

City of Lakeport  
Community Development Department



**Martin Street Apartments Phase III Project  
Initial Study/Mitigated Negative Declaration**

**December 2022**

**Prepared by**



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### **APPENDIX:**

Appendix A: Air Quality and GHG Modeling Results

Appendix B: Biological Resources Peer Review Memo

## **INITIAL STUDY December 2022**

### **A. BACKGROUND**

1. Project Title: Martin Street Apartments Phase III Project
2. Lead Agency Name and Address: City of Lakeport  
Community Development Department  
225 Park Street  
Lakeport, CA 95453
3. Contact Person and Phone Number: Jenni Byers  
Community Development Director  
(707) 263-5615 ext. 201
4. Project Location: 519 South Smith Street  
Lakeport, CA 95453  
Assessor's Parcel Number: 025-431-41
6. Project Sponsor: Cameron Johnson  
AMG Associates  
26535 Summit Circle  
Santa Clarita, CA 91350  
(818) 825-5488  
cjohnson@amgland.com
7. Existing Land Use Designation: Residential
8. Proposed Land Use Designation: High Density Residential
9. Existing Zoning Designation: Low Density Residential (R-1)
10. Proposed Zoning Designation: High Density Residential (R-3)
11. Potentially Required Approvals from Other Public Agencies: None
12. Surrounding Land Uses and Setting:

The project site is located at 519 South Smith Street in the City of Lakeport, California. The 3.7-acre project site (Assessor's Parcel Number [APN] 025-431-41) is undeveloped, and Phase I and II of the Martin Street Apartments project are under construction north of the project site. The project site is bound by State Route (SR) 29 to the west, and South Smith Street to the east. Surrounding existing uses include a church to the northeast, multi-family residences to the east, a single-family residence to the south, and commercial warehouses to the southeast, as well as rural residences and commercial businesses to the northwest and southwest, respectively, across SR 29. The City of Lakeport General Plan designates the proposed project site as Residential and the site is zoned Low Density Residential (R-1).

13. Project Description Summary:

The proposed project would involve the development of an affordable housing community. The community would include five multi-family residential buildings with eight units per building, totaling 40 units. The affordable housing community would include amenities such as a community center and tot lot. A total of 78 parking spaces would be provided throughout the site, and primary site access would be provided by a driveway off of South Smith Street, along the eastern boundary of the site. An internal roadway would connect to Phase I and II of the Martin Street Apartments project to the north to provide secondary vehicle access. The proposed project would also include development of a detention basin in the northeast corner of the site. The proposed project would require a General Plan Amendment to change the project site land use designation to High Density Residential and a Rezone to change the project site zoning district to High Density Residential (R-3).

14. Status of Native American Consultation Pursuant to Public Resources Code Section 21080.3.1:

In compliance with Assembly Bill (AB) 52 (Public Resources Code [PRC] Section 21080.3.1), project notification letters were distributed to a consultation list of tribes with traditional lands or cultural places located within the project area on December 28, 2021, and requests to consult were not received within the consultation period.

## **B. SOURCES**

The following documents are referenced information sources used for the purposes of this Initial Study/Mitigated Negative Declaration (IS/MND):

1. Barnett Environmental. *Biological Resources Peer Review Memo*. August 25, 2022.
2. California Air Resources Board. *The 2017 Climate Change Scoping Plan Update*. November 2017.
3. California Department of Forestry and Fire Protection. *FHSZ Viewer*. Available at: <https://egis.fire.ca.gov/FHSZ/>. Accessed September 2021.
4. California Department of Water Resources. *SGMA Basin Prioritization Dashboard*. Available at: <https://gis.water.ca.gov/app/bp-dashboard/final/>. Accessed October 2021.
5. California Historical Resources Information System Northwest Information Center. *Records Search Results for the Proposed Martin Street Apartments Phase III Project*. September 21, 2021.
6. CalRecycle. *SWIS Facility/Site Activity Details – Eastlake Sanitary Landfill (17-AA-0001)*. Available at: <https://www2.calrecycle.ca.gov/SolidWaste/SiteActivity/Details/3787?siteID=930>. Accessed December 2021.
7. Caltrans. *2017 Traffic Volumes: Route 22-33*. Available at: <https://dot.ca.gov/programs/traffic-operations/census/traffic-volumes/2017/route-22-33>. Accessed December 2021.
8. City of Lakeport Municipal Sewer District. *Sewer System Management Plan*. March 2018.
9. City of Lakeport. *City of Lakeport General Plan 2025 Draft Environmental Impact Report*. November 2008.
10. City of Lakeport. *City of Lakeport General Plan 2025*. Adopted April 2009.
11. City of Lakeport. *Lakeport Water Sources*. Available at: [https://www.cityoflakeport.com/public\\_works/water/water\\_sources\\_alternate.php](https://www.cityoflakeport.com/public_works/water/water_sources_alternate.php). Accessed October 2021.

12. Department of Toxic Substances Control. *Hazardous Waste and Substances Site List (Cortese)*. Available at: <https://www.envirostor.dtsc.ca.gov/public/>. Accessed September 2021.
13. Doug Gearhart, Air Pollution Control Officer at Lake County Air Quality Management District. Personal communication [phone] with Briette Shea, Senior Associate/Air Quality Technician at Raney Planning and Management, Inc. April 27, 2022.
14. FEMA. *FEMA Flood Map Service Center*. Available at: <https://msc.fema.gov/portal/home>. Accessed October 2021.
15. Governor's Office of Planning and Research. *Technical Advisory on Evaluating Transportation Impacts in CEQA*. December 2018.
16. Lake County/City Area Planning Council. *Active Transportation Plan for Lake County*. December 2016.
17. Lakeport Unified School District. *Developer Fee Information*. Available at: <https://www.lakeport.k12.ca.us/Page/1025>. Accessed September 2021.
18. Native American Heritage Commission. *Martin Street Apartments Phase III Project, Lake County*. October 20, 2021.
19. Office of Environmental Health Hazard Assessment. *Air Toxics Hot Spots Program Risk Assessment Guidelines: The Air Toxics Hot Spots Program Guidance Manual for Preparation of Health Risk Assessments*. August 2003.
20. Peak & Associates, Inc. *Determination of Eligibility and Effect for the Martin Street Senior Apartments Project, City of Lakeport, Lake County, California*. June 7, 2016.
21. U.S. Census Bureau. *QuickFacts: Lakeport city, California*. Available at: <https://www.census.gov/quickfacts/fact/table/lakeportcitycalifornia/PST045219>. Accessed September 2021.
22. U.S. Occupational Safety and Health Administration. *OSHA Technical Manual (OTM) Section III: Chapter 5*. Available at: <https://www.osha.gov/otm/section-3-health-hazards/chapter-5#measurements>. Accessed May 2022.

## **C. ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED**

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

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

#### **D. DETERMINATION**

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On the basis of this initial study:

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

\_\_\_\_\_  
Signature

Jennifer M. Byers, Community Development Director  
Printed Name

\_\_\_\_\_  
Date

City of Lakeport  
For

## **E. BACKGROUND AND INTRODUCTION**

This IS/MND identifies and analyzes the potential environmental impacts of the proposed project. The information and analysis presented in this document is organized in accordance with the order of the California Environmental Quality Act (CEQA) checklist in Appendix G of the CEQA Guidelines. Where the analysis provided in this document identifies potentially significant environmental effects of the project, mitigation measures are prescribed.

The mitigation measures prescribed for environmental effects identified in this IS/MND would be implemented in conjunction with the project, as required by CEQA. The mitigation measures would be incorporated into the project through conditions of approval. The City of Lakeport would adopt a Mitigation Monitoring/Reporting Program for the project in conjunction with approval of the project.

In April 2009, the City of Lakeport adopted a comprehensive update to the City's General Plan<sup>1</sup> and certified an associated Environmental Impact Report (EIR).<sup>2</sup> The General Plan EIR is a program EIR, prepared pursuant to Section 15168 of the CEQA Guidelines (Title 14, California Code of Regulations [CCR], Sections 15000 et seq.). The General Plan EIR analyzed full implementation of the General Plan and identified measures to mitigate the significant adverse impacts associated with the General Plan to the maximum extent feasible.

Project-specific technical reports have been prepared for the proposed project and form the basis of several technical sections of this IS/MND. All technical reports used in the preparation of this IS/MND are attached as appendices.

## **F. PROJECT DESCRIPTION**

The following provides a description of the project site's current location and setting, as well as the proposed project components and discretionary actions required for the project.

### **Project Location and Setting**

The project site is located at 519 South Smith Street in the City of Lakeport, California. The City of Lakeport is located along the western shore of Clear Lake, in the eastern region of Lake County (see Figure 1).

The 3.7-acre project site (APN 025-431-41) is currently undeveloped, and Phase I (32 units) and II (48 units) of the Martin Street Apartments project have been constructed to the north of the project site. Construction staging areas for the storage of equipment and vehicles, stockpiles, waste bins, and other construction-related materials, including construction trailers, have been established within the project site during the construction of Phase I and Phase II of the Martin Street Apartments.

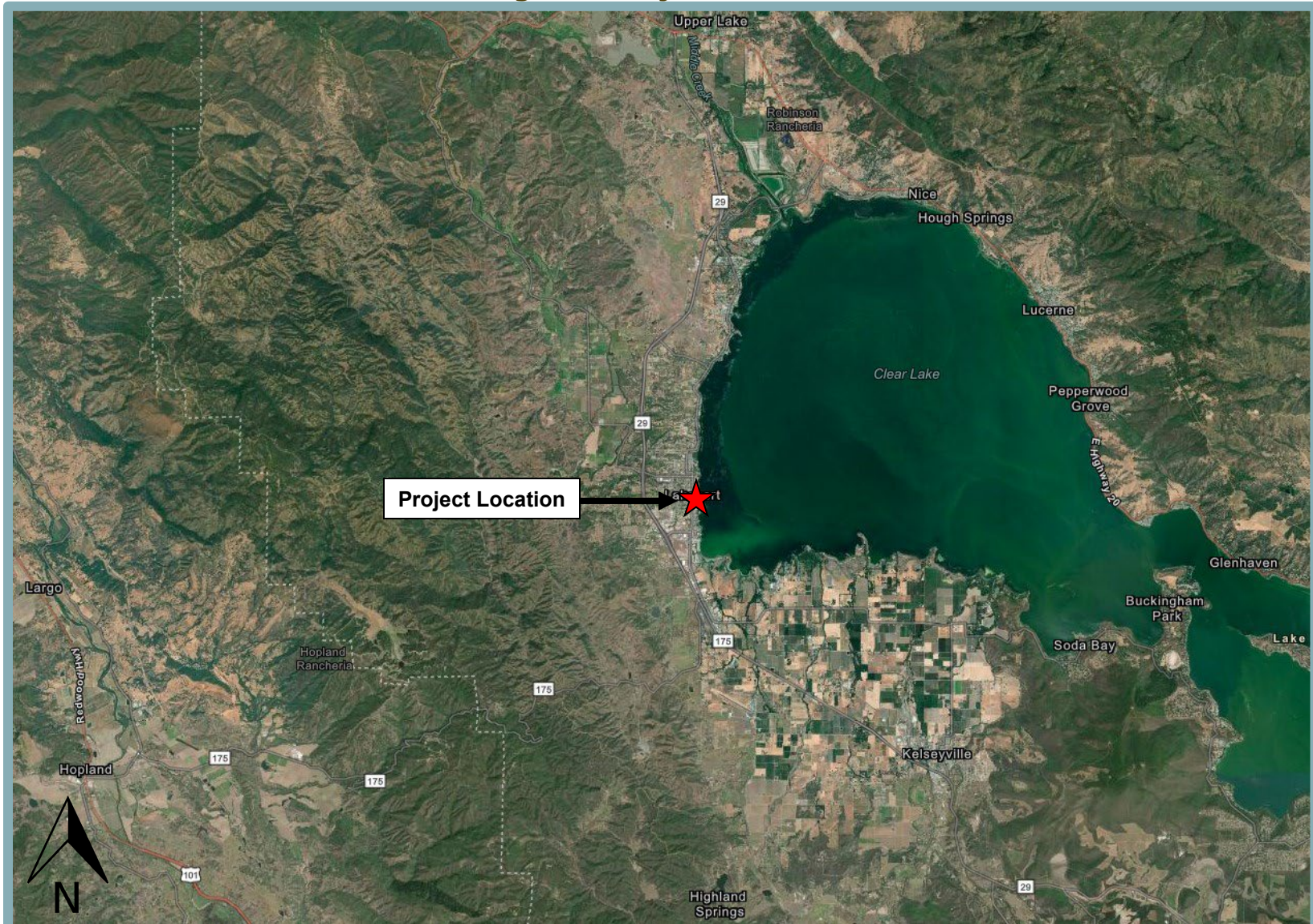
The project site is bound by SR 29 to the west, and South Smith Street to the east. Surrounding existing uses include a church to the northeast, multi-family residences to the east, a single-family residence to the south, and commercial warehouses to the southeast, as well as rural residences and commercial businesses to the northwest and southwest, respectively, across SR 29 (see Figure 2). The City of Lakeport General Plan designates the proposed project site as Residential and the site is zoned R-1.

<sup>1</sup> City of Lakeport. *City of Lakeport General Plan 2025*. Adopted April 2009.

<sup>2</sup> City of Lakeport. *City of Lakeport General Plan 2025 Environmental Impact Report*. November 2008.



**Figure 1  
Regional Project Location**





## **Project Components**

The proposed project would include the development of 40 units of affordable housing spread between five multi-family residential buildings, with a total of eight units per building (see Figure 3). The proposed development would include 20 two-bedroom units, and 20 three-bedroom units. Of the 40 total units, 10 would be adaptable units, six would be American Disability Act (ADA) compliant units, and four would be sensory impaired units. Additionally, a 2,469-square foot (sf) community center, tot lot, and half basketball court would be developed on-site for resident use.

Access to the proposed project would be provided by a driveway off of South Smith Street, on the eastern border of the project site. Additionally, an internal roadway would connect to Phase II of the Martin Street Apartments project to the north of the project site to provide secondary vehicle access. The project site would be developed with a surface level parking lot which would provide parking for all units, resulting in a total of 78 parking spaces, including eight ADA accessible spaces.

Landscaping proposed for the project would include evergreen trees, deciduous trees, various types of shrubs and perennials, as well as native grasses to be located around the proposed buildings and parking area. New stormwater infrastructure within the project site would include a landscaped detention basin in the northeast corner of the site to collect, treat, and attenuate stormwater runoff. The treated stormwater would then be collected from the landscaped detention basin and conveyed to existing stormwater drainage pipes located within the project vicinity. The project would also include various other landscaping elements that would allow for stormwater infiltration.

