e-003	3.8400e-003	132.4792
Total	**0.0551**	**0.0394**	**0.5044**	**1.2900e-003**	**0.1479**	**9.7000e-004**	**0.1488**	**0.0392**	**8.9000e-004**	**0.0401**		**131.2251**	**131.2251**	**4.4100e-003**	**3.8400e-003**	**132.4792**

Palmdale GPU - Government Office - Construction - Los Angeles-Mojave Desert County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	10.1507					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2045	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817		281.4481	281.4481	0.0183		281.9062
Total	**10.3552**	**1.4085**	**1.8136**	**2.9700e-003**		**0.0817**	**0.0817**		**0.0817**	**0.0817**		**281.4481**	**281.4481**	**0.0183**		**281.9062**

Unmitigated Construction Off-Site

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

Palmdale GPU - Government Office - Construction - Los Angeles-Mojave Desert County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	10.1507					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0297	0.1288	1.8324	2.9700e-003		3.9600e-003	3.9600e-003		3.9600e-003	3.9600e-003	0.0000	281.4481	281.4481	0.0183		281.9062
Total	**10.1804**	**0.1288**	**1.8324**	**2.9700e-003**		**3.9600e-003**	**3.9600e-003**		**3.9600e-003**	**3.9600e-003**	**0.0000**	**281.4481**	**281.4481**	**0.0183**		**281.9062**

Mitigated Construction Off-Site

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

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

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

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Government Office Building	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
Government Office Building	9.50	7.30	7.30	33.00	62.00	5.00	50	34	16

4.4 Fleet Mix

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

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Government Office Building	0.544785	0.062844	0.187478	0.127235	0.023089	0.006083	0.010475	0.008012	0.000925	0.000611	0.024394	0.000698	0.003374

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

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

5.2 Energy by Land Use - NaturalGas

Unmitigated

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

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					
Government Office Building	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

6.1 Mitigation Measures Area

Palmdale GPU - Government Office - Construction - Los Angeles-Mojave Desert County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	7.0000e-005	1.0000e-005	7.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.6000e-003	1.6000e-003	0.0000		1.7000e-003
Unmitigated	7.0000e-005	1.0000e-005	7.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.6000e-003	1.6000e-003	0.0000		1.7000e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	7.0000e-005	1.0000e-005	7.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.6000e-003	1.6000e-003	0.0000		1.7000e-003
Total	**7.0000e-005**	**1.0000e-005**	**7.5000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**1.6000e-003**	**1.6000e-003**	**0.0000**		**1.7000e-003**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	7.0000e-005	1.0000e-005	7.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.6000e-003	1.6000e-003	0.0000		1.7000e-003
Total	**7.0000e-005**	**1.0000e-005**	**7.5000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**1.6000e-003**	**1.6000e-003**	**0.0000**		**1.7000e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Palmdale GPU - Government Office - Construction - Los Angeles-Mojave Desert County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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

Palmdale GPU - Hotel Construction Only - Los Angeles-Mojave Desert County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Palmdale GPU - Hotel Construction Only

Los Angeles-Mojave Desert County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Hotel	58.00	Room	1.93	84,216.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2023
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	390.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - See Assumptions

Land Use - See Assumptions

Construction Phase -

Demolition - See Assumptions

Architectural Coating - See Assumptions

Vehicle Trips - Operational Emissions Modeled Separately

Consumer Products - Operational Emissions Modeled Separately

Area Coating - Operational Emissions Modeled Separately

Landscape Equipment - Operational Emissions Modeled Separately

Energy Use - Operational Emissions Modeled Separately

Water And Wastewater - Operational Emissions Modeled Separately

Solid Waste - Operational Emissions Modeled Separately

Palmdale GPU - Hotel Construction Only - Los Angeles-Mojave Desert County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Construction Off-road Equipment Mitigation - Water 2x daily based on AVAQMD regulations for dust control; not mitigation

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	15.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	50.00
tblAreaCoating	ReapplicationRatePercent	10	0
tblConstEquipMitigation	FuelType	Diesel	Electrical
tblConstEquipMitigation	FuelType	Diesel	Electrical
tblConstEquipMitigation	FuelType	Diesel	Electrical
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	7.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConsumerProducts	ROG_EF	2.14E-05	0
tblConsumerProducts	ROG_EF_Degreaser	3.542E-07	0
tblConsumerProducts	ROG_EF_PesticidesFertilizers	5.152E-08	0
tblEnergyUse	LightingElect	2.14	0.00
tblEnergyUse	NT24E	2.89	0.00
tblEnergyUse	NT24NG	4.06	0.00
tblEnergyUse	T24E	2.28	0.00
tblEnergyUse	T24NG	19.72	0.00
tblLandscapeEquipment	NumberSummerDays	180	0
tblSolidWaste	SolidWasteGenerationRate	31.75	0.00
tblVehicleTrips	ST_TR	8.19	0.00
tblVehicleTrips	SU_TR	5.95	0.00
tblVehicleTrips	WD_TR	8.36	0.00
tblWater	IndoorWaterUseRate	1,471,272.66	0.00
tblWater	OutdoorWaterUseRate	163,474.74	0.00

2.0 Emissions Summary

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					

Palmdale GPU - Hotel Construction Only - Los Angeles-Mojave Desert County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2022	0.3647	1.6081	1.6232	3.2500e-003	0.0974	0.0720	0.1694	0.0246	0.0692	0.0937	0.0000	278.3176	278.3176	0.0425	6.6300e-003	281.3551
Maximum	**0.3647**	**1.6081**	**1.6232**	**3.2500e-003**	**0.0974**	**0.0720**	**0.1694**	**0.0246**	**0.0692**	**0.0937**	**0.0000**	**278.3176**	**278.3176**	**0.0425**	**6.6300e-003**	**281.3551**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2022	0.1892	0.1766	0.8245	1.8200e-003	0.0673	2.9700e-003	0.0703	0.0174	2.9200e-003	0.0204	0.0000	165.1587	165.1587	0.0330	6.6300e-003	167.9597
Maximum	**0.1892**	**0.1766**	**0.8245**	**1.8200e-003**	**0.0673**	**2.9700e-003**	**0.0703**	**0.0174**	**2.9200e-003**	**0.0204**	**0.0000**	**165.1587**	**165.1587**	**0.0330**	**6.6300e-003**	**167.9597**

	ROG	NOx	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	**48.11**	**89.02**	**49.20**	**44.00**	**30.86**	**95.88**	**58.49**	**29.05**	**95.78**	**78.28**	**0.00**	**40.66**	**40.66**	**22.26**	**0.00**	**40.30**

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

Palmdale GPU - Hotel Construction Only - Los Angeles-Mojave Desert County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

1	**1-1-2022**	**3-31-2022**	0.5377	0.0795
2	**4-1-2022**	**6-30-2022**	0.4897	0.0464
3	**7-1-2022**	**9-30-2022**	0.4951	0.0469
		Highest	0.5377	0.0795

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	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	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Palmdale GPU - Hotel Construction Only - Los Angeles-Mojave Desert County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	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	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	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	Demolition	Demolition	1/1/2022	1/28/2022	5	20	
2	Grading	Grading	2/2/2022	2/7/2022	5	4	
3	Building Construction	Building Construction	2/8/2022	11/14/2022	5	200	

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

4	Paving	Paving	11/15/2022	11/28/2022	5	10	
5	Architectural Coating	Architectural Coating	11/29/2022	12/12/2022	5	10	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 4

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 126,324; Non-Residential Outdoor: 42,108; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Cement and Mortar Mixers	1	6.00	9	0.56
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Building Construction	Cranes	1	6.00	231	0.29
Building Construction	Forklifts	1	6.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Grading	Graders	1	8.00	187	0.41
Paving	Pavers	1	6.00	130	0.42
Paving	Paving Equipment	1	8.00	132	0.36
Paving	Rollers	1	7.00	80	0.38
Demolition	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Demolition	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Grading	Tractors/Loaders/Backhoes	2	7.00	97	0.37
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Building Construction	Welders	3	8.00	46	0.45

Palmdale GPU - Hotel Construction Only - Los Angeles-Mojave Desert County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	1	7.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	35.00	14.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Demolition	5	13.00	0.00	374.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	5	13.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Alternative Fuel for Construction Equipment

Use Cleaner Engines for Construction Equipment

Water Exposed Area

3.2 Demolition - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0405	0.0000	0.0405	6.1300e-003	0.0000	6.1300e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0169	0.1662	0.1396	2.4000e-004		8.3800e-003	8.3800e-003		7.8300e-003	7.8300e-003	0.0000	21.0777	21.0777	5.3700e-003	0.0000	21.2120
Total	**0.0169**	**0.1662**	**0.1396**	**2.4000e-004**	**0.0405**	**8.3800e-003**	**0.0488**	**6.1300e-003**	**7.8300e-003**	**0.0140**	**0.0000**	**21.0777**	**21.0777**	**5.3700e-003**	**0.0000**	**21.2120**

Palmdale GPU - Hotel Construction Only - Los Angeles-Mojave Desert County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	8.6000e-004	0.0331	7.3700e-003	1.2000e-004	3.2200e-003	2.3000e-004	3.4500e-003	8.8000e-004	2.2000e-004	1.1100e-003	0.0000	11.5503	11.5503	6.1000e-004	1.8300e-003	12.1118
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	3.7000e-004	2.9000e-004	3.7300e-003	1.0000e-005	1.0500e-003	1.0000e-005	1.0500e-003	2.8000e-004	1.0000e-005	2.8000e-004	0.0000	0.8726	0.8726	3.0000e-005	3.0000e-005	0.8809
Total	**1.2300e-003**	**0.0334**	**0.0111**	**1.3000e-004**	**4.2700e-003**	**2.4000e-004**	**4.5000e-003**	**1.1600e-003**	**2.3000e-004**	**1.3900e-003**	**0.0000**	**12.4229**	**12.4229**	**6.4000e-004**	**1.8600e-003**	**12.9927**

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					0.0182	0.0000	0.0182	2.7600e-003	0.0000	2.7600e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.8100e-003	0.0122	0.1472	2.4000e-004		3.7000e-004	3.7000e-004		3.7000e-004	3.7000e-004	0.0000	21.0777	21.0777	5.3700e-003	0.0000	21.2119
Total	**2.8100e-003**	**0.0122**	**0.1472**	**2.4000e-004**	**0.0182**	**3.7000e-004**	**0.0186**	**2.7600e-003**	**3.7000e-004**	**3.1300e-003**	**0.0000**	**21.0777**	**21.0777**	**5.3700e-003**	**0.0000**	**21.2119**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	8.6000e-004	0.0331	7.3700e-003	1.2000e-004	3.2200e-003	2.3000e-004	3.4500e-003	8.8000e-004	2.2000e-004	1.1100e-003	0.0000	11.5503	11.5503	6.1000e-004	1.8300e-003	12.1118
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	3.7000e-004	2.9000e-004	3.7300e-003	1.0000e-005	1.0500e-003	1.0000e-005	1.0500e-003	2.8000e-004	1.0000e-005	2.8000e-004	0.0000	0.8726	0.8726	3.0000e-005	3.0000e-005	0.8809
Total	**1.2300e-003**	**0.0334**	**0.0111**	**1.3000e-004**	**4.2700e-003**	**2.4000e-004**	**4.5000e-003**	**1.1600e-003**	**2.3000e-004**	**1.3900e-003**	**0.0000**	**12.4229**	**12.4229**	**6.4000e-004**	**1.8600e-003**	**12.9927**

3.3 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0142	0.0000	0.0142	6.8500e-003	0.0000	6.8500e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.0800e-003	0.0340	0.0184	4.0000e-005		1.4800e-003	1.4800e-003		1.3700e-003	1.3700e-003	0.0000	3.6205	3.6205	1.1700e-003	0.0000	3.6498
Total	**3.0800e-003**	**0.0340**	**0.0184**	**4.0000e-005**	**0.0142**	**1.4800e-003**	**0.0157**	**6.8500e-003**	**1.3700e-003**	**8.2200e-003**	**0.0000**	**3.6205**	**3.6205**	**1.1700e-003**	**0.0000**	**3.6498**

Palmdale GPU - Hotel Construction Only - Los Angeles-Mojave Desert County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.0000e-005	4.0000e-005	5.7000e-004	0.0000	1.6000e-004	0.0000	1.6000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.1342	0.1342	0.0000	0.0000	0.1355
Total	**6.0000e-005**	**4.0000e-005**	**5.7000e-004**	**0.0000**	**1.6000e-004**	**0.0000**	**1.6000e-004**	**4.0000e-005**	**0.0000**	**4.0000e-005**	**0.0000**	**0.1342**	**0.1342**	**0.0000**	**0.0000**	**0.1355**

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					6.3700e-003	0.0000	6.3700e-003	3.0800e-003	0.0000	3.0800e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.0000e-004	2.1900e-003	0.0218	4.0000e-005		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005	0.0000	3.6205	3.6205	1.1700e-003	0.0000	3.6498
Total	**5.0000e-004**	**2.1900e-003**	**0.0218**	**4.0000e-005**	**6.3700e-003**	**7.0000e-005**	**6.4400e-003**	**3.0800e-003**	**7.0000e-005**	**3.1500e-003**	**0.0000**	**3.6205**	**3.6205**	**1.1700e-003**	**0.0000**	**3.6498**

Palmdale GPU - Hotel Construction Only - Los Angeles-Mojave Desert County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.0000e-005	4.0000e-005	5.7000e-004	0.0000	1.6000e-004	0.0000	1.6000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.1342	0.1342	0.0000	0.0000	0.1355
Total	**6.0000e-005**	**4.0000e-005**	**5.7000e-004**	**0.0000**	**1.6000e-004**	**0.0000**	**1.6000e-004**	**4.0000e-005**	**0.0000**	**4.0000e-005**	**0.0000**	**0.1342**	**0.1342**	**0.0000**	**0.0000**	**0.1355**

3.4 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1649	1.2503	1.2726	2.2100e-003		0.0589	0.0589		0.0569	0.0569	0.0000	181.5769	181.5769	0.0316	0.0000	182.3675
Total	**0.1649**	**1.2503**	**1.2726**	**2.2100e-003**		**0.0589**	**0.0589**		**0.0569**	**0.0569**	**0.0000**	**181.5769**	**181.5769**	**0.0316**	**0.0000**	**182.3675**

Palmdale GPU - Hotel Construction Only - Los Angeles-Mojave Desert County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.8400e-003	0.0752	0.0245	2.9000e-004	9.3300e-003	6.9000e-004	0.0100	2.6900e-003	6.6000e-004	3.3500e-003	0.0000	28.1605	28.1605	9.4000e-004	4.0600e-003	29.3939
Worker	9.9700e-003	7.8200e-003	0.1003	2.5000e-004	0.0282	1.9000e-004	0.0284	7.4900e-003	1.7000e-004	7.6600e-003	0.0000	23.4922	23.4922	7.8000e-004	6.9000e-004	23.7159
Total	**0.0128**	**0.0830**	**0.1249**	**5.4000e-004**	**0.0375**	**8.8000e-004**	**0.0384**	**0.0102**	**8.3000e-004**	**0.0110**	**0.0000**	**51.6526**	**51.6526**	**1.7200e-003**	**4.7500e-003**	**53.1098**

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	9.5800e-003	0.0415	0.4577	7.8000e-004		1.2800e-003	1.2800e-003		1.2800e-003	1.2800e-003	0.0000	68.5899	68.5899	0.0222	0.0000	69.1445
Total	**9.5800e-003**	**0.0415**	**0.4577**	**7.8000e-004**		**1.2800e-003**	**1.2800e-003**		**1.2800e-003**	**1.2800e-003**	**0.0000**	**68.5899**	**68.5899**	**0.0222**	**0.0000**	**69.1445**

Palmdale GPU - Hotel Construction Only - Los Angeles-Mojave Desert County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.8400e-003	0.0752	0.0245	2.9000e-004	9.3300e-003	6.9000e-004	0.0100	2.6900e-003	6.6000e-004	3.3500e-003	0.0000	28.1605	28.1605	9.4000e-004	4.0600e-003	29.3939
Worker	9.9700e-003	7.8200e-003	0.1003	2.5000e-004	0.0282	1.9000e-004	0.0284	7.4900e-003	1.7000e-004	7.6600e-003	0.0000	23.4922	23.4922	7.8000e-004	6.9000e-004	23.7159
Total	**0.0128**	**0.0830**	**0.1249**	**5.4000e-004**	**0.0375**	**8.8000e-004**	**0.0384**	**0.0102**	**8.3000e-004**	**0.0110**	**0.0000**	**51.6526**	**51.6526**	**1.7200e-003**	**4.7500e-003**	**53.1098**

3.5 Paving - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	3.4400e-003	0.0339	0.0440	7.0000e-005		1.7400e-003	1.7400e-003		1.6000e-003	1.6000e-003	0.0000	5.8848	5.8848	1.8700e-003	0.0000	5.9315
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**3.4400e-003**	**0.0339**	**0.0440**	**7.0000e-005**		**1.7400e-003**	**1.7400e-003**		**1.6000e-003**	**1.6000e-003**	**0.0000**	**5.8848**	**5.8848**	**1.8700e-003**	**0.0000**	**5.9315**

Palmdale GPU - Hotel Construction Only - Los Angeles-Mojave Desert County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.9000e-004	1.5000e-004	1.8600e-003	0.0000	5.2000e-004	0.0000	5.3000e-004	1.4000e-004	0.0000	1.4000e-004	0.0000	0.4363	0.4363	1.0000e-005	1.0000e-005	0.4404
Total	**1.9000e-004**	**1.5000e-004**	**1.8600e-003**	**0.0000**	**5.2000e-004**	**0.0000**	**5.3000e-004**	**1.4000e-004**	**0.0000**	**1.4000e-004**	**0.0000**	**0.4363**	**0.4363**	**1.0000e-005**	**1.0000e-005**	**0.4404**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	8.0000e-004	3.4600e-003	0.0493	7.0000e-005		1.1000e-004	1.1000e-004		1.1000e-004	1.1000e-004	0.0000	5.7130	5.7130	1.8500e-003	0.0000	5.7591
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**8.0000e-004**	**3.4600e-003**	**0.0493**	**7.0000e-005**		**1.1000e-004**	**1.1000e-004**		**1.1000e-004**	**1.1000e-004**	**0.0000**	**5.7130**	**5.7130**	**1.8500e-003**	**0.0000**	**5.7591**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.9000e-004	1.5000e-004	1.8600e-003	0.0000	5.2000e-004	0.0000	5.3000e-004	1.4000e-004	0.0000	1.4000e-004	0.0000	0.4363	0.4363	1.0000e-005	1.0000e-005	0.4404
Total	**1.9000e-004**	**1.5000e-004**	**1.8600e-003**	**0.0000**	**5.2000e-004**	**0.0000**	**5.3000e-004**	**1.4000e-004**	**0.0000**	**1.4000e-004**	**0.0000**	**0.4363**	**0.4363**	**1.0000e-005**	**1.0000e-005**	**0.4404**

3.6 Architectural Coating - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.1610					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.0200e-003	7.0400e-003	9.0700e-003	1.0000e-005		4.1000e-004	4.1000e-004		4.1000e-004	4.1000e-004	0.0000	1.2766	1.2766	8.0000e-005	0.0000	1.2787
Total	**0.1620**	**7.0400e-003**	**9.0700e-003**	**1.0000e-005**		**4.1000e-004**	**4.1000e-004**		**4.1000e-004**	**4.1000e-004**	**0.0000**	**1.2766**	**1.2766**	**8.0000e-005**	**0.0000**	**1.2787**

Palmdale GPU - Hotel Construction Only - Los Angeles-Mojave Desert County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0000e-004	8.0000e-005	1.0000e-003	0.0000	2.8000e-004	0.0000	2.8000e-004	7.0000e-005	0.0000	8.0000e-005	0.0000	0.2349	0.2349	1.0000e-005	1.0000e-005	0.2372
Total	**1.0000e-004**	**8.0000e-005**	**1.0000e-003**	**0.0000**	**2.8000e-004**	**0.0000**	**2.8000e-004**	**7.0000e-005**	**0.0000**	**8.0000e-005**	**0.0000**	**0.2349**	**0.2349**	**1.0000e-005**	**1.0000e-005**	**0.2372**

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	0.1610					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.5000e-004	6.4000e-004	9.1600e-003	1.0000e-005		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	1.2766	1.2766	8.0000e-005	0.0000	1.2787
Total	**0.1612**	**6.4000e-004**	**9.1600e-003**	**1.0000e-005**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**	**0.0000**	**1.2766**	**1.2766**	**8.0000e-005**	**0.0000**	**1.2787**

Palmdale GPU - Hotel Construction Only - Los Angeles-Mojave Desert County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0000e-004	8.0000e-005	1.0000e-003	0.0000	2.8000e-004	0.0000	2.8000e-004	7.0000e-005	0.0000	8.0000e-005	0.0000	0.2349	0.2349	1.0000e-005	1.0000e-005	0.2372
Total	**1.0000e-004**	**8.0000e-005**	**1.0000e-003**	**0.0000**	**2.8000e-004**	**0.0000**	**2.8000e-004**	**7.0000e-005**	**0.0000**	**8.0000e-005**	**0.0000**	**0.2349**	**0.2349**	**1.0000e-005**	**1.0000e-005**	**0.2372**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	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 Applied

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
Hotel	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
Hotel	9.50	7.30	7.30	19.40	61.60	19.00	58	38	4

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Hotel	0.544785	0.062844	0.187478	0.127235	0.023089	0.006083	0.010475	0.008012	0.000925	0.000611	0.024394	0.000698	0.003374

5.0 Energy Detail

Historical Energy Use: N

Palmdale GPU - Hotel Construction Only - Los Angeles-Mojave Desert County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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

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					
Hotel	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					
Hotel	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**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use		Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	tons/yr	MT/yr			
Hotel	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	tons/yr	MT/yr			
Hotel	0		0.0000	0.0000	0.0000	0.0000
Total			**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive 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
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

Palmdale GPU - Hotel Construction Only - Los Angeles-Mojave Desert County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

6.2 Area by SubCategory

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	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Palmdale GPU - Hotel Construction Only - Los Angeles-Mojave Desert County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Mitigated

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

7.0 Water Detail

7.1 Mitigation Measures Water

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

Palmdale GPU - Hotel Construction Only - Los Angeles-Mojave Desert County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use		Total CO2	CH4	N2O	CO2e
Land Use	Mgal	tons/yr	MT/yr			
Hotel	0 / 0		0.0000	0.0000	0.0000	0.0000
Total			**0.0000**	**0.0000**	**0.0000**	**0.0000**

Palmdale GPU - Hotel Construction Only - Los Angeles-Mojave Desert County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Mitigated

	Indoor/Outdoor Use		Total CO2	CH4	N2O	CO2e
Land Use	Mgal	tons/yr	MT/yr			
Hotel	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
	tons/yr	MT/yr			
Mitigated		0.0000	0.0000	0.0000	0.0000
Unmitigated		0.0000	0.0000	0.0000	0.0000

Palmdale GPU - Hotel Construction Only - Los Angeles-Mojave Desert County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

8.2 Waste by Land Use

Unmitigated

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

9.0 Operational Offroad

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

Palmdale GPU - Hotel Construction Only - Los Angeles-Mojave Desert County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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 Applied

Palmdale GPU - Hotel Construction Only

Los Angeles-Mojave Desert County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Hotel	58.00	Room	1.93	84,216.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2023
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	390.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - See Assumptions

Land Use - See Assumptions

Construction Phase -

Demolition - See Assumptions

Architectural Coating - See Assumptions

Vehicle Trips - Operational Emissions Modeled Separately

Consumer Products - Operational Emissions Modeled Separately

Area Coating - Operational Emissions Modeled Separately

Landscape Equipment - Operational Emissions Modeled Separately

Energy Use - Operational Emissions Modeled Separately

Water And Wastewater - Operational Emissions Modeled Separately

Solid Waste - Operational Emissions Modeled Separately

Palmdale GPU - Hotel Construction Only - Los Angeles-Mojave Desert County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Construction Off-road Equipment Mitigation - Water 2x daily based on AVAQMD regulations for dust control; not mitigation

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	15.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	50.00
tblAreaCoating	ReapplicationRatePercent	10	0
tblConstEquipMitigation	FuelType	Diesel	Electrical
tblConstEquipMitigation	FuelType	Diesel	Electrical
tblConstEquipMitigation	FuelType	Diesel	Electrical
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	7.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConsumerProducts	ROG_EF	2.14E-05	0
tblConsumerProducts	ROG_EF_Degreaser	3.542E-07	0
tblConsumerProducts	ROG_EF_PesticidesFertilizers	5.152E-08	0
tblEnergyUse	LightingElect	2.14	0.00
tblEnergyUse	NT24E	2.89	0.00
tblEnergyUse	NT24NG	4.06	0.00
tblEnergyUse	T24E	2.28	0.00
tblEnergyUse	T24NG	19.72	0.00
tblLandscapeEquipment	NumberSummerDays	180	0
tblSolidWaste	SolidWasteGenerationRate	31.75	0.00
tblVehicleTrips	ST_TR	8.19	0.00
tblVehicleTrips	SU_TR	5.95	0.00
tblVehicleTrips	WD_TR	8.36	0.00
tblWater	IndoorWaterUseRate	1,471,272.66	0.00
tblWater	OutdoorWaterUseRate	163,474.74	0.00

2.0 Emissions Summary

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					

Palmdale GPU - Hotel Construction Only - Los Angeles-Mojave Desert County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2022	32.4280	19.7881	15.0848	0.0367	7.1647	0.8619	7.9076	3.4465	0.8059	4.1299	0.0000	3,696.5003	3,696.5003	0.6628	0.2046	3,774.0353
Maximum	**32.4280**	**19.7881**	**15.0848**	**0.0367**	**7.1647**	**0.8619**	**7.9076**	**3.4465**	**0.8059**	**4.1299**	**0.0000**	**3,696.5003**	**3,696.5003**	**0.6628**	**0.2046**	**3,774.0353**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2022	32.2532	4.3844	15.8427	0.0367	3.2693	0.0615	3.3035	1.5629	0.0604	1.5970	0.0000	3,696.5003	3,696.5003	0.6628	0.2046	3,774.0353
Maximum	**32.2532**	**4.3844**	**15.8427**	**0.0367**	**3.2693**	**0.0615**	**3.3035**	**1.5629**	**0.0604**	**1.5970**	**0.0000**	**3,696.5003**	**3,696.5003**	**0.6628**	**0.2046**	**3,774.0353**

	ROG	NOx	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	**0.54**	**77.84**	**-5.02**	**0.00**	**54.37**	**92.86**	**58.22**	**54.65**	**92.50**	**61.33**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Palmdale GPU - Hotel Construction Only - Los Angeles-Mojave Desert County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	5.5000e-004	5.0000e-005	5.9200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0127	0.0127	3.0000e-005		0.0135
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	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	**5.5000e-004**	**5.0000e-005**	**5.9200e-003**	**0.0000**	**0.0000**	**2.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**2.0000e-005**		**0.0127**	**0.0127**	**3.0000e-005**	**0.0000**	**0.0135**

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	5.5000e-004	5.0000e-005	5.9200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0127	0.0127	3.0000e-005		0.0135
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	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	**5.5000e-004**	**5.0000e-005**	**5.9200e-003**	**0.0000**	**0.0000**	**2.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**2.0000e-005**		**0.0127**	**0.0127**	**3.0000e-005**	**0.0000**	**0.0135**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	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	Demolition	Demolition	1/1/2022	1/28/2022	5	20	
2	Grading	Grading	2/2/2022	2/7/2022	5	4	
3	Building Construction	Building Construction	2/8/2022	11/14/2022	5	200	
4	Paving	Paving	11/15/2022	11/28/2022	5	10	
5	Architectural Coating	Architectural Coating	11/29/2022	12/12/2022	5	10	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 4

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 126,324; Non-Residential Outdoor: 42,108; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Cement and Mortar Mixers	1	6.00	9	0.56
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Building Construction	Cranes	1	6.00	231	0.29
Building Construction	Forklifts	1	6.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Grading	Graders	1	8.00	187	0.41
Paving	Pavers	1	6.00	130	0.42
Paving	Paving Equipment	1	8.00	132	0.36
Paving	Rollers	1	7.00	80	0.38
Demolition	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Demolition	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Grading	Tractors/Loaders/Backhoes	2	7.00	97	0.37
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Building Construction	Welders	3	8.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Architectural Coating	1	7.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	35.00	14.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Demolition	5	13.00	0.00	374.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	5	13.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Alternative Fuel for Construction Equipment

Use Cleaner Engines for Construction Equipment

Water Exposed Area

3.2 Demolition - 2022

Unmitigated Construction On-Site

Palmdale GPU - Hotel Construction Only - Los Angeles-Mojave Desert County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					4.0465	0.0000	4.0465	0.6127	0.0000	0.6127			0.0000			0.0000
Off-Road	1.6889	16.6217	13.9605	0.0241		0.8379	0.8379		0.7829	0.7829		2,323.4168	2,323.4168	0.5921		2,338.2191
Total	**1.6889**	**16.6217**	**13.9605**	**0.0241**	**4.0465**	**0.8379**	**4.8844**	**0.6127**	**0.7829**	**1.3956**		**2,323.4168**	**2,323.4168**	**0.5921**		**2,338.2191**

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	0.0871	3.1406	0.7323	0.0116	0.3273	0.0233	0.3507	0.0897	0.0223	0.1121		1,273.0504	1,273.0504	0.0676	0.2020	1,334.9326
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	0.0377	0.0258	0.3921	9.8000e-004	0.1068	7.0000e-004	0.1075	0.0283	6.5000e-004	0.0290		100.0331	100.0331	3.1000e-003	2.5900e-003	100.8837
Total	**0.1248**	**3.1664**	**1.1243**	**0.0126**	**0.4341**	**0.0240**	**0.4581**	**0.1181**	**0.0230**	**0.1410**		**1,373.0834**	**1,373.0834**	**0.0707**	**0.2046**	**1,435.8163**

Palmdale GPU - Hotel Construction Only - Los Angeles-Mojave Desert County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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					1.8209	0.0000	1.8209	0.2757	0.0000	0.2757			0.0000			0.0000
Off-Road	0.2811	1.2179	14.7184	0.0241		0.0375	0.0375		0.0375	0.0375	0.0000	2,323.4168	2,323.4168	0.5921		2,338.2191
Total	**0.2811**	**1.2179**	**14.7184**	**0.0241**	**1.8209**	**0.0375**	**1.8584**	**0.2757**	**0.0375**	**0.3132**	**0.0000**	**2,323.4168**	**2,323.4168**	**0.5921**		**2,338.2191**

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	0.0871	3.1406	0.7323	0.0116	0.3273	0.0233	0.3507	0.0897	0.0223	0.1121		1,273.0504	1,273.0504	0.0676	0.2020	1,334.9326
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	0.0377	0.0258	0.3921	9.8000e-004	0.1068	7.0000e-004	0.1075	0.0283	6.5000e-004	0.0290		100.0331	100.0331	3.1000e-003	2.5900e-003	100.8837
Total	**0.1248**	**3.1664**	**1.1243**	**0.0126**	**0.4341**	**0.0240**	**0.4581**	**0.1181**	**0.0230**	**0.1410**		**1,373.0834**	**1,373.0834**	**0.0707**	**0.2046**	**1,435.8163**

Palmdale GPU - Hotel Construction Only - Los Angeles-Mojave Desert County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					7.0826	0.0000	7.0826	3.4247	0.0000	3.4247			0.0000			0.0000
Off-Road	1.5403	16.9836	9.2202	0.0206		0.7423	0.7423		0.6829	0.6829		1,995.4825	1,995.4825	0.6454		2,011.6169
Total	**1.5403**	**16.9836**	**9.2202**	**0.0206**	**7.0826**	**0.7423**	**7.8249**	**3.4247**	**0.6829**	**4.1076**		**1,995.4825**	**1,995.4825**	**0.6454**		**2,011.6169**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0290	0.0198	0.3016	7.6000e-004	0.0822	5.4000e-004	0.0827	0.0218	5.0000e-004	0.0223		76.9485	76.9485	2.3800e-003	2.0000e-003	77.6028
Total	**0.0290**	**0.0198**	**0.3016**	**7.6000e-004**	**0.0822**	**5.4000e-004**	**0.0827**	**0.0218**	**5.0000e-004**	**0.0223**		**76.9485**	**76.9485**	**2.3800e-003**	**2.0000e-003**	**77.6028**

Palmdale GPU - Hotel Construction Only - Los Angeles-Mojave Desert County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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					3.1872	0.0000	3.1872	1.5411	0.0000	1.5411			0.0000			0.0000
Off-Road	0.2522	1.0927	10.9071	0.0206		0.0336	0.0336		0.0336	0.0336	0.0000	1,995.4825	1,995.4825	0.6454		2,011.6169
Total	**0.2522**	**1.0927**	**10.9071**	**0.0206**	**3.1872**	**0.0336**	**3.2208**	**1.5411**	**0.0336**	**1.5748**	**0.0000**	**1,995.4825**	**1,995.4825**	**0.6454**		**2,011.6169**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0290	0.0198	0.3016	7.6000e-004	0.0822	5.4000e-004	0.0827	0.0218	5.0000e-004	0.0223		76.9485	76.9485	2.3800e-003	2.0000e-003	77.6028
Total	**0.0290**	**0.0198**	**0.3016**	**7.6000e-004**	**0.0822**	**5.4000e-004**	**0.0827**	**0.0218**	**5.0000e-004**	**0.0223**		**76.9485**	**76.9485**	**2.3800e-003**	**2.0000e-003**	**77.6028**

Palmdale GPU - Hotel Construction Only - Los Angeles-Mojave Desert County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.6487	12.5031	12.7264	0.0221		0.5889	0.5889		0.5689	0.5689		2,001.5429	2,001.5429	0.3486		2,010.2581
Total	**1.6487**	**12.5031**	**12.7264**	**0.0221**		**0.5889**	**0.5889**		**0.5689**	**0.5689**		**2,001.5429**	**2,001.5429**	**0.3486**		**2,010.2581**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0286	0.7161	0.2416	2.8900e-003	0.0949	6.9000e-003	0.1018	0.0273	6.6000e-003	0.0339		310.3693	310.3693	0.0104	0.0447	323.9505
Worker	0.1015	0.0694	1.0555	2.6500e-003	0.2875	1.8900e-003	0.2894	0.0763	1.7400e-003	0.0780		269.3198	269.3198	8.3400e-003	6.9900e-003	271.6099
Total	**0.1301**	**0.7855**	**1.2971**	**5.5400e-003**	**0.3824**	**8.7900e-003**	**0.3912**	**0.1036**	**8.3400e-003**	**0.1119**		**579.6891**	**579.6891**	**0.0187**	**0.0517**	**595.5604**

Palmdale GPU - Hotel Construction Only - Los Angeles-Mojave Desert County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	0.0958	0.4150	4.5772	7.8100e-003		0.0128	0.0128		0.0128	0.0128	0.0000	756.0751	756.0751	0.2445		762.1884
Total	**0.0958**	**0.4150**	**4.5772**	**7.8100e-003**		**0.0128**	**0.0128**		**0.0128**	**0.0128**	**0.0000**	**756.0751**	**756.0751**	**0.2445**		**762.1884**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0286	0.7161	0.2416	2.8900e-003	0.0949	6.9000e-003	0.1018	0.0273	6.6000e-003	0.0339		310.3693	310.3693	0.0104	0.0447	323.9505
Worker	0.1015	0.0694	1.0555	2.6500e-003	0.2875	1.8900e-003	0.2894	0.0763	1.7400e-003	0.0780		269.3198	269.3198	8.3400e-003	6.9900e-003	271.6099
Total	**0.1301**	**0.7855**	**1.2971**	**5.5400e-003**	**0.3824**	**8.7900e-003**	**0.3912**	**0.1036**	**8.3400e-003**	**0.1119**		**579.6891**	**579.6891**	**0.0187**	**0.0517**	**595.5604**

Palmdale GPU - Hotel Construction Only - Los Angeles-Mojave Desert County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Paving - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.6877	6.7738	8.8060	0.0135		0.3474	0.3474		0.3205	0.3205		1,297.3789	1,297.3789	0.4113		1,307.6608
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.6877**	**6.7738**	**8.8060**	**0.0135**		**0.3474**	**0.3474**		**0.3205**	**0.3205**		**1,297.3789**	**1,297.3789**	**0.4113**		**1,307.6608**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0377	0.0258	0.3921	9.8000e-004	0.1068	7.0000e-004	0.1075	0.0283	6.5000e-004	0.0290		100.0331	100.0331	3.1000e-003	2.5900e-003	100.8837
Total	**0.0377**	**0.0258**	**0.3921**	**9.8000e-004**	**0.1068**	**7.0000e-004**	**0.1075**	**0.0283**	**6.5000e-004**	**0.0290**		**100.0331**	**100.0331**	**3.1000e-003**	**2.5900e-003**	**100.8837**

Palmdale GPU - Hotel Construction Only - Los Angeles-Mojave Desert County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	0.1598	0.6922	9.8512	0.0130		0.0213	0.0213		0.0213	0.0213	0.0000	1,259.4916	1,259.4916	0.4074		1,269.6753
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.1598**	**0.6922**	**9.8512**	**0.0130**		**0.0213**	**0.0213**		**0.0213**	**0.0213**	**0.0000**	**1,259.4916**	**1,259.4916**	**0.4074**		**1,269.6753**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0377	0.0258	0.3921	9.8000e-004	0.1068	7.0000e-004	0.1075	0.0283	6.5000e-004	0.0290		100.0331	100.0331	3.1000e-003	2.5900e-003	100.8837
Total	**0.0377**	**0.0258**	**0.3921**	**9.8000e-004**	**0.1068**	**7.0000e-004**	**0.1075**	**0.0283**	**6.5000e-004**	**0.0290**		**100.0331**	**100.0331**	**3.1000e-003**	**2.5900e-003**	**100.8837**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	32.2032					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2045	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817		281.4481	281.4481	0.0183		281.9062
Total	**32.4077**	**1.4085**	**1.8136**	**2.9700e-003**		**0.0817**	**0.0817**		**0.0817**	**0.0817**		**281.4481**	**281.4481**	**0.0183**		**281.9062**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0203	0.0139	0.2111	5.3000e-004	0.0575	3.8000e-004	0.0579	0.0153	3.5000e-004	0.0156		53.8640	53.8640	1.6700e-003	1.4000e-003	54.3220
Total	**0.0203**	**0.0139**	**0.2111**	**5.3000e-004**	**0.0575**	**3.8000e-004**	**0.0579**	**0.0153**	**3.5000e-004**	**0.0156**		**53.8640**	**53.8640**	**1.6700e-003**	**1.4000e-003**	**54.3220**

Palmdale GPU - Hotel Construction Only - Los Angeles-Mojave Desert County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	32.2032					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0297	0.1288	1.8324	2.9700e-003		3.9600e-003	3.9600e-003		3.9600e-003	3.9600e-003	0.0000	281.4481	281.4481	0.0183		281.9062
Total	**32.2329**	**0.1288**	**1.8324**	**2.9700e-003**		**3.9600e-003**	**3.9600e-003**		**3.9600e-003**	**3.9600e-003**	**0.0000**	**281.4481**	**281.4481**	**0.0183**		**281.9062**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0203	0.0139	0.2111	5.3000e-004	0.0575	3.8000e-004	0.0579	0.0153	3.5000e-004	0.0156		53.8640	53.8640	1.6700e-003	1.4000e-003	54.3220
Total	**0.0203**	**0.0139**	**0.2111**	**5.3000e-004**	**0.0575**	**3.8000e-004**	**0.0579**	**0.0153**	**3.5000e-004**	**0.0156**		**53.8640**	**53.8640**	**1.6700e-003**	**1.4000e-003**	**54.3220**

Palmdale GPU - Hotel Construction Only - Los Angeles-Mojave Desert County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

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

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Hotel	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
Hotel	9.50	7.30	7.30	19.40	61.60	19.00	58	38	4

4.4 Fleet Mix

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

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Hotel	0.544785	0.062844	0.187478	0.127235	0.023089	0.006083	0.010475	0.008012	0.000925	0.000611	0.024394	0.000698	0.003374

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

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

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.2 Energy by Land Use - NaturalGas

Unmitigated

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

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					
Hotel	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

6.1 Mitigation Measures Area

Palmdale GPU - Hotel Construction Only - Los Angeles-Mojave Desert County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	5.5000e-004	5.0000e-005	5.9200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0127	0.0127	3.0000e-005		0.0135
Unmitigated	5.5000e-004	5.0000e-005	5.9200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0127	0.0127	3.0000e-005		0.0135

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	5.5000e-004	5.0000e-005	5.9200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0127	0.0127	3.0000e-005		0.0135
Total	**5.5000e-004**	**5.0000e-005**	**5.9200e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**		**0.0127**	**0.0127**	**3.0000e-005**		**0.0135**

Palmdale GPU - Hotel Construction Only - Los Angeles-Mojave Desert County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	5.5000e-004	5.0000e-005	5.9200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0127	0.0127	3.0000e-005		0.0135
Total	**5.5000e-004**	**5.0000e-005**	**5.9200e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**		**0.0127**	**0.0127**	**3.0000e-005**		**0.0135**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Palmdale GPU - Hotel Construction Only - Los Angeles-Mojave Desert County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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

Palmdale GPU - Hotel Construction Only - Los Angeles-Mojave Desert County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Palmdale GPU - Hotel Construction Only

Los Angeles-Mojave Desert County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Hotel	58.00	Room	1.93	84,216.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2023
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	390.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - See Assumptions

Land Use - See Assumptions

Construction Phase -

Demolition - See Assumptions

Architectural Coating - See Assumptions

Vehicle Trips - Operational Emissions Modeled Separately

Consumer Products - Operational Emissions Modeled Separately

Area Coating - Operational Emissions Modeled Separately

Landscape Equipment - Operational Emissions Modeled Separately

Energy Use - Operational Emissions Modeled Separately

Water And Wastewater - Operational Emissions Modeled Separately

Solid Waste - Operational Emissions Modeled Separately

Palmdale GPU - Hotel Construction Only - Los Angeles-Mojave Desert County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Construction Off-road Equipment Mitigation - Water 2x daily based on AVAQMD regulations for dust control; not mitigation

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	15.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	50.00
tblAreaCoating	ReapplicationRatePercent	10	0
tblConstEquipMitigation	FuelType	Diesel	Electrical
tblConstEquipMitigation	FuelType	Diesel	Electrical
tblConstEquipMitigation	FuelType	Diesel	Electrical
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	7.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConsumerProducts	ROG_EF	2.14E-05	0
tblConsumerProducts	ROG_EF_Degreaser	3.542E-07	0
tblConsumerProducts	ROG_EF_PesticidesFertilizers	5.152E-08	0
tblEnergyUse	LightingElect	2.14	0.00
tblEnergyUse	NT24E	2.89	0.00
tblEnergyUse	NT24NG	4.06	0.00
tblEnergyUse	T24E	2.28	0.00
tblEnergyUse	T24NG	19.72	0.00
tblLandscapeEquipment	NumberSummerDays	180	0
tblSolidWaste	SolidWasteGenerationRate	31.75	0.00
tblVehicleTrips	ST_TR	8.19	0.00
tblVehicleTrips	SU_TR	5.95	0.00
tblVehicleTrips	WD_TR	8.36	0.00
tblWater	IndoorWaterUseRate	1,471,272.66	0.00
tblWater	OutdoorWaterUseRate	163,474.74	0.00

2.0 Emissions Summary

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					

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2022	32.4291	19.9183	15.0700	0.0367	7.1647	0.8620	7.9076	3.4465	0.8059	4.1299	0.0000	3,691.6141	3,691.6141	0.6628	0.2048	3,769.2211
Maximum	**32.4291**	**19.9183**	**15.0700**	**0.0367**	**7.1647**	**0.8620**	**7.9076**	**3.4465**	**0.8059**	**4.1299**	**0.0000**	**3,691.6141**	**3,691.6141**	**0.6628**	**0.2048**	**3,769.2211**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2022	32.2543	4.5145	15.8279	0.0367	3.2693	0.0616	3.3035	1.5629	0.0605	1.5970	0.0000	3,691.6141	3,691.6141	0.6628	0.2048	3,769.2211
Maximum	**32.2543**	**4.5145**	**15.8279**	**0.0367**	**3.2693**	**0.0616**	**3.3035**	**1.5629**	**0.0605**	**1.5970**	**0.0000**	**3,691.6141**	**3,691.6141**	**0.6628**	**0.2048**	**3,769.2211**

	ROG	NOx	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	**0.54**	**77.33**	**-5.03**	**0.00**	**54.37**	**92.86**	**58.22**	**54.65**	**92.49**	**61.33**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Palmdale GPU - Hotel Construction Only - Los Angeles-Mojave Desert County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	5.5000e-004	5.0000e-005	5.9200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0127	0.0127	3.0000e-005		0.0135
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	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	**5.5000e-004**	**5.0000e-005**	**5.9200e-003**	**0.0000**	**0.0000**	**2.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**2.0000e-005**		**0.0127**	**0.0127**	**3.0000e-005**	**0.0000**	**0.0135**

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	5.5000e-004	5.0000e-005	5.9200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0127	0.0127	3.0000e-005		0.0135
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	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	**5.5000e-004**	**5.0000e-005**	**5.9200e-003**	**0.0000**	**0.0000**	**2.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**2.0000e-005**		**0.0127**	**0.0127**	**3.0000e-005**	**0.0000**	**0.0135**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	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	Demolition	Demolition	1/1/2022	1/28/2022	5	20	
2	Grading	Grading	2/2/2022	2/7/2022	5	4	
3	Building Construction	Building Construction	2/8/2022	11/14/2022	5	200	
4	Paving	Paving	11/15/2022	11/28/2022	5	10	
5	Architectural Coating	Architectural Coating	11/29/2022	12/12/2022	5	10	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 4

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 126,324; Non-Residential Outdoor: 42,108; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Cement and Mortar Mixers	1	6.00	9	0.56
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Building Construction	Cranes	1	6.00	231	0.29
Building Construction	Forklifts	1	6.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Grading	Graders	1	8.00	187	0.41
Paving	Pavers	1	6.00	130	0.42
Paving	Paving Equipment	1	8.00	132	0.36
Paving	Rollers	1	7.00	80	0.38
Demolition	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Demolition	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Grading	Tractors/Loaders/Backhoes	2	7.00	97	0.37
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Building Construction	Welders	3	8.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Architectural Coating	1	7.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	35.00	14.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Demolition	5	13.00	0.00	374.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	5	13.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Alternative Fuel for Construction Equipment

Use Cleaner Engines for Construction Equipment

Water Exposed Area

3.2 Demolition - 2022

Unmitigated Construction On-Site

Palmdale GPU - Hotel Construction Only - Los Angeles-Mojave Desert County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					4.0465	0.0000	4.0465	0.6127	0.0000	0.6127			0.0000			0.0000
Off-Road	1.6889	16.6217	13.9605	0.0241		0.8379	0.8379		0.7829	0.7829		2,323.4168	2,323.4168	0.5921		2,338.2191
Total	**1.6889**	**16.6217**	**13.9605**	**0.0241**	**4.0465**	**0.8379**	**4.8844**	**0.6127**	**0.7829**	**1.3956**		**2,323.4168**	**2,323.4168**	**0.5921**		**2,338.2191**

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	0.0850	3.2681	0.7452	0.0116	0.3273	0.0234	0.3507	0.0897	0.0224	0.1121		1,273.4236	1,273.4236	0.0675	0.2021	1,335.3226
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	0.0398	0.0285	0.3643	9.3000e-004	0.1068	7.0000e-004	0.1075	0.0283	6.5000e-004	0.0290		94.7737	94.7737	3.1900e-003	2.7700e-003	95.6794
Total	**0.1248**	**3.2966**	**1.1095**	**0.0126**	**0.4341**	**0.0241**	**0.4582**	**0.1181**	**0.0230**	**0.1411**		**1,368.1973**	**1,368.1973**	**0.0707**	**0.2048**	**1,431.0020**

Palmdale GPU - Hotel Construction Only - Los Angeles-Mojave Desert County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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					1.8209	0.0000	1.8209	0.2757	0.0000	0.2757			0.0000			0.0000
Off-Road	0.2811	1.2179	14.7184	0.0241		0.0375	0.0375		0.0375	0.0375	0.0000	2,323.4168	2,323.4168	0.5921		2,338.2191
Total	**0.2811**	**1.2179**	**14.7184**	**0.0241**	**1.8209**	**0.0375**	**1.8584**	**0.2757**	**0.0375**	**0.3132**	**0.0000**	**2,323.4168**	**2,323.4168**	**0.5921**		**2,338.2191**

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	0.0850	3.2681	0.7452	0.0116	0.3273	0.0234	0.3507	0.0897	0.0224	0.1121		1,273.4236	1,273.4236	0.0675	0.2021	1,335.3226
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	0.0398	0.0285	0.3643	9.3000e-004	0.1068	7.0000e-004	0.1075	0.0283	6.5000e-004	0.0290		94.7737	94.7737	3.1900e-003	2.7700e-003	95.6794
Total	**0.1248**	**3.2966**	**1.1095**	**0.0126**	**0.4341**	**0.0241**	**0.4582**	**0.1181**	**0.0230**	**0.1411**		**1,368.1973**	**1,368.1973**	**0.0707**	**0.2048**	**1,431.0020**

Palmdale GPU - Hotel Construction Only - Los Angeles-Mojave Desert County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					7.0826	0.0000	7.0826	3.4247	0.0000	3.4247			0.0000			0.0000
Off-Road	1.5403	16.9836	9.2202	0.0206		0.7423	0.7423		0.6829	0.6829		1,995.4825	1,995.4825	0.6454		2,011.6169
Total	**1.5403**	**16.9836**	**9.2202**	**0.0206**	**7.0826**	**0.7423**	**7.8249**	**3.4247**	**0.6829**	**4.1076**		**1,995.4825**	**1,995.4825**	**0.6454**		**2,011.6169**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0306	0.0219	0.2802	7.2000e-004	0.0822	5.4000e-004	0.0827	0.0218	5.0000e-004	0.0223		72.9029	72.9029	2.4500e-003	2.1300e-003	73.5996
Total	**0.0306**	**0.0219**	**0.2802**	**7.2000e-004**	**0.0822**	**5.4000e-004**	**0.0827**	**0.0218**	**5.0000e-004**	**0.0223**		**72.9029**	**72.9029**	**2.4500e-003**	**2.1300e-003**	**73.5996**

Palmdale GPU - Hotel Construction Only - Los Angeles-Mojave Desert County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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					3.1872	0.0000	3.1872	1.5411	0.0000	1.5411			0.0000			0.0000
Off-Road	0.2522	1.0927	10.9071	0.0206		0.0336	0.0336		0.0336	0.0336	0.0000	1,995.4825	1,995.4825	0.6454		2,011.6169
Total	**0.2522**	**1.0927**	**10.9071**	**0.0206**	**3.1872**	**0.0336**	**3.2208**	**1.5411**	**0.0336**	**1.5748**	**0.0000**	**1,995.4825**	**1,995.4825**	**0.6454**		**2,011.6169**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0306	0.0219	0.2802	7.2000e-004	0.0822	5.4000e-004	0.0827	0.0218	5.0000e-004	0.0223		72.9029	72.9029	2.4500e-003	2.1300e-003	73.5996
Total	**0.0306**	**0.0219**	**0.2802**	**7.2000e-004**	**0.0822**	**5.4000e-004**	**0.0827**	**0.0218**	**5.0000e-004**	**0.0223**		**72.9029**	**72.9029**	**2.4500e-003**	**2.1300e-003**	**73.5996**

Palmdale GPU - Hotel Construction Only - Los Angeles-Mojave Desert County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.6487	12.5031	12.7264	0.0221		0.5889	0.5889		0.5689	0.5689		2,001.5429	2,001.5429	0.3486		2,010.2581
Total	**1.6487**	**12.5031**	**12.7264**	**0.0221**		**0.5889**	**0.5889**		**0.5689**	**0.5689**		**2,001.5429**	**2,001.5429**	**0.3486**		**2,010.2581**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0283	0.7456	0.2497	2.8900e-003	0.0949	6.9300e-003	0.1018	0.0273	6.6300e-003	0.0339		310.4799	310.4799	0.0103	0.0448	324.0771
Worker	0.1072	0.0766	0.9808	2.5100e-003	0.2875	1.8900e-003	0.2894	0.0763	1.7400e-003	0.0780		255.1600	255.1600	8.5800e-003	7.4600e-003	257.5984
Total	**0.1355**	**0.8223**	**1.2305**	**5.4000e-003**	**0.3824**	**8.8200e-003**	**0.3912**	**0.1036**	**8.3700e-003**	**0.1119**		**565.6399**	**565.6399**	**0.0189**	**0.0522**	**581.6755**

Palmdale GPU - Hotel Construction Only - Los Angeles-Mojave Desert County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	0.0958	0.4150	4.5772	7.8100e-003		0.0128	0.0128		0.0128	0.0128	0.0000	756.0751	756.0751	0.2445		762.1884
Total	**0.0958**	**0.4150**	**4.5772**	**7.8100e-003**		**0.0128**	**0.0128**		**0.0128**	**0.0128**	**0.0000**	**756.0751**	**756.0751**	**0.2445**		**762.1884**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0283	0.7456	0.2497	2.8900e-003	0.0949	6.9300e-003	0.1018	0.0273	6.6300e-003	0.0339		310.4799	310.4799	0.0103	0.0448	324.0771
Worker	0.1072	0.0766	0.9808	2.5100e-003	0.2875	1.8900e-003	0.2894	0.0763	1.7400e-003	0.0780		255.1600	255.1600	8.5800e-003	7.4600e-003	257.5984
Total	**0.1355**	**0.8223**	**1.2305**	**5.4000e-003**	**0.3824**	**8.8200e-003**	**0.3912**	**0.1036**	**8.3700e-003**	**0.1119**		**565.6399**	**565.6399**	**0.0189**	**0.0522**	**581.6755**

Palmdale GPU - Hotel Construction Only - Los Angeles-Mojave Desert County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Paving - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.6877	6.7738	8.8060	0.0135		0.3474	0.3474		0.3205	0.3205		1,297.3789	1,297.3789	0.4113		1,307.6608
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.6877**	**6.7738**	**8.8060**	**0.0135**		**0.3474**	**0.3474**		**0.3205**	**0.3205**		**1,297.3789**	**1,297.3789**	**0.4113**		**1,307.6608**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0398	0.0285	0.3643	9.3000e-004	0.1068	7.0000e-004	0.1075	0.0283	6.5000e-004	0.0290		94.7737	94.7737	3.1900e-003	2.7700e-003	95.6794
Total	**0.0398**	**0.0285**	**0.3643**	**9.3000e-004**	**0.1068**	**7.0000e-004**	**0.1075**	**0.0283**	**6.5000e-004**	**0.0290**		**94.7737**	**94.7737**	**3.1900e-003**	**2.7700e-003**	**95.6794**

Palmdale GPU - Hotel Construction Only - Los Angeles-Mojave Desert County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	0.1598	0.6922	9.8512	0.0130		0.0213	0.0213		0.0213	0.0213	0.0000	1,259.4916	1,259.4916	0.4074		1,269.6753
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.1598**	**0.6922**	**9.8512**	**0.0130**		**0.0213**	**0.0213**		**0.0213**	**0.0213**	**0.0000**	**1,259.4916**	**1,259.4916**	**0.4074**		**1,269.6753**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0398	0.0285	0.3643	9.3000e-004	0.1068	7.0000e-004	0.1075	0.0283	6.5000e-004	0.0290		94.7737	94.7737	3.1900e-003	2.7700e-003	95.6794
Total	**0.0398**	**0.0285**	**0.3643**	**9.3000e-004**	**0.1068**	**7.0000e-004**	**0.1075**	**0.0283**	**6.5000e-004**	**0.0290**		**94.7737**	**94.7737**	**3.1900e-003**	**2.7700e-003**	**95.6794**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	32.2032					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2045	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817		281.4481	281.4481	0.0183		281.9062
Total	**32.4077**	**1.4085**	**1.8136**	**2.9700e-003**		**0.0817**	**0.0817**		**0.0817**	**0.0817**		**281.4481**	**281.4481**	**0.0183**		**281.9062**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0214	0.0153	0.1962	5.0000e-004	0.0575	3.8000e-004	0.0579	0.0153	3.5000e-004	0.0156		51.0320	51.0320	1.7200e-003	1.4900e-003	51.5197
Total	**0.0214**	**0.0153**	**0.1962**	**5.0000e-004**	**0.0575**	**3.8000e-004**	**0.0579**	**0.0153**	**3.5000e-004**	**0.0156**		**51.0320**	**51.0320**	**1.7200e-003**	**1.4900e-003**	**51.5197**

Palmdale GPU - Hotel Construction Only - Los Angeles-Mojave Desert County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	32.2032					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0297	0.1288	1.8324	2.9700e-003		3.9600e-003	3.9600e-003		3.9600e-003	3.9600e-003	0.0000	281.4481	281.4481	0.0183		281.9062
Total	**32.2329**	**0.1288**	**1.8324**	**2.9700e-003**		**3.9600e-003**	**3.9600e-003**		**3.9600e-003**	**3.9600e-003**	**0.0000**	**281.4481**	**281.4481**	**0.0183**		**281.9062**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0214	0.0153	0.1962	5.0000e-004	0.0575	3.8000e-004	0.0579	0.0153	3.5000e-004	0.0156		51.0320	51.0320	1.7200e-003	1.4900e-003	51.5197
Total	**0.0214**	**0.0153**	**0.1962**	**5.0000e-004**	**0.0575**	**3.8000e-004**	**0.0579**	**0.0153**	**3.5000e-004**	**0.0156**		**51.0320**	**51.0320**	**1.7200e-003**	**1.4900e-003**	**51.5197**

Palmdale GPU - Hotel Construction Only - Los Angeles-Mojave Desert County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

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

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Hotel	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
Hotel	9.50	7.30	7.30	19.40	61.60	19.00	58	38	4

4.4 Fleet Mix

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

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Hotel	0.544785	0.062844	0.187478	0.127235	0.023089	0.006083	0.010475	0.008012	0.000925	0.000611	0.024394	0.000698	0.003374

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

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

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.2 Energy by Land Use - NaturalGas

Unmitigated

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

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					
Hotel	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

6.1 Mitigation Measures Area

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	5.5000e-004	5.0000e-005	5.9200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0127	0.0127	3.0000e-005		0.0135
Unmitigated	5.5000e-004	5.0000e-005	5.9200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0127	0.0127	3.0000e-005		0.0135

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	5.5000e-004	5.0000e-005	5.9200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0127	0.0127	3.0000e-005		0.0135
Total	**5.5000e-004**	**5.0000e-005**	**5.9200e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**		**0.0127**	**0.0127**	**3.0000e-005**		**0.0135**

Palmdale GPU - Hotel Construction Only - Los Angeles-Mojave Desert County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	5.5000e-004	5.0000e-005	5.9200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0127	0.0127	3.0000e-005		0.0135
Total	**5.5000e-004**	**5.0000e-005**	**5.9200e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**		**0.0127**	**0.0127**	**3.0000e-005**		**0.0135**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Palmdale GPU - Hotel Construction Only - Los Angeles-Mojave Desert County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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

Palmdale GPU - Industrial Construction Only - Los Angeles-Mojave Desert County, Annual

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

Palmdale GPU - Industrial Construction Only

Los Angeles-Mojave Desert County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Unrefrigerated Warehouse-No Rail	502.34	1000sqft	11.53	502,343.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2023
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	390.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - See Assumptions

Land Use -

Construction Phase - See Assumptions

Grading -

Demolition - See Assumptions

Architectural Coating - Based on AVAQMD requirements for VOC content

Vehicle Trips - Operational Emissions Modeled Separately

Consumer Products - Operational Emissions Modeled Separately

Area Coating - Operational Emissions Modeled Separately

Landscape Equipment - Operational Emissions Modeled Separately

Energy Use - Operational Emissions Modeled Separately

Water And Wastewater - Operational Emissions Modeled Separately

Palmdale GPU - Industrial Construction Only - Los Angeles-Mojave Desert County, Annual

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

Solid Waste - Operational Emissions Modeled Separately

Construction Off-road Equipment Mitigation - Water 2x daily based on AVAQMD regulations for dust control; not mitigation

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	150.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	50.00
tblConstEquipMitigation	FuelType	Diesel	Electrical
tblConstEquipMitigation	FuelType	Diesel	Electrical
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	5.00
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	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	5.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final

Palmdale GPU - Industrial Construction Only - Los Angeles-Mojave Desert County, Annual

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

tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstructionPhase	NumDays	300.00	223.00
tblConstructionPhase	NumDays	20.00	15.00
tblConstructionPhase	NumDays	30.00	22.00
tblConstructionPhase	PhaseEndDate	7/14/2023	12/30/2022
tblConstructionPhase	PhaseEndDate	5/19/2023	12/30/2022
tblConstructionPhase	PhaseEndDate	1/28/2022	1/21/2022
tblConstructionPhase	PhaseEndDate	3/25/2022	2/22/2022
tblConstructionPhase	PhaseEndDate	6/16/2023	3/22/2022
tblConstructionPhase	PhaseStartDate	6/17/2023	12/5/2022
tblConstructionPhase	PhaseStartDate	3/26/2022	2/23/2022
tblConstructionPhase	PhaseStartDate	2/12/2022	1/22/2022
tblConstructionPhase	PhaseStartDate	5/20/2023	2/23/2022
tblConsumerProducts	ROG_EF	2.14E-05	0
tblConsumerProducts	ROG_EF_Degreaser	3.542E-07	0
tblConsumerProducts	ROG_EF_PesticidesFertilizers	5.152E-08	0
tblEnergyUse	LightingElect	1.91	0.00
tblEnergyUse	NT24E	1.34	0.00
tblEnergyUse	NT24NG	0.03	0.00
tblEnergyUse	T24E	0.58	0.00
tblEnergyUse	T24NG	0.83	0.00
tblLandscapeEquipment	NumberSummerDays	180	0
tblSolidWaste	SolidWasteGenerationRate	472.20	0.00
tblVehicleTrips	ST_TR	1.74	0.00

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

tblVehicleTrips	SU_TR	1.74	0.00
tblVehicleTrips	WD_TR	1.74	0.00
tblWater	IndoorWaterUseRate	116,166,125.00	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2022	2.1026	3.2344	3.3670	8.6100e-003	0.6258	0.1313	0.7571	0.1529	0.1230	0.2759	0.0000	783.8263	783.8263	0.1104	0.0425	799.2513
Maximum	**2.1026**	**3.2344**	**3.3670**	**8.6100e-003**	**0.6258**	**0.1313**	**0.7571**	**0.1529**	**0.1230**	**0.2759**	**0.0000**	**783.8263**	**783.8263**	**0.1104**	**0.0425**	**799.2513**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2022	1.8789	0.9180	2.9611	7.5900e-003	0.4342	0.0125	0.4467	0.1102	0.0121	0.1223	0.0000	699.8188	699.8188	0.1049	0.0425	715.1061
Maximum	**1.8789**	**0.9180**	**2.9611**	**7.5900e-003**	**0.4342**	**0.0125**	**0.4467**	**0.1102**	**0.0121**	**0.1223**	**0.0000**	**699.8188**	**699.8188**	**0.1049**	**0.0425**	**715.1061**

Palmdale GPU - Industrial Construction Only - Los Angeles-Mojave Desert 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	**10.64**	**71.62**	**12.05**	**11.85**	**30.63**	**90.48**	**41.00**	**27.93**	**90.14**	**55.67**	**0.00**	**10.72**	**10.72**	**4.99**	**0.00**	**10.53**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	**1-1-2022**	**3-31-2022**	1.3312	0.3772
2	**4-1-2022**	**6-30-2022**	0.7382	0.2131
3	**7-1-2022**	**9-30-2022**	0.7463	0.2154
		Highest	1.3312	0.3772

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

Palmdale GPU - Industrial Construction Only - Los Angeles-Mojave Desert County, Annual

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

Category	tons/yr										MT/yr					
Area	0.5821	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	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	**0.5821**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Palmdale GPU - Industrial Construction Only - Los Angeles-Mojave Desert County, Annual

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

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	0.5821	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	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	**0.5821**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	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	Demolition	Demolition	1/1/2022	1/21/2022	5	15	
2	Grading	Grading	1/22/2022	2/22/2022	5	22	
3	Building Construction	Building Construction	2/23/2022	12/30/2022	5	223	

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

4	Paving	Paving	2/23/2022	3/22/2022	5	20	
5	Architectural Coating	Architectural Coating	12/5/2022	12/30/2022	5	20	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 66

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 753,515; Non-Residential Outdoor: 251,172; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Building Construction	Cranes	1	7.00	231	0.29
Demolition	Excavators	3	8.00	158	0.38
Grading	Excavators	2	8.00	158	0.38
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Grading	Graders	1	8.00	187	0.41
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
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45

Palmdale GPU - Industrial Construction Only - Los Angeles-Mojave Desert County, Annual

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

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	1	42.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	211.00	82.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Demolition	6	15.00	0.00	2,285.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Alternative Fuel for Construction Equipment

Use Cleaner Engines for Construction Equipment

Water Exposed Area

3.2 Demolition - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.2472	0.0000	0.2472	0.0374	0.0000	0.0374	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0198	0.1929	0.1545	2.9000e-004		9.3200e-003	9.3200e-003		8.6600e-003	8.6600e-003	0.0000	25.4927	25.4927	7.1600e-003	0.0000	25.6717
Total	**0.0198**	**0.1929**	**0.1545**	**2.9000e-004**	**0.2472**	**9.3200e-003**	**0.2566**	**0.0374**	**8.6600e-003**	**0.0461**	**0.0000**	**25.4927**	**25.4927**	**7.1600e-003**	**0.0000**	**25.6717**

Palmdale GPU - Industrial Construction Only - Los Angeles-Mojave Desert County, Annual

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

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	5.2700e-003	0.2021	0.0451	7.1000e-004	0.0197	1.4300e-003	0.0211	5.4000e-003	1.3700e-003	6.7600e-003	0.0000	70.5682	70.5682	3.7500e-003	0.0112	73.9986
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	3.2000e-004	2.5000e-004	3.2200e-003	1.0000e-005	9.1000e-004	1.0000e-005	9.1000e-004	2.4000e-004	1.0000e-005	2.5000e-004	0.0000	0.7503	0.7503	2.0000e-005	2.0000e-005	0.7574
Total	**5.5900e-003**	**0.2024**	**0.0483**	**7.2000e-004**	**0.0206**	**1.4400e-003**	**0.0220**	**5.6400e-003**	**1.3800e-003**	**7.0100e-003**	**0.0000**	**71.3185**	**71.3185**	**3.7700e-003**	**0.0112**	**74.7560**

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					0.1113	0.0000	0.1113	0.0169	0.0000	0.0169	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.4700e-003	0.0150	0.1746	2.9000e-004		4.6000e-004	4.6000e-004		4.6000e-004	4.6000e-004	0.0000	25.4926	25.4926	7.1600e-003	0.0000	25.6717
Total	**3.4700e-003**	**0.0150**	**0.1746**	**2.9000e-004**	**0.1113**	**4.6000e-004**	**0.1117**	**0.0169**	**4.6000e-004**	**0.0173**	**0.0000**	**25.4926**	**25.4926**	**7.1600e-003**	**0.0000**	**25.6717**

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

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	5.2700e-003	0.2021	0.0451	7.1000e-004	0.0197	1.4300e-003	0.0211	5.4000e-003	1.3700e-003	6.7600e-003	0.0000	70.5682	70.5682	3.7500e-003	0.0112	73.9986
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	3.2000e-004	2.5000e-004	3.2200e-003	1.0000e-005	9.1000e-004	1.0000e-005	9.1000e-004	2.4000e-004	1.0000e-005	2.5000e-004	0.0000	0.7503	0.7503	2.0000e-005	2.0000e-005	0.7574
Total	**5.5900e-003**	**0.2024**	**0.0483**	**7.2000e-004**	**0.0206**	**1.4400e-003**	**0.0220**	**5.6400e-003**	**1.3800e-003**	**7.0100e-003**	**0.0000**	**71.3185**	**71.3185**	**3.7700e-003**	**0.0112**	**74.7560**

3.3 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1012	0.0000	0.1012	0.0402	0.0000	0.0402	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0399	0.4273	0.3195	6.8000e-004		0.0180	0.0180		0.0166	0.0166	0.0000	59.9881	59.9881	0.0194	0.0000	60.4731
Total	**0.0399**	**0.4273**	**0.3195**	**6.8000e-004**	**0.1012**	**0.0180**	**0.1192**	**0.0402**	**0.0166**	**0.0567**	**0.0000**	**59.9881**	**59.9881**	**0.0194**	**0.0000**	**60.4731**

Palmdale GPU - Industrial Construction Only - Los Angeles-Mojave Desert County, Annual

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

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.3000e-004	4.9000e-004	6.3000e-003	2.0000e-005	1.7700e-003	1.0000e-005	1.7800e-003	4.7000e-004	1.0000e-005	4.8000e-004	0.0000	1.4672	1.4672	5.0000e-005	4.0000e-005	1.4812
Total	**6.3000e-004**	**4.9000e-004**	**6.3000e-003**	**2.0000e-005**	**1.7700e-003**	**1.0000e-005**	**1.7800e-003**	**4.7000e-004**	**1.0000e-005**	**4.8000e-004**	**0.0000**	**1.4672**	**1.4672**	**5.0000e-005**	**4.0000e-005**	**1.4812**

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					0.0456	0.0000	0.0456	0.0181	0.0000	0.0181	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	8.3800e-003	0.0363	0.3630	6.8000e-004		1.1200e-003	1.1200e-003		1.1200e-003	1.1200e-003	0.0000	59.9880	59.9880	0.0194	0.0000	60.4730
Total	**8.3800e-003**	**0.0363**	**0.3630**	**6.8000e-004**	**0.0456**	**1.1200e-003**	**0.0467**	**0.0181**	**1.1200e-003**	**0.0192**	**0.0000**	**59.9880**	**59.9880**	**0.0194**	**0.0000**	**60.4730**

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

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.3000e-004	4.9000e-004	6.3000e-003	2.0000e-005	1.7700e-003	1.0000e-005	1.7800e-003	4.7000e-004	1.0000e-005	4.8000e-004	0.0000	1.4672	1.4672	5.0000e-005	4.0000e-005	1.4812
Total	**6.3000e-004**	**4.9000e-004**	**6.3000e-003**	**2.0000e-005**	**1.7700e-003**	**1.0000e-005**	**1.7800e-003**	**4.7000e-004**	**1.0000e-005**	**4.8000e-004**	**0.0000**	**1.4672**	**1.4672**	**5.0000e-005**	**4.0000e-005**	**1.4812**

3.4 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1903	1.7411	1.8245	3.0000e-003		0.0902	0.0902		0.0849	0.0849	0.0000	258.3737	258.3737	0.0619	0.0000	259.9211
Total	**0.1903**	**1.7411**	**1.8245**	**3.0000e-003**		**0.0902**	**0.0902**		**0.0849**	**0.0849**	**0.0000**	**258.3737**	**258.3737**	**0.0619**	**0.0000**	**259.9211**

Palmdale GPU - Industrial Construction Only - Los Angeles-Mojave Desert County, Annual

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

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0185	0.4911	0.1602	1.8900e-003	0.0610	4.5100e-003	0.0655	0.0176	4.3200e-003	0.0219	0.0000	183.9080	183.9080	6.1400e-003	0.0265	191.9633
Worker	0.0670	0.0525	0.6736	1.7100e-003	0.1895	1.2700e-003	0.1907	0.0503	1.1700e-003	0.0515	0.0000	156.8962	156.8962	5.2200e-003	4.6100e-003	158.4002
Total	**0.0855**	**0.5437**	**0.8337**	**3.6000e-003**	**0.2504**	**5.7800e-003**	**0.2562**	**0.0679**	**5.4900e-003**	**0.0734**	**0.0000**	**340.8042**	**340.8042**	**0.0114**	**0.0311**	**350.3635**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0243	0.1054	1.3276	1.9800e-003		3.2400e-003	3.2400e-003		3.2400e-003	3.2400e-003	0.0000	174.3662	174.3662	0.0564	0.0000	175.7761
Total	**0.0243**	**0.1054**	**1.3276**	**1.9800e-003**		**3.2400e-003**	**3.2400e-003**		**3.2400e-003**	**3.2400e-003**	**0.0000**	**174.3662**	**174.3662**	**0.0564**	**0.0000**	**175.7761**

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

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0185	0.4911	0.1602	1.8900e-003	0.0610	4.5100e-003	0.0655	0.0176	4.3200e-003	0.0219	0.0000	183.9080	183.9080	6.1400e-003	0.0265	191.9633
Worker	0.0670	0.0525	0.6736	1.7100e-003	0.1895	1.2700e-003	0.1907	0.0503	1.1700e-003	0.0515	0.0000	156.8962	156.8962	5.2200e-003	4.6100e-003	158.4002
Total	**0.0855**	**0.5437**	**0.8337**	**3.6000e-003**	**0.2504**	**5.7800e-003**	**0.2562**	**0.0679**	**5.4900e-003**	**0.0734**	**0.0000**	**340.8042**	**340.8042**	**0.0114**	**0.0311**	**350.3635**

3.5 Paving - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0110	0.1113	0.1458	2.3000e-004		5.6800e-003	5.6800e-003		5.2200e-003	5.2200e-003	0.0000	20.0276	20.0276	6.4800e-003	0.0000	20.1895
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0110**	**0.1113**	**0.1458**	**2.3000e-004**		**5.6800e-003**	**5.6800e-003**		**5.2200e-003**	**5.2200e-003**	**0.0000**	**20.0276**	**20.0276**	**6.4800e-003**	**0.0000**	**20.1895**

Palmdale GPU - Industrial Construction Only - Los Angeles-Mojave Desert County, Annual

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

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.3000e-004	3.3000e-004	4.2900e-003	1.0000e-005	1.2100e-003	1.0000e-005	1.2200e-003	3.2000e-004	1.0000e-005	3.3000e-004	0.0000	1.0003	1.0003	3.0000e-005	3.0000e-005	1.0099
Total	**4.3000e-004**	**3.3000e-004**	**4.2900e-003**	**1.0000e-005**	**1.2100e-003**	**1.0000e-005**	**1.2200e-003**	**3.2000e-004**	**1.0000e-005**	**3.3000e-004**	**0.0000**	**1.0003**	**1.0003**	**3.0000e-005**	**3.0000e-005**	**1.0099**

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	2.8000e-003	0.0122	0.1730	2.3000e-004		3.7000e-004	3.7000e-004		3.7000e-004	3.7000e-004	0.0000	20.0275	20.0275	6.4800e-003	0.0000	20.1895
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**2.8000e-003**	**0.0122**	**0.1730**	**2.3000e-004**		**3.7000e-004**	**3.7000e-004**		**3.7000e-004**	**3.7000e-004**	**0.0000**	**20.0275**	**20.0275**	**6.4800e-003**	**0.0000**	**20.1895**

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

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.3000e-004	3.3000e-004	4.2900e-003	1.0000e-005	1.2100e-003	1.0000e-005	1.2200e-003	3.2000e-004	1.0000e-005	3.3000e-004	0.0000	1.0003	1.0003	3.0000e-005	3.0000e-005	1.0099
Total	**4.3000e-004**	**3.3000e-004**	**4.2900e-003**	**1.0000e-005**	**1.2100e-003**	**1.0000e-005**	**1.2200e-003**	**3.2000e-004**	**1.0000e-005**	**3.3000e-004**	**0.0000**	**1.0003**	**1.0003**	**3.0000e-005**	**3.0000e-005**	**1.0099**

3.6 Architectural Coating - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.7463					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.0500e-003	0.0141	0.0181	3.0000e-005		8.2000e-004	8.2000e-004		8.2000e-004	8.2000e-004	0.0000	2.5533	2.5533	1.7000e-004	0.0000	2.5574
Total	**1.7483**	**0.0141**	**0.0181**	**3.0000e-005**		**8.2000e-004**	**8.2000e-004**		**8.2000e-004**	**8.2000e-004**	**0.0000**	**2.5533**	**2.5533**	**1.7000e-004**	**0.0000**	**2.5574**

Palmdale GPU - Industrial Construction Only - Los Angeles-Mojave Desert County, Annual

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

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.2000e-003	9.4000e-004	0.0120	3.0000e-005	3.3800e-003	2.0000e-005	3.4100e-003	9.0000e-004	2.0000e-005	9.2000e-004	0.0000	2.8009	2.8009	9.0000e-005	8.0000e-005	2.8278
Total	**1.2000e-003**	**9.4000e-004**	**0.0120**	**3.0000e-005**	**3.3800e-003**	**2.0000e-005**	**3.4100e-003**	**9.0000e-004**	**2.0000e-005**	**9.2000e-004**	**0.0000**	**2.8009**	**2.8009**	**9.0000e-005**	**8.0000e-005**	**2.8278**

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	1.7463					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.0000e-004	1.2900e-003	0.0183	3.0000e-005		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	2.5533	2.5533	1.7000e-004	0.0000	2.5574
Total	**1.7466**	**1.2900e-003**	**0.0183**	**3.0000e-005**		**4.0000e-005**	**4.0000e-005**		**4.0000e-005**	**4.0000e-005**	**0.0000**	**2.5533**	**2.5533**	**1.7000e-004**	**0.0000**	**2.5574**

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

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.2000e-003	9.4000e-004	0.0120	3.0000e-005	3.3800e-003	2.0000e-005	3.4100e-003	9.0000e-004	2.0000e-005	9.2000e-004	0.0000	2.8009	2.8009	9.0000e-005	8.0000e-005	2.8278
Total	**1.2000e-003**	**9.4000e-004**	**0.0120**	**3.0000e-005**	**3.3800e-003**	**2.0000e-005**	**3.4100e-003**	**9.0000e-004**	**2.0000e-005**	**9.2000e-004**	**0.0000**	**2.8009**	**2.8009**	**9.0000e-005**	**8.0000e-005**	**2.8278**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

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

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
Unrefrigerated Warehouse-No Rail	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
Unrefrigerated Warehouse-No	9.50	7.30	7.30	59.00	0.00	41.00	92	5	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Unrefrigerated Warehouse-No Rail	0.544785	0.062844	0.187478	0.127235	0.023089	0.006083	0.010475	0.008012	0.000925	0.000611	0.024394	0.000698	0.003374

5.0 Energy Detail

Historical Energy Use: N

Palmdale GPU - Industrial Construction Only - Los Angeles-Mojave Desert County, Annual

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

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

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					
Unrefrigerated Warehouse-No Rail	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**

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

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					
Unrefrigerated Warehouse-No Rail	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**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use		Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	tons/yr	MT/yr			
Unrefrigerated Warehouse-No Rail	0		0.0000	0.0000	0.0000	0.0000
Total			**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

Mitigated

	Electricity Use		Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	tons/yr	MT/yr			
Unrefrigerated Warehouse-No Rail	0		0.0000	0.0000	0.0000	0.0000
Total			**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive 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	0.5821	0.0000	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	0.5821	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Palmdale GPU - Industrial Construction Only - Los Angeles-Mojave Desert 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	0.5821					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.5821**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Palmdale GPU - Industrial Construction Only - Los Angeles-Mojave Desert County, Annual

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

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	0.5821					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.5821**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

7.0 Water Detail

7.1 Mitigation Measures Water

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

Palmdale GPU - Industrial Construction Only - Los Angeles-Mojave Desert 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

Unmitigated

	Indoor/Outdoor Use		Total CO2	CH4	N2O	CO2e
Land Use	Mgal	tons/yr	MT/yr			
Unrefrigerated Warehouse-No Rail	0 / 0		0.0000	0.0000	0.0000	0.0000
Total			**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

Mitigated

	Indoor/Outdoor Use		Total CO2	CH4	N2O	CO2e
Land Use	Mgal	tons/yr	MT/yr			
Unrefrigerated Warehouse-No Rail	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
	tons/yr	MT/yr			
Mitigated		0.0000	0.0000	0.0000	0.0000
Unmitigated		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

8.2 Waste by Land Use

Unmitigated

	Waste Disposed		Total CO2	CH4	N2O	CO2e
Land Use	tons	tons/yr	MT/yr			
Unrefrigerated Warehouse-No Rail	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	tons/yr	MT/yr			
Unrefrigerated Warehouse-No Rail	0		0.0000	0.0000	0.0000	0.0000
Total			**0.0000**	**0.0000**	**0.0000**	**0.0000**

9.0 Operational Offroad

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

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Palmdale GPU - Industrial Construction Only - Los Angeles-Mojave Desert County, Summer

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

Palmdale GPU - Industrial Construction Only

Los Angeles-Mojave Desert County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Unrefrigerated Warehouse-No Rail	502.34	1000sqft	11.53	502,343.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2023
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	390.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - See Assumptions

Land Use -

Construction Phase - See Assumptions

Grading -

Demolition - See Assumptions

Architectural Coating - Based on AVAQMD requirements for VOC content

Vehicle Trips - Operational Emissions Modeled Separately

Consumer Products - Operational Emissions Modeled Separately

Area Coating - Operational Emissions Modeled Separately

Landscape Equipment - Operational Emissions Modeled Separately

Energy Use - Operational Emissions Modeled Separately

Water And Wastewater - Operational Emissions Modeled Separately

Palmdale GPU - Industrial Construction Only - Los Angeles-Mojave Desert County, Summer

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

Solid Waste - Operational Emissions Modeled Separately

Construction Off-road Equipment Mitigation - Water 2x daily based on AVAQMD regulations for dust control; not mitigation

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	150.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	50.00
tblConstEquipMitigation	FuelType	Diesel	Electrical
tblConstEquipMitigation	FuelType	Diesel	Electrical
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	5.00
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	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	5.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final

Palmdale GPU - Industrial Construction Only - Los Angeles-Mojave Desert County, Summer

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

tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstructionPhase	NumDays	300.00	223.00
tblConstructionPhase	NumDays	20.00	15.00
tblConstructionPhase	NumDays	30.00	22.00
tblConstructionPhase	PhaseEndDate	7/14/2023	12/30/2022
tblConstructionPhase	PhaseEndDate	5/19/2023	12/30/2022
tblConstructionPhase	PhaseEndDate	1/28/2022	1/21/2022
tblConstructionPhase	PhaseEndDate	3/25/2022	2/22/2022
tblConstructionPhase	PhaseEndDate	6/16/2023	3/22/2022
tblConstructionPhase	PhaseStartDate	6/17/2023	12/5/2022
tblConstructionPhase	PhaseStartDate	3/26/2022	2/23/2022
tblConstructionPhase	PhaseStartDate	2/12/2022	1/22/2022
tblConstructionPhase	PhaseStartDate	5/20/2023	2/23/2022
tblConsumerProducts	ROG_EF	2.14E-05	0
tblConsumerProducts	ROG_EF_Degreaser	3.542E-07	0
tblConsumerProducts	ROG_EF_PesticidesFertilizers	5.152E-08	0
tblEnergyUse	LightingElect	1.91	0.00
tblEnergyUse	NT24E	1.34	0.00
tblEnergyUse	NT24NG	0.03	0.00
tblEnergyUse	T24E	0.58	0.00
tblEnergyUse	T24NG	0.83	0.00
tblLandscapeEquipment	NumberSummerDays	180	0
tblSolidWaste	SolidWasteGenerationRate	472.20	0.00
tblVehicleTrips	ST_TR	1.74	0.00

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

tblVehicleTrips	SU_TR	1.74	0.00
tblVehicleTrips	WD_TR	1.74	0.00
tblWater	IndoorWaterUseRate	116,166,125.00	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2022	177.4391	51.3333	39.1652	0.1346	35.7552	1.6360	37.1887	5.7550	1.5051	7.0929	0.0000	14,231.9436	14,231.9436	1.9490	1.6484	14,763.3388
Maximum	**177.4391**	**51.3333**	**39.1652**	**0.1346**	**35.7552**	**1.6360**	**37.1887**	**5.7550**	**1.5051**	**7.0929**	**0.0000**	**14,231.9436**	**14,231.9436**	**1.9490**	**1.6484**	**14,763.3388**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2022	175.7763	27.6172	37.4240	0.1346	17.6241	0.2525	17.8766	3.0098	0.2442	3.2541	0.0000	14,231.9436	14,231.9436	1.9490	1.6484	14,763.3388
Maximum	**175.7763**	**27.6172**	**37.4240**	**0.1346**	**17.6241**	**0.2525**	**17.8766**	**3.0098**	**0.2442**	**3.2541**	**0.0000**	**14,231.9436**	**14,231.9436**	**1.9490**	**1.6484**	**14,763.3388**

Palmdale GPU - Industrial Construction Only - Los Angeles-Mojave Desert 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	**0.94**	**46.20**	**4.45**	**0.00**	**50.71**	**84.56**	**51.93**	**47.70**	**83.77**	**54.12**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

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	3.1943	4.7000e-004	0.0513	0.0000		1.8000e-004	1.8000e-004		1.8000e-004	1.8000e-004		0.1099	0.1099	2.9000e-004		0.1172
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	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

Total	**3.1943**	**4.7000e-004**	**0.0513**	**0.0000**	**0.0000**	**1.8000e-004**	**1.8000e-004**	**0.0000**	**1.8000e-004**	**1.8000e-004**		**0.1099**	**0.1099**	**2.9000e-004**	**0.0000**	**0.1172**

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	3.1943	4.7000e-004	0.0513	0.0000		1.8000e-004	1.8000e-004		1.8000e-004	1.8000e-004		0.1099	0.1099	2.9000e-004		0.1172
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	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	**3.1943**	**4.7000e-004**	**0.0513**	**0.0000**	**0.0000**	**1.8000e-004**	**1.8000e-004**	**0.0000**	**1.8000e-004**	**1.8000e-004**		**0.1099**	**0.1099**	**2.9000e-004**	**0.0000**	**0.1172**

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	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	Demolition	Demolition	1/1/2022	1/21/2022	5	15	
2	Grading	Grading	1/22/2022	2/22/2022	5	22	
3	Building Construction	Building Construction	2/23/2022	12/30/2022	5	223	
4	Paving	Paving	2/23/2022	3/22/2022	5	20	
5	Architectural Coating	Architectural Coating	12/5/2022	12/30/2022	5	20	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 66

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 753,515; Non-Residential Outdoor: 251,172; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Building Construction	Cranes	1	7.00	231	0.29
Demolition	Excavators	3	8.00	158	0.38
Grading	Excavators	2	8.00	158	0.38
Building Construction	Forklifts	3	8.00	89	0.20

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

Building Construction	Generator Sets	1	8.00	84	0.74
Grading	Graders	1	8.00	187	0.41
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
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Architectural Coating	1	42.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	211.00	82.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Demolition	6	15.00	0.00	2,285.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Alternative Fuel for Construction Equipment

Use Cleaner Engines for Construction Equipment

Water Exposed Area

3.2 Demolition - 2022

Unmitigated Construction On-Site

Palmdale GPU - Industrial Construction Only - Los Angeles-Mojave Desert 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	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					32.9656	0.0000	32.9656	4.9913	0.0000	4.9913			0.0000			0.0000
Off-Road	2.6392	25.7194	20.5941	0.0388		1.2427	1.2427		1.1553	1.1553		3,746.7812	3,746.7812	1.0524		3,773.0920
Total	**2.6392**	**25.7194**	**20.5941**	**0.0388**	**32.9656**	**1.2427**	**34.2082**	**4.9913**	**1.1553**	**6.1465**		**3,746.7812**	**3,746.7812**	**1.0524**		**3,773.0920**

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	0.7097	25.5842	5.9653	0.0947	2.6664	0.1901	2.8565	0.7310	0.1819	0.9129		10,370.4816	10,370.4816	0.5508	1.6454	10,874.5844
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	0.0435	0.0297	0.4517	1.1300e-003	0.1232	8.1000e-004	0.1240	0.0327	7.4000e-004	0.0334		114.6809	114.6809	3.5800e-003	2.9900e-003	115.6624
Total	**0.7532**	**25.6139**	**6.4170**	**0.0958**	**2.7896**	**0.1909**	**2.9805**	**0.7637**	**0.1826**	**0.9463**		**10,485.1625**	**10,485.1625**	**0.5544**	**1.6484**	**10,990.2468**

Palmdale GPU - Industrial Construction Only - Los Angeles-Mojave Desert County, Summer

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

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					14.8345	0.0000	14.8345	2.2461	0.0000	2.2461			0.0000			0.0000
Off-Road	0.4623	2.0032	23.2798	0.0388		0.0616	0.0616		0.0616	0.0616	0.0000	3,746.7812	3,746.7812	1.0524		3,773.0920
Total	**0.4623**	**2.0032**	**23.2798**	**0.0388**	**14.8345**	**0.0616**	**14.8961**	**2.2461**	**0.0616**	**2.3077**	**0.0000**	**3,746.7812**	**3,746.7812**	**1.0524**		**3,773.0920**

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	0.7097	25.5842	5.9653	0.0947	2.6664	0.1901	2.8565	0.7310	0.1819	0.9129		10,370.4816	10,370.4816	0.5508	1.6454	10,874.5844
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	0.0435	0.0297	0.4517	1.1300e-003	0.1232	8.1000e-004	0.1240	0.0327	7.4000e-004	0.0334		114.6809	114.6809	3.5800e-003	2.9900e-003	115.6624
Total	**0.7532**	**25.6139**	**6.4170**	**0.0958**	**2.7896**	**0.1909**	**2.9805**	**0.7637**	**0.1826**	**0.9463**		**10,485.1625**	**10,485.1625**	**0.5544**	**1.6484**	**10,990.2468**

Palmdale GPU - Industrial Construction Only - Los Angeles-Mojave Desert County, Summer

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

3.3 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.2036	0.0000	9.2036	3.6538	0.0000	3.6538			0.0000			0.0000
Off-Road	3.6248	38.8435	29.0415	0.0621		1.6349	1.6349		1.5041	1.5041		6,011.4105	6,011.4105	1.9442		6,060.0158
Total	**3.6248**	**38.8435**	**29.0415**	**0.0621**	**9.2036**	**1.6349**	**10.8385**	**3.6538**	**1.5041**	**5.1579**		**6,011.4105**	**6,011.4105**	**1.9442**		**6,060.0158**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0580	0.0396	0.6023	1.5100e-003	0.1643	1.0800e-003	0.1654	0.0436	9.9000e-004	0.0446		152.9079	152.9079	4.7700e-003	3.9900e-003	154.2165
Total	**0.0580**	**0.0396**	**0.6023**	**1.5100e-003**	**0.1643**	**1.0800e-003**	**0.1654**	**0.0436**	**9.9000e-004**	**0.0446**		**152.9079**	**152.9079**	**4.7700e-003**	**3.9900e-003**	**154.2165**

Palmdale GPU - Industrial Construction Only - Los Angeles-Mojave Desert County, Summer

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

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					4.1416	0.0000	4.1416	1.6442	0.0000	1.6442			0.0000			0.0000
Off-Road	0.7616	3.3000	32.9991	0.0621		0.1015	0.1015		0.1015	0.1015	0.0000	6,011.4105	6,011.4105	1.9442		6,060.0158
Total	**0.7616**	**3.3000**	**32.9991**	**0.0621**	**4.1416**	**0.1015**	**4.2432**	**1.6442**	**0.1015**	**1.7457**	**0.0000**	**6,011.4105**	**6,011.4105**	**1.9442**		**6,060.0158**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0580	0.0396	0.6023	1.5100e-003	0.1643	1.0800e-003	0.1654	0.0436	9.9000e-004	0.0446		152.9079	152.9079	4.7700e-003	3.9900e-003	154.2165
Total	**0.0580**	**0.0396**	**0.6023**	**1.5100e-003**	**0.1643**	**1.0800e-003**	**0.1654**	**0.0436**	**9.9000e-004**	**0.0446**		**152.9079**	**152.9079**	**4.7700e-003**	**3.9900e-003**	**154.2165**