The proposed project would connect to existing utility lines within the project area. Water and sewer service would be provided by the City of Lakeport, while electricity and natural gas would be provided by Pacific Gas and Electric Company (PG&E).

## **Rezone/General Plan Amendment**

The project site is currently designated as Residential by the City of Lakeport General Plan, and is zoned R-1. The proposed project would include a General Plan Amendment to redesignate the site as High Density Residential and a Rezone to the City's R-3 zoning district in order to accommodate the proposed project. It should be noted that the project would be within the allowable density of the existing Residential General Plan designation. However, according to the City's General Plan, the Residential land use only allows multifamily developments comprising up to four units within a single structure. Therefore, because the proposed project would include a eight units per building, a General Plan Amendment would be required. In addition, the General Plan notes that zoning districts consistent with the High-Density Residential land use include R-3 and R-5. Therefore, a Rezone would be required to ensure consistency with the General Plan.

## **Discretionary Actions**

The proposed project requires the following approvals from the City of Lakeport:

- Adoption of the IS/MND;
- Adoption of a Mitigation Monitoring/Reporting Program;
- General Plan Amendment from Residential to High Density Residential; and
- Rezone from R-1 to R-3.

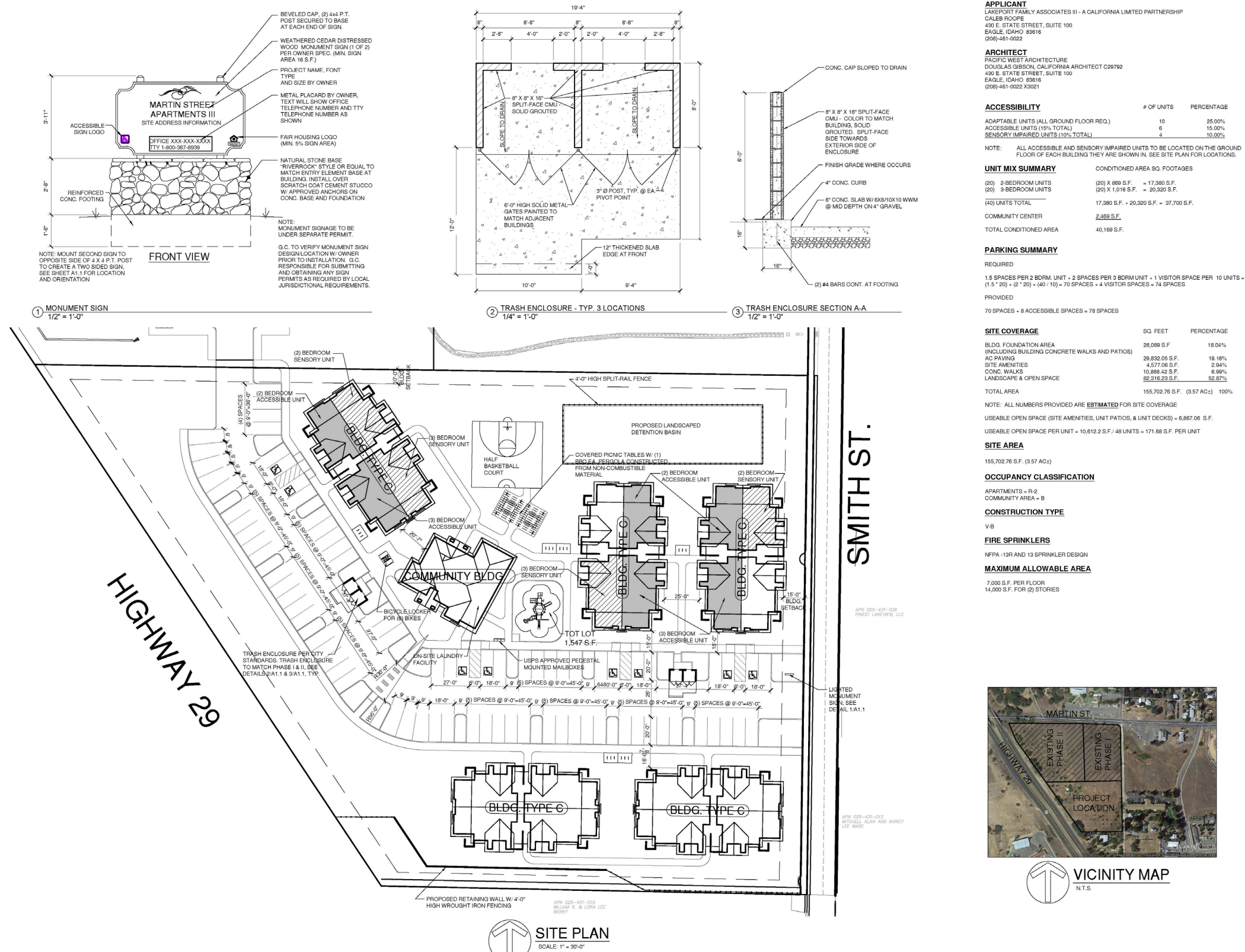
**Figure 2  
Project Location**



*Note: Project Site boundaries are approximate.*



### Figure 3 Preliminary Site Plan



## **G. ENVIRONMENTAL CHECKLIST**

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The following checklist contains the environmental checklist form presented in Appendix G of the CEQA Guidelines. The checklist form is used to describe the impacts of the proposed project. A discussion follows each environmental issue identified in the checklist. For this checklist, the following designations are used:

**Potentially Significant Impact:** An impact that could be significant, and for which no mitigation has been identified. If any potentially significant impacts are identified, an EIR must be prepared.

**Less Than Significant with Mitigation Incorporated:** An impact that requires mitigation to reduce the impact to a less-than-significant level.

**Less-Than-Significant Impact:** Any impact that would not be considered significant under CEQA relative to existing standards.

**No Impact:** The project would not have any impact.



## **I. AESTHETICS.**

*Would the project:*

	Potentially Significant Impact	Less-Than- Significant with Mitigation Incorporated	Less-Than- Significant Impact	No Impact
a. Have a substantial adverse effect on a scenic vista?	<input type="checkbox"/>	<input type="checkbox"/>	✗	<input type="checkbox"/>
b. Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State scenic highway?	<input type="checkbox"/>	<input type="checkbox"/>	✗	<input type="checkbox"/>
c. In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	<input type="checkbox"/>	<input type="checkbox"/>	✗	<input type="checkbox"/>
d. Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	<input type="checkbox"/>	<input type="checkbox"/>	✗	<input type="checkbox"/>

## **Discussion**

- a, b. Examples of typical scenic vistas include mountain ranges, ridgelines, or bodies of water as viewed from a highway, public space, or other area designated for the express purpose of viewing and sightseeing. In general, a project's impact to a scenic vista would occur if development of the project would substantially change or remove a scenic vista.

The City of Lakeport is located on the western edge of Clear Lake, which is the largest natural lake located entirely within the State of California. The City sits in a valley within the Northern California Coast Range, and the areas to the north, west, and south of the City are generally characterized by open land containing grazing land, oak woodlands, field crops, vineyards, orchards, and other agricultural uses. The visual character of Lakeport is defined by Clear Lake, the surrounding mountains, lakeside parks, agricultural land, and residential and commercial areas.

While the proposed project would require a General Plan Amendment to re-designate the site from Residential to High Density Residential and a Rezone from R-1 to R-3, the project site has been generally anticipated for residential development by the City. According to Figure 16 of the General Plan, several view corridors are located throughout the City; however, the project site is not located within or in the vicinity of any designated scenic view corridor. Per Appendix A of the City's General Plan EIR, buildout of the General Plan was determined to not cause adverse effects on Lakeport's scenic vistas due to development being guided by the policies and programs contained in the General Plan. Specific General Plan policies include OS 2.10, OS 2.11, CD 4.5, CD 7.2, and CD 7.3, which would ensure that future development does not block views of the lake from public streets and recreation areas, as well as ensuring the preservation of open space, and the protection of scenic views. The proposed project would be required to comply with all applicable General Plan policies. Thus, the proposed project would not have a substantial adverse effect on a scenic vista.

Additionally, the proposed project is not located in the vicinity of an officially designated State scenic highway. It should be noted that SR 29, which bounds the project site to the

west, is eligible for listing as a State scenic highway; however, the roadway is not officially designated as such.<sup>3</sup>

Based on the above, development of the proposed project would not have a substantial adverse effect on a scenic vista and would not substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State Scenic Highway. Thus, a **less-than-significant** impact would occur.

- c. The project site is currently undeveloped, and Phase I and II of the Martin Street Apartments project recently completed construction just north of the project site. Surrounding existing uses include a church to the northeast, multi-family residences to the east, a single-family residence to the south, commercial warehouses to the southeast, and rural residences and commercial businesses to the northwest and southwest, respectively, across SR 29. The U.S. Census Bureau defines areas with a population of between 2,500 and 50,000 people, such as the City of Lakeport, as Urban Clusters. Thus, the project site is located in a generally urban area, and the relevant threshold under CEQA would be whether the proposed project would conflict with applicable zoning and other regulations governing scenic quality.

The City of Lakeport General Plan designates the proposed project site as Residential and the site is zoned R-1. Therefore, while the proposed project would require a General Plan Amendment to re-designate the site to High Density Residential and a Rezone to R-3, the site has been anticipated for residential development by the City. The proposed project would be required to comply with Section 16.17, Design and Improvement Standards, of the City's Municipal Code, which sets forth design standards and guidelines governing scenic quality. Compliance with such would ensure that the proposed project does not conflict with applicable zoning and other regulations governing scenic quality.

Furthermore, the proposed project would consist of Phase III of the Martin Street Apartments affordable housing development. As such, the proposed project would be consistent with the existing Phase I and Phase II development. The proposed project would be designed in a manner which is similar to that of the previously approved Martin Street Apartments Phase I and Phase II developments.

Based on the above, the proposed project would not conflict with applicable zoning or other regulations governing scenic quality, and a **less-than-significant** impact would occur.

- d. Development of the proposed uses would involve new sources of light and glare associated with lighting fixtures within the proposed buildings and parking areas. Headlights from vehicles driving within the project site would also result in sources of light and glare. However, such sources of light and glare would not be substantially more intensive than what currently occurs within the surrounding area. For instance, light and glare are already generated by vehicles traveling on SR 29 in the project vicinity, and from Phase I and II of the Martin Street Apartments to the north.

All outdoor lighting would be required to comply with Section 17.28.010(B) of the City's Municipal Code, which outlines performance standards related to light and glare to ensure that development within the community does not unnecessarily create light and glare

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<sup>3</sup> California Department of Transportation. *California Scenic Highway Mapping System*. Available at: [http://www.dot.ca.gov/hq/LandArch/16\\_livability/scenic\\_highways/index.htm](http://www.dot.ca.gov/hq/LandArch/16_livability/scenic_highways/index.htm). Accessed March 2022.

nuisances. Section 17.28.010(B)(1) requires the project to use lighting fixtures that are shielded, boxed, or directed at a downward angle. Compliance with the City's standards would ensure that project effects on the nighttime lighting environment are minimized.

Given the general consistency of the proposed project with surrounding development and compliance with the City's lighting standards, implementation of the proposed project would result in a ***less-than-significant*** impact related to creating a new source of substantial light or glare which would adversely affect day or nighttime views in the area.

## II. AGRICULTURE AND FOREST RESOURCES.

*Would the project:*

	Potentially Significant Impact	Less-Than- Significant with Mitigation Incorporated	Less-Than- Significant Impact	No Impact
a. Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	✗
b. Conflict with existing zoning for agricultural use, or a Williamson Act contract?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	✗
c. Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	✗
d. Result in the loss of forest land or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	✗
e. Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	✗

### **Discussion**

- a, e. Per the California Department of Conservation Farmland Mapping and Monitoring Program (FMMP), the entirety of the project site is characterized as “Urban and Built-Up Land”.<sup>4</sup> The project site does not contain, and is not located adjacent to, Prime Farmland, Unique Farmland, or Farmland of Statewide Importance. Given the designation of the site as Urban and Built-Up Land, development of the proposed project would not convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to a non-agricultural use, or otherwise result in the loss of Farmland to non-agricultural use or the conversion of forest land to non-forest use. Therefore, **no impact** would occur as a result of the proposed project.
- b. As noted above, the project site is currently zoned R-1 and designated Residential by the City’s General Plan. While the proposed project would include a General Plan Amendment and a Rezone, agricultural production is not considered a permitted or conditionally permitted use under either the project site’s existing R-1 zoning and Residential land use designation, or the project site’s proposed R-3 zoning and High Density Residential land use designation. In addition, the project site is not under a Williamson Act contract.<sup>5</sup> Therefore, the proposed project would not conflict with existing zoning for agricultural use, or a Williamson Act contract, and **no impact** would occur.
- c, d. The project site is not considered forest land (as defined in PRC Section 12220[g]), timberland (as defined by PRC Section 4526) and is not zoned Timberland Production (as defined by Government Code Section 51104[g]). In addition, due to the lack of forest on-site, the project would not result in the loss of forest land or conversion of forest land to non-forest use. Therefore, the proposed project would have **no impact** with regard to

<sup>4</sup> California Department of Conservation. *Contra Costa County Important Farmland 2016*. Available at: <https://www.conservation.ca.gov/dlrp/fmmp/Pages/ContraCosta.aspx>. Accessed March 2022.

<sup>5</sup> City of Lakeport. *City of Lakeport General Plan 2025 Environmental Impact Report* [pg. 3-11]. November 2008.



conversion of forest land or any potential conflict with forest land, timberland, or Timberland Production zoning.

### **III. AIR QUALITY.**

*Would the project:*

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-Than- Significant Impact	No Impact
a. Conflict with or obstruct implementation of the applicable air quality plan?	<input type="checkbox"/>	<input type="checkbox"/>	✗	<input type="checkbox"/>
b. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?	<input type="checkbox"/>	<input type="checkbox"/>	✗	<input type="checkbox"/>
c. Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	✗	<input type="checkbox"/>	<input type="checkbox"/>
d. Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	✗	<input type="checkbox"/>

### **Discussion**

- a, b. The City of Lakeport is located in the Lake County Air Basin (LCAB), which is under the jurisdiction of the local air quality agency, the Lake County Air Quality Management District (LCAQMD). The LCAB is the only air basin in the State that is classified as an attainment area for all California Ambient Air Quality Standards (CAAQS). Because the CAAQS are more stringent than the National Ambient Air Quality Standards (NAAQS), the LCAB is designated attainment for all NAAQS as well. Due to the attainment status of the LCAB, an air quality plan for the area is not required to be and has not been prepared.