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

3.4 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612		2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**1.7062**	**15.6156**	**16.3634**	**0.0269**		**0.8090**	**0.8090**		**0.7612**	**0.7612**		**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1675	4.1945	1.4153	0.0169	0.5556	0.0404	0.5960	0.1600	0.0387	0.1986		1,817.8773	1,817.8773	0.0608	0.2618	1,897.4241
Worker	0.6118	0.4181	6.3543	0.0160	1.7333	0.0114	1.7447	0.4598	0.0105	0.4702		1,613.1780	1,613.1780	0.0503	0.0421	1,626.9844
Total	**0.7793**	**4.6126**	**7.7696**	**0.0329**	**2.2889**	**0.0518**	**2.3407**	**0.6197**	**0.0491**	**0.6688**		**3,431.0553**	**3,431.0553**	**0.1111**	**0.3040**	**3,524.4085**

Palmdale GPU - Industrial Construction Only - Los Angeles-Mojave Desert County, Summer

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

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	0.2182	0.9457	11.9070	0.0178		0.0291	0.0291		0.0291	0.0291	0.0000	1,723.8213	1,723.8213	0.5575		1,737.7593
Total	**0.2182**	**0.9457**	**11.9070**	**0.0178**		**0.0291**	**0.0291**		**0.0291**	**0.0291**	**0.0000**	**1,723.8213**	**1,723.8213**	**0.5575**		**1,737.7593**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1675	4.1945	1.4153	0.0169	0.5556	0.0404	0.5960	0.1600	0.0387	0.1986		1,817.8773	1,817.8773	0.0608	0.2618	1,897.4241
Worker	0.6118	0.4181	6.3543	0.0160	1.7333	0.0114	1.7447	0.4598	0.0105	0.4702		1,613.1780	1,613.1780	0.0503	0.0421	1,626.9844
Total	**0.7793**	**4.6126**	**7.7696**	**0.0329**	**2.2889**	**0.0518**	**2.3407**	**0.6197**	**0.0491**	**0.6688**		**3,431.0553**	**3,431.0553**	**0.1111**	**0.3040**	**3,524.4085**

Palmdale GPU - Industrial Construction Only - Los Angeles-Mojave Desert County, Summer

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

3.5 Paving - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1028	11.1249	14.5805	0.0228		0.5679	0.5679		0.5225	0.5225		2,207.6603	2,207.6603	0.7140		2,225.5104
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.1028**	**11.1249**	**14.5805**	**0.0228**		**0.5679**	**0.5679**		**0.5225**	**0.5225**		**2,207.6603**	**2,207.6603**	**0.7140**		**2,225.5104**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0435	0.0297	0.4517	1.1300e-003	0.1232	8.1000e-004	0.1240	0.0327	7.4000e-004	0.0334		114.6809	114.6809	3.5800e-003	2.9900e-003	115.6624
Total	**0.0435**	**0.0297**	**0.4517**	**1.1300e-003**	**0.1232**	**8.1000e-004**	**0.1240**	**0.0327**	**7.4000e-004**	**0.0334**		**114.6809**	**114.6809**	**3.5800e-003**	**2.9900e-003**	**115.6624**

Palmdale GPU - Industrial Construction Only - Los Angeles-Mojave Desert County, Summer

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

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	0.2805	1.2154	17.2957	0.0228		0.0374	0.0374		0.0374	0.0374	0.0000	2,207.6603	2,207.6603	0.7140		2,225.5104
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.2805**	**1.2154**	**17.2957**	**0.0228**		**0.0374**	**0.0374**		**0.0374**	**0.0374**	**0.0000**	**2,207.6603**	**2,207.6603**	**0.7140**		**2,225.5104**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0435	0.0297	0.4517	1.1300e-003	0.1232	8.1000e-004	0.1240	0.0327	7.4000e-004	0.0334		114.6809	114.6809	3.5800e-003	2.9900e-003	115.6624
Total	**0.0435**	**0.0297**	**0.4517**	**1.1300e-003**	**0.1232**	**8.1000e-004**	**0.1240**	**0.0327**	**7.4000e-004**	**0.0334**		**114.6809**	**114.6809**	**3.5800e-003**	**2.9900e-003**	**115.6624**

Palmdale GPU - Industrial Construction Only - Los Angeles-Mojave Desert 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 - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	174.6272					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2045	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817		281.4481	281.4481	0.0183		281.9062
Total	**174.8318**	**1.4085**	**1.8136**	**2.9700e-003**		**0.0817**	**0.0817**		**0.0817**	**0.0817**		**281.4481**	**281.4481**	**0.0183**		**281.9062**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.1218	0.0832	1.2648	3.1800e-003	0.3450	2.2600e-003	0.3473	0.0915	2.0800e-003	0.0936		321.1065	321.1065	0.0100	8.3800e-003	323.8547
Total	**0.1218**	**0.0832**	**1.2648**	**3.1800e-003**	**0.3450**	**2.2600e-003**	**0.3473**	**0.0915**	**2.0800e-003**	**0.0936**		**321.1065**	**321.1065**	**0.0100**	**8.3800e-003**	**323.8547**

Palmdale GPU - Industrial Construction Only - Los Angeles-Mojave Desert County, Summer

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

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	174.6272					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0297	0.1288	1.8324	2.9700e-003		3.9600e-003	3.9600e-003		3.9600e-003	3.9600e-003	0.0000	281.4481	281.4481	0.0183		281.9062
Total	**174.6569**	**0.1288**	**1.8324**	**2.9700e-003**		**3.9600e-003**	**3.9600e-003**		**3.9600e-003**	**3.9600e-003**	**0.0000**	**281.4481**	**281.4481**	**0.0183**		**281.9062**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.1218	0.0832	1.2648	3.1800e-003	0.3450	2.2600e-003	0.3473	0.0915	2.0800e-003	0.0936		321.1065	321.1065	0.0100	8.3800e-003	323.8547
Total	**0.1218**	**0.0832**	**1.2648**	**3.1800e-003**	**0.3450**	**2.2600e-003**	**0.3473**	**0.0915**	**2.0800e-003**	**0.0936**		**321.1065**	**321.1065**	**0.0100**	**8.3800e-003**	**323.8547**

Palmdale GPU - Industrial Construction Only - Los Angeles-Mojave Desert 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	0.0000	0.0000	0.0000	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

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Unrefrigerated Warehouse-No Rail	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
Unrefrigerated Warehouse-No	9.50	7.30	7.30	59.00	0.00	41.00	92	5	3

4.4 Fleet Mix

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

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

Unrefrigerated Warehouse-No Rail	0.544785	0.062844	0.187478	0.127235	0.023089	0.006083	0.010475	0.008012	0.000925	0.000611	0.024394	0.000698	0.003374

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

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

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					
Unrefrigerated Warehouse-No Rail	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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					
Unrefrigerated Warehouse-No Rail	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

6.1 Mitigation Measures Area

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	lb/day										lb/day					
Mitigated	3.1943	4.7000e-004	0.0513	0.0000		1.8000e-004	1.8000e-004		1.8000e-004	1.8000e-004		0.1099	0.1099	2.9000e-004		0.1172
Unmitigated	3.1943	4.7000e-004	0.0513	0.0000		1.8000e-004	1.8000e-004		1.8000e-004	1.8000e-004		0.1099	0.1099	2.9000e-004		0.1172

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	3.1895					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	4.7500e-003	4.7000e-004	0.0513	0.0000		1.8000e-004	1.8000e-004		1.8000e-004	1.8000e-004		0.1099	0.1099	2.9000e-004		0.1172
Total	**3.1943**	**4.7000e-004**	**0.0513**	**0.0000**		**1.8000e-004**	**1.8000e-004**		**1.8000e-004**	**1.8000e-004**		**0.1099**	**0.1099**	**2.9000e-004**		**0.1172**

Palmdale GPU - Industrial Construction Only - Los Angeles-Mojave Desert County, Summer

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

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	3.1895					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	4.7500e-003	4.7000e-004	0.0513	0.0000		1.8000e-004	1.8000e-004		1.8000e-004	1.8000e-004		0.1099	0.1099	2.9000e-004		0.1172
Total	**3.1943**	**4.7000e-004**	**0.0513**	**0.0000**		**1.8000e-004**	**1.8000e-004**		**1.8000e-004**	**1.8000e-004**		**0.1099**	**0.1099**	**2.9000e-004**		**0.1172**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Palmdale GPU - Industrial Construction Only - Los Angeles-Mojave Desert County, Summer

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

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

Palmdale GPU - Industrial Construction Only - Los Angeles-Mojave Desert County, Winter

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

Palmdale GPU - Industrial Construction Only

Los Angeles-Mojave Desert County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Unrefrigerated Warehouse-No Rail	502.34	1000sqft	11.53	502,343.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2023
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	390.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - See Assumptions

Land Use -

Construction Phase - See Assumptions

Grading -

Demolition - See Assumptions

Architectural Coating - Based on AVAQMD requirements for VOC content

Vehicle Trips - Operational Emissions Modeled Separately

Consumer Products - Operational Emissions Modeled Separately

Area Coating - Operational Emissions Modeled Separately

Landscape Equipment - Operational Emissions Modeled Separately

Energy Use - Operational Emissions Modeled Separately

Water And Wastewater - Operational Emissions Modeled Separately

Palmdale GPU - Industrial Construction Only - Los Angeles-Mojave Desert County, Winter

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

Solid Waste - Operational Emissions Modeled Separately

Construction Off-road Equipment Mitigation - Water 2x daily based on AVAQMD regulations for dust control; not mitigation

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	150.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	50.00
tblConstEquipMitigation	FuelType	Diesel	Electrical
tblConstEquipMitigation	FuelType	Diesel	Electrical
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	5.00
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	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	5.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final

Palmdale GPU - Industrial Construction Only - Los Angeles-Mojave Desert County, Winter

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

tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstructionPhase	NumDays	300.00	223.00
tblConstructionPhase	NumDays	20.00	15.00
tblConstructionPhase	NumDays	30.00	22.00
tblConstructionPhase	PhaseEndDate	7/14/2023	12/30/2022
tblConstructionPhase	PhaseEndDate	5/19/2023	12/30/2022
tblConstructionPhase	PhaseEndDate	1/28/2022	1/21/2022
tblConstructionPhase	PhaseEndDate	3/25/2022	2/22/2022
tblConstructionPhase	PhaseEndDate	6/16/2023	3/22/2022
tblConstructionPhase	PhaseStartDate	6/17/2023	12/5/2022
tblConstructionPhase	PhaseStartDate	3/26/2022	2/23/2022
tblConstructionPhase	PhaseStartDate	2/12/2022	1/22/2022
tblConstructionPhase	PhaseStartDate	5/20/2023	2/23/2022
tblConsumerProducts	ROG_EF	2.14E-05	0
tblConsumerProducts	ROG_EF_Degreaser	3.542E-07	0
tblConsumerProducts	ROG_EF_PesticidesFertilizers	5.152E-08	0
tblEnergyUse	LightingElect	1.91	0.00
tblEnergyUse	NT24E	1.34	0.00
tblEnergyUse	NT24NG	0.03	0.00
tblEnergyUse	T24E	0.58	0.00
tblEnergyUse	T24NG	0.83	0.00
tblLandscapeEquipment	NumberSummerDays	180	0
tblSolidWaste	SolidWasteGenerationRate	472.20	0.00
tblVehicleTrips	ST_TR	1.74	0.00

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

tblVehicleTrips	SU_TR	1.74	0.00
tblVehicleTrips	WD_TR	1.74	0.00
tblWater	IndoorWaterUseRate	116,166,125.00	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2022	177.4782	52.3747	38.7307	0.1346	35.7552	1.6360	37.1891	5.7550	1.5051	7.0932	0.0000	14,228.9545	14,228.9545	1.9491	1.6492	14,760.5502
Maximum	**177.4782**	**52.3747**	**38.7307**	**0.1346**	**35.7552**	**1.6360**	**37.1891**	**5.7550**	**1.5051**	**7.0932**	**0.0000**	**14,228.9545**	**14,228.9545**	**1.9491**	**1.6492**	**14,760.5502**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2022	175.8153	28.6585	36.9895	0.1346	17.6241	0.2529	17.8770	3.0098	0.2446	3.2544	0.0000	14,228.9545	14,228.9545	1.9491	1.6492	14,760.5502
Maximum	**175.8153**	**28.6585**	**36.9895**	**0.1346**	**17.6241**	**0.2529**	**17.8770**	**3.0098**	**0.2446**	**3.2544**	**0.0000**	**14,228.9545**	**14,228.9545**	**1.9491**	**1.6492**	**14,760.5502**

Palmdale GPU - Industrial Construction Only - Los Angeles-Mojave Desert 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	**0.94**	**45.28**	**4.50**	**0.00**	**50.71**	**84.54**	**51.93**	**47.70**	**83.75**	**54.12**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

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	3.1943	4.7000e-004	0.0513	0.0000		1.8000e-004	1.8000e-004		1.8000e-004	1.8000e-004		0.1099	0.1099	2.9000e-004		0.1172
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	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

Total	**3.1943**	**4.7000e-004**	**0.0513**	**0.0000**	**0.0000**	**1.8000e-004**	**1.8000e-004**	**0.0000**	**1.8000e-004**	**1.8000e-004**		**0.1099**	**0.1099**	**2.9000e-004**	**0.0000**	**0.1172**

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	3.1943	4.7000e-004	0.0513	0.0000		1.8000e-004	1.8000e-004		1.8000e-004	1.8000e-004		0.1099	0.1099	2.9000e-004		0.1172
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	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	**3.1943**	**4.7000e-004**	**0.0513**	**0.0000**	**0.0000**	**1.8000e-004**	**1.8000e-004**	**0.0000**	**1.8000e-004**	**1.8000e-004**		**0.1099**	**0.1099**	**2.9000e-004**	**0.0000**	**0.1172**

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	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	Demolition	Demolition	1/1/2022	1/21/2022	5	15	
2	Grading	Grading	1/22/2022	2/22/2022	5	22	
3	Building Construction	Building Construction	2/23/2022	12/30/2022	5	223	
4	Paving	Paving	2/23/2022	3/22/2022	5	20	
5	Architectural Coating	Architectural Coating	12/5/2022	12/30/2022	5	20	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 66

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 753,515; Non-Residential Outdoor: 251,172; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Building Construction	Cranes	1	7.00	231	0.29
Demolition	Excavators	3	8.00	158	0.38
Grading	Excavators	2	8.00	158	0.38
Building Construction	Forklifts	3	8.00	89	0.20

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

Building Construction	Generator Sets	1	8.00	84	0.74
Grading	Graders	1	8.00	187	0.41
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
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Architectural Coating	1	42.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	211.00	82.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Demolition	6	15.00	0.00	2,285.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Alternative Fuel for Construction Equipment

Use Cleaner Engines for Construction Equipment

Water Exposed Area

3.2 Demolition - 2022

Unmitigated Construction On-Site

Palmdale GPU - Industrial Construction Only - Los Angeles-Mojave Desert 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	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					32.9656	0.0000	32.9656	4.9913	0.0000	4.9913			0.0000			0.0000
Off-Road	2.6392	25.7194	20.5941	0.0388		1.2427	1.2427		1.1553	1.1553		3,746.7812	3,746.7812	1.0524		3,773.0920
Total	**2.6392**	**25.7194**	**20.5941**	**0.0388**	**32.9656**	**1.2427**	**34.2082**	**4.9913**	**1.1553**	**6.1465**		**3,746.7812**	**3,746.7812**	**1.0524**		**3,773.0920**

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	0.6927	26.6224	6.0703	0.0947	2.6664	0.1905	2.8569	0.7310	0.1822	0.9133		10,373.5217	10,373.5217	0.5499	1.6460	10,877.7615
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	0.0459	0.0328	0.4198	1.0700e-003	0.1232	8.1000e-004	0.1240	0.0327	7.4000e-004	0.0334		108.6516	108.6516	3.6800e-003	3.2000e-003	109.6966
Total	**0.7386**	**26.6553**	**6.4900**	**0.0958**	**2.7896**	**0.1913**	**2.9809**	**0.7637**	**0.1830**	**0.9467**		**10,482.1733**	**10,482.1733**	**0.5536**	**1.6492**	**10,987.4582**

Palmdale GPU - Industrial Construction Only - Los Angeles-Mojave Desert County, Winter

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

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					14.8345	0.0000	14.8345	2.2461	0.0000	2.2461			0.0000			0.0000
Off-Road	0.4623	2.0032	23.2798	0.0388		0.0616	0.0616		0.0616	0.0616	0.0000	3,746.7812	3,746.7812	1.0524		3,773.0920
Total	**0.4623**	**2.0032**	**23.2798**	**0.0388**	**14.8345**	**0.0616**	**14.8961**	**2.2461**	**0.0616**	**2.3077**	**0.0000**	**3,746.7812**	**3,746.7812**	**1.0524**		**3,773.0920**

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	0.6927	26.6224	6.0703	0.0947	2.6664	0.1905	2.8569	0.7310	0.1822	0.9133		10,373.5217	10,373.5217	0.5499	1.6460	10,877.7615
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	0.0459	0.0328	0.4198	1.0700e-003	0.1232	8.1000e-004	0.1240	0.0327	7.4000e-004	0.0334		108.6516	108.6516	3.6800e-003	3.2000e-003	109.6966
Total	**0.7386**	**26.6553**	**6.4900**	**0.0958**	**2.7896**	**0.1913**	**2.9809**	**0.7637**	**0.1830**	**0.9467**		**10,482.1733**	**10,482.1733**	**0.5536**	**1.6492**	**10,987.4582**

Palmdale GPU - Industrial Construction Only - Los Angeles-Mojave Desert County, Winter

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

3.3 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.2036	0.0000	9.2036	3.6538	0.0000	3.6538			0.0000			0.0000
Off-Road	3.6248	38.8435	29.0415	0.0621		1.6349	1.6349		1.5041	1.5041		6,011.4105	6,011.4105	1.9442		6,060.0158
Total	**3.6248**	**38.8435**	**29.0415**	**0.0621**	**9.2036**	**1.6349**	**10.8385**	**3.6538**	**1.5041**	**5.1579**		**6,011.4105**	**6,011.4105**	**1.9442**		**6,060.0158**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0612	0.0438	0.5597	1.4300e-003	0.1643	1.0800e-003	0.1654	0.0436	9.9000e-004	0.0446		144.8688	144.8688	4.9000e-003	4.2600e-003	146.2622
Total	**0.0612**	**0.0438**	**0.5597**	**1.4300e-003**	**0.1643**	**1.0800e-003**	**0.1654**	**0.0436**	**9.9000e-004**	**0.0446**		**144.8688**	**144.8688**	**4.9000e-003**	**4.2600e-003**	**146.2622**

Palmdale GPU - Industrial Construction Only - Los Angeles-Mojave Desert County, Winter

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

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					4.1416	0.0000	4.1416	1.6442	0.0000	1.6442			0.0000			0.0000
Off-Road	0.7616	3.3000	32.9991	0.0621		0.1015	0.1015		0.1015	0.1015	0.0000	6,011.4105	6,011.4105	1.9442		6,060.0158
Total	**0.7616**	**3.3000**	**32.9991**	**0.0621**	**4.1416**	**0.1015**	**4.2432**	**1.6442**	**0.1015**	**1.7457**	**0.0000**	**6,011.4105**	**6,011.4105**	**1.9442**		**6,060.0158**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0612	0.0438	0.5597	1.4300e-003	0.1643	1.0800e-003	0.1654	0.0436	9.9000e-004	0.0446		144.8688	144.8688	4.9000e-003	4.2600e-003	146.2622
Total	**0.0612**	**0.0438**	**0.5597**	**1.4300e-003**	**0.1643**	**1.0800e-003**	**0.1654**	**0.0436**	**9.9000e-004**	**0.0446**		**144.8688**	**144.8688**	**4.9000e-003**	**4.2600e-003**	**146.2622**

Palmdale GPU - Industrial Construction Only - Los Angeles-Mojave Desert 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 - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612		2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**1.7062**	**15.6156**	**16.3634**	**0.0269**		**0.8090**	**0.8090**		**0.7612**	**0.7612**		**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1657	4.3672	1.4626	0.0169	0.5556	0.0406	0.5961	0.1600	0.0388	0.1988		1,818.5252	1,818.5252	0.0606	0.2622	1,898.1659
Worker	0.6459	0.4618	5.9045	0.0151	1.7333	0.0114	1.7447	0.4598	0.0105	0.4702		1,528.3660	1,528.3660	0.0518	0.0450	1,543.0661
Total	**0.8116**	**4.8290**	**7.3670**	**0.0320**	**2.2889**	**0.0519**	**2.3408**	**0.6197**	**0.0493**	**0.6690**		**3,346.8912**	**3,346.8912**	**0.1123**	**0.3072**	**3,441.2320**

Palmdale GPU - Industrial Construction Only - Los Angeles-Mojave Desert County, Winter

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

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	0.2182	0.9457	11.9070	0.0178		0.0291	0.0291		0.0291	0.0291	0.0000	1,723.8213	1,723.8213	0.5575		1,737.7593
Total	**0.2182**	**0.9457**	**11.9070**	**0.0178**		**0.0291**	**0.0291**		**0.0291**	**0.0291**	**0.0000**	**1,723.8213**	**1,723.8213**	**0.5575**		**1,737.7593**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1657	4.3672	1.4626	0.0169	0.5556	0.0406	0.5961	0.1600	0.0388	0.1988		1,818.5252	1,818.5252	0.0606	0.2622	1,898.1659
Worker	0.6459	0.4618	5.9045	0.0151	1.7333	0.0114	1.7447	0.4598	0.0105	0.4702		1,528.3660	1,528.3660	0.0518	0.0450	1,543.0661
Total	**0.8116**	**4.8290**	**7.3670**	**0.0320**	**2.2889**	**0.0519**	**2.3408**	**0.6197**	**0.0493**	**0.6690**		**3,346.8912**	**3,346.8912**	**0.1123**	**0.3072**	**3,441.2320**

Palmdale GPU - Industrial Construction Only - Los Angeles-Mojave Desert County, Winter

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

3.5 Paving - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1028	11.1249	14.5805	0.0228		0.5679	0.5679		0.5225	0.5225		2,207.6603	2,207.6603	0.7140		2,225.5104
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.1028**	**11.1249**	**14.5805**	**0.0228**		**0.5679**	**0.5679**		**0.5225**	**0.5225**		**2,207.6603**	**2,207.6603**	**0.7140**		**2,225.5104**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0459	0.0328	0.4198	1.0700e-003	0.1232	8.1000e-004	0.1240	0.0327	7.4000e-004	0.0334		108.6516	108.6516	3.6800e-003	3.2000e-003	109.6966
Total	**0.0459**	**0.0328**	**0.4198**	**1.0700e-003**	**0.1232**	**8.1000e-004**	**0.1240**	**0.0327**	**7.4000e-004**	**0.0334**		**108.6516**	**108.6516**	**3.6800e-003**	**3.2000e-003**	**109.6966**

Palmdale GPU - Industrial Construction Only - Los Angeles-Mojave Desert County, Winter

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

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	0.2805	1.2154	17.2957	0.0228		0.0374	0.0374		0.0374	0.0374	0.0000	2,207.6603	2,207.6603	0.7140		2,225.5104
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.2805**	**1.2154**	**17.2957**	**0.0228**		**0.0374**	**0.0374**		**0.0374**	**0.0374**	**0.0000**	**2,207.6603**	**2,207.6603**	**0.7140**		**2,225.5104**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0459	0.0328	0.4198	1.0700e-003	0.1232	8.1000e-004	0.1240	0.0327	7.4000e-004	0.0334		108.6516	108.6516	3.6800e-003	3.2000e-003	109.6966
Total	**0.0459**	**0.0328**	**0.4198**	**1.0700e-003**	**0.1232**	**8.1000e-004**	**0.1240**	**0.0327**	**7.4000e-004**	**0.0334**		**108.6516**	**108.6516**	**3.6800e-003**	**3.2000e-003**	**109.6966**

Palmdale GPU - Industrial Construction Only - Los Angeles-Mojave Desert 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 - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	174.6272					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2045	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817		281.4481	281.4481	0.0183		281.9062
Total	**174.8318**	**1.4085**	**1.8136**	**2.9700e-003**		**0.0817**	**0.0817**		**0.0817**	**0.0817**		**281.4481**	**281.4481**	**0.0183**		**281.9062**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.1286	0.0919	1.1753	3.0100e-003	0.3450	2.2600e-003	0.3473	0.0915	2.0800e-003	0.0936		304.2245	304.2245	0.0103	8.9500e-003	307.1506
Total	**0.1286**	**0.0919**	**1.1753**	**3.0100e-003**	**0.3450**	**2.2600e-003**	**0.3473**	**0.0915**	**2.0800e-003**	**0.0936**		**304.2245**	**304.2245**	**0.0103**	**8.9500e-003**	**307.1506**

Palmdale GPU - Industrial Construction Only - Los Angeles-Mojave Desert County, Winter

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

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	174.6272					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0297	0.1288	1.8324	2.9700e-003		3.9600e-003	3.9600e-003		3.9600e-003	3.9600e-003	0.0000	281.4481	281.4481	0.0183		281.9062
Total	**174.6569**	**0.1288**	**1.8324**	**2.9700e-003**		**3.9600e-003**	**3.9600e-003**		**3.9600e-003**	**3.9600e-003**	**0.0000**	**281.4481**	**281.4481**	**0.0183**		**281.9062**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.1286	0.0919	1.1753	3.0100e-003	0.3450	2.2600e-003	0.3473	0.0915	2.0800e-003	0.0936		304.2245	304.2245	0.0103	8.9500e-003	307.1506
Total	**0.1286**	**0.0919**	**1.1753**	**3.0100e-003**	**0.3450**	**2.2600e-003**	**0.3473**	**0.0915**	**2.0800e-003**	**0.0936**		**304.2245**	**304.2245**	**0.0103**	**8.9500e-003**	**307.1506**

Palmdale GPU - Industrial Construction Only - Los Angeles-Mojave Desert 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	0.0000	0.0000	0.0000	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

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Unrefrigerated Warehouse-No Rail	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
Unrefrigerated Warehouse-No	9.50	7.30	7.30	59.00	0.00	41.00	92	5	3

4.4 Fleet Mix

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

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

Unrefrigerated Warehouse-No Rail	0.544785	0.062844	0.187478	0.127235	0.023089	0.006083	0.010475	0.008012	0.000925	0.000611	0.024394	0.000698	0.003374

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

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

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Unrefrigerated Warehouse-No Rail	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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					
Unrefrigerated Warehouse-No Rail	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

6.1 Mitigation Measures Area

Palmdale GPU - Industrial Construction Only - Los Angeles-Mojave Desert 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	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	3.1943	4.7000e-004	0.0513	0.0000		1.8000e-004	1.8000e-004		1.8000e-004	1.8000e-004		0.1099	0.1099	2.9000e-004		0.1172
Unmitigated	3.1943	4.7000e-004	0.0513	0.0000		1.8000e-004	1.8000e-004		1.8000e-004	1.8000e-004		0.1099	0.1099	2.9000e-004		0.1172

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	3.1895					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	4.7500e-003	4.7000e-004	0.0513	0.0000		1.8000e-004	1.8000e-004		1.8000e-004	1.8000e-004		0.1099	0.1099	2.9000e-004		0.1172
Total	**3.1943**	**4.7000e-004**	**0.0513**	**0.0000**		**1.8000e-004**	**1.8000e-004**		**1.8000e-004**	**1.8000e-004**		**0.1099**	**0.1099**	**2.9000e-004**		**0.1172**

Palmdale GPU - Industrial Construction Only - Los Angeles-Mojave Desert County, Winter

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

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	3.1895					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	4.7500e-003	4.7000e-004	0.0513	0.0000		1.8000e-004	1.8000e-004		1.8000e-004	1.8000e-004		0.1099	0.1099	2.9000e-004		0.1172
Total	**3.1943**	**4.7000e-004**	**0.0513**	**0.0000**		**1.8000e-004**	**1.8000e-004**		**1.8000e-004**	**1.8000e-004**		**0.1099**	**0.1099**	**2.9000e-004**		**0.1172**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Palmdale GPU - Industrial Construction Only - Los Angeles-Mojave Desert County, Winter

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

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

Palmdale GPU - MFR construction Only - Los Angeles-Mojave Desert County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Palmdale GPU - MFR construction Only

Los Angeles-Mojave Desert County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Apartments Mid Rise	1,045.00	Dwelling Unit	27.50	1,045,000.00	3598

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2023
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	390.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - See Assumptions

Land Use - See Assumptions

Construction Phase - See Assumptions

Grading -

Demolition - See Assumptions

Architectural Coating - See Assumptions

Vehicle Trips - Operational Emissions modeled separately

Road Dust - Operational Emissions modeled separately

Woodstoves - Operational Emissions modeled separately

Consumer Products - Operational Emissions modeled separately

Area Coating - Operational Emissions modeled separately

Landscape Equipment - Operational Emissions modeled separately

Palmdale GPU - MFR construction Only - Los Angeles-Mojave Desert County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Energy Use - Operational Emissions modeled separately

Water And Wastewater - Operational Emissions modeled separately

Solid Waste - Operational Emissions modeled separately

Construction Off-road Equipment Mitigation - 2x per day watering is compliant with AVAQMD regulations for reducing fugitive dust, it is not mitigation

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	150.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	50.00
tblArchitecturalCoating	EF_Residential_Exterior	250.00	150.00
tblArchitecturalCoating	EF_Residential_Interior	250.00	50.00
tblAreaCoating	ReapplicationRatePercent	10	0
tblConstEquipMitigation	FuelType	Diesel	Electrical
tblConstEquipMitigation	FuelType	Diesel	Electrical
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	5.00
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	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	5.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final

Palmdale GPU - MFR construction Only - Los Angeles-Mojave Desert County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstructionPhase	NumDays	440.00	222.00
tblConstructionPhase	NumDays	30.00	15.00
tblConstructionPhase	NumDays	45.00	23.00
tblConstructionPhase	PhaseEndDate	4/26/2024	12/30/2022
tblConstructionPhase	PhaseEndDate	1/19/2024	12/29/2022
tblConstructionPhase	PhaseEndDate	2/11/2022	1/21/2022
tblConstructionPhase	PhaseEndDate	5/13/2022	2/23/2022
tblConstructionPhase	PhaseEndDate	3/8/2024	4/12/2022
tblConstructionPhase	PhaseStartDate	3/9/2024	11/14/2022
tblConstructionPhase	PhaseStartDate	5/14/2022	2/23/2022
tblConstructionPhase	PhaseStartDate	3/12/2022	1/22/2022
tblConstructionPhase	PhaseStartDate	1/20/2024	2/23/2022
tblConsumerProducts	ROG_EF	2.14E-05	0
tblConsumerProducts	ROG_EF_Degreaser	3.542E-07	0
tblConsumerProducts	ROG_EF_PesticidesFertilizers	5.152E-08	0
tblEnergyUse	LightingElect	741.44	0.00
tblEnergyUse	NT24E	3,054.10	0.00
tblEnergyUse	NT24NG	6,384.00	0.00

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tblEnergyUse	T24E	53.81	0.00
tblEnergyUse	T24NG	6,682.59	0.00
tblFireplaces	FireplaceDayYear	82.00	0.00
tblFireplaces	FireplaceHourDay	3.00	0.00
tblFireplaces	FireplaceWoodMass	3,078.40	0.00
tblFireplaces	NumberGas	574.75	0.00
tblFireplaces	NumberNoFireplace	104.50	0.00
tblFireplaces	NumberWood	365.75	0.00
tblLandscapeEquipment	NumberSummerDays	180	0
tblLandUse	Population	2,989.00	3,598.00
tblRoadDust	RoadPercentPave	100	0
tblSolidWaste	SolidWasteGenerationRate	480.70	0.00
tblVehicleTrips	ST_TR	4.91	0.00
tblVehicleTrips	SU_TR	4.09	0.00
tblVehicleTrips	WD_TR	5.44	0.00
tblWater	IndoorWaterUseRate	68,085,956.77	0.00
tblWater	OutdoorWaterUseRate	42,923,755.36	0.00
tblWoodstoves	NumberCatalytic	52.25	0.00
tblWoodstoves	NumberNoncatalytic	52.25	0.00
tblWoodstoves	WoodstoveDayYear	82.00	0.00
tblWoodstoves	WoodstoveWoodMass	3,019.20	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

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

Palmdale GPU - MFR construction Only - Los Angeles-Mojave Desert County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

					PM10	PM10	Total	PM2.5	PM2.5	Total						
Year	tons/yr										MT/yr					
2022	5.4504	3.4658	5.2978	0.0134	0.9029	0.1402	1.0431	0.2540	0.1313	0.3853	0.0000	1,221.1519	1,221.1519	0.1285	0.0537	1,240.3689
Maximum	**5.4504**	**3.4658**	**5.2978**	**0.0134**	**0.9029**	**0.1402**	**1.0431**	**0.2540**	**0.1313**	**0.3853**	**0.0000**	**1,221.1519**	**1,221.1519**	**0.1285**	**0.0537**	**1,240.3689**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2022	5.2185	1.0550	4.9167	0.0124	0.8366	0.0165	0.8530	0.2296	0.0158	0.2455	0.0000	1,137.5210	1,137.5210	0.1230	0.0537	1,156.6010
Maximum	**5.2185**	**1.0550**	**4.9167**	**0.0124**	**0.8366**	**0.0165**	**0.8530**	**0.2296**	**0.0158**	**0.2455**	**0.0000**	**1,137.5210**	**1,137.5210**	**0.1230**	**0.0537**	**1,156.6010**

	ROG	NOx	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	**4.25**	**69.56**	**7.19**	**7.56**	**7.35**	**88.24**	**18.22**	**9.58**	**87.93**	**36.28**	**0.00**	**6.85**	**6.85**	**4.26**	**0.00**	**6.75**

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

Palmdale GPU - MFR construction Only - Los Angeles-Mojave Desert County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

1	**1-1-2022**	**3-31-2022**	1.2527	0.2506
2	**4-1-2022**	**6-30-2022**	0.9287	0.3575
3	**7-1-2022**	**9-30-2022**	0.8856	0.3547
		Highest	1.2527	0.3575

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	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	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Palmdale GPU - MFR construction Only - Los Angeles-Mojave Desert County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	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	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	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	Demolition	Demolition	1/1/2022	1/21/2022	5	15	
2	Grading	Grading	1/22/2022	2/23/2022	5	23	
3	Building Construction	Building Construction	2/23/2022	12/29/2022	5	222	

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

4	Paving	Paving	2/23/2022	4/12/2022	5	35	
5	Architectural Coating	Architectural Coating	11/14/2022	12/30/2022	5	35	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 69

Acres of Paving: 0

Residential Indoor: 2,116,125; Residential Outdoor: 705,375; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Building Construction	Cranes	1	7.00	231	0.29
Demolition	Excavators	3	8.00	158	0.38
Grading	Excavators	2	8.00	158	0.38
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Grading	Graders	1	8.00	187	0.41
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
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45

Palmdale GPU - MFR construction Only - Los Angeles-Mojave Desert County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	1	150.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	752.00	112.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Demolition	6	15.00	0.00	136.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Alternative Fuel for Construction Equipment

Use Cleaner Engines for Construction Equipment

Water Exposed Area

3.2 Demolition - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0148	0.0000	0.0148	2.2400e-003	0.0000	2.2400e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0198	0.1929	0.1545	2.9000e-004		9.3200e-003	9.3200e-003		8.6600e-003	8.6600e-003	0.0000	25.4927	25.4927	7.1600e-003	0.0000	25.6717
Total	**0.0198**	**0.1929**	**0.1545**	**2.9000e-004**	**0.0148**	**9.3200e-003**	**0.0241**	**2.2400e-003**	**8.6600e-003**	**0.0109**	**0.0000**	**25.4927**	**25.4927**	**7.1600e-003**	**0.0000**	**25.6717**

Palmdale GPU - MFR construction Only - Los Angeles-Mojave Desert County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	3.1000e-004	0.0120	2.6800e-003	4.0000e-005	1.1700e-003	8.0000e-005	1.2500e-003	3.2000e-004	8.0000e-005	4.0000e-004	0.0000	4.2001	4.2001	2.2000e-004	6.7000e-004	4.4043
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	3.2000e-004	2.5000e-004	3.2300e-003	1.0000e-005	9.1000e-004	1.0000e-005	9.1000e-004	2.4000e-004	1.0000e-005	2.5000e-004	0.0000	0.7551	0.7551	2.0000e-005	2.0000e-005	0.7623
Total	**6.3000e-004**	**0.0123**	**5.9100e-003**	**5.0000e-005**	**2.0800e-003**	**9.0000e-005**	**2.1600e-003**	**5.6000e-004**	**9.0000e-005**	**6.5000e-004**	**0.0000**	**4.9552**	**4.9552**	**2.4000e-004**	**6.9000e-004**	**5.1666**

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					6.6400e-003	0.0000	6.6400e-003	1.0100e-003	0.0000	1.0100e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.4700e-003	0.0150	0.1746	2.9000e-004		4.6000e-004	4.6000e-004		4.6000e-004	4.6000e-004	0.0000	25.4926	25.4926	7.1600e-003	0.0000	25.6717
Total	**3.4700e-003**	**0.0150**	**0.1746**	**2.9000e-004**	**6.6400e-003**	**4.6000e-004**	**7.1000e-003**	**1.0100e-003**	**4.6000e-004**	**1.4700e-003**	**0.0000**	**25.4926**	**25.4926**	**7.1600e-003**	**0.0000**	**25.6717**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	3.1000e-004	0.0120	2.6800e-003	4.0000e-005	1.1700e-003	8.0000e-005	1.2500e-003	3.2000e-004	8.0000e-005	4.0000e-004	0.0000	4.2001	4.2001	2.2000e-004	6.7000e-004	4.4043
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	3.2000e-004	2.5000e-004	3.2300e-003	1.0000e-005	9.1000e-004	1.0000e-005	9.1000e-004	2.4000e-004	1.0000e-005	2.5000e-004	0.0000	0.7551	0.7551	2.0000e-005	2.0000e-005	0.7623
Total	**6.3000e-004**	**0.0123**	**5.9100e-003**	**5.0000e-005**	**2.0800e-003**	**9.0000e-005**	**2.1600e-003**	**5.6000e-004**	**9.0000e-005**	**6.5000e-004**	**0.0000**	**4.9552**	**4.9552**	**2.4000e-004**	**6.9000e-004**	**5.1666**

3.3 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1058	0.0000	0.1058	0.0420	0.0000	0.0420	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0417	0.4467	0.3340	7.1000e-004		0.0188	0.0188		0.0173	0.0173	0.0000	62.7148	62.7148	0.0203	0.0000	63.2219
Total	**0.0417**	**0.4467**	**0.3340**	**7.1000e-004**	**0.1058**	**0.0188**	**0.1246**	**0.0420**	**0.0173**	**0.0593**	**0.0000**	**62.7148**	**62.7148**	**0.0203**	**0.0000**	**63.2219**

Palmdale GPU - MFR construction Only - Los Angeles-Mojave Desert County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.6000e-004	5.1000e-004	6.5900e-003	2.0000e-005	1.8500e-003	1.0000e-005	1.8600e-003	4.9000e-004	1.0000e-005	5.0000e-004	0.0000	1.5438	1.5438	5.0000e-005	5.0000e-005	1.5585
Total	**6.6000e-004**	**5.1000e-004**	**6.5900e-003**	**2.0000e-005**	**1.8500e-003**	**1.0000e-005**	**1.8600e-003**	**4.9000e-004**	**1.0000e-005**	**5.0000e-004**	**0.0000**	**1.5438**	**1.5438**	**5.0000e-005**	**5.0000e-005**	**1.5585**

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					0.0476	0.0000	0.0476	0.0189	0.0000	0.0189	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	8.7600e-003	0.0380	0.3795	7.1000e-004		1.1700e-003	1.1700e-003		1.1700e-003	1.1700e-003	0.0000	62.7147	62.7147	0.0203	0.0000	63.2218
Total	**8.7600e-003**	**0.0380**	**0.3795**	**7.1000e-004**	**0.0476**	**1.1700e-003**	**0.0488**	**0.0189**	**1.1700e-003**	**0.0201**	**0.0000**	**62.7147**	**62.7147**	**0.0203**	**0.0000**	**63.2218**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.6000e-004	5.1000e-004	6.5900e-003	2.0000e-005	1.8500e-003	1.0000e-005	1.8600e-003	4.9000e-004	1.0000e-005	5.0000e-004	0.0000	1.5438	1.5438	5.0000e-005	5.0000e-005	1.5585
Total	**6.6000e-004**	**5.1000e-004**	**6.5900e-003**	**2.0000e-005**	**1.8500e-003**	**1.0000e-005**	**1.8600e-003**	**4.9000e-004**	**1.0000e-005**	**5.0000e-004**	**0.0000**	**1.5438**	**1.5438**	**5.0000e-005**	**5.0000e-005**	**1.5585**

3.4 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1894	1.7333	1.8163	2.9900e-003		0.0898	0.0898		0.0845	0.0845	0.0000	257.2150	257.2150	0.0616	0.0000	258.7556
Total	**0.1894**	**1.7333**	**1.8163**	**2.9900e-003**		**0.0898**	**0.0898**		**0.0845**	**0.0845**	**0.0000**	**257.2150**	**257.2150**	**0.0616**	**0.0000**	**258.7556**

Palmdale GPU - MFR construction Only - Los Angeles-Mojave Desert County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0252	0.6678	0.2178	2.5700e-003	0.0829	6.1400e-003	0.0890	0.0239	5.8700e-003	0.0298	0.0000	250.0651	250.0651	8.3400e-003	0.0361	261.0180
Worker	0.2378	0.1865	2.3931	6.0700e-003	0.6722	4.5000e-003	0.6767	0.1786	4.1500e-003	0.1827	0.0000	560.2679	560.2679	0.0185	0.0164	565.6040
Total	**0.2630**	**0.8543**	**2.6109**	**8.6400e-003**	**0.7551**	**0.0106**	**0.7658**	**0.2025**	**0.0100**	**0.2125**	**0.0000**	**810.3329**	**810.3329**	**0.0269**	**0.0524**	**826.6221**

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	0.0242	0.1050	1.3217	1.9800e-003		3.2300e-003	3.2300e-003		3.2300e-003	3.2300e-003	0.0000	173.5843	173.5843	0.0561	0.0000	174.9878
Total	**0.0242**	**0.1050**	**1.3217**	**1.9800e-003**		**3.2300e-003**	**3.2300e-003**		**3.2300e-003**	**3.2300e-003**	**0.0000**	**173.5843**	**173.5843**	**0.0561**	**0.0000**	**174.9878**

Palmdale GPU - MFR construction Only - Los Angeles-Mojave Desert County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0252	0.6678	0.2178	2.5700e-003	0.0829	6.1400e-003	0.0890	0.0239	5.8700e-003	0.0298	0.0000	250.0651	250.0651	8.3400e-003	0.0361	261.0180
Worker	0.2378	0.1865	2.3931	6.0700e-003	0.6722	4.5000e-003	0.6767	0.1786	4.1500e-003	0.1827	0.0000	560.2679	560.2679	0.0185	0.0164	565.6040
Total	**0.2630**	**0.8543**	**2.6109**	**8.6400e-003**	**0.7551**	**0.0106**	**0.7658**	**0.2025**	**0.0100**	**0.2125**	**0.0000**	**810.3329**	**810.3329**	**0.0269**	**0.0524**	**826.6221**

3.5 Paving - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0193	0.1947	0.2552	4.0000e-004		9.9400e-003	9.9400e-003		9.1400e-003	9.1400e-003	0.0000	35.0482	35.0482	0.0113	0.0000	35.3316
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0193**	**0.1947**	**0.2552**	**4.0000e-004**		**9.9400e-003**	**9.9400e-003**		**9.1400e-003**	**9.1400e-003**	**0.0000**	**35.0482**	**35.0482**	**0.0113**	**0.0000**	**35.3316**

Palmdale GPU - MFR construction Only - Los Angeles-Mojave Desert County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.5000e-004	5.9000e-004	7.5300e-003	2.0000e-005	2.1100e-003	1.0000e-005	2.1300e-003	5.6000e-004	1.0000e-005	5.7000e-004	0.0000	1.7619	1.7619	6.0000e-005	5.0000e-005	1.7787
Total	**7.5000e-004**	**5.9000e-004**	**7.5300e-003**	**2.0000e-005**	**2.1100e-003**	**1.0000e-005**	**2.1300e-003**	**5.6000e-004**	**1.0000e-005**	**5.7000e-004**	**0.0000**	**1.7619**	**1.7619**	**6.0000e-005**	**5.0000e-005**	**1.7787**

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	4.9100e-003	0.0213	0.3027	4.0000e-004		6.5000e-004	6.5000e-004		6.5000e-004	6.5000e-004	0.0000	35.0482	35.0482	0.0113	0.0000	35.3316
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**4.9100e-003**	**0.0213**	**0.3027**	**4.0000e-004**		**6.5000e-004**	**6.5000e-004**		**6.5000e-004**	**6.5000e-004**	**0.0000**	**35.0482**	**35.0482**	**0.0113**	**0.0000**	**35.3316**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.5000e-004	5.9000e-004	7.5300e-003	2.0000e-005	2.1100e-003	1.0000e-005	2.1300e-003	5.6000e-004	1.0000e-005	5.7000e-004	0.0000	1.7619	1.7619	6.0000e-005	5.0000e-005	1.7787
Total	**7.5000e-004**	**5.9000e-004**	**7.5300e-003**	**2.0000e-005**	**2.1100e-003**	**1.0000e-005**	**2.1300e-003**	**5.6000e-004**	**1.0000e-005**	**5.7000e-004**	**0.0000**	**1.7619**	**1.7619**	**6.0000e-005**	**5.0000e-005**	**1.7787**

3.6 Architectural Coating - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	4.9041					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.5800e-003	0.0247	0.0317	5.0000e-005		1.4300e-003	1.4300e-003		1.4300e-003	1.4300e-003	0.0000	4.4682	4.4682	2.9000e-004	0.0000	4.4755
Total	**4.9077**	**0.0247**	**0.0317**	**5.0000e-005**		**1.4300e-003**	**1.4300e-003**		**1.4300e-003**	**1.4300e-003**	**0.0000**	**4.4682**	**4.4682**	**2.9000e-004**	**0.0000**	**4.4755**

Palmdale GPU - MFR construction Only - Los Angeles-Mojave Desert County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.4800e-003	5.8600e-003	0.0753	1.9000e-004	0.0211	1.4000e-004	0.0213	5.6200e-003	1.3000e-004	5.7500e-003	0.0000	17.6191	17.6191	5.8000e-004	5.1000e-004	17.7869
Total	**7.4800e-003**	**5.8600e-003**	**0.0753**	**1.9000e-004**	**0.0211**	**1.4000e-004**	**0.0213**	**5.6200e-003**	**1.3000e-004**	**5.7500e-003**	**0.0000**	**17.6191**	**17.6191**	**5.8000e-004**	**5.1000e-004**	**17.7869**

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	4.9041					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.2000e-004	2.2500e-003	0.0321	5.0000e-005		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005	0.0000	4.4682	4.4682	2.9000e-004	0.0000	4.4755
Total	**4.9046**	**2.2500e-003**	**0.0321**	**5.0000e-005**		**7.0000e-005**	**7.0000e-005**		**7.0000e-005**	**7.0000e-005**	**0.0000**	**4.4682**	**4.4682**	**2.9000e-004**	**0.0000**	**4.4755**

Palmdale GPU - MFR construction Only - Los Angeles-Mojave Desert County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.4800e-003	5.8600e-003	0.0753	1.9000e-004	0.0211	1.4000e-004	0.0213	5.6200e-003	1.3000e-004	5.7500e-003	0.0000	17.6191	17.6191	5.8000e-004	5.1000e-004	17.7869
Total	**7.4800e-003**	**5.8600e-003**	**0.0753**	**1.9000e-004**	**0.0211**	**1.4000e-004**	**0.0213**	**5.6200e-003**	**1.3000e-004**	**5.7500e-003**	**0.0000**	**17.6191**	**17.6191**	**5.8000e-004**	**5.1000e-004**	**17.7869**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	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 Applied

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
Apartments Mid Rise	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
Apartments Mid Rise	10.80	7.30	7.50	40.20	19.20	40.60	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Mid Rise	0.544785	0.062844	0.187478	0.127235	0.023089	0.006083	0.010475	0.008012	0.000925	0.000611	0.024394	0.000698	0.003374

5.0 Energy Detail

Historical Energy Use: N

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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

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					
Apartments Mid Rise	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**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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					
Apartments Mid Rise	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**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use		Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	tons/yr	MT/yr			
Apartments Mid Rise	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	tons/yr	MT/yr			
Apartments Mid Rise	0		0.0000	0.0000	0.0000	0.0000
Total			**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive 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
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

Palmdale GPU - MFR construction Only - Los Angeles-Mojave Desert County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

6.2 Area by SubCategory

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	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Mitigated

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

7.0 Water Detail

7.1 Mitigation Measures Water

		Total CO2	CH4	N2O	CO2e
Category	tons/yr	MT/yr			
Mitigated		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 Applied

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	tons/yr	MT/yr			
Apartments Mid Rise	0 / 0		0.0000	0.0000	0.0000	0.0000
Total			**0.0000**	**0.0000**	**0.0000**	**0.0000**

Palmdale GPU - MFR construction Only - Los Angeles-Mojave Desert County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Mitigated

	Indoor/Outdoor Use		Total CO2	CH4	N2O	CO2e
Land Use	Mgal	tons/yr	MT/yr			
Apartments Mid Rise	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
	tons/yr	MT/yr			
Mitigated		0.0000	0.0000	0.0000	0.0000
Unmitigated		0.0000	0.0000	0.0000	0.0000

Palmdale GPU - MFR construction Only - Los Angeles-Mojave Desert County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

8.2 Waste by Land Use

Unmitigated

	Waste Disposed		Total CO2	CH4	N2O	CO2e
Land Use	tons	tons/yr	MT/yr			
Apartments Mid Rise	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	tons/yr	MT/yr			
Apartments Mid Rise	0		0.0000	0.0000	0.0000	0.0000
Total			**0.0000**	**0.0000**	**0.0000**	**0.0000**

9.0 Operational Offroad

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

Palmdale GPU - MFR construction Only - Los Angeles-Mojave Desert County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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

Palmdale GPU - MFR construction Only - Los Angeles-Mojave Desert County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Palmdale GPU - MFR construction Only

Los Angeles-Mojave Desert County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Apartments Mid Rise	1,045.00	Dwelling Unit	27.50	1,045,000.00	3598

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2023
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	390.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - See Assumptions

Land Use - See Assumptions

Construction Phase - See Assumptions

Grading -

Demolition - See Assumptions

Architectural Coating - See Assumptions

Vehicle Trips - Operational Emissions modeled separately

Road Dust - Operational Emissions modeled separately

Woodstoves - Operational Emissions modeled separately

Consumer Products - Operational Emissions modeled separately

Area Coating - Operational Emissions modeled separately

Landscape Equipment - Operational Emissions modeled separately

Palmdale GPU - MFR construction Only - Los Angeles-Mojave Desert County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Energy Use - Operational Emissions modeled separately

Water And Wastewater - Operational Emissions modeled separately

Solid Waste - Operational Emissions modeled separately

Construction Off-road Equipment Mitigation - 2x per day watering is compliant with AVAQMD regulations for reducing fugitive dust, it is not mitigation

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	150.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	50.00
tblArchitecturalCoating	EF_Residential_Exterior	250.00	150.00
tblArchitecturalCoating	EF_Residential_Interior	250.00	50.00
tblAreaCoating	ReapplicationRatePercent	10	0
tblConstEquipMitigation	FuelType	Diesel	Electrical
tblConstEquipMitigation	FuelType	Diesel	Electrical
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	5.00
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	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	5.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final

Palmdale GPU - MFR construction Only - Los Angeles-Mojave Desert County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstructionPhase	NumDays	440.00	222.00
tblConstructionPhase	NumDays	30.00	15.00
tblConstructionPhase	NumDays	45.00	23.00
tblConstructionPhase	PhaseEndDate	4/26/2024	12/30/2022
tblConstructionPhase	PhaseEndDate	1/19/2024	12/29/2022
tblConstructionPhase	PhaseEndDate	2/11/2022	1/21/2022
tblConstructionPhase	PhaseEndDate	5/13/2022	2/23/2022
tblConstructionPhase	PhaseEndDate	3/8/2024	4/12/2022
tblConstructionPhase	PhaseStartDate	3/9/2024	11/14/2022
tblConstructionPhase	PhaseStartDate	5/14/2022	2/23/2022
tblConstructionPhase	PhaseStartDate	3/12/2022	1/22/2022
tblConstructionPhase	PhaseStartDate	1/20/2024	2/23/2022
tblConsumerProducts	ROG_EF	2.14E-05	0
tblConsumerProducts	ROG_EF_Degreaser	3.542E-07	0
tblConsumerProducts	ROG_EF_PesticidesFertilizers	5.152E-08	0
tblEnergyUse	LightingElect	741.44	0.00
tblEnergyUse	NT24E	3,054.10	0.00
tblEnergyUse	NT24NG	6,384.00	0.00

Palmdale GPU - MFR construction Only - Los Angeles-Mojave Desert County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tblEnergyUse	T24E	53.81	0.00
tblEnergyUse	T24NG	6,682.59	0.00
tblFireplaces	FireplaceDayYear	82.00	0.00
tblFireplaces	FireplaceHourDay	3.00	0.00
tblFireplaces	FireplaceWoodMass	3,078.40	0.00
tblFireplaces	NumberGas	574.75	0.00
tblFireplaces	NumberNoFireplace	104.50	0.00
tblFireplaces	NumberWood	365.75	0.00
tblLandscapeEquipment	NumberSummerDays	180	0
tblLandUse	Population	2,989.00	3,598.00
tblRoadDust	RoadPercentPave	100	0
tblSolidWaste	SolidWasteGenerationRate	480.70	0.00
tblVehicleTrips	ST_TR	4.91	0.00
tblVehicleTrips	SU_TR	4.09	0.00
tblVehicleTrips	WD_TR	5.44	0.00
tblWater	IndoorWaterUseRate	68,085,956.77	0.00
tblWater	OutdoorWaterUseRate	42,923,755.36	0.00
tblWoodstoves	NumberCatalytic	52.25	0.00
tblWoodstoves	NumberNoncatalytic	52.25	0.00
tblWoodstoves	WoodstoveDayYear	82.00	0.00
tblWoodstoves	WoodstoveWoodMass	3,019.20	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

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

Palmdale GPU - MFR construction Only - Los Angeles-Mojave Desert County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

					PM10	PM10	Total	PM2.5	PM2.5	Total						
Year	lb/day										lb/day					
2022	284.9914	72.8733	85.6523	0.1944	16.4274	3.1095	19.5369	5.5870	2.8796	8.4667	0.0000	19,312.2065	19,312.2065	3.5408	0.5377	19,554.1056
Maximum	**284.9914**	**72.8733**	**85.6523**	**0.1944**	**16.4274**	**3.1095**	**19.5369**	**5.5870**	**2.8796**	**8.4667**	**0.0000**	**19,312.2065**	**19,312.2065**	**3.5408**	**0.5377**	**19,554.1056**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2022	283.3285	12.7504	87.8688	0.1853	11.3654	0.2657	11.6312	3.5775	0.2599	3.8374	0.0000	18,481.6942	18,481.6942	3.4863	0.5377	18,722.2327
Maximum	**283.3285**	**12.7504**	**87.8688**	**0.1853**	**11.3654**	**0.2657**	**11.6312**	**3.5775**	**0.2599**	**3.8374**	**0.0000**	**18,481.6942**	**18,481.6942**	**3.4863**	**0.5377**	**18,722.2327**

	ROG	NOx	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	**0.58**	**82.50**	**-2.59**	**4.70**	**30.81**	**91.45**	**40.47**	**35.97**	**90.97**	**54.68**	**0.00**	**4.30**	**4.30**	**1.54**	**0.00**	**4.25**

Palmdale GPU - MFR construction Only - Los Angeles-Mojave Desert County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	2.5979	0.9940	86.2330	4.5500e-003		0.4773	0.4773		0.4773	0.4773	0.0000	155.2372	155.2372	0.1493	0.0000	158.9691
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	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	**2.5979**	**0.9940**	**86.2330**	**4.5500e-003**	**0.0000**	**0.4773**	**0.4773**	**0.0000**	**0.4773**	**0.4773**	**0.0000**	**155.2372**	**155.2372**	**0.1493**	**0.0000**	**158.9691**

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	2.5979	0.9940	86.2330	4.5500e-003		0.4773	0.4773		0.4773	0.4773	0.0000	155.2372	155.2372	0.1493	0.0000	158.9691
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	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	**2.5979**	**0.9940**	**86.2330**	**4.5500e-003**	**0.0000**	**0.4773**	**0.4773**	**0.0000**	**0.4773**	**0.4773**	**0.0000**	**155.2372**	**155.2372**	**0.1493**	**0.0000**	**158.9691**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	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	Demolition	Demolition	1/1/2022	1/21/2022	5	15	
2	Grading	Grading	1/22/2022	2/23/2022	5	23	
3	Building Construction	Building Construction	2/23/2022	12/29/2022	5	222	
4	Paving	Paving	2/23/2022	4/12/2022	5	35	
5	Architectural Coating	Architectural Coating	11/14/2022	12/30/2022	5	35	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 69

Acres of Paving: 0

Residential Indoor: 2,116,125; Residential Outdoor: 705,375; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Building Construction	Cranes	1	7.00	231	0.29
Demolition	Excavators	3	8.00	158	0.38
Grading	Excavators	2	8.00	158	0.38
Building Construction	Forklifts	3	8.00	89	0.20

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Building Construction	Generator Sets	1	8.00	84	0.74
Grading	Graders	1	8.00	187	0.41
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
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Architectural Coating	1	150.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	752.00	112.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Demolition	6	15.00	0.00	136.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Alternative Fuel for Construction Equipment

Use Cleaner Engines for Construction Equipment

Water Exposed Area

3.2 Demolition - 2022

Unmitigated Construction On-Site

Palmdale GPU - MFR construction Only - Los Angeles-Mojave Desert County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.9687	0.0000	1.9687	0.2981	0.0000	0.2981			0.0000			0.0000
Off-Road	2.6392	25.7194	20.5941	0.0388		1.2427	1.2427		1.1553	1.1553		3,746.7812	3,746.7812	1.0524		3,773.0920
Total	**2.6392**	**25.7194**	**20.5941**	**0.0388**	**1.9687**	**1.2427**	**3.2114**	**0.2981**	**1.1553**	**1.4533**		**3,746.7812**	**3,746.7812**	**1.0524**		**3,773.0920**

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	0.0422	1.5227	0.3551	5.6300e-003	0.1587	0.0113	0.1700	0.0435	0.0108	0.0543		617.2365	617.2365	0.0328	0.0979	647.2400
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	0.0435	0.0297	0.4524	1.1300e-003	0.1232	8.1000e-004	0.1240	0.0327	7.5000e-004	0.0334		115.4228	115.4228	3.5800e-003	2.9900e-003	116.4043
Total	**0.0858**	**1.5525**	**0.8074**	**6.7600e-003**	**0.2819**	**0.0121**	**0.2940**	**0.0762**	**0.0116**	**0.0878**		**732.6593**	**732.6593**	**0.0364**	**0.1009**	**763.6443**

Palmdale GPU - MFR construction Only - Los Angeles-Mojave Desert County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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					0.8859	0.0000	0.8859	0.1341	0.0000	0.1341			0.0000			0.0000
Off-Road	0.4623	2.0032	23.2798	0.0388		0.0616	0.0616		0.0616	0.0616	0.0000	3,746.7812	3,746.7812	1.0524		3,773.0920
Total	**0.4623**	**2.0032**	**23.2798**	**0.0388**	**0.8859**	**0.0616**	**0.9476**	**0.1341**	**0.0616**	**0.1958**	**0.0000**	**3,746.7812**	**3,746.7812**	**1.0524**		**3,773.0920**

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	0.0422	1.5227	0.3551	5.6300e-003	0.1587	0.0113	0.1700	0.0435	0.0108	0.0543		617.2365	617.2365	0.0328	0.0979	647.2400
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	0.0435	0.0297	0.4524	1.1300e-003	0.1232	8.1000e-004	0.1240	0.0327	7.5000e-004	0.0334		115.4228	115.4228	3.5800e-003	2.9900e-003	116.4043
Total	**0.0858**	**1.5525**	**0.8074**	**6.7600e-003**	**0.2819**	**0.0121**	**0.2940**	**0.0762**	**0.0116**	**0.0878**		**732.6593**	**732.6593**	**0.0364**	**0.1009**	**763.6443**

Palmdale GPU - MFR construction Only - Los Angeles-Mojave Desert County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.2036	0.0000	9.2036	3.6538	0.0000	3.6538			0.0000			0.0000
Off-Road	3.6248	38.8435	29.0415	0.0621		1.6349	1.6349		1.5041	1.5041		6,011.4105	6,011.4105	1.9442		6,060.0158
Total	**3.6248**	**38.8435**	**29.0415**	**0.0621**	**9.2036**	**1.6349**	**10.8385**	**3.6538**	**1.5041**	**5.1579**		**6,011.4105**	**6,011.4105**	**1.9442**		**6,060.0158**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0580	0.0397	0.6032	1.5100e-003	0.1643	1.0800e-003	0.1654	0.0436	9.9000e-004	0.0446		153.8970	153.8970	4.7700e-003	3.9900e-003	155.2057
Total	**0.0580**	**0.0397**	**0.6032**	**1.5100e-003**	**0.1643**	**1.0800e-003**	**0.1654**	**0.0436**	**9.9000e-004**	**0.0446**		**153.8970**	**153.8970**	**4.7700e-003**	**3.9900e-003**	**155.2057**

Palmdale GPU - MFR construction Only - Los Angeles-Mojave Desert County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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					4.1416	0.0000	4.1416	1.6442	0.0000	1.6442			0.0000			0.0000
Off-Road	0.7616	3.3000	32.9991	0.0621		0.1015	0.1015		0.1015	0.1015	0.0000	6,011.4105	6,011.4105	1.9442		6,060.0158
Total	**0.7616**	**3.3000**	**32.9991**	**0.0621**	**4.1416**	**0.1015**	**4.2432**	**1.6442**	**0.1015**	**1.7457**	**0.0000**	**6,011.4105**	**6,011.4105**	**1.9442**		**6,060.0158**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0580	0.0397	0.6032	1.5100e-003	0.1643	1.0800e-003	0.1654	0.0436	9.9000e-004	0.0446		153.8970	153.8970	4.7700e-003	3.9900e-003	155.2057
Total	**0.0580**	**0.0397**	**0.6032**	**1.5100e-003**	**0.1643**	**1.0800e-003**	**0.1654**	**0.0436**	**9.9000e-004**	**0.0446**		**153.8970**	**153.8970**	**4.7700e-003**	**3.9900e-003**	**155.2057**

Palmdale GPU - MFR construction Only - Los Angeles-Mojave Desert County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612		2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**1.7062**	**15.6156**	**16.3634**	**0.0269**		**0.8090**	**0.8090**		**0.7612**	**0.7612**		**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.2288	5.7290	1.9330	0.0231	0.7588	0.0552	0.8140	0.2185	0.0528	0.2713		2,482.9544	2,482.9544	0.0830	0.3576	2,591.6036
Worker	2.1813	1.4908	22.6784	0.0569	6.1775	0.0406	6.2181	1.6386	0.0374	1.6759		5,786.5279	5,786.5279	0.1793	0.1501	5,835.7337
Total	**2.4101**	**7.2199**	**24.6114**	**0.0800**	**6.9363**	**0.0958**	**7.0321**	**1.8570**	**0.0902**	**1.9472**		**8,269.4823**	**8,269.4823**	**0.2623**	**0.5077**	**8,427.3373**

Palmdale GPU - MFR construction Only - Los Angeles-Mojave Desert County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	0.2182	0.9457	11.9070	0.0178		0.0291	0.0291		0.0291	0.0291	0.0000	1,723.8213	1,723.8213	0.5575		1,737.7593
Total	**0.2182**	**0.9457**	**11.9070**	**0.0178**		**0.0291**	**0.0291**		**0.0291**	**0.0291**	**0.0000**	**1,723.8213**	**1,723.8213**	**0.5575**		**1,737.7593**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.2288	5.7290	1.9330	0.0231	0.7588	0.0552	0.8140	0.2185	0.0528	0.2713		2,482.9544	2,482.9544	0.0830	0.3576	2,591.6036
Worker	2.1813	1.4908	22.6784	0.0569	6.1775	0.0406	6.2181	1.6386	0.0374	1.6759		5,786.5279	5,786.5279	0.1793	0.1501	5,835.7337
Total	**2.4101**	**7.2199**	**24.6114**	**0.0800**	**6.9363**	**0.0958**	**7.0321**	**1.8570**	**0.0902**	**1.9472**		**8,269.4823**	**8,269.4823**	**0.2623**	**0.5077**	**8,427.3373**

Palmdale GPU - MFR construction Only - Los Angeles-Mojave Desert County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Paving - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1028	11.1249	14.5805	0.0228		0.5679	0.5679		0.5225	0.5225		2,207.6603	2,207.6603	0.7140		2,225.5104
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.1028**	**11.1249**	**14.5805**	**0.0228**		**0.5679**	**0.5679**		**0.5225**	**0.5225**		**2,207.6603**	**2,207.6603**	**0.7140**		**2,225.5104**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0435	0.0297	0.4524	1.1300e-003	0.1232	8.1000e-004	0.1240	0.0327	7.5000e-004	0.0334		115.4228	115.4228	3.5800e-003	2.9900e-003	116.4043
Total	**0.0435**	**0.0297**	**0.4524**	**1.1300e-003**	**0.1232**	**8.1000e-004**	**0.1240**	**0.0327**	**7.5000e-004**	**0.0334**		**115.4228**	**115.4228**	**3.5800e-003**	**2.9900e-003**	**116.4043**

Palmdale GPU - MFR construction Only - Los Angeles-Mojave Desert County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	0.2805	1.2154	17.2957	0.0228		0.0374	0.0374		0.0374	0.0374	0.0000	2,207.6603	2,207.6603	0.7140		2,225.5104
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.2805**	**1.2154**	**17.2957**	**0.0228**		**0.0374**	**0.0374**		**0.0374**	**0.0374**	**0.0000**	**2,207.6603**	**2,207.6603**	**0.7140**		**2,225.5104**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0435	0.0297	0.4524	1.1300e-003	0.1232	8.1000e-004	0.1240	0.0327	7.5000e-004	0.0334		115.4228	115.4228	3.5800e-003	2.9900e-003	116.4043
Total	**0.0435**	**0.0297**	**0.4524**	**1.1300e-003**	**0.1232**	**8.1000e-004**	**0.1240**	**0.0327**	**7.5000e-004**	**0.0334**		**115.4228**	**115.4228**	**3.5800e-003**	**2.9900e-003**	**116.4043**

Palmdale GPU - MFR construction Only - Los Angeles-Mojave Desert County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	280.2354					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2045	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817		281.4481	281.4481	0.0183		281.9062
Total	**280.4400**	**1.4085**	**1.8136**	**2.9700e-003**		**0.0817**	**0.0817**		**0.0817**	**0.0817**		**281.4481**	**281.4481**	**0.0183**		**281.9062**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.4351	0.2974	4.5236	0.0114	1.2322	8.0900e-003	1.2403	0.3268	7.4500e-003	0.3343		1,154.2276	1,154.2276	0.0358	0.0299	1,164.0426
Total	**0.4351**	**0.2974**	**4.5236**	**0.0114**	**1.2322**	**8.0900e-003**	**1.2403**	**0.3268**	**7.4500e-003**	**0.3343**		**1,154.2276**	**1,154.2276**	**0.0358**	**0.0299**	**1,164.0426**

Palmdale GPU - MFR construction Only - Los Angeles-Mojave Desert County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	280.2354					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0297	0.1288	1.8324	2.9700e-003		3.9600e-003	3.9600e-003		3.9600e-003	3.9600e-003	0.0000	281.4481	281.4481	0.0183		281.9062
Total	**280.2651**	**0.1288**	**1.8324**	**2.9700e-003**		**3.9600e-003**	**3.9600e-003**		**3.9600e-003**	**3.9600e-003**	**0.0000**	**281.4481**	**281.4481**	**0.0183**		**281.9062**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.4351	0.2974	4.5236	0.0114	1.2322	8.0900e-003	1.2403	0.3268	7.4500e-003	0.3343		1,154.2276	1,154.2276	0.0358	0.0299	1,164.0426
Total	**0.4351**	**0.2974**	**4.5236**	**0.0114**	**1.2322**	**8.0900e-003**	**1.2403**	**0.3268**	**7.4500e-003**	**0.3343**		**1,154.2276**	**1,154.2276**	**0.0358**	**0.0299**	**1,164.0426**

Palmdale GPU - MFR construction Only - Los Angeles-Mojave Desert County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

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

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	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
Apartments Mid Rise	10.80	7.30	7.50	40.20	19.20	40.60	86	11	3

4.4 Fleet Mix

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

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Apartments Mid Rise	0.544785	0.062844	0.187478	0.127235	0.023089	0.006083	0.010475	0.008012	0.000925	0.000611	0.024394	0.000698	0.003374

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

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

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.2 Energy by Land Use - NaturalGas

Unmitigated

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

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					
Apartments Mid Rise	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

6.1 Mitigation Measures Area

Palmdale GPU - MFR construction Only - Los Angeles-Mojave Desert County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	2.5979	0.9940	86.2330	4.5500e-003		0.4773	0.4773		0.4773	0.4773	0.0000	155.2372	155.2372	0.1493	0.0000	158.9691
Unmitigated	2.5979	0.9940	86.2330	4.5500e-003		0.4773	0.4773		0.4773	0.4773	0.0000	155.2372	155.2372	0.1493	0.0000	158.9691

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.5979	0.9940	86.2330	4.5500e-003		0.4773	0.4773		0.4773	0.4773		155.2372	155.2372	0.1493		158.9691
Total	**2.5979**	**0.9940**	**86.2330**	**4.5500e-003**		**0.4773**	**0.4773**		**0.4773**	**0.4773**	**0.0000**	**155.2372**	**155.2372**	**0.1493**	**0.0000**	**158.9691**

Palmdale GPU - MFR construction Only - Los Angeles-Mojave Desert County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.5979	0.9940	86.2330	4.5500e-003		0.4773	0.4773		0.4773	0.4773		155.2372	155.2372	0.1493		158.9691
Total	**2.5979**	**0.9940**	**86.2330**	**4.5500e-003**		**0.4773**	**0.4773**		**0.4773**	**0.4773**	**0.0000**	**155.2372**	**155.2372**	**0.1493**	**0.0000**	**158.9691**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Palmdale GPU - MFR construction Only - Los Angeles-Mojave Desert County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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

Palmdale GPU - MFR construction Only - Los Angeles-Mojave Desert County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Palmdale GPU - MFR construction Only

Los Angeles-Mojave Desert County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Apartments Mid Rise	1,045.00	Dwelling Unit	27.50	1,045,000.00	3598

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2023
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	390.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - See Assumptions

Land Use - See Assumptions

Construction Phase - See Assumptions

Grading -

Demolition - See Assumptions

Architectural Coating - See Assumptions

Vehicle Trips - Operational Emissions modeled separately

Road Dust - Operational Emissions modeled separately

Woodstoves - Operational Emissions modeled separately

Consumer Products - Operational Emissions modeled separately

Area Coating - Operational Emissions modeled separately

Landscape Equipment - Operational Emissions modeled separately

Palmdale GPU - MFR construction Only - Los Angeles-Mojave Desert County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Energy Use - Operational Emissions modeled separately

Water And Wastewater - Operational Emissions modeled separately

Solid Waste - Operational Emissions modeled separately

Construction Off-road Equipment Mitigation - 2x per day watering is compliant with AVAQMD regulations for reducing fugitive dust, it is not mitigation

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	150.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	50.00
tblArchitecturalCoating	EF_Residential_Exterior	250.00	150.00
tblArchitecturalCoating	EF_Residential_Interior	250.00	50.00
tblAreaCoating	ReapplicationRatePercent	10	0
tblConstEquipMitigation	FuelType	Diesel	Electrical
tblConstEquipMitigation	FuelType	Diesel	Electrical
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	5.00
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	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	5.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final

Palmdale GPU - MFR construction Only - Los Angeles-Mojave Desert County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstructionPhase	NumDays	440.00	222.00
tblConstructionPhase	NumDays	30.00	15.00
tblConstructionPhase	NumDays	45.00	23.00
tblConstructionPhase	PhaseEndDate	4/26/2024	12/30/2022
tblConstructionPhase	PhaseEndDate	1/19/2024	12/29/2022
tblConstructionPhase	PhaseEndDate	2/11/2022	1/21/2022
tblConstructionPhase	PhaseEndDate	5/13/2022	2/23/2022
tblConstructionPhase	PhaseEndDate	3/8/2024	4/12/2022
tblConstructionPhase	PhaseStartDate	3/9/2024	11/14/2022
tblConstructionPhase	PhaseStartDate	5/14/2022	2/23/2022
tblConstructionPhase	PhaseStartDate	3/12/2022	1/22/2022
tblConstructionPhase	PhaseStartDate	1/20/2024	2/23/2022
tblConsumerProducts	ROG_EF	2.14E-05	0
tblConsumerProducts	ROG_EF_Degreaser	3.542E-07	0
tblConsumerProducts	ROG_EF_PesticidesFertilizers	5.152E-08	0
tblEnergyUse	LightingElect	741.44	0.00
tblEnergyUse	NT24E	3,054.10	0.00
tblEnergyUse	NT24NG	6,384.00	0.00

Palmdale GPU - MFR construction Only - Los Angeles-Mojave Desert County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tblEnergyUse	T24E	53.81	0.00
tblEnergyUse	T24NG	6,682.59	0.00
tblFireplaces	FireplaceDayYear	82.00	0.00
tblFireplaces	FireplaceHourDay	3.00	0.00
tblFireplaces	FireplaceWoodMass	3,078.40	0.00
tblFireplaces	NumberGas	574.75	0.00
tblFireplaces	NumberNoFireplace	104.50	0.00
tblFireplaces	NumberWood	365.75	0.00
tblLandscapeEquipment	NumberSummerDays	180	0
tblLandUse	Population	2,989.00	3,598.00
tblRoadDust	RoadPercentPave	100	0
tblSolidWaste	SolidWasteGenerationRate	480.70	0.00
tblVehicleTrips	ST_TR	4.91	0.00
tblVehicleTrips	SU_TR	4.09	0.00
tblVehicleTrips	WD_TR	5.44	0.00
tblWater	IndoorWaterUseRate	68,085,956.77	0.00
tblWater	OutdoorWaterUseRate	42,923,755.36	0.00
tblWoodstoves	NumberCatalytic	52.25	0.00
tblWoodstoves	NumberNoncatalytic	52.25	0.00
tblWoodstoves	WoodstoveDayYear	82.00	0.00
tblWoodstoves	WoodstoveWoodMass	3,019.20	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

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

Palmdale GPU - MFR construction Only - Los Angeles-Mojave Desert County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

					PM10	PM10	Total	PM2.5	PM2.5	Total						
Year	lb/day										lb/day					
2022	285.1345	73.2721	84.0367	0.1913	16.4274	3.1097	19.5371	5.5870	2.8798	8.4669	0.0000	18,994.6985	18,994.6985	3.5459	0.5504	19,240.0595
Maximum	**285.1345**	**73.2721**	**84.0367**	**0.1913**	**16.4274**	**3.1097**	**19.5371**	**5.5870**	**2.8798**	**8.4669**	**0.0000**	**18,994.6985**	**18,994.6985**	**3.5459**	**0.5504**	**19,240.0595**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2022	283.4717	13.1492	86.2531	0.1822	11.3654	0.2659	11.6313	3.5775	0.2601	3.8376	0.0000	18,164.1862	18,164.1862	3.4914	0.5504	18,408.1865
Maximum	**283.4717**	**13.1492**	**86.2531**	**0.1822**	**11.3654**	**0.2659**	**11.6313**	**3.5775**	**0.2601**	**3.8376**	**0.0000**	**18,164.1862**	**18,164.1862**	**3.4914**	**0.5504**	**18,408.1865**

	ROG	NOx	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	**0.58**	**82.05**	**-2.64**	**4.77**	**30.81**	**91.45**	**40.47**	**35.97**	**90.97**	**54.67**	**0.00**	**4.37**	**4.37**	**1.54**	**0.00**	**4.32**

Palmdale GPU - MFR construction Only - Los Angeles-Mojave Desert County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	2.5979	0.9940	86.2330	4.5500e-003		0.4773	0.4773		0.4773	0.4773	0.0000	155.2372	155.2372	0.1493	0.0000	158.9691
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	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	**2.5979**	**0.9940**	**86.2330**	**4.5500e-003**	**0.0000**	**0.4773**	**0.4773**	**0.0000**	**0.4773**	**0.4773**	**0.0000**	**155.2372**	**155.2372**	**0.1493**	**0.0000**	**158.9691**

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	2.5979	0.9940	86.2330	4.5500e-003		0.4773	0.4773		0.4773	0.4773	0.0000	155.2372	155.2372	0.1493	0.0000	158.9691
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	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	**2.5979**	**0.9940**	**86.2330**	**4.5500e-003**	**0.0000**	**0.4773**	**0.4773**	**0.0000**	**0.4773**	**0.4773**	**0.0000**	**155.2372**	**155.2372**	**0.1493**	**0.0000**	**158.9691**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	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	Demolition	Demolition	1/1/2022	1/21/2022	5	15	
2	Grading	Grading	1/22/2022	2/23/2022	5	23	
3	Building Construction	Building Construction	2/23/2022	12/29/2022	5	222	
4	Paving	Paving	2/23/2022	4/12/2022	5	35	
5	Architectural Coating	Architectural Coating	11/14/2022	12/30/2022	5	35	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 69

Acres of Paving: 0

Residential Indoor: 2,116,125; Residential Outdoor: 705,375; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Building Construction	Cranes	1	7.00	231	0.29
Demolition	Excavators	3	8.00	158	0.38
Grading	Excavators	2	8.00	158	0.38
Building Construction	Forklifts	3	8.00	89	0.20

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Building Construction	Generator Sets	1	8.00	84	0.74
Grading	Graders	1	8.00	187	0.41
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
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Architectural Coating	1	150.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	752.00	112.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Demolition	6	15.00	0.00	136.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Alternative Fuel for Construction Equipment

Use Cleaner Engines for Construction Equipment

Water Exposed Area

3.2 Demolition - 2022

Unmitigated Construction On-Site

Palmdale GPU - MFR construction Only - Los Angeles-Mojave Desert County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.9687	0.0000	1.9687	0.2981	0.0000	0.2981			0.0000			0.0000
Off-Road	2.6392	25.7194	20.5941	0.0388		1.2427	1.2427		1.1553	1.1553		3,746.7812	3,746.7812	1.0524		3,773.0920
Total	**2.6392**	**25.7194**	**20.5941**	**0.0388**	**1.9687**	**1.2427**	**3.2114**	**0.2981**	**1.1553**	**1.4533**		**3,746.7812**	**3,746.7812**	**1.0524**		**3,773.0920**

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	0.0412	1.5845	0.3613	5.6400e-003	0.1587	0.0113	0.1700	0.0435	0.0109	0.0544		617.4175	617.4175	0.0327	0.0980	647.4291
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	0.0459	0.0328	0.4203	1.0700e-003	0.1232	8.1000e-004	0.1240	0.0327	7.5000e-004	0.0334		109.3543	109.3543	3.6800e-003	3.2000e-003	110.3993
Total	**0.0872**	**1.6174**	**0.7816**	**6.7100e-003**	**0.2819**	**0.0122**	**0.2941**	**0.0762**	**0.0116**	**0.0878**		**726.7718**	**726.7718**	**0.0364**	**0.1012**	**757.8285**

Palmdale GPU - MFR construction Only - Los Angeles-Mojave Desert County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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					0.8859	0.0000	0.8859	0.1341	0.0000	0.1341			0.0000			0.0000
Off-Road	0.4623	2.0032	23.2798	0.0388		0.0616	0.0616		0.0616	0.0616	0.0000	3,746.7812	3,746.7812	1.0524		3,773.0920
Total	**0.4623**	**2.0032**	**23.2798**	**0.0388**	**0.8859**	**0.0616**	**0.9476**	**0.1341**	**0.0616**	**0.1958**	**0.0000**	**3,746.7812**	**3,746.7812**	**1.0524**		**3,773.0920**

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	0.0412	1.5845	0.3613	5.6400e-003	0.1587	0.0113	0.1700	0.0435	0.0109	0.0544		617.4175	617.4175	0.0327	0.0980	647.4291
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	0.0459	0.0328	0.4203	1.0700e-003	0.1232	8.1000e-004	0.1240	0.0327	7.5000e-004	0.0334		109.3543	109.3543	3.6800e-003	3.2000e-003	110.3993
Total	**0.0872**	**1.6174**	**0.7816**	**6.7100e-003**	**0.2819**	**0.0122**	**0.2941**	**0.0762**	**0.0116**	**0.0878**		**726.7718**	**726.7718**	**0.0364**	**0.1012**	**757.8285**

Palmdale GPU - MFR construction Only - Los Angeles-Mojave Desert County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.2036	0.0000	9.2036	3.6538	0.0000	3.6538			0.0000			0.0000
Off-Road	3.6248	38.8435	29.0415	0.0621		1.6349	1.6349		1.5041	1.5041		6,011.4105	6,011.4105	1.9442		6,060.0158
Total	**3.6248**	**38.8435**	**29.0415**	**0.0621**	**9.2036**	**1.6349**	**10.8385**	**3.6538**	**1.5041**	**5.1579**		**6,011.4105**	**6,011.4105**	**1.9442**		**6,060.0158**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0612	0.0438	0.5605	1.4300e-003	0.1643	1.0800e-003	0.1654	0.0436	9.9000e-004	0.0446		145.8057	145.8057	4.9000e-003	4.2600e-003	147.1991
Total	**0.0612**	**0.0438**	**0.5605**	**1.4300e-003**	**0.1643**	**1.0800e-003**	**0.1654**	**0.0436**	**9.9000e-004**	**0.0446**		**145.8057**	**145.8057**	**4.9000e-003**	**4.2600e-003**	**147.1991**

Palmdale GPU - MFR construction Only - Los Angeles-Mojave Desert County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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					4.1416	0.0000	4.1416	1.6442	0.0000	1.6442			0.0000			0.0000
Off-Road	0.7616	3.3000	32.9991	0.0621		0.1015	0.1015		0.1015	0.1015	0.0000	6,011.4105	6,011.4105	1.9442		6,060.0158
Total	**0.7616**	**3.3000**	**32.9991**	**0.0621**	**4.1416**	**0.1015**	**4.2432**	**1.6442**	**0.1015**	**1.7457**	**0.0000**	**6,011.4105**	**6,011.4105**	**1.9442**		**6,060.0158**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0612	0.0438	0.5605	1.4300e-003	0.1643	1.0800e-003	0.1654	0.0436	9.9000e-004	0.0446		145.8057	145.8057	4.9000e-003	4.2600e-003	147.1991
Total	**0.0612**	**0.0438**	**0.5605**	**1.4300e-003**	**0.1643**	**1.0800e-003**	**0.1654**	**0.0436**	**9.9000e-004**	**0.0446**		**145.8057**	**145.8057**	**4.9000e-003**	**4.2600e-003**	**147.1991**

Palmdale GPU - MFR construction Only - Los Angeles-Mojave Desert County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612		2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**1.7062**	**15.6156**	**16.3634**	**0.0269**		**0.8090**	**0.8090**		**0.7612**	**0.7612**		**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.2263	5.9649	1.9977	0.0231	0.7588	0.0554	0.8142	0.2185	0.0530	0.2715		2,483.8393	2,483.8393	0.0827	0.3581	2,592.6169
Worker	2.3027	1.6466	21.0728	0.0539	6.1775	0.0406	6.2181	1.6386	0.0374	1.6759		5,482.2948	5,482.2948	0.1844	0.1603	5,534.6858
Total	**2.5290**	**7.6115**	**23.0705**	**0.0770**	**6.9363**	**0.0960**	**7.0323**	**1.8570**	**0.0904**	**1.9474**		**7,966.1341**	**7,966.1341**	**0.2671**	**0.5184**	**8,127.3027**

Palmdale GPU - MFR construction Only - Los Angeles-Mojave Desert County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	0.2182	0.9457	11.9070	0.0178		0.0291	0.0291		0.0291	0.0291	0.0000	1,723.8213	1,723.8213	0.5575		1,737.7593
Total	**0.2182**	**0.9457**	**11.9070**	**0.0178**		**0.0291**	**0.0291**		**0.0291**	**0.0291**	**0.0000**	**1,723.8213**	**1,723.8213**	**0.5575**		**1,737.7593**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.2263	5.9649	1.9977	0.0231	0.7588	0.0554	0.8142	0.2185	0.0530	0.2715		2,483.8393	2,483.8393	0.0827	0.3581	2,592.6169
Worker	2.3027	1.6466	21.0728	0.0539	6.1775	0.0406	6.2181	1.6386	0.0374	1.6759		5,482.2948	5,482.2948	0.1844	0.1603	5,534.6858
Total	**2.5290**	**7.6115**	**23.0705**	**0.0770**	**6.9363**	**0.0960**	**7.0323**	**1.8570**	**0.0904**	**1.9474**		**7,966.1341**	**7,966.1341**	**0.2671**	**0.5184**	**8,127.3027**

Palmdale GPU - MFR construction Only - Los Angeles-Mojave Desert County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Paving - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1028	11.1249	14.5805	0.0228		0.5679	0.5679		0.5225	0.5225		2,207.6603	2,207.6603	0.7140		2,225.5104
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.1028**	**11.1249**	**14.5805**	**0.0228**		**0.5679**	**0.5679**		**0.5225**	**0.5225**		**2,207.6603**	**2,207.6603**	**0.7140**		**2,225.5104**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0459	0.0328	0.4203	1.0700e-003	0.1232	8.1000e-004	0.1240	0.0327	7.5000e-004	0.0334		109.3543	109.3543	3.6800e-003	3.2000e-003	110.3993
Total	**0.0459**	**0.0328**	**0.4203**	**1.0700e-003**	**0.1232**	**8.1000e-004**	**0.1240**	**0.0327**	**7.5000e-004**	**0.0334**		**109.3543**	**109.3543**	**3.6800e-003**	**3.2000e-003**	**110.3993**

Palmdale GPU - MFR construction Only - Los Angeles-Mojave Desert County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	0.2805	1.2154	17.2957	0.0228		0.0374	0.0374		0.0374	0.0374	0.0000	2,207.6603	2,207.6603	0.7140		2,225.5104
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.2805**	**1.2154**	**17.2957**	**0.0228**		**0.0374**	**0.0374**		**0.0374**	**0.0374**	**0.0000**	**2,207.6603**	**2,207.6603**	**0.7140**		**2,225.5104**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0459	0.0328	0.4203	1.0700e-003	0.1232	8.1000e-004	0.1240	0.0327	7.5000e-004	0.0334		109.3543	109.3543	3.6800e-003	3.2000e-003	110.3993
Total	**0.0459**	**0.0328**	**0.4203**	**1.0700e-003**	**0.1232**	**8.1000e-004**	**0.1240**	**0.0327**	**7.5000e-004**	**0.0334**		**109.3543**	**109.3543**	**3.6800e-003**	**3.2000e-003**	**110.3993**

Palmdale GPU - MFR construction Only - Los Angeles-Mojave Desert County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	280.2354					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2045	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817		281.4481	281.4481	0.0183		281.9062
Total	**280.4400**	**1.4085**	**1.8136**	**2.9700e-003**		**0.0817**	**0.0817**		**0.0817**	**0.0817**		**281.4481**	**281.4481**	**0.0183**		**281.9062**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.4593	0.3285	4.2034	0.0108	1.2322	8.0900e-003	1.2403	0.3268	7.4500e-003	0.3343		1,093.5428	1,093.5428	0.0368	0.0320	1,103.9932
Total	**0.4593**	**0.3285**	**4.2034**	**0.0108**	**1.2322**	**8.0900e-003**	**1.2403**	**0.3268**	**7.4500e-003**	**0.3343**		**1,093.5428**	**1,093.5428**	**0.0368**	**0.0320**	**1,103.9932**

Palmdale GPU - MFR construction Only - Los Angeles-Mojave Desert County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	280.2354					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0297	0.1288	1.8324	2.9700e-003		3.9600e-003	3.9600e-003		3.9600e-003	3.9600e-003	0.0000	281.4481	281.4481	0.0183		281.9062
Total	**280.2651**	**0.1288**	**1.8324**	**2.9700e-003**		**3.9600e-003**	**3.9600e-003**		**3.9600e-003**	**3.9600e-003**	**0.0000**	**281.4481**	**281.4481**	**0.0183**		**281.9062**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.4593	0.3285	4.2034	0.0108	1.2322	8.0900e-003	1.2403	0.3268	7.4500e-003	0.3343		1,093.5428	1,093.5428	0.0368	0.0320	1,103.9932
Total	**0.4593**	**0.3285**	**4.2034**	**0.0108**	**1.2322**	**8.0900e-003**	**1.2403**	**0.3268**	**7.4500e-003**	**0.3343**		**1,093.5428**	**1,093.5428**	**0.0368**	**0.0320**	**1,103.9932**

Palmdale GPU - MFR construction Only - Los Angeles-Mojave Desert County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

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

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	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
Apartments Mid Rise	10.80	7.30	7.50	40.20	19.20	40.60	86	11	3

4.4 Fleet Mix

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

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Apartments Mid Rise	0.544785	0.062844	0.187478	0.127235	0.023089	0.006083	0.010475	0.008012	0.000925	0.000611	0.024394	0.000698	0.003374

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

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

5.2 Energy by Land Use - NaturalGas

Unmitigated

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

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					
Apartments Mid Rise	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

6.1 Mitigation Measures Area

Palmdale GPU - MFR construction Only - Los Angeles-Mojave Desert County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	2.5979	0.9940	86.2330	4.5500e-003		0.4773	0.4773		0.4773	0.4773	0.0000	155.2372	155.2372	0.1493	0.0000	158.9691
Unmitigated	2.5979	0.9940	86.2330	4.5500e-003		0.4773	0.4773		0.4773	0.4773	0.0000	155.2372	155.2372	0.1493	0.0000	158.9691

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.5979	0.9940	86.2330	4.5500e-003		0.4773	0.4773		0.4773	0.4773		155.2372	155.2372	0.1493		158.9691
Total	**2.5979**	**0.9940**	**86.2330**	**4.5500e-003**		**0.4773**	**0.4773**		**0.4773**	**0.4773**	**0.0000**	**155.2372**	**155.2372**	**0.1493**	**0.0000**	**158.9691**

Palmdale GPU - MFR construction Only - Los Angeles-Mojave Desert County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.5979	0.9940	86.2330	4.5500e-003		0.4773	0.4773		0.4773	0.4773		155.2372	155.2372	0.1493		158.9691
Total	**2.5979**	**0.9940**	**86.2330**	**4.5500e-003**		**0.4773**	**0.4773**		**0.4773**	**0.4773**	**0.0000**	**155.2372**	**155.2372**	**0.1493**	**0.0000**	**158.9691**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Palmdale GPU - MFR construction Only - Los Angeles-Mojave Desert County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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

Palmdale GPU - 2023 Operational Year Emissions - Los Angeles-Mojave Desert County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Palmdale GPU - 2023 Operational Year Emissions

Los Angeles-Mojave Desert County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Single Family Housing	56.00	Dwelling Unit	18.18	100,800.00	193
Apartments Mid Rise	1,045.00	Dwelling Unit	27.50	1,045,000.00	3598
Strip Mall	68.62	1000sqft	1.58	68,623.00	0
Hotel	58.00	Room	1.93	84,216.00	0
General Office Building	171.28	1000sqft	3.93	171,275.00	0
Unrefrigerated Warehouse-No Rail	502.34	1000sqft	11.53	502,343.00	0
Elementary School	51.10	1000sqft	1.17	51,102.00	0
Government Office Building	7.30	1000sqft	0.17	7,300.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2023
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	390.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - See Assumptions

Land Use - See Assumptions

Construction Phase - Construction Modeled Separately

Off-road Equipment - Construction Modeled Separately

Trips and VMT - Construction Modeled Separately

Palmdale GPU - 2023 Operational Year Emissions - Los Angeles-Mojave Desert County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Architectural Coating - Construction Modeled Separately