Because the LCAQMD is under attainment for all CAAQS and NAAQS, numerical thresholds of significance for air pollutants have not been established by the LCAQMD for CEQA analysis purposes, as such thresholds of significance are typically developed based on attainment goals set forth within an air quality plan. Based on the recommendation of the LCAQMD,<sup>6</sup> this analysis applies the thresholds of significance used for CEQA analyses within the nearby San Francisco Bay Area Air Basin (SFBAAB), formulated by the Bay Area Air Quality Management District (BAAQMD). The BAAQMD thresholds of significance are based on the SFBAAB's current nonattainment status of ozone and particulate matter (PM) emissions and the subsequent air quality attainment plans. Using the BAAQMD thresholds of significance for the proposed project presents a conservative analysis. The BAAQMD's thresholds of significance are listed in Table 1.<sup>7</sup> If a project were to exceed the BAAQMD's criteria pollutant emission thresholds during construction or operations, the project could be considered to result in an adverse air quality impact.

The proposed project's construction and operational emissions were quantified using the California Emissions Estimator Model (CalEEMod) software version 2020.4.0 – a Statewide model designed to provide a uniform platform for government agencies, land use planners, and environmental professionals to quantify air quality emissions, including GHG emissions, from land use projects. The model applies inherent default values for various land uses, including construction data, vehicle mix, trip length, average speed,

<sup>6</sup> Doug Gearhart, Air Pollution Control Officer at Lake County Air Quality Management District. Personal communication [phone] with Briette Shea, Senior Associate/Air Quality Technician at Raney Planning and Management, Inc. April 27, 2022.

<sup>7</sup> On April 20, 2022, BAAQMD adopted updated thresholds of significance for climate impacts. The thresholds of significance for criteria pollutants were not updated. In addition, at the time of preparation for this document, updated CEQA Guidelines for applying the updated thresholds of significance have not been released. As such, for the purposes of the analysis included herein, the BAAQMD's 2017 guidance document was used.

etc. Where project-specific information is available, such information is applied in the model.

<b>Table 1 BAAQMD Thresholds of Significance</b>			
<b>Pollutant</b>	<b>Construction</b>	<b>Operational</b>	
	<b>Average Daily Emissions (lbs/day)</b>	<b>Average Daily Emissions (lbs/day)</b>	<b>Maximum Annual Emissions (tons/year)</b>
ROG	54	54	10
NO <sub>x</sub>	54	54	10
PM <sub>10</sub> (exhaust)*	82	82	15
PM <sub>2.5</sub> (exhaust)*	54	54	10
* Emissions from exhaust only. BAAQMD has not yet adopted thresholds for fugitive PM emissions.			
<b>Source: BAAQMD, CEQA Guidelines, May 2017.</b>			

The proposed project's modeling assumed the following:

- Construction would commence in May 2023 and take place over approximately 14 months;
- The proposed project would increase transit accessibility through on-site pedestrian connections and by being located approximately 0.22-mile from the nearest transit stop;
- The project would comply with the Model Water Efficiency Landscape Ordinance (MWELO) for the City; and
- The proposed residential units would not include fireplaces.

The proposed project's estimated emissions associated with construction and operations and the project's contribution to cumulative air quality conditions are provided below. All CalEEMod results are included as Appendix A to this IS/MND.

### **Construction Emissions**

According to the CalEEMod results, the proposed project would result in maximum unmitigated construction criteria air pollutant emissions as shown in Table 2. As shown in the table, the proposed project's construction emissions would be well below the applicable thresholds of significance. Consequently, the proposed project would not conflict with or obstruct implementation of the applicable air quality plans during project construction.

<b>Table 2 Maximum Unmitigated Construction Emissions (lbs/day)</b>			
<b>Pollutant</b>	<b>Project Emissions</b>	<b>Threshold of Significance</b>	<b>Exceeds Threshold?</b>
ROG	7.13	54	NO
NO <sub>x</sub>	27.59	54	NO
PM <sub>10</sub> (exhaust)	1.27	82	NO
PM <sub>2.5</sub> (exhaust)	1.17	54	NO
<b>Source: CalEEMod, December 2021 (see Appendix A).</b>			

### Operational Emissions

According to the CalEEMod results, the proposed project would result in maximum unmitigated operational criteria air pollutant emissions as shown in Table 3. As shown in the table, the proposed project's operational emissions would be well below the applicable thresholds of significance. As such, the proposed project would not conflict with or obstruct implementation of the applicable air quality plans during project operation.

<b>Table 3</b>					
<b>Maximum Unmitigated Operational Emissions</b>					
<b>Pollutant</b>	<b>Project Emissions</b>		<b>Threshold of Significance</b>		<b>Exceeds Threshold?</b>
	<b>lbs/day</b>	<b>tons/yr</b>	<b>lbs/day</b>	<b>tons/yr</b>	
ROG	2.67	2.93	54	10	NO
NO <sub>x</sub>	1.35	0.32	54	10	NO
PM <sub>10</sub> (exhaust)	0.04	0.44	82	15	NO
PM <sub>2.5</sub> (exhaust)	0.04	0.44	54	10	NO
<i>Source: CalEEMod, December 2021 (see Appendix A).</i>					

### Cumulative Emissions

Past, present and future development projects contribute to a region's adverse air quality impacts on a cumulative basis. By nature, air pollution is largely a cumulative impact. A single project is not sufficient in size to, by itself, result in nonattainment of AAQS. Instead, a project's individual emissions would contribute to existing cumulatively significant adverse air quality impacts. If a project's contribution to the cumulative impact is considerable, then the project's impact on air quality would be considered significant.

The BAAQMD's thresholds of significance, presented in Table 1, are used to represent the levels at which the LCAQMD would consider a project's individual emissions of criteria air pollutants would result in a cumulatively considerable contribution to existing air quality conditions. As demonstrated in Table 2 and Table 3 above, because the proposed project would result in emissions below the applicable thresholds of significance, the project would not be expected to result in a cumulatively considerable contribution to the region's existing air quality conditions.

### Conclusion

Because the proposed project would result in emissions below the applicable thresholds of significance, the project would not be considered to conflict with or obstruct implementation of regional air quality plans. Thus, a ***less-than-significant*** impact would occur.

- c. Some land uses are considered more sensitive to air pollution than others, due to the types of population groups or activities involved. Heightened sensitivity may be caused by health problems, proximity to the emissions source, and/or duration of exposure to air pollutants. Children, pregnant women, the elderly, and those with existing health problems are especially vulnerable to the effects of air pollution. Accordingly, land uses that are typically considered to be sensitive receptors include residences, schools, childcare centers, playgrounds, retirement homes, convalescent homes, hospitals, and medical clinics. The nearest sensitive receptors include an existing single-family residence, located approximately 30 feet south of the project site, as well as Phase I and Phase II of the



Martin Street Apartments, located approximately 50 feet and 20 feet north of the project site, respectively.

The major pollutant concentrations of concern are localized carbon monoxide (CO) emissions, toxic air contaminants (TAC) emissions, and criteria pollutant emissions, which are addressed in further detail below.

### **Localized CO Emissions**

Emissions of CO are of potential concern, as the pollutant is a toxic gas that results from the incomplete combustion of carbon-containing fuels such as gasoline or wood. Localized concentrations of CO are related to the levels of traffic and congestion along streets and at intersections. High levels of localized CO concentrations are only expected where background levels are high, and traffic volumes and congestion levels are high.

The LCAQMD has not established screening criteria for localized CO emissions. Therefore, in order to provide a conservative indication of whether the proposed project would result in localized CO emissions that would exceed the applicable threshold of significance, the screening criteria for localized CO emissions established by BAAQMD was used in this analysis. According to BAAQMD, a project would result in a less-than-significant impact related to localized CO emission concentrations if all of the following conditions are true for the project:

- The project is consistent with an applicable congestion management program established by the county congestion management agency for designated roads or highways, regional transportation plan, and local congestion management agency plans;
- The project traffic would not increase traffic volumes at affected intersections to more than 44,000 vehicles per hour; and
- The project traffic would not increase traffic volumes at affected intersections to more than 24,000 vehicles per hour where vertical and/or horizontal mixing is substantially limited (e.g., tunnel, parking garage, underpass, etc.).

An established congestion management program does not exist for the project area. As such, the proposed project would not be inconsistent with any such a plan. In addition, according to the California Department of Transportation (Caltrans), SR 29 at the junction of SR 29/Lakeport Boulevard experiences between 13,000 and 14,400 average daily trips.<sup>8</sup> Because SR 29 is a State Highway, the assumption can be made that the traffic travelling along the roadway would be greater than the traffic travelling on the local roadways in the project vicinity. Therefore, given the relatively small size of the proposed project, the addition of project-generated vehicle trips would not be expected to increase traffic volumes at any intersections within the project vicinity to more than 44,000 vehicles per hour. Furthermore, intersections where vertical and/or horizontal mixing is limited are not located in the project vicinity.

Based on the BAAQMD's screening criteria for localized CO emissions, the proposed project would not be expected to result in substantial levels of localized CO at surrounding intersections or generate localized concentrations of CO that would exceed standards or cause health hazards.

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<sup>8</sup> Caltrans. 2017 *Traffic Volumes: Route 22-33*. Available at: <https://dot.ca.gov/programs/traffic-operations/census/traffic-volumes/2017/route-22-33>. Accessed December 2021.

## **TAC Emissions**

Another category of environmental concern is TACs. The CARB's Air Quality and Land Use Handbook: A Community Health Perspective (Handbook) provides recommended setback distances for sensitive land uses from major sources of TACs, including, but not limited to, freeways and high traffic roads, distribution centers, and rail yards. The CARB has identified diesel particulate matter (DPM) from diesel-fueled engines as a TAC; thus, high volume freeways, stationary diesel engines, and facilities attracting heavy and constant diesel vehicle traffic are identified as having the highest associated health risks from DPM. Health risks associated with TACs are a function of both the concentration of emissions and the duration of exposure, where the higher the concentration and/or the longer the period of time that a sensitive receptor is exposed to pollutant concentrations would correlate to a higher health risk.

The proposed project does not include any operations that would be considered a substantial source of TACs. Accordingly, operations of the proposed project would not expose sensitive receptors to excess concentrations of TACs. While the project site is located in close proximity to SR 29, which could be considered be a source of TACs, the effects of SR 29 on future residents of the proposed project is beyond the scope of CEQA, as it pertains to the environment's effect on the project. Pursuant to the *California Building Industry Association v. Bay Area Air Quality Management District* (2015) 62 Cal.4th 369 (CBIA), the California Supreme Court held that "agencies subject to CEQA generally are not required to analyze the impact of existing environmental conditions on a project's future users or residents. But when a proposed project risks exacerbating those environmental hazards or conditions that already exist, an agency must analyze the potential impact of such hazards on future residents or users. In those specific instances, it is the project's impact on the environment – and not the environment's impact on the project – that compels an evaluation of how future residents or users could be affected by exacerbated conditions." (Id. at pp. 377-378.).

Short-term, construction-related activities could result in the generation of TACs, specifically DPM, from on-road haul trucks and off-road equipment exhaust emissions. However, construction is temporary and occurs over a relatively short duration in comparison to the operational lifetime of the proposed project. Specifically, as noted above, construction would occur over an approximately 14-month period. The exposure period typically analyzed in health risk assessments includes nine-, 30-, or 70-year durations,<sup>9</sup> which are substantially longer than the estimated 14-month construction period associated with the proposed project. In addition, all construction equipment and operation thereof would be regulated by the In-Use Off-Road Diesel Vehicle Regulation, which is intended to help reduce emissions associated with off-road diesel vehicles and equipment, including DPM. During construction, only portions of the project site would be disturbed at a time. Operation of construction equipment would occur on such portions of the site intermittently throughout the course of a day over the overall construction period. Because construction equipment on-site would not operate for any long periods of time and would be used at varying locations within the site, associated emissions of DPM would not occur at the same location (or be evenly spread throughout the entire project site) for long periods of time. Due to the temporary nature of construction and the relatively short duration of potential exposure to associated emissions, sensitive receptors in the area

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<sup>9</sup> Office of Environmental Health Hazard Assessment. *Air Toxics Hot Spots Program Risk Assessment Guidelines: The Air Toxics Hot Spots Program Guidance Manual for Preparation of Health Risk Assessments*. August 2003.

would not be exposed to pollutants for a permanent or substantially extended period of time.

Considering the short-term nature of construction activities, the regulated and intermittent nature of the operation of construction equipment, and the highly dispersive nature of DPM, the likelihood that any one sensitive receptor would be exposed to high concentrations of DPM for any extended period of time would be low. For the aforementioned reasons, project construction would not be expected to expose sensitive receptors to substantial pollutant concentrations.

### Naturally Occurring Asbestos (NOA)

Asbestos is a known carcinogen and, thus, NOA is considered a TAC. A number of areas in Lakeport contain serpentine rock and soils, which have the potential to release asbestos into the air and water if disturbed. According to Figure 19, Serpentine Rock and Soils, of the City's General Plan, the northeast corner of the project site is located in an area which has been identified by the Natural Resources Conservation Service (NRCS) to contain serpentine soils.

Asbestos is strictly regulated due to the serious adverse health effects resulting from exposure, including asbestosis and lung cancer, and based on the natural widespread occurrence of asbestos and the use of asbestos as a building material. CARB has established an Airborne Toxic Control Measure (ATCM) for naturally occurring asbestos which applies to Construction, Grading, Quarrying and Surface Mining Operations (i.e., requires implementation of mitigation measures to minimize asbestos-laden dust during the namesake activities). The ATCMs are presented within 17 CCR 93105 for construction, grading, quarrying and surface mining, and 17 CCR 93106 for surfacing applications.

Pursuant to the ATCM for Construction, Grading, Quarrying and Surface Mining Operations, an Asbestos Dust Mitigation Plan (ADMP) is required for any project with greater than one acre of surface disturbance if any portion of the area to be disturbed is mapped as having serpentine or ultramafic rock, or if any portion of the area to be disturbed has naturally occurring asbestos as determined by the owner/operator or the Air Pollution Control Officer. The ADMP, which must include dust mitigation practices that are sufficient to ensure that equipment and/or operation do not emit dust that is visible crossing the property line, would be required to be submitted to and approved by the LCAQMD before any clearing, grading, or construction begins.

### **Criteria Pollutants**

As discussed above, the LCAB is the only air basin in the State that is classified as an attainment area for all CAAQS and NAAQS. Due to the attainment status of the LCAB, an air quality plan for the area is not required to be and has not been prepared. As such, numerical thresholds of significance for air pollutants have not been established by the LCAQMD for CEQA analysis purposes, as such thresholds of significance are typically developed based on attainment goals set forth within an air quality plan. According to the BAAQMD, a project's compliance with BAAQMD's thresholds of significance provides an indication that criteria pollutants released as a result of project implementation would not inhibit attainment of the health-based regional NAAQS and CAAQS. Because the LCAB is in attainment for all CAAQS and NAAQS, and project-related emissions would not exceed the BAAQMD's thresholds, the criteria pollutants emitted during project

implementation would not be anticipated to result in measurable health impacts to sensitive receptors. Accordingly, the proposed project would not expose sensitive receptors to excess concentrations of criteria pollutants.

## **Conclusion**

Based on the above discussion, the proposed project would not expose any sensitive receptors to substantial concentrations of localized CO, or criteria pollutants from construction or operation; however, the potential exists for asbestos to be released if serpentine soils are disturbed on-site and, therefore, the proposed project could expose sensitive receptors to NOA. Therefore, a ***potentially significant*** impact could occur.

## **Mitigation Measure(s)**

Implementation of the following mitigation measure would reduce the above potential impact to a *less-than-significant* level.

*III-1. Prior to issuance of a grading permit, the project applicant shall provide a site assessment conducted by a qualified geologist that determines whether any on-site soils contain naturally occurring asbestos. If soils do not contain asbestos, further mitigation is not required; however, if asbestos is detected, an Asbestos Dust Mitigation Plan (ADMP) shall be submitted to Lake County Air Quality Management District (LCAQMD) for review and approval prior to the initiation of any clearing, grading, or construction activities. The provisions included in the ADMP shall be consistent with the requirements for the preparation of an ADMP pursuant to the CARB Asbestos ATCM for Construction, Grading, Quarrying, and Surface Mining Operations (Title 17 of the CCR Section 93105), and shall be initiated at the beginning of the project (before clearing or grubbing) and maintained for the duration of project construction.*

- d. Emissions of principal concern include emissions leading to odors, emissions that have the potential to cause dust, or emissions considered to constitute air pollutants. Air pollutants have been discussed in sections “a” through “c” above. Therefore, the following discussion focuses on emissions of odors and dust.

## **Odors**

While offensive odors rarely cause physical harm, they can be unpleasant, leading to considerable annoyance and distress among the public and can generate citizen complaints to local governments and air districts. Due to the subjective nature of odor impacts, the number of variables that can influence the potential for an odor impact, and the variety of odor sources, it is difficult to quantitatively determine the presence of a significant odor impact. Typical odor-generating land uses include, but are not limited to, wastewater treatment plants, landfills, and composting facilities. The proposed project would not introduce any such land uses.

Construction activities often include diesel-fueled equipment and heavy-duty trucks, which could create odors associated with diesel fumes that may be considered objectionable. However, construction is temporary and construction equipment would operate intermittently throughout the course of a day, and would likely only occur over portions of the site at a time. In addition, all construction equipment and operation thereof would be regulated per the In-Use Off-Road Diesel Vehicle Regulation. Project construction would

also be required to comply with all applicable LCAQMD rules and regulations, particularly associated with permitting of air pollutant sources. The aforementioned regulations would help to minimize air pollutant emissions, as well as any associated odors related to operation of construction equipment. Considering the short-term nature of construction activities, as well as the regulated and intermittent nature of the operation of construction equipment, the proposed project would not be expected to create objectionable odors affecting a substantial number of people.

### **Dust**

Construction of the proposed project would be required to comply with all applicable LCAQMD rules and regulations, including, but not limited to, the following regulations related to dust emissions:

- Chapter II, Prohibitions and Standards;
- Article I, Visible Emissions; and
- Article II, Particulate Matter Emissions.

Compliance with LCAQMD rules and regulations would help to ensure that dust is minimized during project construction. Following construction, vehicles operating within the project site would be limited to paved areas of the site, which would not have the potential to create substantial dust emissions. Thus, project operations would not include sources of dust that could adversely affect a substantial number of people.

### **Conclusion**

For the reasons discussed above, construction and operation of the proposed project would not result in emissions, such as those leading to odors or dust that would adversely affect a substantial number of people. Therefore, a ***less-than-significant*** impact would occur.



#### **IV. BIOLOGICAL RESOURCES.**

*Would the project:*

	Potentially Significant Impact	Less-Than- Significant with Mitigation Incorporated	Less-Than- Significant Impact	No Impact
a. Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<b>×</b>	<input type="checkbox"/>	<input type="checkbox"/>
b. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Wildlife or US Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	<b>×</b>	<input type="checkbox"/>
c. Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	<input type="checkbox"/>	<input type="checkbox"/>	<b>×</b>	<input type="checkbox"/>
d. Interfere substantially with the movement of any resident or migratory fish or wildlife species or with established resident or migratory wildlife corridors, or impede the use of wildlife nursery sites?	<input type="checkbox"/>	<input type="checkbox"/>	<b>×</b>	<input type="checkbox"/>
e. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	<input type="checkbox"/>	<b>×</b>	<input type="checkbox"/>	<input type="checkbox"/>
f. Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Conservation Community Plan, or other approved local, regional, or state habitat conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<b>×</b>

#### **Discussion**

- a. Special-status species include those plant and wildlife species that have been formally listed, are proposed as endangered or threatened, or are candidates for such listing under the federal and State Endangered Species Acts. Both acts afford protection to listed and proposed species. In addition, California Department of Fish and Wildlife (CDFW) Species of Special Concern, which are species that face extirpation in California if current population and habitat trends continue, are considered special-status species. Although CDFW Species of Special Concern and Fully Protected Species generally do not have special legal status, they are given special consideration under CEQA. In addition to regulations for special-status species, most birds in the U.S., including non-status species, are protected by the Migratory Bird Treaty Act (MBTA) of 1918. Under the MBTA, destroying active nests, eggs, and young is illegal. In addition, plant species on California Native Plant Society (CNPS) Lists 1 and 2 are considered special-status plant species and are protected under CEQA.

The project site is currently undeveloped, and consists primarily of annual grassland with trees scattered throughout. However, the project site has been used as a designated construction staging area during the construction of Phase I and Phase II of the Martin Street Apartments. As such, the storage of equipment and vehicles, stockpiles, waste bins, and other construction-related materials including construction trailers has occurred on the project site, and the project site has been subject to past disturbance.

In order to determine the likelihood of special-status species to occur on the project site, a search of the California Natural Diversity Database (CNDDB) was conducted for the

project site quadrangle and the eight quadrangles surrounding the project site. The intent of the database review was to identify documented occurrences of special-status species in the vicinity of the project area, to determine their locations relative to the project site, and to evaluate whether the site meets the habitat requirements of such species. Based on the results of the CNDDDB search, several special-status plant and wildlife species are known to occur within the project region. However, the majority of species are not expected to occur on-site due to lack of suitable habitat(s). In addition, a Biological Resources Peer Review Memo was prepared by Barnett Environmental to review the project site's existing habitats, available species occurrence records, and any other relevant information for the site to assess the potential for on-site species occurrence and adverse project impacts.<sup>10</sup> The potential for special-status species to occur on the project site is discussed in further detail below.

### **Special-Status Plants**

Special-status plants generally occur in relatively undisturbed areas within vegetation communities such as vernal pools, marshes and swamps, chenopod scrub, seasonal wetlands, riparian scrub, chaparral, alkali playa, dunes, and areas with unusual soil characteristics, such as the serpentine soils. Potentially suitable habitat occurs within the project site for seven special-status plant species known to occur in the area. The species, bent-flowered fiddleneck, small-flowered calycadenia, glandular western flax, Bolander's horkelia, Colusa layia, Beaked tracyina, and Napa bluecurls, are discussed below.

#### **Bent-Flowered Fiddleneck**

Bent-flowered fiddleneck is an uncommon species of fiddleneck endemic in the San Francisco Bay Area and the woods of the coastal and inland mountains just north. The species is a bristly annual herb with coiled flower clusters of tubular orange flowers similar to other fiddlenecks, except for the characteristic bend in the flower tube. The flowers are approximately one centimeter long and less than one centimeter in width. Typical bent-flowered fiddleneck habitat includes cismontane woodland, coastal bluff scrub, and valley/foothill grassland. The species is often found in serpentine soils, and typically blooms from March to June. According to the Biological Resources Peer Review Memo prepared for the proposed project, the likelihood for the species to occur on-site is very low. Nonetheless, the potential exists for bent-flowered fiddleneck to occur on-site, and the species could be adversely affected by the proposed project.

#### **Small-Flowered Calycadenia**

Small-flowered calycadenia is an uncommon species of flowering plant in the daisy family and is endemic to California, specifically within Napa, Siskiyou, Shasta, Mendocino, Trinity, Monterey, and Lake counties. The species is an annual plant that produces a slender purplish stem 10 to 50 centimeters tall and leaves are two to five centimeters long. Typical small-flowered calycadenia habitat includes chaparral, meadows and seeps, and valley/foothill grassland. The species is often found in serpentine soils, and typically blooms from June to September. According to the Biological Resources Peer Review Memo prepared for the proposed project, the species has a very low likelihood to occur on-site. Nonetheless, the potential exists for small-flowered calycadenia to occur on-site, and the species could be adversely affected by the proposed project.

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<sup>10</sup> Barnett Environmental. *Biological Resources Peer Review Memo*. August 25, 2022.

### Glandular Western Flax

Glandular western flax is a rare species of flowering plant in the flax family endemic to California, where most known occurrences have been recorded in Lake and Mendocino counties. The species is an annual herb growing to heights between 10 and 50 centimeters. The glandular western flax is known to occur within chaparral, cismontane woodland, and valley/foothill grassland habitats, and is often found in serpentine soils. The species blooms from May to August. According to the Biological Resources Peer Review Memo prepared for the proposed project, the species has a very low likelihood to occur on-site. Nonetheless, the potential exists for glandular western flax to occur on-site, and the species could be adversely affected by the proposed project.

### Bolander's Horkelia

Bolander's horkelia is a rare species of flowering plant in the rose family endemic to northern California. The species grows in the mountain forests of the North Coast Ranges and typical habitat includes chaparral, montane coniferous forest, meadows and seeps, and valley/foothill grassland. The species is a mat-forming gray-green perennial herb producing hairy stems 10 to 30 centimeters tall. The leaves are three to eight centimeters long and are made up of hairy, toothed leaflets each one half to one centimeter long. The inflorescence holds several flowers, each with five white petals and up to 20 pistils in the center, which typically bloom from May to August. According to the Biological Resources Peer Review Memo prepared for the proposed project, the species has a low likelihood to occur on-site. Nonetheless, the potential exists for Bolander's horkelia to occur on-site, and the species could be adversely affected by the proposed project.

### Colusa Layia

The Colusa layia is an uncommon species of flowering plant in the daisy family endemic to the Coast Ranges north of the San Francisco Bay Area and the Sutter Buttes in the Central Valley of California. The species is a small annual herb producing a glandular stem up to approximately 35 centimeters tall. The leaves are linear to lance-shaped, with the lower ones lobed and up to about seven centimeters in length. The daisy-like flower heads contain toothed yellow ray florets and yellow disc florets with yellow anthers which bloom between April and June. The Colusa layia is known to occur within chaparral, cismontane woodland, and valley and foothill grassland habitat and is found in scattered colonies in fields and grassy slopes in sandy or serpentine soils. According to the Biological Resources Peer Review Memo prepared for the proposed project, the species has a very low likelihood to occur on-site. Nonetheless, the potential exists for Colusa layia to occur on-site, and the species could be adversely affected by the proposed project.

### Beaked Tracyina

Beaked tracyina is an uncommon species of flowering plant in the daisy family endemic to the grassy slopes of the North Coast Ranges north of the San Francisco Bay Area (including Humboldt, Trinity, Mendocino, Lake, Alameda, and Sonoma counties). The species is often found in grassy meadows in chaparral, cismontane woodland, and valley/foothill grassland habitat, and typically blooms from May to June. According to the Biological Resources Peer Review Memo prepared for the proposed project, the species has a low likelihood to occur on-site. Nonetheless, the potential exists for beaked tracyina to occur on-site, and the species could be adversely affected by the proposed project.

### Napa Bluecurls

Napa bluecurls is a species of flowering plant in the mint family which is endemic to California in the northern San Francisco Bay Area, specifically from the southern Mayacamas Mountains, in Napa County, and into western Solano County. Typical habitats include chaparral, cismontane woodland, montane coniferous forest, valley/foothill grassland, and vernal pools. The flowers are a pale lavender in color and typically bloom from June to October. According to the Biological Resources Peer Review Memo prepared for the proposed project, the species has a low likelihood to occur on-site. Nonetheless, the potential exists for Napa bluecurls to occur on-site, and the species could be adversely affected by the proposed project.

### **Special-Status Wildlife**

Although the project site does not contain suitable habitat for a majority of special-status wildlife species known to occur in the vicinity, one special-status species, the American badger, has the potential to occur on the project site.

### American Badger

American badgers are listed as a California Species of Special Concern. The species is located in a wide range of areas throughout the state of California. Suitable habitat for badgers is characterized by grasslands, shrub, mountain meadow, and open stages of most habitats with dry soil. The species can be found in mountainous areas and require large, treeless meadows and expanses near timberline. American badgers are primarily solitary, although breeding pairs and family groups are sometimes observed. Badgers use their claws to excavate dens for protection, sleeping sites, food storage, places to give birth, and as focal areas for foraging. Entrances to the dens generally have a sideways “D” shaped entrance and the excavated soil is piled outside. Badgers are carnivores and are well-adapted to preying on burrowing rodents, including ground squirrels, but will also prey on other non-burrowing mammals.

CNDDDB records for the American badger show the project site being located within a potential habitat area for the species, and the annual grassland on-site could provide burrowing habitat for the species. According to the Biological Resources Peer Review the species could conceivably traverse the site at night, when activity or human presence is not likely. However, given the developed nature of the project area and the history of disturbance of the project site, the American badger is not expected to burrow on the project site. Therefore, the species would not be adversely affected by the proposed project.

### Nesting Raptors, Migratory Birds, and Other Protected Birds

The project site supports trees providing suitable habitat for nesting raptors, migratory birds, and other protected birds. Buildout of the proposed project could occur during the nesting period for migratory birds (typically between February 1 and August 31). Thus, tree removal could result in direct impacts to nesting birds, and mechanized work and vehicle traffic associated with construction of the proposed project could indirectly disturb nesting birds and result in nest abandonment if individuals are present during initiation of ground-disturbing activity. In the event that such species occur on-site during the breeding season, project construction activities could result in an adverse effect to species protected under the MBTA and/or CDFW.