Vehicle Trips - See Assumptions

Woodstoves - AVAQMD and GP Policies

Area Coating - See Assumptions

Energy Use - See Assumptions. Adjusted for 100% electric development

Water And Wastewater - Water emissions not applicable to AQ output

Solid Waste - Solid waste not applicble to AQ emissions output

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	0.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	0.00
tblArchitecturalCoating	EF_Parking	250.00	0.00
tblArchitecturalCoating	EF_Residential_Exterior	250.00	0.00
tblArchitecturalCoating	EF_Residential_Interior	250.00	0.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	250	150
tblAreaCoating	Area_EF_Nonresidential_Interior	250	50
tblAreaCoating	Area_EF_Residential_Exterior	250	150
tblAreaCoating	Area_EF_Residential_Interior	250	50
tblConstructionPhase	NumDays	75.00	1.00
tblConstructionPhase	PhaseEndDate	1/28/2028	10/18/2027
tblEnergyUse	NT24E	3,054.10	4,924.61
tblEnergyUse	NT24E	1.59	1.91
tblEnergyUse	NT24E	4.62	4.73
tblEnergyUse	NT24E	4.62	4.73
tblEnergyUse	NT24E	2.89	4.08
tblEnergyUse	NT24E	6,155.97	8,026.48
tblEnergyUse	NT24E	3.23	3.46
tblEnergyUse	NT24E	1.34	1.35
tblEnergyUse	NT24NG	6,384.00	0.00

Palmdale GPU - 2023 Operational Year Emissions - Los Angeles-Mojave Desert County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tblEnergyUse	NT24NG	1.08	0.00
tblEnergyUse	NT24NG	0.39	0.00
tblEnergyUse	NT24NG	0.39	0.00
tblEnergyUse	NT24NG	4.06	0.00
tblEnergyUse	NT24NG	6,384.00	0.00
tblEnergyUse	NT24NG	0.49	0.00
tblEnergyUse	NT24NG	0.03	0.00
tblEnergyUse	T24E	53.81	2,011.81
tblEnergyUse	T24E	1.56	4.26
tblEnergyUse	T24E	4.11	7.02
tblEnergyUse	T24E	4.11	7.02
tblEnergyUse	T24E	2.28	8.06
tblEnergyUse	T24E	93.13	5,691.80
tblEnergyUse	T24E	3.58	3.91
tblEnergyUse	T24E	0.58	0.82
tblEnergyUse	T24NG	6,682.59	0.00
tblEnergyUse	T24NG	9.23	0.00
tblEnergyUse	T24NG	9.92	0.00
tblEnergyUse	T24NG	9.92	0.00
tblEnergyUse	T24NG	19.72	0.00
tblEnergyUse	T24NG	19,108.08	0.00
tblEnergyUse	T24NG	1.14	0.00
tblEnergyUse	T24NG	0.83	0.00
tblFireplaces	FireplaceDayYear	82.00	0.00
tblFireplaces	FireplaceDayYear	82.00	0.00
tblFireplaces	FireplaceHourDay	3.00	0.00
tblFireplaces	FireplaceHourDay	3.00	0.00
tblFireplaces	FireplaceWoodMass	3,078.40	0.00

Palmdale GPU - 2023 Operational Year Emissions - Los Angeles-Mojave Desert County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tblFireplaces	FireplaceWoodMass	3,078.40	0.00
tblFireplaces	NumberGas	574.75	0.00
tblFireplaces	NumberGas	30.80	0.00
tblFireplaces	NumberNoFireplace	104.50	1,045.00
tblFireplaces	NumberNoFireplace	5.60	56.00
tblFireplaces	NumberWood	365.75	0.00
tblFireplaces	NumberWood	19.60	0.00
tblLandUse	Population	160.00	193.00
tblLandUse	Population	2,989.00	3,598.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblSolidWaste	SolidWasteGenerationRate	480.70	0.00
tblSolidWaste	SolidWasteGenerationRate	66.43	0.00
tblSolidWaste	SolidWasteGenerationRate	159.29	0.00
tblSolidWaste	SolidWasteGenerationRate	6.79	0.00
tblSolidWaste	SolidWasteGenerationRate	31.75	0.00
tblSolidWaste	SolidWasteGenerationRate	79.13	0.00
tblSolidWaste	SolidWasteGenerationRate	72.05	0.00
tblSolidWaste	SolidWasteGenerationRate	472.20	0.00
tblTripsAndVMT	WorkerTripNumber	224.00	0.00
tblVehicleTrips	DV_TP	11.00	0.00
tblVehicleTrips	HO_TL	7.50	12.62
tblVehicleTrips	HS_TL	7.30	12.62
tblVehicleTrips	HW_TL	10.80	12.62
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	86.00	100.00
tblVehicleTrips	ST_TR	4.91	4.78
tblVehicleTrips	ST_TR	2.21	0.00
tblVehicleTrips	ST_TR	8.19	0.00

Palmdale GPU - 2023 Operational Year Emissions - Los Angeles-Mojave Desert County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tblVehicleTrips	ST_TR	9.54	0.00
tblVehicleTrips	ST_TR	42.04	0.00
tblVehicleTrips	ST_TR	1.74	0.00
tblVehicleTrips	SU_TR	4.09	4.78
tblVehicleTrips	SU_TR	0.70	0.00
tblVehicleTrips	SU_TR	5.95	0.00
tblVehicleTrips	SU_TR	8.55	0.00
tblVehicleTrips	SU_TR	20.43	0.00
tblVehicleTrips	SU_TR	1.74	0.00
tblVehicleTrips	WD_TR	5.44	4.78
tblVehicleTrips	WD_TR	19.52	0.00
tblVehicleTrips	WD_TR	9.74	0.00
tblVehicleTrips	WD_TR	22.59	0.00
tblVehicleTrips	WD_TR	8.36	0.00
tblVehicleTrips	WD_TR	9.44	0.00
tblVehicleTrips	WD_TR	44.32	0.00
tblVehicleTrips	WD_TR	1.74	0.00
tblWater	IndoorWaterUseRate	68,085,956.77	0.00
tblWater	IndoorWaterUseRate	1,481,742.47	0.00
tblWater	IndoorWaterUseRate	30,442,236.36	0.00
tblWater	IndoorWaterUseRate	1,450,215.71	0.00
tblWater	IndoorWaterUseRate	1,471,272.66	0.00
tblWater	IndoorWaterUseRate	3,648,625.43	0.00
tblWater	IndoorWaterUseRate	5,082,856.42	0.00
tblWater	IndoorWaterUseRate	116,166,125.00	0.00
tblWater	OutdoorWaterUseRate	42,923,755.36	0.00
tblWater	OutdoorWaterUseRate	3,810,194.92	0.00
tblWater	OutdoorWaterUseRate	18,658,144.86	0.00

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tblWater	OutdoorWaterUseRate	888,841.88	0.00
tblWater	OutdoorWaterUseRate	163,474.74	0.00
tblWater	OutdoorWaterUseRate	2,300,220.38	0.00
tblWater	OutdoorWaterUseRate	3,115,299.10	0.00
tblWoodstoves	NumberCatalytic	52.25	0.00
tblWoodstoves	NumberCatalytic	2.80	0.00
tblWoodstoves	NumberNoncatalytic	52.25	0.00
tblWoodstoves	NumberNoncatalytic	2.80	0.00
tblWoodstoves	WoodstoveDayYear	82.00	0.00
tblWoodstoves	WoodstoveDayYear	82.00	0.00
tblWoodstoves	WoodstoveWoodMass	3,019.20	0.00
tblWoodstoves	WoodstoveWoodMass	3,019.20	0.00

2.0 Emissions Summary

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					
2027	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**						

Palmdale GPU - 2023 Operational Year Emissions - Los Angeles-Mojave Desert County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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					
2027	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**						

	ROG	NOx	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)
		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	9.0231	0.0943	8.1848	4.3000e-004		0.0453	0.0453		0.0453	0.0453						

Palmdale GPU - 2023 Operational Year Emissions - Los Angeles-Mojave Desert County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000						
Mobile	3.2412	4.1206	37.1579	0.0831	8.6143	0.0603	8.6745	2.2981	0.0560	2.3540						
Waste						0.0000	0.0000		0.0000	0.0000						
Water						0.0000	0.0000		0.0000	0.0000						
Total	**12.2644**	**4.2149**	**45.3426**	**0.0835**	**8.6143**	**0.1056**	**8.7198**	**2.2981**	**0.1013**	**2.3993**						

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	9.0231	0.0943	8.1848	4.3000e-004		0.0453	0.0453		0.0453	0.0453						
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000						
Mobile	3.2412	4.1206	37.1579	0.0831	8.6143	0.0603	8.6745	2.2981	0.0560	2.3540						
Waste						0.0000	0.0000		0.0000	0.0000						
Water						0.0000	0.0000		0.0000	0.0000						
Total	**12.2644**	**4.2149**	**45.3426**	**0.0835**	**8.6143**	**0.1056**	**8.7198**	**2.2981**	**0.1013**	**2.3993**						

	ROG	NOx	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	10/16/2027	10/18/2027	5	1	

Acres of Grading (Site Preparation Phase): 0

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 2,320,245; Residential Outdoor: 773,415; Non-Residential Indoor: 1,327,289; Non-Residential Outdoor: 442,430; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	0	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
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 - 2027

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						
Off-Road	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**						

Palmdale GPU - 2023 Operational Year Emissions - Los Angeles-Mojave Desert County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Unmitigated Construction Off-Site

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

Palmdale GPU - 2023 Operational Year Emissions - Los Angeles-Mojave Desert County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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						
Off-Road	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**						

Mitigated Construction Off-Site

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

Palmdale GPU - 2023 Operational Year Emissions - Los Angeles-Mojave Desert County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	3.2412	4.1206	37.1579	0.0831	8.6143	0.0603	8.6745	2.2981	0.0560	2.3540						
Unmitigated	3.2412	4.1206	37.1579	0.0831	8.6143	0.0603	8.6745	2.2981	0.0560	2.3540						

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	4,991.76	4,991.76	4991.76	22,930,530	22,930,530
Elementary School	0.00	0.00	0.00		
General Office Building	0.00	0.00	0.00		
Government Office Building	0.00	0.00	0.00		
Hotel	0.00	0.00	0.00		
Single Family Housing	0.00	0.00	0.00		
Strip Mall	0.00	0.00	0.00		
Unrefrigerated Warehouse-No Rail	0.00	0.00	0.00		
Total	4,991.76	4,991.76	4,991.76	22,930,530	22,930,530

4.3 Trip Type Information

Palmdale GPU - 2023 Operational Year Emissions - Los Angeles-Mojave Desert County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	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
Apartments Mid Rise	12.62	12.62	12.62	40.20	19.20	40.60	100	0	0
Elementary School	9.50	7.30	7.30	65.00	30.00	5.00	63	25	12
General Office Building	9.50	7.30	7.30	33.00	48.00	19.00	77	19	4
Government Office Building	9.50	7.30	7.30	33.00	62.00	5.00	50	34	16
Hotel	9.50	7.30	7.30	19.40	61.60	19.00	58	38	4
Single Family Housing	10.80	7.30	7.50	40.20	19.20	40.60	86	11	3
Strip Mall	9.50	7.30	7.30	16.60	64.40	19.00	45	40	15
Unrefrigerated Warehouse-No	9.50	7.30	7.30	59.00	0.00	41.00	92	5	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Mid Rise	0.544785	0.062844	0.187478	0.127235	0.023089	0.006083	0.010475	0.008012	0.000925	0.000611	0.024394	0.000698	0.003374
Elementary School	0.544785	0.062844	0.187478	0.127235	0.023089	0.006083	0.010475	0.008012	0.000925	0.000611	0.024394	0.000698	0.003374
General Office Building	0.544785	0.062844	0.187478	0.127235	0.023089	0.006083	0.010475	0.008012	0.000925	0.000611	0.024394	0.000698	0.003374
Government Office Building	0.544785	0.062844	0.187478	0.127235	0.023089	0.006083	0.010475	0.008012	0.000925	0.000611	0.024394	0.000698	0.003374
Hotel	0.544785	0.062844	0.187478	0.127235	0.023089	0.006083	0.010475	0.008012	0.000925	0.000611	0.024394	0.000698	0.003374
Single Family Housing	0.544785	0.062844	0.187478	0.127235	0.023089	0.006083	0.010475	0.008012	0.000925	0.000611	0.024394	0.000698	0.003374
Strip Mall	0.544785	0.062844	0.187478	0.127235	0.023089	0.006083	0.010475	0.008012	0.000925	0.000611	0.024394	0.000698	0.003374
Unrefrigerated Warehouse-No Rail	0.544785	0.062844	0.187478	0.127235	0.023089	0.006083	0.010475	0.008012	0.000925	0.000611	0.024394	0.000698	0.003374

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Palmdale GPU - 2023 Operational Year Emissions - Los Angeles-Mojave Desert County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Mid Rise	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000						
Elementary School	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000						
General Office Building	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000						
Government Office Building	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000						
Hotel	0	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						
Strip Mall	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000						
Unrefrigerated Warehouse-No Rail	0	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**						

Palmdale GPU - 2023 Operational Year Emissions - Los Angeles-Mojave Desert County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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					
Apartments Mid Rise	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000						
Elementary School	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000						
General Office Building	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000						
Government Office Building	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000						
Hotel	0	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						
Strip Mall	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000						
Unrefrigerated Warehouse-No Rail	0	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**						

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use		Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	tons/yr	MT/yr			
Apartments Mid Rise	8.02336e+006					
Elementary School	447654					
General Office Building	2.65819e+006					
Government Office Building	113296					
Hotel	1.2026e+006					
Single Family Housing	858319					
Strip Mall	935331					
Unrefrigerated Warehouse-No Rail	2.04956e+006					
Total						

Mitigated

	Electricity Use		Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	tons/yr	MT/yr			
Apartments Mid Rise	8.02336e+006					
Elementary School	447654					
General Office Building	2.65819e+006					
Government Office Building	113296					
Hotel	1.2026e+006					
Single Family Housing	858319					
Strip Mall	935331					
Unrefrigerated Warehouse-No Rail	2.04956e+006					
Total						

6.0 Area Detail

6.1 Mitigation Measures Area

Palmdale GPU - 2023 Operational Year Emissions - Los Angeles-Mojave Desert County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	9.0231	0.0943	8.1848	4.3000e-004		0.0453	0.0453		0.0453	0.0453						
Unmitigated	9.0231	0.0943	8.1848	4.3000e-004		0.0453	0.0453		0.0453	0.0453						

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	0.8453					0.0000	0.0000		0.0000	0.0000						
Consumer Products	7.9307					0.0000	0.0000		0.0000	0.0000						
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000						
Landscaping	0.2471	0.0943	8.1848	4.3000e-004		0.0453	0.0453		0.0453	0.0453						
Total	**9.0231**	**0.0943**	**8.1848**	**4.3000e-004**		**0.0453**	**0.0453**		**0.0453**	**0.0453**						

Palmdale GPU - 2023 Operational Year Emissions - Los Angeles-Mojave Desert County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	0.8453					0.0000	0.0000		0.0000	0.0000						
Consumer Products	7.9307					0.0000	0.0000		0.0000	0.0000						
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000						
Landscaping	0.2471	0.0943	8.1848	4.3000e-004		0.0453	0.0453		0.0453	0.0453						
Total	**9.0231**	**0.0943**	**8.1848**	**4.3000e-004**		**0.0453**	**0.0453**		**0.0453**	**0.0453**						

7.0 Water Detail

7.1 Mitigation Measures Water

		Total CO2	CH4	N2O	CO2e
Category	tons/yr	MT/yr			
Mitigated					

Palmdale GPU - 2023 Operational Year Emissions - Los Angeles-Mojave Desert County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Unmitigated					

Palmdale GPU - 2023 Operational Year Emissions - Los Angeles-Mojave Desert County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use		Total CO2	CH4	N2O	CO2e
Land Use	Mgal	tons/yr	MT/yr			
Apartments Mid Rise	0 / 0					
Elementary School	0 / 0					
General Office Building	0 / 0					
Government Office Building	0 / 0					
Hotel	0 / 0					
Single Family Housing	0 / 0					
Strip Mall	0 / 0					
Unrefrigerated Warehouse-No Rail	0 / 0					
Total						

Palmdale GPU - 2023 Operational Year Emissions - Los Angeles-Mojave Desert County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Mitigated

	Indoor/Outdoor Use		Total CO2	CH4	N2O	CO2e
Land Use	Mgal	tons/yr	MT/yr			
Apartments Mid Rise	0 / 0					
Elementary School	0 / 0					
General Office Building	0 / 0					
Government Office Building	0 / 0					
Hotel	0 / 0					
Single Family Housing	0 / 0					
Strip Mall	0 / 0					
Unrefrigerated Warehouse-No Rail	0 / 0					
Total						

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

Palmdale GPU - 2023 Operational Year Emissions - Los Angeles-Mojave Desert County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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

Palmdale GPU - 2023 Operational Year Emissions - Los Angeles-Mojave Desert County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

8.2 Waste by Land Use

Unmitigated

	Waste Disposed		Total CO2	CH4	N2O	CO2e
Land Use	tons	tons/yr	MT/yr			
Apartments Mid Rise	0					
Elementary School	0					
General Office Building	0					
Government Office Building	0					
Hotel	0					
Single Family Housing	0					
Strip Mall	0					
Unrefrigerated Warehouse-No Rail	0					
Total						

Palmdale GPU - 2023 Operational Year Emissions - Los Angeles-Mojave Desert County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Mitigated

	Waste Disposed		Total CO2	CH4	N2O	CO2e
Land Use	tons	tons/yr	MT/yr			
Apartments Mid Rise	0					
Elementary School	0					
General Office Building	0					
Government Office Building	0					
Hotel	0					
Single Family Housing	0					
Strip Mall	0					
Unrefrigerated Warehouse-No Rail	0					
Total						

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

Palmdale GPU - 2023 Operational Year Emissions - Los Angeles-Mojave Desert County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Equipment Type	Number	Hours/Day	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 Applied

Palmdale General Plan - Buildout Year Operational Emissions

Los Angeles-Mojave Desert County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Single Family Housing	1,115.00	Dwelling Unit	362.01	2,007,000.00	3838
Apartments Mid Rise	20,885.00	Dwelling Unit	549.61	20,885,000.00	71918
Strip Mall	1,372.00	1000sqft	31.50	1,372,000.00	0
Hotel	174.00	Room	5.80	252,000.00	0
General Office Building	3,425.00	1000sqft	78.63	3,425,000.00	0
Unrefrigerated Warehouse-No Rail	10,047.00	1000sqft	230.65	10,047,000.00	0
Elementary School	1,022.00	1000sqft	23.46	1,022,000.00	0
Government Office Building	146.00	1000sqft	3.35	146,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2045
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	390.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - See Assumptions

Land Use - See Assumptions

Construction Phase - construction modeled separately

Off-road Equipment - construction modeled separately

Trips and VMT - construction modeled separately

Palmdale General Plan - Buildout Year Operational Emissions - Los Angeles-Mojave Desert County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Architectural Coating - construction modeled separately

Vehicle Trips - See Assumptions

Woodstoves - No wood burning hearts or natural gas fireplaces. AVAQMD and GP Policys

Area Coating - AVAQMD regulations

Energy Use - 100% Electric development

Water And Wastewater - See Assumptions

Solid Waste - See Assumptins

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	0.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	0.00
tblArchitecturalCoating	EF_Parking	250.00	0.00
tblArchitecturalCoating	EF_Residential_Exterior	250.00	0.00
tblArchitecturalCoating	EF_Residential_Interior	250.00	0.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	250	150
tblAreaCoating	Area_EF_Nonresidential_Interior	250	50
tblAreaCoating	Area_EF_Residential_Exterior	250	150
tblAreaCoating	Area_EF_Residential_Interior	250	50
tblConstructionPhase	NumDays	11,000.00	1.00
tblConstructionPhase	PhaseEndDate	3/12/2821	1/15/2779
tblEnergyUse	NT24E	3,054.10	4,924.61
tblEnergyUse	NT24E	1.59	1.19
tblEnergyUse	NT24E	4.62	4.73
tblEnergyUse	NT24E	4.62	4.73
tblEnergyUse	NT24E	2.89	4.08
tblEnergyUse	NT24E	6,155.97	8,026.48
tblEnergyUse	NT24E	3.23	3.46
tblEnergyUse	NT24E	1.34	1.35
tblEnergyUse	NT24NG	6,384.00	0.00

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tblEnergyUse	NT24NG	1.08	0.00
tblEnergyUse	NT24NG	0.39	0.00
tblEnergyUse	NT24NG	0.39	0.00
tblEnergyUse	NT24NG	4.06	0.00
tblEnergyUse	NT24NG	6,384.00	0.00
tblEnergyUse	NT24NG	0.49	0.00
tblEnergyUse	NT24NG	0.03	0.00
tblEnergyUse	T24E	53.81	2,011.81
tblEnergyUse	T24E	1.56	4.26
tblEnergyUse	T24E	4.11	7.02
tblEnergyUse	T24E	4.11	7.02
tblEnergyUse	T24E	2.28	8.06
tblEnergyUse	T24E	93.13	5,691.80
tblEnergyUse	T24E	3.58	3.91
tblEnergyUse	T24E	0.58	0.82
tblEnergyUse	T24NG	6,682.59	0.00
tblEnergyUse	T24NG	9.23	0.00
tblEnergyUse	T24NG	9.92	0.00
tblEnergyUse	T24NG	9.92	0.00
tblEnergyUse	T24NG	19.72	0.00
tblEnergyUse	T24NG	19,108.08	0.00
tblEnergyUse	T24NG	1.14	0.00
tblEnergyUse	T24NG	0.83	0.00
tblFireplaces	FireplaceDayYear	82.00	0.00
tblFireplaces	FireplaceDayYear	82.00	0.00
tblFireplaces	FireplaceHourDay	3.00	0.00
tblFireplaces	FireplaceHourDay	3.00	0.00
tblFireplaces	FireplaceWoodMass	3,078.40	0.00

Palmdale General Plan - Buildout Year Operational Emissions - Los Angeles-Mojave Desert County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tblFireplaces	FireplaceWoodMass	3,078.40	0.00
tblFireplaces	NumberGas	11,486.75	0.00
tblFireplaces	NumberGas	613.25	0.00
tblFireplaces	NumberNoFireplace	2,088.50	20,885.00
tblFireplaces	NumberNoFireplace	111.50	1,115.00
tblFireplaces	NumberWood	7,309.75	0.00
tblFireplaces	NumberWood	390.25	0.00
tblLandUse	LandUseSquareFeet	252,648.00	252,000.00
tblLandUse	Population	3,189.00	3,838.00
tblLandUse	Population	59,731.00	71,918.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblSolidWaste	SolidWasteGenerationRate	9,607.10	43,662.00
tblSolidWaste	SolidWasteGenerationRate	1,328.60	0.00
tblSolidWaste	SolidWasteGenerationRate	3,185.25	0.00
tblSolidWaste	SolidWasteGenerationRate	135.78	0.00
tblSolidWaste	SolidWasteGenerationRate	95.27	0.00
tblSolidWaste	SolidWasteGenerationRate	1,573.58	0.00
tblSolidWaste	SolidWasteGenerationRate	1,440.60	0.00
tblSolidWaste	SolidWasteGenerationRate	9,444.18	0.00
tblTripsAndVMT	WorkerTripNumber	4,355.00	0.00
tblVehicleTrips	DV_TP	11.00	0.00
tblVehicleTrips	HO_TL	7.50	12.62
tblVehicleTrips	HS_TL	7.30	12.62
tblVehicleTrips	HW_TL	10.80	12.62
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	86.00	100.00
tblVehicleTrips	ST_TR	4.91	4.78
tblVehicleTrips	ST_TR	2.21	0.00

Palmdale General Plan - Buildout Year Operational Emissions - Los Angeles-Mojave Desert County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tblVehicleTrips	ST_TR	8.19	0.00
tblVehicleTrips	ST_TR	9.54	0.00
tblVehicleTrips	ST_TR	42.04	0.00
tblVehicleTrips	ST_TR	1.74	0.00
tblVehicleTrips	SU_TR	4.09	4.78
tblVehicleTrips	SU_TR	0.70	0.00
tblVehicleTrips	SU_TR	5.95	0.00
tblVehicleTrips	SU_TR	8.55	0.00
tblVehicleTrips	SU_TR	20.43	0.00
tblVehicleTrips	SU_TR	1.74	0.00
tblVehicleTrips	WD_TR	5.44	4.78
tblVehicleTrips	WD_TR	19.52	0.00
tblVehicleTrips	WD_TR	9.74	0.00
tblVehicleTrips	WD_TR	22.59	0.00
tblVehicleTrips	WD_TR	8.36	0.00
tblVehicleTrips	WD_TR	9.44	0.00
tblVehicleTrips	WD_TR	44.32	0.00
tblVehicleTrips	WD_TR	1.74	0.00
tblWater	AerobicPercent	87.46	97.54
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	2.46
tblWater	IndoorWaterUseRate	1,360,741,825.10	1,739,319,900.00
tblWater	IndoorWaterUseRate	29,634,849.39	0.00
tblWater	IndoorWaterUseRate	608,738,086.88	0.00
tblWater	IndoorWaterUseRate	29,004,314.14	0.00
tblWater	IndoorWaterUseRate	4,413,817.98	0.00
tblWater	IndoorWaterUseRate	72,646,738.57	0.00
tblWater	IndoorWaterUseRate	101,627,499.48	0.00
tblWater	IndoorWaterUseRate	2,323,368,750.00	0.00

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tblWater	OutdoorWaterUseRate	857,858,976.70	170,818,662.00
tblWater	OutdoorWaterUseRate	76,203,898.43	0.00
tblWater	OutdoorWaterUseRate	373,097,537.12	0.00
tblWater	OutdoorWaterUseRate	17,776,837.70	0.00
tblWater	OutdoorWaterUseRate	490,424.22	0.00
tblWater	OutdoorWaterUseRate	45,799,030.84	0.00
tblWater	OutdoorWaterUseRate	62,287,822.26	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWoodstoves	NumberCatalytic	1,044.25	0.00
tblWoodstoves	NumberCatalytic	55.75	0.00
tblWoodstoves	NumberNoncatalytic	1,044.25	0.00
tblWoodstoves	NumberNoncatalytic	55.75	0.00
tblWoodstoves	WoodstoveDayYear	82.00	0.00
tblWoodstoves	WoodstoveDayYear	82.00	0.00
tblWoodstoves	WoodstoveWoodMass	3,019.20	0.00
tblWoodstoves	WoodstoveWoodMass	3,019.20	0.00

2.0 Emissions Summary

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					
2779	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						

Palmdale General Plan - Buildout Year Operational Emissions - Los Angeles-Mojave Desert County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**						

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2779	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**						

	ROG	NOx	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)

Palmdale General Plan - Buildout Year Operational Emissions - Los Angeles-Mojave Desert County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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	174.1984	1.8786	162.7827	8.6400e-003		0.9064	0.9064		0.9064	0.9064						
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000						
Mobile	52.7692	52.7040	551.9966	1.2188	172.3052	0.5827	172.8878	45.9942	0.5443	46.5385						
Waste						0.0000	0.0000		0.0000	0.0000						
Water						0.0000	0.0000		0.0000	0.0000						
Total	**226.9676**	**54.5826**	**714.7793**	**1.2275**	**172.3052**	**1.4891**	**173.7942**	**45.9942**	**1.4507**	**47.4449**						

Palmdale General Plan - Buildout Year Operational Emissions - Los Angeles-Mojave Desert County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	174.1984	1.8786	162.7827	8.6400e-003		0.9064	0.9064		0.9064	0.9064						
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000						
Mobile	52.7692	52.7040	551.9966	1.2188	172.3052	0.5827	172.8878	45.9942	0.5443	46.5385						
Waste						0.0000	0.0000		0.0000	0.0000						
Water						0.0000	0.0000		0.0000	0.0000						
Total	**226.9676**	**54.5826**	**714.7793**	**1.2275**	**172.3052**	**1.4891**	**173.7942**	**45.9942**	**1.4507**	**47.4449**						

	ROG	NOx	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	1/13/2779	1/15/2779	5	1	

Acres of Grading (Site Preparation Phase): 0

Palmdale General Plan - Buildout Year Operational Emissions - Los Angeles-Mojave Desert County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 46,356,300; Residential Outdoor: 15,452,100; Non-Residential Indoor: 24,396,000; Non-Residential Outdoor: 8,132,000; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	0	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
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 - 2779

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						
Off-Road	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**						

Palmdale General Plan - Buildout Year Operational Emissions - Los Angeles-Mojave Desert County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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**						

Palmdale General Plan - Buildout Year Operational Emissions - Los Angeles-Mojave Desert County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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						
Off-Road	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**						

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**						

Palmdale General Plan - Buildout Year Operational Emissions - Los Angeles-Mojave Desert County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	52.7692	52.7040	551.9966	1.2188	172.3052	0.5827	172.8878	45.9942	0.5443	46.5385						
Unmitigated	52.7692	52.7040	551.9966	1.2188	172.3052	0.5827	172.8878	45.9942	0.5443	46.5385						

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	99,746.76	99,746.76	99746.76	458,204,696	458,204,696
Elementary School	0.00	0.00	0.00		
General Office Building	0.00	0.00	0.00		
Government Office Building	0.00	0.00	0.00		
Hotel	0.00	0.00	0.00		
Single Family Housing	0.00	0.00	0.00		
Strip Mall	0.00	0.00	0.00		
Unrefrigerated Warehouse-No Rail	0.00	0.00	0.00		
Total	99,746.76	99,746.76	99,746.76	458,204,696	458,204,696

4.3 Trip Type Information

Palmdale General Plan - Buildout Year Operational Emissions - Los Angeles-Mojave Desert County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	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
Apartments Mid Rise	12.62	12.62	12.62	40.20	19.20	40.60	100	0	0
Elementary School	9.50	7.30	7.30	65.00	30.00	5.00	63	25	12
General Office Building	9.50	7.30	7.30	33.00	48.00	19.00	77	19	4
Government Office Building	9.50	7.30	7.30	33.00	62.00	5.00	50	34	16
Hotel	9.50	7.30	7.30	19.40	61.60	19.00	58	38	4
Single Family Housing	10.80	7.30	7.50	40.20	19.20	40.60	86	11	3
Strip Mall	9.50	7.30	7.30	16.60	64.40	19.00	45	40	15
Unrefrigerated Warehouse-No	9.50	7.30	7.30	59.00	0.00	41.00	92	5	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Mid Rise	0.513803	0.071730	0.195358	0.129140	0.026589	0.008109	0.012209	0.007596	0.000946	0.000535	0.029664	0.000785	0.003536
Elementary School	0.513803	0.071730	0.195358	0.129140	0.026589	0.008109	0.012209	0.007596	0.000946	0.000535	0.029664	0.000785	0.003536
General Office Building	0.513803	0.071730	0.195358	0.129140	0.026589	0.008109	0.012209	0.007596	0.000946	0.000535	0.029664	0.000785	0.003536
Government Office Building	0.513803	0.071730	0.195358	0.129140	0.026589	0.008109	0.012209	0.007596	0.000946	0.000535	0.029664	0.000785	0.003536
Hotel	0.513803	0.071730	0.195358	0.129140	0.026589	0.008109	0.012209	0.007596	0.000946	0.000535	0.029664	0.000785	0.003536
Single Family Housing	0.513803	0.071730	0.195358	0.129140	0.026589	0.008109	0.012209	0.007596	0.000946	0.000535	0.029664	0.000785	0.003536
Strip Mall	0.513803	0.071730	0.195358	0.129140	0.026589	0.008109	0.012209	0.007596	0.000946	0.000535	0.029664	0.000785	0.003536
Unrefrigerated Warehouse-No Rail	0.513803	0.071730	0.195358	0.129140	0.026589	0.008109	0.012209	0.007596	0.000946	0.000535	0.029664	0.000785	0.003536

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Palmdale General Plan - Buildout Year Operational Emissions - Los Angeles-Mojave Desert County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Mid Rise	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000						
Elementary School	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000						
General Office Building	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000						
Government Office Building	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000						
Hotel	0	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						
Strip Mall	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000						
Unrefrigerated Warehouse-No Rail	0	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**						

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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					
Apartments Mid Rise	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000						
Elementary School	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000						
General Office Building	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000						
Government Office Building	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000						
Hotel	0	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						
Strip Mall	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000						
Unrefrigerated Warehouse-No Rail	0	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**						

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use		Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	tons/yr	MT/yr			
Apartments Mid Rise	1.60352e+008					
Elementary School	8.21688e+006					
General Office Building	5.3156e+007					
Government Office Building	2.26592e+006					
Hotel	3.59856e+006					
Single Family Housing	1.70897e+007					
Strip Mall	1.87004e+007					
Unrefrigerated Warehouse-No Rail	4.09918e+007					
Total						

Mitigated

	Electricity Use		Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	tons/yr	MT/yr			
Apartments Mid Rise	1.60352e+008					
Elementary School	8.21688e+006					
General Office Building	5.3156e+007					
Government Office Building	2.26592e+006					
Hotel	3.59856e+006					
Single Family Housing	1.70897e+007					
Strip Mall	1.87004e+007					
Unrefrigerated Warehouse-No Rail	4.09918e+007					
Total						

6.0 Area Detail

6.1 Mitigation Measures Area

Palmdale General Plan - Buildout Year Operational Emissions - Los Angeles-Mojave Desert County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	174.1984	1.8786	162.7827	8.6400e-003		0.9064	0.9064		0.9064	0.9064						
Unmitigated	174.1984	1.8786	162.7827	8.6400e-003		0.9064	0.9064		0.9064	0.9064						

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	16.3969					0.0000	0.0000		0.0000	0.0000						
Consumer Products	152.9238					0.0000	0.0000		0.0000	0.0000						
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000						
Landscaping	4.8778	1.8786	162.7827	8.6400e-003		0.9064	0.9064		0.9064	0.9064						
Total	**174.1984**	**1.8786**	**162.7827**	**8.6400e-003**		**0.9064**	**0.9064**		**0.9064**	**0.9064**						

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	16.3969					0.0000	0.0000		0.0000	0.0000						
Consumer Products	152.9238					0.0000	0.0000		0.0000	0.0000						
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000						
Landscaping	4.8778	1.8786	162.7827	8.6400e-003		0.9064	0.9064		0.9064	0.9064						
Total	**174.1984**	**1.8786**	**162.7827**	**8.6400e-003**		**0.9064**	**0.9064**		**0.9064**	**0.9064**						

7.0 Water Detail

7.1 Mitigation Measures Water

		Total CO2	CH4	N2O	CO2e
Category	tons/yr	MT/yr			
Mitigated					

Palmdale General Plan - Buildout Year Operational Emissions - Los Angeles-Mojave Desert County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Unmitigated					

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use		Total CO2	CH4	N2O	CO2e
Land Use	Mgal	tons/yr	MT/yr			
Apartments Mid Rise	1739.32 / 170.819					
Elementary School	0 / 0					
General Office Building	0 / 0					
Government Office Building	0 / 0					
Hotel	0 / 0					
Single Family Housing	0 / 0					
Strip Mall	0 / 0					
Unrefrigerated Warehouse-No Rail	0 / 0					
Total						

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Mitigated

	Indoor/Outdoor Use		Total CO2	CH4	N2O	CO2e
Land Use	Mgal	tons/yr	MT/yr			
Apartments Mid Rise	1739.32 / 170.819					
Elementary School	0 / 0					
General Office Building	0 / 0					
Government Office Building	0 / 0					
Hotel	0 / 0					
Single Family Housing	0 / 0					
Strip Mall	0 / 0					
Unrefrigerated Warehouse-No Rail	0 / 0					
Total						

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

Palmdale General Plan - Buildout Year Operational Emissions - Los Angeles-Mojave Desert County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

8.2 Waste by Land Use

Unmitigated

	Waste Disposed		Total CO2	CH4	N2O	CO2e
Land Use	tons	tons/yr	MT/yr			
Apartments Mid Rise	43662					
Elementary School	0					
General Office Building	0					
Government Office Building	0					
Hotel	0					
Single Family Housing	0					
Strip Mall	0					
Unrefrigerated Warehouse-No Rail	0					
Total						

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Mitigated

	Waste Disposed		Total CO2	CH4	N2O	CO2e
Land Use	tons	tons/yr	MT/yr			
Apartments Mid Rise	43662					
Elementary School	0					
General Office Building	0					
Government Office Building	0					
Hotel	0					
Single Family Housing	0					
Strip Mall	0					
Unrefrigerated Warehouse-No Rail	0					
Total						

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

Palmdale General Plan - Buildout Year Operational Emissions - Los Angeles-Mojave Desert County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Equipment Type	Number	Hours/Day	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

Palmdale GPU - Retail/Restaurant Construction Only - Los Angeles-Mojave Desert County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Palmdale GPU - Retail/Restaurant Construction Only

Los Angeles-Mojave Desert County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Strip Mall	68.62	1000sqft	1.58	68,623.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2023
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	390.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - See Assumptions

Land Use - See Assumptions

Construction Phase -

Demolition - See Assumptions

Architectural Coating - Based on AVAQMD requirements for VOC content

Vehicle Trips - Operational Emissions Modeled Separately

Consumer Products - Operational Emissions Modeled Separately

Area Coating - Operational Emissions Modeled Separately

Landscape Equipment - Operational Emissions Modeled Separately

Energy Use - Operational Emissions Modeled Separately

Water And Wastewater - Operational Emissions Modeled Separately

Solid Waste - Operational Emissions Modeled Separately

Palmdale GPU - Retail/Restaurant Construction Only - Los Angeles-Mojave Desert County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Construction Off-road Equipment Mitigation - Water 2x daily based on AVAQMD regulations for dust control; not mitigation

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	150.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	50.00
tblAreaCoating	ReapplicationRatePercent	10	0
tblConstEquipMitigation	FuelType	Diesel	Electrical
tblConstEquipMitigation	FuelType	Diesel	Electrical
tblConstEquipMitigation	FuelType	Diesel	Electrical
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	7.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConsumerProducts	ROG_EF	2.14E-05	0
tblConsumerProducts	ROG_EF_Degreaser	3.542E-07	0
tblConsumerProducts	ROG_EF_PesticidesFertilizers	5.152E-08	0
tblEnergyUse	LightingElect	6.26	0.00
tblEnergyUse	NT24E	3.23	0.00
tblEnergyUse	NT24NG	0.49	0.00
tblEnergyUse	T24E	3.58	0.00
tblEnergyUse	T24NG	1.14	0.00
tblLandscapeEquipment	NumberSummerDays	180	0
tblLandUse	LandUseSquareFeet	68,620.00	68,623.00
tblSolidWaste	SolidWasteGenerationRate	72.05	0.00
tblVehicleTrips	ST_TR	42.04	0.00
tblVehicleTrips	SU_TR	20.43	0.00
tblVehicleTrips	WD_TR	44.32	0.00
tblWater	IndoorWaterUseRate	5,082,856.42	0.00
tblWater	OutdoorWaterUseRate	3,115,299.10	0.00

2.0 Emissions Summary

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

Palmdale GPU - Retail/Restaurant Construction Only - Los Angeles-Mojave Desert County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Year	tons/yr										MT/yr					
2022	0.4377	1.5835	1.5790	3.0700e-003	0.0776	0.0718	0.1493	0.0200	0.0689	0.0889	0.0000	261.5421	261.5421	0.0419	5.2000e-003	264.1382
Maximum	**0.4377**	**1.5835**	**1.5790**	**3.0700e-003**	**0.0776**	**0.0718**	**0.1493**	**0.0200**	**0.0689**	**0.0889**	**0.0000**	**261.5421**	**261.5421**	**0.0419**	**5.2000e-003**	**264.1382**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2022	0.2623	0.1521	0.7804	1.6400e-003	0.0512	2.7100e-003	0.0539	0.0135	2.6700e-003	0.0161	0.0000	148.3832	148.3832	0.0325	5.2000e-003	150.7428
Maximum	**0.2623**	**0.1521**	**0.7804**	**1.6400e-003**	**0.0512**	**2.7100e-003**	**0.0539**	**0.0135**	**2.6700e-003**	**0.0161**	**0.0000**	**148.3832**	**148.3832**	**0.0325**	**5.2000e-003**	**150.7428**

	ROG	NOx	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	**40.08**	**90.39**	**50.58**	**46.58**	**34.00**	**96.22**	**63.90**	**32.85**	**96.13**	**81.88**	**0.00**	**43.27**	**43.27**	**22.57**	**0.00**	**42.93**

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

Palmdale GPU - Retail/Restaurant Construction Only - Los Angeles-Mojave Desert County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

1	**1-1-2022**	**3-31-2022**	0.5814	0.0755
2	**4-1-2022**	**6-30-2022**	0.4824	0.0391
3	**7-1-2022**	**9-30-2022**	0.4877	0.0395
		Highest	0.5814	0.0755

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	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	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**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 Applied

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	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	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	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	Demolition	Demolition	1/1/2022	1/28/2022	5	20	
2	Grading	Grading	1/29/2022	2/3/2022	5	4	
3	Building Construction	Building Construction	2/5/2022	11/11/2022	5	200	

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

4	Paving	Paving	2/5/2022	2/18/2022	5	10	
5	Architectural Coating	Architectural Coating	11/4/2022	11/17/2022	5	10	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 4

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 102,935; Non-Residential Outdoor: 34,312; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Rubber Tired Dozers	1	8.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	2	7.00	97	0.37
Building Construction	Cranes	1	6.00	231	0.29
Building Construction	Forklifts	1	6.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Building Construction	Welders	3	8.00	46	0.45
Paving	Cement and Mortar Mixers	1	6.00	9	0.56
Paving	Pavers	1	6.00	130	0.42
Paving	Paving Equipment	1	8.00	132	0.36
Paving	Rollers	1	7.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

Palmdale GPU - Retail/Restaurant Construction Only - Los Angeles-Mojave Desert County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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
Demolition	5	13.00	0.00	312.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	22.00	11.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	5	13.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	4.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Alternative Fuel for Construction Equipment

Use Cleaner Engines for Construction Equipment

Water Exposed Area

3.2 Demolition - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0338	0.0000	0.0338	5.1100e-003	0.0000	5.1100e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0169	0.1662	0.1396	2.4000e-004		8.3800e-003	8.3800e-003		7.8300e-003	7.8300e-003	0.0000	21.0777	21.0777	5.3700e-003	0.0000	21.2120
Total	**0.0169**	**0.1662**	**0.1396**	**2.4000e-004**	**0.0338**	**8.3800e-003**	**0.0422**	**5.1100e-003**	**7.8300e-003**	**0.0129**	**0.0000**	**21.0777**	**21.0777**	**5.3700e-003**	**0.0000**	**21.2120**

Palmdale GPU - Retail/Restaurant Construction Only - Los Angeles-Mojave Desert County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	7.2000e-004	0.0276	6.1500e-003	1.0000e-004	2.6800e-003	1.9000e-004	2.8800e-003	7.4000e-004	1.9000e-004	9.2000e-004	0.0000	9.6356	9.6356	5.1000e-004	1.5300e-003	10.1040
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	3.7000e-004	2.9000e-004	3.7300e-003	1.0000e-005	1.0500e-003	1.0000e-005	1.0500e-003	2.8000e-004	1.0000e-005	2.8000e-004	0.0000	0.8726	0.8726	3.0000e-005	3.0000e-005	0.8809
Total	**1.0900e-003**	**0.0279**	**9.8800e-003**	**1.1000e-004**	**3.7300e-003**	**2.0000e-004**	**3.9300e-003**	**1.0200e-003**	**2.0000e-004**	**1.2000e-003**	**0.0000**	**10.5082**	**10.5082**	**5.4000e-004**	**1.5600e-003**	**10.9848**

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					0.0152	0.0000	0.0152	2.3000e-003	0.0000	2.3000e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.8100e-003	0.0122	0.1472	2.4000e-004		3.7000e-004	3.7000e-004		3.7000e-004	3.7000e-004	0.0000	21.0777	21.0777	5.3700e-003	0.0000	21.2119
Total	**2.8100e-003**	**0.0122**	**0.1472**	**2.4000e-004**	**0.0152**	**3.7000e-004**	**0.0156**	**2.3000e-003**	**3.7000e-004**	**2.6700e-003**	**0.0000**	**21.0777**	**21.0777**	**5.3700e-003**	**0.0000**	**21.2119**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	7.2000e-004	0.0276	6.1500e-003	1.0000e-004	2.6800e-003	1.9000e-004	2.8800e-003	7.4000e-004	1.9000e-004	9.2000e-004	0.0000	9.6356	9.6356	5.1000e-004	1.5300e-003	10.1040
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	3.7000e-004	2.9000e-004	3.7300e-003	1.0000e-005	1.0500e-003	1.0000e-005	1.0500e-003	2.8000e-004	1.0000e-005	2.8000e-004	0.0000	0.8726	0.8726	3.0000e-005	3.0000e-005	0.8809
Total	**1.0900e-003**	**0.0279**	**9.8800e-003**	**1.1000e-004**	**3.7300e-003**	**2.0000e-004**	**3.9300e-003**	**1.0200e-003**	**2.0000e-004**	**1.2000e-003**	**0.0000**	**10.5082**	**10.5082**	**5.4000e-004**	**1.5600e-003**	**10.9848**

3.3 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0142	0.0000	0.0142	6.8500e-003	0.0000	6.8500e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.0800e-003	0.0340	0.0184	4.0000e-005		1.4800e-003	1.4800e-003		1.3700e-003	1.3700e-003	0.0000	3.6205	3.6205	1.1700e-003	0.0000	3.6498
Total	**3.0800e-003**	**0.0340**	**0.0184**	**4.0000e-005**	**0.0142**	**1.4800e-003**	**0.0157**	**6.8500e-003**	**1.3700e-003**	**8.2200e-003**	**0.0000**	**3.6205**	**3.6205**	**1.1700e-003**	**0.0000**	**3.6498**

Palmdale GPU - Retail/Restaurant Construction Only - Los Angeles-Mojave Desert County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.0000e-005	4.0000e-005	5.7000e-004	0.0000	1.6000e-004	0.0000	1.6000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.1342	0.1342	0.0000	0.0000	0.1355
Total	**6.0000e-005**	**4.0000e-005**	**5.7000e-004**	**0.0000**	**1.6000e-004**	**0.0000**	**1.6000e-004**	**4.0000e-005**	**0.0000**	**4.0000e-005**	**0.0000**	**0.1342**	**0.1342**	**0.0000**	**0.0000**	**0.1355**

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					6.3700e-003	0.0000	6.3700e-003	3.0800e-003	0.0000	3.0800e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.0000e-004	2.1900e-003	0.0218	4.0000e-005		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005	0.0000	3.6205	3.6205	1.1700e-003	0.0000	3.6498
Total	**5.0000e-004**	**2.1900e-003**	**0.0218**	**4.0000e-005**	**6.3700e-003**	**7.0000e-005**	**6.4400e-003**	**3.0800e-003**	**7.0000e-005**	**3.1500e-003**	**0.0000**	**3.6205**	**3.6205**	**1.1700e-003**	**0.0000**	**3.6498**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.0000e-005	4.0000e-005	5.7000e-004	0.0000	1.6000e-004	0.0000	1.6000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.1342	0.1342	0.0000	0.0000	0.1355
Total	**6.0000e-005**	**4.0000e-005**	**5.7000e-004**	**0.0000**	**1.6000e-004**	**0.0000**	**1.6000e-004**	**4.0000e-005**	**0.0000**	**4.0000e-005**	**0.0000**	**0.1342**	**0.1342**	**0.0000**	**0.0000**	**0.1355**

3.4 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1649	1.2503	1.2726	2.2100e-003		0.0589	0.0589		0.0569	0.0569	0.0000	181.5769	181.5769	0.0316	0.0000	182.3675
Total	**0.1649**	**1.2503**	**1.2726**	**2.2100e-003**		**0.0589**	**0.0589**		**0.0569**	**0.0569**	**0.0000**	**181.5769**	**181.5769**	**0.0316**	**0.0000**	**182.3675**

Palmdale GPU - Retail/Restaurant Construction Only - Los Angeles-Mojave Desert County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.2300e-003	0.0591	0.0193	2.3000e-004	7.3300e-003	5.4000e-004	7.8800e-003	2.1200e-003	5.2000e-004	2.6400e-003	0.0000	22.1261	22.1261	7.4000e-004	3.1900e-003	23.0952
Worker	6.2700e-003	4.9100e-003	0.0631	1.6000e-004	0.0177	1.2000e-004	0.0178	4.7100e-003	1.1000e-004	4.8200e-003	0.0000	14.7665	14.7665	4.9000e-004	4.3000e-004	14.9071
Total	**8.5000e-003**	**0.0640**	**0.0823**	**3.9000e-004**	**0.0251**	**6.6000e-004**	**0.0257**	**6.8300e-003**	**6.3000e-004**	**7.4600e-003**	**0.0000**	**36.8926**	**36.8926**	**1.2300e-003**	**3.6200e-003**	**38.0024**

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	9.5800e-003	0.0415	0.4577	7.8000e-004		1.2800e-003	1.2800e-003		1.2800e-003	1.2800e-003	0.0000	68.5899	68.5899	0.0222	0.0000	69.1445
Total	**9.5800e-003**	**0.0415**	**0.4577**	**7.8000e-004**		**1.2800e-003**	**1.2800e-003**		**1.2800e-003**	**1.2800e-003**	**0.0000**	**68.5899**	**68.5899**	**0.0222**	**0.0000**	**69.1445**

Palmdale GPU - Retail/Restaurant Construction Only - Los Angeles-Mojave Desert County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.2300e-003	0.0591	0.0193	2.3000e-004	7.3300e-003	5.4000e-004	7.8800e-003	2.1200e-003	5.2000e-004	2.6400e-003	0.0000	22.1261	22.1261	7.4000e-004	3.1900e-003	23.0952
Worker	6.2700e-003	4.9100e-003	0.0631	1.6000e-004	0.0177	1.2000e-004	0.0178	4.7100e-003	1.1000e-004	4.8200e-003	0.0000	14.7665	14.7665	4.9000e-004	4.3000e-004	14.9071
Total	**8.5000e-003**	**0.0640**	**0.0823**	**3.9000e-004**	**0.0251**	**6.6000e-004**	**0.0257**	**6.8300e-003**	**6.3000e-004**	**7.4600e-003**	**0.0000**	**36.8926**	**36.8926**	**1.2300e-003**	**3.6200e-003**	**38.0024**

3.5 Paving - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	3.4400e-003	0.0339	0.0440	7.0000e-005		1.7400e-003	1.7400e-003		1.6000e-003	1.6000e-003	0.0000	5.8848	5.8848	1.8700e-003	0.0000	5.9315
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**3.4400e-003**	**0.0339**	**0.0440**	**7.0000e-005**		**1.7400e-003**	**1.7400e-003**		**1.6000e-003**	**1.6000e-003**	**0.0000**	**5.8848**	**5.8848**	**1.8700e-003**	**0.0000**	**5.9315**

Palmdale GPU - Retail/Restaurant Construction Only - Los Angeles-Mojave Desert County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.9000e-004	1.5000e-004	1.8600e-003	0.0000	5.2000e-004	0.0000	5.3000e-004	1.4000e-004	0.0000	1.4000e-004	0.0000	0.4363	0.4363	1.0000e-005	1.0000e-005	0.4404
Total	**1.9000e-004**	**1.5000e-004**	**1.8600e-003**	**0.0000**	**5.2000e-004**	**0.0000**	**5.3000e-004**	**1.4000e-004**	**0.0000**	**1.4000e-004**	**0.0000**	**0.4363**	**0.4363**	**1.0000e-005**	**1.0000e-005**	**0.4404**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	8.0000e-004	3.4600e-003	0.0493	7.0000e-005		1.1000e-004	1.1000e-004		1.1000e-004	1.1000e-004	0.0000	5.7130	5.7130	1.8500e-003	0.0000	5.7591
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**8.0000e-004**	**3.4600e-003**	**0.0493**	**7.0000e-005**		**1.1000e-004**	**1.1000e-004**		**1.1000e-004**	**1.1000e-004**	**0.0000**	**5.7130**	**5.7130**	**1.8500e-003**	**0.0000**	**5.7591**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.9000e-004	1.5000e-004	1.8600e-003	0.0000	5.2000e-004	0.0000	5.3000e-004	1.4000e-004	0.0000	1.4000e-004	0.0000	0.4363	0.4363	1.0000e-005	1.0000e-005	0.4404
Total	**1.9000e-004**	**1.5000e-004**	**1.8600e-003**	**0.0000**	**5.2000e-004**	**0.0000**	**5.3000e-004**	**1.4000e-004**	**0.0000**	**1.4000e-004**	**0.0000**	**0.4363**	**0.4363**	**1.0000e-005**	**1.0000e-005**	**0.4404**

3.6 Architectural Coating - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.2386					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.0200e-003	7.0400e-003	9.0700e-003	1.0000e-005		4.1000e-004	4.1000e-004		4.1000e-004	4.1000e-004	0.0000	1.2766	1.2766	8.0000e-005	0.0000	1.2787
Total	**0.2396**	**7.0400e-003**	**9.0700e-003**	**1.0000e-005**		**4.1000e-004**	**4.1000e-004**		**4.1000e-004**	**4.1000e-004**	**0.0000**	**1.2766**	**1.2766**	**8.0000e-005**	**0.0000**	**1.2787**

Palmdale GPU - Retail/Restaurant Construction Only - Los Angeles-Mojave Desert County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.0000e-005	4.0000e-005	5.7000e-004	0.0000	1.6000e-004	0.0000	1.6000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.1342	0.1342	0.0000	0.0000	0.1355
Total	**6.0000e-005**	**4.0000e-005**	**5.7000e-004**	**0.0000**	**1.6000e-004**	**0.0000**	**1.6000e-004**	**4.0000e-005**	**0.0000**	**4.0000e-005**	**0.0000**	**0.1342**	**0.1342**	**0.0000**	**0.0000**	**0.1355**

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	0.2386					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.5000e-004	6.4000e-004	9.1600e-003	1.0000e-005		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	1.2766	1.2766	8.0000e-005	0.0000	1.2787
Total	**0.2387**	**6.4000e-004**	**9.1600e-003**	**1.0000e-005**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**	**0.0000**	**1.2766**	**1.2766**	**8.0000e-005**	**0.0000**	**1.2787**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.0000e-005	4.0000e-005	5.7000e-004	0.0000	1.6000e-004	0.0000	1.6000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.1342	0.1342	0.0000	0.0000	0.1355
Total	**6.0000e-005**	**4.0000e-005**	**5.7000e-004**	**0.0000**	**1.6000e-004**	**0.0000**	**1.6000e-004**	**4.0000e-005**	**0.0000**	**4.0000e-005**	**0.0000**	**0.1342**	**0.1342**	**0.0000**	**0.0000**	**0.1355**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	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 Applied

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
Strip Mall	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
Strip Mall	9.50	7.30	7.30	16.60	64.40	19.00	45	40	15

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Strip Mall	0.544785	0.062844	0.187478	0.127235	0.023089	0.006083	0.010475	0.008012	0.000925	0.000611	0.024394	0.000698	0.003374

5.0 Energy Detail

Historical Energy Use: N

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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

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					
Strip Mall	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					
Strip Mall	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**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use		Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	tons/yr	MT/yr			
Strip Mall	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	tons/yr	MT/yr			
Strip Mall	0		0.0000	0.0000	0.0000	0.0000
Total			**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive 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
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

Palmdale GPU - Retail/Restaurant Construction Only - Los Angeles-Mojave Desert County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

6.2 Area by SubCategory

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	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Mitigated

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

7.0 Water Detail

7.1 Mitigation Measures Water

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

Palmdale GPU - Retail/Restaurant Construction Only - Los Angeles-Mojave Desert County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use		Total CO2	CH4	N2O	CO2e
Land Use	Mgal	tons/yr	MT/yr			
Strip Mall	0 / 0		0.0000	0.0000	0.0000	0.0000
Total			**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 Applied

Mitigated

	Indoor/Outdoor Use		Total CO2	CH4	N2O	CO2e
Land Use	Mgal	tons/yr	MT/yr			
Strip Mall	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
	tons/yr	MT/yr			
Mitigated		0.0000	0.0000	0.0000	0.0000
Unmitigated		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 Applied

8.2 Waste by Land Use

Unmitigated

	Waste Disposed		Total CO2	CH4	N2O	CO2e
Land Use	tons	tons/yr	MT/yr			
Strip Mall	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	tons/yr	MT/yr			
Strip Mall	0		0.0000	0.0000	0.0000	0.0000
Total			**0.0000**	**0.0000**	**0.0000**	**0.0000**

9.0 Operational Offroad

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

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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

Palmdale GPU - Retail/Restaurant Construction Only - Los Angeles-Mojave Desert County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Palmdale GPU - Retail/Restaurant Construction Only

Los Angeles-Mojave Desert County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Strip Mall	68.62	1000sqft	1.58	68,623.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2023
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	390.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - See Assumptions

Land Use - See Assumptions

Construction Phase -

Demolition - See Assumptions

Architectural Coating - Based on AVAQMD requirements for VOC content

Vehicle Trips - Operational Emissions Modeled Separately

Consumer Products - Operational Emissions Modeled Separately

Area Coating - Operational Emissions Modeled Separately

Landscape Equipment - Operational Emissions Modeled Separately

Energy Use - Operational Emissions Modeled Separately

Water And Wastewater - Operational Emissions Modeled Separately

Solid Waste - Operational Emissions Modeled Separately

Palmdale GPU - Retail/Restaurant Construction Only - Los Angeles-Mojave Desert County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Construction Off-road Equipment Mitigation - Water 2x daily based on AVAQMD regulations for dust control; not mitigation

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	150.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	50.00
tblAreaCoating	ReapplicationRatePercent	10	0
tblConstEquipMitigation	FuelType	Diesel	Electrical
tblConstEquipMitigation	FuelType	Diesel	Electrical
tblConstEquipMitigation	FuelType	Diesel	Electrical
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	7.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConsumerProducts	ROG_EF	2.14E-05	0
tblConsumerProducts	ROG_EF_Degreaser	3.542E-07	0
tblConsumerProducts	ROG_EF_PesticidesFertilizers	5.152E-08	0
tblEnergyUse	LightingElect	6.26	0.00
tblEnergyUse	NT24E	3.23	0.00
tblEnergyUse	NT24NG	0.49	0.00
tblEnergyUse	T24E	3.58	0.00
tblEnergyUse	T24NG	1.14	0.00
tblLandscapeEquipment	NumberSummerDays	180	0
tblLandUse	LandUseSquareFeet	68,620.00	68,623.00
tblSolidWaste	SolidWasteGenerationRate	72.05	0.00
tblVehicleTrips	ST_TR	42.04	0.00
tblVehicleTrips	SU_TR	20.43	0.00
tblVehicleTrips	WD_TR	44.32	0.00
tblWater	IndoorWaterUseRate	5,082,856.42	0.00
tblWater	OutdoorWaterUseRate	3,115,299.10	0.00

2.0 Emissions Summary

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

Palmdale GPU - Retail/Restaurant Construction Only - Los Angeles-Mojave Desert County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Year	lb/day										lb/day					
2022	49.6617	19.9089	22.7778	0.0405	7.1647	0.9436	7.9076	3.4465	0.8963	4.1299	0.0000	3,812.1031	3,812.1031	0.7764	0.1711	3,844.0613
Maximum	**49.6617**	**19.9089**	**22.7778**	**0.0405**	**7.1647**	**0.9436**	**7.9076**	**3.4465**	**0.8963**	**4.1299**	**0.0000**	**3,812.1031**	**3,812.1031**	**0.7764**	**0.1711**	**3,844.0613**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2022	47.9340	3.8637	15.7214	0.0348	3.2693	0.0576	3.3035	1.5629	0.0567	1.5970	0.0000	3,485.4598	3,485.4598	0.6684	0.1711	3,552.7363
Maximum	**47.9340**	**3.8637**	**15.7214**	**0.0348**	**3.2693**	**0.0576**	**3.3035**	**1.5629**	**0.0567**	**1.5970**	**0.0000**	**3,485.4598**	**3,485.4598**	**0.6684**	**0.1711**	**3,552.7363**

	ROG	NOx	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	**3.48**	**80.59**	**30.98**	**14.10**	**54.37**	**93.89**	**58.22**	**54.65**	**93.67**	**61.33**	**0.00**	**8.57**	**8.57**	**13.91**	**0.00**	**7.58**

Palmdale GPU - Retail/Restaurant Construction Only - Los Angeles-Mojave Desert County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	6.5000e-004	6.0000e-005	7.0000e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0150	0.0150	4.0000e-005		0.0160
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	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	**6.5000e-004**	**6.0000e-005**	**7.0000e-003**	**0.0000**	**0.0000**	**2.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**2.0000e-005**		**0.0150**	**0.0150**	**4.0000e-005**	**0.0000**	**0.0160**

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	6.5000e-004	6.0000e-005	7.0000e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0150	0.0150	4.0000e-005		0.0160
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	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	**6.5000e-004**	**6.0000e-005**	**7.0000e-003**	**0.0000**	**0.0000**	**2.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**2.0000e-005**		**0.0150**	**0.0150**	**4.0000e-005**	**0.0000**	**0.0160**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	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	Demolition	Demolition	1/1/2022	1/28/2022	5	20	
2	Grading	Grading	1/29/2022	2/3/2022	5	4	
3	Building Construction	Building Construction	2/5/2022	11/11/2022	5	200	
4	Paving	Paving	2/5/2022	2/18/2022	5	10	
5	Architectural Coating	Architectural Coating	11/4/2022	11/17/2022	5	10	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 4

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 102,935; Non-Residential Outdoor: 34,312; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Rubber Tired Dozers	1	8.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	2	7.00	97	0.37

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Building Construction	Cranes	1	6.00	231	0.29
Building Construction	Forklifts	1	6.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Building Construction	Welders	3	8.00	46	0.45
Paving	Cement and Mortar Mixers	1	6.00	9	0.56
Paving	Pavers	1	6.00	130	0.42
Paving	Paving Equipment	1	8.00	132	0.36
Paving	Rollers	1	7.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
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
Demolition	5	13.00	0.00	312.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	22.00	11.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	5	13.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	4.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Alternative Fuel for Construction Equipment

Use Cleaner Engines for Construction Equipment

Water Exposed Area

3.2 Demolition - 2022

Unmitigated Construction On-Site

Palmdale GPU - Retail/Restaurant Construction Only - Los Angeles-Mojave Desert County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.3775	0.0000	3.3775	0.5114	0.0000	0.5114			0.0000			0.0000
Off-Road	1.6889	16.6217	13.9605	0.0241		0.8379	0.8379		0.7829	0.7829		2,323.4168	2,323.4168	0.5921		2,338.2191
Total	**1.6889**	**16.6217**	**13.9605**	**0.0241**	**3.3775**	**0.8379**	**4.2154**	**0.5114**	**0.7829**	**1.2943**		**2,323.4168**	**2,323.4168**	**0.5921**		**2,338.2191**

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	0.0727	2.6200	0.6109	9.6900e-003	0.2731	0.0195	0.2925	0.0749	0.0186	0.0935		1,062.0099	1,062.0099	0.0564	0.1685	1,113.6336
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	0.0377	0.0258	0.3921	9.8000e-004	0.1068	7.0000e-004	0.1075	0.0283	6.5000e-004	0.0290		100.0331	100.0331	3.1000e-003	2.5900e-003	100.8837
Total	**0.1104**	**2.6458**	**1.0029**	**0.0107**	**0.3799**	**0.0202**	**0.4000**	**0.1032**	**0.0193**	**0.1225**		**1,162.0430**	**1,162.0430**	**0.0595**	**0.1711**	**1,214.5173**

Palmdale GPU - Retail/Restaurant Construction Only - Los Angeles-Mojave Desert County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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					1.5199	0.0000	1.5199	0.2301	0.0000	0.2301			0.0000			0.0000
Off-Road	0.2811	1.2179	14.7184	0.0241		0.0375	0.0375		0.0375	0.0375	0.0000	2,323.4168	2,323.4168	0.5921		2,338.2191
Total	**0.2811**	**1.2179**	**14.7184**	**0.0241**	**1.5199**	**0.0375**	**1.5573**	**0.2301**	**0.0375**	**0.2676**	**0.0000**	**2,323.4168**	**2,323.4168**	**0.5921**		**2,338.2191**

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	0.0727	2.6200	0.6109	9.6900e-003	0.2731	0.0195	0.2925	0.0749	0.0186	0.0935		1,062.0099	1,062.0099	0.0564	0.1685	1,113.6336
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	0.0377	0.0258	0.3921	9.8000e-004	0.1068	7.0000e-004	0.1075	0.0283	6.5000e-004	0.0290		100.0331	100.0331	3.1000e-003	2.5900e-003	100.8837
Total	**0.1104**	**2.6458**	**1.0029**	**0.0107**	**0.3799**	**0.0202**	**0.4000**	**0.1032**	**0.0193**	**0.1225**		**1,162.0430**	**1,162.0430**	**0.0595**	**0.1711**	**1,214.5173**

Palmdale GPU - Retail/Restaurant Construction Only - Los Angeles-Mojave Desert County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					7.0826	0.0000	7.0826	3.4247	0.0000	3.4247			0.0000			0.0000
Off-Road	1.5403	16.9836	9.2202	0.0206		0.7423	0.7423		0.6829	0.6829		1,995.4825	1,995.4825	0.6454		2,011.6169
Total	**1.5403**	**16.9836**	**9.2202**	**0.0206**	**7.0826**	**0.7423**	**7.8249**	**3.4247**	**0.6829**	**4.1076**		**1,995.4825**	**1,995.4825**	**0.6454**		**2,011.6169**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0290	0.0198	0.3016	7.6000e-004	0.0822	5.4000e-004	0.0827	0.0218	5.0000e-004	0.0223		76.9485	76.9485	2.3800e-003	2.0000e-003	77.6028
Total	**0.0290**	**0.0198**	**0.3016**	**7.6000e-004**	**0.0822**	**5.4000e-004**	**0.0827**	**0.0218**	**5.0000e-004**	**0.0223**		**76.9485**	**76.9485**	**2.3800e-003**	**2.0000e-003**	**77.6028**

Palmdale GPU - Retail/Restaurant Construction Only - Los Angeles-Mojave Desert County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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					3.1872	0.0000	3.1872	1.5411	0.0000	1.5411			0.0000			0.0000
Off-Road	0.2522	1.0927	10.9071	0.0206		0.0336	0.0336		0.0336	0.0336	0.0000	1,995.4825	1,995.4825	0.6454		2,011.6169
Total	**0.2522**	**1.0927**	**10.9071**	**0.0206**	**3.1872**	**0.0336**	**3.2208**	**1.5411**	**0.0336**	**1.5748**	**0.0000**	**1,995.4825**	**1,995.4825**	**0.6454**		**2,011.6169**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0290	0.0198	0.3016	7.6000e-004	0.0822	5.4000e-004	0.0827	0.0218	5.0000e-004	0.0223		76.9485	76.9485	2.3800e-003	2.0000e-003	77.6028
Total	**0.0290**	**0.0198**	**0.3016**	**7.6000e-004**	**0.0822**	**5.4000e-004**	**0.0827**	**0.0218**	**5.0000e-004**	**0.0223**		**76.9485**	**76.9485**	**2.3800e-003**	**2.0000e-003**	**77.6028**

Palmdale GPU - Retail/Restaurant Construction Only - Los Angeles-Mojave Desert County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.6487	12.5031	12.7264	0.0221		0.5889	0.5889		0.5689	0.5689		2,001.5429	2,001.5429	0.3486		2,010.2581
Total	**1.6487**	**12.5031**	**12.7264**	**0.0221**		**0.5889**	**0.5889**		**0.5689**	**0.5689**		**2,001.5429**	**2,001.5429**	**0.3486**		**2,010.2581**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0225	0.5627	0.1899	2.2700e-003	0.0745	5.4200e-003	0.0800	0.0215	5.1900e-003	0.0266		243.8616	243.8616	8.1500e-003	0.0351	254.5325
Worker	0.0638	0.0436	0.6635	1.6600e-003	0.1807	1.1900e-003	0.1819	0.0479	1.0900e-003	0.0490		169.2867	169.2867	5.2400e-003	4.3900e-003	170.7263
Total	**0.0863**	**0.6063**	**0.8533**	**3.9300e-003**	**0.2553**	**6.6100e-003**	**0.2619**	**0.0694**	**6.2800e-003**	**0.0757**		**413.1483**	**413.1483**	**0.0134**	**0.0395**	**425.2588**

Palmdale GPU - Retail/Restaurant Construction Only - Los Angeles-Mojave Desert County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	0.0958	0.4150	4.5772	7.8100e-003		0.0128	0.0128		0.0128	0.0128	0.0000	756.0751	756.0751	0.2445		762.1884
Total	**0.0958**	**0.4150**	**4.5772**	**7.8100e-003**		**0.0128**	**0.0128**		**0.0128**	**0.0128**	**0.0000**	**756.0751**	**756.0751**	**0.2445**		**762.1884**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0225	0.5627	0.1899	2.2700e-003	0.0745	5.4200e-003	0.0800	0.0215	5.1900e-003	0.0266		243.8616	243.8616	8.1500e-003	0.0351	254.5325
Worker	0.0638	0.0436	0.6635	1.6600e-003	0.1807	1.1900e-003	0.1819	0.0479	1.0900e-003	0.0490		169.2867	169.2867	5.2400e-003	4.3900e-003	170.7263
Total	**0.0863**	**0.6063**	**0.8533**	**3.9300e-003**	**0.2553**	**6.6100e-003**	**0.2619**	**0.0694**	**6.2800e-003**	**0.0757**		**413.1483**	**413.1483**	**0.0134**	**0.0395**	**425.2588**

Palmdale GPU - Retail/Restaurant Construction Only - Los Angeles-Mojave Desert County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Paving - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.6877	6.7738	8.8060	0.0135		0.3474	0.3474		0.3205	0.3205		1,297.3789	1,297.3789	0.4113		1,307.6608
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.6877**	**6.7738**	**8.8060**	**0.0135**		**0.3474**	**0.3474**		**0.3205**	**0.3205**		**1,297.3789**	**1,297.3789**	**0.4113**		**1,307.6608**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0377	0.0258	0.3921	9.8000e-004	0.1068	7.0000e-004	0.1075	0.0283	6.5000e-004	0.0290		100.0331	100.0331	3.1000e-003	2.5900e-003	100.8837
Total	**0.0377**	**0.0258**	**0.3921**	**9.8000e-004**	**0.1068**	**7.0000e-004**	**0.1075**	**0.0283**	**6.5000e-004**	**0.0290**		**100.0331**	**100.0331**	**3.1000e-003**	**2.5900e-003**	**100.8837**

Palmdale GPU - Retail/Restaurant Construction Only - Los Angeles-Mojave Desert County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	0.1598	0.6922	9.8512	0.0130		0.0213	0.0213		0.0213	0.0213	0.0000	1,259.4916	1,259.4916	0.4074		1,269.6753
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.1598**	**0.6922**	**9.8512**	**0.0130**		**0.0213**	**0.0213**		**0.0213**	**0.0213**	**0.0000**	**1,259.4916**	**1,259.4916**	**0.4074**		**1,269.6753**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0377	0.0258	0.3921	9.8000e-004	0.1068	7.0000e-004	0.1075	0.0283	6.5000e-004	0.0290		100.0331	100.0331	3.1000e-003	2.5900e-003	100.8837
Total	**0.0377**	**0.0258**	**0.3921**	**9.8000e-004**	**0.1068**	**7.0000e-004**	**0.1075**	**0.0283**	**6.5000e-004**	**0.0290**		**100.0331**	**100.0331**	**3.1000e-003**	**2.5900e-003**	**100.8837**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	47.7106					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2045	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817		281.4481	281.4481	0.0183		281.9062
Total	**47.9151**	**1.4085**	**1.8136**	**2.9700e-003**		**0.0817**	**0.0817**		**0.0817**	**0.0817**		**281.4481**	**281.4481**	**0.0183**		**281.9062**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0116	7.9300e-003	0.1206	3.0000e-004	0.0329	2.2000e-004	0.0331	8.7200e-003	2.0000e-004	8.9100e-003		30.7794	30.7794	9.5000e-004	8.0000e-004	31.0411
Total	**0.0116**	**7.9300e-003**	**0.1206**	**3.0000e-004**	**0.0329**	**2.2000e-004**	**0.0331**	**8.7200e-003**	**2.0000e-004**	**8.9100e-003**		**30.7794**	**30.7794**	**9.5000e-004**	**8.0000e-004**	**31.0411**

Palmdale GPU - Retail/Restaurant Construction Only - Los Angeles-Mojave Desert County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	47.7106					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0297	0.1288	1.8324	2.9700e-003		3.9600e-003	3.9600e-003		3.9600e-003	3.9600e-003	0.0000	281.4481	281.4481	0.0183		281.9062
Total	**47.7403**	**0.1288**	**1.8324**	**2.9700e-003**		**3.9600e-003**	**3.9600e-003**		**3.9600e-003**	**3.9600e-003**	**0.0000**	**281.4481**	**281.4481**	**0.0183**		**281.9062**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0116	7.9300e-003	0.1206	3.0000e-004	0.0329	2.2000e-004	0.0331	8.7200e-003	2.0000e-004	8.9100e-003		30.7794	30.7794	9.5000e-004	8.0000e-004	31.0411
Total	**0.0116**	**7.9300e-003**	**0.1206**	**3.0000e-004**	**0.0329**	**2.2000e-004**	**0.0331**	**8.7200e-003**	**2.0000e-004**	**8.9100e-003**		**30.7794**	**30.7794**	**9.5000e-004**	**8.0000e-004**	**31.0411**

Palmdale GPU - Retail/Restaurant Construction Only - Los Angeles-Mojave Desert County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

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

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Strip Mall	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
Strip Mall	9.50	7.30	7.30	16.60	64.40	19.00	45	40	15

4.4 Fleet Mix

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

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Strip Mall	0.544785	0.062844	0.187478	0.127235	0.023089	0.006083	0.010475	0.008012	0.000925	0.000611	0.024394	0.000698	0.003374

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

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

5.2 Energy by Land Use - NaturalGas

Unmitigated

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

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					
Strip Mall	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

6.1 Mitigation Measures Area

Palmdale GPU - Retail/Restaurant Construction Only - Los Angeles-Mojave Desert County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	6.5000e-004	6.0000e-005	7.0000e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0150	0.0150	4.0000e-005		0.0160
Unmitigated	6.5000e-004	6.0000e-005	7.0000e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0150	0.0150	4.0000e-005		0.0160

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	6.5000e-004	6.0000e-005	7.0000e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0150	0.0150	4.0000e-005		0.0160
Total	**6.5000e-004**	**6.0000e-005**	**7.0000e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**		**0.0150**	**0.0150**	**4.0000e-005**		**0.0160**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	6.5000e-004	6.0000e-005	7.0000e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0150	0.0150	4.0000e-005		0.0160
Total	**6.5000e-004**	**6.0000e-005**	**7.0000e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**		**0.0150**	**0.0150**	**4.0000e-005**		**0.0160**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Palmdale GPU - Retail/Restaurant Construction Only - Los Angeles-Mojave Desert County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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

Palmdale GPU - Retail/Restaurant Construction Only - Los Angeles-Mojave Desert County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Palmdale GPU - Retail/Restaurant Construction Only

Los Angeles-Mojave Desert County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Strip Mall	68.62	1000sqft	1.58	68,623.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2023
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	390.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - See Assumptions

Land Use - See Assumptions

Construction Phase -

Demolition - See Assumptions

Architectural Coating - Based on AVAQMD requirements for VOC content

Vehicle Trips - Operational Emissions Modeled Separately

Consumer Products - Operational Emissions Modeled Separately

Area Coating - Operational Emissions Modeled Separately

Landscape Equipment - Operational Emissions Modeled Separately

Energy Use - Operational Emissions Modeled Separately

Water And Wastewater - Operational Emissions Modeled Separately

Solid Waste - Operational Emissions Modeled Separately

Palmdale GPU - Retail/Restaurant Construction Only - Los Angeles-Mojave Desert County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Construction Off-road Equipment Mitigation - Water 2x daily based on AVAQMD regulations for dust control; not mitigation

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	150.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	50.00
tblAreaCoating	ReapplicationRatePercent	10	0
tblConstEquipMitigation	FuelType	Diesel	Electrical
tblConstEquipMitigation	FuelType	Diesel	Electrical
tblConstEquipMitigation	FuelType	Diesel	Electrical
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	7.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConsumerProducts	ROG_EF	2.14E-05	0
tblConsumerProducts	ROG_EF_Degreaser	3.542E-07	0
tblConsumerProducts	ROG_EF_PesticidesFertilizers	5.152E-08	0
tblEnergyUse	LightingElect	6.26	0.00
tblEnergyUse	NT24E	3.23	0.00
tblEnergyUse	NT24NG	0.49	0.00
tblEnergyUse	T24E	3.58	0.00
tblEnergyUse	T24NG	1.14	0.00
tblLandscapeEquipment	NumberSummerDays	180	0
tblLandUse	LandUseSquareFeet	68,620.00	68,623.00
tblSolidWaste	SolidWasteGenerationRate	72.05	0.00
tblVehicleTrips	ST_TR	42.04	0.00
tblVehicleTrips	SU_TR	20.43	0.00
tblVehicleTrips	WD_TR	44.32	0.00
tblWater	IndoorWaterUseRate	5,082,856.42	0.00
tblWater	OutdoorWaterUseRate	3,115,299.10	0.00

2.0 Emissions Summary

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

Palmdale GPU - Retail/Restaurant Construction Only - Los Angeles-Mojave Desert County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Year	lb/day										lb/day					
2022	49.6657	19.9393	22.7094	0.0404	7.1647	0.9437	7.9076	3.4465	0.8963	4.1299	0.0000	3,798.0302	3,798.0302	0.7766	0.1713	3,830.1493
Maximum	**49.6657**	**19.9393**	**22.7094**	**0.0404**	**7.1647**	**0.9437**	**7.9076**	**3.4465**	**0.8963**	**4.1299**	**0.0000**	**3,798.0302**	**3,798.0302**	**0.7766**	**0.1713**	**3,830.1493**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2022	47.9379	3.9727	15.7043	0.0348	3.2693	0.0577	3.3035	1.5629	0.0568	1.5970	0.0000	3,480.5118	3,480.5118	0.6686	0.1713	3,547.8574
Maximum	**47.9379**	**3.9727**	**15.7043**	**0.0348**	**3.2693**	**0.0577**	**3.3035**	**1.5629**	**0.0568**	**1.5970**	**0.0000**	**3,480.5118**	**3,480.5118**	**0.6686**	**0.1713**	**3,547.8574**

	ROG	NOx	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	**3.48**	**80.08**	**30.85**	**13.92**	**54.37**	**93.89**	**58.22**	**54.65**	**93.67**	**61.33**	**0.00**	**8.36**	**8.36**	**13.91**	**0.00**	**7.37**

Palmdale GPU - Retail/Restaurant Construction Only - Los Angeles-Mojave Desert County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	6.5000e-004	6.0000e-005	7.0000e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0150	0.0150	4.0000e-005		0.0160
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	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	**6.5000e-004**	**6.0000e-005**	**7.0000e-003**	**0.0000**	**0.0000**	**2.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**2.0000e-005**		**0.0150**	**0.0150**	**4.0000e-005**	**0.0000**	**0.0160**

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	6.5000e-004	6.0000e-005	7.0000e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0150	0.0150	4.0000e-005		0.0160
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	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	**6.5000e-004**	**6.0000e-005**	**7.0000e-003**	**0.0000**	**0.0000**	**2.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**2.0000e-005**		**0.0150**	**0.0150**	**4.0000e-005**	**0.0000**	**0.0160**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	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	Demolition	Demolition	1/1/2022	1/28/2022	5	20	
2	Grading	Grading	1/29/2022	2/3/2022	5	4	
3	Building Construction	Building Construction	2/5/2022	11/11/2022	5	200	
4	Paving	Paving	2/5/2022	2/18/2022	5	10	
5	Architectural Coating	Architectural Coating	11/4/2022	11/17/2022	5	10	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 4

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 102,935; Non-Residential Outdoor: 34,312; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Rubber Tired Dozers	1	8.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	2	7.00	97	0.37

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Building Construction	Cranes	1	6.00	231	0.29
Building Construction	Forklifts	1	6.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Building Construction	Welders	3	8.00	46	0.45
Paving	Cement and Mortar Mixers	1	6.00	9	0.56
Paving	Pavers	1	6.00	130	0.42
Paving	Paving Equipment	1	8.00	132	0.36
Paving	Rollers	1	7.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
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
Demolition	5	13.00	0.00	312.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	22.00	11.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	5	13.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	4.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Alternative Fuel for Construction Equipment

Use Cleaner Engines for Construction Equipment

Water Exposed Area

3.2 Demolition - 2022

Unmitigated Construction On-Site

Palmdale GPU - Retail/Restaurant Construction Only - Los Angeles-Mojave Desert County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.3775	0.0000	3.3775	0.5114	0.0000	0.5114			0.0000			0.0000
Off-Road	1.6889	16.6217	13.9605	0.0241		0.8379	0.8379		0.7829	0.7829		2,323.4168	2,323.4168	0.5921		2,338.2191
Total	**1.6889**	**16.6217**	**13.9605**	**0.0241**	**3.3775**	**0.8379**	**4.2154**	**0.5114**	**0.7829**	**1.2943**		**2,323.4168**	**2,323.4168**	**0.5921**		**2,338.2191**

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	0.0709	2.7263	0.6216	9.7000e-003	0.2731	0.0195	0.2926	0.0749	0.0187	0.0935		1,062.3213	1,062.3213	0.0563	0.1686	1,113.9590
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	0.0398	0.0285	0.3643	9.3000e-004	0.1068	7.0000e-004	0.1075	0.0283	6.5000e-004	0.0290		94.7737	94.7737	3.1900e-003	2.7700e-003	95.6794
Total	**0.1107**	**2.7548**	**0.9859**	**0.0106**	**0.3799**	**0.0202**	**0.4001**	**0.1032**	**0.0193**	**0.1225**		**1,157.0950**	**1,157.0950**	**0.0595**	**0.1713**	**1,209.6384**

Palmdale GPU - Retail/Restaurant Construction Only - Los Angeles-Mojave Desert County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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					1.5199	0.0000	1.5199	0.2301	0.0000	0.2301			0.0000			0.0000
Off-Road	0.2811	1.2179	14.7184	0.0241		0.0375	0.0375		0.0375	0.0375	0.0000	2,323.4168	2,323.4168	0.5921		2,338.2191
Total	**0.2811**	**1.2179**	**14.7184**	**0.0241**	**1.5199**	**0.0375**	**1.5573**	**0.2301**	**0.0375**	**0.2676**	**0.0000**	**2,323.4168**	**2,323.4168**	**0.5921**		**2,338.2191**

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	0.0709	2.7263	0.6216	9.7000e-003	0.2731	0.0195	0.2926	0.0749	0.0187	0.0935		1,062.3213	1,062.3213	0.0563	0.1686	1,113.9590
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	0.0398	0.0285	0.3643	9.3000e-004	0.1068	7.0000e-004	0.1075	0.0283	6.5000e-004	0.0290		94.7737	94.7737	3.1900e-003	2.7700e-003	95.6794
Total	**0.1107**	**2.7548**	**0.9859**	**0.0106**	**0.3799**	**0.0202**	**0.4001**	**0.1032**	**0.0193**	**0.1225**		**1,157.0950**	**1,157.0950**	**0.0595**	**0.1713**	**1,209.6384**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					7.0826	0.0000	7.0826	3.4247	0.0000	3.4247			0.0000			0.0000
Off-Road	1.5403	16.9836	9.2202	0.0206		0.7423	0.7423		0.6829	0.6829		1,995.4825	1,995.4825	0.6454		2,011.6169
Total	**1.5403**	**16.9836**	**9.2202**	**0.0206**	**7.0826**	**0.7423**	**7.8249**	**3.4247**	**0.6829**	**4.1076**		**1,995.4825**	**1,995.4825**	**0.6454**		**2,011.6169**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0306	0.0219	0.2802	7.2000e-004	0.0822	5.4000e-004	0.0827	0.0218	5.0000e-004	0.0223		72.9029	72.9029	2.4500e-003	2.1300e-003	73.5996
Total	**0.0306**	**0.0219**	**0.2802**	**7.2000e-004**	**0.0822**	**5.4000e-004**	**0.0827**	**0.0218**	**5.0000e-004**	**0.0223**		**72.9029**	**72.9029**	**2.4500e-003**	**2.1300e-003**	**73.5996**

Palmdale GPU - Retail/Restaurant Construction Only - Los Angeles-Mojave Desert County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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					3.1872	0.0000	3.1872	1.5411	0.0000	1.5411			0.0000			0.0000
Off-Road	0.2522	1.0927	10.9071	0.0206		0.0336	0.0336		0.0336	0.0336	0.0000	1,995.4825	1,995.4825	0.6454		2,011.6169
Total	**0.2522**	**1.0927**	**10.9071**	**0.0206**	**3.1872**	**0.0336**	**3.2208**	**1.5411**	**0.0336**	**1.5748**	**0.0000**	**1,995.4825**	**1,995.4825**	**0.6454**		**2,011.6169**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0306	0.0219	0.2802	7.2000e-004	0.0822	5.4000e-004	0.0827	0.0218	5.0000e-004	0.0223		72.9029	72.9029	2.4500e-003	2.1300e-003	73.5996
Total	**0.0306**	**0.0219**	**0.2802**	**7.2000e-004**	**0.0822**	**5.4000e-004**	**0.0827**	**0.0218**	**5.0000e-004**	**0.0223**		**72.9029**	**72.9029**	**2.4500e-003**	**2.1300e-003**	**73.5996**

Palmdale GPU - Retail/Restaurant Construction Only - Los Angeles-Mojave Desert County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.6487	12.5031	12.7264	0.0221		0.5889	0.5889		0.5689	0.5689		2,001.5429	2,001.5429	0.3486		2,010.2581
Total	**1.6487**	**12.5031**	**12.7264**	**0.0221**		**0.5889**	**0.5889**		**0.5689**	**0.5689**		**2,001.5429**	**2,001.5429**	**0.3486**		**2,010.2581**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0222	0.5858	0.1962	2.2700e-003	0.0745	5.4400e-003	0.0800	0.0215	5.2100e-003	0.0267		243.9485	243.9485	8.1200e-003	0.0352	254.6320
Worker	0.0674	0.0482	0.6165	1.5800e-003	0.1807	1.1900e-003	0.1819	0.0479	1.0900e-003	0.0490		160.3863	160.3863	5.4000e-003	4.6900e-003	161.9190
Total	**0.0896**	**0.6340**	**0.8127**	**3.8500e-003**	**0.2553**	**6.6300e-003**	**0.2619**	**0.0694**	**6.3000e-003**	**0.0757**		**404.3348**	**404.3348**	**0.0135**	**0.0399**	**416.5510**

Palmdale GPU - Retail/Restaurant Construction Only - Los Angeles-Mojave Desert County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	0.0958	0.4150	4.5772	7.8100e-003		0.0128	0.0128		0.0128	0.0128	0.0000	756.0751	756.0751	0.2445		762.1884
Total	**0.0958**	**0.4150**	**4.5772**	**7.8100e-003**		**0.0128**	**0.0128**		**0.0128**	**0.0128**	**0.0000**	**756.0751**	**756.0751**	**0.2445**		**762.1884**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0222	0.5858	0.1962	2.2700e-003	0.0745	5.4400e-003	0.0800	0.0215	5.2100e-003	0.0267		243.9485	243.9485	8.1200e-003	0.0352	254.6320
Worker	0.0674	0.0482	0.6165	1.5800e-003	0.1807	1.1900e-003	0.1819	0.0479	1.0900e-003	0.0490		160.3863	160.3863	5.4000e-003	4.6900e-003	161.9190
Total	**0.0896**	**0.6340**	**0.8127**	**3.8500e-003**	**0.2553**	**6.6300e-003**	**0.2619**	**0.0694**	**6.3000e-003**	**0.0757**		**404.3348**	**404.3348**	**0.0135**	**0.0399**	**416.5510**

Palmdale GPU - Retail/Restaurant Construction Only - Los Angeles-Mojave Desert County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Paving - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.6877	6.7738	8.8060	0.0135		0.3474	0.3474		0.3205	0.3205		1,297.3789	1,297.3789	0.4113		1,307.6608
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.6877**	**6.7738**	**8.8060**	**0.0135**		**0.3474**	**0.3474**		**0.3205**	**0.3205**		**1,297.3789**	**1,297.3789**	**0.4113**		**1,307.6608**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0398	0.0285	0.3643	9.3000e-004	0.1068	7.0000e-004	0.1075	0.0283	6.5000e-004	0.0290		94.7737	94.7737	3.1900e-003	2.7700e-003	95.6794
Total	**0.0398**	**0.0285**	**0.3643**	**9.3000e-004**	**0.1068**	**7.0000e-004**	**0.1075**	**0.0283**	**6.5000e-004**	**0.0290**		**94.7737**	**94.7737**	**3.1900e-003**	**2.7700e-003**	**95.6794**

Palmdale GPU - Retail/Restaurant Construction Only - Los Angeles-Mojave Desert County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	0.1598	0.6922	9.8512	0.0130		0.0213	0.0213		0.0213	0.0213	0.0000	1,259.4916	1,259.4916	0.4074		1,269.6753
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.1598**	**0.6922**	**9.8512**	**0.0130**		**0.0213**	**0.0213**		**0.0213**	**0.0213**	**0.0000**	**1,259.4916**	**1,259.4916**	**0.4074**		**1,269.6753**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0398	0.0285	0.3643	9.3000e-004	0.1068	7.0000e-004	0.1075	0.0283	6.5000e-004	0.0290		94.7737	94.7737	3.1900e-003	2.7700e-003	95.6794
Total	**0.0398**	**0.0285**	**0.3643**	**9.3000e-004**	**0.1068**	**7.0000e-004**	**0.1075**	**0.0283**	**6.5000e-004**	**0.0290**		**94.7737**	**94.7737**	**3.1900e-003**	**2.7700e-003**	**95.6794**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	47.7106					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2045	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817		281.4481	281.4481	0.0183		281.9062
Total	**47.9151**	**1.4085**	**1.8136**	**2.9700e-003**		**0.0817**	**0.0817**		**0.0817**	**0.0817**		**281.4481**	**281.4481**	**0.0183**		**281.9062**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0123	8.7600e-003	0.1121	2.9000e-004	0.0329	2.2000e-004	0.0331	8.7200e-003	2.0000e-004	8.9100e-003		29.1611	29.1611	9.8000e-004	8.5000e-004	29.4398
Total	**0.0123**	**8.7600e-003**	**0.1121**	**2.9000e-004**	**0.0329**	**2.2000e-004**	**0.0331**	**8.7200e-003**	**2.0000e-004**	**8.9100e-003**		**29.1611**	**29.1611**	**9.8000e-004**	**8.5000e-004**	**29.4398**

Palmdale GPU - Retail/Restaurant Construction Only - Los Angeles-Mojave Desert County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	47.7106					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0297	0.1288	1.8324	2.9700e-003		3.9600e-003	3.9600e-003		3.9600e-003	3.9600e-003	0.0000	281.4481	281.4481	0.0183		281.9062
Total	**47.7403**	**0.1288**	**1.8324**	**2.9700e-003**		**3.9600e-003**	**3.9600e-003**		**3.9600e-003**	**3.9600e-003**	**0.0000**	**281.4481**	**281.4481**	**0.0183**		**281.9062**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0123	8.7600e-003	0.1121	2.9000e-004	0.0329	2.2000e-004	0.0331	8.7200e-003	2.0000e-004	8.9100e-003		29.1611	29.1611	9.8000e-004	8.5000e-004	29.4398
Total	**0.0123**	**8.7600e-003**	**0.1121**	**2.9000e-004**	**0.0329**	**2.2000e-004**	**0.0331**	**8.7200e-003**	**2.0000e-004**	**8.9100e-003**		**29.1611**	**29.1611**	**9.8000e-004**	**8.5000e-004**	**29.4398**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

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

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Strip Mall	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
Strip Mall	9.50	7.30	7.30	16.60	64.40	19.00	45	40	15

4.4 Fleet Mix

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

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Strip Mall	0.544785	0.062844	0.187478	0.127235	0.023089	0.006083	0.010475	0.008012	0.000925	0.000611	0.024394	0.000698	0.003374

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

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

5.2 Energy by Land Use - NaturalGas

Unmitigated

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

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					
Strip Mall	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

6.1 Mitigation Measures Area

Palmdale GPU - Retail/Restaurant Construction Only - Los Angeles-Mojave Desert County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	6.5000e-004	6.0000e-005	7.0000e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0150	0.0150	4.0000e-005		0.0160
Unmitigated	6.5000e-004	6.0000e-005	7.0000e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0150	0.0150	4.0000e-005		0.0160

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	6.5000e-004	6.0000e-005	7.0000e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0150	0.0150	4.0000e-005		0.0160
Total	**6.5000e-004**	**6.0000e-005**	**7.0000e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**		**0.0150**	**0.0150**	**4.0000e-005**		**0.0160**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	6.5000e-004	6.0000e-005	7.0000e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0150	0.0150	4.0000e-005		0.0160
Total	**6.5000e-004**	**6.0000e-005**	**7.0000e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**		**0.0150**	**0.0150**	**4.0000e-005**		**0.0160**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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

Palmdale GPU - School - Los Angeles-Mojave Desert County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Palmdale GPU - School

Los Angeles-Mojave Desert County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Elementary School	51.10	1000sqft	1.17	51,102.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2023
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	390.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - See Assumptions

Land Use - See Assumptions

Construction Phase - See Assumptions

Grading -

Demolition -

Architectural Coating - Based on AVAQMD requirements for VOC content

Vehicle Trips - Operational Emissions Modeled Separately

Consumer Products - Operational Emissions Modeled Separately

Area Coating - Operational Emissions Modeled Separately

Landscape Equipment - Operational Emissions Modeled Separately

Energy Use - Operational Emissions Modeled Separately

Water And Wastewater - Operational Emissions Modeled Separately

Palmdale GPU - School - Los Angeles-Mojave Desert County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Solid Waste - Operational Emissions Modeled Separately

Construction Off-road Equipment Mitigation - Water 2x daily based on AVAQMD regulations for dust control; not mitigation

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	150.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	50.00
tblAreaCoating	ReapplicationRatePercent	10	0
tblConstEquipMitigation	FuelType	Diesel	Electrical
tblConstEquipMitigation	FuelType	Diesel	Electrical
tblConstEquipMitigation	FuelType	Diesel	Electrical
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	7.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstructionPhase	PhaseEndDate	12/8/2022	11/14/2022
tblConstructionPhase	PhaseEndDate	11/24/2022	2/17/2022
tblConstructionPhase	PhaseStartDate	11/25/2022	11/1/2022
tblConstructionPhase	PhaseStartDate	11/11/2022	2/4/2022
tblConsumerProducts	ROG_EF	2.14E-05	0
tblConsumerProducts	ROG_EF_Degreaser	3.542E-07	0
tblConsumerProducts	ROG_EF_PesticidesFertilizers	5.152E-08	0
tblEnergyUse	LightingElect	2.59	0.00
tblEnergyUse	NT24E	1.59	0.00
tblEnergyUse	NT24NG	1.08	0.00
tblEnergyUse	T24E	1.56	0.00
tblEnergyUse	T24NG	9.23	0.00
tblLandscapeEquipment	NumberSummerDays	180	0
tblSolidWaste	SolidWasteGenerationRate	66.43	0.00
tblVehicleTrips	WD_TR	19.52	0.00
tblWater	IndoorWaterUseRate	1,481,742.47	0.00
tblWater	OutdoorWaterUseRate	3,810,194.92	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

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

Palmdale GPU - School - Los Angeles-Mojave Desert County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

					PM10	PM10	Total	PM2.5	PM2.5	Total						
Year	tons/yr										MT/yr					
2022	0.3758	1.5601	1.5693	2.9800e-003	0.0655	0.0716	0.1370	0.0177	0.0687	0.0865	0.0000	252.3658	252.3658	0.0416	3.9100e-003	254.5711
Maximum	**0.3758**	**1.5601**	**1.5693**	**2.9800e-003**	**0.0655**	**0.0716**	**0.1370**	**0.0177**	**0.0687**	**0.0865**	**0.0000**	**252.3658**	**252.3658**	**0.0416**	**3.9100e-003**	**254.5711**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2022	0.2003	0.1287	0.7707	1.5500e-003	0.0438	2.5100e-003	0.0463	0.0119	2.4800e-003	0.0144	0.0000	139.2069	139.2069	0.0321	3.9100e-003	141.1757
Maximum	**0.2003**	**0.1287**	**0.7707**	**1.5500e-003**	**0.0438**	**2.5100e-003**	**0.0463**	**0.0119**	**2.4800e-003**	**0.0144**	**0.0000**	**139.2069**	**139.2069**	**0.0321**	**3.9100e-003**	**141.1757**

	ROG	NOx	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	**46.70**	**91.75**	**50.89**	**47.99**	**33.03**	**96.49**	**66.18**	**33.03**	**96.39**	**83.39**	**0.00**	**44.84**	**44.84**	**22.77**	**0.00**	**44.54**

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

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

1	**1-1-2022**	**3-31-2022**	0.5761	0.0653
2	**4-1-2022**	**6-30-2022**	0.4771	0.0338
3	**7-1-2022**	**9-30-2022**	0.4823	0.0341
		Highest	0.5761	0.0653

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	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	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**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 Applied

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	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	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	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	Demolition	Demolition	1/1/2022	1/28/2022	5	20	
2	Grading	Grading	1/29/2022	2/3/2022	5	4	
3	Building Construction	Building Construction	2/4/2022	11/10/2022	5	200	

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

4	Paving	Paving	2/4/2022	2/17/2022	5	10	
5	Architectural Coating	Architectural Coating	11/1/2022	11/14/2022	5	10	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 4

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 76,653; Non-Residential Outdoor: 25,551; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Cement and Mortar Mixers	1	6.00	9	0.56
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Building Construction	Cranes	1	6.00	231	0.29
Building Construction	Forklifts	1	6.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Grading	Graders	1	8.00	187	0.41
Demolition	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Paving	Pavers	1	6.00	130	0.42
Paving	Paving Equipment	1	8.00	132	0.36
Paving	Rollers	1	7.00	80	0.38
Demolition	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Grading	Tractors/Loaders/Backhoes	2	7.00	97	0.37
Building Construction	Welders	3	8.00	46	0.45

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	1	4.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	21.00	8.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Demolition	5	13.00	0.00	232.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	5	13.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Alternative Fuel for Construction Equipment

Use Cleaner Engines for Construction Equipment

Water Exposed Area

3.2 Demolition - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0252	0.0000	0.0252	3.8100e-003	0.0000	3.8100e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0169	0.1662	0.1396	2.4000e-004		8.3800e-003	8.3800e-003		7.8300e-003	7.8300e-003	0.0000	21.0777	21.0777	5.3700e-003	0.0000	21.2120
Total	**0.0169**	**0.1662**	**0.1396**	**2.4000e-004**	**0.0252**	**8.3800e-003**	**0.0335**	**3.8100e-003**	**7.8300e-003**	**0.0116**	**0.0000**	**21.0777**	**21.0777**	**5.3700e-003**	**0.0000**	**21.2120**

Palmdale GPU - School - Los Angeles-Mojave Desert County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	5.3000e-004	0.0205	4.5700e-003	7.0000e-005	2.0000e-003	1.4000e-004	2.1400e-003	5.5000e-004	1.4000e-004	6.9000e-004	0.0000	7.1649	7.1649	3.8000e-004	1.1400e-003	7.5132
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	3.7000e-004	2.9000e-004	3.7300e-003	1.0000e-005	1.0500e-003	1.0000e-005	1.0500e-003	2.8000e-004	1.0000e-005	2.8000e-004	0.0000	0.8726	0.8726	3.0000e-005	3.0000e-005	0.8809
Total	**9.0000e-004**	**0.0208**	**8.3000e-003**	**8.0000e-005**	**3.0500e-003**	**1.5000e-004**	**3.1900e-003**	**8.3000e-004**	**1.5000e-004**	**9.7000e-004**	**0.0000**	**8.0375**	**8.0375**	**4.1000e-004**	**1.1700e-003**	**8.3941**

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					0.0113	0.0000	0.0113	1.7100e-003	0.0000	1.7100e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.8100e-003	0.0122	0.1472	2.4000e-004		3.7000e-004	3.7000e-004		3.7000e-004	3.7000e-004	0.0000	21.0777	21.0777	5.3700e-003	0.0000	21.2119
Total	**2.8100e-003**	**0.0122**	**0.1472**	**2.4000e-004**	**0.0113**	**3.7000e-004**	**0.0117**	**1.7100e-003**	**3.7000e-004**	**2.0800e-003**	**0.0000**	**21.0777**	**21.0777**	**5.3700e-003**	**0.0000**	**21.2119**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	5.3000e-004	0.0205	4.5700e-003	7.0000e-005	2.0000e-003	1.4000e-004	2.1400e-003	5.5000e-004	1.4000e-004	6.9000e-004	0.0000	7.1649	7.1649	3.8000e-004	1.1400e-003	7.5132
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	3.7000e-004	2.9000e-004	3.7300e-003	1.0000e-005	1.0500e-003	1.0000e-005	1.0500e-003	2.8000e-004	1.0000e-005	2.8000e-004	0.0000	0.8726	0.8726	3.0000e-005	3.0000e-005	0.8809
Total	**9.0000e-004**	**0.0208**	**8.3000e-003**	**8.0000e-005**	**3.0500e-003**	**1.5000e-004**	**3.1900e-003**	**8.3000e-004**	**1.5000e-004**	**9.7000e-004**	**0.0000**	**8.0375**	**8.0375**	**4.1000e-004**	**1.1700e-003**	**8.3941**

3.3 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0142	0.0000	0.0142	6.8500e-003	0.0000	6.8500e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.0800e-003	0.0340	0.0184	4.0000e-005		1.4800e-003	1.4800e-003		1.3700e-003	1.3700e-003	0.0000	3.6205	3.6205	1.1700e-003	0.0000	3.6498
Total	**3.0800e-003**	**0.0340**	**0.0184**	**4.0000e-005**	**0.0142**	**1.4800e-003**	**0.0157**	**6.8500e-003**	**1.3700e-003**	**8.2200e-003**	**0.0000**	**3.6205**	**3.6205**	**1.1700e-003**	**0.0000**	**3.6498**

Palmdale GPU - School - Los Angeles-Mojave Desert County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.0000e-005	4.0000e-005	5.7000e-004	0.0000	1.6000e-004	0.0000	1.6000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.1342	0.1342	0.0000	0.0000	0.1355
Total	**6.0000e-005**	**4.0000e-005**	**5.7000e-004**	**0.0000**	**1.6000e-004**	**0.0000**	**1.6000e-004**	**4.0000e-005**	**0.0000**	**4.0000e-005**	**0.0000**	**0.1342**	**0.1342**	**0.0000**	**0.0000**	**0.1355**

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					6.3700e-003	0.0000	6.3700e-003	3.0800e-003	0.0000	3.0800e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.0000e-004	2.1900e-003	0.0218	4.0000e-005		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005	0.0000	3.6205	3.6205	1.1700e-003	0.0000	3.6498
Total	**5.0000e-004**	**2.1900e-003**	**0.0218**	**4.0000e-005**	**6.3700e-003**	**7.0000e-005**	**6.4400e-003**	**3.0800e-003**	**7.0000e-005**	**3.1500e-003**	**0.0000**	**3.6205**	**3.6205**	**1.1700e-003**	**0.0000**	**3.6498**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.0000e-005	4.0000e-005	5.7000e-004	0.0000	1.6000e-004	0.0000	1.6000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.1342	0.1342	0.0000	0.0000	0.1355
Total	**6.0000e-005**	**4.0000e-005**	**5.7000e-004**	**0.0000**	**1.6000e-004**	**0.0000**	**1.6000e-004**	**4.0000e-005**	**0.0000**	**4.0000e-005**	**0.0000**	**0.1342**	**0.1342**	**0.0000**	**0.0000**	**0.1355**

3.4 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1649	1.2503	1.2726	2.2100e-003		0.0589	0.0589		0.0569	0.0569	0.0000	181.5769	181.5769	0.0316	0.0000	182.3675
Total	**0.1649**	**1.2503**	**1.2726**	**2.2100e-003**		**0.0589**	**0.0589**		**0.0569**	**0.0569**	**0.0000**	**181.5769**	**181.5769**	**0.0316**	**0.0000**	**182.3675**

Palmdale GPU - School - Los Angeles-Mojave Desert County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.6200e-003	0.0430	0.0140	1.7000e-004	5.3300e-003	3.9000e-004	5.7300e-003	1.5400e-003	3.8000e-004	1.9200e-003	0.0000	16.0917	16.0917	5.4000e-004	2.3200e-003	16.7965
Worker	5.9800e-003	4.6900e-003	0.0602	1.5000e-004	0.0169	1.1000e-004	0.0170	4.4900e-003	1.0000e-004	4.6000e-003	0.0000	14.0953	14.0953	4.7000e-004	4.1000e-004	14.2295
Total	**7.6000e-003**	**0.0477**	**0.0742**	**3.2000e-004**	**0.0222**	**5.0000e-004**	**0.0228**	**6.0300e-003**	**4.8000e-004**	**6.5200e-003**	**0.0000**	**30.1870**	**30.1870**	**1.0100e-003**	**2.7300e-003**	**31.0261**

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	9.5800e-003	0.0415	0.4577	7.8000e-004		1.2800e-003	1.2800e-003		1.2800e-003	1.2800e-003	0.0000	68.5899	68.5899	0.0222	0.0000	69.1445
Total	**9.5800e-003**	**0.0415**	**0.4577**	**7.8000e-004**		**1.2800e-003**	**1.2800e-003**		**1.2800e-003**	**1.2800e-003**	**0.0000**	**68.5899**	**68.5899**	**0.0222**	**0.0000**	**69.1445**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.6200e-003	0.0430	0.0140	1.7000e-004	5.3300e-003	3.9000e-004	5.7300e-003	1.5400e-003	3.8000e-004	1.9200e-003	0.0000	16.0917	16.0917	5.4000e-004	2.3200e-003	16.7965
Worker	5.9800e-003	4.6900e-003	0.0602	1.5000e-004	0.0169	1.1000e-004	0.0170	4.4900e-003	1.0000e-004	4.6000e-003	0.0000	14.0953	14.0953	4.7000e-004	4.1000e-004	14.2295
Total	**7.6000e-003**	**0.0477**	**0.0742**	**3.2000e-004**	**0.0222**	**5.0000e-004**	**0.0228**	**6.0300e-003**	**4.8000e-004**	**6.5200e-003**	**0.0000**	**30.1870**	**30.1870**	**1.0100e-003**	**2.7300e-003**	**31.0261**

3.5 Paving - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	3.4400e-003	0.0339	0.0440	7.0000e-005		1.7400e-003	1.7400e-003		1.6000e-003	1.6000e-003	0.0000	5.8848	5.8848	1.8700e-003	0.0000	5.9315
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**3.4400e-003**	**0.0339**	**0.0440**	**7.0000e-005**		**1.7400e-003**	**1.7400e-003**		**1.6000e-003**	**1.6000e-003**	**0.0000**	**5.8848**	**5.8848**	**1.8700e-003**	**0.0000**	**5.9315**

Palmdale GPU - School - Los Angeles-Mojave Desert County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.9000e-004	1.5000e-004	1.8600e-003	0.0000	5.2000e-004	0.0000	5.3000e-004	1.4000e-004	0.0000	1.4000e-004	0.0000	0.4363	0.4363	1.0000e-005	1.0000e-005	0.4404
Total	**1.9000e-004**	**1.5000e-004**	**1.8600e-003**	**0.0000**	**5.2000e-004**	**0.0000**	**5.3000e-004**	**1.4000e-004**	**0.0000**	**1.4000e-004**	**0.0000**	**0.4363**	**0.4363**	**1.0000e-005**	**1.0000e-005**	**0.4404**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	8.0000e-004	3.4600e-003	0.0493	7.0000e-005		1.1000e-004	1.1000e-004		1.1000e-004	1.1000e-004	0.0000	5.7130	5.7130	1.8500e-003	0.0000	5.7591
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**8.0000e-004**	**3.4600e-003**	**0.0493**	**7.0000e-005**		**1.1000e-004**	**1.1000e-004**		**1.1000e-004**	**1.1000e-004**	**0.0000**	**5.7130**	**5.7130**	**1.8500e-003**	**0.0000**	**5.7591**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.9000e-004	1.5000e-004	1.8600e-003	0.0000	5.2000e-004	0.0000	5.3000e-004	1.4000e-004	0.0000	1.4000e-004	0.0000	0.4363	0.4363	1.0000e-005	1.0000e-005	0.4404
Total	**1.9000e-004**	**1.5000e-004**	**1.8600e-003**	**0.0000**	**5.2000e-004**	**0.0000**	**5.3000e-004**	**1.4000e-004**	**0.0000**	**1.4000e-004**	**0.0000**	**0.4363**	**0.4363**	**1.0000e-005**	**1.0000e-005**	**0.4404**

3.6 Architectural Coating - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.1776					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.0200e-003	7.0400e-003	9.0700e-003	1.0000e-005		4.1000e-004	4.1000e-004		4.1000e-004	4.1000e-004	0.0000	1.2766	1.2766	8.0000e-005	0.0000	1.2787
Total	**0.1787**	**7.0400e-003**	**9.0700e-003**	**1.0000e-005**		**4.1000e-004**	**4.1000e-004**		**4.1000e-004**	**4.1000e-004**	**0.0000**	**1.2766**	**1.2766**	**8.0000e-005**	**0.0000**	**1.2787**

Palmdale GPU - School - Los Angeles-Mojave Desert County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.0000e-005	4.0000e-005	5.7000e-004	0.0000	1.6000e-004	0.0000	1.6000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.1342	0.1342	0.0000	0.0000	0.1355
Total	**6.0000e-005**	**4.0000e-005**	**5.7000e-004**	**0.0000**	**1.6000e-004**	**0.0000**	**1.6000e-004**	**4.0000e-005**	**0.0000**	**4.0000e-005**	**0.0000**	**0.1342**	**0.1342**	**0.0000**	**0.0000**	**0.1355**

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	0.1776					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.5000e-004	6.4000e-004	9.1600e-003	1.0000e-005		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	1.2766	1.2766	8.0000e-005	0.0000	1.2787
Total	**0.1778**	**6.4000e-004**	**9.1600e-003**	**1.0000e-005**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**	**0.0000**	**1.2766**	**1.2766**	**8.0000e-005**	**0.0000**	**1.2787**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.0000e-005	4.0000e-005	5.7000e-004	0.0000	1.6000e-004	0.0000	1.6000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.1342	0.1342	0.0000	0.0000	0.1355
Total	**6.0000e-005**	**4.0000e-005**	**5.7000e-004**	**0.0000**	**1.6000e-004**	**0.0000**	**1.6000e-004**	**4.0000e-005**	**0.0000**	**4.0000e-005**	**0.0000**	**0.1342**	**0.1342**	**0.0000**	**0.0000**	**0.1355**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	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 Applied

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
Elementary School	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
Elementary School	9.50	7.30	7.30	65.00	30.00	5.00	63	25	12

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Elementary School	0.544785	0.062844	0.187478	0.127235	0.023089	0.006083	0.010475	0.008012	0.000925	0.000611	0.024394	0.000698	0.003374

5.0 Energy Detail

Historical Energy Use: N

Palmdale GPU - School - Los Angeles-Mojave Desert County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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

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					
Elementary School	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**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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					
Elementary School	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**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use		Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	tons/yr	MT/yr			
Elementary School	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	tons/yr	MT/yr			
Elementary School	0		0.0000	0.0000	0.0000	0.0000
Total			**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive 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
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

Palmdale GPU - School - Los Angeles-Mojave Desert County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

6.2 Area by SubCategory

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	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Mitigated

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

7.0 Water Detail

7.1 Mitigation Measures Water

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

Palmdale GPU - School - Los Angeles-Mojave Desert County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use		Total CO2	CH4	N2O	CO2e
Land Use	Mgal	tons/yr	MT/yr			
Elementary School	0 / 0		0.0000	0.0000	0.0000	0.0000
Total			**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 Applied

Mitigated

	Indoor/Outdoor Use		Total CO2	CH4	N2O	CO2e
Land Use	Mgal	tons/yr	MT/yr			
Elementary School	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
	tons/yr	MT/yr			
Mitigated		0.0000	0.0000	0.0000	0.0000
Unmitigated		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 Applied

8.2 Waste by Land Use

Unmitigated

	Waste Disposed		Total CO2	CH4	N2O	CO2e
Land Use	tons	tons/yr	MT/yr			
Elementary School	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	tons/yr	MT/yr			
Elementary School	0		0.0000	0.0000	0.0000	0.0000
Total			**0.0000**	**0.0000**	**0.0000**	**0.0000**

9.0 Operational Offroad

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

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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

Palmdale GPU - School - Los Angeles-Mojave Desert County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Palmdale GPU - School

Los Angeles-Mojave Desert County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Elementary School	51.10	1000sqft	1.17	51,102.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2023
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	390.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - See Assumptions

Land Use - See Assumptions

Construction Phase - See Assumptions

Grading -

Demolition -

Architectural Coating - Based on AVAQMD requirements for VOC content

Vehicle Trips - Operational Emissions Modeled Separately

Consumer Products - Operational Emissions Modeled Separately

Area Coating - Operational Emissions Modeled Separately

Landscape Equipment - Operational Emissions Modeled Separately

Energy Use - Operational Emissions Modeled Separately

Water And Wastewater - Operational Emissions Modeled Separately

Palmdale GPU - School - Los Angeles-Mojave Desert County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Solid Waste - Operational Emissions Modeled Separately

Construction Off-road Equipment Mitigation - Water 2x daily based on AVAQMD regulations for dust control; not mitigation

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	150.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	50.00
tblAreaCoating	ReapplicationRatePercent	10	0
tblConstEquipMitigation	FuelType	Diesel	Electrical
tblConstEquipMitigation	FuelType	Diesel	Electrical
tblConstEquipMitigation	FuelType	Diesel	Electrical
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	7.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstructionPhase	PhaseEndDate	12/8/2022	11/14/2022
tblConstructionPhase	PhaseEndDate	11/24/2022	2/17/2022
tblConstructionPhase	PhaseStartDate	11/25/2022	11/1/2022
tblConstructionPhase	PhaseStartDate	11/11/2022	2/4/2022
tblConsumerProducts	ROG_EF	2.14E-05	0
tblConsumerProducts	ROG_EF_Degreaser	3.542E-07	0
tblConsumerProducts	ROG_EF_PesticidesFertilizers	5.152E-08	0
tblEnergyUse	LightingElect	2.59	0.00
tblEnergyUse	NT24E	1.59	0.00
tblEnergyUse	NT24NG	1.08	0.00
tblEnergyUse	T24E	1.56	0.00
tblEnergyUse	T24NG	9.23	0.00
tblLandscapeEquipment	NumberSummerDays	180	0
tblSolidWaste	SolidWasteGenerationRate	66.43	0.00
tblVehicleTrips	WD_TR	19.52	0.00
tblWater	IndoorWaterUseRate	1,481,742.47	0.00
tblWater	OutdoorWaterUseRate	3,810,194.92	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

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

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

					PM10	PM10	Total	PM2.5	PM2.5	Total						
Year	lb/day										lb/day					
2022	37.4707	19.7534	22.6959	0.0398	7.1647	0.9421	7.9076	3.4465	0.8948	4.1299	0.0000	3,737.9005	3,737.9005	0.7739	0.1279	3,766.8831
Maximum	**37.4707**	**19.7534**	**22.6959**	**0.0398**	**7.1647**	**0.9421**	**7.9076**	**3.4465**	**0.8948**	**4.1299**	**0.0000**	**3,737.9005**	**3,737.9005**	**0.7739**	**0.1279**	**3,766.8831**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2022	35.7430	3.1919	15.5918	0.0323	3.2693	0.0527	3.3035	1.5629	0.0520	1.5970	0.0000	3,213.1496	3,213.1496	0.6659	0.1279	3,267.1893
Maximum	**35.7430**	**3.1919**	**15.5918**	**0.0323**	**3.2693**	**0.0527**	**3.3035**	**1.5629**	**0.0520**	**1.5970**	**0.0000**	**3,213.1496**	**3,213.1496**	**0.6659**	**0.1279**	**3,267.1893**

	ROG	NOx	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	**4.61**	**83.84**	**31.30**	**18.84**	**54.37**	**94.41**	**58.22**	**54.65**	**94.19**	**61.33**	**0.00**	**14.04**	**14.04**	**13.96**	**0.00**	**13.27**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	4.8000e-004	5.0000e-005	5.2200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0112	0.0112	3.0000e-005		0.0119
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	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	**4.8000e-004**	**5.0000e-005**	**5.2200e-003**	**0.0000**	**0.0000**	**2.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**2.0000e-005**		**0.0112**	**0.0112**	**3.0000e-005**	**0.0000**	**0.0119**

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	4.8000e-004	5.0000e-005	5.2200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0112	0.0112	3.0000e-005		0.0119
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	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	**4.8000e-004**	**5.0000e-005**	**5.2200e-003**	**0.0000**	**0.0000**	**2.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**2.0000e-005**		**0.0112**	**0.0112**	**3.0000e-005**	**0.0000**	**0.0119**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	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	Demolition	Demolition	1/1/2022	1/28/2022	5	20	
2	Grading	Grading	1/29/2022	2/3/2022	5	4	
3	Building Construction	Building Construction	2/4/2022	11/10/2022	5	200	
4	Paving	Paving	2/4/2022	2/17/2022	5	10	
5	Architectural Coating	Architectural Coating	11/1/2022	11/14/2022	5	10	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 4

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 76,653; Non-Residential Outdoor: 25,551; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Cement and Mortar Mixers	1	6.00	9	0.56
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Building Construction	Cranes	1	6.00	231	0.29
Building Construction	Forklifts	1	6.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Grading	Graders	1	8.00	187	0.41
Demolition	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Paving	Pavers	1	6.00	130	0.42
Paving	Paving Equipment	1	8.00	132	0.36
Paving	Rollers	1	7.00	80	0.38
Demolition	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Grading	Tractors/Loaders/Backhoes	2	7.00	97	0.37
Building Construction	Welders	3	8.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Architectural Coating	1	4.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	21.00	8.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Demolition	5	13.00	0.00	232.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	5	13.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Alternative Fuel for Construction Equipment

Use Cleaner Engines for Construction Equipment

Water Exposed Area

3.2 Demolition - 2022

Unmitigated Construction On-Site

Palmdale GPU - School - Los Angeles-Mojave Desert County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.5151	0.0000	2.5151	0.3808	0.0000	0.3808			0.0000			0.0000
Off-Road	1.6889	16.6217	13.9605	0.0241		0.8379	0.8379		0.7829	0.7829		2,323.4168	2,323.4168	0.5921		2,338.2191
Total	**1.6889**	**16.6217**	**13.9605**	**0.0241**	**2.5151**	**0.8379**	**3.3530**	**0.3808**	**0.7829**	**1.1637**		**2,323.4168**	**2,323.4168**	**0.5921**		**2,338.2191**

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	0.0540	1.9482	0.4543	7.2100e-003	0.2030	0.0145	0.2175	0.0557	0.0139	0.0695		789.6997	789.6997	0.0419	0.1253	828.0865
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	0.0377	0.0258	0.3921	9.8000e-004	0.1068	7.0000e-004	0.1075	0.0283	6.5000e-004	0.0290		100.0331	100.0331	3.1000e-003	2.5900e-003	100.8837
Total	**0.0918**	**1.9740**	**0.8463**	**8.1900e-003**	**0.3098**	**0.0152**	**0.3250**	**0.0840**	**0.0145**	**0.0985**		**889.7328**	**889.7328**	**0.0450**	**0.1279**	**928.9702**

Palmdale GPU - School - Los Angeles-Mojave Desert County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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					1.1318	0.0000	1.1318	0.1714	0.0000	0.1714			0.0000			0.0000
Off-Road	0.2811	1.2179	14.7184	0.0241		0.0375	0.0375		0.0375	0.0375	0.0000	2,323.4168	2,323.4168	0.5921		2,338.2191
Total	**0.2811**	**1.2179**	**14.7184**	**0.0241**	**1.1318**	**0.0375**	**1.1693**	**0.1714**	**0.0375**	**0.2089**	**0.0000**	**2,323.4168**	**2,323.4168**	**0.5921**		**2,338.2191**

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	0.0540	1.9482	0.4543	7.2100e-003	0.2030	0.0145	0.2175	0.0557	0.0139	0.0695		789.6997	789.6997	0.0419	0.1253	828.0865
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	0.0377	0.0258	0.3921	9.8000e-004	0.1068	7.0000e-004	0.1075	0.0283	6.5000e-004	0.0290		100.0331	100.0331	3.1000e-003	2.5900e-003	100.8837
Total	**0.0918**	**1.9740**	**0.8463**	**8.1900e-003**	**0.3098**	**0.0152**	**0.3250**	**0.0840**	**0.0145**	**0.0985**		**889.7328**	**889.7328**	**0.0450**	**0.1279**	**928.9702**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					7.0826	0.0000	7.0826	3.4247	0.0000	3.4247			0.0000			0.0000
Off-Road	1.5403	16.9836	9.2202	0.0206		0.7423	0.7423		0.6829	0.6829		1,995.4825	1,995.4825	0.6454		2,011.6169
Total	**1.5403**	**16.9836**	**9.2202**	**0.0206**	**7.0826**	**0.7423**	**7.8249**	**3.4247**	**0.6829**	**4.1076**		**1,995.4825**	**1,995.4825**	**0.6454**		**2,011.6169**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0290	0.0198	0.3016	7.6000e-004	0.0822	5.4000e-004	0.0827	0.0218	5.0000e-004	0.0223		76.9485	76.9485	2.3800e-003	2.0000e-003	77.6028
Total	**0.0290**	**0.0198**	**0.3016**	**7.6000e-004**	**0.0822**	**5.4000e-004**	**0.0827**	**0.0218**	**5.0000e-004**	**0.0223**		**76.9485**	**76.9485**	**2.3800e-003**	**2.0000e-003**	**77.6028**

Palmdale GPU - School - Los Angeles-Mojave Desert County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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					3.1872	0.0000	3.1872	1.5411	0.0000	1.5411			0.0000			0.0000
Off-Road	0.2522	1.0927	10.9071	0.0206		0.0336	0.0336		0.0336	0.0336	0.0000	1,995.4825	1,995.4825	0.6454		2,011.6169
Total	**0.2522**	**1.0927**	**10.9071**	**0.0206**	**3.1872**	**0.0336**	**3.2208**	**1.5411**	**0.0336**	**1.5748**	**0.0000**	**1,995.4825**	**1,995.4825**	**0.6454**		**2,011.6169**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0290	0.0198	0.3016	7.6000e-004	0.0822	5.4000e-004	0.0827	0.0218	5.0000e-004	0.0223		76.9485	76.9485	2.3800e-003	2.0000e-003	77.6028
Total	**0.0290**	**0.0198**	**0.3016**	**7.6000e-004**	**0.0822**	**5.4000e-004**	**0.0827**	**0.0218**	**5.0000e-004**	**0.0223**		**76.9485**	**76.9485**	**2.3800e-003**	**2.0000e-003**	**77.6028**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.6487	12.5031	12.7264	0.0221		0.5889	0.5889		0.5689	0.5689		2,001.5429	2,001.5429	0.3486		2,010.2581
Total	**1.6487**	**12.5031**	**12.7264**	**0.0221**		**0.5889**	**0.5889**		**0.5689**	**0.5689**		**2,001.5429**	**2,001.5429**	**0.3486**		**2,010.2581**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0163	0.4092	0.1381	1.6500e-003	0.0542	3.9400e-003	0.0581	0.0156	3.7700e-003	0.0194		177.3539	177.3539	5.9300e-003	0.0256	185.1145
Worker	0.0609	0.0416	0.6333	1.5900e-003	0.1725	1.1300e-003	0.1736	0.0458	1.0400e-003	0.0468		161.5919	161.5919	5.0100e-003	4.1900e-003	162.9660
Total	**0.0773**	**0.4509**	**0.7714**	**3.2400e-003**	**0.2267**	**5.0700e-003**	**0.2318**	**0.0614**	**4.8100e-003**	**0.0662**		**338.9458**	**338.9458**	**0.0109**	**0.0297**	**348.0805**

Palmdale GPU - School - Los Angeles-Mojave Desert County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	0.0958	0.4150	4.5772	7.8100e-003		0.0128	0.0128		0.0128	0.0128	0.0000	756.0751	756.0751	0.2445		762.1884
Total	**0.0958**	**0.4150**	**4.5772**	**7.8100e-003**		**0.0128**	**0.0128**		**0.0128**	**0.0128**	**0.0000**	**756.0751**	**756.0751**	**0.2445**		**762.1884**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0163	0.4092	0.1381	1.6500e-003	0.0542	3.9400e-003	0.0581	0.0156	3.7700e-003	0.0194		177.3539	177.3539	5.9300e-003	0.0256	185.1145
Worker	0.0609	0.0416	0.6333	1.5900e-003	0.1725	1.1300e-003	0.1736	0.0458	1.0400e-003	0.0468		161.5919	161.5919	5.0100e-003	4.1900e-003	162.9660
Total	**0.0773**	**0.4509**	**0.7714**	**3.2400e-003**	**0.2267**	**5.0700e-003**	**0.2318**	**0.0614**	**4.8100e-003**	**0.0662**		**338.9458**	**338.9458**	**0.0109**	**0.0297**	**348.0805**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Paving - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.6877	6.7738	8.8060	0.0135		0.3474	0.3474		0.3205	0.3205		1,297.3789	1,297.3789	0.4113		1,307.6608
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.6877**	**6.7738**	**8.8060**	**0.0135**		**0.3474**	**0.3474**		**0.3205**	**0.3205**		**1,297.3789**	**1,297.3789**	**0.4113**		**1,307.6608**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0377	0.0258	0.3921	9.8000e-004	0.1068	7.0000e-004	0.1075	0.0283	6.5000e-004	0.0290		100.0331	100.0331	3.1000e-003	2.5900e-003	100.8837
Total	**0.0377**	**0.0258**	**0.3921**	**9.8000e-004**	**0.1068**	**7.0000e-004**	**0.1075**	**0.0283**	**6.5000e-004**	**0.0290**		**100.0331**	**100.0331**	**3.1000e-003**	**2.5900e-003**	**100.8837**

Palmdale GPU - School - Los Angeles-Mojave Desert County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	0.1598	0.6922	9.8512	0.0130		0.0213	0.0213		0.0213	0.0213	0.0000	1,259.4916	1,259.4916	0.4074		1,269.6753
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.1598**	**0.6922**	**9.8512**	**0.0130**		**0.0213**	**0.0213**		**0.0213**	**0.0213**	**0.0000**	**1,259.4916**	**1,259.4916**	**0.4074**		**1,269.6753**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0377	0.0258	0.3921	9.8000e-004	0.1068	7.0000e-004	0.1075	0.0283	6.5000e-004	0.0290		100.0331	100.0331	3.1000e-003	2.5900e-003	100.8837
Total	**0.0377**	**0.0258**	**0.3921**	**9.8000e-004**	**0.1068**	**7.0000e-004**	**0.1075**	**0.0283**	**6.5000e-004**	**0.0290**		**100.0331**	**100.0331**	**3.1000e-003**	**2.5900e-003**	**100.8837**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	35.5287					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2045	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817		281.4481	281.4481	0.0183		281.9062
Total	**35.7332**	**1.4085**	**1.8136**	**2.9700e-003**		**0.0817**	**0.0817**		**0.0817**	**0.0817**		**281.4481**	**281.4481**	**0.0183**		**281.9062**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0116	7.9300e-003	0.1206	3.0000e-004	0.0329	2.2000e-004	0.0331	8.7200e-003	2.0000e-004	8.9100e-003		30.7794	30.7794	9.5000e-004	8.0000e-004	31.0411
Total	**0.0116**	**7.9300e-003**	**0.1206**	**3.0000e-004**	**0.0329**	**2.2000e-004**	**0.0331**	**8.7200e-003**	**2.0000e-004**	**8.9100e-003**		**30.7794**	**30.7794**	**9.5000e-004**	**8.0000e-004**	**31.0411**

Palmdale GPU - School - Los Angeles-Mojave Desert County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	35.5287					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0297	0.1288	1.8324	2.9700e-003		3.9600e-003	3.9600e-003		3.9600e-003	3.9600e-003	0.0000	281.4481	281.4481	0.0183		281.9062
Total	**35.5584**	**0.1288**	**1.8324**	**2.9700e-003**		**3.9600e-003**	**3.9600e-003**		**3.9600e-003**	**3.9600e-003**	**0.0000**	**281.4481**	**281.4481**	**0.0183**		**281.9062**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0116	7.9300e-003	0.1206	3.0000e-004	0.0329	2.2000e-004	0.0331	8.7200e-003	2.0000e-004	8.9100e-003		30.7794	30.7794	9.5000e-004	8.0000e-004	31.0411
Total	**0.0116**	**7.9300e-003**	**0.1206**	**3.0000e-004**	**0.0329**	**2.2000e-004**	**0.0331**	**8.7200e-003**	**2.0000e-004**	**8.9100e-003**		**30.7794**	**30.7794**	**9.5000e-004**	**8.0000e-004**	**31.0411**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

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

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Elementary School	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
Elementary School	9.50	7.30	7.30	65.00	30.00	5.00	63	25	12

4.4 Fleet Mix

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

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Elementary School	0.544785	0.062844	0.187478	0.127235	0.023089	0.006083	0.010475	0.008012	0.000925	0.000611	0.024394	0.000698	0.003374

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

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

5.2 Energy by Land Use - NaturalGas

Unmitigated

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

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					
Elementary School	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

6.1 Mitigation Measures Area

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	4.8000e-004	5.0000e-005	5.2200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0112	0.0112	3.0000e-005		0.0119
Unmitigated	4.8000e-004	5.0000e-005	5.2200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0112	0.0112	3.0000e-005		0.0119

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	4.8000e-004	5.0000e-005	5.2200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0112	0.0112	3.0000e-005		0.0119
Total	**4.8000e-004**	**5.0000e-005**	**5.2200e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**		**0.0112**	**0.0112**	**3.0000e-005**		**0.0119**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	4.8000e-004	5.0000e-005	5.2200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0112	0.0112	3.0000e-005		0.0119
Total	**4.8000e-004**	**5.0000e-005**	**5.2200e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**		**0.0112**	**0.0112**	**3.0000e-005**		**0.0119**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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

Palmdale GPU - School - Los Angeles-Mojave Desert County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Palmdale GPU - School

Los Angeles-Mojave Desert County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Elementary School	51.10	1000sqft	1.17	51,102.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2023
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	390.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - See Assumptions

Land Use - See Assumptions

Construction Phase - See Assumptions

Grading -

Demolition -

Architectural Coating - Based on AVAQMD requirements for VOC content

Vehicle Trips - Operational Emissions Modeled Separately

Consumer Products - Operational Emissions Modeled Separately

Area Coating - Operational Emissions Modeled Separately

Landscape Equipment - Operational Emissions Modeled Separately

Energy Use - Operational Emissions Modeled Separately

Water And Wastewater - Operational Emissions Modeled Separately

Palmdale GPU - School - Los Angeles-Mojave Desert County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Solid Waste - Operational Emissions Modeled Separately

Construction Off-road Equipment Mitigation - Water 2x daily based on AVAQMD regulations for dust control; not mitigation

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	150.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	50.00
tblAreaCoating	ReapplicationRatePercent	10	0
tblConstEquipMitigation	FuelType	Diesel	Electrical
tblConstEquipMitigation	FuelType	Diesel	Electrical
tblConstEquipMitigation	FuelType	Diesel	Electrical
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	7.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstructionPhase	PhaseEndDate	12/8/2022	11/14/2022
tblConstructionPhase	PhaseEndDate	11/24/2022	2/17/2022
tblConstructionPhase	PhaseStartDate	11/25/2022	11/1/2022
tblConstructionPhase	PhaseStartDate	11/11/2022	2/4/2022
tblConsumerProducts	ROG_EF	2.14E-05	0
tblConsumerProducts	ROG_EF_Degreaser	3.542E-07	0
tblConsumerProducts	ROG_EF_PesticidesFertilizers	5.152E-08	0
tblEnergyUse	LightingElect	2.59	0.00
tblEnergyUse	NT24E	1.59	0.00
tblEnergyUse	NT24NG	1.08	0.00
tblEnergyUse	T24E	1.56	0.00
tblEnergyUse	T24NG	9.23	0.00
tblLandscapeEquipment	NumberSummerDays	180	0
tblSolidWaste	SolidWasteGenerationRate	66.43	0.00
tblVehicleTrips	WD_TR	19.52	0.00
tblWater	IndoorWaterUseRate	1,481,742.47	0.00
tblWater	OutdoorWaterUseRate	3,810,194.92	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

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

Palmdale GPU - School - Los Angeles-Mojave Desert County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

					PM10	PM10	Total	PM2.5	PM2.5	Total						
Year	lb/day										lb/day					
2022	37.4746	19.7773	22.6279	0.0397	7.1647	0.9421	7.9076	3.4465	0.8948	4.1299	0.0000	3,724.2085	3,724.2085	0.7741	0.1281	3,753.3443
Maximum	**37.4746**	**19.7773**	**22.6279**	**0.0397**	**7.1647**	**0.9421**	**7.9076**	**3.4465**	**0.8948**	**4.1299**	**0.0000**	**3,724.2085**	**3,724.2085**	**0.7741**	**0.1281**	**3,753.3443**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2022	35.7469	3.2737	15.5449	0.0323	3.2693	0.0527	3.3035	1.5629	0.0520	1.5970	0.0000	3,208.1217	3,208.1217	0.6661	0.1281	3,262.2269
Maximum	**35.7469**	**3.2737**	**15.5449**	**0.0323**	**3.2693**	**0.0527**	**3.3035**	**1.5629**	**0.0520**	**1.5970**	**0.0000**	**3,208.1217**	**3,208.1217**	**0.6661**	**0.1281**	**3,262.2269**

	ROG	**NOx**	**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	**4.61**	**83.45**	**31.30**	**18.68**	**54.37**	**94.41**	**58.22**	**54.65**	**94.19**	**61.33**	**0.00**	**13.86**	**13.86**	**13.95**	**0.00**	**13.08**

Palmdale GPU - School - Los Angeles-Mojave Desert County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	4.8000e-004	5.0000e-005	5.2200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0112	0.0112	3.0000e-005		0.0119
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	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	**4.8000e-004**	**5.0000e-005**	**5.2200e-003**	**0.0000**	**0.0000**	**2.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**2.0000e-005**		**0.0112**	**0.0112**	**3.0000e-005**	**0.0000**	**0.0119**

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	4.8000e-004	5.0000e-005	5.2200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0112	0.0112	3.0000e-005		0.0119
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	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	**4.8000e-004**	**5.0000e-005**	**5.2200e-003**	**0.0000**	**0.0000**	**2.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**2.0000e-005**		**0.0112**	**0.0112**	**3.0000e-005**	**0.0000**	**0.0119**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	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	Demolition	Demolition	1/1/2022	1/28/2022	5	20	
2	Grading	Grading	1/29/2022	2/3/2022	5	4	
3	Building Construction	Building Construction	2/4/2022	11/10/2022	5	200	
4	Paving	Paving	2/4/2022	2/17/2022	5	10	
5	Architectural Coating	Architectural Coating	11/1/2022	11/14/2022	5	10	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 4

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 76,653; Non-Residential Outdoor: 25,551; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Cement and Mortar Mixers	1	6.00	9	0.56
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Building Construction	Cranes	1	6.00	231	0.29
Building Construction	Forklifts	1	6.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Grading	Graders	1	8.00	187	0.41
Demolition	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Paving	Pavers	1	6.00	130	0.42
Paving	Paving Equipment	1	8.00	132	0.36
Paving	Rollers	1	7.00	80	0.38
Demolition	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Grading	Tractors/Loaders/Backhoes	2	7.00	97	0.37
Building Construction	Welders	3	8.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Architectural Coating	1	4.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	21.00	8.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Demolition	5	13.00	0.00	232.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	5	13.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Alternative Fuel for Construction Equipment

Use Cleaner Engines for Construction Equipment

Water Exposed Area

3.2 Demolition - 2022

Unmitigated Construction On-Site

Palmdale GPU - School - Los Angeles-Mojave Desert County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.5151	0.0000	2.5151	0.3808	0.0000	0.3808			0.0000			0.0000
Off-Road	1.6889	16.6217	13.9605	0.0241		0.8379	0.8379		0.7829	0.7829		2,323.4168	2,323.4168	0.5921		2,338.2191
Total	**1.6889**	**16.6217**	**13.9605**	**0.0241**	**2.5151**	**0.8379**	**3.3530**	**0.3808**	**0.7829**	**1.1637**		**2,323.4168**	**2,323.4168**	**0.5921**		**2,338.2191**

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	0.0528	2.0273	0.4622	7.2100e-003	0.2030	0.0145	0.2176	0.0557	0.0139	0.0695		789.9312	789.9312	0.0419	0.1253	828.3285
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	0.0398	0.0285	0.3643	9.3000e-004	0.1068	7.0000e-004	0.1075	0.0283	6.5000e-004	0.0290		94.7737	94.7737	3.1900e-003	2.7700e-003	95.6794
Total	**0.0926**	**2.0557**	**0.8265**	**8.1400e-003**	**0.3098**	**0.0152**	**0.3250**	**0.0840**	**0.0145**	**0.0985**		**884.7049**	**884.7049**	**0.0451**	**0.1281**	**924.0079**

Palmdale GPU - School - Los Angeles-Mojave Desert County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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					1.1318	0.0000	1.1318	0.1714	0.0000	0.1714			0.0000			0.0000
Off-Road	0.2811	1.2179	14.7184	0.0241		0.0375	0.0375		0.0375	0.0375	0.0000	2,323.4168	2,323.4168	0.5921		2,338.2191
Total	**0.2811**	**1.2179**	**14.7184**	**0.0241**	**1.1318**	**0.0375**	**1.1693**	**0.1714**	**0.0375**	**0.2089**	**0.0000**	**2,323.4168**	**2,323.4168**	**0.5921**		**2,338.2191**

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	0.0528	2.0273	0.4622	7.2100e-003	0.2030	0.0145	0.2176	0.0557	0.0139	0.0695		789.9312	789.9312	0.0419	0.1253	828.3285
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	0.0398	0.0285	0.3643	9.3000e-004	0.1068	7.0000e-004	0.1075	0.0283	6.5000e-004	0.0290		94.7737	94.7737	3.1900e-003	2.7700e-003	95.6794
Total	**0.0926**	**2.0557**	**0.8265**	**8.1400e-003**	**0.3098**	**0.0152**	**0.3250**	**0.0840**	**0.0145**	**0.0985**		**884.7049**	**884.7049**	**0.0451**	**0.1281**	**924.0079**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					7.0826	0.0000	7.0826	3.4247	0.0000	3.4247			0.0000			0.0000
Off-Road	1.5403	16.9836	9.2202	0.0206		0.7423	0.7423		0.6829	0.6829		1,995.4825	1,995.4825	0.6454		2,011.6169
Total	**1.5403**	**16.9836**	**9.2202**	**0.0206**	**7.0826**	**0.7423**	**7.8249**	**3.4247**	**0.6829**	**4.1076**		**1,995.4825**	**1,995.4825**	**0.6454**		**2,011.6169**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0306	0.0219	0.2802	7.2000e-004	0.0822	5.4000e-004	0.0827	0.0218	5.0000e-004	0.0223		72.9029	72.9029	2.4500e-003	2.1300e-003	73.5996
Total	**0.0306**	**0.0219**	**0.2802**	**7.2000e-004**	**0.0822**	**5.4000e-004**	**0.0827**	**0.0218**	**5.0000e-004**	**0.0223**		**72.9029**	**72.9029**	**2.4500e-003**	**2.1300e-003**	**73.5996**

Palmdale GPU - School - Los Angeles-Mojave Desert County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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					3.1872	0.0000	3.1872	1.5411	0.0000	1.5411			0.0000			0.0000
Off-Road	0.2522	1.0927	10.9071	0.0206		0.0336	0.0336		0.0336	0.0336	0.0000	1,995.4825	1,995.4825	0.6454		2,011.6169
Total	**0.2522**	**1.0927**	**10.9071**	**0.0206**	**3.1872**	**0.0336**	**3.2208**	**1.5411**	**0.0336**	**1.5748**	**0.0000**	**1,995.4825**	**1,995.4825**	**0.6454**		**2,011.6169**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0306	0.0219	0.2802	7.2000e-004	0.0822	5.4000e-004	0.0827	0.0218	5.0000e-004	0.0223		72.9029	72.9029	2.4500e-003	2.1300e-003	73.5996
Total	**0.0306**	**0.0219**	**0.2802**	**7.2000e-004**	**0.0822**	**5.4000e-004**	**0.0827**	**0.0218**	**5.0000e-004**	**0.0223**		**72.9029**	**72.9029**	**2.4500e-003**	**2.1300e-003**	**73.5996**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.6487	12.5031	12.7264	0.0221		0.5889	0.5889		0.5689	0.5689		2,001.5429	2,001.5429	0.3486		2,010.2581
Total	**1.6487**	**12.5031**	**12.7264**	**0.0221**		**0.5889**	**0.5889**		**0.5689**	**0.5689**		**2,001.5429**	**2,001.5429**	**0.3486**		**2,010.2581**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0162	0.4261	0.1427	1.6500e-003	0.0542	3.9600e-003	0.0582	0.0156	3.7900e-003	0.0194		177.4171	177.4171	5.9100e-003	0.0256	185.1869
Worker	0.0643	0.0460	0.5885	1.5000e-003	0.1725	1.1300e-003	0.1736	0.0458	1.0400e-003	0.0468		153.0960	153.0960	5.1500e-003	4.4800e-003	154.5590
Total	**0.0805**	**0.4720**	**0.7312**	**3.1500e-003**	**0.2267**	**5.0900e-003**	**0.2318**	**0.0614**	**4.8300e-003**	**0.0662**		**330.5131**	**330.5131**	**0.0111**	**0.0301**	**339.7460**

Palmdale GPU - School - Los Angeles-Mojave Desert County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	0.0958	0.4150	4.5772	7.8100e-003		0.0128	0.0128		0.0128	0.0128	0.0000	756.0751	756.0751	0.2445		762.1884
Total	**0.0958**	**0.4150**	**4.5772**	**7.8100e-003**		**0.0128**	**0.0128**		**0.0128**	**0.0128**	**0.0000**	**756.0751**	**756.0751**	**0.2445**		**762.1884**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0162	0.4261	0.1427	1.6500e-003	0.0542	3.9600e-003	0.0582	0.0156	3.7900e-003	0.0194		177.4171	177.4171	5.9100e-003	0.0256	185.1869
Worker	0.0643	0.0460	0.5885	1.5000e-003	0.1725	1.1300e-003	0.1736	0.0458	1.0400e-003	0.0468		153.0960	153.0960	5.1500e-003	4.4800e-003	154.5590
Total	**0.0805**	**0.4720**	**0.7312**	**3.1500e-003**	**0.2267**	**5.0900e-003**	**0.2318**	**0.0614**	**4.8300e-003**	**0.0662**		**330.5131**	**330.5131**	**0.0111**	**0.0301**	**339.7460**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Paving - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.6877	6.7738	8.8060	0.0135		0.3474	0.3474		0.3205	0.3205		1,297.3789	1,297.3789	0.4113		1,307.6608
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.6877**	**6.7738**	**8.8060**	**0.0135**		**0.3474**	**0.3474**		**0.3205**	**0.3205**		**1,297.3789**	**1,297.3789**	**0.4113**		**1,307.6608**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0398	0.0285	0.3643	9.3000e-004	0.1068	7.0000e-004	0.1075	0.0283	6.5000e-004	0.0290		94.7737	94.7737	3.1900e-003	2.7700e-003	95.6794
Total	**0.0398**	**0.0285**	**0.3643**	**9.3000e-004**	**0.1068**	**7.0000e-004**	**0.1075**	**0.0283**	**6.5000e-004**	**0.0290**		**94.7737**	**94.7737**	**3.1900e-003**	**2.7700e-003**	**95.6794**

Palmdale GPU - School - Los Angeles-Mojave Desert County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	0.1598	0.6922	9.8512	0.0130		0.0213	0.0213		0.0213	0.0213	0.0000	1,259.4916	1,259.4916	0.4074		1,269.6753
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.1598**	**0.6922**	**9.8512**	**0.0130**		**0.0213**	**0.0213**		**0.0213**	**0.0213**	**0.0000**	**1,259.4916**	**1,259.4916**	**0.4074**		**1,269.6753**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0398	0.0285	0.3643	9.3000e-004	0.1068	7.0000e-004	0.1075	0.0283	6.5000e-004	0.0290		94.7737	94.7737	3.1900e-003	2.7700e-003	95.6794
Total	**0.0398**	**0.0285**	**0.3643**	**9.3000e-004**	**0.1068**	**7.0000e-004**	**0.1075**	**0.0283**	**6.5000e-004**	**0.0290**		**94.7737**	**94.7737**	**3.1900e-003**	**2.7700e-003**	**95.6794**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	35.5287					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2045	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817		281.4481	281.4481	0.0183		281.9062
Total	**35.7332**	**1.4085**	**1.8136**	**2.9700e-003**		**0.0817**	**0.0817**		**0.0817**	**0.0817**		**281.4481**	**281.4481**	**0.0183**		**281.9062**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0123	8.7600e-003	0.1121	2.9000e-004	0.0329	2.2000e-004	0.0331	8.7200e-003	2.0000e-004	8.9100e-003		29.1611	29.1611	9.8000e-004	8.5000e-004	29.4398
Total	**0.0123**	**8.7600e-003**	**0.1121**	**2.9000e-004**	**0.0329**	**2.2000e-004**	**0.0331**	**8.7200e-003**	**2.0000e-004**	**8.9100e-003**		**29.1611**	**29.1611**	**9.8000e-004**	**8.5000e-004**	**29.4398**

Palmdale GPU - School - Los Angeles-Mojave Desert County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	35.5287					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0297	0.1288	1.8324	2.9700e-003		3.9600e-003	3.9600e-003		3.9600e-003	3.9600e-003	0.0000	281.4481	281.4481	0.0183		281.9062
Total	**35.5584**	**0.1288**	**1.8324**	**2.9700e-003**		**3.9600e-003**	**3.9600e-003**		**3.9600e-003**	**3.9600e-003**	**0.0000**	**281.4481**	**281.4481**	**0.0183**		**281.9062**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0123	8.7600e-003	0.1121	2.9000e-004	0.0329	2.2000e-004	0.0331	8.7200e-003	2.0000e-004	8.9100e-003		29.1611	29.1611	9.8000e-004	8.5000e-004	29.4398
Total	**0.0123**	**8.7600e-003**	**0.1121**	**2.9000e-004**	**0.0329**	**2.2000e-004**	**0.0331**	**8.7200e-003**	**2.0000e-004**	**8.9100e-003**		**29.1611**	**29.1611**	**9.8000e-004**	**8.5000e-004**	**29.4398**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

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

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Elementary School	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
Elementary School	9.50	7.30	7.30	65.00	30.00	5.00	63	25	12

4.4 Fleet Mix

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

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Elementary School	0.544785	0.062844	0.187478	0.127235	0.023089	0.006083	0.010475	0.008012	0.000925	0.000611	0.024394	0.000698	0.003374

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

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

5.2 Energy by Land Use - NaturalGas

Unmitigated

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

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					
Elementary School	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

6.1 Mitigation Measures Area

Palmdale GPU - School - Los Angeles-Mojave Desert County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	4.8000e-004	5.0000e-005	5.2200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0112	0.0112	3.0000e-005		0.0119
Unmitigated	4.8000e-004	5.0000e-005	5.2200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0112	0.0112	3.0000e-005		0.0119

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	4.8000e-004	5.0000e-005	5.2200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0112	0.0112	3.0000e-005		0.0119
Total	**4.8000e-004**	**5.0000e-005**	**5.2200e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**		**0.0112**	**0.0112**	**3.0000e-005**		**0.0119**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	4.8000e-004	5.0000e-005	5.2200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0112	0.0112	3.0000e-005		0.0119
Total	**4.8000e-004**	**5.0000e-005**	**5.2200e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**		**0.0112**	**0.0112**	**3.0000e-005**		**0.0119**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Palmdale GPU - School - Los Angeles-Mojave Desert County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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

Palmdale GPU - SFR Annual Construction - Los Angeles-Mojave Desert County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Palmdale GPU - SFR Annual Construction

Los Angeles-Mojave Desert County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Single Family Housing	56.00	Dwelling Unit	18.18	100,800.00	193

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2023
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	390.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - See Assumptions

Land Use - See Assumptions

Construction Phase - See Assumptions

Grading -

Demolition - See Assumptions

Architectural Coating - See Assumptions

Vehicle Trips - Operational modeled separately

Woodstoves - Operational modeled separately

Consumer Products - Operational modeled separately

Area Coating - Operational modeled separately

Landscape Equipment - Operational modeled separately

Energy Use - Operational modeled separately

Palmdale GPU - SFR Annual Construction - Los Angeles-Mojave Desert County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Water And Wastewater - Operational modeled separately

Solid Waste - Operational modeled separately

Construction Off-road Equipment Mitigation - 2x per day watering exposed area based on AVAQMD regulations for dust suppression and is not mitigated scenario.

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	150.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	50.00
tblArchitecturalCoating	EF_Residential_Exterior	250.00	150.00
tblArchitecturalCoating	EF_Residential_Interior	250.00	50.00
tblAreaCoating	ReapplicationRatePercent	10	0
tblConstEquipMitigation	FuelType	Diesel	Electrical
tblConstEquipMitigation	FuelType	Diesel	Electrical
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	5.00
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	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	5.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final

Palmdale GPU - SFR Annual Construction - Los Angeles-Mojave Desert County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstructionPhase	NumDays	300.00	223.00
tblConstructionPhase	NumDays	20.00	15.00
tblConstructionPhase	NumDays	30.00	22.00
tblConstructionPhase	NumDays	20.00	10.00
tblConstructionPhase	PhaseEndDate	7/14/2023	12/30/2022
tblConstructionPhase	PhaseEndDate	5/19/2023	12/30/2022
tblConstructionPhase	PhaseEndDate	1/28/2022	1/21/2022
tblConstructionPhase	PhaseEndDate	3/25/2022	2/22/2022
tblConstructionPhase	PhaseEndDate	6/16/2023	3/8/2022
tblConstructionPhase	PhaseStartDate	6/17/2023	12/5/2022
tblConstructionPhase	PhaseStartDate	3/26/2022	2/23/2022
tblConstructionPhase	PhaseStartDate	2/12/2022	1/22/2022
tblConstructionPhase	PhaseStartDate	5/20/2023	2/23/2022
tblConsumerProducts	ROG_EF	2.14E-05	0
tblConsumerProducts	ROG_EF_Degreaser	3.542E-07	0
tblConsumerProducts	ROG_EF_PesticidesFertilizers	5.152E-08	0
tblEnergyUse	LightingElect	1,608.84	0.00
tblEnergyUse	NT24E	6,155.97	0.00

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tblEnergyUse	NT24NG	6,384.00	0.00
tblEnergyUse	T24E	93.13	0.00
tblEnergyUse	T24NG	19,108.08	0.00
tblFireplaces	FireplaceDayYear	82.00	0.00
tblFireplaces	FireplaceHourDay	3.00	0.00
tblFireplaces	FireplaceWoodMass	3,078.40	0.00
tblFireplaces	NumberGas	30.80	0.00
tblFireplaces	NumberNoFireplace	5.60	0.00
tblFireplaces	NumberWood	19.60	0.00
tblLandscapeEquipment	NumberSummerDays	180	0
tblLandUse	Population	160.00	193.00
tblSolidWaste	SolidWasteGenerationRate	79.13	0.00
tblVehicleTrips	ST_TR	9.54	0.00
tblVehicleTrips	SU_TR	8.55	0.00
tblVehicleTrips	WD_TR	9.44	0.00
tblWater	IndoorWaterUseRate	3,648,625.43	0.00
tblWater	OutdoorWaterUseRate	2,300,220.38	0.00
tblWoodstoves	NumberCatalytic	2.80	0.00
tblWoodstoves	NumberNoncatalytic	2.80	0.00
tblWoodstoves	WoodstoveDayYear	82.00	0.00
tblWoodstoves	WoodstoveWoodMass	3,019.20	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

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

Palmdale GPU - SFR Annual Construction - Los Angeles-Mojave Desert County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

					PM10	PM10	Total	PM2.5	PM2.5	Total						
Year	tons/yr										MT/yr					
2022	0.7397	2.4802	2.4796	4.4800e-003	0.1368	0.1217	0.2585	0.0487	0.1140	0.1628	0.0000	390.3820	390.3820	0.0930	2.8700e-003	393.5624
Maximum	**0.7397**	**2.4802**	**2.4796**	**4.4800e-003**	**0.1368**	**0.1217**	**0.2585**	**0.0487**	**0.1140**	**0.1628**	**0.0000**	**390.3820**	**390.3820**	**0.0930**	**2.8700e-003**	**393.5624**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2022	0.5201	0.2133	2.0601	3.4600e-003	0.0763	5.5800e-003	0.0819	0.0259	5.5500e-003	0.0315	0.0000	306.3745	306.3745	0.0875	2.8700e-003	309.4172
Maximum	**0.5201**	**0.2133**	**2.0601**	**3.4600e-003**	**0.0763**	**5.5800e-003**	**0.0819**	**0.0259**	**5.5500e-003**	**0.0315**	**0.0000**	**306.3745**	**306.3745**	**0.0875**	**2.8700e-003**	**309.4172**

	ROG	NOx	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	**29.69**	**91.40**	**16.92**	**22.77**	**44.26**	**95.41**	**68.34**	**46.86**	**95.13**	**80.68**	**0.00**	**21.52**	**21.52**	**5.91**	**0.00**	**21.38**

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

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

1	**1-1-2022**	**3-31-2022**	1.0034	0.1031
2	**4-1-2022**	**6-30-2022**	0.5765	0.0514
3	**7-1-2022**	**9-30-2022**	0.5828	0.0519
		Highest	1.0034	0.1031

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	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	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Palmdale GPU - SFR Annual Construction - Los Angeles-Mojave Desert County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	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	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	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	Demolition	Demolition	1/1/2022	1/21/2022	5	15	
2	Grading	Grading	1/22/2022	2/22/2022	5	22	
3	Building Construction	Building Construction	2/23/2022	12/30/2022	5	223	

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

4	Paving	Paving	2/23/2022	3/8/2022	5	10	
5	Architectural Coating	Architectural Coating	12/5/2022	12/30/2022	5	20	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 66

Acres of Paving: 0

Residential Indoor: 204,120; Residential Outdoor: 68,040; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Building Construction	Cranes	1	7.00	231	0.29
Demolition	Excavators	3	8.00	158	0.38
Grading	Excavators	2	8.00	158	0.38
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Grading	Graders	1	8.00	187	0.41
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
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45

Palmdale GPU - SFR Annual Construction - Los Angeles-Mojave Desert County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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
Demolition	6	15.00	0.00	82.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	20.00	6.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	4.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Alternative Fuel for Construction Equipment

Use Cleaner Engines for Construction Equipment

Water Exposed Area

3.2 Demolition - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					8.8600e-003	0.0000	8.8600e-003	1.3400e-003	0.0000	1.3400e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0198	0.1929	0.1545	2.9000e-004		9.3200e-003	9.3200e-003		8.6600e-003	8.6600e-003	0.0000	25.4927	25.4927	7.1600e-003	0.0000	25.6717
Total	**0.0198**	**0.1929**	**0.1545**	**2.9000e-004**	**8.8600e-003**	**9.3200e-003**	**0.0182**	**1.3400e-003**	**8.6600e-003**	**1.0000e-002**	**0.0000**	**25.4927**	**25.4927**	**7.1600e-003**	**0.0000**	**25.6717**

Palmdale GPU - SFR Annual Construction - Los Angeles-Mojave Desert County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	1.9000e-004	7.2500e-003	1.6200e-003	3.0000e-005	7.1000e-004	5.0000e-005	7.6000e-004	1.9000e-004	5.0000e-005	2.4000e-004	0.0000	2.5324	2.5324	1.3000e-004	4.0000e-004	2.6555
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	3.2000e-004	2.5000e-004	3.2300e-003	1.0000e-005	9.1000e-004	1.0000e-005	9.1000e-004	2.4000e-004	1.0000e-005	2.5000e-004	0.0000	0.7551	0.7551	2.0000e-005	2.0000e-005	0.7623
Total	**5.1000e-004**	**7.5000e-003**	**4.8500e-003**	**4.0000e-005**	**1.6200e-003**	**6.0000e-005**	**1.6700e-003**	**4.3000e-004**	**6.0000e-005**	**4.9000e-004**	**0.0000**	**3.2875**	**3.2875**	**1.5000e-004**	**4.2000e-004**	**3.4178**

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					3.9900e-003	0.0000	3.9900e-003	6.0000e-004	0.0000	6.0000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.4700e-003	0.0150	0.1746	2.9000e-004		4.6000e-004	4.6000e-004		4.6000e-004	4.6000e-004	0.0000	25.4926	25.4926	7.1600e-003	0.0000	25.6717
Total	**3.4700e-003**	**0.0150**	**0.1746**	**2.9000e-004**	**3.9900e-003**	**4.6000e-004**	**4.4500e-003**	**6.0000e-004**	**4.6000e-004**	**1.0600e-003**	**0.0000**	**25.4926**	**25.4926**	**7.1600e-003**	**0.0000**	**25.6717**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	1.9000e-004	7.2500e-003	1.6200e-003	3.0000e-005	7.1000e-004	5.0000e-005	7.6000e-004	1.9000e-004	5.0000e-005	2.4000e-004	0.0000	2.5324	2.5324	1.3000e-004	4.0000e-004	2.6555
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	3.2000e-004	2.5000e-004	3.2300e-003	1.0000e-005	9.1000e-004	1.0000e-005	9.1000e-004	2.4000e-004	1.0000e-005	2.5000e-004	0.0000	0.7551	0.7551	2.0000e-005	2.0000e-005	0.7623
Total	**5.1000e-004**	**7.5000e-003**	**4.8500e-003**	**4.0000e-005**	**1.6200e-003**	**6.0000e-005**	**1.6700e-003**	**4.3000e-004**	**6.0000e-005**	**4.9000e-004**	**0.0000**	**3.2875**	**3.2875**	**1.5000e-004**	**4.2000e-004**	**3.4178**

3.3 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1012	0.0000	0.1012	0.0402	0.0000	0.0402	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0399	0.4273	0.3195	6.8000e-004		0.0180	0.0180		0.0166	0.0166	0.0000	59.9881	59.9881	0.0194	0.0000	60.4731
Total	**0.0399**	**0.4273**	**0.3195**	**6.8000e-004**	**0.1012**	**0.0180**	**0.1192**	**0.0402**	**0.0166**	**0.0567**	**0.0000**	**59.9881**	**59.9881**	**0.0194**	**0.0000**	**60.4731**

Palmdale GPU - SFR Annual Construction - Los Angeles-Mojave Desert County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.3000e-004	4.9000e-004	6.3100e-003	2.0000e-005	1.7700e-003	1.0000e-005	1.7800e-003	4.7000e-004	1.0000e-005	4.8000e-004	0.0000	1.4767	1.4767	5.0000e-005	4.0000e-005	1.4907
Total	**6.3000e-004**	**4.9000e-004**	**6.3100e-003**	**2.0000e-005**	**1.7700e-003**	**1.0000e-005**	**1.7800e-003**	**4.7000e-004**	**1.0000e-005**	**4.8000e-004**	**0.0000**	**1.4767**	**1.4767**	**5.0000e-005**	**4.0000e-005**	**1.4907**

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					0.0456	0.0000	0.0456	0.0181	0.0000	0.0181	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	8.3800e-003	0.0363	0.3630	6.8000e-004		1.1200e-003	1.1200e-003		1.1200e-003	1.1200e-003	0.0000	59.9880	59.9880	0.0194	0.0000	60.4730
Total	**8.3800e-003**	**0.0363**	**0.3630**	**6.8000e-004**	**0.0456**	**1.1200e-003**	**0.0467**	**0.0181**	**1.1200e-003**	**0.0192**	**0.0000**	**59.9880**	**59.9880**	**0.0194**	**0.0000**	**60.4730**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.3000e-004	4.9000e-004	6.3100e-003	2.0000e-005	1.7700e-003	1.0000e-005	1.7800e-003	4.7000e-004	1.0000e-005	4.8000e-004	0.0000	1.4767	1.4767	5.0000e-005	4.0000e-005	1.4907
Total	**6.3000e-004**	**4.9000e-004**	**6.3100e-003**	**2.0000e-005**	**1.7700e-003**	**1.0000e-005**	**1.7800e-003**	**4.7000e-004**	**1.0000e-005**	**4.8000e-004**	**0.0000**	**1.4767**	**1.4767**	**5.0000e-005**	**4.0000e-005**	**1.4907**

3.4 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1903	1.7411	1.8245	3.0000e-003		0.0902	0.0902		0.0849	0.0849	0.0000	258.3737	258.3737	0.0619	0.0000	259.9211
Total	**0.1903**	**1.7411**	**1.8245**	**3.0000e-003**		**0.0902**	**0.0902**		**0.0849**	**0.0849**	**0.0000**	**258.3737**	**258.3737**	**0.0619**	**0.0000**	**259.9211**

Palmdale GPU - SFR Annual Construction - Los Angeles-Mojave Desert County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.3600e-003	0.0359	0.0117	1.4000e-004	4.4600e-003	3.3000e-004	4.7900e-003	1.2900e-003	3.2000e-004	1.6000e-003	0.0000	13.4567	13.4567	4.5000e-004	1.9400e-003	14.0461
Worker	6.3500e-003	4.9800e-003	0.0639	1.6000e-004	0.0180	1.2000e-004	0.0181	4.7700e-003	1.1000e-004	4.8800e-003	0.0000	14.9679	14.9679	4.9000e-004	4.4000e-004	15.1104
Total	**7.7100e-003**	**0.0409**	**0.0757**	**3.0000e-004**	**0.0224**	**4.5000e-004**	**0.0229**	**6.0600e-003**	**4.3000e-004**	**6.4800e-003**	**0.0000**	**28.4246**	**28.4246**	**9.4000e-004**	**2.3800e-003**	**29.1565**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0243	0.1054	1.3276	1.9800e-003		3.2400e-003	3.2400e-003		3.2400e-003	3.2400e-003	0.0000	174.3662	174.3662	0.0564	0.0000	175.7761
Total	**0.0243**	**0.1054**	**1.3276**	**1.9800e-003**		**3.2400e-003**	**3.2400e-003**		**3.2400e-003**	**3.2400e-003**	**0.0000**	**174.3662**	**174.3662**	**0.0564**	**0.0000**	**175.7761**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.3600e-003	0.0359	0.0117	1.4000e-004	4.4600e-003	3.3000e-004	4.7900e-003	1.2900e-003	3.2000e-004	1.6000e-003	0.0000	13.4567	13.4567	4.5000e-004	1.9400e-003	14.0461
Worker	6.3500e-003	4.9800e-003	0.0639	1.6000e-004	0.0180	1.2000e-004	0.0181	4.7700e-003	1.1000e-004	4.8800e-003	0.0000	14.9679	14.9679	4.9000e-004	4.4000e-004	15.1104
Total	**7.7100e-003**	**0.0409**	**0.0757**	**3.0000e-004**	**0.0224**	**4.5000e-004**	**0.0229**	**6.0600e-003**	**4.3000e-004**	**6.4800e-003**	**0.0000**	**28.4246**	**28.4246**	**9.4000e-004**	**2.3800e-003**	**29.1565**

3.5 Paving - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	5.5100e-003	0.0556	0.0729	1.1000e-004		2.8400e-003	2.8400e-003		2.6100e-003	2.6100e-003	0.0000	10.0138	10.0138	3.2400e-003	0.0000	10.0948
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**5.5100e-003**	**0.0556**	**0.0729**	**1.1000e-004**		**2.8400e-003**	**2.8400e-003**		**2.6100e-003**	**2.6100e-003**	**0.0000**	**10.0138**	**10.0138**	**3.2400e-003**	**0.0000**	**10.0948**

Palmdale GPU - SFR Annual Construction - Los Angeles-Mojave Desert County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.1000e-004	1.7000e-004	2.1500e-003	1.0000e-005	6.0000e-004	0.0000	6.1000e-004	1.6000e-004	0.0000	1.6000e-004	0.0000	0.5034	0.5034	2.0000e-005	1.0000e-005	0.5082
Total	**2.1000e-004**	**1.7000e-004**	**2.1500e-003**	**1.0000e-005**	**6.0000e-004**	**0.0000**	**6.1000e-004**	**1.6000e-004**	**0.0000**	**1.6000e-004**	**0.0000**	**0.5034**	**0.5034**	**2.0000e-005**	**1.0000e-005**	**0.5082**

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	1.4000e-003	6.0800e-003	0.0865	1.1000e-004		1.9000e-004	1.9000e-004		1.9000e-004	1.9000e-004	0.0000	10.0138	10.0138	3.2400e-003	0.0000	10.0947
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**1.4000e-003**	**6.0800e-003**	**0.0865**	**1.1000e-004**		**1.9000e-004**	**1.9000e-004**		**1.9000e-004**	**1.9000e-004**	**0.0000**	**10.0138**	**10.0138**	**3.2400e-003**	**0.0000**	**10.0947**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.1000e-004	1.7000e-004	2.1500e-003	1.0000e-005	6.0000e-004	0.0000	6.1000e-004	1.6000e-004	0.0000	1.6000e-004	0.0000	0.5034	0.5034	2.0000e-005	1.0000e-005	0.5082
Total	**2.1000e-004**	**1.7000e-004**	**2.1500e-003**	**1.0000e-005**	**6.0000e-004**	**0.0000**	**6.1000e-004**	**1.6000e-004**	**0.0000**	**1.6000e-004**	**0.0000**	**0.5034**	**0.5034**	**2.0000e-005**	**1.0000e-005**	**0.5082**

3.6 Architectural Coating - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.4731					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.0500e-003	0.0141	0.0181	3.0000e-005		8.2000e-004	8.2000e-004		8.2000e-004	8.2000e-004	0.0000	2.5533	2.5533	1.7000e-004	0.0000	2.5574
Total	**0.4751**	**0.0141**	**0.0181**	**3.0000e-005**		**8.2000e-004**	**8.2000e-004**		**8.2000e-004**	**8.2000e-004**	**0.0000**	**2.5533**	**2.5533**	**1.7000e-004**	**0.0000**	**2.5574**

Palmdale GPU - SFR Annual Construction - Los Angeles-Mojave Desert County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.1000e-004	9.0000e-005	1.1500e-003	0.0000	3.2000e-004	0.0000	3.2000e-004	9.0000e-005	0.0000	9.0000e-005	0.0000	0.2685	0.2685	1.0000e-005	1.0000e-005	0.2710
Total	**1.1000e-004**	**9.0000e-005**	**1.1500e-003**	**0.0000**	**3.2000e-004**	**0.0000**	**3.2000e-004**	**9.0000e-005**	**0.0000**	**9.0000e-005**	**0.0000**	**0.2685**	**0.2685**	**1.0000e-005**	**1.0000e-005**	**0.2710**

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	0.4731					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.0000e-004	1.2900e-003	0.0183	3.0000e-005		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	2.5533	2.5533	1.7000e-004	0.0000	2.5574
Total	**0.4734**	**1.2900e-003**	**0.0183**	**3.0000e-005**		**4.0000e-005**	**4.0000e-005**		**4.0000e-005**	**4.0000e-005**	**0.0000**	**2.5533**	**2.5533**	**1.7000e-004**	**0.0000**	**2.5574**

Palmdale GPU - SFR Annual Construction - Los Angeles-Mojave Desert County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.1000e-004	9.0000e-005	1.1500e-003	0.0000	3.2000e-004	0.0000	3.2000e-004	9.0000e-005	0.0000	9.0000e-005	0.0000	0.2685	0.2685	1.0000e-005	1.0000e-005	0.2710
Total	**1.1000e-004**	**9.0000e-005**	**1.1500e-003**	**0.0000**	**3.2000e-004**	**0.0000**	**3.2000e-004**	**9.0000e-005**	**0.0000**	**9.0000e-005**	**0.0000**	**0.2685**	**0.2685**	**1.0000e-005**	**1.0000e-005**	**0.2710**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	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 Applied

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
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
Single Family Housing	10.80	7.30	7.50	40.20	19.20	40.60	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Single Family Housing	0.544785	0.062844	0.187478	0.127235	0.023089	0.006083	0.010475	0.008012	0.000925	0.000611	0.024394	0.000698	0.003374

5.0 Energy Detail

Historical Energy Use: N

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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

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					
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					
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**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use		Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	tons/yr	MT/yr			
Single Family Housing	0		0.0000	0.0000	0.0000	0.0000
Total			**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 Applied

Mitigated

	Electricity Use		Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	tons/yr	MT/yr			
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

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	0.0000	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

Palmdale GPU - SFR Annual Construction - Los Angeles-Mojave Desert County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

6.2 Area by SubCategory

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	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Mitigated

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

7.0 Water Detail

7.1 Mitigation Measures Water

		Total CO2	CH4	N2O	CO2e
Category	tons/yr	MT/yr			
Mitigated		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 Applied

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	tons/yr	MT/yr			
Single Family Housing	0 / 0		0.0000	0.0000	0.0000	0.0000
Total			**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 Applied

Mitigated

	Indoor/Outdoor Use		Total CO2	CH4	N2O	CO2e
Land Use	Mgal	tons/yr	MT/yr			
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
	tons/yr	MT/yr			
Mitigated		0.0000	0.0000	0.0000	0.0000
Unmitigated		0.0000	0.0000	0.0000	0.0000

Palmdale GPU - SFR Annual Construction - Los Angeles-Mojave Desert County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

8.2 Waste by Land Use

Unmitigated

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

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

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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

Palmdale GPU - SFR Annual Construction - Los Angeles-Mojave Desert County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Palmdale GPU - SFR Annual Construction

Los Angeles-Mojave Desert County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Single Family Housing	56.00	Dwelling Unit	18.18	100,800.00	193

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2023
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	390.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - See Assumptions

Land Use - See Assumptions

Construction Phase - See Assumptions

Grading -

Demolition - See Assumptions

Architectural Coating - See Assumptions

Vehicle Trips - Operational modeled separately

Woodstoves - Operational modeled separately

Consumer Products - Operational modeled separately

Area Coating - Operational modeled separately

Landscape Equipment - Operational modeled separately

Energy Use - Operational modeled separately

Palmdale GPU - SFR Annual Construction - Los Angeles-Mojave Desert County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Water And Wastewater - Operational modeled separately

Solid Waste - Operational modeled separately

Construction Off-road Equipment Mitigation - 2x per day watering exposed area based on AVAQMD regulations for dust suppression and is not mitigated scenario.

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	150.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	50.00
tblArchitecturalCoating	EF_Residential_Exterior	250.00	150.00
tblArchitecturalCoating	EF_Residential_Interior	250.00	50.00
tblAreaCoating	ReapplicationRatePercent	10	0
tblConstEquipMitigation	FuelType	Diesel	Electrical
tblConstEquipMitigation	FuelType	Diesel	Electrical
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	5.00
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	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	5.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstructionPhase	NumDays	300.00	223.00
tblConstructionPhase	NumDays	20.00	15.00
tblConstructionPhase	NumDays	30.00	22.00
tblConstructionPhase	NumDays	20.00	10.00
tblConstructionPhase	PhaseEndDate	7/14/2023	12/30/2022
tblConstructionPhase	PhaseEndDate	5/19/2023	12/30/2022
tblConstructionPhase	PhaseEndDate	1/28/2022	1/21/2022
tblConstructionPhase	PhaseEndDate	3/25/2022	2/22/2022
tblConstructionPhase	PhaseEndDate	6/16/2023	3/8/2022
tblConstructionPhase	PhaseStartDate	6/17/2023	12/5/2022
tblConstructionPhase	PhaseStartDate	3/26/2022	2/23/2022
tblConstructionPhase	PhaseStartDate	2/12/2022	1/22/2022
tblConstructionPhase	PhaseStartDate	5/20/2023	2/23/2022
tblConsumerProducts	ROG_EF	2.14E-05	0
tblConsumerProducts	ROG_EF_Degreaser	3.542E-07	0
tblConsumerProducts	ROG_EF_PesticidesFertilizers	5.152E-08	0
tblEnergyUse	LightingElect	1,608.84	0.00
tblEnergyUse	NT24E	6,155.97	0.00

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tblEnergyUse	NT24NG	6,384.00	0.00
tblEnergyUse	T24E	93.13	0.00
tblEnergyUse	T24NG	19,108.08	0.00
tblFireplaces	FireplaceDayYear	82.00	0.00
tblFireplaces	FireplaceHourDay	3.00	0.00
tblFireplaces	FireplaceWoodMass	3,078.40	0.00
tblFireplaces	NumberGas	30.80	0.00
tblFireplaces	NumberNoFireplace	5.60	0.00
tblFireplaces	NumberWood	19.60	0.00
tblLandscapeEquipment	NumberSummerDays	180	0
tblLandUse	Population	160.00	193.00
tblSolidWaste	SolidWasteGenerationRate	79.13	0.00
tblVehicleTrips	ST_TR	9.54	0.00
tblVehicleTrips	SU_TR	8.55	0.00
tblVehicleTrips	WD_TR	9.44	0.00
tblWater	IndoorWaterUseRate	3,648,625.43	0.00
tblWater	OutdoorWaterUseRate	2,300,220.38	0.00
tblWoodstoves	NumberCatalytic	2.80	0.00
tblWoodstoves	NumberNoncatalytic	2.80	0.00
tblWoodstoves	WoodstoveDayYear	82.00	0.00
tblWoodstoves	WoodstoveWoodMass	3,019.20	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

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

Palmdale GPU - SFR Annual Construction - Los Angeles-Mojave Desert County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

					PM10	PM10	Total	PM2.5	PM2.5	Total						
Year	lb/day										lb/day					
2022	49.2975	38.8831	32.1030	0.0636	9.3679	1.6360	11.0039	3.6973	1.5051	5.2024	0.0000	6,165.3076	6,165.3076	1.9490	0.0620	6,215.2215
Maximum	**49.2975**	**38.8831**	**32.1030**	**0.0636**	**9.3679**	**1.6360**	**11.0039**	**3.6973**	**1.5051**	**5.2024**	**0.0000**	**6,165.3076**	**6,165.3076**	**1.9490**	**0.0620**	**6,215.2215**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2022	47.6346	3.3397	33.6023	0.0636	4.3059	0.1026	4.4085	1.6878	0.1025	1.7903	0.0000	6,165.3076	6,165.3076	1.9490	0.0620	6,215.2215
Maximum	**47.6346**	**3.3397**	**33.6023**	**0.0636**	**4.3059**	**0.1026**	**4.4085**	**1.6878**	**0.1025**	**1.7903**	**0.0000**	**6,165.3076**	**6,165.3076**	**1.9490**	**0.0620**	**6,215.2215**

	ROG	NOx	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	**3.37**	**91.41**	**-4.67**	**0.00**	**54.04**	**93.73**	**59.94**	**54.35**	**93.19**	**65.59**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Palmdale GPU - SFR Annual Construction - Los Angeles-Mojave Desert County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.1392	0.0533	4.6211	2.4000e-004		0.0256	0.0256		0.0256	0.0256	0.0000	8.3189	8.3189	8.0000e-003	0.0000	8.5189
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	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	**0.1392**	**0.0533**	**4.6211**	**2.4000e-004**	**0.0000**	**0.0256**	**0.0256**	**0.0000**	**0.0256**	**0.0256**	**0.0000**	**8.3189**	**8.3189**	**8.0000e-003**	**0.0000**	**8.5189**

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	0.1392	0.0533	4.6211	2.4000e-004		0.0256	0.0256		0.0256	0.0256	0.0000	8.3189	8.3189	8.0000e-003	0.0000	8.5189
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	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	**0.1392**	**0.0533**	**4.6211**	**2.4000e-004**	**0.0000**	**0.0256**	**0.0256**	**0.0000**	**0.0256**	**0.0256**	**0.0000**	**8.3189**	**8.3189**	**8.0000e-003**	**0.0000**	**8.5189**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	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	Demolition	Demolition	1/1/2022	1/21/2022	5	15	
2	Grading	Grading	1/22/2022	2/22/2022	5	22	
3	Building Construction	Building Construction	2/23/2022	12/30/2022	5	223	
4	Paving	Paving	2/23/2022	3/8/2022	5	10	
5	Architectural Coating	Architectural Coating	12/5/2022	12/30/2022	5	20	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 66

Acres of Paving: 0

Residential Indoor: 204,120; Residential Outdoor: 68,040; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Building Construction	Cranes	1	7.00	231	0.29
Demolition	Excavators	3	8.00	158	0.38
Grading	Excavators	2	8.00	158	0.38
Building Construction	Forklifts	3	8.00	89	0.20

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Building Construction	Generator Sets	1	8.00	84	0.74
Grading	Graders	1	8.00	187	0.41
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
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	82.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	20.00	6.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	4.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Alternative Fuel for Construction Equipment

Use Cleaner Engines for Construction Equipment

Water Exposed Area

3.2 Demolition - 2022

Unmitigated Construction On-Site

Palmdale GPU - SFR Annual Construction - Los Angeles-Mojave Desert County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.1812	0.0000	1.1812	0.1789	0.0000	0.1789			0.0000			0.0000
Off-Road	2.6392	25.7194	20.5941	0.0388		1.2427	1.2427		1.1553	1.1553		3,746.7812	3,746.7812	1.0524		3,773.0920
Total	**2.6392**	**25.7194**	**20.5941**	**0.0388**	**1.1812**	**1.2427**	**2.4239**	**0.1789**	**1.1553**	**1.3341**		**3,746.7812**	**3,746.7812**	**1.0524**		**3,773.0920**

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	0.0255	0.9181	0.2141	3.4000e-003	0.0957	6.8200e-003	0.1025	0.0262	6.5300e-003	0.0328		372.1573	372.1573	0.0198	0.0591	390.2477
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	0.0435	0.0297	0.4524	1.1300e-003	0.1232	8.1000e-004	0.1240	0.0327	7.5000e-004	0.0334		115.4228	115.4228	3.5800e-003	2.9900e-003	116.4043
Total	**0.0690**	**0.9479**	**0.6664**	**4.5300e-003**	**0.2189**	**7.6300e-003**	**0.2265**	**0.0589**	**7.2800e-003**	**0.0662**		**487.5801**	**487.5801**	**0.0234**	**0.0620**	**506.6519**

Palmdale GPU - SFR Annual Construction - Los Angeles-Mojave Desert County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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					0.5316	0.0000	0.5316	0.0805	0.0000	0.0805			0.0000			0.0000
Off-Road	0.4623	2.0032	23.2798	0.0388		0.0616	0.0616		0.0616	0.0616	0.0000	3,746.7812	3,746.7812	1.0524		3,773.0920
Total	**0.4623**	**2.0032**	**23.2798**	**0.0388**	**0.5316**	**0.0616**	**0.5932**	**0.0805**	**0.0616**	**0.1421**	**0.0000**	**3,746.7812**	**3,746.7812**	**1.0524**		**3,773.0920**

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	0.0255	0.9181	0.2141	3.4000e-003	0.0957	6.8200e-003	0.1025	0.0262	6.5300e-003	0.0328		372.1573	372.1573	0.0198	0.0591	390.2477
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	0.0435	0.0297	0.4524	1.1300e-003	0.1232	8.1000e-004	0.1240	0.0327	7.5000e-004	0.0334		115.4228	115.4228	3.5800e-003	2.9900e-003	116.4043
Total	**0.0690**	**0.9479**	**0.6664**	**4.5300e-003**	**0.2189**	**7.6300e-003**	**0.2265**	**0.0589**	**7.2800e-003**	**0.0662**		**487.5801**	**487.5801**	**0.0234**	**0.0620**	**506.6519**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.2036	0.0000	9.2036	3.6538	0.0000	3.6538			0.0000			0.0000
Off-Road	3.6248	38.8435	29.0415	0.0621		1.6349	1.6349		1.5041	1.5041		6,011.4105	6,011.4105	1.9442		6,060.0158
Total	**3.6248**	**38.8435**	**29.0415**	**0.0621**	**9.2036**	**1.6349**	**10.8385**	**3.6538**	**1.5041**	**5.1579**		**6,011.4105**	**6,011.4105**	**1.9442**		**6,060.0158**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0580	0.0397	0.6032	1.5100e-003	0.1643	1.0800e-003	0.1654	0.0436	9.9000e-004	0.0446		153.8970	153.8970	4.7700e-003	3.9900e-003	155.2057
Total	**0.0580**	**0.0397**	**0.6032**	**1.5100e-003**	**0.1643**	**1.0800e-003**	**0.1654**	**0.0436**	**9.9000e-004**	**0.0446**		**153.8970**	**153.8970**	**4.7700e-003**	**3.9900e-003**	**155.2057**

Palmdale GPU - SFR Annual Construction - Los Angeles-Mojave Desert County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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					4.1416	0.0000	4.1416	1.6442	0.0000	1.6442			0.0000			0.0000
Off-Road	0.7616	3.3000	32.9991	0.0621		0.1015	0.1015		0.1015	0.1015	0.0000	6,011.4105	6,011.4105	1.9442		6,060.0158
Total	**0.7616**	**3.3000**	**32.9991**	**0.0621**	**4.1416**	**0.1015**	**4.2432**	**1.6442**	**0.1015**	**1.7457**	**0.0000**	**6,011.4105**	**6,011.4105**	**1.9442**		**6,060.0158**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0580	0.0397	0.6032	1.5100e-003	0.1643	1.0800e-003	0.1654	0.0436	9.9000e-004	0.0446		153.8970	153.8970	4.7700e-003	3.9900e-003	155.2057
Total	**0.0580**	**0.0397**	**0.6032**	**1.5100e-003**	**0.1643**	**1.0800e-003**	**0.1654**	**0.0436**	**9.9000e-004**	**0.0446**		**153.8970**	**153.8970**	**4.7700e-003**	**3.9900e-003**	**155.2057**

Palmdale GPU - SFR Annual Construction - Los Angeles-Mojave Desert County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612		2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**1.7062**	**15.6156**	**16.3634**	**0.0269**		**0.8090**	**0.8090**		**0.7612**	**0.7612**		**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0123	0.3069	0.1036	1.2400e-003	0.0407	2.9600e-003	0.0436	0.0117	2.8300e-003	0.0145		133.0154	133.0154	4.4500e-003	0.0192	138.8359
Worker	0.0580	0.0397	0.6032	1.5100e-003	0.1643	1.0800e-003	0.1654	0.0436	9.9000e-004	0.0446		153.8970	153.8970	4.7700e-003	3.9900e-003	155.2057
Total	**0.0703**	**0.3466**	**0.7067**	**2.7500e-003**	**0.2050**	**4.0400e-003**	**0.2090**	**0.0553**	**3.8200e-003**	**0.0591**		**286.9124**	**286.9124**	**9.2200e-003**	**0.0232**	**294.0416**

Palmdale GPU - SFR Annual Construction - Los Angeles-Mojave Desert County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	0.2182	0.9457	11.9070	0.0178		0.0291	0.0291		0.0291	0.0291	0.0000	1,723.8213	1,723.8213	0.5575		1,737.7593
Total	**0.2182**	**0.9457**	**11.9070**	**0.0178**		**0.0291**	**0.0291**		**0.0291**	**0.0291**	**0.0000**	**1,723.8213**	**1,723.8213**	**0.5575**		**1,737.7593**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0123	0.3069	0.1036	1.2400e-003	0.0407	2.9600e-003	0.0436	0.0117	2.8300e-003	0.0145		133.0154	133.0154	4.4500e-003	0.0192	138.8359
Worker	0.0580	0.0397	0.6032	1.5100e-003	0.1643	1.0800e-003	0.1654	0.0436	9.9000e-004	0.0446		153.8970	153.8970	4.7700e-003	3.9900e-003	155.2057
Total	**0.0703**	**0.3466**	**0.7067**	**2.7500e-003**	**0.2050**	**4.0400e-003**	**0.2090**	**0.0553**	**3.8200e-003**	**0.0591**		**286.9124**	**286.9124**	**9.2200e-003**	**0.0232**	**294.0416**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Paving - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1028	11.1249	14.5805	0.0228		0.5679	0.5679		0.5225	0.5225		2,207.6603	2,207.6603	0.7140		2,225.5104
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.1028**	**11.1249**	**14.5805**	**0.0228**		**0.5679**	**0.5679**		**0.5225**	**0.5225**		**2,207.6603**	**2,207.6603**	**0.7140**		**2,225.5104**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0435	0.0297	0.4524	1.1300e-003	0.1232	8.1000e-004	0.1240	0.0327	7.5000e-004	0.0334		115.4228	115.4228	3.5800e-003	2.9900e-003	116.4043
Total	**0.0435**	**0.0297**	**0.4524**	**1.1300e-003**	**0.1232**	**8.1000e-004**	**0.1240**	**0.0327**	**7.5000e-004**	**0.0334**		**115.4228**	**115.4228**	**3.5800e-003**	**2.9900e-003**	**116.4043**

Palmdale GPU - SFR Annual Construction - Los Angeles-Mojave Desert County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	0.2805	1.2154	17.2957	0.0228		0.0374	0.0374		0.0374	0.0374	0.0000	2,207.6603	2,207.6603	0.7140		2,225.5104
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.2805**	**1.2154**	**17.2957**	**0.0228**		**0.0374**	**0.0374**		**0.0374**	**0.0374**	**0.0000**	**2,207.6603**	**2,207.6603**	**0.7140**		**2,225.5104**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0435	0.0297	0.4524	1.1300e-003	0.1232	8.1000e-004	0.1240	0.0327	7.5000e-004	0.0334		115.4228	115.4228	3.5800e-003	2.9900e-003	116.4043
Total	**0.0435**	**0.0297**	**0.4524**	**1.1300e-003**	**0.1232**	**8.1000e-004**	**0.1240**	**0.0327**	**7.5000e-004**	**0.0334**		**115.4228**	**115.4228**	**3.5800e-003**	**2.9900e-003**	**116.4043**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	47.3048					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2045	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817		281.4481	281.4481	0.0183		281.9062
Total	**47.5094**	**1.4085**	**1.8136**	**2.9700e-003**		**0.0817**	**0.0817**		**0.0817**	**0.0817**		**281.4481**	**281.4481**	**0.0183**		**281.9062**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0116	7.9300e-003	0.1206	3.0000e-004	0.0329	2.2000e-004	0.0331	8.7200e-003	2.0000e-004	8.9100e-003		30.7794	30.7794	9.5000e-004	8.0000e-004	31.0411
Total	**0.0116**	**7.9300e-003**	**0.1206**	**3.0000e-004**	**0.0329**	**2.2000e-004**	**0.0331**	**8.7200e-003**	**2.0000e-004**	**8.9100e-003**		**30.7794**	**30.7794**	**9.5000e-004**	**8.0000e-004**	**31.0411**

Palmdale GPU - SFR Annual Construction - Los Angeles-Mojave Desert County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	47.3048					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0297	0.1288	1.8324	2.9700e-003		3.9600e-003	3.9600e-003		3.9600e-003	3.9600e-003	0.0000	281.4481	281.4481	0.0183		281.9062
Total	**47.3345**	**0.1288**	**1.8324**	**2.9700e-003**		**3.9600e-003**	**3.9600e-003**		**3.9600e-003**	**3.9600e-003**	**0.0000**	**281.4481**	**281.4481**	**0.0183**		**281.9062**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0116	7.9300e-003	0.1206	3.0000e-004	0.0329	2.2000e-004	0.0331	8.7200e-003	2.0000e-004	8.9100e-003		30.7794	30.7794	9.5000e-004	8.0000e-004	31.0411
Total	**0.0116**	**7.9300e-003**	**0.1206**	**3.0000e-004**	**0.0329**	**2.2000e-004**	**0.0331**	**8.7200e-003**	**2.0000e-004**	**8.9100e-003**		**30.7794**	**30.7794**	**9.5000e-004**	**8.0000e-004**	**31.0411**

Palmdale GPU - SFR Annual Construction - Los Angeles-Mojave Desert County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

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

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
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
Single Family Housing	10.80	7.30	7.50	40.20	19.20	40.60	86	11	3

4.4 Fleet Mix

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

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Single Family Housing	0.544785	0.062844	0.187478	0.127235	0.023089	0.006083	0.010475	0.008012	0.000925	0.000611	0.024394	0.000698	0.003374

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

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

5.2 Energy by Land Use - NaturalGas

Unmitigated

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

Mitigated

	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					
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
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

6.1 Mitigation Measures Area

Palmdale GPU - SFR Annual Construction - Los Angeles-Mojave Desert County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.1392	0.0533	4.6211	2.4000e-004		0.0256	0.0256		0.0256	0.0256	0.0000	8.3189	8.3189	8.0000e-003	0.0000	8.5189
Unmitigated	0.1392	0.0533	4.6211	2.4000e-004		0.0256	0.0256		0.0256	0.0256	0.0000	8.3189	8.3189	8.0000e-003	0.0000	8.5189

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.1392	0.0533	4.6211	2.4000e-004		0.0256	0.0256		0.0256	0.0256		8.3189	8.3189	8.0000e-003		8.5189
Total	**0.1392**	**0.0533**	**4.6211**	**2.4000e-004**		**0.0256**	**0.0256**		**0.0256**	**0.0256**	**0.0000**	**8.3189**	**8.3189**	**8.0000e-003**	**0.0000**	**8.5189**

Palmdale GPU - SFR Annual Construction - Los Angeles-Mojave Desert County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.1392	0.0533	4.6211	2.4000e-004		0.0256	0.0256		0.0256	0.0256		8.3189	8.3189	8.0000e-003		8.5189
Total	**0.1392**	**0.0533**	**4.6211**	**2.4000e-004**		**0.0256**	**0.0256**		**0.0256**	**0.0256**	**0.0000**	**8.3189**	**8.3189**	**8.0000e-003**	**0.0000**	**8.5189**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Palmdale GPU - SFR Annual Construction - Los Angeles-Mojave Desert County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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

Palmdale GPU - SFR Annual Construction - Los Angeles-Mojave Desert County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Palmdale GPU - SFR Annual Construction

Los Angeles-Mojave Desert County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Single Family Housing	56.00	Dwelling Unit	18.18	100,800.00	193

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2023
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	390.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - See Assumptions

Land Use - See Assumptions

Construction Phase - See Assumptions

Grading -

Demolition - See Assumptions

Architectural Coating - See Assumptions

Vehicle Trips - Operational modeled separately

Woodstoves - Operational modeled separately

Consumer Products - Operational modeled separately

Area Coating - Operational modeled separately

Landscape Equipment - Operational modeled separately

Energy Use - Operational modeled separately

Palmdale GPU - SFR Annual Construction - Los Angeles-Mojave Desert County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Water And Wastewater - Operational modeled separately

Solid Waste - Operational modeled separately

Construction Off-road Equipment Mitigation - 2x per day watering exposed area based on AVAQMD regulations for dust suppression and is not mitigated scenario.