## Conclusion

Based on the above, the proposed project could have an adverse effect, either directly or through habitat modifications, on several special-status plant species, as identified in local or regional plans, policies, or regulations, or by the CDFW or the U.S. Fish and Wildlife Service (USFWS), as well as nesting raptors and migratory birds protected by the MBTA. Thus, a **potentially significant** impact could result.

## Mitigation Measure(s)

Implementation of the following mitigation measure would reduce the above potential impact to a *less-than-significant* level.

- IV-1. *Prior to initiation of ground-disturbing activities on the project site, the project applicant shall retain a qualified biologist to conduct two botanical surveys (one in May and one in June) to identify any special-status plant species on-site during the blooming period for special-status plant species having the potential to occur within the project site. Project construction shall not be initiated until the special-status plant survey is completed and the mitigation is implemented, if necessary and required prior to starting construction.*

*A special-status plant survey report that includes the methods used, survey participants, and associated findings shall be prepared and submitted to the City and CDFW no more than 30 days following the completion of the final site visit. A record of any special-status plant species identified within the project site during the preconstruction surveys shall be submitted to the CNDDB. If new special-status plant populations are not found on the site during the appropriately timed surveys, additional mitigation is not required. If construction is not started within two years after the rare plant survey is completed, the City may require additional rare plant surveys.*

*If special-status plants are observed on the site during the survey, the populations shall be avoided to the maximum degree possible during project development, and a Mitigation and Monitoring Plan shall be prepared detailing the measures to be implemented to avoid the plant population. Measures shall include establishment of appropriate buffers during construction, fencing of the population prior to and during construction, and regular monitoring of the preserved population by a biologist during and after construction activities. The Mitigation and Monitoring Plan shall be implemented prior to the initiation of project grading. If the plant populations cannot be avoided, the applicant shall hire a qualified biologist to prepare a seed collection and replanting plan in coordination with the City of Lakeport to reduce impacts to the identified special-status plant populations, subject to review and approval by the City of Lakeport Community Development Department.*

- IV-2. *A qualified biologist shall conduct nesting bird surveys within 30 days of initiation of ground disturbance activities within the proposed construction footprint to avoid impacts to nesting birds associated with construction. Surveys shall be conducted prior to ground disturbing activities. If an active nest is located, all clearing and construction within 300 feet of the nest (500 feet for raptor nests) or as designated appropriate by a biological monitor, shall be postponed until the nest is vacated and juveniles have fledged,*



*and there is no evidence of a second attempt at nesting, as determined by a qualified biologist. Limits of construction to avoid a nest shall be established in the field with flagging and stakes or construction fencing. Construction personnel shall be instructed on the sensitivity of the area. The project proponent should record the results of the recommended protective measures described. Additional surveys shall then be conducted if ground-disturbing activities are delayed due to active bird nesting, until the qualified biologist determines that the young associated with an active nest have fledged. The results of the nesting bird surveys shall be submitted to the City of Lakeport Community Development Department for review and approval.*

- b, c. The project site does not contain riparian habitat or other sensitive natural communities, including wetlands. Natural drainage channels and adjacent wetlands may be considered “waters of the U.S.” or “jurisdictional waters” subject to the jurisdiction of the U.S. Army Corps of Engineers (USACE). Forbes Creek is the nearest jurisdictional water to the project site which lies, generally, approximately 0.2-mile southwest of the project site. The proposed project would not include any construction activities adjacent to or within Forbes Creek or any other jurisdictional water. Therefore, the proposed project would not have a substantial adverse effect on riparian habitat, sensitive natural communities, or State or federally protected wetlands, and a **less-than-significant** would occur.
- d. Wildlife movement corridors are routes that animals regularly use and follow during seasonal migration, dispersal from native ranges, daily travel within home ranges, and inter-population movements. Movement corridors in California are typically associated with valleys, ridgelines, and rivers and creeks supporting riparian vegetation. The project site is located near other existing development, including the Phase I and Phase II of the Martin Street Apartments to the north. In addition, vehicle traffic along SR 29 would be expected to discourage wildlife movements to and from the site. Furthermore, the currently disturbed nature of the project area, along with the fact that the project site does not contain streams or other waterways for fish or wildlife movement, would greatly limit the project site’s value as a wildlife movement corridor.<sup>11</sup> As such, the existing setting of the surrounding area limits the potential for use of the project site as a wildlife movement corridor.

Based on the above, the proposed project would not interfere substantially with the movement of any resident or migratory fish or wildlife species or with established resident or migratory wildlife corridors, or impede the use of wildlife nursery sites. Thus, a **less-than-significant** impact would occur.

- e. The proposed project has the potential to remove a number of trees on-site. According to Section 17.21.030, Preservation of Native Trees, of the Lakeport Municipal Code, existing native trees on proposed development sites with a diameter of six inches or more including, but not limited to, oak, willow, cottonwood, and redwood shall not be cut down, removed, or otherwise destroyed except as provided within Chapter 17.21. The on-site trees, which could be removed as part of the proposed project, have the potential to meet the criteria set forth in Section 17.21.030 of the Lakeport Municipal Code. As such, the proposed project would be required to comply with the standards set forth in Section 17.21.040 of the Lakeport Municipal Code, which requires the preparation of a tree report

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<sup>11</sup> Barnett Environmental. *Biological Resources Peer Review Memo*. August 25, 2022.

for all development projects involving applications for building permits and land use projects within the City, where there are existing native trees located on the site.

A tree report has not yet been prepared for the proposed project. Therefore, if the proposed project were to remove any on-site trees that meet the criteria described in Section 17.21.030 of the Lakeport Municipal Code, the proposed project could conflict with a local policies or ordinances protecting biological resources, and a **potentially significant** impact could occur.

#### Mitigation Measure(s)

Implementation of the following mitigation measure would reduce the above potential impact to a *less-than-significant* level.

IV-3. *Prior to any tree removal, a tree report shall be prepared by a certified arborist, and shall include the following information, in accordance with Section 17.21.030 of the Lakeport Municipal Code:*

- *The type and number of native trees existing on the subject property.*
- *The diameter of trunks and main stems measured 4.5 feet above the root crown.*
- *The average canopy spread of each tree.*
- *A statement concerning the health of the trees including the disclosure of any significant disease, insect infestation, fire, mechanical, or wind damage that may be present.*
- *A graphic plan showing the location of the native trees on the property in relationship to lot lines, existing improvements, proposed structures, and other improvements.*

*In conjunction with submittal of the tree report, a site plan showing all protected trees proposed for removal shall be submitted. Upon submittal of the tree report, the Community Development Director shall review the information and make a recommendation as to the necessity to retain the trees proposed for removal, or mitigate the impact of the loss of trees on-site in accordance with Section 17.21.050 of the Lakeport Municipal Code. Retention of trees may include limitations on: root cutting, limb cutting, placement of improvements within the canopy drip line, construction of irrigation facilities within the canopy drip line, introduction of non-native plant materials within the canopy drip line, or other techniques as necessary to preserve the trees.*

*For trees that are to be removed, a 1:1 replacement with a minimum 15-gallon tree in the same or similar species as the tree to be removed shall be required. If the trees that are removed are mature and healthy, a 1:1 replacement with a minimum 24-inch root ball specimen in the same or similar species to the tree removed shall be required. Trees planted as replacements shall be continually maintained or replaced if they fail to survive. Replacement trees shall be planted on-site, or on a separate site, subject to review and approval by the City of Lakeport.*

- f. The project site is not located within an area that is subject to an adopted Habitat Conservation Plan, Natural Conservation Community Plan, or other approved local, regional, or state habitat conservation plan. Therefore, the proposed project would have ***no impact*** related to a conflict with the provisions of an adopted Habitat Conservation Plan, Natural Conservation Community Plan, or other approved local, regional, or state habitat conservation plan.

## **V. CULTURAL RESOURCES.**

*Would the project:*

	Potentially Significant Impact	Less-Than- Significant with Mitigation Incorporated	Less-Than- Significant Impact	No Impact
a. Cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5?	<input type="checkbox"/>	<b>✗</b>	<input type="checkbox"/>	<input type="checkbox"/>
b. Cause a substantial adverse change in the significance of a unique archaeological resource pursuant to Section 15064.5?	<input type="checkbox"/>	<b>✗</b>	<input type="checkbox"/>	<input type="checkbox"/>
c. Disturb any human remains, including those interred outside of dedicated cemeteries.	<input type="checkbox"/>	<b>✗</b>	<input type="checkbox"/>	<input type="checkbox"/>

### **Discussion**

- a-c. Historical resources are features that are associated with the lives of historically important persons and/or historically significant events, that embody the distinctive characteristics of a type, period, region or method of construction, or that have yielded, or may be likely to yield, information important to the pre-history or history of the local area, California, or the nation. Examples of typical historical resources include, but are not limited to, buildings, farmsteads, rail lines, bridges, and trash scatters containing objects such as colored glass and ceramics.

Currently, the site is vacant and undeveloped. Thus, the site does not contain any existing structures, buildings, or other features which would be considered historical.

A records search of the California Historic Resources Information System (CHRIS) was performed by the Northwest Information Center (NWIC) for cultural resource site records and survey reports within the project area.<sup>12</sup> Based on the results of the records search of the CHRIS, the NWIC concluded that the project site does not contain any recorded historical or archaeological resources; however, a moderate to high potential of identifying Native American archaeological resources and historic-period archaeological resources exists within the project area. As such, the NWIC recommended that a qualified archaeologist conduct further archival and field study to identify any cultural resources within the project site.

In 2016, a Cultural Resources Report was prepared by Peak and Associates, Inc. for Phase II of the Martin Street Apartments,<sup>13</sup> which included an archival review of historic General Land Office plats and USGS topographic maps, as well as field survey of the entire Martin Street Apartments site, including the project site. The field survey included a complete, intensive inspection of the project site, with transects of ten meters or less. Ground visibility was generally good, and where necessary, the surveyor dug small holes to examine the sediments of the land. As discussed within the Cultural Resources Report, evidence of prehistoric period cultural resources was not present within the project area, and historic properties were not recorded within the project area. As such, the Cultural Resources Report concluded that development of Phases I through III of the Martin Street Apartments would not impact cultural resources.

In addition, the project site has been used as a designated construction staging area during the construction of Phase I and Phase II of the Martin Street Apartments. As such,

<sup>12</sup> California Historical Resources Information System Northwest Information Center. *Records Search Results for the Proposed Martin Street Apartments Phase III Project*. September 21, 2021.

<sup>13</sup> Peak & Associates, Inc. *Determination of Eligibility and Effect for the Martin Street Senior Apartments Project, City of Lakeport, Lake County, California*. June 7, 2016.

the storage of equipment and vehicles, stockpiles, waste bins, and other construction-related materials including construction trailers has occurred on the project site. Therefore, the project site has been subject to disturbance.

While known resources do not exist on-site and the project site has been subject to prior disturbance, previously unknown historical or archaeological resources, including human remains, may exist in the project area. Such resources have the potential to be uncovered during ground-disturbing activities at the project site, and the proposed project could cause a substantial adverse change in the significance of a unique archaeological resource pursuant to CEQA Guidelines Section 15064.5 and/or disturb human remains, including those interred outside of dedicated cemeteries, during construction. Therefore, without mitigation, impacts could be considered **potentially significant**.

### **Mitigation Measure(s)**

Implementation of the following mitigation measures would reduce the above potential impact to a less-than-significant level.

- V-1. *If historic or archeological resources are encountered during subsurface excavation activities, all construction activities within a 100-foot radius of the resource shall cease until a qualified archaeologist determines whether the resource requires further study. The City shall require that the applicant include a standard inadvertent discovery clause in every construction contract to inform contractors of this requirement. Any previously undiscovered resources found during construction shall be recorded on appropriate California Department of Parks and Recreation forms and evaluated for significance in terms of California Environmental Quality Act (CEQA) criteria by a qualified archaeologist. Potentially significant cultural resources consist of, but are not limited to, stone, bone, fossils, wood, or shell artifacts or features, including hearths, structural remains, or historic dumpsites.*

*If the resource is determined to be significant under CEQA, the City and a qualified archaeologist shall determine whether preservation in place is feasible. Such preservation in place is the preferred mitigation. If such preservation is infeasible, the qualified archaeologist shall prepare and implement a research design and archaeological data recovery plan for the resource. The archaeologist shall also conduct appropriate technical analyses, prepare a comprehensive written report and file it with the appropriate information center (California Historical Resources Information System), and provide for the permanent curation of the recovered materials.*

- V-2. *If human remains, or remains that are potentially human, are found during construction, all work shall be halted immediately within 200 feet, and a professional archeologist shall ensure reasonable protection measures are taken to protect the discovery from disturbance. The archaeologist shall notify the Lake County Coroner (per §7050.5 of the State Health and Safety Code). The provisions of §7050.5 of the California Health and Safety Code, §5097.98 of the California Public Resources Code, and Assembly Bill 2641 will be implemented. If the Coroner determines the remains are Native American and not the result of a crime scene, then the Coroner will notify*



*the Native American Heritage Commission (NAHC), which then will designate a Native American Most Likely Descendant (MLD) for the project (§5097.98 of the Public Resources Code). The designated MLD will have 48 hours from the time access to the property is granted to make recommendations concerning treatment of the remains. If the applicant does not agree with the recommendations of the MLD, the NAHC can mediate (§5097.94 of the Public Resources Code). If an agreement is not reached, the qualified archaeologist or MLD must rebury the remains where they will not be further disturbed (§5097.98 of the Public Resources Code). This will also include either recording the site with the NAHC or the appropriate Information Center, using an open space or conservation zoning designation or easement, or recording a reinternment document with the county in which the property is located (AB 2641). Work cannot resume within the no-work radius until the lead agency, through consultation as appropriate, determines that the treatment measures have been completed to the City's satisfaction.*

## **VI. ENERGY.**

*Would the project:*

	Potentially Significant Impact	Less-Than- Significant with Mitigation Incorporated	Less-Than- Significant Impact	No Impact
a. Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	<input type="checkbox"/>	<input type="checkbox"/>	<b>✗</b>	<input type="checkbox"/>
b. Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	<input type="checkbox"/>	<input type="checkbox"/>	<b>✗</b>	<input type="checkbox"/>

### **Discussion**

- a, b. The main forms of available energy supply are electricity, natural gas, and oil. A description of the 2019 California Green Building Standards Code and the Building Energy Efficiency Standards, with which the proposed project would be required to comply, as well as discussions regarding the project's potential effects related to energy demand during construction and operations, are provided below.