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	150.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	50.00
tblArchitecturalCoating	EF_Residential_Exterior	250.00	150.00
tblArchitecturalCoating	EF_Residential_Interior	250.00	50.00
tblAreaCoating	ReapplicationRatePercent	10	0
tblConstEquipMitigation	FuelType	Diesel	Electrical
tblConstEquipMitigation	FuelType	Diesel	Electrical
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	5.00
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	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	5.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final

Palmdale GPU - SFR Annual Construction - Los Angeles-Mojave Desert County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstructionPhase	NumDays	300.00	223.00
tblConstructionPhase	NumDays	20.00	15.00
tblConstructionPhase	NumDays	30.00	22.00
tblConstructionPhase	NumDays	20.00	10.00
tblConstructionPhase	PhaseEndDate	7/14/2023	12/30/2022
tblConstructionPhase	PhaseEndDate	5/19/2023	12/30/2022
tblConstructionPhase	PhaseEndDate	1/28/2022	1/21/2022
tblConstructionPhase	PhaseEndDate	3/25/2022	2/22/2022
tblConstructionPhase	PhaseEndDate	6/16/2023	3/8/2022
tblConstructionPhase	PhaseStartDate	6/17/2023	12/5/2022
tblConstructionPhase	PhaseStartDate	3/26/2022	2/23/2022
tblConstructionPhase	PhaseStartDate	2/12/2022	1/22/2022
tblConstructionPhase	PhaseStartDate	5/20/2023	2/23/2022
tblConsumerProducts	ROG_EF	2.14E-05	0
tblConsumerProducts	ROG_EF_Degreaser	3.542E-07	0
tblConsumerProducts	ROG_EF_PesticidesFertilizers	5.152E-08	0
tblEnergyUse	LightingElect	1,608.84	0.00
tblEnergyUse	NT24E	6,155.97	0.00

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tblEnergyUse	NT24NG	6,384.00	0.00
tblEnergyUse	T24E	93.13	0.00
tblEnergyUse	T24NG	19,108.08	0.00
tblFireplaces	FireplaceDayYear	82.00	0.00
tblFireplaces	FireplaceHourDay	3.00	0.00
tblFireplaces	FireplaceWoodMass	3,078.40	0.00
tblFireplaces	NumberGas	30.80	0.00
tblFireplaces	NumberNoFireplace	5.60	0.00
tblFireplaces	NumberWood	19.60	0.00
tblLandscapeEquipment	NumberSummerDays	180	0
tblLandUse	Population	160.00	193.00
tblSolidWaste	SolidWasteGenerationRate	79.13	0.00
tblVehicleTrips	ST_TR	9.54	0.00
tblVehicleTrips	SU_TR	8.55	0.00
tblVehicleTrips	WD_TR	9.44	0.00
tblWater	IndoorWaterUseRate	3,648,625.43	0.00
tblWater	OutdoorWaterUseRate	2,300,220.38	0.00
tblWoodstoves	NumberCatalytic	2.80	0.00
tblWoodstoves	NumberNoncatalytic	2.80	0.00
tblWoodstoves	WoodstoveDayYear	82.00	0.00
tblWoodstoves	WoodstoveWoodMass	3,019.20	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

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

Palmdale GPU - SFR Annual Construction - Los Angeles-Mojave Desert County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

					PM10	PM10	Total	PM2.5	PM2.5	Total						
Year	lb/day										lb/day					
2022	49.3012	38.8873	32.0317	0.0635	9.3679	1.6360	11.0039	3.6973	1.5051	5.2024	0.0000	6,157.2163	6,157.2163	1.9491	0.0623	6,207.2149
Maximum	**49.3012**	**38.8873**	**32.0317**	**0.0635**	**9.3679**	**1.6360**	**11.0039**	**3.6973**	**1.5051**	**5.2024**	**0.0000**	**6,157.2163**	**6,157.2163**	**1.9491**	**0.0623**	**6,207.2149**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2022	47.6384	3.3438	33.5596	0.0635	4.3059	0.1026	4.4085	1.6878	0.1025	1.7903	0.0000	6,157.2163	6,157.2163	1.9491	0.0623	6,207.2149
Maximum	**47.6384**	**3.3438**	**33.5596**	**0.0635**	**4.3059**	**0.1026**	**4.4085**	**1.6878**	**0.1025**	**1.7903**	**0.0000**	**6,157.2163**	**6,157.2163**	**1.9491**	**0.0623**	**6,207.2149**

	ROG	NOx	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	**3.37**	**91.40**	**-4.77**	**0.00**	**54.04**	**93.73**	**59.94**	**54.35**	**93.19**	**65.59**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Palmdale GPU - SFR Annual Construction - Los Angeles-Mojave Desert County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.1392	0.0533	4.6211	2.4000e-004		0.0256	0.0256		0.0256	0.0256	0.0000	8.3189	8.3189	8.0000e-003	0.0000	8.5189
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	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	**0.1392**	**0.0533**	**4.6211**	**2.4000e-004**	**0.0000**	**0.0256**	**0.0256**	**0.0000**	**0.0256**	**0.0256**	**0.0000**	**8.3189**	**8.3189**	**8.0000e-003**	**0.0000**	**8.5189**

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	0.1392	0.0533	4.6211	2.4000e-004		0.0256	0.0256		0.0256	0.0256	0.0000	8.3189	8.3189	8.0000e-003	0.0000	8.5189
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	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	**0.1392**	**0.0533**	**4.6211**	**2.4000e-004**	**0.0000**	**0.0256**	**0.0256**	**0.0000**	**0.0256**	**0.0256**	**0.0000**	**8.3189**	**8.3189**	**8.0000e-003**	**0.0000**	**8.5189**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	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	Demolition	Demolition	1/1/2022	1/21/2022	5	15	
2	Grading	Grading	1/22/2022	2/22/2022	5	22	
3	Building Construction	Building Construction	2/23/2022	12/30/2022	5	223	
4	Paving	Paving	2/23/2022	3/8/2022	5	10	
5	Architectural Coating	Architectural Coating	12/5/2022	12/30/2022	5	20	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 66

Acres of Paving: 0

Residential Indoor: 204,120; Residential Outdoor: 68,040; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Building Construction	Cranes	1	7.00	231	0.29
Demolition	Excavators	3	8.00	158	0.38
Grading	Excavators	2	8.00	158	0.38
Building Construction	Forklifts	3	8.00	89	0.20

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Building Construction	Generator Sets	1	8.00	84	0.74
Grading	Graders	1	8.00	187	0.41
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
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	82.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	20.00	6.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	4.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Alternative Fuel for Construction Equipment

Use Cleaner Engines for Construction Equipment

Water Exposed Area

3.2 Demolition - 2022

Unmitigated Construction On-Site

Palmdale GPU - SFR Annual Construction - Los Angeles-Mojave Desert County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.1812	0.0000	1.1812	0.1789	0.0000	0.1789			0.0000			0.0000
Off-Road	2.6392	25.7194	20.5941	0.0388		1.2427	1.2427		1.1553	1.1553		3,746.7812	3,746.7812	1.0524		3,773.0920
Total	**2.6392**	**25.7194**	**20.5941**	**0.0388**	**1.1812**	**1.2427**	**2.4239**	**0.1789**	**1.1553**	**1.3341**		**3,746.7812**	**3,746.7812**	**1.0524**		**3,773.0920**

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	0.0249	0.9554	0.2178	3.4000e-003	0.0957	6.8400e-003	0.1025	0.0262	6.5400e-003	0.0328		372.2664	372.2664	0.0197	0.0591	390.3617
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	0.0459	0.0328	0.4203	1.0700e-003	0.1232	8.1000e-004	0.1240	0.0327	7.5000e-004	0.0334		109.3543	109.3543	3.6800e-003	3.2000e-003	110.3993
Total	**0.0708**	**0.9882**	**0.6382**	**4.4700e-003**	**0.2189**	**7.6500e-003**	**0.2266**	**0.0589**	**7.2900e-003**	**0.0662**		**481.6207**	**481.6207**	**0.0234**	**0.0623**	**500.7610**

Palmdale GPU - SFR Annual Construction - Los Angeles-Mojave Desert County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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					0.5316	0.0000	0.5316	0.0805	0.0000	0.0805			0.0000			0.0000
Off-Road	0.4623	2.0032	23.2798	0.0388		0.0616	0.0616		0.0616	0.0616	0.0000	3,746.7812	3,746.7812	1.0524		3,773.0920
Total	**0.4623**	**2.0032**	**23.2798**	**0.0388**	**0.5316**	**0.0616**	**0.5932**	**0.0805**	**0.0616**	**0.1421**	**0.0000**	**3,746.7812**	**3,746.7812**	**1.0524**		**3,773.0920**

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	0.0249	0.9554	0.2178	3.4000e-003	0.0957	6.8400e-003	0.1025	0.0262	6.5400e-003	0.0328		372.2664	372.2664	0.0197	0.0591	390.3617
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	0.0459	0.0328	0.4203	1.0700e-003	0.1232	8.1000e-004	0.1240	0.0327	7.5000e-004	0.0334		109.3543	109.3543	3.6800e-003	3.2000e-003	110.3993
Total	**0.0708**	**0.9882**	**0.6382**	**4.4700e-003**	**0.2189**	**7.6500e-003**	**0.2266**	**0.0589**	**7.2900e-003**	**0.0662**		**481.6207**	**481.6207**	**0.0234**	**0.0623**	**500.7610**

Palmdale GPU - SFR Annual Construction - Los Angeles-Mojave Desert County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.2036	0.0000	9.2036	3.6538	0.0000	3.6538			0.0000			0.0000
Off-Road	3.6248	38.8435	29.0415	0.0621		1.6349	1.6349		1.5041	1.5041		6,011.4105	6,011.4105	1.9442		6,060.0158
Total	**3.6248**	**38.8435**	**29.0415**	**0.0621**	**9.2036**	**1.6349**	**10.8385**	**3.6538**	**1.5041**	**5.1579**		**6,011.4105**	**6,011.4105**	**1.9442**		**6,060.0158**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0612	0.0438	0.5605	1.4300e-003	0.1643	1.0800e-003	0.1654	0.0436	9.9000e-004	0.0446		145.8057	145.8057	4.9000e-003	4.2600e-003	147.1991
Total	**0.0612**	**0.0438**	**0.5605**	**1.4300e-003**	**0.1643**	**1.0800e-003**	**0.1654**	**0.0436**	**9.9000e-004**	**0.0446**		**145.8057**	**145.8057**	**4.9000e-003**	**4.2600e-003**	**147.1991**

Palmdale GPU - SFR Annual Construction - Los Angeles-Mojave Desert County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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					4.1416	0.0000	4.1416	1.6442	0.0000	1.6442			0.0000			0.0000
Off-Road	0.7616	3.3000	32.9991	0.0621		0.1015	0.1015		0.1015	0.1015	0.0000	6,011.4105	6,011.4105	1.9442		6,060.0158
Total	**0.7616**	**3.3000**	**32.9991**	**0.0621**	**4.1416**	**0.1015**	**4.2432**	**1.6442**	**0.1015**	**1.7457**	**0.0000**	**6,011.4105**	**6,011.4105**	**1.9442**		**6,060.0158**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0612	0.0438	0.5605	1.4300e-003	0.1643	1.0800e-003	0.1654	0.0436	9.9000e-004	0.0446		145.8057	145.8057	4.9000e-003	4.2600e-003	147.1991
Total	**0.0612**	**0.0438**	**0.5605**	**1.4300e-003**	**0.1643**	**1.0800e-003**	**0.1654**	**0.0436**	**9.9000e-004**	**0.0446**		**145.8057**	**145.8057**	**4.9000e-003**	**4.2600e-003**	**147.1991**

Palmdale GPU - SFR Annual Construction - Los Angeles-Mojave Desert County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612		2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**1.7062**	**15.6156**	**16.3634**	**0.0269**		**0.8090**	**0.8090**		**0.7612**	**0.7612**		**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0121	0.3196	0.1070	1.2400e-003	0.0407	2.9700e-003	0.0436	0.0117	2.8400e-003	0.0145		133.0628	133.0628	4.4300e-003	0.0192	138.8902
Worker	0.0612	0.0438	0.5605	1.4300e-003	0.1643	1.0800e-003	0.1654	0.0436	9.9000e-004	0.0446		145.8057	145.8057	4.9000e-003	4.2600e-003	147.1991
Total	**0.0734**	**0.3633**	**0.6675**	**2.6700e-003**	**0.2050**	**4.0500e-003**	**0.2090**	**0.0553**	**3.8300e-003**	**0.0591**		**278.8685**	**278.8685**	**9.3300e-003**	**0.0234**	**286.0893**

Palmdale GPU - SFR Annual Construction - Los Angeles-Mojave Desert County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	0.2182	0.9457	11.9070	0.0178		0.0291	0.0291		0.0291	0.0291	0.0000	1,723.8213	1,723.8213	0.5575		1,737.7593
Total	**0.2182**	**0.9457**	**11.9070**	**0.0178**		**0.0291**	**0.0291**		**0.0291**	**0.0291**	**0.0000**	**1,723.8213**	**1,723.8213**	**0.5575**		**1,737.7593**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0121	0.3196	0.1070	1.2400e-003	0.0407	2.9700e-003	0.0436	0.0117	2.8400e-003	0.0145		133.0628	133.0628	4.4300e-003	0.0192	138.8902
Worker	0.0612	0.0438	0.5605	1.4300e-003	0.1643	1.0800e-003	0.1654	0.0436	9.9000e-004	0.0446		145.8057	145.8057	4.9000e-003	4.2600e-003	147.1991
Total	**0.0734**	**0.3633**	**0.6675**	**2.6700e-003**	**0.2050**	**4.0500e-003**	**0.2090**	**0.0553**	**3.8300e-003**	**0.0591**		**278.8685**	**278.8685**	**9.3300e-003**	**0.0234**	**286.0893**

Palmdale GPU - SFR Annual Construction - Los Angeles-Mojave Desert County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Paving - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1028	11.1249	14.5805	0.0228		0.5679	0.5679		0.5225	0.5225		2,207.6603	2,207.6603	0.7140		2,225.5104
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.1028**	**11.1249**	**14.5805**	**0.0228**		**0.5679**	**0.5679**		**0.5225**	**0.5225**		**2,207.6603**	**2,207.6603**	**0.7140**		**2,225.5104**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0459	0.0328	0.4203	1.0700e-003	0.1232	8.1000e-004	0.1240	0.0327	7.5000e-004	0.0334		109.3543	109.3543	3.6800e-003	3.2000e-003	110.3993
Total	**0.0459**	**0.0328**	**0.4203**	**1.0700e-003**	**0.1232**	**8.1000e-004**	**0.1240**	**0.0327**	**7.5000e-004**	**0.0334**		**109.3543**	**109.3543**	**3.6800e-003**	**3.2000e-003**	**110.3993**

Palmdale GPU - SFR Annual Construction - Los Angeles-Mojave Desert County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	0.2805	1.2154	17.2957	0.0228		0.0374	0.0374		0.0374	0.0374	0.0000	2,207.6603	2,207.6603	0.7140		2,225.5104
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.2805**	**1.2154**	**17.2957**	**0.0228**		**0.0374**	**0.0374**		**0.0374**	**0.0374**	**0.0000**	**2,207.6603**	**2,207.6603**	**0.7140**		**2,225.5104**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0459	0.0328	0.4203	1.0700e-003	0.1232	8.1000e-004	0.1240	0.0327	7.5000e-004	0.0334		109.3543	109.3543	3.6800e-003	3.2000e-003	110.3993
Total	**0.0459**	**0.0328**	**0.4203**	**1.0700e-003**	**0.1232**	**8.1000e-004**	**0.1240**	**0.0327**	**7.5000e-004**	**0.0334**		**109.3543**	**109.3543**	**3.6800e-003**	**3.2000e-003**	**110.3993**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	47.3048					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2045	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817		281.4481	281.4481	0.0183		281.9062
Total	**47.5094**	**1.4085**	**1.8136**	**2.9700e-003**		**0.0817**	**0.0817**		**0.0817**	**0.0817**		**281.4481**	**281.4481**	**0.0183**		**281.9062**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0123	8.7600e-003	0.1121	2.9000e-004	0.0329	2.2000e-004	0.0331	8.7200e-003	2.0000e-004	8.9100e-003		29.1611	29.1611	9.8000e-004	8.5000e-004	29.4398
Total	**0.0123**	**8.7600e-003**	**0.1121**	**2.9000e-004**	**0.0329**	**2.2000e-004**	**0.0331**	**8.7200e-003**	**2.0000e-004**	**8.9100e-003**		**29.1611**	**29.1611**	**9.8000e-004**	**8.5000e-004**	**29.4398**

Palmdale GPU - SFR Annual Construction - Los Angeles-Mojave Desert County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	47.3048					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0297	0.1288	1.8324	2.9700e-003		3.9600e-003	3.9600e-003		3.9600e-003	3.9600e-003	0.0000	281.4481	281.4481	0.0183		281.9062
Total	**47.3345**	**0.1288**	**1.8324**	**2.9700e-003**		**3.9600e-003**	**3.9600e-003**		**3.9600e-003**	**3.9600e-003**	**0.0000**	**281.4481**	**281.4481**	**0.0183**		**281.9062**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0123	8.7600e-003	0.1121	2.9000e-004	0.0329	2.2000e-004	0.0331	8.7200e-003	2.0000e-004	8.9100e-003		29.1611	29.1611	9.8000e-004	8.5000e-004	29.4398
Total	**0.0123**	**8.7600e-003**	**0.1121**	**2.9000e-004**	**0.0329**	**2.2000e-004**	**0.0331**	**8.7200e-003**	**2.0000e-004**	**8.9100e-003**		**29.1611**	**29.1611**	**9.8000e-004**	**8.5000e-004**	**29.4398**

Palmdale GPU - SFR Annual Construction - Los Angeles-Mojave Desert County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

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

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
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
Single Family Housing	10.80	7.30	7.50	40.20	19.20	40.60	86	11	3

4.4 Fleet Mix

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

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Single Family Housing	0.544785	0.062844	0.187478	0.127235	0.023089	0.006083	0.010475	0.008012	0.000925	0.000611	0.024394	0.000698	0.003374

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

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

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.2 Energy by Land Use - NaturalGas

Unmitigated

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

Mitigated

	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					
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
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

6.1 Mitigation Measures Area

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.1392	0.0533	4.6211	2.4000e-004		0.0256	0.0256		0.0256	0.0256	0.0000	8.3189	8.3189	8.0000e-003	0.0000	8.5189
Unmitigated	0.1392	0.0533	4.6211	2.4000e-004		0.0256	0.0256		0.0256	0.0256	0.0000	8.3189	8.3189	8.0000e-003	0.0000	8.5189

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.1392	0.0533	4.6211	2.4000e-004		0.0256	0.0256		0.0256	0.0256		8.3189	8.3189	8.0000e-003		8.5189
Total	**0.1392**	**0.0533**	**4.6211**	**2.4000e-004**		**0.0256**	**0.0256**		**0.0256**	**0.0256**	**0.0000**	**8.3189**	**8.3189**	**8.0000e-003**	**0.0000**	**8.5189**

Palmdale GPU - SFR Annual Construction - Los Angeles-Mojave Desert County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.1392	0.0533	4.6211	2.4000e-004		0.0256	0.0256		0.0256	0.0256		8.3189	8.3189	8.0000e-003		8.5189
Total	**0.1392**	**0.0533**	**4.6211**	**2.4000e-004**		**0.0256**	**0.0256**		**0.0256**	**0.0256**	**0.0000**	**8.3189**	**8.3189**	**8.0000e-003**	**0.0000**	**8.5189**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Palmdale GPU - SFR Annual Construction - Los Angeles-Mojave Desert County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Appendix C

Special Status Species List

Appendix C Biological Resources

Scientific Name Common Name	Status	Habitat Requirements
Acanthoscyphus parishii var. *abramsii* Abrams' oxytheca	None/None G4?T1T2/S1S2 1B.2	Annual herb. Blooms Jun-Aug. Occurs in chaparral, granitic sand, shale. 1140-2060m (3740-6760ft).
Acanthoscyphus parishii var. *parishii* Parish's oxytheca	None/None G4?T3T4/S3S4 4.2	Chaparral, Lower montane coniferous forest. Sandy or gravelly places. 1220-2600m. Blooms Jun-Sep.
Androsace elongata ssp. *acuta* California androsace	None/None G5?T3T4/S3S4 4.2	Chaparral, Cismontane woodland, Coastal scrub, Meadows and seeps, Pinyon and juniper woodland, Valley and foothill grassland. Highly localized and often overlooked little plant. 150-1305m. Blooms Mar-Jun.
Arctostaphylos gabilanensis Gabilan Mountains manzanita	None/None G1/S1 1B.2	Chaparral, Cismontane woodland. Grainitic substrates. 300-700m. Blooms Jan.
Arctostaphylos glandulosa ssp. *gabrielensis* San Gabriel manzanita	None/None G5T3/S3 1B.2	Chaparral. Rocky outcrops; can be dominant shrub where it occurs. 595-1500m. Blooms Mar.
Arctostaphylos parryana ssp. *tumescens* interior manzanita	None/None G4T3T4/S3S4 4.3	Chaparral, Cismontane woodland. Montane chaparral or foothill woodland. 2100-2310m. Blooms Feb-Apr.
Astragalus hornii var. *hornii* Horn's milk-vetch	None/None GUT1/S1 1B.1	Meadows and seeps, Playas. Lake margins, alkaline sites. 60-850m. Blooms May-Oct.
Astragalus preussii var. *laxiflorus* Lancaster milk-vetch	None/None G4T2/S1 1B.1	Chenopod scrub. Alkaline clay flats or gravelly or sandy washes and along draws in gullied badlands. 700-735 m in California. 700-700m. Blooms Mar-May.
Calochortus catalinae Catalina mariposa lily	None/None G3G4/S3S4 4.2	Chaparral, Cismontane woodland, Coastal scrub, Valley and foothill grassland. In heavy soils, open slopes, openings in brush. 15-700m. Blooms (Feb)Mar-Jun.
Calochortus clavatus var. *avius* Pleasant Valley mariposa lily	None/None G4T2/S2 1B.2	Lower montane coniferous forest. Josephine silt loam and volcanically derived soil; often in rocky areas. 305-1800m. Blooms May-Jul.
Calochortus clavatus var. *gracilis* slender mariposa-lily	None/None G4T2T3/S2S3 1B.2	Perennial bulbiferous herb. Blooms March to June. Chaparral, coastal scrub. Shaded foothill canyons; often on grassy slopes within other habitat. 420-760m (1380-2495ft).
Calochortus palmeri var. *palmeri* Palmer's mariposa-lily	None/None G3T2/S2 1B.2	Chaparral, Lower montane coniferous forest, Meadows and seeps. Vernally moist places in yellow-pine forest, chaparral. 710-2390m. Blooms Apr-Jul.
Calochortus striatus alkali mariposa lily	None/None G3?/S2S3 1B.2	Chaparral, Chenopod scrub, Meadows and seeps, Mojavean desert scrub. Alkaline meadows and ephemeral washes. 70-1600m. 70-1595m. Blooms Apr-Jun.
Calystegia peirsonii Peirson's morning-glory	None/None G4/S4 4.2	Chaparral, Chenopod scrub, Cismontane woodland, Coastal scrub, Lower montane coniferous forest, Valley and foothill grassland. Often in disturbed areas or along roadsides or in grassy, open areas. 30-1500m. Blooms Apr-Jun.

Scientific Name Common Name	Status	Habitat Requirements
Canbya candida white pygmy-poppy	None/None G3G4/S3S4 4.2	Joshua tree "woodland", Mojavean desert scrub, Pinyon and juniper woodland. Gravelly, sandy, granitic places. 600-1460m. Blooms Mar-Jun.
Castilleja gleasoni Mt. Gleason paintbrush	None/SR G2/S2 1B.2	Chaparral, Lower montane coniferous forest, Pinyon and juniper woodland. On open flats or slopes in granitic soil. Restricted to the San Gabriel Mountains. 1160-2170m. Blooms May-Jun(Sep).
Castilleja plagiotoma Mojave paintbrush	None/None G4/S4 4.3	Great Basin scrub, Joshua tree "woodland", Lower montane coniferous forest, Pinyon and juniper woodland. Alluvial fans. 300-2500m. Blooms Apr-Jun.
Chorizanthe parryi var. *parryi* Parry's spineflower	None/None G3T2/S2 1B.1	Chaparral, Cismontane woodland, Coastal scrub, Valley and foothill grassland. Dry slopes and flats; sometimes at interface of 2 vegetation types, such as chaparral and oak woodland. Dry, sandy soils. 275-1220m. Blooms Apr-Jun.
Chorizanthe spinosa Mojave spineflower	None/None G4/S4 4.2	Chenopod scrub, Joshua tree "woodland", Mojavean desert scrub, Playas. Sometimes on alkaline soils. 6-1300m. Blooms Mar-Jul.
Cryptantha clokeyi Clokey's cryptantha	None/None G3/S3 1B.2	Mojavean desert scrub. Sandy or gravelly soils. 725-1365m. Blooms Apr.
Diplacus johnstonii Johnston's monkeyflower	None/None G4/S4 4.3	Lower montane coniferous forest. On scree, in rocky or gravelly sites. Also in disturbed areas. 975-2920m. Blooms May-Aug.
Eriastrum rosamondense Rosamond eriastrum	None/None G1?/S1? 1B.1	Chenopod scrub, Vernal pools. Alkali pool beds separated by very low hummocks with open cheopod scrub. Often sandy soil. 700-1175m. Blooms Apr-May(Jun-Jul).
Eriogonum umbellatum var. *minus* alpine sulfur-flowered buckwheat	None/None G5T4/S4 4.3	Subalpine coniferous forest, Upper montane coniferous forest. Granitic substrate; usually gravelly or sandy. 1800-3068m. Blooms Jun-Sep.
Frasera neglecta pine green-gentian	None/None G4/S4 4.3	Lower montane coniferous forest, Pinyon and juniper woodland, Upper montane coniferous forest. Dry, open woodlands. 1400-2500m. Blooms May-Jul.
Galium jepsonii Jepson's bedstraw	None/None G3/S3 4.3	Lower montane coniferous forest, Upper montane coniferous forest. On granite; gravelly hillsides and slopes. 1540-2500m. Blooms Jul-Aug.
Galium johnstonii Johnston's bedstraw	None/None G4/S4 4.3	Chaparral, Lower montane coniferous forest, Pinyon and juniper woodland, Riparian woodland. Open, mixed forest. 1220-2300m. Blooms Jun-Jul.
Gilia latiflora ssp. *cuyamensis* Cuyama gilia	None/None G5?T4/S4 4.3	Pinyon and juniper woodland. Sandy flats, lower river valleys. 595-2000m. Blooms Apr-Jun.
Goodmania luteola golden goodmania	None/None G3/S3 4.2	Meadows and seeps, Mojavean desert scrub, Playas, Valley and foothill grassland. Alkaline or clay soils. 20-2200m. Blooms Apr-Aug.
Hulsea vestita ssp. *gabrielensis* San Gabriel Mountains sunflower	None/None G5T3/S3 4.3	Lower montane coniferous forest, Upper montane coniferous forest. Rocky sites. 1500-2500m. Blooms May-Jul.

Scientific Name Common Name	Status	Habitat Requirements
Lilium parryi lemon lily	None/None G3/S3 1B.2	Lower montane coniferous forest, Meadows and seeps, Riparian forest, Upper montane coniferous forest. Wet, mountainous terrain; generally in forested areas; on shady edges of streams, in open boggy meadows & seeps. 1220-2745m. Blooms Jul-Aug.
Linanthus concinnus San Gabriel linanthus	None/None G2/S2 1B.2	Chaparral, Lower montane coniferous forest, Upper montane coniferous forest. Dry rocky slopes, often in Jeffrey pine/canyon oak forest. 1520-2800m. Blooms Apr-Jul.
Loeflingia squarrosa var. *artemisiarum* sagebrush loeflingia	None/None G5T3/S2 2B.2	Desert dunes, Great Basin scrub, Sonoran desert scrub. Sandy flats and dunes. Sandy areas around clay slicks w/Sarcobatus, Atriplex, Tetradymia, etc. 700-1615m. Blooms Apr-May.
Lycium torreyi Torrey's box-thorn	None/None G4G5/S3 4.2	Mojavean desert scrub, Sonoran desert scrub. Sandy, rocky, washes, streambanks, desert valleys. - -50-1220m. Blooms (Jan-Feb)Mar-Jun(Sep-Nov).
Malacothamnus davidsonii Davidson's bush-mallow	None/None G2/S2 1B.2	Chaparral, Cismontane woodland, Coastal scrub, Riparian woodland. Sandy washes. 185-1140m. Blooms Jun-Jan.
Monardella viridis green monardella	None/None G3/S3 4.3	Broadleafed upland forest, Chaparral, Cismontane woodland. 100-1010m. Blooms Jun-Sep.
Muilla coronata crowned muilla	None/None G3/S3 4.2	Chenopod scrub, Joshua tree "woodland", Mojavean desert scrub, Pinyon and juniper woodland. Mostly on barren flats and ridges in sandy, granitic soils. 670-1960m. Blooms Mar-Apr(May).
Opuntia basilaris var. *brachyclada* short-joint beavertail	None/None G5T3/S3 1B.2	Chaparral, Joshua tree "woodland", Mojavean desert scrub, Pinyon and juniper woodland. Sandy soil or coarse, granitic loam. 425-1800m. Blooms Apr-Jun(Aug).
Packera ionophylla Tehachapi ragwort	None/None G4/S4 4.3	Lower montane coniferous forest, Upper montane coniferous forest. Dry, open, granitic talus slopes. 1500-2700m. Blooms Jun-Jul.
Perideridia pringlei adobe yampah	None/None G4/S4 4.3	Chaparral, Cismontane woodland, Coastal scrub, Pinyon and juniper woodland. Serpentine, clay soils. Grassland hillsides; seasonally wet sites. 300-1800m. Blooms Apr-Jun(Jul).
Phacelia mohavensis Mojave phacelia	None/None G4Q/S4 4.3	Cismontane woodland, Lower montane coniferous forest, Meadows and seeps, Pinyon and juniper woodland. Sandy or gravelly soils, dry streambeds. 1400-2500m. Blooms Apr-Aug.
Quercus durata var. *gabrielensis* San Gabriel oak	None/None G4T3/S3 4.2	Chaparral, Cismontane woodland. 450-1000m. Blooms Apr-May.
Symphyotrichum greatae Greata's aster	None/None G2/S2 1B.3	Broadleafed upland forest, Chaparral, Cismontane woodland, Lower montane coniferous forest, Riparian woodland. Mesic canyons. 300-2010m. Blooms Jun-Oct.
Syntrichopappus lemmonii Lemmon's syntrichopappus	None/None G4/S4 4.3	Chaparral, Joshua tree "woodland", Pinyon and juniper woodland. Decomposed granite; sandy or gravelly soils. 500-1830m. Blooms Apr-May(Jun).
Bombus crotchii Crotch bumble bee	None/SCE G3G4/S1S2	Coastal California east to the Sierra-Cascade crest and south into Mexico. Food plant genera include Antirrhinum, Phacelia, Clarkia, Dendromecon, Eschscholzia, and Eriogonum.

Scientific Name Common Name	Status	Habitat Requirements
Branchinecta lynchi vernal pool fairy shrimp	FT/None G3/S3	Endemic to the grasslands of the Central Valley, Central Coast mountains, and South Coast mountains, in astatic rain-filled pools. Inhabit small, clear-water sandstone-depression pools and grassed swale, earth slump, or basalt-flow depression pools.
Euphydryas editha quino quino checkerspot butterfly	FE/None G5T1T2/S1S2	Sunny openings within chaparral & coastal sage shrublands in parts of Riverside & San Diego counties. Hills and mesas near the coast. Need high densities of food plants Plantago erecta, P. insularis, and Orthocarpus purpurescens.
Helminthoglypta fontiphila Soledad shoulderband	None/None G1/S1	Air-breathing terrestrial snail. Known from type locality, Little Rock Creek Cyn on north side of San Gabriels; west to Santa Clarita in Soledad Cyn; east to the vicinity of Big Rock Creek; and north to Elizabeth Lake Cyn in the Sierra Pelona Mtns. Frequently found in riparian habitat (springs, seeps, along streams). May be found in rock piles, flood-borne debris, or under dead yuccas where other cover is not available.
Anaxyrus californicus arroyo toad	FE/None G2G3/S2S3 SSC	Semi-arid regions near washes or intermittent streams, including valley-foothill and desert riparian, desert wash, etc. Rivers with sandy banks, willows, cottonwoods, and sycamores; loose, gravelly areas of streams in drier parts of range.
Rana draytonii California red-legged frog	FT/None G2G3/S2S3 SSC	Lowlands and foothills in or near permanent sources of deep water with dense, shrubby or emergent riparian vegetation. Requires 11-20 weeks of permanent water for larval development. Must have access to estivation habitat.
Rana muscosa southern mountain yellow-legged frog	FE/SE G1/S1 WL	Federal listing refers to populations in the San Gabriel, San Jacinto and San Bernardino mountains (southern DPS). Northern DPS was determined to warrant listing as endangered, Apr 2014, effective Jun 30, 2014. Always encountered within a few feet of water. Tadpoles may require 2 - 4 yrs to complete their aquatic development.
Anniella pulchra Northern California legless lizard	None/None G3/S3 SSC	Sandy or loose loamy soils under sparse vegetation. Soil moisture is essential. They prefer soils with a high moisture content.
Anniella spp. California legless lizard	None/None G3G4/S3S4 SSC	Contra Costa County south to San Diego, within a variety of open habitats.This element represents California records of Anniella not yet assigned to new species within the Anniella pulchra complex. Variety of habitats; generally in moist, loose soil. They prefer soils with a high moisture content.
Arizona elegans occidentalis California glossy snake	None/None G5T2/S2 SSC	Patchily distributed from the eastern portion of San Francisco Bay, southern San Joaquin Valley, and the Coast, Transverse, and Peninsular ranges, south to Baja California. Generalist reported from a range of scrub and grassland habitats, often with loose or sandy soils.
Emys marmorata western pond turtle	None/None G3G4/S3 SSC	A thoroughly aquatic turtle of ponds, marshes, rivers, streams and irrigation ditches, usually with aquatic vegetation, below 6000 ft elevation. Needs basking sites and suitable (sandy banks or grassy open fields) upland habitat up to 0.5 km from water for egg-laying.
Gopherus agassizii desert tortoise	FT/ST G3/S2S3	Most common in desert scrub, desert wash, and Joshua tree habitats; occurs in almost every desert habitat. Require friable soil for burrow and nest construction. Creosote bush habitat with large annual wildflower blooms preferred.

Scientific Name Common Name	Status	Habitat Requirements
Phrynosoma blainvillii coast horned lizard	None/None G3G4/S3S4 SSC	Frequents a wide variety of habitats, most common in lowlands along sandy washes with scattered low bushes. Open areas for sunning, bushes for cover, patches of loose soil for burial, and abundant supply of ants and other insects.
Thamnophis hammondii two-striped gartersnake	None/None G4/S3S4 SSC	Coastal California from vicinity of Salinas to northwest Baja California. From sea to about 7,000 ft elevation. Highly aquatic, found in or near permanent fresh water. Often along streams with rocky beds and riparian growth.
Accipiter cooperii Cooper's hawk	None/None G5/S4 WL	Woodland, chiefly of open, interrupted or marginal type. Nest sites mainly in riparian growths of deciduous trees, as in canyon bottoms on river flood-plains; also, live oaks.
Agelaius tricolor tricolored blackbird	None/ST G1G2/S1S2 SSC	
Aimophila ruficeps canescens southern California rufous-crowned sparrow	None/None G5T3/S3 WL	Resident in Southern California coastal sage scrub and sparse mixed chaparral. Frequents relatively steep, often rocky hillsides with grass and forb patches.
Artemisiospiza belli belli Bell's sage sparrow	None/None G5T2T3/S3 WL	Nests in chaparral dominated by fairly dense stands of chamise. Found in coastal sage scrub in south of range. Nest located on the ground beneath a shrub or in a shrub 6-18 inches above ground. Territories about 50 yds apart.
Athene cunicularia burrowing owl	None/None G4/S3 SSC	Open, dry annual or perennial grasslands, deserts, and scrublands characterized by low-growing vegetation. Subterranean nester, dependent upon burrowing mammals, most notably, the California ground squirrel.
Buteo regalis ferruginous hawk	None/None G4/S3S4 WL	Open grasslands, sagebrush flats, desert scrub, low foothills and fringes of pinyon and juniper habitats. Eats mostly lagomorphs, ground squirrels, and mice. Population trends may follow lagomorph population cycles.
Buteo swainsoni Swainson's hawk	None/ST G5/S3	
Charadrius montanus mountain plover	None/None G3/S2S3 SSC	Short grasslands, freshly plowed fields, newly sprouting grain fields, & sometimes sod farms. Short vegetation, bare ground, and flat topography. Prefers grazed areas and areas with burrowing rodents.
Falco columbarius merlin	None/None G5/S3S4 WL	Seacoast, tidal estuaries, open woodlands, savannahs, edges of grasslands & deserts, farms & ranches. Clumps of trees or windbreaks are required for roosting in open country.
Lanius ludovicianus loggerhead shrike	None/None G4/S4 SSC	Broken woodlands, savannah, pinyon-juniper, Joshua tree, and riparian woodlands, desert oases, scrub & washes. Prefers open country for hunting, with perches for scanning, and fairly dense shrubs and brush for nesting.
Polioptila californica californica coastal California gnatcatcher	FT/None G4G5T3Q/S2 SSC	Obligate, permanent resident of coastal sage scrub below 2500 ft in Southern California. Low, coastal sage scrub in arid washes, on mesas and slopes. Not all areas classified as coastal sage scrub are occupied.
Toxostoma lecontei Le Conte's thrasher	None/None G4/S3 SSC	Desert resident; primarily of open desert wash, desert scrub, alkali desert scrub, and desert succulent scrub habitats. Commonly nests in a dense, spiny shrub or densely branched cactus in desert wash habitat, usually 2-8 feet above ground.

Scientific Name Common Name	Status	Habitat Requirements
Vireo bellii pusillus least Bell's vireo	FE/SE G5T2/S2	Summer resident of Southern California in low riparian in vicinity of water or in dry river bottoms; below 2000 ft. Nests placed along margins of bushes or on twigs projecting into pathways, usually willow, Baccharis, mesquite.
Myotis yumanensis Yuma myotis	None/None G5/S4	Occurs in a variety of lowland and upland habitats including desert scrub, riparian, and woodlands and forests. Distribution is closely tied to bodies of water. Roosts in a variety of areas including caves, cliffs, mines, crevices in live trees, and buildings and other man-made structures.
Onychomys torridus ramona southern grasshopper mouse	None/None G5T3/S3 SSC	Desert areas, especially scrub habitats with friable soils for digging. Prefers low to moderate shrub cover. Feeds almost exclusively on arthropods, especially scorpions and orthopteran insects.
Perognathus inornatus San Joaquin pocket mouse	None/None G2G3/S2S3	Grassland, oak savanna and arid scrubland in the southern Sacramento Valley, Salinas Valley, San Joaquin Valley and adjacent foothills, south to the Mojave Desert. Associated with fine-textured, sandy, friable soils.
Xerospermophilus mohavensis Mohave ground squirrel	None/ST G2G3/S2S3	Open desert scrub, alkali scrub & Joshua tree woodland. Also feeds in annual grasslands. Restricted to Mojave Desert. Prefers sandy to gravelly soils, avoids rocky areas. Uses burrows at base of shrubs for cover. Nests are in burrows.
Mojave Riparian Forest	None/None G1/S1.1	
Southern Coast Live Oak Riparian Forest	None/None G4/S4	
Southern Cottonwood Willow Riparian Forest	None/None G3/S3.2	
Southern Riparian Scrub	None/None G3/S3.2	
Southern Sycamore Alder Riparian Woodland	None/None G4/S4	
Southern Willow Scrub	None/None G3/S2.1	
Valley Needlegrass Grassland	None/None G3/S3.1	All topographic locations. Soils may be deep with high clay content, loamy, sandy, or silty derived from mudstone, sandstone, or serpentine substrates
Wildflower Field	None/None G2/S2.2	

Appendix D

Traffic Report

DRAFT

Palmdale General Plan Update and Program EIR

Traffic Report

City of Palmdale

February 2022

CONTENTS

Report Overview 1
Existing Regional and Local Roadway 1
Functional Street Classifications 3
Palmdale Roadway Classifications 3
Regional Arterials 3
Major Arterials 3
Secondary Arterials 3
County of Los Angeles Classifications 4
Freeways/Expressways 4
Major Highways 4
Secondary Highways 4
Limited Secondary Highways 4
Roadway Facilities 5
Regional Road Network 5
Local Road Network 5
Major East–West Roads 6
Major North–South Roads 8
Methodology 11
Existing Conditions 15
Level of Service Definitions and Standards 18
Summary 23
Future Conditions 24
Roadway Improvements 24
2045 Base 26
Summary 33
2045 Base with High Desert Corridor Freeway 34
Summary 42
2045 Preferred Plan 43
Summary 51
Measures of Effectiveness 52
Summary 58
Vehicle Miles Traveled Impact Criteria Analysis 59
SB 743 Overview 59
Projects Affected by SB 743 59
Los Angeles County VMT Implementation 60
Baseline VMT 60
VMT Thresholds for Land Use Plans 63
VMT Analysis 63
VMT Mitigation Opportunities 68
Conclusion 71

FIGURES

Figure 1. Existing Roadway Network 2
Figure 2: Palmdale Traffic Analysis Zones 12
Figure 3: Palmdale Sphere of Influence 12
Figure 4: 2017 Existing Daily VMT Share Originating in the Palmdale SOI 16
Figure 5: 2017 Existing Daily Assigned Traffic Volumes 17
Figure 6. Future Roadway Network 25
Figure 7: 2045 Base Daily VMT Share Originating in Palmdale Sphere of Influence 27
Figure 8: 2045 Base Daily Traffic Volumes Forecast 28
Figure 9: 2045 Base with High Desert Corridor Daily VMT Share Originating in the Palmdale Sphere of Influence 36
Figure 10: 2045 Base with High Desert Corridor Daily Traffic Volumes Forecast 37
Figure 11: Comparison of 2045 Base to 2045 Base with High Desert Corridor Daily Traffic Volumes Forecasts 37
Figure 12: 2045 Preferred Plan Daily VMT Share Originating in Palmdale Sphere of Influence 45
Figure 13: 2045 Preferred Plan Daily Traffic Volumes 46
Figure 14: Daily VMT by Facility Type within the Palmdale Sphere of Influence for All Scenarios 56
Figure 15: Daily VHT by Facility Type within the Palmdale Sphere of Influence for All Scenarios 57
Figure 16: Daily VHD by Facility Type within the Palmdale Sphere of Influence for All Scenarios 58
Figure 17: Baseline VMT Benchmark Coverage Area for Los Angeles County 61
Figure 18: Palmdale Sphere of Influence 64
Figure 19. 2045 Preferred Plan Land Use and Design Framework 65

TABLES

Table 1: Percentage of the Palmdale Sphere of Influence in the SCAG Region 13
Table 2: Palmdale Sphere of Influence Land Use Comparisons 14
Table 3: 2017 Existing Socio-Economic Data 15
Table 4: 2017 Existing Average Trip Length for Palmdale SOI Trips 15
Table 5: 2017 Existing Palmdale SOI (II, IX and XI*) Daily, VMT, VHT, Average Speed by Facility 16
Table 6: Level of Service Criteria 18
Table 7: 2017 Existing Daily Segment Volumes 19
Table 8: 2017 Existing Palmdale Sphere of Influence VMT/VHT by Facility Type for All Trips 23

Table 9: 2045 Base Socio-Economic Forecast 26
Table 10: 2045 Base Average Trip Length for Palmdale Sphere of Influence Trips 26
Table 11: 2045 Base Palmdale Sphere of Influence (II, IX and XI*) Daily, VMT, VHT, Average Speed by Facility 27
Table 12: 2045 Base Daily Volumes ..... **Error! Bookmark not defined.**
Table 13: 2045 Base Palmdale Sphere of Influence VMT/VHT by Facility Type for All Trips 33
Table 14: 2045 Base with High Desert Corridor Freeway Socio-Economic Forecast 34
Table 15: 2045 Base with High Desert Corridor Average Trip Length for Palmdale SOI Trips 35
Table 16: 2045 Base with High Desert Corridor Palmdale Sphere of Influence (II, IX and XI*) Daily, VMT, VHT, Average Speed by Facility 35
Table 17: 2045 Base with High Desert Corridor Daily Volumes 38
Table 18: 2045 Base with High Desert Corridor Palmdale Sphere of Influence VMT/VHT by Facility Type for All Trips 42
Table 19: 2045 Preferred Plan Socio-Economic Forecast 43
Table 20: 2045 Preferred Plan Palmdale Sphere of Influence (II and IX) Average Trip Length 44
Table 21: 2045 Preferred Plan Palmdale Sphere of Influence (II, IX and XI*) Daily, VMT, VHT, Average Speed by Facility 44
Table 22: 2045 Preferred Plan Daily Volumes 47
Table 23: 2045 Preferred Plan Palmdale Sphere of Influence VMT/VHT by Facility Type for All Trips 51
Table 24: Trip Purpose Statistics 52
Table 25: VMT between Palmdale Sphere and Areas within the SCAG Region 53
Table 26: VMT to/from Palmdale Sphere to Areas within the SCAG Region by Facility Type 53
Table 27: VMT for All Links within the Palmdale Sphere of Influence 53
Table 28: Performance Statistics by Facility Type within the Palmdale Sphere of Influence 54
Table 29. Summary of Roadway Segments at Level of Service E or F 55
Table 30: Baseline VMT Thresholds for North and South County 62
Table 31: Palmdale Sphere of Influence Socio-economic Data 63
Table 32: Baseline VMT Thresholds—Total VMT per Service Population 66
Table 33: Baseline VMT Thresholds—Home-based Trips 67
Table 34: Home-based Trips and VMT Statistics 67
Table 35: All Trips and VMT Statistics 68
Table 37: VMT between Palmdale Sphere and Areas within the SCAG Region 70
Table 38: VMT to/from Palmdale Sphere to Areas within the SCAG Region by Facility Type 70
Table 39: VMT for All Links within the Geographic Area 71

Report Overview

Palmdale is a city in northern Los Angeles County in the state of California. The city lies in the Antelope Valley region of Southern California. The San Gabriel Mountains, which are about 40 miles wide, separate Palmdale from the Los Angeles Basin to the south.

This report provides traffic information about the City of Palmdale including traffic counts, local land use and future travel demand forecasts in support of the General Plan Update. Traffic modeling was performed at the link level using the Regional Model. The SCAG region utilizes the SCAG 2016 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) Travel Demand Model (SCAG model) to produce forecasts for the region. The SCAG model used for the Palmdale General Plan Update (Palmdale GP) is consistent with the RTP assumptions for existing year and future year conditions as all projects in the RTP are included.

EXISTING REGIONAL AND LOCAL ROADWAY

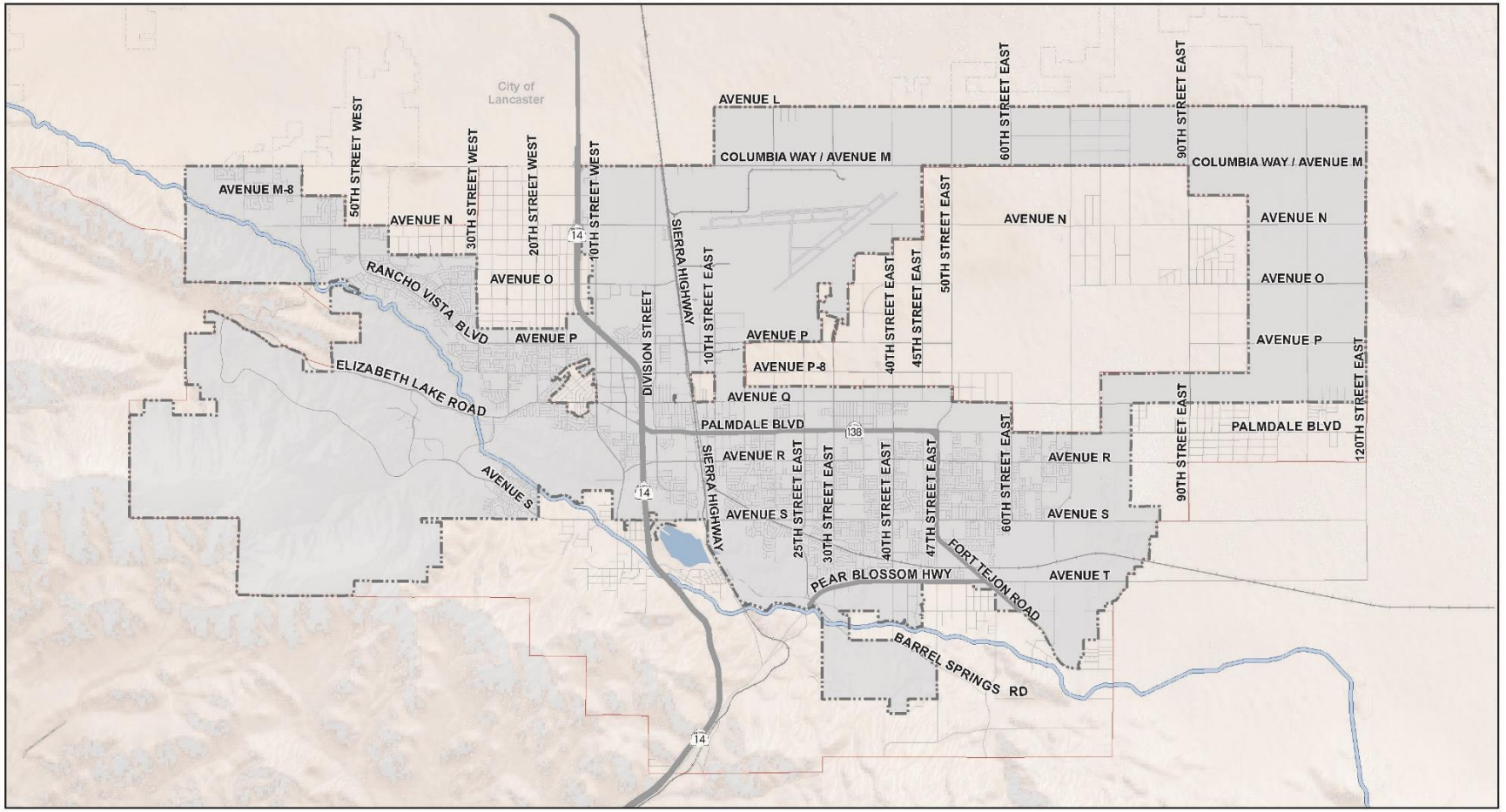
The existing regional and local roadway network in Palmdale is a hierarchical system of highways and local streets developed to provide regional traffic movement and local access. State Route (SR-) 14 provides access to a regional highway route, while SR-138 is a key arterial distributing vehicular traffic through the city.

The city's roadway network has been developed primarily around a suburban grid system in which arterials are spaced approximately every mile and secondary arterials are spaced every half-mile between major arterials. Each east–west lettered avenue is one mile from the next lettered east–west avenue, and each north–south numbered avenue is one mile from the next numbered north–south avenue.

Between arterials, neighborhood local and collector streets are suburban in nature, with limited collector roads to lead traffic into arterials. Common features in neighborhoods are dead-ends, and cul-de-sacs. This design approach facilitates congestion, as arterials are the only options for moving between destinations in the community. Dead-ends and cul-de-sacs also limit connectivity for alternative modes of transportation, particularly people walking or bicycling.

The city is located approximately 60 freeway miles north of Los Angeles. Regional access to the city is provided via the Antelope Valley Freeway (State Route [SR] 14), which extends north to Kern County and south to the San Fernando Valley. Additional arterials providing regional access to the city are Palmdale Boulevard, Elizabeth Lake Road, Pearblossom Highway (SR 138), and Sierra Highway. The city's existing roadway network is illustrated in Figure 1.

Figure 1. Existing Roadway Network



FUNCTIONAL STREET CLASSIFICATIONS

The following section provides a description of the functional classification of the facilities within the study area. The city's roadway system consists of a wide range of transportation facilities, which serve two basic functions: mobility and land access. A circulation network is composed of facilities that emphasize mobility or access to different degrees. The following types of facilities are generically defined.

- Freeway: Mobility with very limited access.
- Expressway: Mobility with more frequent access to arterial streets than a freeway, but no direct land access.
- Arterial: Mobility with access to collectors, some local streets and major traffic.
- Collector: Connects local streets with arterials and also provides access to adjacent land uses, thus balancing mobility with access.
- Local: Provides access to adjacent land uses exclusively.

PALMDALE ROADWAY CLASSIFICATIONS

Regional Arterials

Regional arterials are limited access facilities that provide service to non-local through trips with minimal direct access to adjacent land uses. They have a design cross-section of eight lanes (four in each direction) with medians and turn lanes at a limited number of access points. Regional arterials are designated as 106-foot roadways, typically within a 120-foot right-of-way. At their design capacity of level of service (LOS) D, most regional arterials can carry between 49,500 and 64,000 vehicles per day. Some bike lanes currently exist within primary and regional arterials, however current City policy is to provide new bike lanes on secondary arterials only.

Major Arterials

Major arterials are primarily intended to serve through, non-local traffic and provide limited local access. They have a cross-section of three through lanes, and a raised landscape median and turn lanes at a limited number of access points. Major arterials are designated as 84-foot roadways, within a 100-foot right-of-way. At LOS D, major arterials can accommodate between 40,000 and 44,000 vehicles per day.

Secondary Arterials

Secondary arterials provide more local access than major arterials, while also providing a reduced level of non-local through traffic service. Secondary arterials have a cross-section of four through lanes, a bike lane in each direction and a left-turn lane within 68 feet of curb-to-curb space, within an 84-foot right-of-way. These roadways are usually undivided with the potential for limited on-street parking, turn lanes at major intersections, and partial control of vehicular and pedestrian access from driveways, cross streets, and crosswalks. Secondary arterials can accommodate between 22,000 and 24,000 vehicles per day at an acceptable level of service.

COUNTY OF LOS ANGELES CLASSIFICATIONS

Freeways/Expressways

The freeway is the highest level of roadway in the planning area and accommodates regional and interstate travel. Freeways typically have a minimum 180-foot cross-section and at least four through lanes (two per direction). Freeways have limited access at interchanges and have a typical design capacity of over 2,000 vehicles per hour per lane.

Major Highways

The major highway is intended to accommodate the majority of traffic connecting between cities and communities in the region and the regional freeway system. Major highways have an ultimate design cross-section of at least four lanes (two in each direction) with medians and turn lanes at limited number of access points. The right-of-way for major highways is typically 100 feet. At their design capacity of LOS E, most major highways can carry between 49,500 and 54,000 vehicles per day. Also classified as major highways, are key inter-urban roads, non-urban access ways and recreational roads. While many of these may not be planned for urban-type improvements, the wider right-of-way is needed for other transportation uses including bus turnouts and separate bicycle and pedestrian facilities.

Secondary Highways

The secondary highway is primarily intended to serve through traffic and collect traffic from limited secondary highways and collectors. In rural areas, secondary highways also serve as connecting highways between non-urban communities or in locations where widening a roadway to major highway width is not practical. Secondary highways normally have a cross-section of four through lanes with limited access from cross streets and driveways. Medians and turn lanes at limited locations are usually provided when adequate right-of-way (80 feet is the desired width) is developed and traffic and/or safety conditions warrant. At LOS E, secondary highways can accommodate between 40,000 and 44,000 vehicles per day.

Limited Secondary Highways

Limited secondary highways are typically found in the foothills and mountain and canyon areas. Their primary function is to provide access to low-density settlements and recreational areas. The standard for this type of roadway is two through lanes in a 64-foot right-of-way. These roadways are undivided with possible turn lanes at major intersections, graded shoulders, and limited control of vehicular and pedestrian access from driveways, cross streets, and crosswalks. Limited secondary highways can accommodate between 22,000 and 24,000 vehicles per day at an acceptable level of service; however, they are typically low-volume roads.

ROADWAY FACILITIES

Regional Road Network

State Route 14

State Route 14 is a north–south state highway in southern California, approximately 116.6 miles in length. The southern portion of the highway is signed as Antelope Valley Freeway. The route connects Interstate 5 (I-5), near Santa Clarita, with U.S. Route 395, near Inyokern.

The southern part of the route is a busy commuter freeway serving and connecting the communities of Palmdale and Lancaster with the Greater Los Angeles area. The northern portion is legislatively named Aerospace Highway, as the highway serves Edwards Air Force Base. With U.S. Route 395, this road connects Los Angeles with such places as Mammoth Mountain, Mono Lake, Yosemite National Park and Reno, Nevada. Housing and population growth in Santa Clarita, Lancaster and Palmdale has made the Antelope Valley Freeway one of the most congested freeways in southern California.

State Route 138

State Route 138 (SR 138) is an east–west state highway generally following the northern foothills of the San Gabriel Mountains from its junction with I-5 south of Gorman eastward to Mount Anderson Junction, its eastern junction with State Route 18 south of Crestline in the San Bernardino Mountains. The route is approximately 105.4 miles long.

The western leg of SR 138 extends from I-5 to Gorman Post Road, Lancaster Road from Gorman Post Road to 245th Street West near Neenach School, and Avenue D from 245th Street West to SR 138's north junction with SR 14. After its co-routing with the Antelope Valley Freeway (SR 14) through Lancaster and Palmdale, it passes through the east side of Palmdale as four- to six-lane Palmdale Boulevard, 47th Street East, and Fort Tejon Road to Pearblossom Highway. The state route continues, named locally as Pearblossom Highway, as a four-lane facility to just west of 72nd Street East, where it tapers to three, then two lanes and continues easterly on Pearblossom Highway through Littlerock, Pearblossom and Llano to its junction with SR 18.

Local Road Network

The street system is laid out on a grid. Each lettered east–west avenue is one mile from the next letter. By way of example, Avenue R is one mile north from Avenue S. In between each whole letter avenue, there are 15 sub-avenues labeled -1 through -15. Along with whole letter avenues, the -8 avenues are also major thoroughfares. Avenue R-8, for example, is a major road just like Avenue R and Avenue S. Sometimes the -8 avenues are renamed. Avenue Q-8 is renamed Palmdale Boulevard and Avenue P-8 is renamed Technology Drive.

Major streets which run north to south are numbered inside their direction, i.e., 10th Street West and 10th Street East. Each 0 and 5 street is a major thoroughfare with each 0 street being 1 mile from the previous 0 street. For example, 40th Street East is one mile east of 30th Street East. The east–west dividing line is Division Street, west of the Union Pacific/Metrolink rail corridor, which would be the equivalent of 0 Street East/West.

Major East–West Roads

Avenue L

Avenue L is unpaved from just west of 150th Street East to the arterial's intersection with 60th Street East. Avenue L then becomes a paved two-lane road and begins its operation as a regional arterial. The asphalt is extremely degraded in some places and appears to be simply a farm road at times with no roadway striping. There is a roadway break between 40th Street East and 35th Street East, where East Avenue L picks up again as a two-lane arterial. At 5th Street East, Avenue L begins operating at two lanes in each direction and periodic sections of three lanes in both the east and west directions. East of 42nd Street West, Avenue L transitions back to one lane in each direction to its end as a paved roadway at 90th Street West.

Columbia Way/Avenue M

East Avenue M transitions from a major arterial to a regional arterial and then back to a major arterial as it progresses in an east–west direction through the Palmdale area. The arterial begins as a paved roadway in the east at a right-angle intersection with 100th Street East. There is a break in pavement between 90th Street East and 70th Street East where the roadway continues as a dirt road. The portion of East Avenue M that is paved between 100th Street East and 70th Street East operates as one lane in each direction. The arterial picks up again at 50th Street East with two lanes in each direction, operating as East Avenue M/ColumbiaWay. To the west of 10th Street West, West Avenue M again transitions to one lanein each direction. The arterial terminates in the west at 75th Street West.

Avenue P/Rancho Vista Boulevard

This major arterial extends from 50th Street West to 15th Street East as Rancho Vista Boulevard, and from 15th Street East to 50th Street East as East Avenue P. West of 15th Street West, Rancho Vista Boulevard is a four-lane major arterial servicing residential areas. Between 15th Street West and approximately 0.25-mile west of Division Street, at Fairway Drive, Rancho Vista Boulevard is a six-lane arterial servicing commercial and residential areas with a speed limit of 35 mph. East of Fairway Drive, Rancho Vista Boulevard continues as a four-lane arterial road servicing commercial and industrial areas including the Palmdale Regional Airport and Plant 42. Per the City's most recent General Plan, Avenue P has a plan line dedication of 104 or 114 feet[1] of right-of-way allowing for six lanes with a median at build-out conditions.

There is a two-track railroad crossing of Rancho Vista Boulevard located between Sierra Highway and Eighth Street East/Lockheed Way. The crossing is approximately 50 feet east of and 1,300 feet west of the Sierra Highway and Eighth Street East intersections, respectively. The crossing is currently equipped with two curb-mounted California Public Utilities Commission (CPUC) Standard 9 (flashing light signal assembly with automatic gate arm) warning devices, two median- mounted CPUC Standard 9 (flashing light signal assembly with automatic gate arm) warning devices, railroad advanced warning signage, and pavement markings. A grade separation of the railroad crossing is currently being designed.

[1]The build-out width of the right-of-way on all local roadways is independent on whether or not the street will accommodate a bicycle lane, which will be determined in the City's Bicycle Transportation Plan.

Technology Drive/East Avenue P-8

Technology Drive/East Avenue P-8 is approximately one-half mile south of and parallel to Rancho Vista Boulevard/Avenue P. This secondary arterial has three discontinuous segments which are paved. The western-most segment is named Technology Drive from 10th Street West to Division Street, and East Avenue P-8 from east of Division Street to Sierra Highway This segment is striped for four through lanes and a center shared left-turn lane. The middle paved portion runs between Eighth Street East and 10th Street East and has two through lanes. The eastern paved portion runs between 40th Street East and 50th Street East and also has two through lanes.

Avenue Q

About 0.5-mile north of Palmdale Boulevard, Avenue Q runs parallel to Palmdale Boulevard. Avenue Q is designated as a major and secondary arterial street but is discontinuous. It runs from just west of Trade Center Drive to just east of 40th Street East. West of SR 14, West Avenue Q is a major arterial street from Trade Center Drive to Fifth Street West, servicing a light industrial area. Between Fifth Street West and SR 14, West Avenue Q is a secondary arterial street servicing the Antelope Valley Auto Center. From SR 14 to Third Street East, West/East Avenue Q is again a major arterial street servicing mainly single-family residential land uses.

To the east of the Union Pacific and Metrolink railroad tracks, East Avenue Q begins again as a major arterial at Sierra Highway. East of 15th Street East until East Avenue Q ends just east of 40th Street East, East Avenue Q continues as a major arterial. Per the City's existing General Plan, Avenue Q has a plan line dedication of 104 or 114 feet of right-of-way allowing for six lanes with a median at build-out conditions.

The City of Palmdale aspires to grade separate Avenue Q with the Union Pacific, Metrolink, and future high-speed railroad tracks, thereby connecting the east and westerly segments of this arterial street.

Palmdale Boulevard/SR 138

West of SR 14, West Palmdale Boulevard is a four-lane regional arterial from 10th Street West to the SR 14 southbound ramp terminal intersection. Just east of SR 14, Palmdale Boulevard is a state-owned route, signed as SR 138, running east to 47th Street East. From SR 14, traveling east to 25th Street East, the facility serves a highly concentrated general commercial area. Per the City's General Plan, West Palmdale Boulevard between Elizabeth Lake Road and Division Street has a plan line dedication of 126 or 136 feet of right-of- way allowing for eight lanes with a median at build-out conditions. East Palmdale Boulevard between Division Street and 120th Street East has a plan line dedication of 104 or 114 feet of right-of-way allowing for six lanes with a median at build-out conditions. A design effort is currently underway to widen Palmdale Boulevard to six lanes between Fifth Street East and 10th Street East.

East Avenue R/Rayburn Road

East Avenue R/Rayburn Road is approximately one-half mile south of Palmdale Boulevard. West of Division Street, the roadway is known as Rayburn Road and East Avenue R east of Division Street. Rayburn Road is a two-lane facility. East of Division Street, East Avenue R is a two-lane arterial with a center turning lane. From Sixth Street East to 47th Street East, East Avenue R is a four-lane arterial except for the portion between 35th Street East and 40th Street East, where the eastbound direction narrows to one lane. Per the City's existing General Plan, Rayburn Road/East Avenue R between Tierra

Subida Avenue and 90th Street East has a plan line dedication of 104 or 114 feet of right-of-way allowing for six lanes with a median at build-out conditions.

The City and Caltrans are currently pursuing a safety project along a two-mile long segment of Avenue R between Sierra Highway and 25th Street East. The project will add a dedicated bike lane, a left-turn lane midblock, and continuous pavement and intersection sidewalk ramps that are compliant with the Americans with Disabilities Act (ADA) guidelines.

Avenue S

Avenue S is approximately one mile south of Avenue R/Rayburn Road. It is designated as a major arterial as it runs about 1.75 miles west of SR 14 to about 3,800 feet east of 47th Street East. Avenue S is a four-lane road with combinations of medians and left-turn lanes. East Avenue S has a full diamond interchange with SR 14. Per the City's existing General Plan, Avenue S between City Ranch Road/Ranch Center Drive and Bridge Road has a plan line dedication of 104 or 114 feet of right-of-way, allowing for six lanes with a median at build-out conditions; a plan line dedication of 126 to 136 feet of right-of-way between Bridge Road and 35th Street East allowing for eight lanes at build-out conditions; and a plan line dedication of 104 or 114 feet of right-of-way between 35th Street East and 70th Street East allowing for six lanes at build-out conditions.

Major North–South Roads

10th Street West

Running parallel to SR 14, 10th Street West is an arterial road that runs from the city of Lancaster to Palmdale Boulevard, continuing south where it changes names to become Tierra Subida Avenue. South of SR 14 to Technology Drive, 10th Street West continues as a regional arterial. South of Technology Drive, until it becomes Tierra Subida Avenue at Palmdale Boulevard, 10th Street West is a major arterial road. Per the City's existing General Plan, 10th Street West between West Avenue M and West Palmdale Boulevard has a plan line dedication of 126 or 136 feet of right-of- way allowing for eight lanes with a median at build-out conditions.

A design effort is currently underway to widen 10th Street West south of SR 14 to Palmdale Boulevard.

Division Street

Division Street is a north–south, two-lane arterial that runs from just north of Avenue O to East Avenue R-8. The road is located between Sierra Highway and SR 14 and is discontinuous between Rancho Vista Boulevard and Technology Drive/East Avenue P-8. From Technology Drive/East Avenue P-8 to just north of East Avenue P-12, Division Street is not paved. As mentioned previously, Division Street is the dividing line between east and west naming of streets. Per the City's existing General Plan, Division Street between Avenue M and Avenue R-8 has a plan line dedication of 104 or 114 feet of right-of-way allowing for six lanes with a median at build-out conditions.

Fifth Street East

Fifth Street East is a north–south running arterial west of the Union Pacific/Metrolink rail corridor. The road runs between East Avenue S and East Avenue Q and has two through lanes. Per the City's General Plan, Fifth Street East between East Avenue Q and Palmdale Avenue has a plan line dedication of 84 or 92 feet of right-of-way allowing for four lanes without a median, and a plan line dedication of 84 or

92 feet of right-of-way between Palmdale Boulevard and East Avenue S allowing for four lanes with a median at build-out conditions.

Sierra Highway

Just west of 10th Street East, Sierra Highway is a four-lane regional arterial running in a northwest to southeast direction. From Rancho Vista Boulevard to Pearblossom Highway, Sierra Highway is a four-lane major arterial. Sierra Highway services residential, commercial, and industrial areas. Per the City's existing General Plan, Sierra Highway between East Avenue M and East Avenue P has a plan line dedication of 126 or 136 feet of right-of-way allowing for eight lanes with a median at build-out conditions, and between East Avenue P and Pearblossom Highway has a plan line dedication of 104 or 114 feet of right-of-way allowing for 6 lanes with a median at build-out conditions. A design effort is currently underway to widen Sierra Highway to six lanes between East Avenue Q and East Avenue R.

10th Street East

One mile west of 20th Street East, 10th Street East is a major two-lane arterial street running in a north–south direction. From the Lockheed Martin facility north of East Avenue P to East Avenue Q, the road services commercial and industrial areas. At East Avenue Q, 10th Street East widens to a four-lane major arterial continuing to Palmdale Boulevard. Per the City's existing General Plan, 10th Street East between East Avenue L and Palmdale Boulevard has a plan line dedication of 104 or 114 feet of right-of-way allowing for six lanes with a median at build-out conditions, and between Palmdale Boulevard and East Avenue S has a plan line dedication of 84 or 92 feet of right-of-way allowing for four lanes with a median at build-out conditions.

15th Street East

Fifteenth Street East is a north–south running arterial that is 0.5 mile east of 10th Street East. This road reaches between Lockheed Way and East Avenue R and has two through lanes. Per the City's General Plan, 15th Street East between East Avenue L and East Avenue P has a plan line dedication of 84 or 92 feet of right-of-way allowing for 4 lanes with a median; the section between Avenue P and Avenue P-8 has a plan line dedication of 104 or 114 feet of right-of-way allowing for four lanes with a median at build-out conditions.

20th Street East

Twentieth Street East is a north–south running arterial located one-half mile east of 15th Street East. This road runs from East Avenue P on the north to East Avenue S on the south. Between East Avenue P and Palmdale Boulevard, 20th Street East is two lanes wide and serves some commercial development, but mainly residential land uses. At Palmdale Boulevard, 20th Street East widens to a four-lane secondary arterial road, servicing residential areas. Per the City's existing General Plan, 20th Street East between East Avenue L and East Avenue M has a plan line dedication of 104 or 114 feet of right-of-way allowing for six lanes with a median; and between East Avenue P and East Avenue S has a plan line dedication of 84 or 92 feet of right-of-way allowing for four lanes with a median at build-out conditions. The planned High Desert Corridor freeway would have a local service interchange with 20th Street East.

25th Street East

One-half mile to the east of 20th Street East is 25th Street East, a major arterial which runs from East Avenue P to south of Pearblossom Highway. Like 30th Street, 25th Street is a two-lane road north of Palmdale Boulevard. South of Palmdale Boulevard, it is a four-lane road until Pearblossom Highway,

where it narrows to a two-lane road. Per the City's General Plan, 25th Street East between East Avenue L and East Avenue M has a plan line dedication of 84 or 92 feet of right-of-way allowing for four lanes with a median; and between East Avenue P and Pearblossom Highway/Barrel Springs Road has a 104- or 114-foot right-of-way allowing for six lanes with a median at build-out conditions.

30th Street East

Running parallel to 25th Street East, one-half mile to the east, is 30th Street East. Thirtieth Street East is a two-lane major arterial road which runs from just north of East Avenue P to just south of East Avenue S. At Palmdale Boulevard, 30th Street East widens to four lanes. Per the City's existing General Plan, 30th Street East has a plan line dedication of 104 or 114 feet of right-of-way allowing for six lanes with a median at build-out conditions. The planned High Desert Corridor freeway would have a local service interchange with 30th Street East.

40th Street East

Fortieth Street East is one mile east of 30th Street East. Between East Avenue N, two miles north of East Avenue P, and East Avenue P, 40th Street East is a two- lane secondary arterial road. From East Avenue P to East Avenue R-8, 2.5 miles to the south, 40th Street is a major arterial. South of East Avenue R-8 to Pearblossom Highway, 40th Street East continues as a major arterial which serves residential areas. Per the City's existing General Plan, 40th Street East between East Avenue L and East Avenue P has a plan line dedication of 84 or 92 feet of right-of-way allowing for four lanes with a median, and between East Avenue P and East Avenue S has a dedicated 104- or 114-foot right-of-way allowing for six lanes with a median at build-out conditions.

50th Street East/47th Street East

Approximately six miles to the east of SR 14, 50th Street East runs in a north–south direction, parallel with the SR 14 freeway. Fiftieth Street East is a two-lane expressway that services mainly unincorporated areas of Palmdale. Per the City's existing General Plan, 50th Street East/47th Street East between East Avenue L and East Avenue S-8 has a plan line dedication of 126 or 136 feet of right-of-way allowing for eight lanes with a median at build-out conditions. The planned High Desert Corridor freeway would have a local service interchange with 50th Street East.

70th Street East

Seventieth Street East runs primarily in a north-south direction from its origin at East Avenue D in the north to its terminus operating as a paved roadway. As the secondary arterial makes a 90-degree turn to the west and becomes East Avenue

S. Seventieth Street East continues southward as an unpaved road to the Union Pacific (Colton–Palmdale Cutoff) railroad tracks. The unpaved roadway begins again to the south of East Avenue T and continues to the south past the quarry until its terminus at SR 138. The majority of this roadway operates as one lane in each direction.

90th Street East/87th Street East

Ninetieth Street East begins as a paved major arterial approximately one mile north of East Avenue E in Lancaster. In Littlerock, near Avenue S, 90th Street East makes a jog to the west and becomes 87th Street east, operating as a secondary arterial until its terminus at Mt. Emma Road. The arterial operates in a north-south direction primarily as one lane in each direction.

Methodology

The Southern California Association of Governments (SCAG) region encompasses six counties (Imperial, Los Angeles, Orange, Riverside, San Bernardino, and Ventura) and 191 cities in an area covering more than 38,000 square miles. The agency develops long-range regional transportation plans including sustainable community strategies and growth forecast components, regional transportation improvement programs, and regional housing needs allocations. Palmdale, California is located within the SCAG region.

The SCAG region utilizes the SCAG 2016 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) Travel Demand Model (SCAG model) to produce forecasts for the region. The SCAG model used for the Palmdale General Plan Update (Palmdale GP) is consistent with the RTP assumptions for existing year and future year conditions as all projects in the RTP are included. The 2040 future year model datasets were used to produce the future conditions for the Palmdale GP scenarios. The external-to-internal (XI) and internal-to-external (IX) trips forecast by the SCAG model are terminated at the external zones known as gateways. For Palmdale, the nearest gateway is State Route (SR) 14 at the Kern County line. These external trips with one end in the SCAG region are fixed for each horizon year and do not vary with changes in socioeconomic data. The SCAG model roadway classifications are consistent with the Federal Highway Administration (FHWA) roadway classifications, which are more detailed and do not necessarily align with the City of Palmdale classifications, but are generally similar in nature. The main roadway classifications for the SCAG model are listed below, where each of these roadway types are further sub-divided.

- Freeways
- HOV and express lanes
- Expressways/parkways
- Principal arterials
- Minor arterials
- Major collectors
- Minor collectors
- Ramps
- Centroid connectors

The SCAG traffic analysis zone (TAZ) system was refined for the Palmdale sphere of influence (SOI) only to perform traffic assignments after the original SCAG model was run through the four steps of the complete model with the updated land use datasets for each of the scenarios. The SCAG model had 45 zones in the Tier 1 zone system within the Palmdale SOI. This zone system within the Palmdale SOI was disaggregated to the Tier 3 zone system with 336 zones as illustrated in Figure 2. The expanded zone system in the Palmdale SOI was used for traffic assignment purposes to better reflect the ground conditions in the study area because the original SCAG Tier 1 zones were too large. The SCAG model networks for existing and future conditions were updated with the revised zone system to perform traffic assignments. The SCAG model datasets were available for horizon year 2040 but not beyond; hence, the 2040 datasets were used for the 2045 Palmdale GP scenarios with updated land use within the Palmdale SOI.

Various land use scenarios were developed as part of the General Plan Update for the City of Palmdale, after which the SCAG model results were tabulated for the Palmdale SOI that encompasses Palmdale. The 45 zones in the Tier 1 zone system of the SCAG model were identified as the Palmdale SOI. The geographic area covered by the Palmdale SOI includes Palmdale and the surrounding areas as illustrated in Figure 3.

Figure 2: Palmdale Traffic Analysis Zones

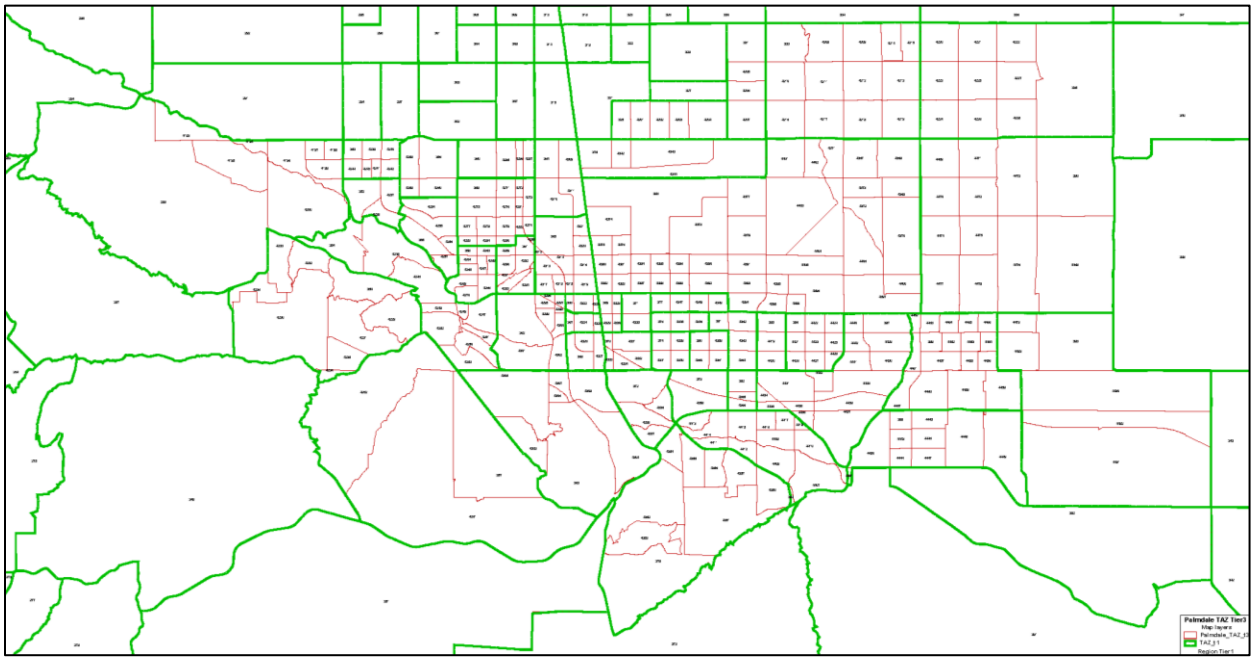
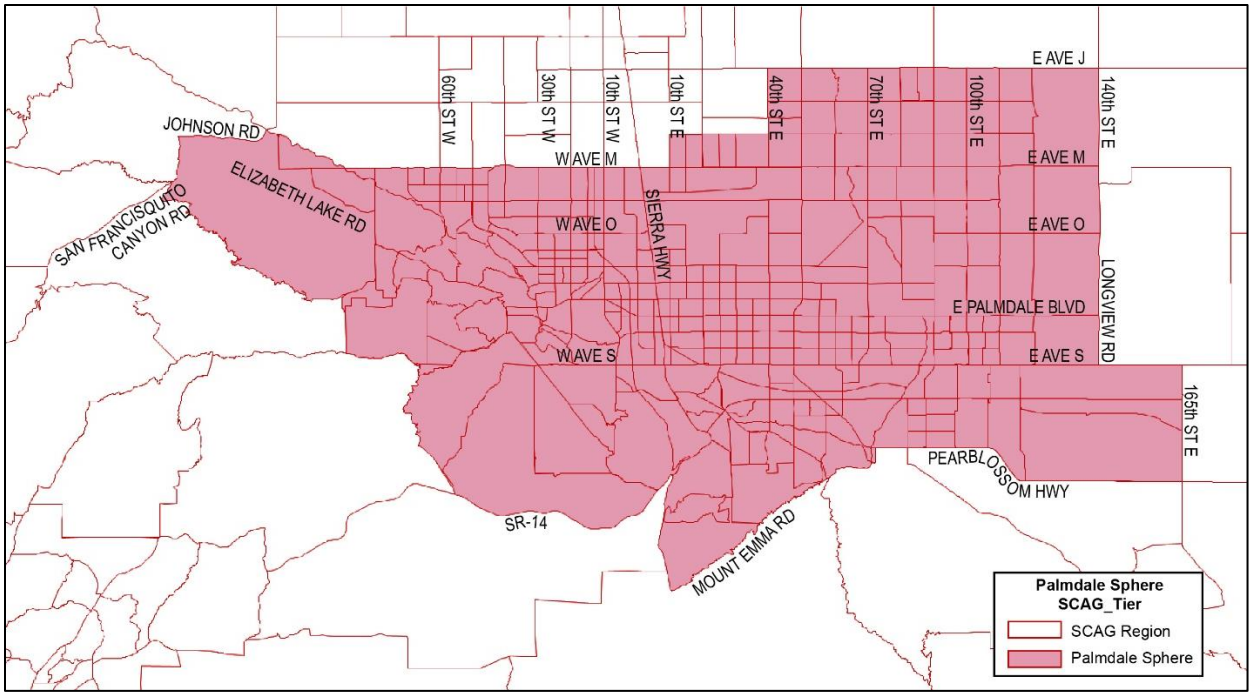


Figure 3: Palmdale Sphere of Influence



The SCAG model comprises the entire SCAG region, which includes the counties of San Bernardino, Los Angeles, Ventura, Orange, Riverside, and Imperial. The Palmdale sphere of influence (SOI) is a very small part of the SCAG region, as shown in Table 1. The contribution of Palmdale SOI to the 2045 Base scenario for the region is 1.09 percent for population, 0.98 percent for households and 0.68 percent for employment. As such, it can be assumed that land use changes in the Palmdale SOI would have very little effect on the region.

Table 1: Percentage of the Palmdale Sphere of Influence in the SCAG Region

District Name	2017 Existing			2045 Base		
	Population	Households	Employment	Population	Households	Employment
Palmdale SOI	188,488	53,626	49,501	240,515	72,840	67,085
Remainder of SCAG region	18,797,418	6,156,694	8,064,233	21,883,490	7,334,073	9,804,345
Total	18,985,906	6,210,320	8,113,734	22,124,005	7,406,913	9,871,430
Percent Share for Palmdale	**0.99%**	**0.86%**	**0.61%**	**1.09%**	**0.98%**	**0.68%**

Most Palmdale trips primarily stay within Los Angeles County, with a small number traveling to nearby San Bernardino, Ventura, and Riverside counties. With the update of the socio-economic data for the Palmdale General Plan, the intent is to make Palmdale less of an exporter of trips, making it more self-sustainable, whereby more trips stay in Palmdale than leave Palmdale. As such, the socio-economic data outside the Palmdale SOI would have much less of an impact. The cities and entities across the SCAG region are developing future land use based on having both employment and population growth, leading to more trips staying within their jurisdiction to the extent possible. Applying standard growth rates across the region would not be possible because different cities have different assumptions for future growth. As such, the current land use data in the SCAG region would be more conservative and the growth is unlikely to be very different in the 5-year period. Like Palmdale, which strives to be less of an exporter of trips to other areas, primarily in Los Angeles County, other cities/agencies may also seek to reduce the exporting of trips. This would lead to the reduction of vehicle miles traveled (VMT) as required by the new SB 743 guidelines.

The SCAG model currently has the last horizon year as 2040, with a calibration year of 2012, and will be used for the SCAG region outside of the Palmdale SOI limits. It is always best to maintain consistency with the regional model to the extent possible. In addition, there is no basis for altering the land use for rest of the region which comprises 99 percent of the population.

The SCAG model was run for the following scenarios with updated land use within the Palmdale SOI:

- **2017 Existing:** The Palmdale SOI land use was updated based on input from the City, the four-step SCAG model procedures were run completely, and the trip tables were expanded to the Tier 3 zone system before performing the traffic assignments. The highway network assumptions are consistent with the SCAG regional assumptions.
- **2045 Base:** The Palmdale SOI land use was updated based on input from the City, the four-step SCAG model procedures were run completely, and the trip tables were expanded to the Tier 3 zone system before performing the traffic assignments. The highway network assumptions are consistent with the SCAG regional assumptions.