#### **California Green Building Standards Code**

The 2019 California Green Building Standards Code, otherwise known as the CALGreen Code (CCR Title 24, Part 11), is a portion of the California Building Standards Code (CBSC), which became effective with the rest of the CBSC on January 1, 2020. The purpose of the CALGreen Code is to improve public health, safety, and general welfare by enhancing the design and construction of buildings through the use of building concepts having a reduced negative impact or positive environmental impact and encouraging sustainable construction practices. The CALGreen standards regulate the method of use, properties, performance, types of materials used in construction, alteration repair, improvement and rehabilitation of a structure or improvement to property. The provisions of the code apply to the planning, design, operation, construction, use, and occupancy of every newly constructed building or structure throughout California. Requirements of the CALGreen Code include, but are not limited to, the following measures:

- Compliance with relevant regulations related to future installation of Electric Vehicle charging infrastructure in residential and non-residential structures;
- Indoor water use consumption is reduced through the establishment of maximum fixture water use rates;
- Outdoor landscaping must comply with the California Department of Water Resources' MWELO, or a local ordinance, whichever is more stringent, to reduce outdoor water use;
- Diversion of 65 percent of construction and demolition waste from landfills; and
- Mandatory use of low-pollutant emitting interior finish materials such as paints, carpet, vinyl flooring, and particle board.

#### **Building Energy Efficiency Standards**

The 2019 Building Energy Efficiency Standards is a portion of the CBSC that expands upon energy efficiency measures from the 2016 Building Energy Efficiency Standards, resulting in a seven percent reduction in energy consumption from the 2016 standards for residential structures. Energy reductions relative to previous Building Energy Efficiency Standards would be achieved through various regulations including requirements for the use of high efficacy lighting, improved water heating system efficiency, and high-performance attics and walls.

One of the improvements included within the 2019 Building Energy Efficiency Standards is the requirement that certain residential developments, including some single-family and low-rise residential developments, include on-site solar energy systems capable of producing 100 percent of the electricity demanded by the residences. Certain residential developments, including developments that are subject to substantial shading, rendering the use of on-site solar photovoltaic systems infeasible, are exempted from the foregoing requirement; however, such developments are subject to all other applicable portions of the 2019 Building Energy Efficiency Standards. Once rooftop solar electricity generation is factored in, homes built under the 2019 standards will use approximately 53 percent less energy than those under the 2016 standards.

### **Construction Energy Use**

Construction of the proposed project would involve increased energy demand and consumption related to use of oil in the form of gasoline and diesel fuel for construction worker vehicle trips, hauling and materials delivery truck trips, and operation of off-road construction equipment. In addition, diesel-fueled portable generators may be necessary to provide additional electricity demands for temporary lighting, welding, and for supplying energy to areas of the site where energy supply cannot be met through a hookup to the existing electricity grid.

Even during the most intense period of construction, due to the different types of construction activities (e.g., site preparation, grading, building construction), only portions of the project site would be disturbed at a time, with operation of construction equipment occurring at different locations on the project site, rather than a single location. As a result, construction equipment would be used intermittently over the duration of the construction period, and the increased energy demand associated with construction would also occur intermittently, and for a limited amount of time.

In addition, all construction equipment and operation thereof would be regulated per the CARB In-Use Off-Road Diesel Vehicle Regulation, which is intended to reduce emissions from in-use, off-road, heavy-duty diesel vehicles in California by imposing limits on idling, requiring all vehicles to be reported to CARB, restricting the addition of older vehicles into fleets, and requiring fleets to reduce emissions by retiring, replacing, or repowering older engines, or installing exhaust retrofits. The In-Use Off-Road Diesel Vehicle Regulation would subsequently help to improve fuel efficiency and reduce GHG emissions by requiring construction vehicles to become cleaner through the use of renewable energy resources. Technological innovations and more stringent standards are being researched, such as multi-function equipment, hybrid equipment, or other design changes, which could help to reduce demand on oil and emissions associated with construction.

The CARB has prepared the 2017 Climate Change Scoping Plan Update (2017 Scoping Plan),<sup>14</sup> which builds upon previous efforts to reduce GHG emissions and is designed to continue to shift the California economy away from dependence on fossil fuels. Appendix B of the 2017 Scoping Plan includes examples of local actions (municipal code changes, zoning changes, policy directions, and mitigation measures) that would support the State's climate goals. The examples provided include, but are not limited to, enforcing idling time restrictions for construction vehicles, utilizing existing grid power for electric energy rather than operating temporary gasoline/diesel-powered generators, and increasing use of electric and renewable fuel-powered construction equipment. The In-Use Off-Road Diesel

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<sup>14</sup> California Air Resources Board. *The 2017 Climate Change Scoping Plan Update*. November 2017.

Vehicle Regulation described above, with which the proposed project must comply, would be consistent with the intention of the 2017 Scoping Plan and the recommended actions included in Appendix B of the 2017 Scoping Plan.

Based on the above, the temporary increase in energy use occurring during construction of the proposed project would not result in a significant increase in peak or base demands or require additional capacity from local or regional energy supplies. In addition, the proposed project would be required to comply with all applicable regulations related to energy conservation and fuel efficiency, which would help to reduce the temporary increase in demand.

### **Operational Energy Use**

Following implementation of the proposed project, PG&E would provide electricity and natural gas to the project site. Energy use associated with operation of the proposed project would be typical of residential uses, requiring electricity and natural gas for interior and exterior building lighting, heating, ventilation, and air conditioning (HVAC), electronic equipment, machinery, refrigeration, appliances, security systems, and more. Maintenance activities during operations, such as landscape maintenance, would involve the use of electric or gas-powered equipment. In addition to on-site energy use, the proposed project would result in transportation energy use associated with vehicle trips generated by the proposed residential development.

The proposed project would be subject to all relevant provisions of the CBSC, including the Building Energy Efficiency Standards and CALGreen Code. Adherence to the CALGreen Code and the Building Energy Efficiency Standards would ensure that the proposed structures would consume energy efficiently. Required compliance with the CBSC would ensure that the building energy use associated with the proposed project would not be wasteful, inefficient, or unnecessary. In addition, California has established energy-use reduction goals targeting zero-net-energy use in all new homes.<sup>15</sup> As required by the CBSC, the proposed multi-family residential development would be required to include a solar PV system sufficient to meet 100 percent of the project's electricity demand. Should any grid electricity be consumed during operations during peak electricity hours or an emergency, such electricity would be partially generated from renewable resources, pursuant to the State's RPS requirements.

With regard to transportation energy use, the proposed project would comply with all applicable regulations associated with vehicle efficiency and fuel economy. In addition, the proposed project would increase transit accessibility through on-site pedestrian connections and by being located approximately 0.22-mile from the nearest transit stop, which would help to reduce transportation energy use associated with the proposed project. Further discussion of Vehicle Miles Traveled (VMT) associated with the proposed project is provided in Section XVII, Transportation, of this IS/MND.

### **Conclusion**

Based on the above, construction and operation of the proposed project would not result in wasteful, inefficient, or unnecessary consumption of energy resources or conflict with or obstruct a State or local plan for renewable energy or energy efficiency. Thus, a ***less-than-significant*** impact would occur.

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<sup>15</sup> California Energy Commission. *Title 24 2019 Building Energy Efficiency Standards FAQ*. November 2018.

## **VII. GEOLOGY AND SOILS.**

*Would the project:*

	Potentially Significant Impact	Less-Than- Significant with Mitigation Incorporated	Less-Than- Significant Impact	No Impact
a. Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	<input type="checkbox"/>	<input type="checkbox"/>	✗	<input type="checkbox"/>
ii. Strong seismic ground shaking?	<input type="checkbox"/>	<input type="checkbox"/>	✗	<input type="checkbox"/>
iii. Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	✗	<input type="checkbox"/>	<input type="checkbox"/>
iv. Landslides?	<input type="checkbox"/>	✗	<input type="checkbox"/>	<input type="checkbox"/>
b. Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input type="checkbox"/>	✗	<input type="checkbox"/>
c. Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	<input type="checkbox"/>	✗	<input type="checkbox"/>	<input type="checkbox"/>
d. Be located on expansive soil, as defined in Table 18-1B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?	<input type="checkbox"/>	✗	<input type="checkbox"/>	<input type="checkbox"/>
e. Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	✗
f. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	<input type="checkbox"/>	✗	<input type="checkbox"/>	<input type="checkbox"/>

## **Discussion**

ai-ii. Alquist-Priolo Earthquake Fault Zones have been identified in the northern and southern sections of Lake County; however, none are located within the City of Lakeport.<sup>16</sup> Active faults nearest to the City include the Maacama Fault, located approximately seven miles southeast of the City, and the Konocti Bay Fault, located approximately nine miles east of the City. Additionally, the Healdsburg and San Andreas Faults lie approximately 25 and 35 miles southwest of the project site, respectively. Several potentially active faults, and one potentially active rupture zone are also located within Lake County, but outside of the Lakeport city limits. Given that earthquake faults are not located within the City of Lakeport, which includes the project site, the project site is not underlain by an active or potentially active fault. Thus, fault rupture would not occur on the project site.

An earthquake of moderate to high magnitude generated by the above faults could cause considerable ground shaking at the project site. However, the proposed buildings would be properly engineered in accordance with the CBSC, which includes engineering standards appropriate for the seismic area in which the project site is located. Projects designed in accordance with the CBSC should be able to: 1) resist minor earthquakes without damage, 2) resist moderate earthquakes without structural damage but with some nonstructural damage, and 3) resist major earthquakes without collapse but with some structural as well as nonstructural damage. Conformance with the design standards is verified by the City prior to the issuance of building permits. Proper engineering of the

<sup>16</sup> City of Lakeport. *City of Lakeport General Plan 2025 Environmental Impact Report* [Figure 3.6-1]. November 2008.



proposed buildings would ensure that the project would not be subject to substantial risks related to seismic ground shaking.

Based on the above, a **less-than-significant** impact would occur related to seismic surface rupture and strong seismic ground shaking.

aiii, aiv,

c, d. The proposed project's potential effects related to liquefaction, landslides, lateral spreading, subsidence, and expansive soils are discussed in detail below.

### **Liquefaction**

Liquefaction is a phenomenon where loose, saturated, granular soil deposits lose a significant portion of their shear strength due to excess pore water pressure buildup. Soil liquefaction results from loss of strength during cyclic loading, such as that which is imposed by earthquake ground shaking. Soils most susceptible to liquefaction are clean, loose, saturated, uniformly graded, and fine-grained sediment. Because liquefaction occurs primarily in saturated soil, the effects are most commonly observed in low-lying areas near bodies of water such as rivers, lakes, bays, and oceans.

The California Geologic Survey (CGS) has designated certain areas within California as potential liquefaction hazard zones, which are areas considered at risk of liquefaction-related ground failure during a seismic event based upon mapped surficial deposits and the depth to the areal groundwater table. The project site is not currently mapped for potential liquefaction hazard by the CGS.<sup>17</sup> However, as noted in the City's General Plan, soils in and around Lakeport, especially near the lake shore, are susceptible to liquefaction during a seismic event. Therefore, the project site could be located on a geologic unit or soil that is susceptible to liquefaction, and a potential substantial adverse effect could occur.

### **Landslides**

Seismically-induced landslides are triggered by earthquake ground shaking. The risk of landslide hazard is greatest in areas with steep, unstable slopes. Clay soils, which underlie many hillsides in Lakeport, are particularly susceptible to sliding. Although landslides generally occur in areas with steep slopes, they may occur on slopes with a grade of 20 percent or less in geologically unstable areas, and, therefore, foundations for structures built in areas within the City with steep slopes in excess of 20 percent must be carefully engineered to avoid increasing landslide risk.

The CGS has designated certain areas within California as potential landslide hazard zones; however, the project site is not currently mapped for potential landslide hazard by the CGS.<sup>18</sup> In addition, due to the relatively level topography of the project site and general surrounding area, the potential for slope instability is considered low. Thus, landslides are not likely to occur on- or off-site as a result of the proposed project.

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<sup>17</sup> California Geological Survey. *EQ Zapp: California Earthquake Hazards Zone Application*. Available at: <https://maps.conservation.ca.gov/cgs/EQZApp/app/>. Accessed March 2022.

<sup>18</sup> California Geological Survey. *EQ Zapp: California Earthquake Hazards Zone Application*. Available at: <https://maps.conservation.ca.gov/cgs/EQZApp/app/>. Accessed March 2022.

### **Lateral Spreading**

Lateral spreading is horizontal/lateral ground movement of relatively flat-lying soil deposits towards a free face such as an excavation, channel, or open body of water; typically, lateral spreading is associated with liquefaction of one or more subsurface layers near the bottom of the exposed slope.

The project site does not contain any open faces that would be considered susceptible to lateral spreading. Therefore, the potential for lateral spreading to pose a risk to the proposed development is relatively low.

### **Subsidence/Settlement**

Subsidence is the settlement of soils of very low density generally from either oxidation of organic material, or desiccation and shrinkage, or both, following drainage. Subsidence takes place gradually, usually over a period of several years.

According to the City's General Plan, the imported materials used as fill in the lakefront areas of downtown Lakeport tend to be poorly consolidated and subject to subsidence. However, the project site is located outside of the lakefront areas of downtown Lakeport. Therefore, the potential for subsidence/settlement to pose a risk to the proposed development is relatively low.

### **Expansive Soils**

Expansive soils are soils which undergo significant volume change with changes in moisture content. Specifically, such soils shrink and harden when dried and expand and soften when wetted, potentially resulting in damage to building foundations.

The predominant soils in the Lakeport area generally have high shrink-swell potential. According to the U.S. Department of Agriculture Natural Resources Conservation Service's (NRCS) Web Soil Survey, the soil within the majority of the project site (83.5 percent) is comprised of Wappo loam, two to eight percent slopes, while the remaining soils, (located in the northeast corner of the site) are comprised of Henneke-Montara-Rock outcrop complex, 10 to 50 percent slopes, major land resource area 15.<sup>19</sup>

Soils with a linear extensibility rating of between three and six percent and a clay content of 25 to 35 percent are characterized by a moderate shrink-swell class (i.e., moderate expansive potential). Soils with a linear extensibility rating of between six and nine percent with a clay content of 35 to 45 percent are characterized by a high shrink-swell class. According to the NRCS web soil survey, the Wappo loam soils on-site have a linear extensibility rating of 5.2 percent, and the Henneke-Montara-Rock outcrop complex soils have a linear extensibility rating of 2.4 percent. In addition, the on-site soils have a clay content of 36.3 percent, and 34.4 percent, respectively. Therefore, the project site contains soil types that are considered to be moderate to highly expansive.

Based on the above, the proposed project has the potential to create substantial direct or indirect risks to life or property related to being located on expansive soil, as defined in Table 18-1B of the Uniform Building Code (1994).

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<sup>19</sup> U.S. Department of Agriculture Natural Resources Conservation Service. *Web Soil Survey*. Available at: <https://websoilsurvey.sc.egov.usda.gov/App/HomePage.htm>. Accessed March 2022.

## **Conclusion**

Based on the above discussion, the proposed project would not result in potential hazards or risks related to landslides, lateral spreading, or subsidence/settlement. However, the potential exists for liquefaction and soil expansion occur on-site. Therefore, the proposed project could create substantial direct or indirect risks to life or property and a **potentially significant** impact could occur.

## **Mitigation Measure(s)**

Implementation of the following mitigation measure would reduce the above potential impact to a *less-than-significant* level.

*VII-1. Prior to approval of any grading permits, a Geotechnical Analysis shall be conducted by a California Registered Civil Engineer or Geotechnical Engineer to characterize the subsurface conditions of the project site. The report shall address and make recommendations on the following:*

- *Road, pavement, and parking area design;*
- *Structural foundations, including retaining wall design (if applicable);*
- *Grading practices;*
- *Erosion/winterization;*
- *Special problems discovered on-site, (i.e., groundwater, expansive/unstable soils, etc.); and*
- *Slope stability.*

*All grading and foundation plans for the development shall be designed by a Civil and Structural Engineer and reviewed and approved by the Director of Public Works/City Engineer, Chief Building Official, and a qualified Geotechnical Engineer prior to issuance of grading and building permits to ensure that all geotechnical recommendations specified in the Geotechnical Analysis are properly incorporated and utilized in the project design.*

- b. Issues related to erosion and degradation of water quality during construction are discussed in Section X, Hydrology and Water Quality, of this IS/MND, under question 'a'. As noted therein, the proposed project would not result in substantial soil erosion or the loss of topsoil. Thus, a **less-than-significant** impact would occur.
- e. The proposed project would include connection to the existing sewer infrastructure. As such, the construction or operation of septic tanks or other alternative wastewater disposal systems is not included as part of the project. Therefore, **no impact** regarding the capability of soil to adequately support the use of septic tanks or alternative wastewater disposal systems would occur.
- f. The City's General Plan EIR indicates that the City of Lakeport is considered a highly sensitive area for archeological resources. However, indications of subsurface paleontological resources do not exist within the City. In addition, the City's General Plan does not note the existence of any unique geologic features within the City. Consequently, implementation of the proposed project would not be anticipated to have the potential to result in direct or indirect destruction of unique geologic features.

Although unlikely, previously unknown paleontological resources could exist within the project site. Thus, ground-disturbing activity, such as grading, trenching, or excavating associated with implementation of the proposed project, could have the potential to disturb or destroy unknown resources. Therefore, the proposed project could result in the direct or indirect destruction of a unique paleontological resource, and a **potentially significant** impact could occur.

**Mitigation Measure(s)**

Implementation of the following mitigation measure would reduce the above potential impact to a *less-than-significant* level.

- VII-2. *Prior to the issuance of grading permits, the following language shall be included via notation on the Improvement Plans: "Should construction or grading activities result in the discovery of unique paleontological resources, all work within 100 feet of the discovery shall cease. The Lakeport Community Development Department shall be notified, and the resources shall be examined by a qualified archaeologist, paleontologist, or historian, at the developer's expense, for the purpose of recording, protecting, or curating the discovery as appropriate. The archaeologist, paleontologist, or historian shall submit to the Community Development Department for review and approval a report of the findings and method of curation or protection of the resources. Work may only resume in the area of discovery when the preceding work has occurred."*

## **VIII. GREENHOUSE GAS EMISSIONS.**

*Would the project:*

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-Than- Significant Impact	No Impact
a. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<b>✗</b>	<input type="checkbox"/>
b. Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gasses?	<input type="checkbox"/>	<input type="checkbox"/>	<b>✗</b>	<input type="checkbox"/>

- a, b. Emissions of greenhouse gases (GHGs) contributing to global climate change are attributable in large part to human activities associated with the industrial/manufacturing, utility, transportation, residential, and agricultural sectors. Therefore, the cumulative global emissions of GHGs contributing to global climate change can be attributed to every nation, region, and city, and virtually every individual on earth. An individual project's GHG emissions are at a micro-scale level relative to global emissions and effects to global climate change; however, an individual project could result in a cumulatively considerable incremental contribution to a significant cumulative macro-scale impact. As such, impacts related to emissions of GHG are inherently considered cumulative impacts.

Implementation of the proposed project would cumulatively contribute to increases of GHG emissions. Estimated GHG emissions attributable to future development would be primarily associated with increases of carbon dioxide (CO<sub>2</sub>) and, to a lesser extent, other GHG pollutants, such as methane (CH<sub>4</sub>) and nitrous oxide (N<sub>2</sub>O) associated with area sources, mobile sources or vehicles, utilities (electricity and natural gas), water usage, wastewater generation, and the generation of solid waste. The primary source of GHG emissions for the project would be mobile source emissions. The common unit of measurement for GHG is expressed in terms of annual metric tons of CO<sub>2</sub> equivalents (MTCO<sub>2</sub>e/yr).

A number of regulations currently exist related to GHG emissions, predominantly AB 32, Executive Order S-3-05, and Senate Bill (SB) 32. In 2005, Governor Schwarzenegger signed Executive Order S-3-05, which sets forth a target of 1990 levels by 2020, and a long-term target of 80 percent below 1990 levels by 2050. AB 32 (California Global Warming Solutions Act of 2006) codifies the statewide GHG emissions reduction target of 1990 levels by 2020 included in Executive Order S-3-05. Thereafter, in 2016, SB 32 built upon AB 32 by establishing a transitional reduction target of 40 percent below 1990 levels by 2030.

As discussed under Section III, Air Quality, for the analysis within this IS/MND, based on the recommendation of the LCAQMD, the City has elected to use the BAAQMD's thresholds of significance for GHG emissions, which were specifically crafted to indicate consistency with AB 32. By using the BAAQMD thresholds of significance for GHG, the City would comply with Section 15064.4(b)(3) of the CEQA Guidelines, which suggests that lead agencies consider the extent that the project would comply with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction of GHG emissions. On April 20, 2022, BAAQMD adopted updated thresholds of significance for climate impacts, which included a qualitative approach to assessing GHG impacts. However, the LCAQMD



has indicated a preference to continue assessing GHG impacts quantitatively.<sup>20</sup> As such, for the purposes of the analysis included herein, and consistent with the BAAQMD 2017 CEQA Guidelines, the GHG emissions threshold of significance used in this analysis is whether the proposed project would result in operational GHG emissions in excess of the following:

- 1,100 MTCO<sub>2</sub>e/yr; or
- 4.6 MTCO<sub>2</sub>e/capita/yr.

As noted above, the foregoing thresholds are specific to AB 32. SB 32 requires that statewide emissions be reduced by an additional 40 percent beyond the AB 32 reduction goal by the year 2030; therefore, it is reasonable to assume that in order to meet the reduction targets of SB 32, a proposed project would be required to reduce emissions by an additional 40 percent beyond the emissions reductions currently required by BAAQMD for compliance with AB 32. Assuming a 40 percent reduction from the BAAQMD targets which demonstrate compliance with AB 32, a proposed project would be in compliance with SB 32 if the project's emissions do not exceed 660 MTCO<sub>2</sub>e/yr.

The proposed project's GHG emissions were quantified with CalEEMod using the same assumptions as presented in the Air Quality section of this IS/MND, and compared to the thresholds of significance noted above. All CalEEMod results are included in Appendix A to this IS/MND.

Construction GHG emissions are a one-time release and are, therefore, not typically expected to generate a significant contribution to global climate change. Neither the City nor BAAQMD has an adopted threshold of significance for construction-related GHG emissions and does not require quantification. Nonetheless, the proposed project's construction GHG emissions have been estimated. The CalEEMod emissions estimates prepared for the proposed project determined that unmitigated project construction would result in total emissions of 508.07 MTCO<sub>2</sub>e over the course of the 14-month construction period.

The estimated maximum annual GHG emissions related to operations of the proposed project are presented in Table 4 below. As shown in Table 4, the project's maximum annual unmitigated operation GHG emissions were estimated to be approximately 324.9 MTCO<sub>2</sub>e/yr. Thus, implementation of the proposed project would result in operational emissions below the 1,100 MTCO<sub>2</sub>e/yr threshold of significance for GHG emissions.

Based on the above, the proposed project would not be considered to generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment, or conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs, and impacts would be considered ***less-than-significant***.

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<sup>20</sup> Doug Gearhart, Air Pollution Control Officer at Lake County Air Quality Management District. Personal communication [phone] with Briette Shea, Senior Associate/Air Quality Technician at Raney Planning and Management, Inc. April 27, 2022.

<b>Table 4</b>	
<b>Unmitigated Operational GHG Emissions</b>	
<b>Source</b>	<b>GHG Emissions (MTCO<sub>2</sub>e/yr)</b>
Area	61.07
Energy	24.03
Mobile	225.15
Waste	9.25
Water	5.40
<b>Total GHG Emissions</b>	<b>324.90</b>
<b>BAAQMD Threshold</b>	<b>1,100</b>
<b>Adjusted SB 32 Threshold</b>	<b>660</b>
<b>Exceeds Thresholds?</b>	<b>NO</b>
<i>Source: CalEEMod, December 2021 (see Appendix A).</i>	

## IX. HAZARDS AND HAZARDOUS MATERIALS.

*Would the project:*

	Potentially Significant Impact	Less-Than- Significant with Mitigation Incorporated	Less-Than- Significant Impact	No Impact
a. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	<input type="checkbox"/>	<input type="checkbox"/>	✗	<input type="checkbox"/>
b. Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the likely release of hazardous materials into the environment?	<input type="checkbox"/>	✗	<input type="checkbox"/>	<input type="checkbox"/>
c. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	✗
d. Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	✗
e. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	✗
f. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	✗	<input type="checkbox"/>
g. Expose people or structures, either directly or indirectly, to the risk of loss, injury or death involving wildland fires?	<input type="checkbox"/>	<input type="checkbox"/>	✗	<input type="checkbox"/>

## Discussion

- a. Residential developments are not typically associated with the routine transport, use, disposal, or generation of substantial amounts of hazardous materials. On-site maintenance may involve the use of common household cleaning products, fertilizers, and herbicides, any of which could contain potentially hazardous chemicals; however, such products would be expected to be used in accordance with label instructions. Due to the regulations governing use of such products and the amount anticipated to be used on the site, routine use of such products would not represent a substantial risk to public health or the environment. Therefore, the project would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials, and a **less-than-significant** impact would occur.
- b. The project site is vacant and consists primarily of ruderal vegetation. According to the California Department of Toxic Substances Control Envirostor Database, hazardous material sites do not exist at the project site or in the project vicinity.<sup>21</sup>

However, as discussed in Section III, Air Quality, a number of areas in Lakeport contain serpentine rock and soils, which have the potential to release asbestos into the air and water if disturbed. According to Figure 19, Serpentine Rock and Soils, of the City's General Plan, the northeast corner of the project site is located in an area which has been identified by the NRCS to contain serpentine soils. As such, the proposed project would be required

<sup>21</sup> California Department of Toxic Substances Control. *Envirostor Database*. Available at: <https://www.envirostor.dtsc.ca.gov/public/>. Accessed March 2022.

to submit an ADMP to the LCAQMD, which would include dust mitigation practices to ensure health risks related to the release of asbestos do not occur during project construction.

Construction activities associated with the proposed project would involve the use of heavy equipment, which would contain fuels and oils, and various other products such as concrete, paints, and adhesives. Small quantities of potentially toxic substances (e.g., petroleum and other chemicals used to operate and maintain construction equipment) would be used at the project site and transported to and from the site during construction. However, the project contractor would be required to comply with all California Health and Safety Codes and local City ordinances regulating the handling, storage, and transportation of hazardous and toxic materials. Thus, construction of the proposed project would not create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the likely release of hazardous materials into the environment.

Because a portion of the project site is located in an area that is known to contain serpentine soils, which have the potential to release asbestos into the air and water if disturbed, the project could create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the likely release of hazardous materials into the environment, and a **potentially significant** impact could occur.

#### Mitigation Measure(s)

Implementation of the following mitigation measure would reduce the above potential impact to a *less-than-significant* level.

#### *IX-1. Implement Mitigation Measure III-1.*

- c. Schools are not located within one-quarter mile of the project site. The nearest school is Konocti Christian School, located approximately 0.6-mile west of the site. Therefore, the proposed project would result in **no impact** related to hazardous emissions or the handling of hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school.
- d. According to the Department of Toxic Substances Control, the project site is not located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5.<sup>22</sup> Thus, the proposed project would not create a significant hazard to the public or the environment, and **no impact** would occur.
- e. The nearest airport to the project site is the Lampson Field Airport, which is located approximately 3.5 miles south of the project site. As such, the project site is not located within two miles of any public airports or private airstrips, and does not fall within an airport land use plan area. Therefore, **no impact** would occur related to a safety hazard for people residing or working in the project area.
- f. The proposed project would not alter the existing circulation system in the surrounding area. During operation, the proposed project would provide adequate access for

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<sup>22</sup> Department of Toxic Substances Control. *Hazardous Waste and Substances Site List (Cortese)*. Available at: <https://www.envirostor.dtsc.ca.gov/public/>. Accessed September 2021.

emergency vehicles and would not interfere with potential evacuation or response routes used by emergency response teams. During construction of the proposed project, all construction equipment would be staged on-site so as to prevent obstruction of local and regional travel routes in the City that could be used as evacuation routes during emergency events. Per Appendix A of the City's General Plan EIR, it was determined that buildout of the General Plan would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan due to development being guided by the policies and programs contained in the General Plan. Specifically, the Safety Element of the General Plan includes policies such as Policy S3.1 through S3.5, which ensure that the City maintains an effective emergency response system. While the proposed project would require a General Plan Amendment to re-designate the site from Residential to High Density Residential and a Rezone to from R-1 to R-3,, development of the project site with residential uses has generally been anticipated by the City. Furthermore, the proposed project would be required to comply with all applicable General Plan policies. As a result, the project would have a **less-than-significant** impact with respect to impairing the implementation of or physically interfering with an adopted emergency response plan or emergency evacuation plan.