- **2045 Base with High Desert Corridor Freeway (HDC):** The highway network was updated to include a proposed facility beginning at SR 14 and joining SR138/SR18 east of Longview Road. Traffic assignments were performed utilizing 2045 Base scenario trip tables. This scenario was run to illustrate the effects of the HDC facility on the Palmdale street system because the proposed HDC facility would be a major east–west freeway connecting Palmdale and Victorville. The HDC may not be built before 2050 or beyond as no funding sources are identified.
- **2045 Preferred Plan:** The Palmdale SOI land use was updated based on the 2045 Preferred Plan scenario assumptions. The four-step SCAG model procedures were run completely, and the trip tables were expanded to the Tier 3 zone system before performing the traffic assignments. This scenario also included the addition of High-Speed Rail (HSR) trips at the Palmdale Station prior to performing the traffic assignments. The highway network assumptions are consistent with the SCAG regional assumptions. In addition, the network was updated based on review and recommendations by the City of Palmdale.

Table 2 summarizes population, households and employment land use for the scenarios in the Palmdale SOI. The detailed land use by traffic analysis zones (TAZ) for the Palmdale SOI is provided in Appendix A.

Table 2: Palmdale Sphere of Influence Land Use Comparisons

	2017 Existing	2045 Base	2045 Preferred Plan
Populations	188,488	240,515	225,692
Households	53,626	72,840	70,618
Employment	49,501	67,085	74,804

The analysis for each of the scenarios include the following within the Palmdale sphere of influence (SOI):

- Daily segment level of service for selected locations.
- Post-processed daily volumes for selected segments.
- Measures of effectiveness (MOEs) metrics, i.e., vehicle miles travelled (VMT), vehicle hours travelled (VHT), vehicle hours of delay (VHD) and congested speeds, will be reported from traffic assignments for the Palmdale SOI on the transportation network performance.
- Select zone will create a subset of the trip table with Palmdale SOI trips only, which in turn will be used to produce trip lengths, VMT and VHT by district (aggregations of TAZs). In addition, the assignment procedures will also produce the VMT and VHT on all links as part of the assignment process and is known as link-based. The results of the link-based and zone-based procedures will be similar, but not equal, as two different procedures are employed.
- Vehicle miles travelled analysis for SB 743 compliance, where SB 743 eliminates level of service (LOS) as the basis for determining significant transportation impacts under CEQA and provides a new performance metric—VMT. The zone-based VMT procedures will be used for these computations. Home-based work and home-based all trips will also be used to compute VMT and other statistics.
- Average trip lengths will be reported for trip origins.
- VMT per capita will be reported by trip purpose for trip origins.

Existing Conditions

The network assumptions in the SCAG model used for the 2017 existing conditions scenario are consistent with the SCAG 2017 forecast year assumptions. The socio-economic data for the Palmdale SOI was updated with inputs from the City of Palmdale. The socio-economic data outside the Palmdale SOI is consistent with the SCAG assumptions for the region. The SCAG four-step model procedures were run with the updated land use covering the Palmdale SOI. Table 3 below lists the planning variable assumptions for the SCAG region.

Table 3: 2017 Existing Socio-Economic Data

2017 Existing	Population	Households	Employment
Palmdale sphere	188,488	53,626	49,501
Lancaster sphere	176,422	55,712	51,676
High Desert region	39,685	15,711	3,952
Ventura County	213,907	63,350	69,515
Los Angeles County remainder	9,759,145	3,275,180	4,411,709
Orange County	3,200,193	1,045,270	1,666,324
Riverside County	2,391,954	761,979	761,653
San Bernardino County	2,148,780	660,273	740,722
Imperial County	867,332	279,219	358,682
Externals	0	0	0
Seaport/airport	0	0	0
Total Region	**18,985,906**	**6,210,320**	**8,113,734**

Select zone traffic assignment procedures were performed on the zones within the Palmdale SOI to produce trips that were generated or attracted to the Palmdale SOI area only. All other trips were not counted as they were pass through trips. The daily average trip lengths for the Palmdale SOI only trips are shown in Table 4. The daily link-based VMT, vehicle hours traveled and the average speeds by facility types are shown in Table 5 for the Palmdale SOI only trips. The daily percent share of VMT for trips originating in the Palmdale SOI to all areas in the region, including Palmdale, is illustrated in Figure 4.

Table 4: 2017 Existing Average Trip Length for Palmdale SOI Trips

From/To	Trip Length (II and IX*) (miles)	Percent Share of Trips
Palmdale sphere	4.25	70.2%
Lancaster sphere	9.83	15.6%
High Desert region	15.46	2.9%
Imperial County	223.37	0.0%
Los Angeles County	55.62	7.8%
Orange County	105.28	0.4%
Riverside County	97.28	0.4%
San Bernardino County	62.41	1.2%
Ventura County	75.29	0.5%
Externals	60.99	0.9%
Seaport/airport	60.05	0.2%
Weighted Average	**11.87**	100.0%

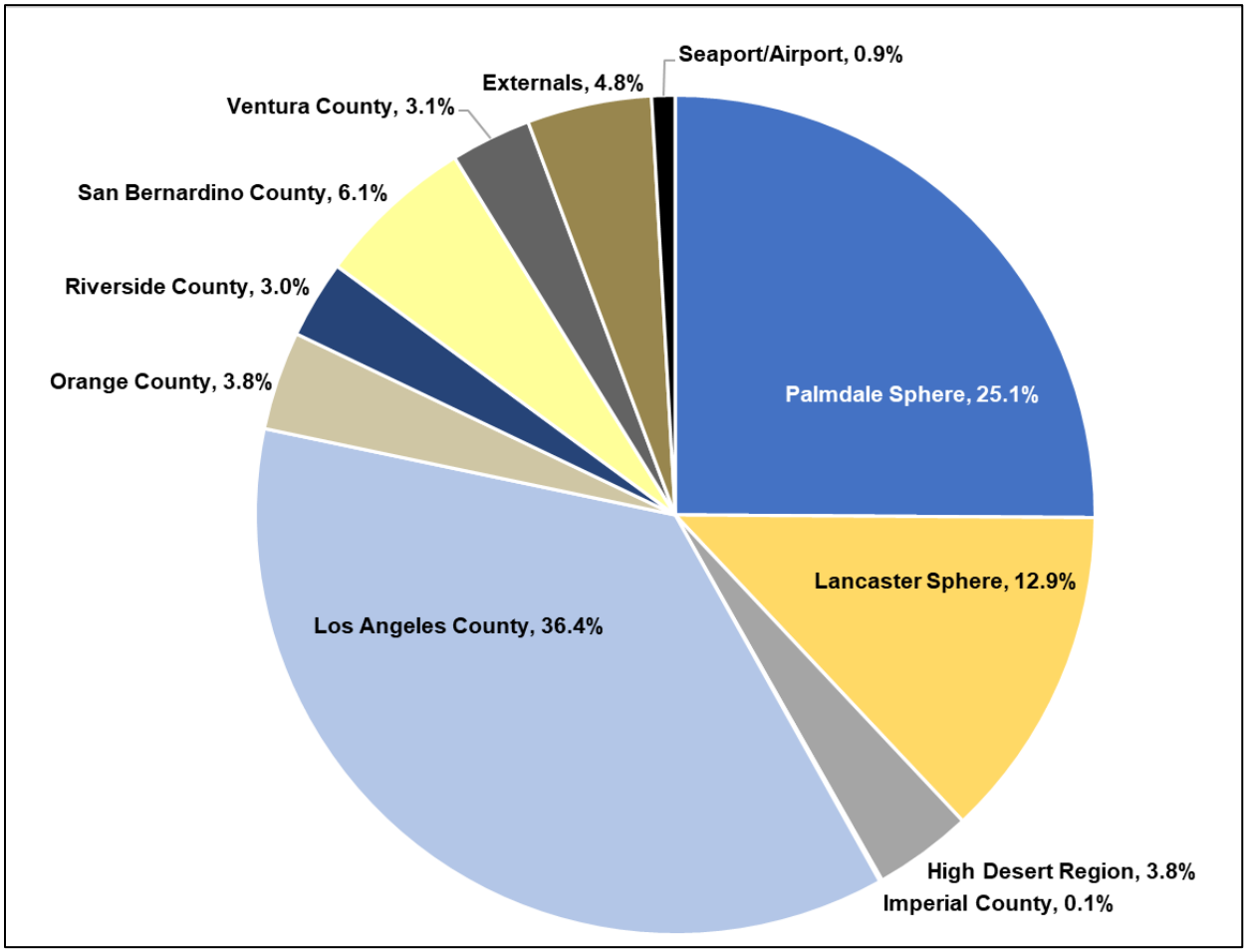
*II = Internal-to-internal trips, where both ends of the trips are within the Palmdale SOI
IX = Internal-to-external trips, where the origin of the trips is within the Palmdale SOI and the destination of the trips could be anywhere in the SCAG region.

Table 5: 2017 Existing Palmdale SOI (II, IX and XI*) Daily, VMT, VHT, Average Speed by Facility

Facility	VMT	VHT	Average Speed (mph)
Freeways	2,893,868	110,892	47.5
HOT facilities	11,431	364	54.4
HOV facilities	284,701	12,647	54.0
Expressways/parkways	4,381	145	53.9
Principal arterials	1,484,072	40,118	30.6
Minor arterials	1,631,560	42,584	31.7
Major collectors	1,067,379	29,211	25.1
Minor connectors	41,916	1,279	31.4
Freeway ramps	152,550	17,266	21.1
Truck lanes only	6,323	245	51.1
Centroid connectors	450,545	17,702	24.2
Total without centroid connectors	7,578,181	254,752	37.1
Total of All Links	**8,028,726**	**272,454**	**35.9**

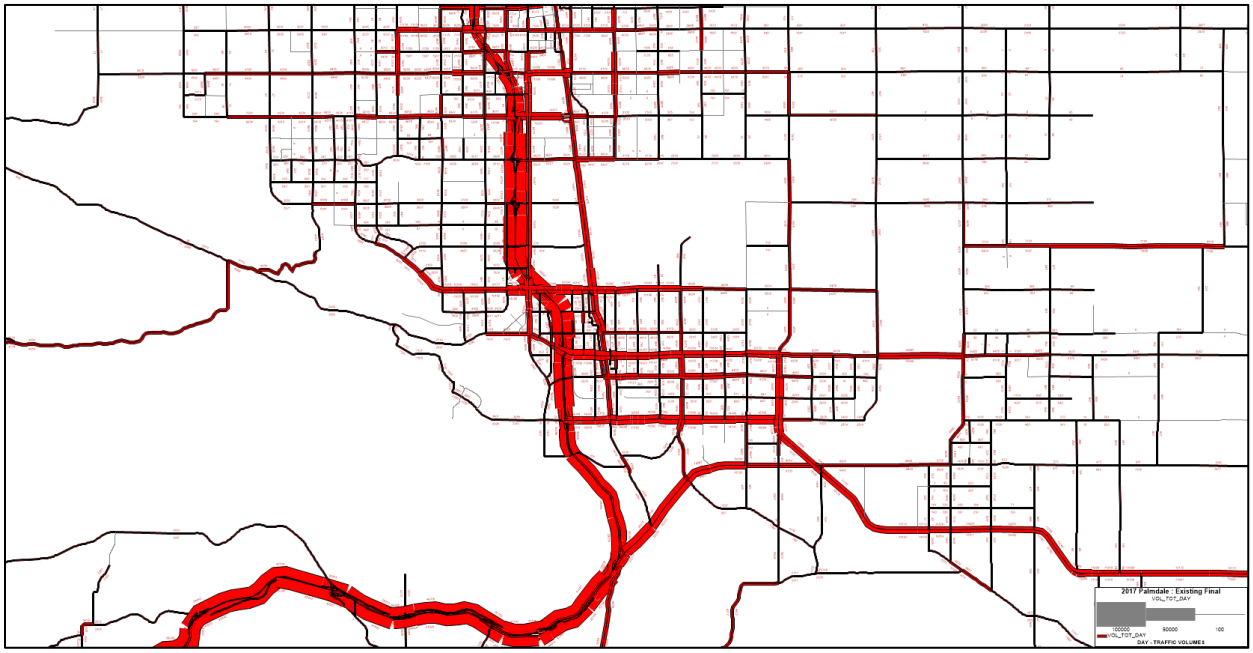
*II = Internal-to-internal trips, where both ends of the trips are within the Palmdale SOI
IX = Internal-to-external trips, where the origin of the trips is within the Palmdale SOI and the destination of the trips could be anywhere in the SCAG region
XI = External-to-internal trips, where the origin of the trips could be anywhere in the SCAG region and the destination of the trips is within the Palmdale SOI

Figure 4: 2017 Existing Daily VMT Share Originating in the Palmdale SOI

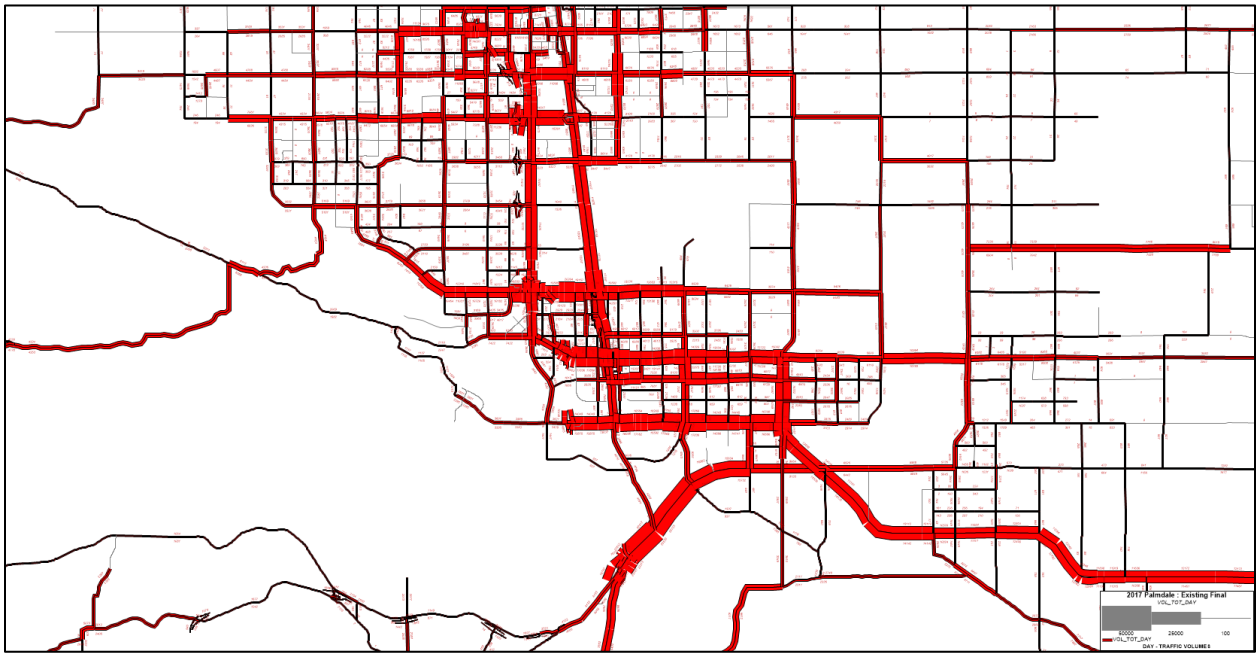


Traffic assignments were performed to produce traffic volumes on the facilities inside and outside the Palmdale SOI. Traffic assignments are available for AM peak period, mid-day period, PM peak period, evening period, night period and daily. The daily traffic assignment volumes (band widths) are illustrated in Figure 5 (Figure 5b excludes SR 14).

Figure 5: 2017 Existing Daily Assigned Traffic Volumes



a. 2017 Existing Daily Assigned Traffic Volumes with SR 14



b. 2017 Existing Daily Assigned Traffic Volumes without SR 14

LEVEL OF SERVICE DEFINITIONS AND STANDARDS

Assessment of the volume and level of operation of selected corridors in the region is conducted biennially through the County's Congestion Management Program (CMP) process. In addition, other traffic volume data is collected by local agencies during other planning exercises and traffic studies conducted for development projects.

By statute, each CMP must include a performance element containing measures that evaluate current and future multimodal system performance for the movement of goods and people. The level of service indicators for the highway and roadway system is based on the volume of traffic for designated sections of roadway during a typical day and the practical vehicular capacity of that segment. These two measures for each monitored segment of the roadway system are expressed as a ratio. The volume-to-capacity ratio (V/C) is then converted to an alpha descriptor identifying operating conditions and expressed as a level of service, LOS A through LOS F. Level of service A identifies the best operating conditions along a section of roadway and is characterized by free-flow traffic, low volumes, and little or no restrictions on maneuverability. Level of service F characterizes forced traffic flow with high traffic densities, slow travel speeds, and often stop-and-go conditions. Level of service standards in the county can be set no lower than LOS E or no lower than the current level of service and V/C ratio if the level of service is already below LOS E. City of Palmdale has established LOS D as its criterion for an acceptable level of service.

Table 6, Level of Service Criteria, defines and describes the level of service criteria for roadway segments. Table 7 reports the model daily assignment volumes compared to the existing counts and the level of service at various segments. Table 7 also identifies the level of service for arterial roadway segments based on these criteria. In some locations, differences in model results are to be expected. All future volumes are post-processed to reflect sensitivity to model/count differences.

Table 6: Level of Service Criteria

Level of Service	Interpretation	Volume-to-Capacity Ratio
A	Free-flow speeds prevail. Vehicles are almost unimpeded in their ability to maneuver within the traffic stream.	0.00–0.60
B	Reasonably free-flow speeds are maintained. The ability to maneuver within traffic is only slightly restricted.	0.61–0.70
C	Flow with speeds at or near free-flow speed of the roadway. Freedom to maneuver within the traffic stream is noticeably restricted and lane changes require more care and vigilance on the part of the driver.	0.71–0.80
D	Speeds begin to decline slightly with increasing flows. Inthis range, density begins to increase somewhat more quickly with increasing flow. Freedom to maneuver within the traffic stream is noticeably limited.	0.81–0.90
E	Operation at capacity with no usable gaps in the trafficstream. Any disruption to the traffic stream has little or no room to dissipate.	0.91–1.0
F	Breakdown of the traffic flow with long queues of traffic. Unacceptable conditions.	> 1.0

Source: Los Angeles County Metropolitan Transit Authority 2003 Congestion ManagementProgram.

Table 7: 2017 Existing Daily Segment Volumes

	Roadway Segments					2017 Existing Counts			2017 Existing Model		
LINKID	Roadway	From/To	Lanes	Type of Arterial	Capacity	2-Way Count	V/C	LOS	2017_Tot_Flow	V/C	LOS
1001	Columbia Way/Avenue M	10th Street W to Sierra Hwy	4	Regional arterial	36,000	23,348	0.65	B	10,947	0.30	A
1002	Columbia Way/Avenue M	Sierra Hwy to 10th Street E	4	Regional arterial	36,000	28,434	0.79	C	18,061	0.50	A
1003	Columbia Way/Avenue M	10th Street E to 20th Street E	4	Regional arterial	36,000	17,513	0.49	A	9,454	0.26	A
1004	Columbia Way/Avenue M	20th Street E to 30th Street E	4	Regional arterial	36,000	13,832	0.38	A	5,558	0.15	A
1005	Columbia Way/Avenue M	30th Street E to 40th Street E	4	Regional arterial	36,000	7,475	0.21	A	5,771	0.16	A
1006	Columbia Way/Avenue M	40th Street E to 50th Street	4	Regional arterial	36,000	10,559	0.29	A	5,304	0.15	A
1007	Rancho Vista Ave/Avenue P	50th Street W to Town Center Dr	4	Major arterial	36,000	16,758	0.47	A	15,225	0.42	A
1008	Rancho Vista Ave/Avenue P	Town Center Dr to 30th Street W	4	Major arterial	36,000	20,985	0.58	A	15,225	0.42	A
1009	Rancho Vista Ave/Avenue P	30th Street W to 25th Street W	4	Major arterial	36,000	22,457	0.62	B	22,382	0.62	B
1010	Rancho Vista Ave/Avenue P	25th Street W to 20th Street W	4	Major arterial	36,000	27,509	0.76	C	22,532	0.63	B
1011	Rancho Vista Ave/Avenue P	20th Street W to 15th Street W	4	Major arterial	36,000	26,453	0.73	C	20,958	0.58	A
1012	Rancho Vista Ave/Avenue P	15th Street to 10th Street W	6	Major arterial	54,000	41,536	0.77	C	36,131	0.67	B
1013	Rancho Vista Ave/Avenue P	10th Street W to SR 14	6	Major arterial	54,000	35,290	0.65	B	33,055	0.61	B
1014	Rancho Vista Ave/Avenue P	SR 14 to Country Club Dr	4	Major arterial	36,000	23,332	0.65	B	25,923	0.72	C
1015	Rancho Vista Ave/Avenue P	Country Club Dr to Division St	4	Major arterial	36,000	26,481	0.74	C	39,327	1.09	F
1016	Rancho Vista Ave/Avenue P	Division St to Sierra Hwy	4	Major arterial	36,000	22,334	0.62	B	36,838	1.02	F
1017	East Avenue P	Sierra Hwy to 8th Street E	4	Major arterial	36,000	33,863	0.94	E	27,833	0.77	C
1018	East Avenue P	8th Street E to 15th Street E	4	Major arterial	36,000	24,509	0.68	B	27,833	0.77	C
1019	East Avenue P	15th Street E to 20th Street E	4	Major arterial	36,000	24,973	0.69	B	25,851	0.72	C
1020	East Avenue P	20th Street E to 25th Street E	4	Major arterial	36,000	18,699	0.52	A	24,985	0.69	B
1021	East Avenue P	25th Street E to 30th Street E	4	Major arterial	36,000	14,695	0.41	A	18,093	0.50	A
1022	Avenue Q	Trade Center Dr to 5th Street W	4	Regional arterial	36,000	2,216	0.06	A	1,660	0.05	A
1023	Avenue Q	Division Street to 6th Street E	2	Major arterial	18,000	3,815	0.21	A	3,707	0.21	A
1024	Avenue Q	Sierra Hwy to 10th Street E	2	Major arterial	18,000	9,447	0.52	A	12,752	0.71	C
1025	Avenue Q	10th Street E to 20th Street E	2	Major arterial	18,000	8,323	0.46	A	10,201	0.57	A
1026	Avenue Q	20th Street E to 30th Street E	2	Major arterial	18,000	7,106	0.39	A	9,105	0.51	A
1027	Avenue Q	30th Street E to 40th Street E	2	Major arterial	18,000	4,960	0.28	A	6,277	0.35	A
1028	Elizabeth Lake Rd	25th Street W to 20th Street W	4	Major arterial	36,000	13,937	0.39	A	7,118	0.20	A
1029	Elizabeth Lake Rd	20th Street W to 15th Street W	4	Regional arterial	36,000	13,828	0.38	A	13,606	0.38	A
1030	Elizabeth Lake Rd	15th Street W to 10th Street W	4	Regional arterial	36,000	18,930	0.53	A	13,412	0.37	A

Table 7: 2017 Existing Daily Segment Volumes

	Roadway Segments					2017 Existing Counts			2017 Existing Model		
LINKID	Roadway	From/To	Lanes	Type of Arterial	Capacity	2-Way Count	V/C	LOS	2017_Tot_Flow	V/C	LOS
1031	Palmdale Blvd	10th Street W to Trade Center Dr	4	Regional arterial	36,000	17,408	0.48	A	19,413	0.54	A
1032	Palmdale Blvd	Trade Center Dr to 5th Street W	4	Regional arterial	36,000	16,548	0.46	A	14,374	0.40	A
1033	Palmdale Blvd	5th Street W to State Route 14	4	Regional arterial	36,000	27,366	0.76	C	24,034	0.67	B
1034	Palmdale Blvd	Division Street to 5th St E	6	Major arterial	54,000	25,175	0.47	A	40,613	0.75	C
1035	Palmdale Blvd	5th Street E to 10th Street E	4	Major arterial	36,000	25,257	0.70	C	34,556	0.96	E
1036	Palmdale Blvd	10th Street E to 15th Street E	4	Major arterial	36,000	25,869	0.72	C	31,975	0.89	D
1037	Palmdale Blvd	15th Street E to 20th Street E	4	Major arterial	36,000	19,223	0.53	A	27,772	0.77	C
1038	Palmdale Blvd	20th Street E to 25th Street E	4	Major arterial	36,000	23,470	0.65	B	28,412	0.79	C
1040	Palmdale Blvd	40th Street E to 47th Street E	4	Major arterial	36,000	18,458	0.51	A	29,731	0.83	D
1041	Palmdale Blvd	50th Street E to 60th Street E	4	Major arterial	36,000	14,147	0.39	A	16,795	0.47	A
1042	Palmdale Blvd	70th Street E to 80th Street E	2	Major arterial	18,000	16,681	0.93	E	21,759	1.21	F
1043	E Avenue R	Sierra Hwy to 10th Street E	4	Major arterial	36,000	19,490	0.54	A	20,337	0.56	A
1044	E Avenue R	10th Street E to 20th Street E	4	Major arterial	36,000	18,495	0.51	A	23,916	0.66	B
1045	E Avenue R	20th Street E to 30th Street E	4	Major arterial	36,000	18,408	0.51	A	16,169	0.45	A
1046	E Avenue R	30th Street E to 40th Street E	3	Major arterial	27,000	14,851	0.55	A	23,278	0.86	D
1047	E Avenue R	40th Street E to 47th Street E	4	Major arterial	36,000	16,231	0.45	A	13,706	0.38	A
1048	E Avenue R	47th Street E to 60th Street E	4	Major arterial	36,000	15,158	0.42	A	4,970	0.14	A
1049	E Avenue R	60th Street E to 70th Street E	4	Major arterial	36,000	5,811	0.16	A	1,285	0.04	A
1050	Avenue S	Tovey Avenue to Tierra Subida Ave	4	Major arterial	36,000	9,346	0.26	A	6,971	0.19	A
1051	Avenue S	Tierra Subida Ave to SR 14	4	Major arterial	36,000	14,027	0.39	A	7,099	0.20	A
1052	Avenue S	SR 14 to 5th Street E	4	Major arterial	36,000	13,190	0.37	A	27,924	0.78	C
1053	Avenue S	5th Street E to Sierra Hwy	4	Major arterial	36,000	25,828	0.72	C	27,339	0.76	C
1054	Avenue S	Sierra Hwy to 10th Street E	4	Major arterial	36,000	32,170	0.89	D	37,784	1.05	F
1055	Avenue S	10th Street E to 20th Street E	4	Major arterial	36,000	29,830	0.83	D	35,288	0.98	E
1056	Avenue S	20th Street E to 25th Street E	4	Major arterial	36,000	30,323	0.84	D	35,328	0.98	E
1057	Avenue S	25th Street E to 30th Street E	4	Major arterial	36,000	29,058	0.81	D	35,702	0.99	E
1058	Avenue S	30th Street E to 35th Street E	6	Major arterial	54,000	24,137	0.45	A	28,809	0.53	A
1059	Avenue S	35th Street E to 40th Street E	6	Major arterial	54,000	23,612	0.44	A	29,185	0.54	A
1060	Avenue S	40th Street E to 47th Street E	6	Major arterial	54,000	23,867	0.44	A	33,374	0.62	B
1061	Avenue S	47th Street E to 55th Street E	4	Major arterial	36,000	21,305	0.59	A	11,417	0.32	A

Table 7: 2017 Existing Daily Segment Volumes

	Roadway Segments					2017 Existing Counts			2017 Existing Model		
LINKID	Roadway	From/To	Lanes	Type of Arterial	Capacity	2-Way Count	V/C	LOS	2017_Tot_Flow	V/C	LOS
1062	Pearblossom Hwy/Avenue T	Sierra Hwy to 25th Street E	4	Regional arterial	36,000	48,960	1.36	F	40,919	1.14	F
1063	Pearblossom Hwy/Avenue T	25th Street E to 40th Street E	4	Regional arterial	36,000	40,419	1.12	F	32,686	0.91	E
1064	Pearblossom Hwy/Avenue T	40th Street E to 47th Street E	4	Regional arterial	36,000	22,788	0.63	B	18,197	0.51	A
1065	Pearblossom Hwy/Avenue T	47th Street E to Fort Tejon Road	4	Regional arterial	36,000	22,898	0.64	B	18,197	0.51	A
1066	Pearblossom Hwy/Avenue T	Fort Tejon Road to 70th Street E	4	Regional arterial	36,000	13,027	0.36	A	18,197	0.51	A
1067	10th Street W/Tierra Subida Ave	W Avenue M to W Avenue N	4	Regional arterial	36,000	15,186	0.42	A	21,879	0.61	B
1068	10th Street W/Tierra Subida Ave	W Avenue N to W Avenue O	4	Regional arterial	36,000	19,402	0.54	A	21,538	0.60	A
1069	10th Street W/Tierra Subida Ave	W Avenue O to SR 14	4	Regional arterial	36,000	17,627	0.49	A	20,532	0.57	A
1070	10th Street W/Tierra Subida Ave	SR 14 to Rancho Vista Blvd	6	Regional arterial	54,000	35,324	0.65	B	33,268	0.62	B
1071	10th Street W/Tierra Subida Ave	Rancho Vista Blvd to Technology Dr	6	Regional arterial	54,000	31,954	0.59	A	23,914	0.44	A
1072	10th Street W/Tierra Subida Ave	Technology Dr to W Palmdale Blvd	5	Regional arterial	45,000	39,039	0.87	D	20,004	0.44	A
1073	10th Street W/Tierra Subida Ave	W Palmdale Blvd to Rayburn Rd	4	Major arterial	36,000	16,569	0.46	A	12,169	0.34	A
1074	Sierra Hwy	Columbia Way to E Avenue N	4	Regional arterial	36,000	25,408	0.71	C	23,325	0.65	B
1075	Sierra Hwy	E Avenue N to E Avenue O	4	Regional arterial	36,000	27,037	0.75	C	24,702	0.69	B
1076	Sierra Hwy	E Avenue O to E Avenue P	4	Regional arterial	36,000	32,133	0.89	D	25,292	0.70	C
1077	Sierra Hwy	E Avenue P to E Avenue Q	4	Major arterial	36,000	14,366	0.40	A	27,740	0.77	C
1078	Sierra Hwy	E Avenue Q to Palmdale Blvd	4	Major arterial	36,000	15,176	0.42	A	15,554	0.43	A
1079	Sierra Hwy	Palmdale Blvd to E Avenue R	4	Major arterial	36,000	9,993	0.28	A	14,783	0.41	A
1080	Sierra Hwy	E Avenue R to E Avenue S	4	Major arterial	36,000	7,289	0.20	A	16,575	0.46	A
1081	Sierra Hwy	E Avenue S to Pearblossom Hwy	4	Major arterial	36,000	8,070	0.22	A	8,009	0.22	A
1082	10th Street E	E Avenue P to E Avenue Q	2	Major arterial	18,000	2,357	0.13	A	712	0.04	A
1083	10th Street E	E Avenue Q to E Palmdale Blvd	4	Major arterial	36,000	5,732	0.16	A	1,179	0.03	A
1084	10th Street E	E. Palmdale Blvd to Avenue R	2	Secondary arterial	18,000	5,756	0.32	A	9,545	0.53	A
1085	10th Street E	Avenue R to Avenue S1	2	Secondary arterial	18,000	3,898	0.22	A	2,907	0.16	A
1086	20th Street E	E Avenue P to E Avenue Q	2	Secondary arterial	18,000	4,738	0.26	A	868	0.05	A
1087	20th Street E	E Avenue Q to Palmdale Blvd	2	Secondary arterial	18,000	7,760	0.43	A	429	0.02	A
1088	20th Street E	Palmdale Blvd to E Avenue R	4	Secondary arterial	36,000	13,063	0.36	A	1,453	0.04	A
1089	20th Street E	E Avenue R to E Avenue S	4	Secondary arterial	36,000	12,215	0.34	A	1,724	0.05	A
1090	25th Street E	E Avenue P to E Avenue Q	2	Major arterial	18,000	4,102	0.23	A	9,277	0.52	A
1091	25th Street E	E Avenue Q to Palmdale Blvd	2	Major arterial	18,000	6,948	0.39	A	12,727	0.71	C

Table 7: 2017 Existing Daily Segment Volumes

	Roadway Segments					2017 Existing Counts			2017 Existing Model		
LINKID	Roadway	From/To	Lanes	Type of Arterial	Capacity	2-Way Count	V/C	LOS	2017_Tot_Flow	V/C	LOS
1092	25th Street E	Palmdale Blvd to E Avenue R	4	Major arterial	36,000	12,851	0.36	A	23,475	0.65	B
1093	25th Street E	E Avenue R to E Avenue S	4	Major arterial	36,000	16,629	0.46	A	15,749	0.44	A
1094	25th Street E	E Avenue S to Pearblossom Hwy	4	Major arterial	36,000	14,269	0.40	A	22,843	0.63	B
1095	30th Street E	E Avenue P to E Avenue Q	2	Major arterial	18,000	5,987	0.33	A	3,708	0.21	A
1096	30th Street E	E Avenue Q to Palmdale Blvd	2	Major arterial	18,000	6,083	0.34	A	2,743	0.15	A
1097	30th Street E	Palmdale Blvd to E Avenue R	4	Major arterial	36,000	7,721	0.21	A	1,295	0.04	A
1098	30th Street E	E Avenue R to E Avenue S	4	Major arterial	36,000	8,871	0.25	A	2,452	0.07	A
1099	40th Street E	E Avenue P to E Avenue Q	2	Major arterial	18,000	5,610	0.31	A	5,769	0.32	A
1100	40th Street E	E Avenue Q to E Palmdale Blvd	2	Major arterial	18,000	7,185	0.40	A	6,713	0.37	A
1101	40th Street E	E Palmdale Blvd to E Avenue R	3	Major arterial	27,000	9,892	0.37	A	5,754	0.21	A
1102	40th Street E	E Avenue R to E Avenue S	3	Major arterial	27,000	9,037	0.33	A	3,635	0.13	A
1103	40th Street E	E Avenue S to Sierra Hwy	2	Major arterial	18,000	10,505	0.58	A	13,530	0.75	C
1104	47th Street E/50th Street E/Ft Tejon Rd	E Avenue M to E Avenue N	2	Major arterial	18,000	18,016	1.00	F	10,381	0.58	A
1105	47th Street E/50th Street E/Ft Tejon Rd	E Avenue P to Palmdale Blvd	2	Major arterial	18,000	12,874	0.72	C	9,551	0.53	A
1106	47th Street E/50th Street E/Ft Tejon Rd	Palmdale Blvd to E Avenue R	4	Regional arterial	36,000	25,702	0.71	C	23,134	0.64	B
1107	47th Street E/50th Street E/Ft Tejon Rd	E Avenue R to E Avenue R-8	4	Regional arterial	36,000	26,908	0.75	C	32,008	0.89	D
1108	47th Street E/50th Street E/Ft Tejon Rd	E Avenue R-8 to E Avenue S	4	Regional arterial	36,000	19,854	0.55	A	28,501	0.79	C
1109	47th Street E/50th Street E/Ft Tejon Rd	E Avenue S to Essex Dr	5	Regional arterial	45,000	24,514	0.54	A	35,084	0.78	C
1110	47th Street E/50th Street E/Ft Tejon Rd	Essex Dr to Pearblossom Hwy	4	Regional arterial	36,000	24,367	0.68	B	25,270	0.70	C
1111	47th Street E/50th Street E/Ft Tejon Rd	Pearblossom Hwy to E Avenue T-8	4	Regional arterial	36,000	21,099	0.59	A	27,236	0.76	C
1120	Technology Dr	10th Street W to Trade Center Dr	4	Major arterial	36,000	7,205	0.20	A	3,852	0.11	A
1121	Technology Dr	5th Street W to Division St	4	Major arterial	36,000	7,574	0.21	A	5,113	0.14	A
1122	Technology Dr	Division St to Sierra Hwy	4	Major arterial	36,000	7,805	0.22	A	8,902	0.25	A
								Total LOS A through D	**108**		**103**
								Total LOS E	**2**		**5**
								Total LOS F	**3**		**5**
								Total LOS Reported	**113**		**113**

Table 8 reports the link-based VMT, VHT, VHD, and average speeds by facility in the Palmdale SOI for all trips regardless of trip origin or destination (including pass-through trips).

Table 8: 2017 Existing Palmdale Sphere of Influence VMT/VHT by Facility Type for All Trips

	AM Peak				PM Peak				Daily			
Facility	**VMT**	**VHT**	**Speed**	**Delay**	**VMT**	**VHT**	**Speed**	**Delay**	**VMT**	**VHT**	**Speed**	**Delay**
Freeways	250,250	4,517	55.4	942	290,275	4,600	63.1	453	1,084,421	17,015	63.7	1,523
HOT facilities	0	0	0.0	0	0	0	0.0	0	0	0	0.0	0
HOV facilities	50,301	786	64.0	68	55,530	821	67.6	28	118,683	1,791	66.3	95
Expressways/parkways	0	0	0.0	0	0	0	0.0	0	0	0	0.0	0
Principal arterials	183,392	4,673	39.2	624	286,587	7,374	38.9	1,021	1,023,896	24,923	41.1	2,281
Minor arterials	220,022	5,389	40.8	353	359,485	8,914	40.3	669	1,173,770	28,367	41.4	1,369
Major collectors	99,797	2,629	38.0	233	145,238	3,757	38.7	273	463,447	11,700	39.6	600
Minor collectors	1,845	51	36.3	1	3,196	92	34.8	4	9,393	270	34.8	8
Freeway ramps	11,323	630	18.0	288	16,345	830	19.7	345	57,372	2,626	21.9	907
Truck lanes only	0	0	0.0	0	0	0	0.0	0	0	0	0.0	0
Centroid connectors	64,106	2,479	25.9	0	103,593	4,022	25.8	0	344,572	13,394	25.7	0
Total—All Links	**881,037**	**21,155**	**41.6**	**2,509**	**1,260,249**	**30,411**	**41.4**	**2,792**	**4,275,553**	**100,085**	**42.7**	**6,783**

SUMMARY

Daily trips are defined as having an origin, destination or both within the Palmdale SOI and do not include pass-through trips. The Palmdale trips generate a VMT of 8,028,726 and a VHT of 272,454 on all the roadway way facilities within the SCAG region. The Palmdale SOI only accounts for 25.1 percent of the total VMT generated, Lancaster accounts for 12.9 percent, High Desert region accounts for 3.8 percent, rest of Los Angeles County accounts for 36.4 percent.

The average trip length for trips originating and staying within the Palmdale SOI is 4.25 miles. This constitutes 70.2 percent of all the Palmdale trips. The average trip length for trips originating in Palmdale SOI and having a destination anywhere in the SCAG region including itself is 11.87 miles.

Based on the 2017 existing counts, the daily segment-based LOS results show the number of segments operating at LOS E is two and LOS F is three and accounts for 1.8 percent and 2.7 percent, respectively, of all the segments analyzed. For the 2017 existing model, the daily segment-based LOS results show the number of segments operating at LOS E is five and LOS F is five and accounts for 4.4 percent and 4.4 percent, respectively, of all the segments analyzed.

The Palmdale transportation network as a "system," which includes all roadway facilities within the Palmdale SOI, generates 4,275,533 VMT, 100,085 VHT and 6,783 VHD daily. This accounts for all trips, including pass through trips, using the highway network within the Palmdale SOI.

Future Conditions

ROADWAY IMPROVEMENTS

The future highway network is consistent with the SCAG model assumptions for the forecast year 2040, which is the farthest out horizon year available with the SCAG regional model. The 2040 horizon year is the basis for the future year 2045 forecasts for the Palmdale General Plan scenarios, with several roadway improvements additionally assumed for the 2045 horizon year. These include (noting some of them may have already been upgraded):

- Avenue P/Rancho Vista Boulevard
    - Three lanes per direction between west of 30th Street West and Division Street
    - Two lanes per direction between Division Street and 20th Street East
    - One lane per direction between 20th Street East and 50th Street East.
- Technology Drive/East Avenue P8
    - Two lanes per direction between Sierra Highway and 20th Street East.
- East Avenue R
    - Two lanes per direction between Sierra Highway and 70th Street East.
- East Avenue S
    - Three lanes per direction between 30th Street and 47th Street East.
- East Avenue Q
    - Connection between 6th Street and Sierra Highway to facilitate better access to the proposed Palmdale High-Speed Rail Station

The 2045 Preferred Plan also included the Palmdale High-Speed Rail Station boardings, which are integrated into the traffic assignment procedures. Daily boarding for the 2045 scenarios are reported to be 5,600 riders one way, per the Transportation Technical Report published by the California High-Speed Rail Authority Palmdale to Burbank Project Section and dated March 2019.

Following a review by the City of Palmdale, the 2045 Preferred Plan scenario highway network was updated based on their recommendations.

Figure 6 illustrates the future roadway network in Palmdale, including a general alignment for the proposed High Desert Corridor freeway.

Figure 6. Future Roadway Network

Placeholder

2045 BASE

The 2045 Base scenario used the SCAG model forecast year 2040 dataset, and the network assumptions are consistent with the RTP assumptions. The 2045 socio-economic data for the Palmdale SOI was updated with inputs from the City of Palmdale. The socio-economic data outside the Palmdale SOI is consistent with the SCAG assumptions for the region for the year 2040. The SCAG four-step model procedures were run with the updated land use in the Palmdale SOI. The Table 9 lists the planning variable assumptions for the region.

Table 9: 2045 Base Socio-Economic Forecast

	Population	Households	Employment
Palmdale sphere	240,515	72,840	67,085
Lancaster sphere	218,843	69,963	59,678
High Desert region	40,845	14,409	5,030
Ventura County	282,025	92,482	101,050
Los Angeles County remainder	11,001,144	3,783,739	5,117,195
Orange County	3,460,381	1,152,340	1,898,952
Riverside County	3,183,378	1,054,557	1,174,500
San Bernardino County	2,731,308	854,360	1,028,132
Imperial County	965,566	312,223	419,808
Externals	0	0	0
Seaport/airport	0	0	0
Total Region	**22,124,005**	**7,406,913**	**9,871,430**

Select zone traffic assignment procedures were performed on the zones within the Palmdale SOI to account for trips that were generated or attracted to Palmdale SOI only. All other trips were not counted as they were pass through trips. The daily average trip lengths for the Palmdale only trips to different locations are shown in Table 10. The daily link-based VMT, VHT and the average speeds by facility types are shown in Table 11 for the Palmdale only trips. The daily percent share of VMT for trips originating in the Palmdale SOI to all areas in the region, including Palmdale, is illustrated in Figure 7.

Table 10: 2045 Base Average Trip Length for Palmdale Sphere of Influence Trips

From/To	Trip Length (II and IX*) (miles)	Percent Share of Trips
Palmdale sphere	4.43	71.7%
Lancaster sphere	9.46	15.4%
High Desert region	15.52	2.5%
Imperial County	228.35	0.0%
Los Angeles County	55.68	6.8%
Orange County	108.62	0.4%
Riverside County	110.91	0.3%
San Bernardino County	68.66	1.3%
Ventura County	75.65	0.4%
Externals	68.69	1.0%
Seaport/airport	38.89	0.3%
Weighted Average	**11.56**	100.0%

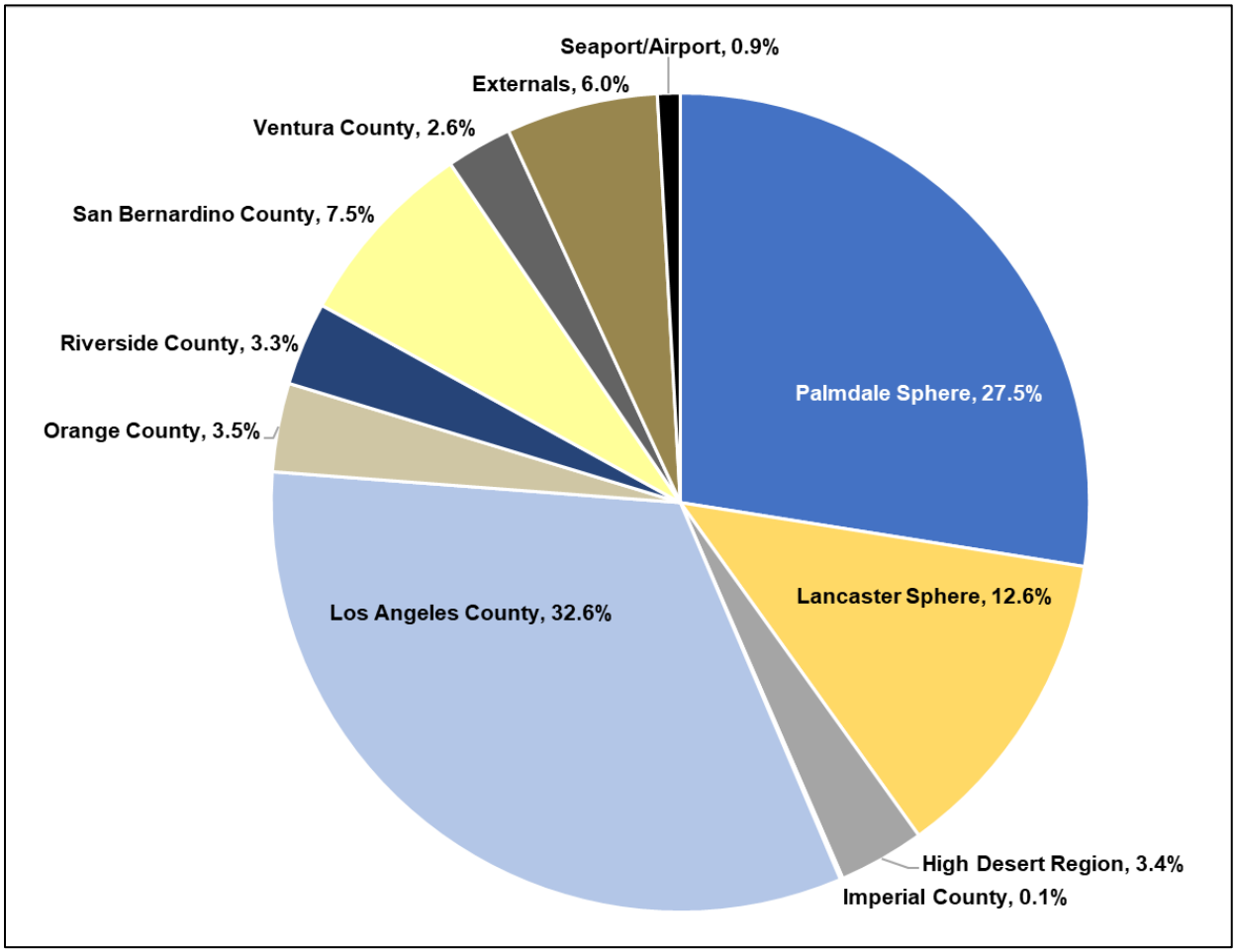
*II = Internal-to-internal trips, where both ends of the trips are within the Palmdale SOI
IX = Internal-to-external trips, where the origin of the trips is within the Palmdale SOI and the destination of the trips could be anywhere in the SCAG region.

Table 11: 2045 Base Palmdale Sphere of Influence (II, IX and XI*) Daily, VMT, VHT, Average Speed by Facility

Facility	VMT	VHT	Average Speed (mph)
Freeways	2,945,756	129,261	44.7
HOT facilities	9,285	271	63.3
HOV facilities	284,422	17,684	47.7
Expressways/parkways	5,650	213	51.2
Principal arterials	1,671,644	47,215	29.8
Minor arterials	1,897,218	58,807	30.3
Major collectors	1,321,027	39,778	23.6
Minor connectors	43,307	1,357	29.0
Freeway ramps	156,041	22,220	20.1
Truck lanes only	7,485	730	22.2
Centroid connectors	520,432	20,729	24.4
Total without centroid connectors	8,341,835	317,535	35.2
Total of All Links	**8,862,268**	**338,264**	**34.2**

*II = Internal-to-internal trips, where both ends of the trips are within the Palmdale SOI
IX = Internal-to-external trips, where the origin of the trips is within the Palmdale SOI and the destination of the trips could be anywhere in the SCAG region
XI = External-to-internal trips, where the origin of the trips could be anywhere in the SCAG region and the destination of the trips is within the Palmdale SOI

Figure 7: 2045 Base Daily VMT Share Originating in Palmdale Sphere of Influence



Traffic assignments were performed to produce traffic volumes on the facilities inside and outside the Palmdale SOI. Traffic assignments are available for AM peak period, mid-day period, PM peak period, evening period, night period and daily. The daily traffic assignment volumes (bandwidths) are shown in Figure 8. The post-processed daily assignment volumes and the LOS at various segments are shown in the Table 12.

Figure 8: 2045 Base Daily Traffic Volumes Forecast

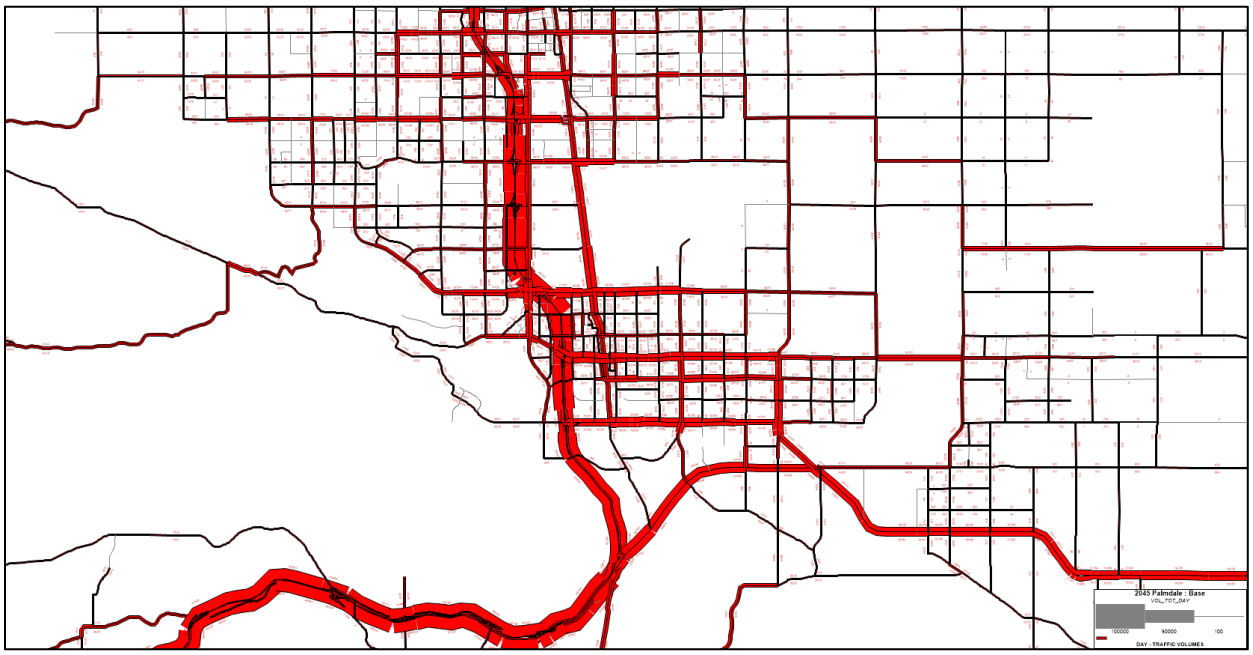


Table 12: 2045 Base Daily Volumes

LINKID	Roadway Segments		Lanes	2045 Base			
	Roadway	From/To		2045Base_Tot_Flow	Capacity	V/C	LOS
1001	Columbia Way/Avenue M	10th Street W to Sierra Hwy	4	31,993	36,000	0.89	D
1002	Columbia Way/Avenue M	Sierra Hwy to 10th Street E	4	33,414	36,000	0.93	E
1003	Columbia Way/Avenue M	10th Street E to 20th Street E	4	20,665	36,000	0.57	A
1004	Columbia Way/Avenue M	20th Street E to 30th Street E	4	15,610	36,000	0.43	A
1005	Columbia Way/Avenue M	30th Street E to 40th Street E	4	10,578	36,000	0.29	A
1006	Columbia Way/Avenue M	40th Street E to 50th Street	4	13,306	36,000	0.37	A
1007	Rancho Vista Ave/Avenue P	50th Street W to Town Center Dr	4	20,985	36,000	0.58	A
1008	Rancho Vista Ave/Avenue P	Town Center Dr to 30th Street W	4	20,985	36,000	0.58	A
1009	Rancho Vista Ave/Avenue P	30th Street W to 25th Street W	4	22,457	36,000	0.62	B
1010	Rancho Vista Ave/Avenue P	25th Street W to 20th Street W	4	27,517	36,000	0.76	C
1011	Rancho Vista Ave/Avenue P	20th Street W to 15th Street W	4	27,426	36,000	0.76	C
1012	Rancho Vista Ave/Avenue P	15th Street to 10th Street W	6	42,819	54,000	0.79	C
1013	Rancho Vista Ave/Avenue P	10th Street W to SR 14	6	37,114	54,000	0.69	B
1014	Rancho Vista Ave/Avenue P	SR 14 to Country Club Dr	4	23,823	54,000	0.44	A
1015	Rancho Vista Ave/Avenue P	Country Club Dr to Division St	4	28,050	45,000	0.62	B
1016	Rancho Vista Ave/Avenue P	Division St to Sierra Hwy	4	22,334	36,000	0.62	B
1017	East Avenue P	Sierra Hwy to 8th Street E	4	41,328	36,000	1.15	F
1018	East Avenue P	8th Street E to 15th Street E	4	41,328	36,000	0.89	D
1019	East Avenue P	15th Street E to 20th Street E	4	33,406	36,000	0.93	E
1020	East Avenue P	20th Street E to 25th Street E	4	26,501	36,000	0.74	C
1021	East Avenue P	25th Street E to 30th Street E	4	20,757	36,000	0.58	A
1022	Avenue Q	Trade Center Dr to 5th Street W	4	4,700	36,000	0.13	A
1023	Avenue Q	Division Street to 6th Street E	2	8,517	18,000	0.47	A
1024	Avenue Q	Sierra Hwy to 10th Street E	2	12,262	18,000	0.68	B
1025	Avenue Q	10th Street E to 20th Street E	2	8,323	18,000	0.46	A
1026	Avenue Q	20th Street E to 30th Street E	2	7,375	18,000	0.41	A
1027	Avenue Q	30th Street E to 40th Street E	2	8,100	18,000	0.45	A
1028	Elizabeth Lake Rd	25th Street W to 20th Street W	4	16,726	36,000	0.46	A
1029	Elizabeth Lake Rd	20th Street W to 15th Street W	4	17,906	36,000	0.50	A
1030	Elizabeth Lake Rd	15th Street W to 10th Street W	4	22,454	36,000	0.62	B
1031	Palmdale Blvd	10th Street W to Trade Center Dr	4	24,318	54,000	0.45	A

Table 12: 2045 Base Daily Volumes

LINKID	Roadway Segments		Lanes	2045 Base			
	Roadway	From/To		2045Base_Tot_Flow	Capacity	V/C	LOS
1032	Palmdale Blvd	Trade Center Dr to 5th Street W	4	20,913	54,000	0.39	A
1033	Palmdale Blvd	5th Street W to State Route 14	4	30,395	54,000	0.56	A
1034	Palmdale Blvd	Division Street to 5th St E	6	30,499	54,000	0.56	A
1035	Palmdale Blvd	5th Street E to 10th Street E	4	30,526	54,000	0.57	A
1036	Palmdale Blvd	10th Street E to 15th Street E	4	30,423	36,000	0.85	D
1037	Palmdale Blvd	15th Street E to 20th Street E	4	22,630	36,000	0.63	B
1038	Palmdale Blvd	20th Street E to 25th Street E	4	28,230	36,000	0.78	C
1040	Palmdale Blvd	40th Street E to 47th Street E	4	24,334	36,000	0.68	B
1041	Palmdale Blvd	50th Street E to 60th Street E	4	16,404	36,000	0.46	A
1042	Palmdale Blvd	70th Street E to 80th Street E	2	16,681	18,000	0.93	E
1043	E Avenue R	Sierra Hwy to 10th Street E	4	20,559	36,000	0.57	A
1044	E Avenue R	10th Street E to 20th Street E	4	20,289	36,000	0.56	A
1045	E Avenue R	20th Street E to 30th Street E	4	23,421	36,000	0.65	B
1046	E Avenue R	30th Street E to 40th Street E	3	20,743	36,000	0.58	A
1047	E Avenue R	40th Street E to 47th Street E	4	21,629	36,000	0.60	B
1048	E Avenue R	47th Street E to 60th Street E	4	16,355	36,000	0.45	A
1049	E Avenue R	60th Street E to 70th Street E	4	7,563	36,000	0.21	A
1050	Avenue S	Tovey Avenue to Tierra Subida Ave	4	9,505	36,000	0.26	A
1051	Avenue S	Tierra Subida Ave to SR 14	4	14,400	36,000	0.40	A
1052	Avenue S	SR 14 to 5th Street E	4	16,681	36,000	0.46	A
1053	Avenue S	5th Street E to Sierra Hwy	4	29,095	36,000	0.81	D
1054	Avenue S	Sierra Hwy to 10th Street E	4	36,424	36,000	1.01	F
1055	Avenue S	10th Street E to 20th Street E	4	33,024	36,000	0.92	E
1056	Avenue S	20th Street E to 25th Street E	4	32,796	36,000	0.91	E
1057	Avenue S	25th Street E to 30th Street E	4	29,920	36,000	0.83	D
1058	Avenue S	30th Street E to 35th Street E	6	24,137	54,000	0.45	A
1059	Avenue S	35th Street E to 40th Street E	6	23,612	54,000	0.44	A
1060	Avenue S	40th Street E to 47th Street E	6	23,867	54,000	0.44	A
1061	Avenue S	47th Street E to 55th Street E	4	23,819	36,000	0.66	B
1062	Pearblossom Hwy/Avenue T	Sierra Hwy to 25th Street E	4	56,434	36,000	1.57	F
1063	Pearblossom Hwy/Avenue T	25th Street E to 40th Street E	4	47,628	36,000	1.32	F

Table 12: 2045 Base Daily Volumes

LINKID	Roadway Segments		Lanes	2045 Base			
	Roadway	From/To		2045Base_Tot_Flow	Capacity	V/C	LOS
1064	Pearblossom Hwy/Avenue T	40th Street E to 47th Street E	4	33,627	36,000	0.93	E
1065	Pearblossom Hwy/Avenue T	47th Street E to Fort Tejon Road	4	33,627	36,000	0.93	E
1066	Pearblossom Hwy/Avenue T	Fort Tejon Road to 70th Street E	4	33,627	36,000	0.93	E
1067	10th Street W/Tierra Subida Ave	W Avenue M to W Avenue N	4	15,470	36,000	0.43	A
1068	10th Street W/Tierra Subida Ave	W Avenue N to W Avenue O	4	21,544	36,000	0.60	A
1069	10th Street W/Tierra Subida Ave	W Avenue O to SR 14	4	17,627	36,000	0.49	A
1070	10th Street W/Tierra Subida Ave	SR 14 to Rancho Vista Blvd	6	36,947	54,000	0.68	B
1071	10th Street W/Tierra Subida Ave	Rancho Vista Blvd to Technology Dr	6	43,093	54,000	0.80	C
1072	10th Street W/Tierra Subida Ave	Technology Dr to W Palmdale Blvd	5	46,068	45,000	1.02	F
1073	10th Street W/Tierra Subida Ave	W Palmdale Blvd to Rayburn Rd	4	20,129	36,000	0.56	A
1074	Sierra Hwy	Columbia Way to E Avenue N	4	32,154	36,000	0.89	D
1075	Sierra Hwy	E Avenue N to E Avenue O	4	33,741	36,000	0.94	E
1076	Sierra Hwy	E Avenue O to E Avenue P	4	46,043	36,000	1.28	F
1077	Sierra Hwy	E Avenue P to E Avenue Q	4	15,375	36,000	0.43	A
1078	Sierra Hwy	E Avenue Q to Palmdale Blvd	4	15,176	36,000	0.42	A
1079	Sierra Hwy	Palmdale Blvd to E Avenue R	4	11,555	36,000	0.32	A
1080	Sierra Hwy	E Avenue R to E Avenue S	4	7,289	36,000	0.20	A
1081	Sierra Hwy	E Avenue S to Pearblossom Hwy	4	8,070	36,000	0.22	A
1082	10th Street E	E Avenue P to E Avenue Q	2	2,357	18,000	0.13	A
1083	10th Street E	E Avenue Q to E Palmdale Blvd	4	5,966	36,000	0.17	A
1084	10th Street E	E. Palmdale Blvd to Avenue R	2	8,945	18,000	0.50	A
1085	10th Street E	Avenue R to Avenue S1	2	5,055	18,000	0.28	A
1086	20th Street E	E Avenue P to E Avenue Q	2	8,506	18,000	0.47	A
1087	20th Street E	E Avenue Q to Palmdale Blvd	2	8,996	18,000	0.50	A
1088	20th Street E	Palmdale Blvd to E Avenue R	4	14,236	36,000	0.40	A
1089	20th Street E	E Avenue R to E Avenue S	4	13,125	36,000	0.36	A
1090	25th Street E	E Avenue P to E Avenue Q	2	8,458	18,000	0.47	A
1091	25th Street E	E Avenue Q to Palmdale Blvd	2	8,663	18,000	0.48	A
1092	25th Street E	Palmdale Blvd to E Avenue R	4	15,584	36,000	0.43	A
1093	25th Street E	E Avenue R to E Avenue S	4	19,259	36,000	0.53	A
1094	25th Street E	E Avenue S to Pearblossom Hwy	4	17,793	36,000	0.49	A

Table 12: 2045 Base Daily Volumes

	Roadway Segments			2045 Base			
LINKID	Roadway	From/To	Lanes	2045Base_Tot_Flow	Capacity	V/C	LOS
1095	30th Street E	E Avenue P to E Avenue Q	2	8,526	18,000	0.47	A
1096	30th Street E	E Avenue Q to Palmdale Blvd	2	8,295	18,000	0.46	A
1097	30th Street E	Palmdale Blvd to E Avenue R	4	8,891	36,000	0.25	A
1098	30th Street E	E Avenue R to E Avenue S	4	8,871	36,000	0.25	A
1099	40th Street E	E Avenue P to E Avenue Q	2	9,856	18,000	0.55	A
1100	40th Street E	E Avenue Q to E Palmdale Blvd	2	7,185	18,000	0.40	A
1101	40th Street E	E Palmdale Blvd to E Avenue R	3	13,236	27,000	0.49	A
1102	40th Street E	E Avenue R to E Avenue S	3	13,439	27,000	0.50	A
1103	40th Street E	E Avenue S to Sierra Hwy	2	12,118	18,000	0.67	B
1104	47th Street E/50th Street E/Ft Tejon Rd	E Avenue M to E Avenue N	2	20,800	18,000	1.16	F
1105	47th Street E/50th Street E/Ft Tejon Rd	E Avenue P to Palmdale Blvd	2	14,713	18,000	0.82	D
1106	47th Street E/50th Street E/Ft Tejon Rd	Palmdale Blvd to E Avenue R	4	28,780	36,000	0.80	C
1107	47th Street E/50th Street E/Ft Tejon Rd	E Avenue R to E Avenue R-8	4	32,805	36,000	0.91	E
1108	47th Street E/50th Street E/Ft Tejon Rd	E Avenue R-8 to E Avenue S	4	25,499	36,000	0.71	C
1109	47th Street E/50th Street E/Ft Tejon Rd	E Avenue S to Essex Dr	5	29,940	45,000	0.67	B
1110	47th Street E/50th Street E/Ft Tejon Rd	Essex Dr to Pearblossom Hwy	4	15,334	36,000	0.43	A
1111	47th Street E/50th Street E/Ft Tejon Rd	Pearblossom Hwy to E Avenue T-8	4	33,448	36,000	0.93	E
1120	Technology Dr	10th Street W to Trade Center Dr	4	9,375	36,000	0.26	A
1121	Technology Dr	5th Street W to Division St	4	10,498	36,000	0.29	A
1122	Technology Dr	Division St to Sierra Hwy	4	9,096	36,000	0.25	A
						Total LOS A Through D	**95**
						Total LOS E	**11**
						Total LOS F	**7**
						Total LOS Reported	**113**

The Table 13 reports the link-based VMT, VHT, VHD, and average speeds by facility for the Palmdale SOI for all trips regardless of trip origin or destination.

Table 13: 2045 Base Palmdale Sphere of Influence VMT/VHT by Facility Type for All Trips

	AM Peak				PM Peak				Daily			
Facility	**VMT**	**VHT**	**Speed**	**Delay**	**VMT**	**VHT**	**Speed**	**Delay**	**VMT**	**VHT**	**Speed**	**Delay**
Freeways	270,601	5,517	49.1	1,651	305,078	5,068	60.2	710	1,181,686	19,501	60.6	2,620
HOT facilities	0	0	0.0	0	0	0	0.0	0	0	0	0.0	0
HOV facilities	69,103	1,239	55.8	252	68,108	1,040	65.5	67	145,399	2,395	60.7	318
Expressways/parkways	0	0	0.0	0	0	0	0.0	0	0	0	0.0	0
Principal arterials	226,065	6,363	35.5	1,382	338,346	9,459	35.8	1,972	1,257,146	32,740	38.4	5,022
Minor arterials	262,555	6,673	39.3	658	419,648	10,697	39.2	1,065	1,401,721	34,643	40.5	2,427
Major collectors	123,229	3,449	35.7	489	180,141	4,873	37.0	519	568,232	14,924	38.1	1,182
Minor collectors	2,741	73	37.7	2	3,415	113	30.2	19	11,491	349	32.9	32
Freeway ramps	11,492	582	19.8	232	17,115	871	19.6	363	61,651	2,836	21.7	990
Truck lanes only	0	0	0.0	0	0	0	0.0	0	0	0	0.0	0
Centroid connectors	73,459	2,881	25.5	0	121,957	4,786	25.5	0	402,448	15,803	25.5	0
Toral—All Links	1,039,246	26,775	38.8	4,666	1,453,807	36,907	39.4	4,714	5,029,773	123,190	40.8	12,590

Summary

Daily trips are defined as having an origin, destination or both within the Palmdale SOI and do not include pass-through trips. The Palmdale trips generate a VMT of 8,862,268 and a VHT of 338,264 on all the roadway way facilities within the SCAG region. The Palmdale SOI only accounts for 27.5 percent of the total VMT generated, Lancaster accounts for 12.6 percent, High Desert region accounts for 3.4 percent, while the rest of Los Angeles County accounts for 32.6 percent.

The average trip length for trips originating and staying within the Palmdale SOI is 4.43 miles and this constitutes 71.7 percent of all the Palmdale trips. The average trip length for trips originating in Palmdale SOI and having a destination anywhere in the SCAG region including itself is 11.56 miles.

Daily segment-based LOS results show the number of segments operating at LOS E is eleven and LOS F is seven and accounts for 9.7 percent and 6.2 percent, respectively, of all the segments analyzed.

The Palmdale transportation network as a system, which includes all roadway facilities within the Palmdale SOI, generates 5,029,773 VMT, 123,190 VHT and 12,590 VHD daily. This accounts for all trips, including pass through trips, using the highway network within the Palmdale SOI.

2045 BASE WITH HIGH DESERT CORRIDOR FREEWAY

The 2045 base with High Desert Corridor freeway used the 2045 Base year dataset and the network assumptions are consistent with the RTP except for the HDC facility. The 2045 socio-economic data for the Palmdale SOI was updated with inputs from the City of Palmdale. The socio-economic data outside the Palmdale SOI is consistent with the SCAG assumptions for the region for the year 2040. The High Desert Corridor Freeway was coded from SR 14 to SR 138. The 2045 Base scenario trip tables were used to perform traffic assignments only. Table 14 reports the land use assumptions for the region. This scenario was performed to illustrate the effects of the HDC on the Palmdale street system as the HDC would be major east–west freeway connecting Palmdale and Victorville. The HDC may not be built before 2050 or beyond as no funding sources are identified.

Select zone traffic assignment procedures were performed on the zones within the Palmdale SOI to account for trips that were generated or attracted to Palmdale SOI only. All other trips were not counted as they were pass through trips.

Table 14: 2045 Base with High Desert Corridor Freeway Socio-Economic Forecast

	Population	Households	Employment
Palmdale sphere	240,515	72,840	67,085
Lancaster Sphere	218,843	69,963	59,678
High Desert region	40,845	14,409	5,030
Ventura County	282,025	92,482	101,050
Los Angeles County remainder	11,001,144	3,783,739	5,117,195
Orange County	3,460,381	1,152,340	1,898,952
Riverside County	3,183,378	1,054,557	1,174,500
San Bernardino County	2,731,308	854,360	1,028,132
Imperial County	965,566	312,223	419,808
Externals	0	0	0
Seaport/airport	0	0	0
Total Region	**22,124,005**	**7,406,913**	**9,871,430**

The daily average trip lengths for the Palmdale only trips to different locations are reported in Table 15.

Table 15: 2045 Base with High Desert Corridor Average Trip Length for Palmdale SOI Trips

From/To	Trip Length (II and IX*) (miles)	Percent Share of Trips
Palmdale sphere	4.46	71.9%
Lancaster sphere	9.53	15.3%
High Desert region	15.49	2.5%
Imperial County	227.28	0.0%
Los Angeles County	55.83	6.6%
Orange County	108.82	0.4%
Riverside County	110.51	0.3%
San Bernardino County	69.10	1.3%
Ventura County	75.73	0.4%
Externals	68.89	1.0%
Seaport/airport	39.03	0.3%
Weighted Average	**11.62**	100.0%

*II = Internal-to-internal trips, where both ends of the trips are within the Palmdale SOI
IX = Internal-to-external trips, where the origin of the trips is within the Palmdale SOI and the destination of the trips could be anywhere in the SCAG region.

The daily link-based VMT, VHT and the average speeds by facility types are reported in Table 16 for Palmdale only trips.

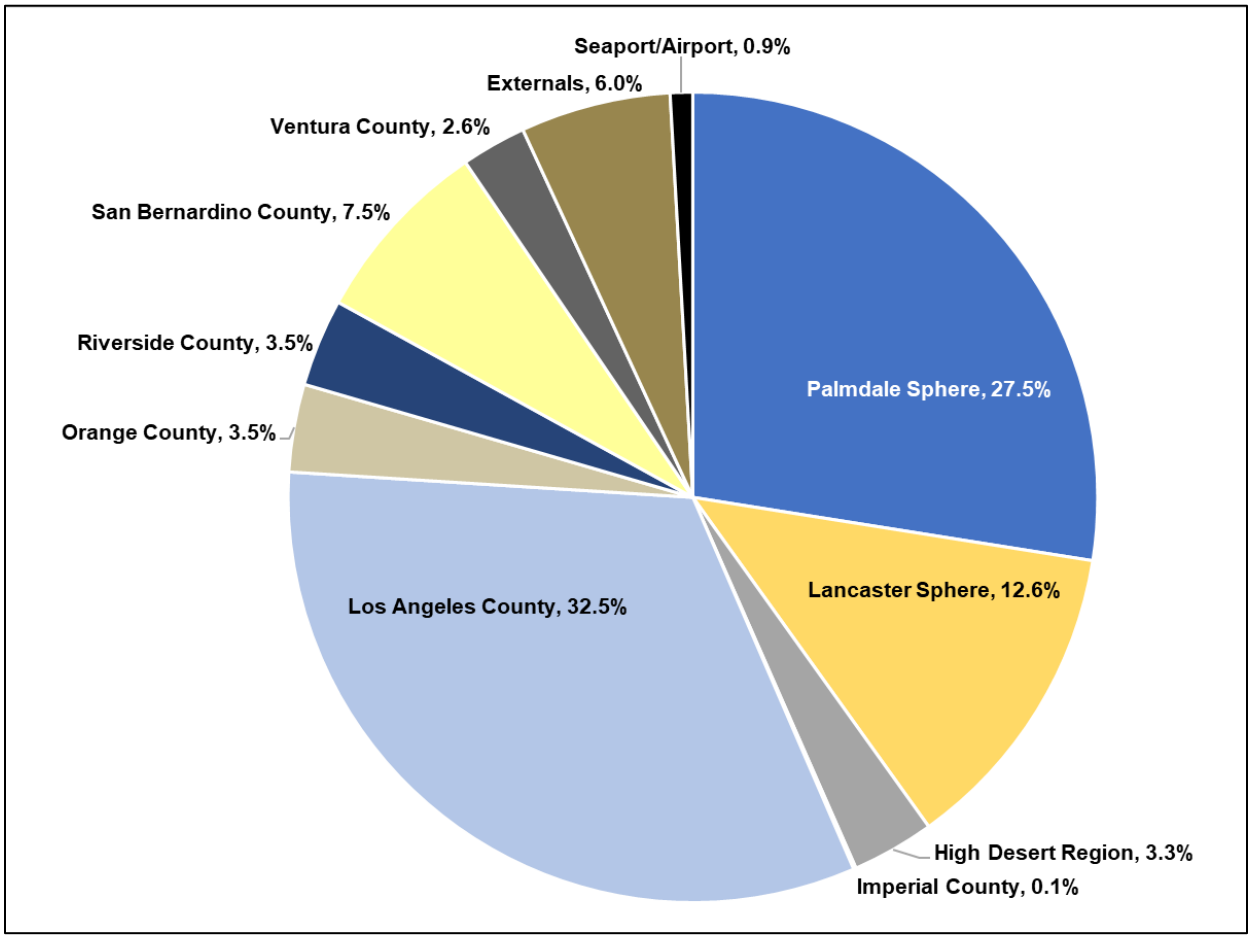
Table 16: 2045 Base with High Desert Corridor Palmdale Sphere of Influence (II, IX and XI*) Daily, VMT, VHT, Average Speed by Facility

Facility	VMT	VHT	Average Speed (mph)
Freeways	3,068,071	131,896	44.8
HOT facilities	10,024	292	63.2
HOV facilities	282,077	17,774	47.7
Expressways/parkways	192,155	3,645	51.7
Principal arterials	1,579,551	44,131	29.8
Minor arterials	1,696,186	53,626	30.2
Major collectors	1,301,285	39,251	23.6
Minor connectors	48,311	1,537	29.0
Freeway ramps	166,282	22,421	20.2
Truck lanes only	7,516	710	23.0
Centroid connectors	517,058	20,595	24.4
Total without centroid connectors	8,351,459	315,282	35.2
Total of All Links	**8,868,517**	**335,877**	**34.2**

*II = Internal-to-internal trips, where both ends of the trips are within the Palmdale SOI
IX = Internal-to-external trips, where the origin of the trips is within the Palmdale SOI and the destination of the trips could be anywhere in the SCAG region
XI = External-to-internal trips, where the origin of the trips could be anywhere in the SCAG region and the destination of the trips is within the Palmdale SOI

The daily percent share of the VMT for trips originating in the Palmdale SOI to all areas in the region, including Palmdale, is illustrated in Figure 9.

Figure 9: 2045 Base with High Desert Corridor Daily VMT Share Originating in the Palmdale Sphere of Influence



Traffic assignments are performed to produce traffic volumes on the various facilities, both within and outside the Palmdale SOI. Traffic assignments are available for AM peak period, mid-day period, PM peak period, evening period, night period and daily. The daily traffic assignment volumes (bandwidths) are shown in Figure 10. Figure 11 displays the difference in daily volumes with and without the High Desert Corridor Freeway, where green bandwidths display the volumes that the new facility is carrying, and red bandwidths display the decrease in volumes on all other facilities, thereby improving LOS conditions on these facilities.

Figure 10: 2045 Base with High Desert Corridor Daily Traffic Volumes Forecast

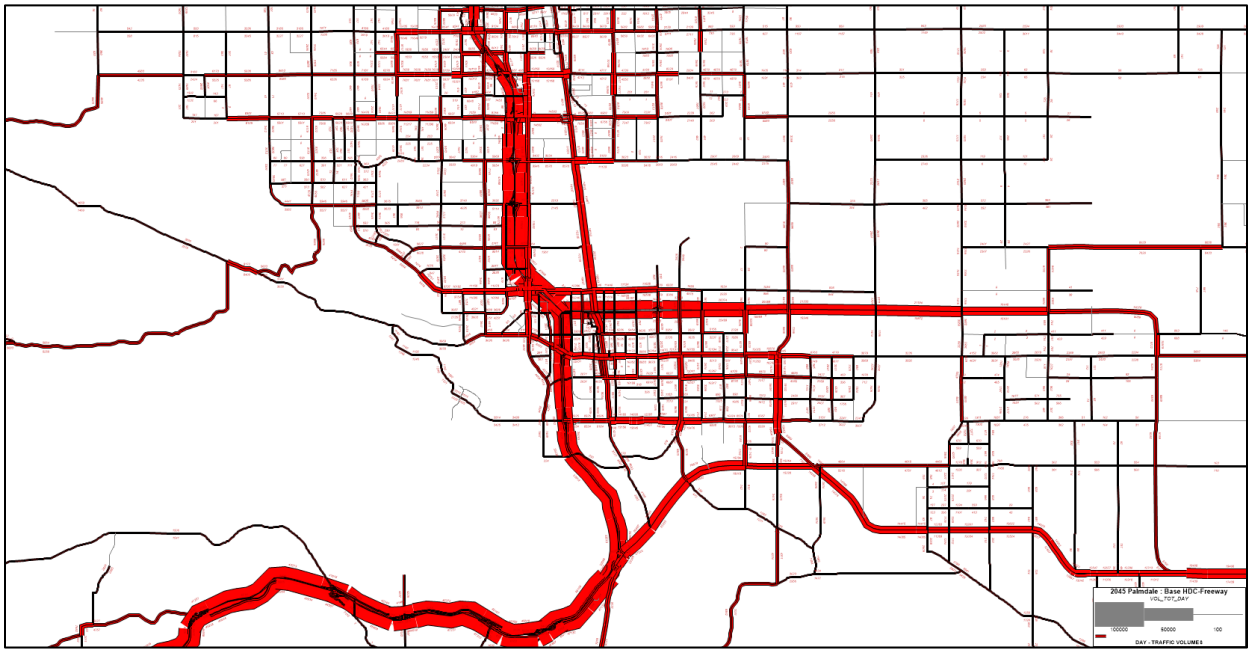
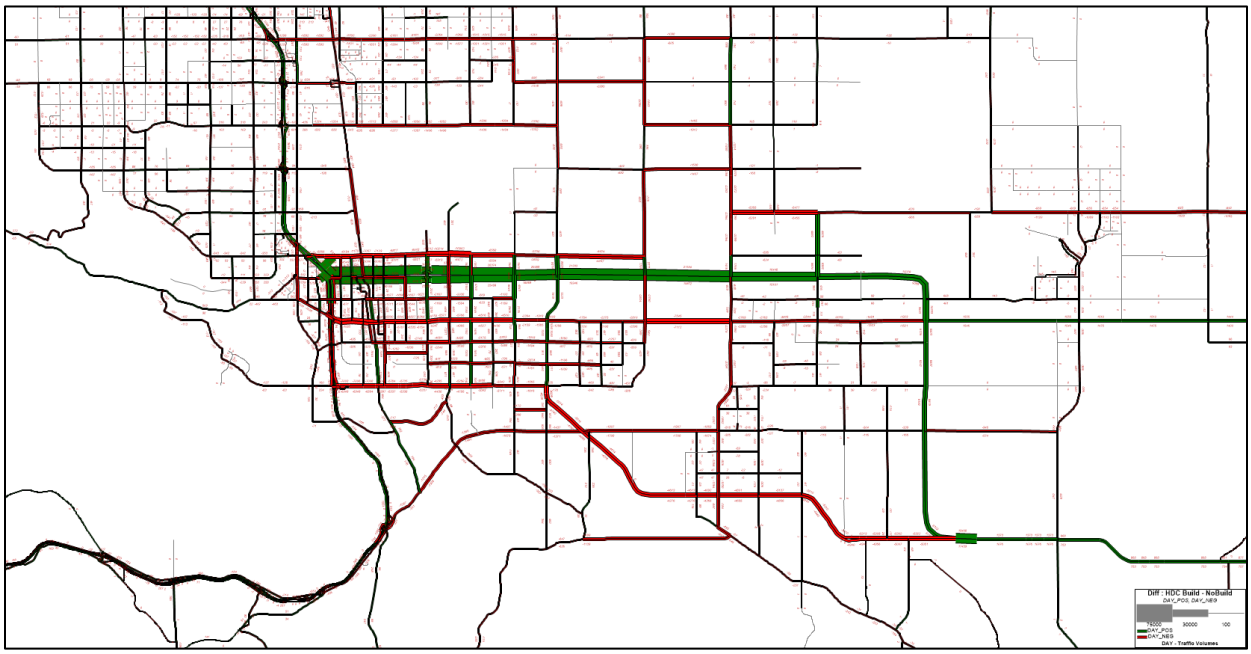


Figure 11: Comparison of 2045 Base to 2045 Base with High Desert Corridor Daily Traffic Volumes Forecasts



The post-processed daily assignment volumes and the LOS at various segments are reported in Table 17.

Table 17: 2045 Base with High Desert Corridor Daily Volumes

	Roadway Segments			2045 Base with High Desert Corridor			
LINKID	Roadway	From/To	Lanes	2045HDC_Tot_Flow_adj	Capacity	V/C	LOS
1001	Columbia Way/Avenue M	10th Street W to Sierra Hwy	4	30,032	36,000	0.83	D
1002	Columbia Way/Avenue M	Sierra Hwy to 10th Street E	4	30,598	36,000	0.85	D
1003	Columbia Way/Avenue M	10th Street E to 20th Street E	4	17,513	36,000	0.49	A
1004	Columbia Way/Avenue M	20th Street E to 30th Street E	4	13,382	36,000	0.37	A
1005	Columbia Way/Avenue M	30th Street E to 40th Street E	4	7,475	36,000	0.21	A
1006	Columbia Way/Avenue M	40th Street E to 50th Street	4	10,559	36,000	0.29	A
1007	Rancho Vista Ave/Avenue P	50th Street W to Town Center Dr	4	20,985	36,000	0.58	A
1008	Rancho Vista Ave/Avenue P	Town Center Dr to 30th Street W	4	20,985	36,000	0.58	A
1009	Rancho Vista Ave/Avenue P	30th Street W to 25th Street W	4	22,457	36,000	0.62	B
1010	Rancho Vista Ave/Avenue P	25th Street W to 20th Street W	4	27,509	36,000	0.76	C
1011	Rancho Vista Ave/Avenue P	20th Street W to 15th Street W	4	27,134	36,000	0.75	C
1012	Rancho Vista Ave/Avenue P	15th Street to 10th Street W	6	43,279	54,000	0.80	D
1013	Rancho Vista Ave/Avenue P	10th Street W to SR 14	6	38,223	54,000	0.71	C
1014	Rancho Vista Ave/Avenue P	SR 14 to Country Club Dr	4	23,332	54,000	0.43	A
1015	Rancho Vista Ave/Avenue P	Country Club Dr to Division St	4	26,481	54,000	0.49	A
1016	Rancho Vista Ave/Avenue P	Division St to Sierra Hwy	4	22,334	45,000	0.59	A
1017	East Avenue P	Sierra Hwy to 8th Street E	4	33,683	36,000	0.62	B
1018	East Avenue P	8th Street E to 15th Street E	4	33,683	36,000	0.94	E
1019	East Avenue P	15th Street E to 20th Street E	4	24,973	36,000	0.68	B
1020	East Avenue P	20th Street E to 25th Street E	4	18,699	36,000	0.69	B
1021	East Avenue P	25th Street E to 30th Street E	4	14,695	36,000	0.52	A
1022	Avenue Q	Trade Center Dr to 5th Street W	4	4,549	36,000	0.41	A
1023	Avenue Q	Division Street to 6th Street E	2	6,977	36,000	0.13	A
1024	Avenue Q	Sierra Hwy to 10th Street E	2	9,447	18,000	0.39	A
1025	Avenue Q	10th Street E to 20th Street E	2	8,323	18,000	0.52	A
1026	Avenue Q	20th Street E to 30th Street E	2	7,106	18,000	0.46	A
1027	Avenue Q	30th Street E to 40th Street E	2	7,085	18,000	0.39	A
1028	Elizabeth Lake Rd	25th Street W to 20th Street W	4	17,153	36,000	0.48	A
1029	Elizabeth Lake Rd	20th Street W to 15th Street W	4	17,781	36,000	0.49	A
1030	Elizabeth Lake Rd	15th Street W to 10th Street W	4	22,627	36,000	0.63	B
1031	Palmdale Blvd	10th Street W to Trade Center Dr	4	22,061	54,000	0.41	A
1032	Palmdale Blvd	Trade Center Dr to 5th Street W	4	18,772	54,000	0.35	A
1033	Palmdale Blvd	5th Street W to State Route 14	4	29,963	54,000	0.55	A
1034	Palmdale Blvd	Division Street to 5th St E	6	25,175	54,000	0.47	A

Table 17: 2045 Base with High Desert Corridor Daily Volumes

LINKID	Roadway Segments		Lanes	2045 Base with High Desert Corridor			
	Roadway	From/To		2045HDC_Tot_Flow_adj	Capacity	V/C	LOS
1035	Palmdale Blvd	5th Street E to 10th Street E	4	25,257	54,000	0.47	A
1036	Palmdale Blvd	10th Street E to 15th Street E	4	25,869	36,000	0.72	C
1037	Palmdale Blvd	15th Street E to 20th Street E	4	19,233	36,000	0.53	A
1038	Palmdale Blvd	20th Street E to 25th Street E	4	23,470	36,000	0.65	B
1040	Palmdale Blvd	40th Street E to 47th Street E	4	20,780	36,000	0.58	A
1041	Palmdale Blvd	50th Street E to 60th Street E	4	14,147	36,000	0.39	A
1042	Palmdale Blvd	70th Street E to 80th Street E	2	16,681	18,000	0.93	E
1043	E Avenue R	Sierra Hwy to 10th Street E	4	19,490	36,000	0.54	A
1044	E Avenue R	10th Street E to 20th Street E	4	18,495	36,000	0.51	A
1045	E Avenue R	20th Street E to 30th Street E	4	18,408	36,000	0.51	A
1046	E Avenue R	30th Street E to 40th Street E	3	14,851	36,000	0.41	A
1047	E Avenue R	40th Street E to 47th Street E	4	17,922	36,000	0.50	A
1048	E Avenue R	47th Street E to 60th Street E	4	15,158	36,000	0.42	A
1049	E Avenue R	60th Street E to 70th Street E	4	6,317	36,000	0.18	A
1050	Avenue S	Tovey Avenue to Tierra Subida Ave	4	9,346	36,000	0.26	A
1051	Avenue S	Tierra Subida Ave to SR 14	4	14,798	36,000	0.41	A
1052	Avenue S	SR 14 to 5th Street E	4	13,190	36,000	0.37	A
1053	Avenue S	5th Street E to Sierra Hwy	4	25,828	36,000	0.72	C
1054	Avenue S	Sierra Hwy to 10th Street E	4	32,170	36,000	0.89	D
1055	Avenue S	10th Street E to 20th Street E	4	29,830	36,000	0.83	D
1056	Avenue S	20th Street E to 25th Street E	4	30,323	36,000	0.84	D
1057	Avenue S	25th Street E to 30th Street E	4	29,058	36,000	0.81	D
1058	Avenue S	30th Street E to 35th Street E	6	24,137	54,000	0.45	A
1059	Avenue S	35th Street E to 40th Street E	6	23,612	54,000	0.44	A
1060	Avenue S	40th Street E to 47th Street E	6	23,867	54,000	0.44	A
1061	Avenue S	47th Street E to 55th Street E	4	23,500	36,000	0.65	B
1062	Pearblossom Hwy/Avenue T	Sierra Hwy to 25th Street E	4	53,902	36,000	1.50	F
1063	Pearblossom Hwy/Avenue T	25th Street E to 40th Street E	4	44,895	36,000	1.25	F
1064	Pearblossom Hwy/Avenue T	40th Street E to 47th Street E	4	30,912	36,000	0.86	D
1065	Pearblossom Hwy/Avenue T	47th Street E to Fort Tejon Road	4	30,912	36,000	0.86	D
1066	Pearblossom Hwy/Avenue T	Fort Tejon Road to 70th Street E	4	30,912	36,000	0.86	D
1067	10th Street W/Tierra Subida Ave	W Avenue M to W Avenue N	4	15,186	36,000	0.42	A
1068	10th Street W/Tierra Subida Ave	W Avenue N to W Avenue O	4	21,170	36,000	0.59	A
1069	10th Street W/Tierra Subida Ave	W Avenue O to SR 14	4	17,627	36,000	0.49	A

Table 17: 2045 Base with High Desert Corridor Daily Volumes

	Roadway Segments			2045 Base with High Desert Corridor			
LINKID	Roadway	From/To	Lanes	2045HDC_Tot_Flow_adj	Capacity	V/C	LOS
1070	10th Street W/Tierra Subida Ave	SR 14 to Rancho Vista Blvd	6	35,324	54,000	0.65	B
1071	10th Street W/Tierra Subida Ave	Rancho Vista Blvd to Technology Dr	6	38,620	54,000	0.72	C
1072	10th Street W/Tierra Subida Ave	Technology Dr to W Palmdale Blvd	5	43,093	45,000	0.96	E
1073	10th Street W/Tierra Subida Ave	W Palmdale Blvd to Rayburn Rd	4	19,634	36,000	0.55	A
1074	Sierra Hwy	Columbia Way to E Avenue N	4	30,922	36,000	0.86	D
1075	Sierra Hwy	E Avenue N to E Avenue O	4	32,221	36,000	0.90	D
1076	Sierra Hwy	E Avenue O to E Avenue P	4	44,357	36,000	1.23	F
1077	Sierra Hwy	E Avenue P to E Avenue Q	4	14,366	36,000	0.40	A
1078	Sierra Hwy	E Avenue Q to Palmdale Blvd	4	16,842	36,000	0.47	A
1079	Sierra Hwy	Palmdale Blvd to E Avenue R	4	10,222	36,000	0.28	A
1080	Sierra Hwy	E Avenue R to E Avenue S	4	9,588	36,000	0.27	A
1081	Sierra Hwy	E Avenue S to Pearblossom Hwy	4	8,070	36,000	0.22	A
1082	10th Street E	E Avenue P to E Avenue Q	2	2,357	18,000	0.13	A
1083	10th Street E	E Avenue Q to E Palmdale Blvd	4	5,732	36,000	0.16	A
1084	10th Street E	E. Palmdale Blvd to Avenue R	2	7,914	18,000	0.44	A
1085	10th Street E	Avenue R to Avenue S1	2	3,898	18,000	0.22	A
1086	20th Street E	E Avenue P to E Avenue Q	2	12,843	18,000	0.71	C
1087	20th Street E	E Avenue Q to Palmdale Blvd	2	11,632	18,000	0.65	B
1088	20th Street E	Palmdale Blvd to E Avenue R	4	15,425	36,000	0.43	A
1089	20th Street E	E Avenue R to E Avenue S	4	13,258	36,000	0.37	A
1090	25th Street E	E Avenue P to E Avenue Q	2	6,632	18,000	0.37	A
1091	25th Street E	E Avenue Q to Palmdale Blvd	2	7,356	18,000	0.41	A
1092	25th Street E	Palmdale Blvd to E Avenue R	4	13,824	36,000	0.38	A
1093	25th Street E	E Avenue R to E Avenue S	4	20,571	36,000	0.57	A
1094	25th Street E	E Avenue S to Pearblossom Hwy	4	18,408	36,000	0.51	A
1095	30th Street E	E Avenue P to E Avenue Q	2	16,388	18,000	0.91	E
1096	30th Street E	E Avenue Q to Palmdale Blvd	2	12,702	18,000	0.71	C
1097	30th Street E	Palmdale Blvd to E Avenue R	4	11,480	36,000	0.32	A
1098	30th Street E	E Avenue R to E Avenue S	4	10,654	36,000	0.30	A
1099	40th Street E	E Avenue P to E Avenue Q	2	19,798	18,000	1.10	F
1100	40th Street E	E Avenue Q to E Palmdale Blvd	2	10,909	18,000	0.61	B
1101	40th Street E	E Palmdale Blvd to E Avenue R	3	15,073	27,000	0.56	A
1102	40th Street E	E Avenue R to E Avenue S	3	11,906	27,000	0.44	A
1103	40th Street E	E Avenue S to Sierra Hwy	2	12,162	18,000	0.68	B

Table 17: 2045 Base with High Desert Corridor Daily Volumes

LINKID	Roadway Segments		Lanes	2045 Base with High Desert Corridor			
	Roadway	From/To		2045HDC_Tot_Flow_adj	Capacity	V/C	LOS
1104	47th Street E/50th Street E/Ft Tejon Rd	E Avenue M to E Avenue N	2	19,600	18,000	1.09	F
1105	47th Street E/50th Street E/Ft Tejon Rd	E Avenue P to Palmdale Blvd	2	17,449	18,000	0.97	E
1106	47th Street E/50th Street E/Ft Tejon Rd	Palmdale Blvd to E Avenue R	4	31,244	36,000	0.87	D
1107	47th Street E/50th Street E/Ft Tejon Rd	E Avenue R to E Avenue R-8	4	34,153	36,000	0.95	E
1108	47th Street E/50th Street E/Ft Tejon Rd	E Avenue R-8 to E Avenue S	4	29,287	36,000	0.81	D
1109	47th Street E/50th Street E/Ft Tejon Rd	E Avenue S to Essex Dr	5	24,514	45,000	0.54	A
1110	47th Street E/50th Street E/Ft Tejon Rd	Essex Dr to Pearblossom Hwy	4	15,334	36,000	0.43	A
1111	47th Street E/50th Street E/Ft Tejon Rd	Pearblossom Hwy to E Avenue T-8	4	24,541	36,000	0.68	B
1120	Technology Dr	10th Street W to Trade Center Dr	4	7,974	36,000	0.22	A
1121	Technology Dr	5th Street W to Division St	4	7,958	36,000	0.22	A
1122	Technology Dr	Division St to Sierra Hwy	4	7,805	36,000	0.22	A
2011	HDC Freeway - SR14 to 20th Street	SR14 to 20th Street	8	30,187	72,000	0.42	A
2012	HDC Freeway - SR14 to 20th Street	SR14 to 20th Street	8	34,756	72,000	0.48	A
2021	HDC Freeway - 20th Street to 30th Street	20th Street to 30th Street	8	29,318	72,000	0.41	A
2022	HDC Freeway - 20th Street to 30th Street	20th Street to 30th Street	8	37,066	72,000	0.51	A
2030	HDC Expressway	30th Street to 40th Street	4	53,779	60,000	0.90	D
2031	HDC Expressway	40th Street to 40th Street	4	39,413	60,000	0.66	B
2032	HDC Expressway	50th Street to 70th Street	4	41,244	60,000	0.69	B
2033	HDC Expressway	70th Street to 90th Street	4	41,070	60,000	0.68	B
2034	HDC Expressway	90th Street to 110th Street	4	31,559	60,000	0.53	A
2035	HDC Expressway	110th Street to Avenue Q	4	19,165	60,000	0.32	A
2036	HDC Principal Arterial	Avenue T to SR138	4	12,809	60,000	0.21	A
						Total LOS A through D	**113**
						Total LOS E	**6**
						Total LOS F	**5**
						Total LOS Reported	**124**

Table 18 reports the link-based VMT, VHT, VHD, and average speeds by facility for the Palmdale SOI for all trips regardless of the trip origin or destination.

Table 18: 2045 Base with High Desert Corridor Palmdale Sphere of Influence VMT/VHT by Facility Type for All Trips

	AM Peak				PM Peak				Daily			
Facility	**VMT**	**VHT**	**Speed**	**Delay**	**VMT**	**VHT**	**Speed**	**Delay**	**VMT**	**VHT**	**Speed**	**Delay**
Freeways	312,614	6,131	51.0	1,665	373,363	6,101	61.2	768	1,403,737	22,764	61.7	2,711
HOT facilities	0	0	0.0	0	0	0	0.0	0	0	0	0.0	0
HOV facilities	72,021	1,328	54.2	299	72,002	1,122	64.2	94	149,952	2,535	59.2	393
Expressways/ parkways	81,889	1,455	56.3	218	115,712	2,056	56.3	309	398,295	6,736	59.1	731
Principal arterials	205,935	5,348	38.5	922	306,588	7,915	38.7	1,282	1,144,438	27,929	41.0	3,315
Minor arterials	211,775	5,217	40.6	314	344,683	8,536	40.4	551	1,128,747	27,502	41.0	1,233
Major collectors	105,296	3,013	34.9	460	161,020	4,418	36.4	490	511,576	13,631	37.5	1,108
Minor collectors	2,094	58	36.0	2	3,219	109	29.5	19	10,866	335	32.4	32
Freeway ramps	15,259	592	25.8	194	22,687	930	24.4	331	77,100	2,927	26.3	865
Truck lanes only	0	0	0.0	0	0	0	0.0	0	0	0	0.0	0
Centroid connectors	72,075	2,827	25.5	0	119,703	4,696	25.5	0	399,047	15,663	25.5	0
Total—All Links	**1,078,958**	**25,970**	**41.5**	**4,074**	**1,518,977**	**35,883**	**42.3**	**3,843**	**5,223,759**	**120,023**	**43.5**	**10,388**

Summary

Daily trips are defined as having an origin, destination or both within the Palmdale SOI, and excludes pass-through trips. The Palmdale trips generate a VMT of 8,868,517 and a VHT of 335,887 on all the roadway way facilities within the SCAG region. The Palmdale SOI only accounts for 27.5 percent of the total VMT generated, Lancaster accounts for 12.6 percent, and the High Desert region accounts for 3.3 percent. The rest of Los Angeles County accounts for 32.5 percent.

The average trip length for trips originating and staying within the Palmdale SOI is 4.46 miles and this constitutes 71.9 percent of all the Palmdale trips. The average trip length for trips originating in the Palmdale SOI and having a destination anywhere in the SCAG region including itself is 11.62 miles.

Daily segment-based LOS results show the number of segments operating at LOS E is six and LOS F is five and accounts for 4.8 percent and 4.0 percent, respectively, of all the segments analyzed.

The Palmdale transportation network as a system, which includes all roadway facilities within the Palmdale SOI, generates 5,223,759 VMT, 120,023 VHT and 10,388 VHD daily. This accounts for all trips, including pass through trips, using the highway network within the Palmdale SOI.

2045 PREFERRED PLAN

The 2045 Base dataset was used for 2045 Preferred Plan scenario and the network assumptions are consistent with the RTP. The 2045 socio-economic data for the Palmdale SOI was updated based on the 2045 Preferred Plan used for the Palmdale General Plan update. The socio-economic data outside the Palmdale SOI is consistent with the SCAG assumptions for the region in the year 2040. The SCAG four-step model procedures were run with the updated planning variables in the Palmdale SOI. Table 19 reports the land use assumptions for the region.

The 2045 Base Highway network was reviewed by the City of Palmdale for the 2045 Preferred Plan and based on their recommendations, the highway network was updated. In addition, High-Speed Rail ridership at the Palmdale station was incorporated into the highway assignment procedures.

Table 19: 2045 Preferred Plan Socio-Economic Forecast

	Population	Households	Employment
Palmdale sphere	225,692	70,618	74,804
Lancaster sphere	218,843	69,963	59,678
High Desert region	40,845	14,409	5,030
Ventura County	282,025	92,482	101,050
Los Angeles County remainder	11,001,144	3,783,739	5,117,195
Orange County	3,460,381	1,152,340	1,898,952
Riverside County	3,183,378	1,054,557	1,174,500
San Bernardino County	2,731,308	854,360	1,028,132
Imperial County	965,566	312,223	419,808
Externals	0	0	0
Seaport/airport	0	0	0
Total Region	**22,109,182**	**7,404,691**	**9,879,149**

Select zone traffic assignment procedures were performed on the zones within the Palmdale SOI to produce trips that were generated or attracted to Palmdale SOI only. All other trips were not counted, as they were pass through trips. The daily average trip lengths for Palmdale only trips to different locations are shown in Table 20. The daily link-based VMT, VHT, and the average speeds by facility types are shown in Table 21 for Palmdale SOI only trips. The daily percent share of VMT for trips originating in the Palmdale SOI to all areas in the region, including Palmdale, is illustrated in Figure 12.

Table 20: 2045 Preferred Plan Palmdale Sphere of Influence (II and IX) Average Trip Length

From/To	Trip Length (II and IX*) (miles)	Percent Share of Trips
Palmdale sphere	4.44	70.8%
Lancaster sphere	8.99	17.2%
High Desert region	16.32	2.7%
Imperial County	224.68	0.0%
Los Angeles County	54.94	5.4%
Orange County	108.77	0.3%
Riverside County	106.06	0.3%
San Bernardino County	61.08	1.5%
Ventura County	76.42	0.4%
Externals	68.00	1.1%
Seaport/airport	38.84	0.3%
Weighted Average	**10.86**	100.0%

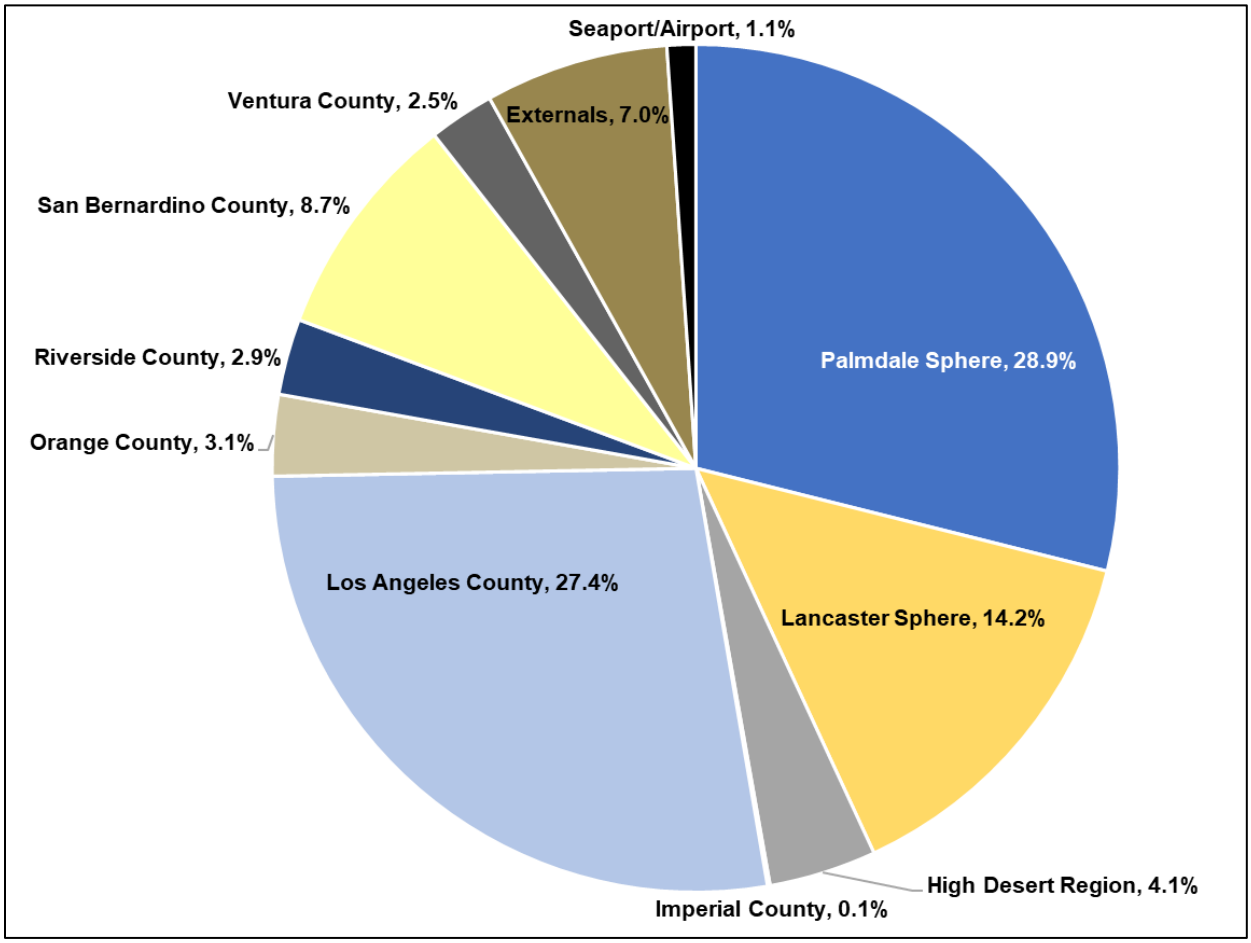
*II = Internal-to-internal trips, where both ends of the trips are within the Palmdale SOI
IX = Internal-to-external trips, where the origin of the trips is within the Palmdale SOI and the destination of the trips could be anywhere in the SCAG region.

Table 21: 2045 Preferred Plan Palmdale Sphere of Influence (II, IX and XI*) Daily, VMT, VHT, Average Speed by Facility

Facility	VMT	VHT	Average Speed (mph)
Freeways	2,395,390	92,084	45.2
HOT facilities	7,911	230	63.4
HOV facilities	184,453	9,425	49.0
Expressways/parkways	5,083	184	51.2
Principal arterials	1,571,929	42,699	29.9
Minor arterials	1,821,834	50,209	30.5
Major collectors	1,075,565	30,851	23.7
Minor connectors	53,726	1,575	29.1
Freeway ramps	122,764	14,415	20.4
Truck lanes only	8,130	646	24.9
Centroid connectors	480,325	19,048	24.4
Total without centroid connectors	7,246,785	242,319	35.5
Total of All Links	**7,727,110**	**261,367**	**34.5**

*II = Internal-to-internal trips, where both ends of the trips are within the Palmdale SOI
IX = Internal-to-external trips, where the origin of the trips is within the Palmdale SOI and the destination of the trips could be anywhere in the SCAG region
XI = External-to-internal trips, where the origin of the trips could be anywhere in the SCAG region and the destination of the trips is within the Palmdale SOI

Figure 12: 2045 Preferred Plan Daily VMT Share Originating in Palmdale Sphere of Influence



Traffic assignments were performed to produce traffic volumes on the various facilities inside and outside the Palmdale SOI. Traffic assignments are available for AM peak period, mid-day period, PM peak period, evening period, night period and daily. The daily traffic assignment volumes (bandwidths) are shown in Figure 13. The post-processed daily assignment volumes and the LOS at various segments are reported in the Table 22.

Figure 13: 2045 Preferred Plan Daily Traffic Volumes

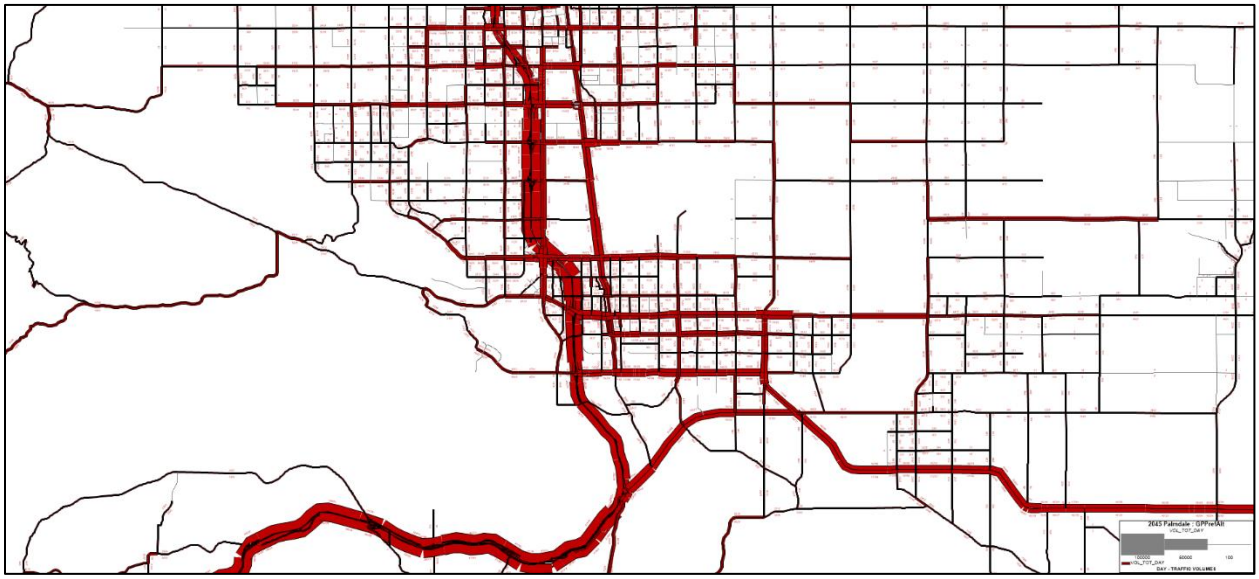


Table 22: 2045 Preferred Plan Daily Volumes							
	Roadway Segments			2045 Preferred Plan			
LINKID	Roadway	From/To	Lanes	2045PrefPlan_Tot_Flow_adj	Capacity	V/C	LOS
1001	Columbia Way/Avenue M	10th Street W to Sierra Hwy	4	32,760	36,000	0.91	E
1002	Columbia Way/Avenue M	Sierra Hwy to 10th Street E	4	35,733	36,000	0.99	E
1003	Columbia Way/Avenue M	10th Street E to 20th Street E	4	23,321	36,000	0.65	B
1004	Columbia Way/Avenue M	20th Street E to 30th Street E	4	17,482	36,000	0.49	A
1005	Columbia Way/Avenue M	30th Street E to 40th Street E	4	12,192	36,000	0.34	A
1006	Columbia Way/Avenue M	40th Street E to 50th Street	4	14,334	36,000	0.40	A
1007	Rancho Vista Ave/Avenue P	50th Street W to Town Center Dr	4	16,758	36,000	0.47	A
1008	Rancho Vista Ave/Avenue P	Town Center Dr to 30th Street W	4	20,985	36,000	0.58	A
1009	Rancho Vista Ave/Avenue P	30th Street W to 25th Street W	4	22,457	54,000	0.42	A
1010	Rancho Vista Ave/Avenue P	25th Street W to 20th Street W	4	27,509	54,000	0.51	A
1011	Rancho Vista Ave/Avenue P	20th Street W to 15th Street W	4	27,276	54,000	0.51	A
1012	Rancho Vista Ave/Avenue P	15th Street to 10th Street W	6	41,536	54,000	0.77	C
1013	Rancho Vista Ave/Avenue P	10th Street W to SR 14	6	35,290	54,000	0.65	B
1014	Rancho Vista Ave/Avenue P	SR 14 to Country Club Dr	4	23,332	54,000	0.43	A
1015	Rancho Vista Ave/Avenue P	Country Club Dr to Division St	4	26,481	45,000	0.59	A
1016	Rancho Vista Ave/Avenue P	Division St to Sierra Hwy	4	22,334	36,000	0.62	B
1017	East Avenue P	Sierra Hwy to 8th Street E	4	37,052	36,000	1.03	F
1018	East Avenue P	8th Street E to 15th Street E	4	27,698	36,000	0.77	C
1019	East Avenue P	15th Street E to 20th Street E	4	30,657	36,000	0.85	D
1020	East Avenue P	20th Street E to 25th Street E	4	23,798	36,000	0.66	B
1021	East Avenue P	25th Street E to 30th Street E	4	18,896	36,000	0.52	A
1022	Avenue Q	Trade Center Dr to 5th Street W	4	4,805	36,000	0.13	A
1023	Avenue Q	Division Street to 6th Street E	2	8,053	18,000	0.45	A
1024	Avenue Q	Sierra Hwy to 10th Street E	2	10,165	18,000	0.56	A
1025	Avenue Q	10th Street E to 20th Street E	2	8,349	18,000	0.46	A
1026	Avenue Q	20th Street E to 30th Street E	2	7,293	18,000	0.41	A
1027	Avenue Q	30th Street E to 40th Street E	2	7,814	18,000	0.43	A
1028	Elizabeth Lake Rd	25th Street W to 20th Street W	4	20,874	36,000	0.58	A
1029	Elizabeth Lake Rd	20th Street W to 15th Street W	4	16,038	36,000	0.45	A
1030	Elizabeth Lake Rd	15th Street W to 10th Street W	4	19,583	36,000	0.54	A
1031	Palmdale Blvd	10th Street W to Trade Center Dr	4	22,179	36,000	0.62	B

Table 22: 2045 Preferred Plan Daily Volumes							
	Roadway Segments			2045 Preferred Plan			
LINKID	Roadway	From/To	Lanes	2045PrefPlan_Tot_Flow_adj	Capacity	V/C	LOS
1032	Palmdale Blvd	Trade Center Dr to 5th Street W	4	17,785	36,000	0.49	A
1033	Palmdale Blvd	5th Street W to State Route 14	4	27,366	36,000	0.76	C
1034	Palmdale Blvd	Division Street to 5th St E	6	25,510	54,000	0.47	A
1035	Palmdale Blvd	5th Street E to 10th Street E	4	25,257	36,000	0.70	C
1036	Palmdale Blvd	10th Street E to 15th Street E	4	25,869	36,000	0.72	C
1037	Palmdale Blvd	15th Street E to 20th Street E	4	19,233	36,000	0.53	A
1038	Palmdale Blvd	20th Street E to 25th Street E	4	24,649	36,000	0.68	B
1040	Palmdale Blvd	40th Street E to 47th Street E	4	28,011	36,000	0.78	C
1041	Palmdale Blvd	50th Street E to 60th Street E	4	23,700	36,000	0.66	B
1042	Palmdale Blvd	70th Street E to 80th Street E	2	16,681	18,000	0.93	E
1043	E Avenue R	Sierra Hwy to 10th Street E	4	19,490	36,000	0.54	A
1044	E Avenue R	10th Street E to 20th Street E	4	18,495	36,000	0.51	A
1045	E Avenue R	20th Street E to 30th Street E	4	18,408	36,000	0.51	A
1046	E Avenue R	30th Street E to 40th Street E	3	18,843	36,000	0.52	A
1047	E Avenue R	40th Street E to 47th Street E	4	22,831	36,000	0.63	B
1048	E Avenue R	47th Street E to 60th Street E	4	17,279	36,000	0.48	A
1049	E Avenue R	60th Street E to 70th Street E	4	6,564	36,000	0.18	A
1050	Avenue S	Tovey Avenue to Tierra Subida Ave	4	10,895	36,000	0.30	A
1051	Avenue S	Tierra Subida Ave to SR 14	4	17,336	36,000	0.48	A
1052	Avenue S	SR 14 to 5th Street E	4	13,190	36,000	0.37	A
1053	Avenue S	5th Street E to Sierra Hwy	4	25,828	36,000	0.72	C
1054	Avenue S	Sierra Hwy to 10th Street E	4	32,170	36,000	0.89	D
1055	Avenue S	10th Street E to 20th Street E	4	29,830	36,000	0.83	D
1056	Avenue S	20th Street E to 25th Street E	4	30,323	36,000	0.84	D
1057	Avenue S	25th Street E to 30th Street E	4	29,058	36,000	0.81	D
1058	Avenue S	30th Street E to 35th Street E	6	24,137	54,000	0.45	A
1059	Avenue S	35th Street E to 40th Street E	6	23,612	54,000	0.44	A
1060	Avenue S	40th Street E to 47th Street E	6	23,867	54,000	0.44	A
1061	Avenue S	47th Street E to 55th Street E	4	21,305	36,000	0.59	A
1062	Pearblossom Hwy/Avenue T	Sierra Hwy to 25th Street E	4	52,520	36,000	1.46	F
1063	Pearblossom Hwy/Avenue T	25th Street E to 40th Street E	4	45,045	36,000	1.25	F

Table 22: 2045 Preferred Plan Daily Volumes

	Roadway Segments			2045 Preferred Plan			
LINKID	Roadway	From/To	Lanes	2045PrefPlan_Tot_Flow_adj	Capacity	V/C	LOS
1064	Pearblossom Hwy/Avenue T	40th Street E to 47th Street E	4	31,951	36,000	0.89	D
1065	Pearblossom Hwy/Avenue T	47th Street E to Fort Tejon Road	4	32,061	36,000	0.89	D
1066	Pearblossom Hwy/Avenue T	Fort Tejon Road to 70th Street E	4	22,190	36,000	0.62	B
1067	10th Street W/Tierra Subida Ave	W Avenue M to W Avenue N	4	15,186	36,000	0.42	A
1068	10th Street W/Tierra Subida Ave	W Avenue N to W Avenue O	4	22,897	36,000	0.64	B
1069	10th Street W/Tierra Subida Ave	W Avenue O to SR 14	4	17,627	36,000	0.49	A
1070	10th Street W/Tierra Subida Ave	SR 14 to Rancho Vista Blvd	6	35,324	54,000	0.65	B
1071	10th Street W/Tierra Subida Ave	Rancho Vista Blvd to Technology Dr	6	37,661	54,000	0.70	B
1072	10th Street W/Tierra Subida Ave	Technology Dr to W Palmdale Blvd	5	47,477	45,000	1.06	F
1073	10th Street W/Tierra Subida Ave	W Palmdale Blvd to Rayburn Rd	4	18,512	36,000	0.51	A
1074	Sierra Hwy	Columbia Way to E Avenue N	4	37,932	36,000	1.05	F
1075	Sierra Hwy	E Avenue N to E Avenue O	4	36,183	36,000	1.01	F
1076	Sierra Hwy	E Avenue O to E Avenue P	4	53,660	36,000	1.49	F
1077	Sierra Hwy	E Avenue P to E Avenue Q	4	14,366	36,000	0.40	A
1078	Sierra Hwy	E Avenue Q to Palmdale Blvd	4	15,253	36,000	0.42	A
1079	Sierra Hwy	Palmdale Blvd to E Avenue R	4	9,993	36,000	0.28	A
1080	Sierra Hwy	E Avenue R to E Avenue S	4	7,289	36,000	0.20	A
1081	Sierra Hwy	E Avenue S to Pearblossom Hwy	4	8,070	36,000	0.22	A
1082	10th Street E	E Avenue P to E Avenue Q	2	2,357	18,000	0.13	A
1083	10th Street E	E Avenue Q to E Palmdale Blvd	4	5,732	36,000	0.16	A
1084	10th Street E	E. Palmdale Blvd to Avenue R	2	5,756	18,000	0.32	A
1085	10th Street E	Avenue R to Avenue S1	2	3,898	18,000	0.22	A
1086	20th Street E	E Avenue P to E Avenue Q	2	6,362	18,000	0.35	A
1087	20th Street E	E Avenue Q to Palmdale Blvd	2	9,746	18,000	0.54	A
1088	20th Street E	Palmdale Blvd to E Avenue R	4	13,063	36,000	0.36	A
1089	20th Street E	E Avenue R to E Avenue S	4	12,938	36,000	0.36	A
1090	25th Street E	E Avenue P to E Avenue Q	2	8,624	18,000	0.48	A
1091	25th Street E	E Avenue Q to Palmdale Blvd	2	8,947	18,000	0.50	A
1092	25th Street E	Palmdale Blvd to E Avenue R	4	13,007	36,000	0.36	A
1093	25th Street E	E Avenue R to E Avenue S	4	16,629	36,000	0.46	A
1094	25th Street E	E Avenue S to Pearblossom Hwy	4	14,269	36,000	0.40	A

Table 22: 2045 Preferred Plan Daily Volumes							
	Roadway Segments			2045 Preferred Plan			
LINKID	Roadway	From/To	Lanes	2045PrefPlan_Tot_Flow_adj	Capacity	V/C	LOS
1095	30th Street E	E Avenue P to E Avenue Q	2	7,961	18,000	0.44	A
1096	30th Street E	E Avenue Q to Palmdale Blvd	2	7,821	18,000	0.43	A
1097	30th Street E	Palmdale Blvd to E Avenue R	4	8,354	36,000	0.23	A
1098	30th Street E	E Avenue R to E Avenue S	4	8,871	36,000	0.25	A
1099	40th Street E	E Avenue P to E Avenue Q	2	11,891	18,000	0.66	B
1100	40th Street E	E Avenue Q to E Palmdale Blvd	2	7,185	18,000	0.40	A
1101	40th Street E	E Palmdale Blvd to E Avenue R	3	14,092	27,000	0.52	A
1102	40th Street E	E Avenue R to E Avenue S	3	12,432	27,000	0.46	A
1103	40th Street E	E Avenue S to Sierra Hwy	2	10,612	18,000	0.59	A
1104	47th Street E/50th Street E/Ft Tejon Rd	E Avenue M to E Avenue N	2	22,987	18,000	1.28	F
1105	47th Street E/50th Street E/Ft Tejon Rd	E Avenue P to Palmdale Blvd	2	16,180	18,000	0.90	D
1106	47th Street E/50th Street E/Ft Tejon Rd	Palmdale Blvd to E Avenue R	4	26,588	36,000	0.74	C
1107	47th Street E/50th Street E/Ft Tejon Rd	E Avenue R to E Avenue R-8	4	26,908	36,000	0.75	C
1108	47th Street E/50th Street E/Ft Tejon Rd	E Avenue R-8 to E Avenue S	4	19,854	36,000	0.55	A
1109	47th Street E/50th Street E/Ft Tejon Rd	E Avenue S to Essex Dr	5	28,816	45,000	0.64	B
1110	47th Street E/50th Street E/Ft Tejon Rd	Essex Dr to Pearblossom Hwy	4	24,367	36,000	0.68	B
1111	47th Street E/50th Street E/Ft Tejon Rd	Pearblossom Hwy to E Avenue T-8	4	30,811	36,000	0.86	D
1120	Technology Dr	10th Street W to Trade Center Dr	4	7,277	36,000	0.20	A
1121	Technology Dr	5th Street W to Division St	4	7,574	36,000	0.21	A
1122	Technology Dr	Division St to Sierra Hwy	4	7,805	36,000	0.22	A
						Total LOS A through D	**102**
						Total LOS E	**3**
						Total LOS F	**8**
						Total LOS Reported	**113**

Table 23 reports the link-based VMT, VHT, VHD, and average speeds by facility for the Palmdale SOI for all trips regardless of trip origin or destination.

Table 23: 2045 Preferred Plan Palmdale Sphere of Influence VMT/VHT by Facility Type for All Trips

	AM Peak				PM Peak				Daily			
Facility	**VMT**	**VHT**	**Speed**	**Delay**	**VMT**	**VHT**	**Speed**	**Delay**	**VMT**	**VHT**	**Speed**	**Delay**
Freeways	243,132	4,149	58.6	675	294,514	4,620	63.7	413	1,063,365	16,410	64.8	1,219
HOT facilities	0	0	0.0	0	0	0	0.0	0	0	0	0.0	0
HOV facilities	50,509	776	65.1	55	41,547	598	69.5	4	99,507	1,480	67.2	59
Expressways/ parkways	0	0	0.0	0	0	0	0.0	0	0	0	0.0	0
Principal arterials	225,647	6,006	37.6	1,038	330,852	8,917	37.1	1,601	1,208,274	30,538	39.6	3,914
Minor arterials	262,849	6,443	40.8	449	420,218	10,415	40.3	824	1,382,559	33,333	41.5	1,738
Major collectors	110,627	2,819	39.2	212	157,278	3,986	39.5	250	492,059	12,273	40.1	563
Minor collectors	5,977	144	41.5	2	7,070	178	39.6	6	19,576	497	39.4	12
Freeway ramps	11,299	537	21.1	197	15,858	759	20.9	286	55,388	2,412	23.0	754
Truck lanes only	0	0	0.0	0	0	0	0.0	0	0	0	0.0	0
Centroid connectors	67,697	2,650	25.5	0	109,639	4,293	25.5	0	364,492	14,297	25.5	0
Total—All Links	977,736	23,524	41.6	2,628	1,376,977	33,764	40.8	3,384	4,685,219	111,241	42.1	8,259

Summary

Daily trips are defined as having an origin, destination or both within the Palmdale SOI and do not include pass-through trips. The Palmdale trips generate a VMT of 7,727,110 and a VHT of 261,367 on all the roadway facilities within the SCAG region. The Palmdale SOI only accounts for 28.9 percent of the total VMT generated, Lancaster accounts for 14.2 percent, and the High Desert region accounts for 4.1 percent. The rest of Los Angeles County accounts for 27.4 percent.

The average trip length for trips originating and staying within the Palmdale SOI is 4.44 miles, constituting 70.8 percent of all Palmdale trips. The average trip length for trips originating in the Palmdale SOI and having a destination anywhere in the SCAG region including itself is 10.86 miles.

Daily segment-based LOS results show the number of segments operating at LOS E is three and LOS F is eight and accounts for 2.7 percent and 7.1 percent, respectively, of all the segments analyzed.

The Palmdale transportation network as a system, which includes all roadway facilities within the Palmdale SOI, generates 4,685,219 VMT, 111,241 VHT and 8,259 VHD daily. This accounts for all trips, including pass through trips, using the highway network within the Palmdale SOI.

Measures of Effectiveness

Measures of effectiveness (MOE) metrics can be used for scenarios to predict the effects of a project on the transportation network in Palmdale as a "system." Some of the more important metrics include the change in VMT, VHT, and VHD between the project and no-project scenarios. Delay represents the amount of time lost for vehicles from the free-flow condition. If delay decreases, then the transportation network as a system will have improved performance with better operations and travel speeds. This is also in line with VMT as a metric that is being used for project-related impacts. Level of service metrics can still be used for intersection operations analysis and segment levels of service for an area defined around the project.

Measures of effectiveness were computed for all scenarios for the Palmdale General Plan.

Table 24 shows the various statistics for the home-based and all trip purposes for the Palmdale SOI under all scenarios. The average trip lengths for home-based work, home-based trips and all trip purposes decrease in the future Palmdale GP scenarios, which in turn reduces the VMT generated. The VMT per capita and the VMT per employee also decrease. In addition, the average trip lengths for the 2045 Preferred Plan scenario decreases. All these reductions effectively contribute toward the overall reduction in VMT and thereby improve the air quality by reducing the emissions of greenhouse gases and CO_2.

Table 25 presents the percent share of VMT generated by trips between the Palmdale SOI and other areas of the SCAG region. The intra-Palmdale VMT increased in the 2045 Preferred Plan scenario, reducing VMT to other areas as designed using smart growth assumptions (e.g., a good mixture of households and employment and transit-oriented developments). Palmdale, an exporter of workers, now finds itself being less of an exporter with smart growth initiatives and striving toward being self-contained as evident by the reduction in the VMT to other regions and the increase in VMT to the Palmdale sphere of influence and neighboring areas (e.g., Lancaster and the High Desert Region). The VMT to other parts of Los Angeles and Orange counties dropped from 46 to 36 percent, a decrease of 10 percent, primarily due to the reduced number of longer trips.

Table 26 displays the link-based daily VMT generated by the SCAG model for the different facility types having an origin or destination in the Palmdale sphere of influence. Trips which are pass-through in nature, where they do not have an origin or destination in the Palmdale SOI are not counted. The future year Palmdale Preferred Plan has the lowest VMT among all the scenarios, reflecting shorter trip lengths to and from the Palmdale sphere of influence.

Table 24: Trip Purpose Statistics

Palmdale Sphere—Statistics	2017 Existing	2045 Base	2045 Preferred Plan
Home-based work trips—VMT per capita	16.43	14.54	8.85
Home-based work trips—average trip length	31.57	31.10	21.59
Home-based all trips—VMT per capita	26.19	23.20	16.57
Home-based all trips—average trip length	16.49	15.63	12.62
All trips—VMT per service population	34.30	30.60	27.00
All trips—average trip length	11.87	11.56	10.86

Table 25: VMT between Palmdale Sphere and Areas within the SCAG Region

Percent VMT	2017 Existing	2045 Base	2045 Preferred Plan
Within Palmdale sphere	14.4%	15.9%	16.9%
Within Palmdale/Lancaster/High Desert region	33.4%	34.4%	38.3%
Between Palmdale and LA County/Orange County	45.9%	41.9%	35.6%
Between Palmdale and remainder of SCAG region and external trips from outside the region	20.7%	23.8%	26.1%
Total	**100.0%**	**100.0%**	**100.0%**

Table 26: VMT to/from Palmdale Sphere to Areas within the SCAG Region by Facility Type

Facility Type	2017 Existing	2045 Base	2045 Preferred Plan
Freeways	2,893,868	2,945,756	2,395,390
HOT facilities	11,431	9,285	7,911
HOV facilities	284,701	284,422	184,453
Expressway/parkway	4,381	5,650	5,083
Principal arterials	1,484,072	1,671,644	1,571,929
Minor arterials	1,631,560	1,897,218	1,821,834
Major collectors	1,067,379	1,321,027	1,075,565
Minor collectors	41,916	43,307	53,726
Freeway ramps	152,550	156,041	122,764
Truck lanes only	6,323	7,485	8,130
Centroid connectors	450,545	520,432	480,325
Total	**8,028,726**	**8,862,268**	**7,727,110**

Table 27 displays the link-based daily VMT, VHT, VHD, and average speeds for the Palmdale transportation network as a system that includes all roadway facilities within the Palmdale SOI. The summary statistics include all trips generated by the SCAG model regardless of whether the trip begins or ends within the Palmdale SOI. All trips using the highway network within the Palmdale SOI are counted.

Table 27: VMT for All Links within the Palmdale Sphere of Influence

All Trips Generated within or Passing through Palmdale Sphere (II, IX-XI and XX)*	2017 Existing	2045 Base	2045 Preferred Plan
Daily VMT (miles)	4,275,553	5,029,773	4,685,219
Daily VHT (hours)	100,085	123,190	111,241
Daily delay (hours)	6,783	12,590	8,259
Average speed (mph)	42.7	40.8	42.1

*II = Internal-to-internal trips, where both ends of the trips are within the Palmdale SOI
IX = Internal-to-external trips, where the origin of the trips is within the Palmdale SOI and the destination of the trips could be anywhere in the SCAG region.
XI = External-to-internal trips, where the origin of the trips could be anywhere in the SCAG region and the destination of the trips is within the Palmdale SOI
XX = External-to-external trips, where both the origin and destination of the trips could be anywhere in the SCAG region

The link-based performance statistics for the roadway facilities within the Palmdale SOI are shown in Table 28. The VMT, VHT, and VHD are reported for daily and AM and PM peak periods for all the scenarios. These metrics are lower in the 2045 Preferred Plan than in the 2045 base scenario. The VHD decreases by more than 30 percent, suggesting that the Palmdale transportation network as a system is performing exceptionally well. The delay represents the degradation of the system from free-flow conditions where there is minimal or no delay. The congested speeds on the system have also improved.

Table 28: Performance Statistics by Facility Type within the Palmdale Sphere of Influence

Performance Measurement	Facility Type	Palmdale Sphere of Influence Analysis		
		2017 Existing	2045 Base	2045 Preferred Plan
Daily VMT (thousands)	Freeways	1,203.1	1,327.1	1,162.9
	Arterials	2,197.7	2,658.9	2,590.8
	Other	874.8	1,043.8	931.5
	All Facilities	**4,275.6**	**5,029.8**	**4,685.2**
AM and PM peak period VMT (thousands)	Freeways	646.4	712.9	629.7
	Arterials	1,049.5	1,246.6	1,239.6
	Other	445.4	533.5	485.4
	All Facilities	**2,141.3**	**2,493.1**	**2,354.7**
Daily VHT (thousands)	Freeways	18.8	21.9	17.9
	Arterials	53.3	67.4	63.9
	Other	28.0	33.9	29.5
	All Facilities	**100.1**	**123.2**	**111.2**
AM and PM peak period VHT (thousands)	Freeways	10.7	12.9	10.1
	Arterials	26.4	33.2	31.8
	Other	14.5	17.6	15.4
	All Facilities	**51.6**	**63.7**	**57.3**
Daily VHD (thousands)	Freeways	1.6	2.9	1.3
	Arterials	3.6	7.4	5.7
	Other	1.5	2.2	1.3
	All Facilities	**6.8**	**12.6**	**8.3**
AM and PM peak period VHD (thousands)	Freeways	1.5	2.7	1.1
	Arterials	2.7	5.1	3.9
	Other	1.1	1.6	1.0
	All Facilities	**5.3**	**9.4**	**6.0**

Table 29 summarizes the level of service for all the scenarios showing segments with LOS E and LOS F. There are eleven segments with LOS E or LOS F in the 2045 Preferred Plan scenario, of which five have similar level of service in the 2017 Existing Counts scenario.

Table 29. Summary of Roadway Segments at Level of Service E or F

LINKID	Roadway Segments		Level of Service				
	Roadway	From/To	2017 Existing Counts	2017 Existing Model	2045 Base	2045 Base with HDC	2045 Preferred Plan
1001	Columbia Way/Avenue M	10th Street W to Sierra Hwy	B	A	D	D	E
1002	Columbia Way/Avenue M	Sierra Hwy to 10th Street E	C	A	E	D	E
1015	Rancho Vista Ave/Avenue P	Country Club Dr to Division St	C	F	B	A	A
1016	Rancho Vista Ave/Avenue P	Division St to Sierra Hwy	B	F	B	B	B
1017	East Avenue P	Sierra Hwy to 8th Street E	E	C	F	E	F
1019	East Avenue P	15th Street E to 20th Street E	B	B	E	B	D
1035	Palmdale Blvd	5th Street E to 10th Street E	C	E	A	A	C
1042	Palmdale Blvd	70th Street E to 80th Street E	E	F	E	E	E
1054	Avenue S	Sierra Hwy to 10th Street E	D	F	F	D	D
1055	Avenue S	10th Street E to 20th Street E	D	E	E	D	D
1056	Avenue S	20th Street E to 25th Street E	D	E	E	D	D
1057	Avenue S	25th Street E to 30th Street E	D	E	D	D	D
1062	Pearblossom Hwy/Avenue T	Sierra Hwy to 25th Street E	F	F	F	F	F
1063	Pearblossom Hwy/Avenue T	25th Street E to 40th Street E	F	E	F	F	F
1064	Pearblossom Hwy/Avenue T	40th Street E to 47th Street E	B	A	E	D	D
1065	Pearblossom Hwy/Avenue T	47th Street E to Fort Tejon Road	B	A	E	D	D
1066	Pearblossom Hwy/Avenue T	Fort Tejon Road to 70th Street E	A	A	E	D	B
1072	10th Street W/Tierra Subida Ave	Technology Dr to W Palmdale Blvd	D	A	F	E	F
1074	Sierra Hwy	Columbia Way to E Avenue N	C	B	D	D	F
1075	Sierra Hwy	E Avenue N to E Avenue O	C	B	E	D	F
1076	Sierra Hwy	E Avenue O to E Avenue P	D	C	F	F	F
1095	30th Street E	E Avenue P to E Avenue Q	A	A	A	E	A
1099	40th Street E	E Avenue P to E Avenue Q	A	A	A	F	B
1104	47th Street E/50th Street E/Ft Tejon Rd	E Avenue M to E Avenue N	F	A	F	F	F
1105	47th Street E/50th Street E/Ft Tejon Rd	E Avenue P to Palmdale Blvd	C	A	D	E	D
1107	47th Street E/50th Street E/Ft Tejon Rd	E Avenue R to E Avenue R-8	C	D	E	E	C
1111	47th Street E/50th Street E/Ft Tejon Rd	Pearblossom Hwy to E Avenue T-8	A	C	E	B	D
		Total LOS E	**2**	**5**	**11**	**6**	**3**
		Total LOS F	**3**	**5**	**7**	**5**	**8**
		Total LOS E and F	**5**	**10**	**18**	**11**	**11**

Figures 14 through 16 illustrate the comparison of scenarios by facility types. The figures clearly show the 2045 Preferred Plan scenario performs very well compared to the 2045 Base scenario.

Figure 14: Daily VMT by Facility Type within the Palmdale Sphere of Influence for All Scenarios

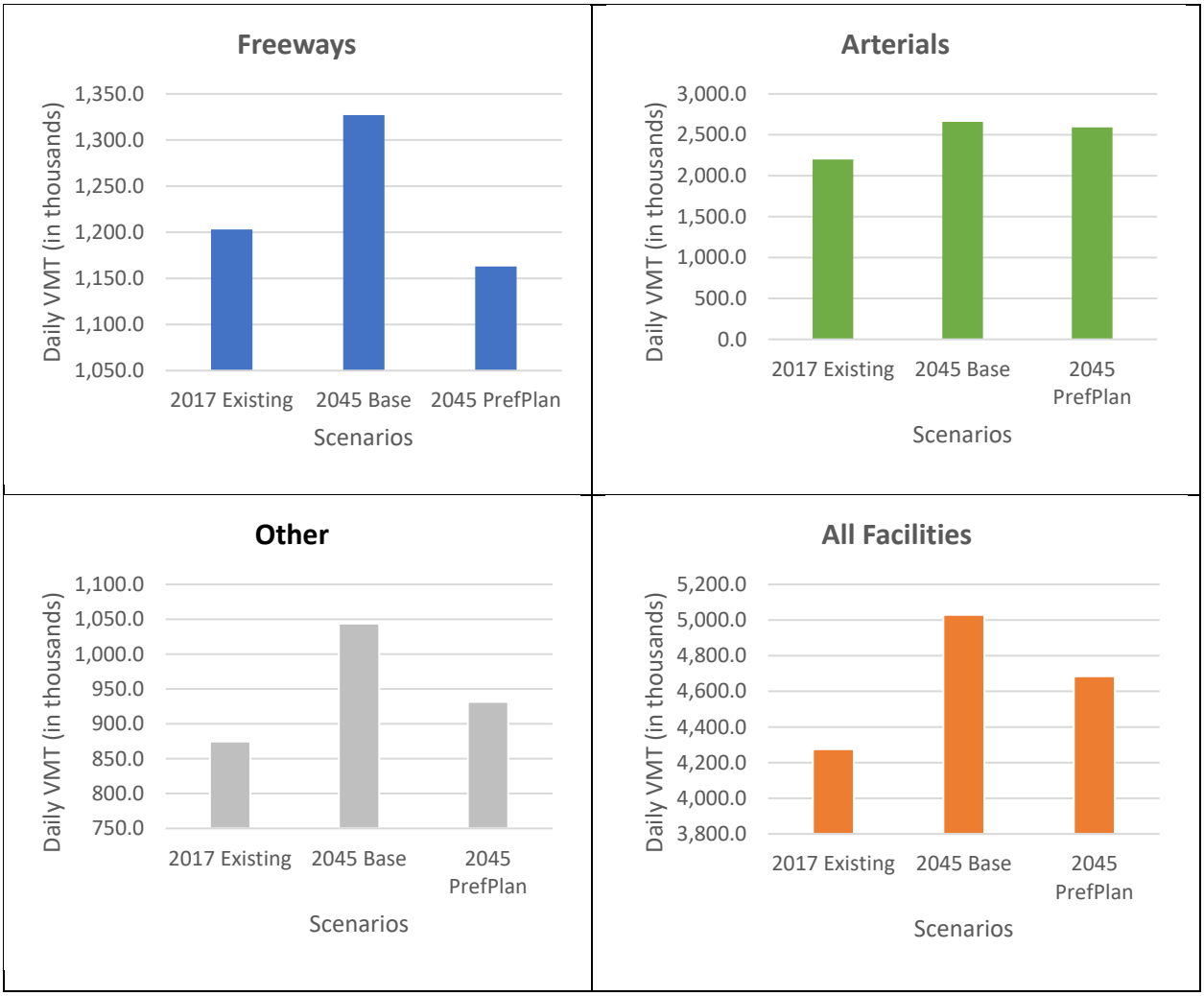


Figure 15: Daily VHT by Facility Type within the Palmdale Sphere of Influence for All Scenarios

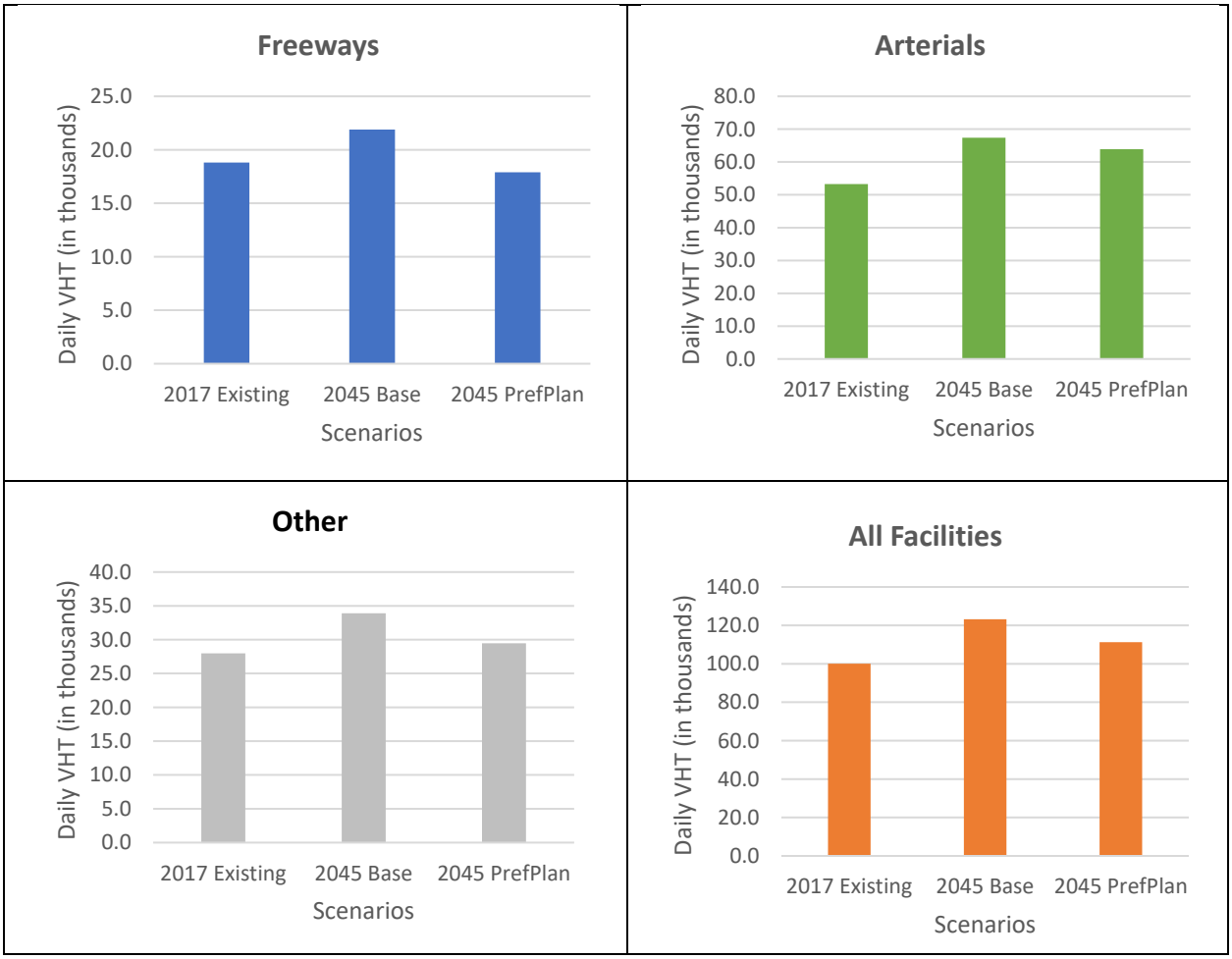
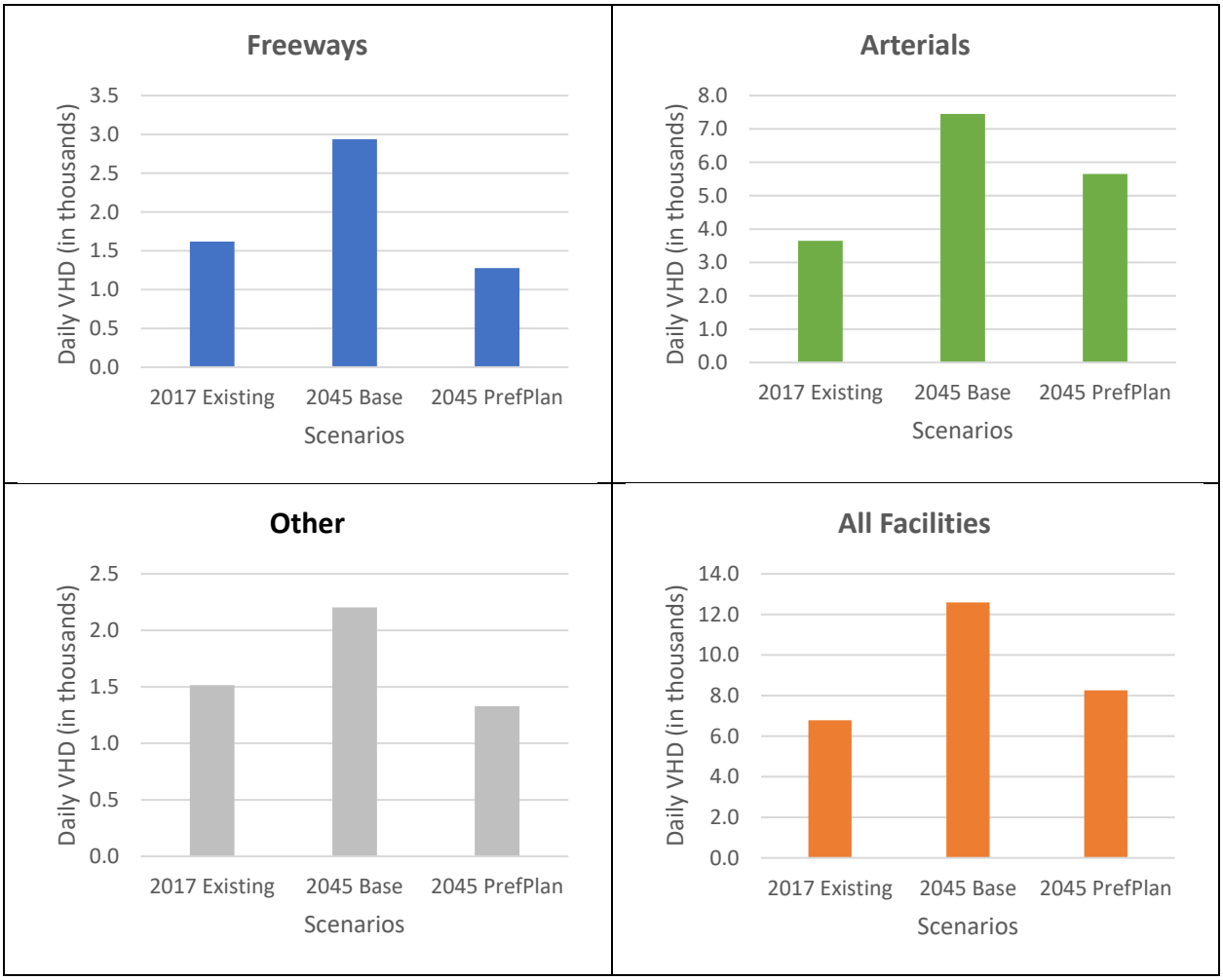


Figure 16: Daily VHD by Facility Type within the Palmdale Sphere of Influence for All Scenarios



Summary

The 2045 Preferred Plan scenario significantly reduces home-based work VMT per capita compared to the 2017 Existing scenario. This is validated by average trip lengths that are more than 30 percent shorter. The average trip length for all home-based trips in the 2045 Preferred Plan scenario decreases by 23 percent from the 2017 Existing scenario. The VMT per service population also decreases by more than 22 percent, and the average trips length for all trips decreases by 8 percent. The VMT generated by the 2045 Preferred Plan scenario from the Palmdale sphere of influence to the entire SCAG region also reduces by about four percent. The significant decrease in VMT as seen above contributes to the reduction in greenhouse gases and effectively contributes to SB 743 compliance.

The VMT for all trips (II, IX, XI and XX) using the Palmdale Transportation Network, regardless of their origin or destination also decreases by seven percent when comparing the 2045 Preferred Plan to the 2045 Base scenario. The VHT also decreases by 10 percent. Most importantly, the VHD (which reflects the performance of the system) reduces by 34 percent. This reduction in delay makes the Palmdale transportation network as a system operate exceptionally well when compared to the 2045 Base scenario. Better operating conditions result in higher speeds and lower greenhouse gas emissions.

Vehicle Miles Traveled Impact Criteria Analysis

SB 743 OVERVIEW

> ***CEQA refers to the California Environmental Quality Act. This statute requires identification of any significant environmental impacts of state or local action including approval of new development or infrastructure projects. The process of identifying these impacts is typically referred to as the environmental review process.***

On September 27, 2013, Governor Jerry Brown signed SB 743 into law to start a process intended to fundamentally change transportation impact analysis as part of CEQA compliance. In response to SB 743, the Office of Planning and Research (OPR) selected vehicle miles of travel (VMT) as the new transportation impact metric. The OPR then submitted updates to the CEQA Guidelines and these updates were certified by the Natural Resources Agency in December 2018. Lead agencies have been granted a grace period until July 1, 2020 to opt-in to implementing a VMT analysis as part of the environmental review process.

Accordingly, SB 743 eliminates level of service (LOS) as the basis for determining significant transportation impacts under CEQA and provides a new performance metric – VMT. With this change, the State is shifting the focus from measuring a project's impact to drivers (LOS) to measuring the impact of driving (VMT) to achieve the goals of reducing greenhouse gas (GHG) emissions, encouraging infill development, and improving public health through active transportation.

The OPR produced a Technical Advisory to assist lead agencies with the implementation of SB 743 by steering lead agencies toward the variety of implementation questions they face with respect to shifting to a VMT metric. However, lead agencies must continue to make specific decisions regarding VMT methodology, thresholds, and mitigation that are consistent with the county's goals as expressed in their relevant plans and policies.

PROJECTS AFFECTED BY SB 743

Two types of projects, land use development projects and transportation infrastructure projects, are affected by SB 743.

- **Land Use:** Development projects and plans (e.g., Community Plan or Specific Plan) will continue to require a transportation impact analysis. However, transportation impact studies conducted as part of the CEQA process will now be required to base project impacts on VMT. In addition, some projects, such as those located adjacent to transit, may be screened from requiring a detailed VMT analysis.
- **Transportation Infrastructure:** Prior to SB 743, transportation projects that had the potential to worsen vehicle delay, such as narrowing a roadway to enhance travel for bicyclists and pedestrians, may result in an environmental impact under CEQA. With SB 743 in place, transportation projects that promote travel by non-auto modes are no longer considered to result in an environmental impact. Roadway widening projects will now need to consider the potential to induce vehicle travel demand due to increased capacities, which may make driving a more attractive travel option.

SB 743 does not prevent a jurisdiction from continuing to analyze LOS as part of the development review process to determine if transportation improvements are needed to accommodate the proposed land uses, but LOS will no longer constitute the basis for CEQA impacts.

LOS ANGELES COUNTY VMT IMPLEMENTATION

Los Angeles County updated its *Transportation Impact Report Guidelines* in July 2020 to lay forth the requirements for CEQA and non-CEQA sections of transportation studies.

The updated CEQA guidelines contains a new section to determine the significance of transportation impacts (Section 15064.3). While OPR's Technical Advisory helped lead agencies regarding the variety of implementation questions to consider when adopting the new CEQA guidance, lead agencies must still make their own specific decisions about VMT methodology, thresholds, and mitigation.

The Los Angeles County guidance states that the Public Works Department will (generally) require the preparation and submission of a transportation impact analysis for projects that meet the following criteria.

- **Development Projects**
  - Estimated to generate a net increase of 110 or more daily vehicle trips.
- **Transportation Projects**
  - Likely to induce additional vehicle miles traveled (VMT) by increasing vehicle capacity.
  - Projects for which a transportation impact analysis is required by County ordinance, regulation, resolution, court order, or directive from the Board of Supervisors, Regional Planning Commission.

The transportation impact analysis will require the analyses and forecasting of impacts or deficiencies to the circulation system generated by the project. The transportation impact analysis will also identify feasible measures or corrective conditions to offset any impacts or deficiencies.

The county's process includes defining its Baseline VMT, developing VMT screening criteria, defining its impact thresholds, and determining potential mitigation strategies.

Defining the county's Baseline VMT is an important initial step in the implementation process because a VMT of the project will be compared to the county Baseline VMT to determine if the project exceeds the county's thresholds for VMT impacts. To determine the appropriate Baseline VMT for Los Angeles County, the VMT trends throughout the county and region were considered.

The regional Southern California Association of Governments (SCAG) model was determined to be the best available tool to estimate VMT in Los Angeles County. The most current version of the SCAG model, with a base year of 2012 and future year of 2040, was developed for the *2016 SCAG Regional Transportation Plan/ Sustainable Communities Strategy,* April 2016. The model utilizes traffic analysis zones (TAZs) that contain socio-economic data reflecting the population, employment, and land use development characteristics throughout the region.

BASELINE VMT

Given the differences in VMT trends between the northern and southern planning areas in Los Angeles County, the County has adopted separate North County and South County Baseline VMT benchmarks. As shown in Figure 17, the North County Baseline VMT contains the Antelope Valley, Santa Clarita Valley, and Santa Monica Mountains planning areas in the more rural portion of the County and the South County Baseline VMT contains the remaining planning areas in the more urban portion of the County.

By establishing a North County and South County Baseline VMT, the County is acknowledging the differences in travel behavior in these areas given the land use context and transportation network to represent a more realistic and reasonable picture of VMT activity levels, and thus a more appropriate and feasible baseline for VMT analysis.

Figure 17: Baseline VMT Benchmark Coverage Area for Los Angeles County

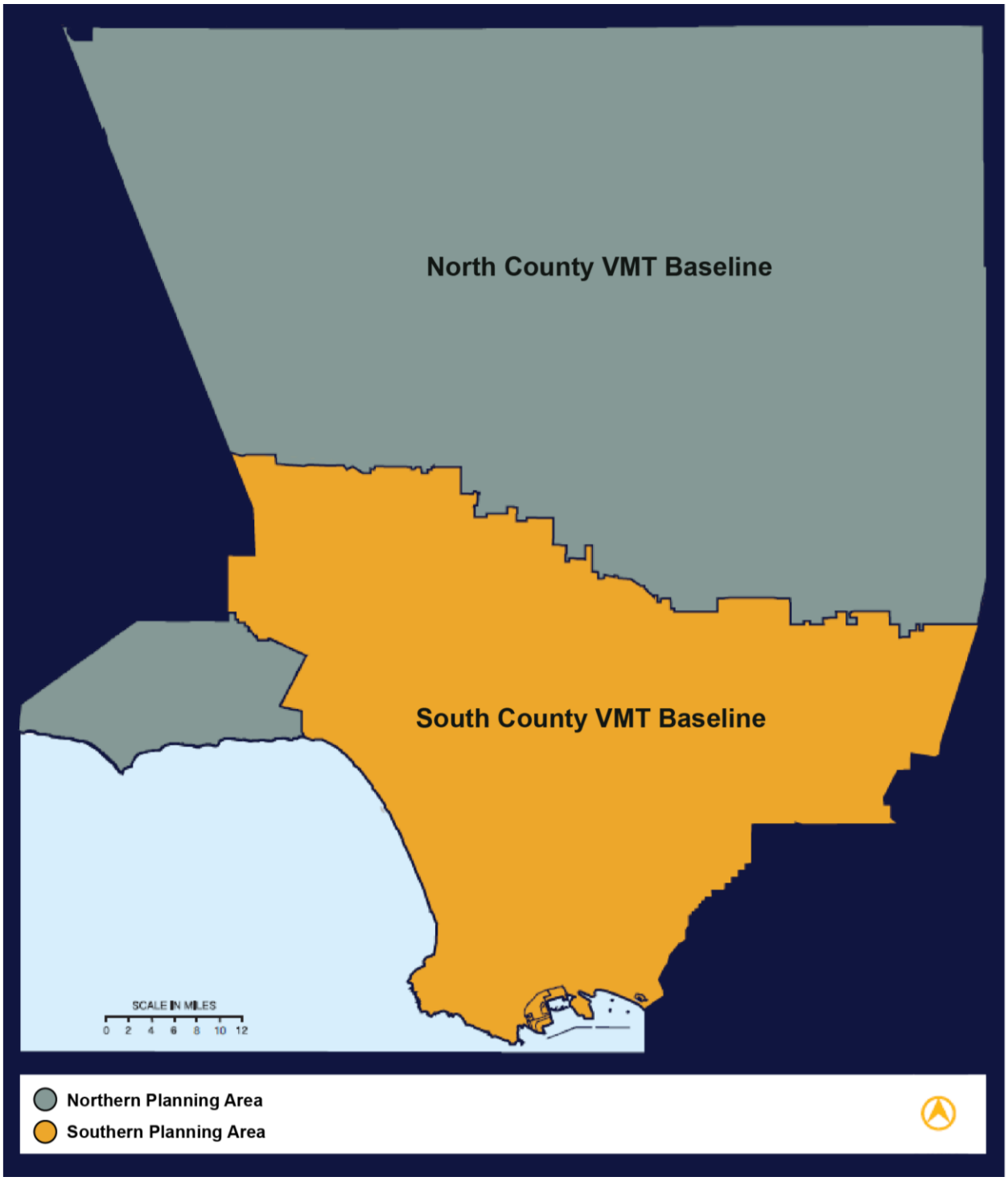


Table 30 reports the North County and South County Baseline VMT metrics for the county as reported in the *Transportation Impact Analysis Guidelines* document published by the Los Angeles County Public Works updated September 2, 2020. Future development projects and plans in each of these areas will be compared to the applicable Baseline VMT metrics to determine if they meet the County's thresholds for a VMT impact. The higher North County Baseline VMT acknowledges that projects and plans in the northern portion of the county will generate higher levels of VMT and should be compared to current VMT trends when determining the significant findings for VMT impacts. The lower South County Baseline VMT holds projects and plans in the southern portion of the county to a more conservative standard than if it was compared to the average VMT for the overall county. However, projects and plans should be compared to current VMT trends in the southern portion of the county with similar land use context when determining if VMT impacts may occur.

Table 30: Baseline VMT Thresholds for North and South County

Baseline Area	Total VMT per Service Population	Residential VMT per Capita	Employment VMT per Employee
North County	43.1	22.3	19.0
South County	31.1	12.7	18.4

Source: *Transportation Impact Analysis Guidelines,* Los Angeles County Public Works, July 23, 2020

While the baseline VMT trends included in this table reflect the base year of the SCAG model, baseline conditions for CEQA purposes will be specific to the release date of a project's notice of preparation. The Total VMT per Service Population threshold is independent of (and not necessarily a total of) Residential VMT per Capita and Employment per Employee.

The VMT methodology for land use projects and plans is based on the origin-destination (OD) VMT method. The OD VMT method estimates VMT generated by land uses in a specific geographic area such as the entire county, or a smaller area such as a regional planning area (e.g., Palmdale) or project site. All vehicles traveling to and from the defined geographic area are tracked within the SCAG model and the number of trips and length of trips are used to calculate the OD VMT. The OD VMT method requires two major data inputs. The first data input is the set of vehicle trip tables (including all vehicle trips by vehicle mode and by time of day) that contain the number of trips between each zone in the model. The second data input is the set of highway distance skims (by vehicle mode and by time of day) that allows the trip distances for each OD pair to be based on congested travel time, speed, and cost from the final highway assignment. The total VMT matrices are then generated by multiplying the final OD trip tables with the corresponding highway distance skims. This method of computing VMT is also referred to as zone-based.

For land use projects and plans, the OD VMT methodology is the most appropriate method because it tracks all trips by trip purpose and the full length of those trips generated by the proposed land uses. The methodology can be used to report the following VMT metric.

- **Total VMT per Service Population** (all vehicles and all trip purposes): The total VMT to and from all zones in the geographic area are divided by the total service population to establish the efficiency metric of VMT per service population. The total service population is the sum of the number residents and the number of employees.

VMT THRESHOLDS FOR LAND USE PLANS

The Los Angeles County Transportation Impact Analysis Guidelines call for land use plans to promote outcomes whereby total VMT per service population (residents and employees) should be 16.8 percent below the existing VMT per service population for the Baseline Area in which the plan is located (see Table 30). Doing so will align the county with the latest state climate goals and help achieve its own targets. A 16.8 percent VMT reduction threshold also sets a higher bar than the suggested OPR threshold of 15 percent based on the latest research available. **At the time of the preparation of this document**, t**he City of Palmdale is utilizing the LA County Guidelines for North County as the most appropriate VMT thresholds and analysis methodology.**

VMT ANALYSIS

The Palmdale General Plan envisions a growth in population, households and employment to work toward a goal of being a self-contained community in the northern part of Los Angeles County, also known as Antelope Valley. The socio-economic data for the Palmdale sphere of influence, which includes the City of Palmdale and the surrounding areas, is reported in Table 31. The socio-economic data reported include population, households, employment and service population (which represents the sum of population and employment). A map of the area is displayed in Figure 18.

Table 31: Palmdale Sphere of Influence Socio-economic Data

	2017 SCAG*	2017 Existing**	2040 SCAG†	2045 Base‡	2045 Preferred Plan§
Population	195,574	188,488	248,031	240,515	225,692
Households	56,863	53,626	75,925	72,840	70,618
Employment	35,575	49,501	39,821	67,085	74,804
Service Population	231,149	237,989	287,852	307,600	300,496

*Based on the 2017 existing SCAG land use scenario and the 2016-2040 Regional Transportation Plan/Sustainable Communities Strategies (RTP/SCS).

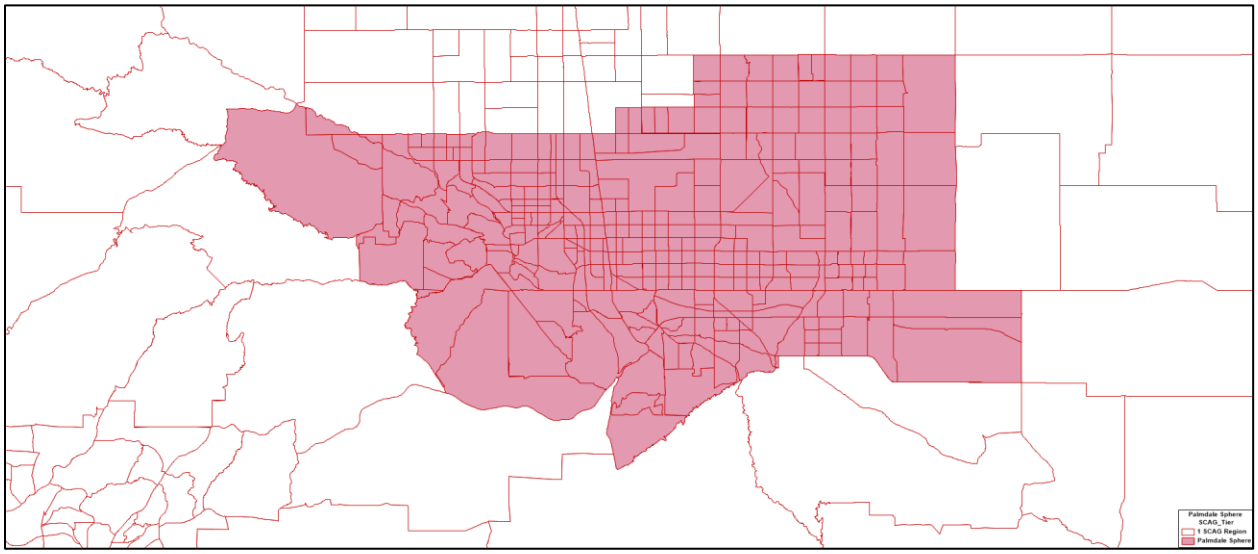
**Based on the 2017 SCAG with the City of Palmdale assumptions for households, population and employment and the SCAG 2016-2040 RTP/SCS. In addition, Plant 42 employment was added. The land use was updated for the Palmdale SOI zones only, all other zones contained the SCAG 2016-2040 RTP/SCS.

†Based on the 2040 SCAG land use scenario and the SCAG 2016-2040 RTP/SCS.

‡Based on the 2040 SCAG with the City of Palmdale assumptions for households, population and employment and the SCAG 2016-2040 RTP/SCS. In addition, Plant 42 employment was added. The land use was updated for the Palmdale SOI zones only, all other zones contained the SCAG 2016-2040 RTP/SCS.

§Based on the2040 SCAG with the GP Preferred Plan assumptions for households, population and employment and SCAG 2016-2040. The land use was updated for the Palmdale SOI zones only, all other zones contained the SCAG 2016-2040 RTP/SCS.

Figure 18: Palmdale Sphere of Influence



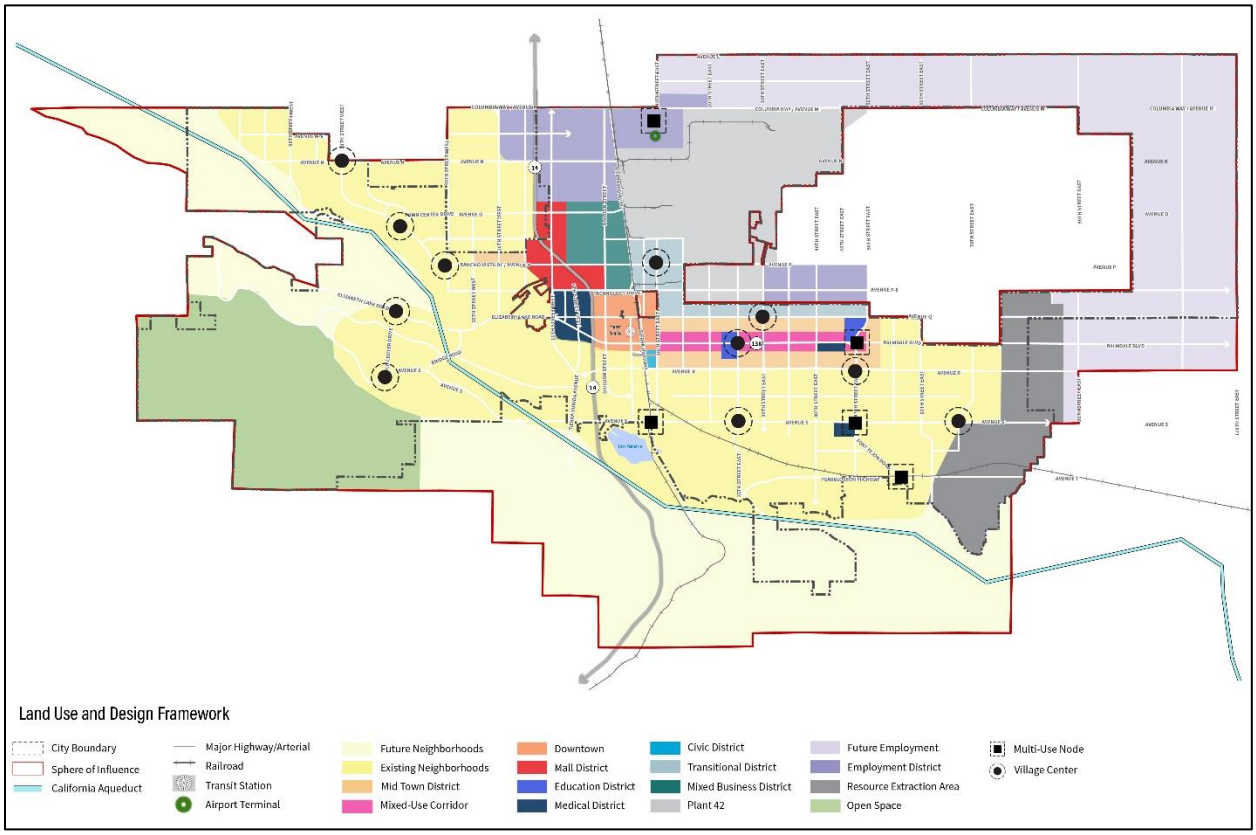
The project impacts criterion, as defined by the Los Angeles SB 743 implementation guideline, states that all land use plans in the Los Angeles County area have certain VMT thresholds that must be met.

Palmdale is located in the North County region and as such the North County VMT criteria apply. The Baseline VMT threshold guidelines were presented previously in Table 30. The VMT screening procedure of the Palmdale General Plan Update (Palmdale GP) suggests that there are impacts because more than 110 trips are generated; therefore, a VMT impact criteria assessment is required for the Palmdale GP. The procedure compares the "Total VMT per Service Population" against the North County Baseline VMT scenario (see Table 30) for any impacts generated by the Palmdale GP.

The Palmdale General Plan preferred scenario (2045 Preferred Plan) is the future land use forecasting developed for future growth within the Palmdale city limits and its sphere of influence. The 2045 Preferred Plan was selected based on extensive review and feedback received of the scenarios by the Planning Commission, City Council, General Plan Advisory Committee, the community, and stakeholders. The major elements of the 2045 Preferred Plan, as shown in Figure 19, include:

- Two education districts
- Three health and wellness districts
- Regional commercial uses around the Antelope Valley Mall and a regional commercial area to the west of the intersection of Avenue Q/45th Street East
- A mix of employment uses around Plant 42
- Mixed uses along the Palmdale Boulevard corridor
- Medium density housing north and south of Palmdale Boulevard
- Village Centers with a mix of neighborhood retail or commercial uses along with residential uses in mixed-use format in various locations throughout the city.

Figure 19. 2045 Preferred Plan Land Use and Design Framework



The SCAG RTP/SCS Travel Demand Model (SCAG model) was run through all four steps of the SCAG model for the following scenarios:

- **2017 SCAG:** This model run is based on the 2017 model forecast year assumptions using the 2016 RTP/SCS model directly without any modifications.
- **2017 Existing:** The 2017 SCAG model forecast year is used and the land use in the Palmdale SOI is modified with land use obtained from the City of Palmdale. The employment is updated for several zones to account for Plant 42, which is not in the employment forecasts.
- **2040 SCAG:** This model run is based on the 2040 model forecast year assumptions using the 2016 RTP/SCS model directly without any modifications.
- **2045 Base:** The 2040 SCAG model forecast year is used and the land use in the Palmdale City limits were modified to reflect updated assumptions. The 2045 Base scenario is developed by updating the 2040 SCAG land use within the Palmdale SOI with land use obtained from the City of Palmdale. The employment is updated for a few zones to account for Plant 42, which was not in the employment forecasts. The land use updates are made to all the zones within the Palmdale SOI to reflect updated socioeconomic data forecasts.
- **2045 Preferred Plan:** The 2040 SCAG model forecast year is used and the land use in the Palmdale City limits are modified to reflect the final 2045 Preferred Plan scenario assumptions. The 2045 Preferred Plan scenario are updated with revised socioeconomic data forecasts which are conservative in nature. Land use updates are made to all the zones within the Palmdale SOI to reflect updated socioeconomic data forecasts.

The SCAG zone system is refined for the Palmdale sphere of influence only to perform traffic assignments after the original SCAG model is run through the complete SCAG model (four steps) for each of the scenarios. The expanded zone system in the Palmdale sphere of influence is used for traffic assignment purposes to better reflect the ground conditions in the study area as the original SCAG zones are too large.

The VMT generated by the Palmdale sphere of Influence encompasses the city of Palmdale for which the land use plan is being developed. The geographic area covered by the Palmdale sphere of influence includes the city of Palmdale and the surrounding areas as shown previously in Figure 2. The VMT generated by trips between the Palmdale sphere of influence and other areas of the SCAG region is computed for all trips from and to the Palmdale SOI. The VMT threshold results of the various scenarios are shown in Table 32, which compares the Baseline VMT threshold criteria for the North County region. The Palmdale GP scenarios are well below the North County targets of 35.9, which is a 16.8 percent reduction from the baseline VMT. The Palmdale GP scenarios effectively reduce the total VMT per service population by more than double the required reduction needed. VMT per service population is the only metric or impact criteria required for a land use plan such as the Palmdale General Plan, as reported in Section 3.1.3—Impact Criteria of the *Transportation Impact Analysis Guidelines* document published by the Los Angeles County Public Works (July 23, 2020). The 2045 Preferred Plan has the least significant impact of all the scenarios, where the socio-economic data were evaluated and placed in the optimum locations for smart growth considerations. Therefore, there is no VMT impact from the 2045 Preferred Plan and as such, no mitigations are necessary.

Table 32: Baseline VMT Thresholds—Total VMT per Service Population

	2017 SCAG	2017 Existing	2040 SCAG	2045 Base	2045 Preferred Plan
Total VMT for service population from the model scenarios *	35.4	34.3	32.5	30.6	27.0
VMT impact criteria threshold result	Pass	Pass	Pass	Pass	Pass

Note: North County baseline VMT for total service population is 43.1 as shown in Table 31.
*A 16.8% decrease from the baseline VMT amounts to 35.9 as recommended by the Los Angeles County Public Works *Transportation Impact Analysis Guidelines*.

In addition, other metrics are reported against the Baseline North County targets as shown in Table 32 below for home-based work and all home-based trips. All home-based trips are trips that originate at home; home-based work trips originate at home and end at a workplace. These metrics are not required for land use plans such as the Palmdale General Plan as they are primarily required for project specific VMT impacts. Table 33 shows the home-based VMT comparisons, where the employment VMT per employee is very similar to the North County Baseline target for the 2045 Preferred Plan scenario. The residential VMT per capita is, however, significantly lower than the baseline target and effectively reduces the overall VMT for home-based trips that includes all residents, which in turn reduces emissions.

Table 33: Baseline VMT Thresholds—Home-based Trips

North County Target	Target	2017 Existing	2045 Base	2045 Preferred Plan
Employment VMT per employee*	19.00	13.37	11.48	19.65
Residential VMT per capita**	22.30	26.19	23.20	16.57

*Employment VMT is the VMT generated by home-based work trip attractions

**Residential VMT is the VMT generated by home-based work and home-based other trip productions.

Note: These metrics are not required for land use plans such as the Palmdale General Plan and are presented for information purposes only.

Table 34 presents the various statistics for the resident home-based trips with origins (productions) in the Palmdale SOI for all the scenarios. The average trip lengths for home-based work and all home-based trips decrease in the 2045 scenarios, which in turn reduces the VMT generated. The resident VMT per capita and the resident VMT per employee also decrease. All these reductions effectively contribute to the overall reduction in VMT and thereby improve the air quality by reducing the emissions of greenhouse gases and CO_2.

Table 34: Home-based Trips and VMT Statistics

	2017 Existing	2045 Base	2045 Preferred Plan
Palmdale sphere - population	188,488	240,515	225,692
Palmdale sphere - households	53,626	72,840	70,618
Palmdale sphere - employment	49,501	67,085	74,804
Home-based work trips - productions	98,084	112,477	92,503
Home-based work VMT - productions	3,096,569	3,497,945	1,997,333
Home-based work trips - attractions	59,460	76,521	108,228
Home-based work VMT - attractions	661,869	770,230	1,469,886
Home-based work trips per capita	0.52	0.47	0.41
Home-based work trips per employee*	1.20	1.14	1.45
Home-based work VMT per capita	16.43	14.54	8.85
Home-based work VMT per employee*	13.37	11.48	19.65
Home-based work - trip length	31.57	31.10	21.59
Home-based all trips - productions	299,413	357,163	296,393
Home-based all VMT - productions	4,936,083	5,580,844	3,740,763
Home-based all trips - attractions	247,409	320,037	308,625
Home-based all VMT - attractions	2,040,790	2,543,397	2,874,992
Home-based all trips per capita	1.59	1.48	1.31
Home-based all trips per employee*	5.00	4.77	4.13
Home-based all VMT per capita	26.19	23.20	16.57
Home-based all VMT per employee*	41.23	37.91	38.43
Home-based all trips – trip length	16.49	15.63	12.62

*This computation uses attractions

Table 35 shows that the average trip length for all trip purposes also decreases, thereby reducing VMT and contributing to the reduction of greenhouse gases. The zone-based VMT computations are computed by using a highway skim matrix for travel-time and travel-distances along with the trip table matrices. This procedure involves matrix computations, where the skim matrices are derived from a valid traffic assignment. The results of these computations are summarized only for the zones in the Palmdale SOI. Note that the VMT generated by this process (skim-based) will be slightly different from the VMT generated by a link-based process. The VMT reported in Table 35 is used for computing the total VMT per service population.

Table 35: All Trips and VMT Statistics

All Trip Purposes—Palmdale Sphere	2017 Existing	2045 Base	2045 Preferred Plan
Total service population	237,989	307,600	300,496
VMT (zone-based)	8,153,876	9,424,251	8,111,684
Total trips per capita	2.70	2.52	2.50
Total trips per employee	10.30	9.04	7.54
Total VMT per service population	34.30	30.60	27.00
All trips—average trip length	**11.87**	**11.56**	**10.86**

VMT MITIGATION OPPORTUNITIES

Although no mitigations are required for the 2045 Preferred Plan, it is useful to understand the mitigation strategies that may be applied in the future, if needed, to reduce the VMT through mitigation measures. The types of mitigation that affect VMT are those that reduce the number of single-occupant vehicles generated. This can be accomplished by modifying the proposed land uses or by implementing transportation demand management (TDM) strategies. Transportation demand management strategies are reductions to trip generation based on certain types of project site modifications, programming, and operational changes (see Table 36 for examples of TDM strategies).

Research documented in the 2010 California Air Pollution Control Officers Association (CAPCOA) publication, Quantifying Greenhouse Gas Mitigation Measures, offers TDM methodologies based on preferred literature, along with methodology based on alternative literature, to estimate the effectiveness of each strategy[2].

As part of the environmental process, specific mitigation strategies must be tailored to the characteristics of the project area followed by analysis and documentation of the effectiveness of the mitigation strategies to determine if those strategies will adequately mitigate impacts or if impacts will remain significant and unavoidable. Given that research on TDM strategies is on-going, feasible mitigation measures must be considered based on the best data available at the time.

The strategies described below in Table 36 are examples of the mitigation options that are most effective in areas comparable to Palmdale. Many of these strategies have already been implemented.

[2] California Air Pollution Control Officers Association, Quantifying Greenhouse Gas Mitigation Measures, August 2010 http://www.capcoa.org/wp-content/uploads/downloads/2010/09/CAPCOA-Quantification-Report-9-14-Final.pdf.

Table 36: VMT Reduction Strategies

Strategy	Description	VMT Benefit	Range of CAPCOA VMT Reductions
Increase diversity of developments (mixed use)	Includes mixed uses within Projects or in consideration of surrounding area.	Minimizes number and length of vehicle trips.	9 to 30%
Provide pedestrian network improvements	Creates pedestrian network within projects and connects to nearby destinations. Could also occur through impact fee program for active transportation improvements.	Encourages people to walk within and to project.	0 to 2%
Provide traffic calming measures and low-stress bicycle network improvements	Creates networks with low vehicle speeds and volumes that support walking and bicycling. Could also occur through impact fee program for active transportation improvements.	Encourages people to bicycle, especially for shorter trips.	0.25 to 1%
Implement car-sharing and ride-sharing programs	Shared fleet of vehicles accessible on-site for residents or employees. Can serve as a first/last- mile solution to connect with transit.	Reduces the need to own a vehicle or the number of household vehicles.	Car-Sharing: 0.4 to 0.7% Ride-Sharing: 1 to 15%
Encourage telecommuting and alternative work schedules	Encouraging telecommuting and alternative work schedules reduces the number of commute trips and therefore VMT traveled by employees. Alternative work schedules could take the form of staggered start times, flexible schedules, or compressed work weeks.	Reduces the number of days employees need to work and/or shifts commute time outside of peak periods to avoid adding to congestion.	0.07 to 5.5%
Commute Trip Reduction Programs	Projects can implement a voluntary Commute Trip Reduction program with employers to discourage single-occupancy vehicle trips and encourage alternative modes of transportation. Alternatively, a jurisdiction can implement a Commute Trip Reduction Ordinance with the intent of reducing drive-alone travel mode share.	Encourages alternatives to commuting in single-occupancy vehicles.	Varies based on selected programs
Limited Parking Supply	Projects can change parking requirements and types of supply within the Project site to encourage “smart growth” development and alternative transportation choices by project residents and employees.	Encourages alternatives to the use of single-occupancy vehicles.	5% - 12.5%
Unbundle Parking Costs from Property Cost	Unbundling separates parking from property costs, requiring those who wish to purchase parking spaces to do so at an additional cost from the property cost.	Encourages alternatives to the use of single-occupancy vehicles.	2.6% - 13%

Table 37 presents the percent share of VMT generated by trips between the Palmdale sphere of influence and other areas of the SCAG region. The intra-Palmdale VMT increased in the 2045 Preferred Plan scenario, reducing VMT to other areas using smart growth assumptions (e.g., a good mixture of households and employment and transit-oriented developments). Palmdale has been an exporter of workers, but now finds itself being less of an exporter with smart growth initiatives and striving toward being self-contained as evident by the reduction to VMT to other regions and the increase in VMT to the Palmdale sphere of influence and neighboring areas (e.g., Lancaster and the High Desert Region). The VMT to other parts of Los Angeles and Orange counties dropped from 49 to 36 percent, a decrease of 13 percent, primarily due to the reduced number of longer trips.

Table 37: VMT between Palmdale Sphere and Areas within the SCAG Region

Percent Share of VMT	2017 SCAG	2017 Existing	2040 SCAG	2045 Base	2045 Preferred Plan
Within Palmdale sphere	12.7%	14.4%	12.7%	15.9%	16.9%
Within Palmdale/Lancaster/High Desert region	30.9%	33.4%	29.8%	34.4%	38.3%
Between Palmdale and LA County/Orange County	48.9%	45.9%	46.4%	41.9%	35.6%
Between Palmdale and remainder of SCAG region and external trips from outside the region	20.2%	20.7%	23.8%	23.8%	26.1%
Total	**100%**	**100%**	**100%**	**100%**	**100%**

Table 38 displays the link-based daily VMT generated by the SCAG model for the different facility types having an origin or destination in the Palmdale sphere of influence. Trips which are pass-through in nature, where they do not have an origin or destination in the Palmdale SOI are not counted. The link-based VMT computations are computed by selecting all the zones in the Palmdale SOI and performing a "Select Zones" traffic assignment procedure.

Table 38: VMT to/from Palmdale Sphere to Areas within the SCAG Region by Facility Type

Facility Type	2017 SCAG	2017 Existing	2040 SCAG	2045 Base	2045 Preferred Plan
Freeways	2,991,484	2,893,868	3,069,614	2,945,756	2,395,390
HOT facilities	11,995	11,431	10,255	9,285	7,911
HOV facilities	310,128	284,701	330,265	284,422	184,453
Expressway/parkway	3,940	4,381	4,855	5,650	5,083
Principal arterials	1,436,595	1,484,072	1,539,496	1,671,644	1,571,929
Minor arterials	1,566,404	1,631,560	1,744,660	1,897,218	1,821,834
Major collectors	1,101,524	1,067,379	1,343,539	1,321,027	1,075,565
Minor collectors	40,011	41,916	38,246	43,307	53,726
Freeway ramps	156,721	152,550	162,438	156,041	122,764
Truck lanes only	4,456	6,323	4,427	7,485	8,130
Centroid connectors	423,875	450,545	453,483	520,432	480,325
Total	***8,047,133***	***8,028,726***	***8,701,278***	***8,862,268***	***7,727,110***

Table 39 shows the link-based daily VMT including all trips generated by the SCAG model regardless of whether the trip begins or ends within the Palmdale sphere of influence. The 2045 Preferred Plan scenario is lower than the adopted 2040 SCAG RTP/SCS forecasts for both the SCAG region and the Palmdale sphere of influence. All trips using the highway network within the Palmdale SOI are counted.

Table 39: VMT for All Links within the Geographic Area

All Trips Generated within or Passing through Palmdale Sphere (II, IX-XI and XX)*	2017 SCAG	2017 Existing	2040 SCAG	2045 Base	2045 Preferred Plan
SCAG region-daily VMT	467,745,693	467,270,822	537,732,813	537,063,042	535,079,227
Palmdale sphere-daily VMT	4,196,206	4,275,553	4,798,099	5,029,773	4,685,219

*II = Internal-to-internal trips, where both ends of the trips are within the Palmdale SOI
IX = Internal-to-external trips, where the origin of the trips is within the Palmdale SOI and the destination of the trips could be anywhere in the SCAG region.
XI = External-to-internal trips, where the origin of the trips could be anywhere in the SCAG region and the destination of the trips is within the Palmdale SOI
XX = External-to-external trips, where both the origin and destination of the trips is anywhere in the SCAG region

Conclusion

It can be seen from Table 32 that the Palmdale General Plan scenarios are well within the acceptable VMT thresholds for land use plans in the North County region as the decrease in total VMT per service population is more than double the required reduction needed. The 2045 Preferred Plan has the lowest total VMT per service population among the scenarios with a reduction of more than 37 percent compared to the Baseline VMT for North County. As such, the 2045 Preferred Plan does not require mitigations.

The average overall trip length for all trip purposes decreases in the 2045 Preferred Plan scenario, in turn reducing the VMT generated. The home-based work VMT per capita and the home-based all VMT per capita also decreases. In addition, the average trip length for home-based work and home-based all trip purposes decreases in the 2045 Preferred Plan scenario, which in turn reduces the total amount of VMT generated. All these reductions in the amount of VMT generated effectively contribute toward improved air quality and thereby reduce the emissions of greenhouse gases and CO_2.

APPENDIX

Socioeconomic Data Summary for the Palmdale Sphere of Influence

	2017 Existing			2045 Base			2045 Preferred Plan		
TAZ	Population	Households	Employment	Population	Households	Employment	Population	Households	Employment
288	1273.0	582.0	82.5	1866.4	874.7	86.9	0.0	0.0	0.0
325	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	40.7
331	3.7	1.3	6.5	4.3	1.4	7.5	4.3	1.4	7.5
333	8.6	2.8	8.7	9.9	3.0	10.9	9.9	3.0	10.9
335	43.5	27.6	0.0	25.6	11.7	0.0	25.6	11.7	0.0
350	10.0	7.0	5.0	9.4	7.0	5.0	2035.0	740.0	137.0
352	1377.0	775.0	210.0	1627.7	976.0	358.0	2575.6	783.7	215.0
353	1210.8	418.6	140.9	1558.0	576.7	141.8	1558.0	576.7	141.8
354	0.0	0.0	0.0	0.0	0.0	0.0	8.2	2.8	0.0
355	1564.0	428.0	49.0	2051.1	598.0	71.0	2101.7	620.6	33.5
356	973.0	273.2	27.5	1226.6	354.1	29.3	1226.6	354.1	29.3
357	3602.0	1348.0	685.0	4424.0	1627.0	703.0	22.4	6.5	0.0
358	0.0	0.0	18.6	0.0	0.0	22.1	0.0	0.0	0.0
359	365.0	126.1	15.4	424.8	151.6	16.7	424.8	151.6	16.7
360	727.0	248.9	57.8	959.5	341.0	59.7	755.2	220.2	92.0
361	0.0	0.0	3174.2	0.0	0.0	4472.4	1735.3	684.5	2303.0
362	2355.0	703.0	489.0	3660.0	1164.0	569.0	2873.1	830.5	472.3
363	507.3	188.5	53.8	537.5	178.9	62.6	328.2	95.3	0.0
364	0.0	0.0	242.4	0.0	0.0	1159.2	0.0	0.0	2461.5
365	1577.0	659.0	2851.0	2165.3	964.0	3145.0	2496.0	721.5	2949.0
366	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	628.6
367	0.0	0.0	181.0	0.0	0.0	202.0	27.5	8.0	203.2
368	1498.0	360.0	30.0	2191.1	561.0	32.0	1309.7	380.1	4.2
369	939.0	325.0	816.0	1423.7	525.0	931.0	1174.7	446.5	766.0
370	49.9	13.7	188.2	49.9	14.5	205.8	799.4	293.7	188.0
371	1321.0	417.0	1135.0	2242.0	754.0	1270.0	1608.2	528.4	1069.1
372	1877.0	1084.0	126.0	3258.7	2005.0	126.0	3775.7	1194.5	76.5
374	2399.0	683.0	29.0	2891.3	877.0	328.0	2194.5	685.1	9.0
375	0.0	0.0	142.8	0.0	0.0	229.0	0.0	0.0	4743.7
376	521.7	207.4	580.4	729.9	309.1	655.0	545.3	205.9	491.9
377	1551.0	371.0	394.0	2354.4	600.0	459.0	1533.2	456.4	346.1
378	216.5	101.2	8.9	220.9	94.9	9.9	0.0	0.0	0.0
379	6707.0	1774.0	265.0	7611.9	2145.0	394.0	6222.8	1839.8	259.4
380	3008.0	705.0	67.0	3023.6	755.0	106.0	2339.6	713.5	53.0

Socioeconomic Data Summary for the Palmdale Sphere of Influence

	2017 Existing			2045 Base			2045 Preferred Plan		
TAZ	Population	Households	Employment	Population	Households	Employment	Population	Households	Employment
381	800.4	173.3	241.3	963.1	222.1	286.4	2019.4	686.6	360.0
382	1367.8	333.0	200.2	2738.5	710.4	305.5	1236.5	362.3	383.9
383	0.0	0.0	7.0	0.0	0.0	19.0	0.0	0.0	0.0
384	0.0	0.0	2.1	0.0	0.0	2.6	0.0	0.0	2.6
385	1831.0	420.0	488.0	2614.7	639.0	509.0	4160.9	1540.1	929.0
386	1138.5	230.0	28.5	1639.1	352.8	32.5	1073.5	310.3	20.0
387	1.0	1.0	30.2	1.3	1.3	31.3	9.6	2.8	30.0
388	259.7	78.6	30.7	312.3	98.8	30.6	312.3	98.8	30.6
389	303.5	59.8	34.1	361.6	74.3	33.6	361.6	74.3	33.6
390	307.5	101.1	22.1	316.8	83.2	99.4	316.8	83.2	99.4
393	57.8	29.7	5.7	64.5	29.8	6.4	64.5	29.8	6.4
4193	0.0	0.0	4.4	0.0	0.0	4.6	0.0	0.0	4.6
4194	0.0	0.0	0.9	0.0	0.0	0.9	0.0	0.0	0.0
4195	0.0	0.0	7.2	0.0	0.0	7.6	0.0	0.0	0.0
4196	583.0	172.0	105.0	1409.4	443.0	107.0	1061.0	307.1	106.2
4197	845.4	245.8	21.0	1160.7	359.5	26.5	1120.0	323.8	20.0
4198	515.6	156.2	21.0	707.8	228.5	26.5	544.0	157.3	64.9
4199	625.0	198.0	26.0	1149.6	388.0	63.0	730.4	211.1	19.0
4200	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4201	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	247.6
4202	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4203	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4204	38.0	11.0	0.0	61.6	19.0	0.0	38.4	11.1	0.0
4205	22.0	2.6	3.2	25.6	2.9	3.7	25.6	2.9	3.7
4206	18.3	5.1	3.2	21.3	5.8	3.7	21.3	5.8	3.7
4207	11.0	7.0	0.0	10.3	7.0	0.0	25.6	7.4	0.0
4208	7.4	1.4	7.8	8.5	1.5	9.7	8.5	1.5	9.7
4209	3.7	1.4	8.2	4.2	1.5	10.1	4.2	1.5	10.1
4210	70.1	30.4	8.3	80.7	32.8	10.4	80.7	32.8	10.4
4211	1.2	1.4	8.1	1.4	1.5	10.1	1.4	1.5	10.1
4212	12.3	2.8	8.3	14.2	3.0	10.3	14.2	3.0	10.3
4213	9.8	2.8	8.2	11.3	3.0	10.2	11.3	3.0	10.2
4214	4.9	1.4	4.3	5.7	1.5	5.3	5.7	1.5	5.3
4215	52.9	24.8	4.1	60.9	26.8	5.0	60.9	26.8	5.0

Socioeconomic Data Summary for the Palmdale Sphere of Influence

	2017 Existing			2045 Base			2045 Preferred Plan		
TAZ	Population	Households	Employment	Population	Households	Employment	Population	Households	Employment
4216	14.0	3.0	0.0	13.1	3.0	0.0	12.8	3.7	0.0
4217	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4218	6.0	2.0	0.0	5.6	2.0	0.0	6.4	1.9	0.0
4219	1.0	1.0	0.0	0.9	1.0	0.0	3.2	0.9	0.0
4220	61.8	19.7	0.0	36.4	8.4	0.0	36.4	8.4	0.0
4221	45.8	23.7	0.0	27.0	10.1	0.0	27.0	10.1	0.0
4222	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4223	1.5	0.5	0.0	2.8	1.0	0.0	0.9	0.2	0.0
4224	1.5	0.5	0.0	2.8	1.0	0.0	0.0	0.0	0.0
4225	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4226	2.0	1.0	0.0	1.9	1.0	0.0	3.2	0.9	0.0
4227	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4228	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4229	1.0	1.0	0.0	0.9	1.0	0.0	2901.5	925.0	0.0
4230	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4231	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4232	0.0	0.0	1.8	0.0	0.0	1.8	0.0	0.0	0.0
4233	0.0	0.0	2.2	0.0	0.0	2.2	0.0	0.0	0.0
4234	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4235	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4236	77.0	26.0	3.0	98.9	35.2	4.5	3.2	0.9	0.0
4237	2097.0	592.0	323.0	2181.1	656.0	328.0	1848.0	592.0	360.0
4238	1410.0	608.0	32.0	1549.8	712.0	44.0	1583.0	608.7	33.0
4239	683.5	258.4	141.2	879.5	355.9	142.1	879.5	355.9	142.1
4240	874.7	332.0	140.9	1125.5	457.3	141.8	1125.5	457.3	141.8
4241	99.3	27.2	5.1	126.7	37.0	5.1	127.7	37.4	5.1
4242	128.8	43.9	10.4	164.3	59.7	10.4	165.7	60.4	10.5
4243	60.0	17.9	5.5	76.5	24.4	5.5	331.4	95.8	44.0
4244	1107.0	346.0	26.0	1147.2	382.0	26.0	1184.1	346.0	12.0
4245	6.0	2.0	0.0	5.6	2.0	0.0	3.6	1.1	0.0
4246	5.0	3.0	0.0	4.7	3.0	0.0	1385.2	408.0	52.3
4247	843.0	209.0	9.0	829.1	219.0	10.0	720.0	208.1	22.0
4248	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4249	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Socioeconomic Data Summary for the Palmdale Sphere of Influence

	2017 Existing			2045 Base			2045 Preferred Plan		
TAZ	Population	Households	Employment	Population	Households	Employment	Population	Households	Employment
4250	1993.0	550.0	111.2	2027.1	596.0	114.0	2265.6	654.9	88.0
4251	0.0	0.0	48.8	0.0	0.0	50.0	0.0	0.0	50.0
4252	0.0	0.0	0.0	0.0	0.0	0.0	6400.0	1850.0	120.0
4253	1375.0	349.0	13.0	1368.3	370.0	15.0	1920.0	555.0	0.0
4254	3501.2	940.7	300.4	3456.4	989.4	430.0	3264.0	943.5	303.0
4255	4541.8	1300.3	297.6	4483.7	1367.6	426.0	4437.4	1300.3	342.0
4256	1160.0	359.0	497.0	1116.1	368.0	545.0	1237.7	358.8	515.0
4257	1819.0	511.0	34.0	2245.3	672.0	51.0	1856.0	536.5	31.0
4258	892.4	250.5	13.7	1125.1	324.7	14.6	1125.1	324.7	14.6
4259	186.5	57.2	6.6	235.2	74.2	7.0	144.0	41.6	0.0
4260	319.0	108.0	13.3	402.2	140.0	14.2	307.6	89.7	16.0
4261	0.0	0.0	0.0	0.0	0.0	0.0	16.0	4.6	0.0
4262	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4263	0.0	0.0	18.4	0.0	0.0	21.9	165.3	59.7	43.3
4264	897.0	243.0	30.0	928.6	268.0	31.0	905.6	261.8	30.0
4265	1306.0	308.0	33.0	1329.3	334.0	35.0	1129.6	326.5	16.0
4266	845.0	195.0	7.0	1448.0	356.0	7.0	1052.8	304.3	33.0
4267	794.2	190.7	38.2	959.8	245.6	38.7	656.0	189.6	30.0
4268	921.8	261.3	35.8	1114.1	336.4	36.3	1001.6	289.5	30.0
4269	350.0	98.0	323.0	600.0	179.0	325.0	342.4	99.0	327.0
4270	1084.0	308.0	27.0	1542.7	467.0	28.0	1057.8	309.9	0.0
4271	248.0	90.7	7.6	288.6	109.0	8.3	288.6	109.0	8.3
4272	115.9	45.4	2.9	134.9	54.5	3.2	134.9	54.5	3.2
4273	1.0	1.1	200.1	3.8	4.3	257.2	105.8	30.6	907.3
4274	1.0	0.9	97.9	3.7	3.7	125.8	75.6	22.3	99.2
4275	405.8	122.8	15.3	472.3	147.6	16.6	346.0	100.8	32.0
4276	178.2	71.9	7.6	207.4	86.4	8.2	193.8	56.4	5.0
4277	163.2	58.6	7.6	189.9	70.5	8.3	166.4	48.1	25.0
4278	182.5	52.0	7.7	212.4	62.5	8.3	147.2	42.6	1.0
4279	201.8	68.6	7.5	234.9	82.4	8.2	187.4	54.6	1.0
4280	96.6	33.2	3.7	112.4	39.9	4.1	102.4	29.6	0.0
4281	36.5	14.4	2.9	42.5	17.3	3.1	62.6	18.5	0.0
4282	76.2	28.8	3.1	88.7	34.6	3.4	81.8	24.1	0.0
4283	87.0	25.4	3.8	101.2	30.6	4.1	70.4	20.4	0.0

Socioeconomic Data Summary for the Palmdale Sphere of Influence

	2017 Existing			2045 Base			2045 Preferred Plan		
TAZ	Population	Households	Employment	Population	Households	Employment	Population	Households	Employment
4284	76.2	22.1	3.8	88.7	26.6	4.1	78.6	23.1	1.0
4285	0.0	0.0	29.2	0.0	0.0	30.2	0.0	0.0	0.0
4286	6.0	2.1	10.9	7.9	2.8	11.3	0.0	0.0	0.0
4287	8.0	3.0	1339.0	7.5	3.0	2909.0	16.0	4.6	1460.5
4288	0.0	0.0	419.8	0.0	0.0	591.6	0.0	0.0	400.0
4289	248.0	73.0	2.0	363.5	114.0	6.0	2261.0	845.1	209.6
4290	2072.6	527.1	271.2	2283.0	618.5	278.6	1824.0	527.3	269.0
4291	301.4	77.9	91.8	332.0	91.5	94.4	479.9	141.9	64.0
4292	944.0	260.0	506.0	1076.9	316.0	666.0	1331.5	395.3	500.0
4293	1274.0	318.0	22.0	1564.3	416.0	126.0	1349.9	390.2	86.7
4294	236.0	137.0	20.0	313.7	194.0	28.0	1833.7	555.5	208.0
4295	163.0	85.0	998.0	162.0	90.0	1032.0	226.0	85.1	998.4
4296	0.0	0.0	131.0	0.0	0.0	204.0	0.0	0.0	247.3
4297	23.0	9.0	175.0	21.6	9.0	241.0	218.1	86.0	193.1
4298	27.0	6.0	118.0	25.3	6.0	174.0	22.4	6.5	93.7
4299	1479.9	647.2	30.5	1603.4	747.1	77.8	2341.4	793.5	1.0
4300	1379.1	480.8	25.5	1494.1	554.9	65.2	1545.1	481.9	19.2
4301	108.0	33.0	9.5	184.3	60.0	18.3	1751.4	531.0	2.0
4302	0.0	0.0	3.5	0.0	0.0	6.7	126.5	44.3	103.2
4303	148.3	66.9	11.3	157.1	63.5	13.1	0.0	0.0	0.0
4304	709.5	245.3	22.9	751.8	232.8	26.6	200.0	58.3	0.0
4305	348.9	166.2	33.1	369.6	157.8	38.6	1705.6	493.0	21.0
4306	0.0	0.0	0.8	0.0	0.0	0.8	124.8	36.1	0.0
4307	0.0	0.0	1.4	0.0	0.0	1.4	19.2	5.6	0.0
4308	0.0	0.0	4.8	0.0	0.0	4.8	230.4	66.6	20.0
4309	0.0	0.0	207.6	0.0	0.0	992.8	0.0	0.0	1812.1
4310	0.0	0.0	17.0	0.0	0.0	279.4	0.0	0.0	1892.1
4311	107.0	42.0	9.0	145.9	61.0	147.6	112.4	41.6	82.1
4312	0.0	0.0	260.0	0.0	0.0	269.0	0.0	0.0	258.2
4313	0.0	0.0	1645.0	0.0	0.0	1819.0	0.0	0.0	1645.0
4314	4.0	2.0	373.8	3.8	2.0	463.1	6.4	1.9	977.0
4315	0.0	0.0	187.2	0.0	0.0	231.9	0.0	0.0	226.5
4316	687.0	161.0	248.0	644.8	161.0	484.0	579.2	167.4	262.9
4317	0.0	0.0	834.0	0.0	0.0	1047.0	0.0	0.0	833.8

Socioeconomic Data Summary for the Palmdale Sphere of Influence

	2017 Existing			2045 Base			2045 Preferred Plan		
TAZ	Population	Households	Employment	Population	Households	Employment	Population	Households	Employment
4318	0.0	0.0	350.0	0.0	0.0	559.0	0.0	0.0	361.4
4319	811.0	185.0	345.0	1584.2	385.0	425.0	1508.0	527.3	338.3
4320	74.3	36.7	113.7	103.9	54.7	127.2	187.1	57.6	187.8
4321	316.7	137.3	96.3	442.4	204.3	107.8	398.4	138.8	172.3
4322	3501.0	848.0	314.0	3410.1	880.0	424.0	2572.3	853.0	307.9
4323	379.0	112.0	323.0	527.3	166.0	383.0	422.5	161.8	345.6
4324	741.0	179.0	457.0	913.1	235.0	594.0	1467.3	467.4	546.9
4325	1614.0	410.0	645.0	2926.4	792.0	716.0	1595.7	621.4	575.2
4326	1471.0	490.0	109.0	2169.7	770.0	122.0	1879.2	599.8	59.0
4327	600.0	133.0	220.0	1384.6	327.0	286.0	1201.8	393.7	223.3
4328	2592.0	693.0	352.0	3486.1	993.0	396.0	1824.9	694.9	339.5
4329	646.0	384.0	677.0	1378.5	873.0	1180.0	1250.9	486.5	726.4
4330	2177.0	590.0	435.0	2736.0	790.0	488.0	1612.6	619.2	433.7
4331	5394.1	1236.3	947.8	5387.0	1315.5	1036.2	4214.0	1259.2	952.0
4332	2615.0	623.0	66.0	3147.9	799.0	73.0	2147.5	637.9	36.0
4333	1.9	0.9	126.6	4.0	1.9	225.0	44.7	16.5	51.7
4334	797.1	186.1	231.4	1700.5	423.1	411.0	1100.2	331.3	196.3
4335	2753.0	678.0	263.0	3346.3	878.0	338.0	2247.9	692.9	218.5
4336	596.0	193.0	5.0	1371.0	473.0	5.0	810.4	292.2	0.0
4337	0.0	0.0	77.0	0.0	0.0	92.2	0.0	0.0	0.0
4338	100.0	36.0	0.0	628.4	241.0	0.0	128.0	37.0	8.0
4339	1520.3	531.1	171.3	2361.6	878.9	194.6	1715.5	531.2	126.0
4340	985.7	320.9	182.7	1531.1	531.1	207.4	1104.0	320.2	110.5
4341	2096.0	499.0	316.0	2523.3	640.0	354.0	1713.1	500.3	301.3
4342	0.0	0.0	85.5	0.0	0.0	137.1	0.0	0.0	1877.6
4343	0.0	0.0	4200.7	0.0	0.0	6734.0	0.0	0.0	8115.3
4344	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4345	1171.3	379.6	577.6	1638.8	565.9	652.0	1070.6	378.4	538.0
4346	1795.0	817.0	212.0	2233.4	1083.0	296.0	2313.6	817.0	202.7
4347	639.0	159.0	112.0	1067.5	283.0	203.0	559.2	165.9	28.7
4348	2491.0	557.0	348.0	2669.7	636.0	372.0	1904.5	557.2	298.5
4349	2476.0	554.0	48.0	2449.9	584.0	60.0	2042.0	626.7	43.4
4350	17.0	8.9	1.8	17.4	8.3	2.0	9.6	2.8	0.0
4351	85.0	40.8	6.9	86.8	38.3	7.7	69.0	20.4	0.0

Socioeconomic Data Summary for the Palmdale Sphere of Influence

	2017 Existing			2045 Base			2045 Preferred Plan		
TAZ	Population	Households	Employment	Population	Households	Employment	Population	Households	Employment
4352	227.3	95.9	5.8	232.0	89.9	6.5	136.2	39.8	0.0
4353	74.2	37.3	2.7	75.7	35.0	3.0	0.0	0.0	0.0
4354	0.0	0.0	0.0	0.0	0.0	0.0	49.8	14.8	0.0
4355	10.0	5.0	0.0	336.0	179.0	0.0	19.2	5.6	0.0
4356	0.0	0.0	0.0	0.0	0.0	0.0	6.4	1.9	0.0
4357	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4358	6883.0	1712.0	378.0	8343.6	2211.0	410.0	5926.4	1713.1	349.0
4359	1106.0	525.0	54.0	1566.1	792.0	59.0	1824.0	527.3	2.0
4360	464.0	109.0	81.0	1002.9	251.0	99.0	381.1	112.6	2.0
4361	2967.0	692.0	347.0	3127.0	777.0	352.0	2400.0	693.8	329.0
4362	1323.6	358.7	358.7	1592.6	459.9	425.6	2204.2	732.5	1042.8
4363	2819.0	923.0	243.0	3804.1	1327.0	266.0	2801.9	920.3	177.2
4364	2970.0	868.0	217.0	4027.4	1254.0	295.0	2781.3	867.3	173.0
4365	964.0	218.1	75.0	1930.1	465.2	114.5	750.7	217.2	10.0
4366	598.3	124.9	102.8	1197.8	266.4	157.0	488.2	141.1	100.0
4367	0.0	0.0	6.8	0.0	0.0	8.0	0.0	0.0	0.0
4368	0.0	0.0	8.6	0.0	0.0	10.1	0.0	0.0	0.0
4369	0.0	0.0	3.8	0.0	0.0	4.5	0.0	0.0	0.0
4370	0.0	0.0	15.0	0.0	0.0	17.7	0.0	0.0	0.0
4371	0.0	0.0	4.0	0.0	0.0	4.8	0.0	0.0	0.0
4372	0.0	0.0	5.8	0.0	0.0	6.9	0.0	0.0	0.0
4373	0.0	0.0	3.9	0.0	0.0	4.6	0.0	0.0	0.0
4374	0.0	0.0	3700.9	0.0	0.0	5069.0	0.0	0.0	4239.8
4375	0.0	0.0	44.7	0.0	0.0	61.2	0.0	0.0	44.4
4376	0.0	0.0	41.4	0.0	0.0	56.7	0.0	0.0	108.5
4377	0.0	0.0	28.3	0.0	0.0	28.3	0.0	0.0	0.0
4378	0.0	0.0	1370.2	0.0	0.0	1370.2	0.0	0.0	1535.2
4379	0.0	0.0	15.5	0.0	0.0	15.5	0.0	0.0	0.0
4380	2.4	1.2	121.9	2.2	1.2	488.4	10.7	3.7	103.1
4381	40.3	10.5	129.2	37.8	10.5	517.7	150.4	43.5	58.5
4382	154.3	43.1	105.0	144.8	43.1	421.1	857.3	312.3	57.2
4383	5.0	1.2	129.9	4.7	1.2	520.8	1802.3	677.5	533.7
4384	0.0	0.0	100.7	0.0	0.0	106.4	0.0	0.0	140.9
4385	0.0	0.0	102.0	0.0	0.0	107.7	0.0	0.0	2.1

Socioeconomic Data Summary for the Palmdale Sphere of Influence

	2017 Existing			2045 Base			2045 Preferred Plan		
TAZ	Population	Households	Employment	Population	Households	Employment	Population	Households	Employment
4386	0.0	0.0	101.0	0.0	0.0	106.8	0.0	0.0	386.8
4387	0.0	0.0	98.4	0.0	0.0	103.9	197.5	65.1	99.0
4388	2.3	1.3	99.3	2.2	1.3	104.9	57.6	21.4	244.6
4389	11.7	3.8	98.7	11.0	3.8	104.3	114.9	41.9	538.3
4390	0.0	0.0	7.4	0.0	0.0	13.2	0.0	0.0	360.7
4391	0.0	0.0	7.4	0.0	0.0	13.1	0.0	0.0	394.1
4392	2.3	1.1	7.5	3.5	1.8	13.3	13.7	5.1	362.8
4393	0.0	0.0	7.4	0.0	0.0	13.1	0.0	0.0	836.5
4394	729.7	161.9	6.3	1130.4	267.2	11.3	2434.8	857.8	1254.1
4395	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	239.2
4396	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4397	0.0	0.0	0.0	0.0	0.0	0.0	53.7	15.7	0.0
4398	0.0	0.0	0.0	0.0	0.0	0.0	5253.9	1916.6	1070.7
4399	0.0	0.0	0.0	0.0	0.0	0.0	1453.2	479.1	745.8
4400	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4401	0.0	0.0	7.6	0.0	0.0	8.9	0.0	0.0	0.0
4402	0.0	0.0	3.8	0.0	0.0	4.5	0.0	0.0	0.0
4403	0.0	0.0	20.4	0.0	0.0	24.1	0.0	0.0	0.0
4404	0.0	0.0	10.3	0.0	0.0	12.1	0.0	0.0	0.0
4405	0.0	0.0	7.5	0.0	0.0	8.9	0.0	0.0	0.0
4406	0.0	0.0	9.7	0.0	0.0	11.5	0.0	0.0	0.0
4407	40.5	18.4	57.2	51.6	23.6	70.9	28.8	8.3	0.0
4408	9.6	4.1	35.0	12.3	5.2	43.3	3.2	0.9	0.0
4409	843.9	243.5	22.9	1076.2	311.8	28.4	422.4	122.1	0.0
4410	0.0	0.0	32.8	0.0	0.0	40.7	0.0	0.0	0.0
4411	0.0	0.0	0.0	0.0	0.0	0.0	3.2	0.9	0.0
4412	0.0	0.0	0.0	0.0	0.0	0.0	73.6	21.3	0.0
4413	87.2	30.2	2.9	147.6	54.4	15.3	98.8	29.8	0.0
4414	258.8	96.8	5.1	438.0	174.6	26.7	326.7	97.5	26.0
4415	471.0	159.0	20.0	589.5	212.0	20.0	559.7	162.0	229.0
4416	1.2	0.3	2.6	1.1	0.3	26.6	19.2	5.6	0.0
4417	4.8	1.8	2.4	4.5	1.8	25.4	121.6	35.2	4.1
4418	52.0	20.0	81.0	73.2	30.0	84.0	70.4	20.4	0.0
4419	4043.0	917.0	198.0	4159.0	1005.0	281.0	3171.2	916.7	194.1

Socioeconomic Data Summary for the Palmdale Sphere of Influence

	2017 Existing			2045 Base			2045 Preferred Plan		
TAZ	Population	Households	Employment	Population	Households	Employment	Population	Households	Employment
4420	3952.0	874.0	434.0	4265.4	1005.0	507.0	3040.0	878.8	483.9
4421	1887.5	435.0	28.5	2717.4	667.2	32.5	1543.8	446.2	13.0
4422	1836.4	395.3	82.8	2669.1	612.2	94.9	1374.5	397.3	83.2
4423	1185.6	295.7	81.2	1723.2	457.8	93.1	1024.0	296.0	70.0
4424	1622.3	381.2	26.3	2272.8	568.9	32.3	1344.0	388.5	2.0
4425	1385.7	292.8	25.7	1941.3	437.1	31.7	1280.0	370.0	22.0
4426	1998.0	443.0	333.0	2696.6	637.0	341.0	1646.0	475.8	314.0
4427	1983.0	457.0	42.0	2659.6	653.0	42.0	1600.0	462.5	32.0
4428	0.0	0.0	475.0	0.0	0.0	475.0	321.2	113.8	542.5
4429	5.0	2.0	28.3	6.3	2.7	29.4	0.0	0.0	30.0
4430	0.0	0.0	23.5	0.0	0.0	24.3	0.0	0.0	0.0
4431	5243.0	1186.0	870.0	7995.9	1927.0	955.0	5106.4	1476.1	886.1
4432	0.0	0.0	0.0	0.0	0.0	0.0	455.0	157.6	105.9
4433	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4434	7.0	3.0	0.0	359.2	164.0	0.0	64.3	18.6	2.3
4435	930.0	191.0	9.0	1247.7	273.0	45.0	673.0	194.6	27.4
4436	298.0	96.0	4.5	422.5	145.0	7.2	332.9	96.2	1.8
4437	0.0	0.0	38.5	0.0	0.0	60.8	0.0	0.0	0.0
4438	1.0	1.0	8.0	1.9	2.0	73.0	6.4	1.9	76.7
4439	0.0	0.0	21.0	0.0	0.0	24.0	0.0	0.0	0.0
4440	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4441	0.0	0.0	0.0	0.0	0.0	0.0	273.4	85.6	14.5
4442	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4443	100.4	34.8	30.4	120.8	43.7	30.4	120.8	43.7	30.4
4444	304.2	84.6	30.0	365.7	106.4	29.9	365.7	106.4	29.9
4445	1388.8	414.0	48.3	1670.0	520.8	48.2	1670.0	520.8	48.2
4446	1344.3	420.1	49.8	1616.5	528.4	49.8	1616.5	528.4	49.8
4447	229.6	75.6	48.2	276.0	95.0	48.1	276.0	95.0	48.1
4448	23.0	7.6	161.9	27.6	9.5	161.7	27.6	9.5	161.7
4449	119.1	40.8	220.7	143.2	51.3	220.3	143.2	51.3	220.3
4450	0.0	0.0	0.0	0.0	0.0	0.0	584.0	169.3	6.0
4451	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0
4452	25.4	6.4	30.5	30.2	8.0	30.0	30.2	8.0	30.0
4453	519.7	128.1	30.5	619.1	159.2	30.0	619.1	159.2	30.0

Socioeconomic Data Summary for the Palmdale Sphere of Influence

	2017 Existing			2045 Base			2045 Preferred Plan		
TAZ	**Population**	**Households**	**Employment**	**Population**	**Households**	**Employment**	**Population**	**Households**	**Employment**
4454	520.7	129.1	26.9	620.4	160.5	26.5	620.4	160.5	26.5
4455	508.5	123.8	26.7	605.8	153.9	26.3	605.8	153.9	26.3
4456	528.8	133.4	30.7	630.0	165.9	30.2	630.0	165.9	30.2
4457	789.6	234.8	62.9	940.8	291.9	62.0	940.8	291.9	62.0
4458	2154.7	576.4	121.5	2567.3	716.5	119.6	2567.3	716.5	119.6
4459	43.6	13.9	118.1	52.0	17.2	116.3	52.0	17.2	116.3
4460	880.0	254.0	114.3	1048.4	315.8	112.5	1048.4	315.8	112.5
4461	74.1	20.3	33.8	88.3	25.2	33.3	3.2	0.9	0.0
4462	26.4	7.5	16.4	31.4	9.3	16.1	3.2	0.9	0.0
4463	343.1	85.4	29.8	408.7	106.1	29.3	134.4	38.9	0.0
4464	333.9	90.7	30.4	397.8	112.8	29.9	144.0	41.6	31.0
4465	417.1	102.5	31.0	497.0	127.4	30.5	281.6	81.4	1.0
4466	0.0	0.0	30.5	0.0	0.0	30.0	0.0	0.0	45.0
4467	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4468	373.5	122.9	26.9	384.8	101.1	120.8	384.8	101.1	120.8
4469	2.0	1.5	0.0	1.9	1.5	0.0	6.4	1.9	0.0
4470	2.0	1.5	0.0	1.9	1.5	0.0	6.4	1.9	0.0
4471	6.0	2.0	6.0	7.0	2.5	9.5	16.0	4.6	12.0
4472	6.0	2.0	6.0	7.0	2.5	9.5	32.0	9.3	0.0
4473	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4474	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4475	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4476	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4477	0.0	0.0	2.0	0.0	0.0	2.0	114.5	33.3	17.0
4478	0.0	0.0	0.0	0.0	0.0	0.0	16.0	4.6	0.0
4479	22.9	4.5	1.0	25.5	4.5	1.1	16.0	4.6	0.0
4480	109.7	43.1	9.9	122.2	43.2	11.1	122.2	43.2	11.1
4481	135.0	71.4	18.8	150.4	71.5	21.0	150.4	71.5	21.0
4482	3.6	1.5	4.6	4.0	1.5	5.1	4.0	1.5	5.1
4483	964.0	289.9	2.1	1074.4	290.5	2.3	1074.4	290.5	2.3
	188,488.0	**53,626.0**	**49,501.2**	**240,515.4**	**72,840.2**	**67,084.6**	**225,692.0**	**70,618.1**	**74,804.4**

Appendix E

Traffic Noise Prediction Model

FHWA 77-108 Traffic Noise Prediction Model **Project: Palmdale GP (18-06038) Existing**

	Output						Inputs												Auto Inputs	
	dBA at 50 feet			Distance to CNEL Contour																
ID	$L_{eq\text{-}24hr}$	L_{dn}	CNEL	70 dBA	65 dBA	60 dBA	Roadway	Segment	ADT	Posted Speed Limit	Grade	% Autos	% Med Trucks	% Heavy Trucks	% Daytime	% Evening	% Night	Number of Lanes	Site Condition	Distance to Reciever	Ground Absorption	Lane Distance
1	71.1	74.8	75.2	112	240	518	Columbia Way/Avenue M	10th Street W to Sierra Hwy	23,348	48	0	92%	3%	5%	75%	10%	15%	4	Soft	50	0.5	44
	72.0	75.7	76.1	127	274	591	Columbia Way/Avenue M	Sierra Hwy to 10th Street E	28,434	48	0	92%	3%	5%	75%	10%	15%	4	Soft	50	0.5	44
	69.9	73.6	74.0	92	199	428	Columbia Way/Avenue M	10th Street E to 20th Street E	17,513	48	0	92%	3%	5%	75%	10%	15%	4	Soft	50	0.5	44
	68.9	72.6	73.0	79	170	365	Columbia Way/Avenue M	20th Street E to 30th Street E	13,832	48	0	92%	3%	5%	75%	10%	15%	4	Soft	50	0.5	44
	66.2	69.9	70.3	52	113	242	Columbia Way/Avenue M	30th Street E to 40th Street E	7,475	48	0	92%	3%	5%	75%	10%	15%	4	Soft	50	0.5	44
	67.7	71.4	71.8	66	142	305	Columbia Way/Avenue M	40th Street E to 50th Street	10,559	48	0	92%	3%	5%	75%	10%	15%	4	Soft	50	0.5	44
2	68.5	72.2	72.6	74	160	345	Rancho Vista Ave/Avenue P	50th Street W to Town Center Dr	16,758	40	0	92%	3%	5%	75%	10%	15%	6	Soft	50	0.5	68
	69.2	72.9	73.3	83	179	386	Rancho Vista Ave/Avenue P	Town Center Dr to 30th Street W	20,985	40	0	92%	3%	5%	75%	10%	15%	4	Soft	50	0.5	44
	69.5	73.2	73.6	87	188	404	Rancho Vista Ave/Avenue P	30th Street W to 25th Street W	22,457	40	0	92%	3%	5%	75%	10%	15%	4	Soft	50	0.5	44
	70.4	74.1	74.5	100	215	463	Rancho Vista Ave/Avenue P	25th Street W to 20th Street W	27,509	40	0	92%	3%	5%	75%	10%	15%	4	Soft	50	0.5	44
	70.2	73.9	74.3	97	209	451	Rancho Vista Ave/Avenue P	20th Street W to 15th Street W	26,453	40	0	92%	3%	5%	75%	10%	15%	4	Soft	50	0.5	44
	72.4	76.1	76.5	136	293	632	Rancho Vista Ave/Avenue P	15th Street to 10th Street W	41,536	40	0	92%	3%	5%	75%	10%	15%	6	Soft	50	0.5	68
	71.7	75.4	75.8	122	263	567	Rancho Vista Ave/Avenue P	10th Street W to SR 14	35,290	40	0	92%	3%	5%	75%	10%	15%	6	Soft	50	0.5	68
	69.7	73.4	73.8	89	192	415	Rancho Vista Ave/Avenue P	SR 14 to Country Club Dr	23,332	40	0	92%	3%	5%	75%	10%	15%	4	Soft	50	0.5	44
	70.2	73.9	74.3	97	209	451	Rancho Vista Ave/Avenue P	Country Club Dr to Division St	26,481	40	0	92%	3%	5%	75%	10%	15%	4	Soft	50	0.5	44
	69.5	73.2	73.6	87	187	403	Rancho Vista Ave/Avenue P	Division St to Sierra Hwy	22,334	40	0	92%	3%	5%	75%	10%	15%	4	Soft	50	0.5	44
3	71.3	75.0	75.4	115	247	532	East Avenue P	Sierra Hwy to 8th Street E	33,863	40	0	92%	3%	5%	75%	10%	15%	4	Soft	50	0.5	44
	69.9	73.6	74.0	92	199	428	East Avenue P	8th Street E to 15th Street E	24,509	40	0	92%	3%	5%	75%	10%	15%	4	Soft	50	0.5	44
	70.0	73.7	74.1	93	201	434	East Avenue P	15th Street E to 20th Street E	24,973	40	0	92%	3%	5%	75%	10%	15%	4	Soft	50	0.5	44
	68.7	72.4	72.8	77	166	358	East Avenue P	20th Street E to 25th Street E	18,699	40	0	92%	3%	5%	75%	10%	15%	4	Soft	50	0.5	44
	67.7	71.4	71.8	66	141	305	East Avenue P	25th Street E to 30th Street E	14,695	40	0	92%	3%	5%	75%	10%	15%	4	Soft	50	0.5	44
4	59.3	63.0	63.4	18	39	84	Avenue Q	Trade Center Dr to 5th Street W	2,216	39	0	92%	3%	5%	75%	10%	15%	4	Soft	50	0.5	44
	61.6	65.3	65.7	26	56	120	Avenue Q	Division Street to 6th Street E	3,815	39	0	92%	3%	5%	75%	10%	15%	4	Soft	50	0.5	44
	65.4	69.2	69.5	47	100	216	Avenue Q	Sierra Hwy to 10th Street E	9,447	39	0	92%	3%	5%	75%	10%	15%	2	Soft	50	0.5	20
	64.9	68.6	69.0	43	92	199	Avenue Q	10th Street E to 20th Street E	8,323	39	0	92%	3%	5%	75%	10%	15%	2	Soft	50	0.5	20
	64.2	67.9	68.3	38	83	179	Avenue Q	20th Street E to 30th Street E	7,106	39	0	92%	3%	5%	75%	10%	15%	2	Soft	50	0.5	20
	62.6	66.4	66.7	30	65	141	Avenue Q	30th Street E to 40th Street E	4,960	39	0	92%	3%	5%	75%	10%	15%	2	Soft	50	0.5	20
5	68.4	72.1	72.5	73	157	339	Elizabeth Lake Rd	25th Street W to 20th Street W	13,937	45	0	92%	3%	5%	75%	10%	15%	4	Soft	50	0.5	44
	68.3	72.0	72.4	73	156	337	Elizabeth Lake Rd	20th Street W to 15th Street W	13,828	45	0	92%	3%	5%	75%	10%	15%	4	Soft	50	0.5	44
	69.7	73.4	73.8	90	193	415	Elizabeth Lake Rd	15th Street W to 10th Street W	18,930	45	0	92%	3%	5%	75%	10%	15%	4	Soft	50	0.5	44
6	70.2	73.9	74.3	97	208	449	Palmdale Blvd	10th Street W to Trade Center Dr	17,408	50	0	92%	3%	5%	75%	10%	15%	4	Soft	50	0.5	44
	70.0	73.7	74.1	94	201	434	Palmdale Blvd	Trade Center Dr to 5th Street W	16,548	50	0	92%	3%	5%	75%	10%	15%	4	Soft	50	0.5	44
	72.2	75.9	76.3	131	282	607	Palmdale Blvd	5th Street W to State Route 14	27,366	50	0	92%	3%	5%	75%	10%	15%	4	Soft	50	0.5	44
	72.0	75.8	76.1	128	276	595	Palmdale Blvd	Division Street to 5th St E	25,175	50	0	92%	3%	5%	75%	10%	15%	6	Soft	50	0.5	68
	71.8	75.5	75.9	124	267	575	Palmdale Blvd	5th Street E to 10th Street E	25,257	50	0	92%	3%	5%	75%	10%	15%	4	Soft	50	0.5	44
	71.9	75.6	76.0	126	271	585	Palmdale Blvd	10th Street E to 15th Street E	25,869	50	0	92%	3%	5%	75%	10%	15%	4	Soft	50	0.5	44
	70.6	74.3	74.7	103	223	480	Palmdale Blvd	15th Street E to 20th Street E	19,223	50	0	92%	3%	5%	75%	10%	15%	4	Soft	50	0.5	44
	71.5	75.2	75.6	118	254	548	Palmdale Blvd	20th Street E to 25th Street E	23,470	50	0	92%	3%	5%	75%	10%	15%	4	Soft	50	0.5	44
	70.5	74.2	74.6	101	217	467	Palmdale Blvd	40th Street E to 47th Street E	18,458	50	0	92%	3%	5%	75%	10%	15%	4	Soft	50	0.5	44
	69.3	73.0	73.4	84	181	391	Palmdale Blvd	50th Street E to 60th Street E	14,147	50	0	92%	3%	5%	75%	10%	15%	4	Soft	50	0.5	44
	70.0	73.7	74.1	94	203	436	Palmdale Blvd	70th Street E to 80th Street E	16,681	50	0	92%	3%	5%	75%	10%	15%	4	Soft	50	0.5	44
7	68.1	71.8	72.2	70	151	326	E Avenue R	Sierra Hwy to 10th Street E	19,490	36	0	92%	3%	5%	75%	10%	15%	4	Soft	50	0.5	44
	67.9	71.6	72.0	68	146	315	E Avenue R	10th Street E to 20th Street E	18,495	36	0	92%	3%	5%	75%	10%	15%	4	Soft	50	0.5	44
	67.9	71.6	72.0	68	146	314	E Avenue R	20th Street E to 30th Street E	18,408	36	0	92%	3%	5%	75%	10%	15%	4	Soft	50	0.5	44
	66.9	70.6	71.0	58	125	269	E Avenue R	30th Street E to 40th Street E	14,851	36	0	92%	3%	5%	75%	10%	15%	3	Soft	50	0.5	32
	67.3	71.0	71.4	62	134	289	E Avenue R	40th Street E to 47th Street E	16,231	36	0	92%	3%	5%	75%	10%	15%	4	Soft	50	0.5	44
	67.0	70.7	71.1	59	128	276	E Avenue R	47th Street E to 60th Street E	15,158	36	0	92%	3%	5%	75%	10%	15%	4	Soft	50	0.5	44
	62.9	66.6	67.0	31	68	146	E Avenue R	60th Street E to 70th Street E	5,811	36	0	92%	3%	5%	75%	10%	15%	4	Soft	50	0.5	44
8	65.2	68.9	69.3	45	96	207	Avenue S	Tovey Avenue to Tierra Subida Ave	9,346	36	0	92%	3%	5%	75%	10%	15%	6	Soft	50	0.5	68
	66.7	70.4	70.8	56	122	262	Avenue S	Tierra Subida Ave to SR 14	14,027	36	0	92%	3%	5%	75%	10%	15%	4	Soft	50	0.5	44
	66.4	70.1	70.5	54	117	251	Avenue S	SR 14 to 5th Street E	13,190	36	0	92%	3%	5%	75%	10%	15%	4	Soft	50	0.5	44
	69.3	73.1	73.4	85	183	394	Avenue S	5th Street E to Sierra Hwy	25,828	36	0	92%	3%	5%	75%	10%	15%	4	Soft	50	0.5	44
	70.3	74.0	74.4	98	211	456	Avenue S	Sierra Hwy to 10th Street E	32,170	36	0	92%	3%	5%	75%	10%	15%	4	Soft	50	0.5	44
	70.0	73.7	74.1	93	201	433	Avenue S	10th Street E to 20th Street E	29,830	36	0	92%	3%	5%	75%	10%	15%	4	Soft	50	0.5	44
	70.0	73.8	74.1	94	203	438	Avenue S	20th Street E to 25th Street E	30,323	36	0	92%	3%	5%	75%	10%	15%	4	Soft	50	0.5	44
	69.9	73.6	74.0	92	198	426	Avenue S	25th Street E to 30th Street E	29,058	36	0	92%	3%	5%	75%	10%	15%	4	Soft	50	0.5	44
	69.3	73.0	73.4	84	181	390	Avenue S	30th Street E to 35th Street E	24,137	36	0	92%	3%	5%	75%	10%	15%	6	Soft	50	0.5	68
	69.2	72.9	73.3	83	179	385	Avenue S	35th Street E to 40th Street E	23,612	36	0	92%	3%	5%	75%	10%	15%	6	Soft	50	0.5	68
	69.2	73.0	73.3	83	180	387	Avenue S	40th Street E to 47th Street E	23,867	36	0	92%	3%	5%	75%	10%	15%	6	Soft	50	0.5	68
	68.5	72.2	72.6	75	161	346	Avenue S	47th Street E to 55th Street E	21,305	36	0	92%	3%	5%	75%	10%	15%	4	Soft	50	0.5	44
9	74.4	78.1	78.4	183	394	849	Pearblossom Hwy/Avenue T	Sierra Hwy to 25th Street E	48,960	48	0	92%	3%	5%	75%	10%	15%	4	Soft	50	0.5	44
	73.5	77.2	77.6	161	347	747	Pearblossom Hwy/Avenue T	25th Street E to 40th Street E	40,419	48	0	92%	3%	5%	75%	10%	15%	4	Soft	50	0.5	44
	71.0	74.7	75.1	110	237	510	Pearblossom Hwy/Avenue T	40th Street E to 47th Street E	22,788	48	0	92%	3%	5%	75%	10%	15%	4	Soft	50	0.5	44
	71.1	74.8	75.1	110	237	511	Pearblossom Hwy/Avenue T	47th Street E to Fort Tejon Road	22,898	48	0	92%	3%	5%	75%	10%	15%	4	Soft	50	0.5	44
	68.6	72.3	72.7	76	163	351	Pearblossom Hwy/Avenue T	Fort Tejon Road to 70th Street E	13,027	48	0	92%	3%	5%	75%	10%	15%	4	Soft	50	0.5	44
10	68.7	72.5	72.8	77	166	359	10th Street W/Tierra Subida Ave	W Avenue M to W Avenue N	15,186	45	0	92%	3%	5%	75%	10%	15%	4	Soft	50	0.5	44
	69.8	73.5	73.9	91	196	422	10th Street W/Tierra Subida Ave	W Avenue N to W Avenue O	19,402	45	0	92%	3%	5%	75%	10%	15%	4	Soft	50	0.5	44
	69.4	73.1	73.5	85	184	396	10th Street W/Tierra Subida Ave	W Avenue O to SR 14	17,627	45	0	92%	3%	5%	75%	10%	15%	4	Soft	50	0.5	44
	72.6	76.4	76.7	141	303	653	10th Street W/Tierra Subida Ave	SR 14 to Rancho Vista Blvd	35,324	45	0	92%	3%	5%	75%	10%	15%	6	Soft	50	0.5	68
	72.2	75.9	76.3	132	284	611	10th Street W/Tierra Subida Ave	Rancho Vista Blvd to Technology Dr	31,954	45	0	92%	3%	5%	75%	10%	15%	6	Soft	50	0.5	68
	72.9	76.7	77.0	147	317	684	10th Street W/Tierra Subida Ave	Technology Dr to W Palmdale Blvd	39,039	45	0	92%	3%	5%	75%	10%	15%	5	Soft	50	0.5	56

	69.1	72.8	73.2	82	176	380	10th Street W/Tierra Subida Ave	W Palmdale Blvd to Rayburn Rd	16,569	45	0	92%	3%	5%	75%	10%	15%	4	Soft	50	0.5	44
11	72.8	76.5	76.9	145	312	672	Sierra Hwy	Columbia Way to E Avenue N	25,408	56	0	92%	3%	5%	75%	10%	15%	4	Soft	50	0.5	44
	73.1	76.8	77.2	151	325	700	Sierra Hwy	E Avenue N to E Avenue O	27,037	56	0	92%	3%	5%	75%	10%	15%	4	Soft	50	0.5	44
	73.8	77.6	77.9	169	365	785	Sierra Hwy	E Avenue O to E Avenue P	32,133	56	0	92%	3%	5%	75%	10%	15%	4	Soft	50	0.5	44
	70.4	74.1	74.4	99	213	459	Sierra Hwy	E Avenue P to E Avenue Q	14,366	56	0	92%	3%	5%	75%	10%	15%	4	Soft	50	0.5	44
	70.6	74.3	74.7	103	221	476	Sierra Hwy	E Avenue Q to Palmdale Blvd	15,176	56	0	92%	3%	5%	75%	10%	15%	4	Soft	50	0.5	44
	68.8	72.5	72.9	78	167	360	Sierra Hwy	Palmdale Blvd to E Avenue R	9,993	56	0	92%	3%	5%	75%	10%	15%	4	Soft	50	0.5	44
	67.4	71.1	71.5	63	136	292	Sierra Hwy	E Avenue R to E Avenue S	7,289	56	0	92%	3%	5%	75%	10%	15%	4	Soft	50	0.5	44
	67.8	71.6	71.9	67	145	313	Sierra Hwy	E Avenue S to Pearblossom Hwy	8,070	56	0	92%	3%	5%	75%	10%	15%	4	Soft	50	0.5	44
12	59.0	62.7	63.1	17	37	81	10th Street E	E Avenue P to E Avenue Q	2,357	37	0	92%	3%	5%	75%	10%	15%	2	Soft	50	0.5	20
	63.0	66.7	67.1	32	69	149	10th Street E	E Avenue Q to E Palmdale Blvd	5,732	37	0	92%	3%	5%	75%	10%	15%	4	Soft	50	0.5	44
	62.9	66.6	67.0	32	68	146	10th Street E	E. Palmdale Blvd to Avenue R	5,756	37	0	92%	3%	5%	75%	10%	15%	2	Soft	50	0.5	20
	61.2	64.9	65.3	24	52	113	10th Street E	Avenue R to Avenue S1	3,898	37	0	92%	3%	5%	75%	10%	15%	2	Soft	50	0.5	20
13	59.2	62.9	63.3	18	39	83	20th Street E	E Avenue P to E Avenue Q	4,738	37	0	97%	2%	1%	75%	10%	15%	2	Soft	50	0.5	20
	61.4	65.1	65.4	25	54	115	20th Street E	E Avenue Q to Palmdale Blvd	7,760	37	0	97%	2%	1%	75%	10%	15%	2	Soft	50	0.5	20
	63.7	67.5	67.8	36	77	167	20th Street E	Palmdale Blvd to E Avenue R	13,063	37	0	97%	2%	1%	75%	10%	15%	4	Soft	50	0.5	44
	63.5	67.2	67.5	34	74	159	20th Street E	E Avenue R to E Avenue S	12,215	37	0	97%	2%	1%	75%	10%	15%	4	Soft	50	0.5	44
14	63.3	67.0	67.4	33	72	155	25th Street E	E Avenue P to E Avenue Q	4,102	47	0	92%	3%	5%	75%	10%	15%	2	Soft	50	0.5	20
	65.6	69.3	69.7	47	102	220	25th Street E	E Avenue Q to Palmdale Blvd	6,948	47	0	92%	3%	5%	75%	10%	15%	2	Soft	50	0.5	20
	68.4	72.1	72.5	73	157	339	25th Street E	Palmdale Blvd to E Avenue R	12,851	47	0	92%	3%	5%	75%	10%	15%	4	Soft	50	0.5	44
	69.5	73.2	73.6	87	187	402	25th Street E	E Avenue R to E Avenue S	16,629	47	0	92%	3%	5%	75%	10%	15%	4	Soft	50	0.5	44
	68.8	72.5	72.9	78	169	363	25th Street E	E Avenue S to Pearblossom Hwy	14,269	47	0	92%	3%	5%	75%	10%	15%	4	Soft	50	0.5	44
15	62.3	66.0	66.3	29	62	133	30th Street E	E Avenue P to E Avenue Q	5,987	33	0	92%	3%	5%	75%	10%	15%	2	Soft	50	0.5	20
	62.3	66.0	66.4	29	62	134	30th Street E	E Avenue Q to Palmdale Blvd	6,083	33	0	92%	3%	5%	75%	10%	15%	2	Soft	50	0.5	20
	63.5	67.2	67.6	34	74	160	30th Street E	Palmdale Blvd to E Avenue R	7,721	33	0	92%	3%	5%	75%	10%	15%	4	Soft	50	0.5	44
	64.1	67.8	68.2	38	82	176	30th Street E	E Avenue R to E Avenue S	8,871	33	0	92%	3%	5%	75%	10%	15%	4	Soft	50	0.5	44
16	63.2	66.9	67.3	33	71	153	40th Street E	E Avenue P to E Avenue Q	5,610	39	0	92%	3%	5%	75%	10%	15%	2	Soft	50	0.5	20
	64.3	68.0	68.3	39	84	180	40th Street E	E Avenue Q to E Palmdale Blvd	7,185	39	0	92%	3%	5%	75%	10%	15%	2	Soft	50	0.5	20
	65.7	69.4	69.8	48	104	225	40th Street E	E Palmdale Blvd to E Avenue R	9,892	39	0	92%	3%	5%	75%	10%	15%	3	Soft	50	0.5	32
	65.3	69.0	69.4	46	98	211	40th Street E	E Avenue R to E Avenue S	9,037	39	0	92%	3%	5%	75%	10%	15%	3	Soft	50	0.5	32
	65.9	69.6	70.0	50	108	232	40th Street E	E Avenue S to Sierra Hwy	10,505	39	0	92%	3%	5%	75%	10%	15%	2	Soft	50	0.5	20
17	69.5	73.2	73.6	87	188	405	47th Street E/50th Street E/Ft Tejon Rd	E Avenue M to E Avenue N	18,016	46	0	92%	3%	5%	75%	10%	15%	2	Soft	50	0.5	20
	68.1	71.8	72.2	70	150	324	47th Street E/50th Street E/Ft Tejon Rd	E Avenue P to Palmdale Blvd	12,874	46	0	92%	3%	5%	75%	10%	15%	2	Soft	50	0.5	20
	71.2	74.9	75.3	113	243	523	47th Street E/50th Street E/Ft Tejon Rd	Palmdale Blvd to E Avenue R	25,702	46	0	92%	3%	5%	75%	10%	15%	4	Soft	50	0.5	44
	71.4	75.1	75.5	116	251	540	47th Street E/50th Street E/Ft Tejon Rd	E Avenue R to E Avenue R-8	26,908	46	0	92%	3%	5%	75%	10%	15%	4	Soft	50	0.5	44
	70.1	73.8	74.2	95	205	441	47th Street E/50th Street E/Ft Tejon Rd	E Avenue R-8 to E Avenue S	19,854	46	0	92%	3%	5%	75%	10%	15%	4	Soft	50	0.5	44
	71.1	74.8	75.2	111	239	515	47th Street E/50th Street E/Ft Tejon Rd	E Avenue S to Essex Dr	24,514	46	0	92%	3%	5%	75%	10%	15%	5	Soft	50	0.5	56
	71.0	74.7	75.1	109	234	505	47th Street E/50th Street E/Ft Tejon Rd	Essex Dr to Pearblossom Hwy	24,367	46	0	92%	3%	5%	75%	10%	15%	4	Soft	50	0.5	44
	70.3	74.1	74.4	99	213	459	47th Street E/50th Street E/Ft Tejon Rd	Pearblossom Hwy to E Avenue T-8	21,099	46	0	92%	3%	5%	75%	10%	15%	4	Soft	50	0.5	44
18	64.4	68.1	68.5	40	85	184	Technology Dr	10th Street W to Trade Center Dr	7,205	39	0	92%	3%	5%	75%	10%	15%	4	Soft	50	0.5	44
	64.6	68.3	68.7	41	88	190	Technology Dr	5th Street W to Division St	7,574	39	0	92%	3%	5%	75%	10%	15%	4	Soft	50	0.5	44
	64.7	68.5	68.8	42	90	194	Technology Dr	Division St to Sierra Hwy	7,805	39	0	92%	3%	5%	75%	10%	15%	4	Soft	50	0.5	44

FHWA 77-108 Traffic Noise Prediction Model **Project: Palmdale GP (18-06038) 2045 Preffered Plan**

	Output						Inputs													Auto Inputs	
	dBA at 50 feet			Distance to CNEL Contour																	
ID	$L_{eq\text{-}24hr}$	L_{dn}	CNEL	70 dBA	65 dBA	60 dBA	Roadway	Segment	ADT	Posted Speed Limit	Grade	% Autos	% Med Trucks	% Heavy Trucks	% Daytime	% Evening	% Night	Number of Lanes	Site Condition	Distance to Reciever	Ground Absorption	Lane Distance
1	72.6	76.3	76.7	140	301	649	Columbia Way/Avenue M	10th Street W to Sierra Hwy	32,760	48	0	92%	3%	5%	75%	10%	15%	4	Soft	50	0.5	44
	73.0	76.7	77.1	148	319	688	Columbia Way/Avenue M	Sierra Hwy to 10th Street E	35,733	48	0	92%	3%	5%	75%	10%	15%	4	Soft	50	0.5	44
	71.1	74.8	75.2	112	240	518	Columbia Way/Avenue M	10th Street E to 20th Street E	23,321	48	0	92%	3%	5%	75%	10%	15%	4	Soft	50	0.5	44
	69.9	73.6	74.0	92	198	427	Columbia Way/Avenue M	20th Street E to 30th Street E	17,482	48	0	92%	3%	5%	75%	10%	15%	4	Soft	50	0.5	44
	68.3	72.0	72.4	72	156	336	Columbia Way/Avenue M	30th Street E to 40th Street E	12,192	48	0	92%	3%	5%	75%	10%	15%	4	Soft	50	0.5	44
	69.0	72.7	73.1	81	174	374	Columbia Way/Avenue M	40th Street E to 50th Street	14,334	48	0	92%	3%	5%	75%	10%	15%	4	Soft	50	0.5	44
2	68.3	72.0	72.3	72	154	333	Rancho Vista Ave/Avenue P	50th Street W to Town Center Dr	16,758	40	0	92%	3%	5%	75%	10%	15%	4	Soft	50	0.5	44
	69.2	72.9	73.3	83	179	386	Rancho Vista Ave/Avenue P	Town Center Dr to 30th Street W	20,985	40	0	92%	3%	5%	75%	10%	15%	4	Soft	50	0.5	44
	69.5	73.2	73.6	87	188	404	Rancho Vista Ave/Avenue P	30th Street W to 25th Street W	22,457	40	0	92%	3%	5%	75%	10%	15%	4	Soft	50	0.5	44
	70.4	74.1	74.5	100	215	463	Rancho Vista Ave/Avenue P	25th Street W to 20th Street W	27,509	40	0	92%	3%	5%	75%	10%	15%	4	Soft	50	0.5	44
	70.4	74.1	74.5	99	214	460	Rancho Vista Ave/Avenue P	20th Street W to 15th Street W	27,276	40	0	92%	3%	5%	75%	10%	15%	4	Soft	50	0.5	44
	72.4	76.1	76.5	136	293	632	Rancho Vista Ave/Avenue P	15th Street to 10th Street W	41,536	40	0	92%	3%	5%	75%	10%	15%	6	Soft	50	0.5	68
	71.7	75.4	75.8	122	263	567	Rancho Vista Ave/Avenue P	10th Street W to SR 14	35,290	40	0	92%	3%	5%	75%	10%	15%	6	Soft	50	0.5	68
	69.7	73.4	73.8	89	192	415	Rancho Vista Ave/Avenue P	SR 14 to Country Club Dr	23,332	40	0	92%	3%	5%	75%	10%	15%	4	Soft	50	0.5	44
	70.2	73.9	74.3	97	209	451	Rancho Vista Ave/Avenue P	Country Club Dr to Division St	26,481	40	0	92%	3%	5%	75%	10%	15%	4	Soft	50	0.5	44
	69.5	73.2	73.6	87	187	403	Rancho Vista Ave/Avenue P	Division St to Sierra Hwy	22,334	40	0	92%	3%	5%	75%	10%	15%	4	Soft	50	0.5	44
3	71.7	75.4	75.8	122	262	564	East Avenue P	Sierra Hwy to 8th Street E	37,052	40	0	92%	3%	5%	75%	10%	15%	4	Soft	50	0.5	44
	70.4	74.1	74.5	100	216	465	East Avenue P	8th Street E to 15th Street E	27,698	40	0	92%	3%	5%	75%	10%	15%	4	Soft	50	0.5	44
	70.9	74.6	75.0	107	231	497	East Avenue P	15th Street E to 20th Street E	30,657	40	0	92%	3%	5%	75%	10%	15%	4	Soft	50	0.5	44
	69.8	73.5	73.9	91	195	420	East Avenue P	20th Street E to 25th Street E	23,798	40	0	92%	3%	5%	75%	10%	15%	4	Soft	50	0.5	44
	68.8	72.5	72.9	78	167	360	East Avenue P	25th Street E to 30th Street E	18,896	40	0	92%	3%	5%	75%	10%	15%	4	Soft	50	0.5	44
4	62.6	66.3	66.7	30	65	140	Avenue Q	Trade Center Dr to 5th Street W	4,805	39	0	92%	3%	5%	75%	10%	15%	4	Soft	50	0.5	44
	64.7	68.5	68.8	42	90	194	Avenue Q	Division Street to 6th Street E	8,053	39	0	92%	3%	5%	75%	10%	15%	2	Soft	50	0.5	20
	65.8	69.5	69.9	49	105	227	Avenue Q	Sierra Hwy to 10th Street E	10,165	39	0	92%	3%	5%	75%	10%	15%	2	Soft	50	0.5	20
	64.9	68.6	69.0	43	92	199	Avenue Q	10th Street E to 20th Street E	8,349	39	0	92%	3%	5%	75%	10%	15%	2	Soft	50	0.5	20
	64.3	68.0	68.4	39	84	182	Avenue Q	20th Street E to 30th Street E	7,293	39	0	92%	3%	5%	75%	10%	15%	2	Soft	50	0.5	20
	64.6	68.3	68.7	41	88	190	Avenue Q	30th Street E to 40th Street E	7,814	39	0	92%	3%	5%	75%	10%	15%	2	Soft	50	0.5	20
5	70.1	73.8	74.2	96	206	443	Elizabeth Lake Rd	25th Street W to 20th Street W	20,874	45	0	92%	3%	5%	75%	10%	15%	4	Soft	50	0.5	44
	69.0	72.7	73.1	80	173	372	Elizabeth Lake Rd	20th Street W to 15th Street W	16,038	45	0	92%	3%	5%	75%	10%	15%	4	Soft	50	0.5	44
	69.8	73.6	73.9	92	197	425	Elizabeth Lake Rd	15th Street W to 10th Street W	19,583	45	0	92%	3%	5%	75%	10%	15%	4	Soft	50	0.5	44
6	71.3	75.0	75.3	114	245	528	Palmdale Blvd	10th Street W to Trade Center Dr	22,179	50	0	92%	3%	5%	75%	10%	15%	4	Soft	50	0.5	44
	70.3	74.0	74.4	98	211	455	Palmdale Blvd	Trade Center Dr to 5th Street W	17,785	50	0	92%	3%	5%	75%	10%	15%	4	Soft	50	0.5	44
	72.2	75.9	76.3	131	282	607	Palmdale Blvd	5th Street W to State Route 14	27,366	50	0	92%	3%	5%	75%	10%	15%	4	Soft	50	0.5	44
	72.1	75.8	76.2	129	279	601	Palmdale Blvd	Division Street to 5th St E	25,510	50	0	92%	3%	5%	75%	10%	15%	6	Soft	50	0.5	68
	71.8	75.5	75.9	124	267	575	Palmdale Blvd	5th Street E to 10th Street E	25,257	50	0	92%	3%	5%	75%	10%	15%	4	Soft	50	0.5	44
	71.9	75.6	76.0	126	271	585	Palmdale Blvd	10th Street E to 15th Street E	25,869	50	0	92%	3%	5%	75%	10%	15%	4	Soft	50	0.5	44
	70.6	74.3	74.7	103	223	480	Palmdale Blvd	15th Street E to 20th Street E	19,233	50	0	92%	3%	5%	75%	10%	15%	4	Soft	50	0.5	44
	71.7	75.4	75.8	122	263	566	Palmdale Blvd	20th Street E to 25th Street E	24,649	50	0	92%	3%	5%	75%	10%	15%	4	Soft	50	0.5	44
	72.3	76.0	76.4	133	286	616	Palmdale Blvd	40th Street E to 47th Street E	28,011	50	0	92%	3%	5%	75%	10%	15%	4	Soft	50	0.5	44
	71.5	75.3	75.6	119	256	551	Palmdale Blvd	50th Street E to 60th Street E	23,700	50	0	92%	3%	5%	75%	10%	15%	4	Soft	50	0.5	44
	69.9	73.6	74.0	92	199	428	Palmdale Blvd	70th Street E to 80th Street E	16,681	50	0	92%	3%	5%	75%	10%	15%	2	Soft	50	0.5	20
7	68.1	71.8	72.2	70	151	326	E Avenue R	Sierra Hwy to 10th Street E	19,490	36	0	92%	3%	5%	75%	10%	15%	4	Soft	50	0.5	44
	67.9	71.6	72.0	68	146	315	E Avenue R	10th Street E to 20th Street E	18,495	36	0	92%	3%	5%	75%	10%	15%	4	Soft	50	0.5	44
	67.9	71.6	72.0	68	146	314	E Avenue R	20th Street E to 30th Street E	18,408	36	0	92%	3%	5%	75%	10%	15%	4	Soft	50	0.5	44
	67.9	71.6	72.0	68	146	315	E Avenue R	30th Street E to 40th Street E	18,843	36	0	92%	3%	5%	75%	10%	15%	3	Soft	50	0.5	32
	68.8	72.5	72.9	78	168	363	E Avenue R	40th Street E to 47th Street E	22,831	36	0	92%	3%	5%	75%	10%	15%	4	Soft	50	0.5	44
	67.6	71.3	71.7	65	140	301	E Avenue R	47th Street E to 60th Street E	17,279	36	0	92%	3%	5%	75%	10%	15%	4	Soft	50	0.5	44
	63.4	67.1	67.5	34	73	158	E Avenue R	60th Street E to 70th Street E	6,564	36	0	92%	3%	5%	75%	10%	15%	4	Soft	50	0.5	44
8	65.6	69.3	69.7	48	103	221	Avenue S	Tovey Avenue to Tierra Subida Ave	10,895	36	0	92%	3%	5%	75%	10%	15%	4	Soft	50	0.5	44
	67.6	71.3	71.7	65	140	302	Avenue S	Tierra Subida Ave to SR 14	17,336	36	0	92%	3%	5%	75%	10%	15%	4	Soft	50	0.5	44
	66.4	70.1	70.5	54	117	251	Avenue S	SR 14 to 5th Street E	13,190	36	0	92%	3%	5%	75%	10%	15%	4	Soft	50	0.5	44
	69.3	73.1	73.4	85	183	394	Avenue S	5th Street E to Sierra Hwy	25,828	36	0	92%	3%	5%	75%	10%	15%	4	Soft	50	0.5	44
	70.3	74.0	74.4	98	211	456	Avenue S	Sierra Hwy to 10th Street E	32,170	36	0	92%	3%	5%	75%	10%	15%	4	Soft	50	0.5	44
	70.0	73.7	74.1	93	201	433	Avenue S	10th Street E to 20th Street E	29,830	36	0	92%	3%	5%	75%	10%	15%	4	Soft	50	0.5	44
	70.0	73.8	74.1	94	203	438	Avenue S	20th Street E to 25th Street E	30,323	36	0	92%	3%	5%	75%	10%	15%	4	Soft	50	0.5	44
	69.9	73.6	74.0	92	198	426	Avenue S	25th Street E to 30th Street E	29,058	36	0	92%	3%	5%	75%	10%	15%	4	Soft	50	0.5	44
	69.3	73.0	73.4	84	181	390	Avenue S	30th Street E to 35th Street E	24,137	36	0	92%	3%	5%	75%	10%	15%	6	Soft	50	0.5	68
	69.2	72.9	73.3	83	179	385	Avenue S	35th Street E to 40th Street E	23,612	36	0	92%	3%	5%	75%	10%	15%	6	Soft	50	0.5	68
	69.2	73.0	73.3	83	180	387	Avenue S	40th Street E to 47th Street E	23,867	36	0	92%	3%	5%	75%	10%	15%	6	Soft	50	0.5	68
	68.5	72.2	72.6	75	161	346	Avenue S	47th Street E to 55th Street E	21,305	36	0	92%	3%	5%	75%	10%	15%	4	Soft	50	0.5	44
9	74.7	78.4	78.8	192	413	889	Pearblossom Hwy/Avenue T	Sierra Hwy to 25th Street E	52,520	48	0	92%	3%	5%	75%	10%	15%	4	Soft	50	0.5	44
	74.0	77.7	78.1	173	373	803	Pearblossom Hwy/Avenue T	25th Street E to 40th Street E	45,045	48	0	92%	3%	5%	75%	10%	15%	4	Soft	50	0.5	44
	72.5	76.2	76.6	138	296	639	Pearblossom Hwy/Avenue T	40th Street E to 47th Street E	31,951	48	0	92%	3%	5%	75%	10%	15%	4	Soft	50	0.5	44
	72.5	76.2	76.6	138	297	640	Pearblossom Hwy/Avenue T	47th Street E to Fort Tejon Road	32,061	48	0	92%	3%	5%	75%	10%	15%	4	Soft	50	0.5	44
	70.9	74.6	75.0	108	232	501	Pearblossom Hwy/Avenue T	Fort Tejon Road to 70th Street E	22,190	48	0	92%	3%	5%	75%	10%	15%	4	Soft	50	0.5	44
10	68.7	72.5	72.8	77	166	359	10th Street W/Tierra Subida Ave	W Avenue M to W Avenue N	15,186	45	0	92%	3%	5%	75%	10%	15%	4	Soft	50	0.5	44
	70.5	74.2	74.6	102	219	472	10th Street W/Tierra Subida Ave	W Avenue N to W Avenue O	22,897	45	0	92%	3%	5%	75%	10%	15%	4	Soft	50	0.5	44
	69.4	73.1	73.5	85	184	396	10th Street W/Tierra Subida Ave	W Avenue O to SR 14	17,627	45	0	92%	3%	5%	75%	10%	15%	4	Soft	50	0.5	44
	72.6	76.4	76.7	141	303	653	10th Street W/Tierra Subida Ave	SR 14 to Rancho Vista Blvd	35,324	45	0	92%	3%	5%	75%	10%	15%	6	Soft	50	0.5	68
	72.9	76.6	77.0	147	316	682	10th Street W/Tierra Subida Ave	Rancho Vista Blvd to Technology Dr	37,661	45	0	92%	3%	5%	75%	10%	15%	6	Soft	50	0.5	68
	73.8	77.5	77.9	168	362	779	10th Street W/Tierra Subida Ave	Technology Dr to W Palmdale Blvd	47,477	45	0	92%	3%	5%	75%	10%	15%	5	Soft	50	0.5	56

	69.6	73.3	73.7	88	190	409	10th Street W/Tierra Subida Ave	W Palmdale Blvd to Rayburn Rd	18,512	45	0	92%	3%	5%	75%	10%	15%	4	Soft	50	0.5	44
11	74.6	78.3	78.7	189	407	877	Sierra Hwy	Columbia Way to E Avenue N	37,932	56	0	92%	3%	5%	75%	10%	15%	4	Soft	50	0.5	44
	74.4	78.1	78.5	183	395	850	Sierra Hwy	E Avenue N to E Avenue O	36,183	56	0	92%	3%	5%	75%	10%	15%	4	Soft	50	0.5	44
	76.1	79.8	80.2	238	513	1105	Sierra Hwy	E Avenue O to E Avenue P	53,660	56	0	92%	3%	5%	75%	10%	15%	4	Soft	50	0.5	44
	70.4	74.1	74.4	99	213	459	Sierra Hwy	E Avenue P to E Avenue Q	14,366	56	0	92%	3%	5%	75%	10%	15%	4	Soft	50	0.5	44
	70.6	74.3	74.7	103	222	478	Sierra Hwy	E Avenue Q to Palmdale Blvd	15,253	56	0	92%	3%	5%	75%	10%	15%	4	Soft	50	0.5	44
	68.8	72.5	72.9	78	167	360	Sierra Hwy	Palmdale Blvd to E Avenue R	9,993	56	0	92%	3%	5%	75%	10%	15%	4	Soft	50	0.5	44
	67.4	71.1	71.5	63	136	292	Sierra Hwy	E Avenue R to E Avenue S	7,289	56	0	92%	3%	5%	75%	10%	15%	4	Soft	50	0.5	44
	67.8	71.6	71.9	67	145	313	Sierra Hwy	E Avenue S to Pearblossom Hwy	8,070	56	0	92%	3%	5%	75%	10%	15%	4	Soft	50	0.5	44
12	59.0	62.7	63.1	17	37	81	10th Street E	E Avenue P to E Avenue Q	2,357	37	0	92%	3%	5%	75%	10%	15%	2	Soft	50	0.5	20
	63.0	66.7	67.1	32	69	149	10th Street E	E Avenue Q to E Palmdale Blvd	5,732	37	0	92%	3%	5%	75%	10%	15%	4	Soft	50	0.5	44
	62.9	66.6	67.0	32	68	146	10th Street E	E. Palmdale Blvd to Avenue R	5,756	37	0	92%	3%	5%	75%	10%	15%	2	Soft	50	0.5	20
	61.2	64.9	65.3	24	52	113	10th Street E	Avenue R to Avenue S1	3,898	37	0	92%	3%	5%	75%	10%	15%	2	Soft	50	0.5	20
13	60.5	64.2	64.6	22	47	101	20th Street E	E Avenue P to E Avenue Q	6,362	37	0	97%	2%	1%	75%	10%	15%	2	Soft	50	0.5	20
	62.3	66.1	66.4	29	62	134	20th Street E	E Avenue Q to Palmdale Blvd	9,746	37	0	97%	2%	1%	75%	10%	15%	2	Soft	50	0.5	20
	63.7	67.5	67.8	36	77	167	20th Street E	Palmdale Blvd to E Avenue R	13,063	37	0	97%	2%	1%	75%	10%	15%	4	Soft	50	0.5	44
	63.7	67.4	67.8	36	77	166	20th Street E	E Avenue R to E Avenue S	12,938	37	0	97%	2%	1%	75%	10%	15%	4	Soft	50	0.5	44
14	66.5	70.2	70.6	55	118	255	25th Street E	E Avenue P to E Avenue Q	8,624	47	0	92%	3%	5%	75%	10%	15%	2	Soft	50	0.5	20
	66.7	70.4	70.8	56	121	261	25th Street E	E Avenue Q to Palmdale Blvd	8,947	47	0	92%	3%	5%	75%	10%	15%	2	Soft	50	0.5	20
	68.4	72.1	72.5	74	159	342	25th Street E	Palmdale Blvd to E Avenue R	13,007	47	0	92%	3%	5%	75%	10%	15%	4	Soft	50	0.5	44
	69.5	73.2	73.6	87	187	402	25th Street E	E Avenue R to E Avenue S	16,629	47	0	92%	3%	5%	75%	10%	15%	4	Soft	50	0.5	44
	68.8	72.5	72.9	78	169	363	25th Street E	E Avenue S to Pearblossom Hwy	14,269	47	0	92%	3%	5%	75%	10%	15%	4	Soft	50	0.5	44
15	63.5	67.2	67.6	35	74	160	30th Street E	E Avenue P to E Avenue Q	7,961	33	0	92%	3%	5%	75%	10%	15%	2	Soft	50	0.5	20
	63.4	67.1	67.5	34	73	158	30th Street E	E Avenue Q to Palmdale Blvd	7,821	33	0	92%	3%	5%	75%	10%	15%	2	Soft	50	0.5	20
	63.8	67.5	67.9	36	78	169	30th Street E	Palmdale Blvd to E Avenue R	8,354	33	0	92%	3%	5%	75%	10%	15%	4	Soft	50	0.5	44
	64.1	67.8	68.2	38	82	176	30th Street E	E Avenue R to E Avenue S	8,871	33	0	92%	3%	5%	75%	10%	15%	4	Soft	50	0.5	44
16	66.4	70.2	70.5	54	117	252	40th Street E	E Avenue P to E Avenue Q	11,891	39	0	92%	3%	5%	75%	10%	15%	2	Soft	50	0.5	20
	64.3	68.0	68.3	39	84	180	40th Street E	E Avenue Q to E Palmdale Blvd	7,185	39	0	92%	3%	5%	75%	10%	15%	2	Soft	50	0.5	20
	67.2	70.9	71.3	61	132	284	40th Street E	E Palmdale Blvd to E Avenue R	14,092	39	0	92%	3%	5%	75%	10%	15%	3	Soft	50	0.5	32
	66.7	70.4	70.8	56	121	262	40th Street E	E Avenue R to E Avenue S	12,432	39	0	92%	3%	5%	75%	10%	15%	3	Soft	50	0.5	32
	65.9	69.7	70.0	50	108	233	40th Street E	E Avenue S to Sierra Hwy	10,612	39	0	92%	3%	5%	75%	10%	15%	2	Soft	50	0.5	20
17	70.6	74.3	74.7	103	221	476	47th Street E/50th Street E/Ft Tejon Rd	E Avenue M to E Avenue N	22,987	46	0	92%	3%	5%	75%	10%	15%	2	Soft	50	0.5	20
	69.1	72.8	73.2	81	175	377	47th Street E/50th Street E/Ft Tejon Rd	E Avenue P to Palmdale Blvd	16,180	46	0	92%	3%	5%	75%	10%	15%	2	Soft	50	0.5	20
	71.4	75.1	75.4	115	249	535	47th Street E/50th Street E/Ft Tejon Rd	Palmdale Blvd to E Avenue R	26,588	46	0	92%	3%	5%	75%	10%	15%	4	Soft	50	0.5	44
	71.4	75.1	75.5	116	251	540	47th Street E/50th Street E/Ft Tejon Rd	E Avenue R to E Avenue R-8	26,908	46	0	92%	3%	5%	75%	10%	15%	4	Soft	50	0.5	44
	70.1	73.8	74.2	95	205	441	47th Street E/50th Street E/Ft Tejon Rd	E Avenue R-8 to E Avenue S	19,854	46	0	92%	3%	5%	75%	10%	15%	4	Soft	50	0.5	44
	71.8	75.5	75.9	124	266	574	47th Street E/50th Street E/Ft Tejon Rd	E Avenue S to Essex Dr	28,816	46	0	92%	3%	5%	75%	10%	15%	5	Soft	50	0.5	56
	71.0	74.7	75.1	109	234	505	47th Street E/50th Street E/Ft Tejon Rd	Essex Dr to Pearblossom Hwy	24,367	46	0	92%	3%	5%	75%	10%	15%	4	Soft	50	0.5	44
	72.0	75.7	76.1	127	274	591	47th Street E/50th Street E/Ft Tejon Rd	Pearblossom Hwy to E Avenue T-8	30,811	46	0	92%	3%	5%	75%	10%	15%	4	Soft	50	0.5	44
18	64.4	68.1	68.5	40	86	185	Technology Dr	10th Street W to Trade Center Dr	7,277	39	0	92%	3%	5%	75%	10%	15%	4	Soft	50	0.5	44
	64.6	68.3	68.7	41	88	190	Technology Dr	5th Street W to Division St	7,574	39	0	92%	3%	5%	75%	10%	15%	4	Soft	50	0.5	44
	64.7	68.5	68.8	42	90	194	Technology Dr	Division St to Sierra Hwy	7,805	39	0	92%	3%	5%	75%	10%	15%	4	Soft	50	0.5	44

Roadway	Segment	Existing ADT	2045 Preferred Plan ADT	Existing CNEL at 50 feet	2045 CNEL at 50 feet	Traffic Noise Increase
Columbia Way/Avenue M	10th Street W to Sierra Hwy	23,348	32,760	75.2	76.7	1.5
Columbia Way/Avenue M	Sierra Hwy to 10th Street E	28,434	35,733	76.1	77.1	1.0
Columbia Way/Avenue M	10th Street E to 20th Street E	17,513	23,321	74.0	75.2	1.2
Columbia Way/Avenue M	20th Street E to 30th Street E	13,832	17,482	73.0	74.0	1.0
Columbia Way/Avenue M	30th Street E to 40th Street E	7,475	12,192	70.3	72.4	2.1
Columbia Way/Avenue M	40th Street E to 50th Street	10,559	14,334	71.8	73.1	1.3
Rancho Vista Ave/Avenue P	50th Street W to Town Center Dr	16,758	16,758	72.6	72.3	-0.2
Rancho Vista Ave/Avenue P	Town Center Dr to 30th Street W	20,985	20,985	73.3	73.3	0.0
Rancho Vista Ave/Avenue P	30th Street W to 25th Street W	22,457	22,457	73.6	73.6	0.0
Rancho Vista Ave/Avenue P	25th Street W to 20th Street W	27,509	27,509	74.5	74.5	0.0
Rancho Vista Ave/Avenue P	20th Street W to 15th Street W	26,453	27,276	74.3	74.5	0.1
Rancho Vista Ave/Avenue P	15th Street to 10th Street W	41,536	41,536	76.5	76.5	0.0
Rancho Vista Ave/Avenue P	10th Street W to SR 14	35,290	35,290	75.8	75.8	0.0
Rancho Vista Ave/Avenue P	SR 14 to Country Club Dr	23,332	23,332	73.8	73.8	0.0
Rancho Vista Ave/Avenue P	Country Club Dr to Division St	26,481	26,481	74.3	74.3	0.0
Rancho Vista Ave/Avenue P	Division St to Sierra Hwy	22,334	22,334	73.6	73.6	0.0
East Avenue P	Sierra Hwy to 8th Street E	33,863	37,052	75.4	75.8	0.4
East Avenue P	8th Street E to 15th Street E	24,509	27,698	74.0	74.5	0.5
East Avenue P	15th Street E to 20th Street E	24,973	30,657	74.1	75.0	0.9
East Avenue P	20th Street E to 25th Street E	18,699	23,798	72.8	73.9	1.0
East Avenue P	25th Street E to 30th Street E	14,695	18,896	71.8	72.9	1.1
Avenue Q	Trade Center Dr to 5th Street W	2,216	4,805	63.4	66.7	3.4
Avenue Q	Division Street to 6th Street E	3,815	8,053	65.7	68.8	3.1
Avenue Q	Sierra Hwy to 10th Street E	9,447	10,165	69.5	69.9	0.3
Avenue Q	10th Street E to 20th Street E	8,323	8,349	69.0	69.0	0.0
Avenue Q	20th Street E to 30th Street E	7,106	7,293	68.3	68.4	0.1
Avenue Q	30th Street E to 40th Street E	4,960	7,814	66.7	68.7	2.0
Elizabeth Lake Rd	25th Street W to 20th Street W	13,937	20,874	72.5	74.2	1.8
Elizabeth Lake Rd	20th Street W to 15th Street W	13,828	16,038	72.4	73.1	0.6
Elizabeth Lake Rd	15th Street W to 10th Street W	18,930	19,583	73.8	73.9	0.1
Palmdale Blvd	10th Street W to Trade Center Dr	17,408	22,179	74.3	75.3	1.1
Palmdale Blvd	Trade Center Dr to 5th Street W	16,548	17,785	74.1	74.4	0.3
Palmdale Blvd	5th Street W to State Route 14	27,366	27,366	76.3	76.3	0.0
Palmdale Blvd	Division Street to 5th St E	25,175	25,510	76.1	76.2	0.1
Palmdale Blvd	5th Street E to 10th Street E	25,257	25,257	75.9	75.9	0.0
Palmdale Blvd	10th Street E to 15th Street E	25,869	25,869	76.0	76.0	0.0
Palmdale Blvd	15th Street E to 20th Street E	19,223	19,233	74.7	74.7	0.0
Palmdale Blvd	20th Street E to 25th Street E	23,470	24,649	75.6	75.8	0.2
Palmdale Blvd	40th Street E to 47th Street E	18,458	28,011	74.6	76.4	1.8
Palmdale Blvd	50th Street E to 60th Street E	14,147	23,700	73.4	75.6	2.2
Palmdale Blvd	70th Street E to 80th Street E	16,681	16,681	74.1	74.0	-0.1
E Avenue R	Sierra Hwy to 10th Street E	19,490	19,490	72.2	72.2	0.0
E Avenue R	10th Street E to 20th Street E	18,495	18,495	72.0	72.0	0.0
E Avenue R	20th Street E to 30th Street E	18,408	18,408	72.0	72.0	0.0
E Avenue R	30th Street E to 40th Street E	14,851	18,843	71.0	72.0	1.0

E Avenue R	40th Street E to 47th Street E	16,231	22,831	71.4	72.9	1.5
E Avenue R	47th Street E to 60th Street E	15,158	17,279	71.1	71.7	0.6
E Avenue R	60th Street E to 70th Street E	5,811	6,564	67.0	67.5	0.5
Avenue S	Tovey Avenue to Tierra Subida Ave	9,346	10,895	69.3	69.7	0.4
Avenue S	Tierra Subida Ave to SR 14	14,027	17,336	70.8	71.7	0.9
Avenue S	SR 14 to 5th Street E	13,190	13,190	70.5	70.5	0.0
Avenue S	5th Street E to Sierra Hwy	25,828	25,828	73.4	73.4	0.0
Avenue S	Sierra Hwy to 10th Street E	32,170	32,170	74.4	74.4	0.0
Avenue S	10th Street E to 20th Street E	29,830	29,830	74.1	74.1	0.0
Avenue S	20th Street E to 25th Street E	30,323	30,323	74.1	74.1	0.0
Avenue S	25th Street E to 30th Street E	29,058	29,058	74.0	74.0	0.0
Avenue S	30th Street E to 35th Street E	24,137	24,137	73.4	73.4	0.0
Avenue S	35th Street E to 40th Street E	23,612	23,612	73.3	73.3	0.0
Avenue S	40th Street E to 47th Street E	23,867	23,867	73.3	73.3	0.0
Avenue S	47th Street E to 55th Street E	21,305	21,305	72.6	72.6	0.0
Pearblossom Hwy/Avenue T	Sierra Hwy to 25th Street E	48,960	52,520	78.4	78.8	0.3
Pearblossom Hwy/Avenue T	25th Street E to 40th Street E	40,419	45,045	77.6	78.1	0.5
Pearblossom Hwy/Avenue T	40th Street E to 47th Street E	22,788	31,951	75.1	76.6	1.5
Pearblossom Hwy/Avenue T	47th Street E to Fort Tejon Road	22,898	32,061	75.1	76.6	1.5
Pearblossom Hwy/Avenue T	Fort Tejon Road to 70th Street E	13,027	22,190	72.7	75.0	2.3
10th Street W/Tierra Subida Ave	W Avenue M to W Avenue N	15,186	15,186	72.8	72.8	0.0
10th Street W/Tierra Subida Ave	W Avenue N to W Avenue O	19,402	22,897	73.9	74.6	0.7
10th Street W/Tierra Subida Ave	W Avenue O to SR 14	17,627	17,627	73.5	73.5	0.0
10th Street W/Tierra Subida Ave	SR 14 to Rancho Vista Blvd	35,324	35,324	76.7	76.7	0.0
10th Street W/Tierra Subida Ave	Rancho Vista Blvd to Technology D	31,954	37,661	76.3	77.0	0.7
10th Street W/Tierra Subida Ave	Technology Dr to W Palmdale Blvd	39,039	47,477	77.0	77.9	0.8
10th Street W/Tierra Subida Ave	W Palmdale Blvd to Rayburn Rd	16,569	18,512	73.2	73.7	0.5
Sierra Hwy	Columbia Way to E Avenue N	25,408	37,932	76.9	78.7	1.7
Sierra Hwy	E Avenue N to E Avenue O	27,037	36,183	77.2	78.5	1.3
Sierra Hwy	E Avenue O to E Avenue P	32,133	53,660	77.9	80.2	2.2
Sierra Hwy	E Avenue P to E Avenue Q	14,366	14,366	74.4	74.4	0.0
Sierra Hwy	E Avenue Q to Palmdale Blvd	15,176	15,253	74.7	74.7	0.0
Sierra Hwy	Palmdale Blvd to E Avenue R	9,993	9,993	72.9	72.9	0.0
Sierra Hwy	E Avenue R to E Avenue S	7,289	7,289	71.5	71.5	0.0
Sierra Hwy	E Avenue S to Pearblossom Hwy	8,070	8,070	71.9	71.9	0.0
10th Street E	E Avenue P to E Avenue Q	2,357	2,357	63.1	63.1	0.0
10th Street E	E Avenue Q to E Palmdale Blvd	5,732	5,732	67.1	67.1	0.0
10th Street E	E. Palmdale Blvd to Avenue R	5,756	5,756	67.0	67.0	0.0
10th Street E	Avenue R to Avenue S1	3,898	3,898	65.3	65.3	0.0
20th Street E	E Avenue P to E Avenue Q	4,738	6,362	63.3	64.6	1.3
20th Street E	E Avenue Q to Palmdale Blvd	7,760	9,746	65.4	66.4	1.0
20th Street E	Palmdale Blvd to E Avenue R	13,063	13,063	67.8	67.8	0.0
20th Street E	E Avenue R to E Avenue S	12,215	12,938	67.5	67.8	0.2
25th Street E	E Avenue P to E Avenue Q	4,102	8,624	67.4	70.6	3.2
25th Street E	E Avenue Q to Palmdale Blvd	6,948	8,947	69.7	70.8	1.1
25th Street E	Palmdale Blvd to E Avenue R	12,851	13,007	72.5	72.5	0.1

25th Street E	E Avenue R to E Avenue S	16,629	16,629	73.6	73.6	0.0
25th Street E	E Avenue S to Pearblossom Hwy	14,269	14,269	72.9	72.9	0.0
30th Street E	E Avenue P to E Avenue Q	5,987	7,961	66.3	67.6	1.2
30th Street E	E Avenue Q to Palmdale Blvd	6,083	7,821	66.4	67.5	1.1
30th Street E	Palmdale Blvd to E Avenue R	7,721	8,354	67.6	67.9	0.3
30th Street E	E Avenue R to E Avenue S	8,871	8,871	68.2	68.2	0.0
40th Street E	E Avenue P to E Avenue Q	5,610	11,891	67.3	70.5	3.3
40th Street E	E Avenue Q to E Palmdale Blvd	7,185	7,185	68.3	68.3	0.0
40th Street E	E Palmdale Blvd to E Avenue R	9,892	14,092	69.8	71.3	1.5
40th Street E	E Avenue R to E Avenue S	9,037	12,432	69.4	70.8	1.4
40th Street E	E Avenue S to Sierra Hwy	10,505	10,612	70.0	70.0	0.0
47th Street E/50th Street E/Ft Tejon Rd	E Avenue M to E Avenue N	18,016	22,987	73.6	74.7	1.1
47th Street E/50th Street E/Ft Tejon Rd	E Avenue P to Palmdale Blvd	12,874	16,180	72.2	73.2	1.0
47th Street E/50th Street E/Ft Tejon Rd	Palmdale Blvd to E Avenue R	25,702	26,588	75.3	75.4	0.1
47th Street E/50th Street E/Ft Tejon Rd	E Avenue R to E Avenue R-8	26,908	26,908	75.5	75.5	0.0
47th Street E/50th Street E/Ft Tejon Rd	E Avenue R-8 to E Avenue S	19,854	19,854	74.2	74.2	0.0
47th Street E/50th Street E/Ft Tejon Rd	E Avenue S to Essex Dr	24,514	28,816	75.2	75.9	0.7
47th Street E/50th Street E/Ft Tejon Rd	Essex Dr to Pearblossom Hwy	24,367	24,367	75.1	75.1	0.0
47th Street E/50th Street E/Ft Tejon Rd	Pearblossom Hwy to E Avenue T-8	21,099	30,811	74.4	76.1	1.6
Technology Dr	10th Street W to Trade Center Dr	7,205	7,277	68.5	68.5	0.0
Technology Dr	5th Street W to Division St	7,574	7,574	68.7	68.7	0.0
Technology Dr	Division St to Sierra Hwy	7,805	7,805	68.8	68.8	0.0