- g. Issues related to wildfire hazards are further discussed in Section XX, Wildfire, of this IS/MND. As noted therein, the project site is not located within a Very High Fire Hazard Severity Zone.<sup>23</sup> Additionally, the proposed project would be required to comply with all applicable requirements of the California Fire Code through the installation of fire sprinkler systems, fire hydrants, and other applicable requirements. The developed nature of the area surrounding the project site generally precludes the spread of wildfire to the site. Thus, the potential for wildland fires to reach the project site would be low. Based on the above, the proposed project would not expose people or structures to the risk of loss, injury or death involving wildland fires, and a **less-than-significant** impact would occur.

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<sup>23</sup> California Department of Forestry and Fire Protection. *FHSZ Viewer*. Available at: <https://egis.fire.ca.gov/FHSZ/>. Accessed September 2021.



## **X. HYDROLOGY AND WATER QUALITY.**

*Would the project:*

	Potentially Significant Impact	Less-Than- Significant with Mitigation Incorporated	Less-Than- Significant Impact	No Impact
a. Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	<input type="checkbox"/>	<input type="checkbox"/>	✗	<input type="checkbox"/>
b. Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	<input type="checkbox"/>	<input type="checkbox"/>	✗	<input type="checkbox"/>
c. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:				
i. Result in substantial erosion or siltation on- or off-site;	<input type="checkbox"/>	<input type="checkbox"/>	✗	<input type="checkbox"/>
ii. Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;	<input type="checkbox"/>	<input type="checkbox"/>	✗	<input type="checkbox"/>
iii. Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or	<input type="checkbox"/>	<input type="checkbox"/>	✗	<input type="checkbox"/>
iv. Impede or redirect flood flows?	<input type="checkbox"/>	<input type="checkbox"/>	✗	<input type="checkbox"/>
d. In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	<input type="checkbox"/>	<input type="checkbox"/>	✗	<input type="checkbox"/>
e. Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	<input type="checkbox"/>	<input type="checkbox"/>	✗	<input type="checkbox"/>

### **Discussion**

- a. During the early stages of construction activities, topsoil would be exposed due to grading and excavation of the site. After grading and prior to overlaying the ground surface with impervious surfaces and structures, the potential exists for wind and water erosion to discharge sediment and/or urban pollutants into stormwater runoff, which could adversely affect water quality.

The State Water Resources Control Board (SWRCB) regulates stormwater discharge associated with construction activities where clearing, grading, or excavation results in a land disturbance of one or more acres. Given that the proposed project would disturb more than one acre of land, the proposed construction activities would be subject to applicable SWRCB regulations. For example, the project shall comply the Statewide Construction General Permit No. 2009-009-DWQ (or most current permit). Prior to grading permit issuance, the applicant shall provide the Waste Discharger Identification (WDID) number issued by the SWRCB, and prepare a Storm Water Pollution Prevention Plan (SWPPP). A SWPPP describes Best Management Practices (BMPs) to control or minimize pollutants from entering stormwater and must address both grading/erosion impacts and non-point source pollution impacts of the development project, including post-construction impacts. Compliance with State regulations, including implementation of a SWPPP, would ensure that construction activities associated with the proposed project would not adversely affect water quality.

Additionally, the City's Stormwater Management Ordinance (Chapter 8.40 of the Lakeport Municipal Code) includes regulations and requirements to prevent, control, and reduce stormwater pollutants within the City. The City of Lakeport requires all development projects to use BMPs to treat runoff. This would include implementation of BMPs, in accordance with Section 8.40.150, to ensure that the water quality of the drainage systems within the City is not adversely impacted. While the specific BMPs are unknown at this time, typical temporary construction phase BMPs include, but are not limited to, silt fencing, straw wattles, staging areas, tree protection fencing, dust control, and other miscellaneous provisions as required by the regulatory agencies. It should be noted that BMPs would ensure that water quality is not degraded during the construction of the proposed project.

The proposed project would not involve operations typically associated with the generation or discharge of polluted water. Following project buildout, disturbed areas of the site would be largely covered with impervious surfaces and topsoil would no longer be exposed. Given that the project site is currently undeveloped, development of the proposed project would result in an increase of impervious surfaces on-site. However, stormwater runoff from the new impervious surfaces within the project site would flow into a landscaped detention basin located in the northeast corner of the project site, which would provide stormwater treatment. During operation, the project would comply with all relevant water quality standards and waste discharge requirements, and would not degrade water quality. Permanent BMPs may include soil stabilization, revegetation, and landscaping of all non-hardscaped disturbed areas of the project site.

Based on the above, the proposed project would not violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality. Thus, a ***less-than-significant*** impact would occur.

- b, e. Water supplies for the project site would be provided by the City of Lakeport Water Division. The City's Water Division water supply is obtained through the treatment of surface water from Clear Lake, as well as the pumping of groundwater from the Scotts Valley Groundwater Basin through the use of four wells located west of the City limits.<sup>24</sup> According to the City's General Plan, the majority of the City's water production is from groundwater wells and production varies from about 700 to 900 acre-feet per year.

Bulletin 118 – Update 2020 defines 517 groundwater basins and subbasins in California. Per the Sustainable Groundwater Management Act (SGMA), the Department of Water Resources (DWR) is required to prioritize the 517 groundwater basins and subbasins as either High, Medium, Low, or Very Low. Prioritization is based on the following considerations:

- The population overlying the basin or subbasin;
- The rate of current and projected growth of the population overlying the basin or subbasin;
- The number of public supply wells that draw from the basin or subbasin;
- The total number of wells that draw from the basin or subbasin;
- The irrigated acreage overlying the basin or subbasin;

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<sup>24</sup> City of Lakeport. *Lakeport Water Sources*. Available at: [https://www.cityoflakeport.com/public\\_works/water/water\\_sources\\_alternate.php](https://www.cityoflakeport.com/public_works/water/water_sources_alternate.php). Accessed October 2021.

- The degree to which persons overlying the basin or subbasin rely on groundwater as their primary source of water;
- Any documented impacts on the groundwater within the basin or subbasin, including overdraft, subsidence, saline intrusion, and other water quality degradation; and
- Any other information determined to be relevant by the department, including adverse impacts on local habitat and local streamflows.

Each basin's priority determines which provisions of California Statewide Groundwater Elevation Monitoring and SGMA apply. SGMA requires Medium and High priority basins to develop groundwater sustainability agencies and groundwater sustainability plans to manage groundwater for long-term sustainability.

The Scotts Valley Groundwater Basin is considered Very Low Priority per the DWR, and the DWR has not identified the Basin as either in overdraft or expected to be in overdraft.<sup>25</sup> Given that the proposed project would be consistent with the site's current General Plan land use and zoning designations, the project would not result in increased use of groundwater supplies beyond what has been generally anticipated for the site by the City and, therefore, the proposed project would not substantially decrease groundwater supplies such that the project would impede sustainable groundwater management of the Scotts Valley Groundwater Basin.

Currently, the project site is undeveloped and covered in pervious surfaces; thus, infiltration can occur on-site. However, the project site is not located within the vicinity of a substantial groundwater recharge area, such as a creek or riparian corridor, and the project site is located in an Urban Cluster, as defined by the U.S. Census Bureau. Thus, the project site is not a substantial source of groundwater recharge. Additionally, although the proposed project would include the development of impervious surfaces, which would result in decreased percolation of stormwater within developed areas of the site, a landscaped detention basin would be developed in the northeast corner of the project site to collect, treat, and attenuate stormwater runoff. As such, the proposed project would not result in substantial interference with groundwater recharge in the area.

Based on the above, the proposed project would not substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the Scotts Valley Groundwater Basin. In addition, the project would not conflict with or obstruct implementation of a water quality control plan. Thus, a ***less-than-significant*** impact would occur.

- ci-iii. A total of approximately 73,386 sf of impervious surfaces would exist on-site following implementation of the proposed project. As discussed above, the project site is currently undeveloped and does not contain any impervious surfaces. Therefore, development of the proposed project would result in an increase in impervious surfaces on the project site, which would alter the existing drainage pattern of the site and would result in increased stormwater runoff. However, as discussed above, projects that disturb over one acre of land, including the proposed project, are subject to the NPDES General Permit. The SWPPP required under the NPDES General Permit would prevent substantial on-site erosion and siltation. In addition, a landscaped detention basin would be developed in the

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<sup>25</sup> California Department of Water Resources. *SGMA Basin Prioritization Dashboard*. Available at: <https://gis.water.ca.gov/app/bp-dashboard/final/>. Accessed October 2021.

northeast corner of the project site to collect, treat, and attenuate stormwater runoff. The landscaped detention basin would consist primarily of pervious landscaping, allowing for stormwater to infiltrate underlying soils. The treated stormwater would then be collected from the landscaped detention basin and conveyed to existing stormwater drainage pipes located within the project vicinity. The project would also include various other landscaping elements that would allow for stormwater infiltration. The landscaped detention basin would be sized to adequately handle all runoff from the proposed impervious surfaces and landscaping within the project site. Therefore, the proposed project would not exceed the capacity of existing storm drain infrastructure, cause flooding on- or off-site, or result in off-site erosion or siltation after development of the site, and **a less-than-significant** impact would occur.

- civ. Per Figure 3.7-1, FEMA Flood Zones, of the City's General Plan EIR, the project site is not located within a 100-year or 500-year flood zone. Additionally, per Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM) Panel 06033C0491D, the project site is located within Zone X, which is considered an area of minimal flood hazard.<sup>26</sup> Thus, the proposed project would not include development within a Special Flood Hazard Area and would not be subject to project-specific design features related to flood hazards. Therefore, development of the proposed project would not impede or redirect flood flows, and a **less-than-significant** impact would result.
- d. As discussed under question 'civ' above, development of the project would not impede or redirect flood flows. Tsunamis are defined as sea waves created by undersea fault movement. The project site is not located in proximity to a coastline and would not be potentially affected by flooding risks associated with tsunamis. A seiche is a long-wavelength, large-scale wave action set up in a closed body of water such as a lake or reservoir. The project site is located approximately 0.7-mile from Clear Lake, and, therefore, could be susceptible to impacts from seiches due to seismic activity. However, according to Figure 1, Seiche Inundation Zone, of the City's General Plan, the project site is not located within a seiche inundation zone.

Based on the above, the proposed project would not pose a risk related to the release of pollutants due to project inundation due to flooding, tsunami, or seiche, and a **less-than-significant** impact would occur.

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<sup>26</sup> FEMA. *FEMA Flood Map Service Center*. Available at: <https://msc.fema.gov/portal/home>. Accessed October 2021.

## **XI. LAND USE AND PLANNING.**

*Would the project:*

	Potentially Significant Impact	Less-Than- Significant with Mitigation Incorporated	Less-Than- Significant Impact	No Impact
a. Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	<b>✗</b>	<input type="checkbox"/>
b. Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	<input type="checkbox"/>	<input type="checkbox"/>	<b>✗</b>	<input type="checkbox"/>

### **Discussion**

- a. A project risks dividing an established community if the project would introduce infrastructure or alter land use so as to change the land use conditions in the surrounding community, or isolate an existing land use. Existing land uses in the project vicinity include Phase I and II of the Martin Street Apartments project to the north, a church to the northeast, multi-family residences to the east, a single-family residence to the south, and commercial warehouses to the southeast, along with rural residences and commercial businesses to the northwest and southwest, respectively, across SR 29. Given that the proposed project would represent a continuation of the existing Phase I and II development of the Martin Street Apartments, the proposed project would not physically divide an established community. Additionally, the proposed project is consistent with the land use and zoning designations of the project site, and would not isolate an existing land use. Thus, a ***less-than-significant*** impact would occur.
- b. The project site is currently designated Residential per the City's General Plan and is zoned R-1. While the proposed project would require a General Plan Amendment to re-designate the site from Residential to High Density Residential and a Rezone to from R-1 to R-3, the proposed land use and zoning designations would be similar to the existing land use and zoning designations of the project site. In addition, as discussed throughout this IS/MND, the proposed project would not conflict with City policies and regulations adopted for the purpose of avoiding or mitigating an environmental effect, including, but not limited to, the City's noise standards and applicable SWRCB regulations related to stormwater. The proposed project would not result in any significant environmental effects that could not be mitigated to a less-than-significant level by the mitigation measures provided herein.

Therefore, the proposed project would not cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect, and a ***less-than-significant*** impact would occur.



## **XII. MINERAL RESOURCES.**

*Would the project:*

	Potentially Significant Impact	Less-Than- Significant with Mitigation Incorporated	Less-Than- Significant Impact	No Impact
a. Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	<input type="checkbox"/>	<input type="checkbox"/>	<b>✗</b>	<input type="checkbox"/>
b. Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	<input type="checkbox"/>	<input type="checkbox"/>	<b>✗</b>	<input type="checkbox"/>

### **Discussion**

- a, b. Per the City's General Plan EIR, active mining or mineral extraction operations do not exist within the Lakeport city limits. Furthermore, the Mineral Resources section of the General Plan Conservation Element contains policies and programs that prohibit mining and other mineral extraction activities within the City limits. Therefore, the proposed project would not result in the loss of availability of a known mineral resource that would be of value to the region and residents of the State or result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan. Thus, a ***less-than-significant*** impact to mineral resources would occur.

### **XIII. NOISE.**

*Would the project result in:*

	Potentially Significant Impact	Less-Than- Significant with Mitigation Incorporated	Less-Than- Significant Impact	No Impact
a. Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	<input type="checkbox"/>	<b>×</b>	<input type="checkbox"/>	<input type="checkbox"/>
b. Generation of excessive groundborne vibration or groundborne noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<b>×</b>	<input type="checkbox"/>
c. For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<b>×</b>

### **Discussion**

- a. The following sections present information regarding sensitive noise receptors in proximity to the project site, the existing noise environment, and the potential for the proposed project to result in impacts during project construction and operation. The following terms are referenced in the sections below:
- Decibel (dB): A unit of sound energy intensity. An A-weighted decibel (dBA) is a decibel corrected for the variation in frequency response to the typical human ear at commonly encountered noise levels. All references to dB in this section will be A-weighted unless noted otherwise.
  - Day-Night Average Level ( $L_{dn}$ ): The average sound level over a 24-hour day, with a +10 dB weighing applied to noise occurring during nighttime (10:00 PM to 7:00 AM) hours.
  - Community Noise Equivalent Level (CNEL): The 24-hour average noise level with noise occurring during evening (7:00 PM to 10:00 PM) hours weighted by a factor of three and nighttime hours weighted by a factor of ten prior to averaging.

### **Sensitive Noise Receptors**

Some land uses are considered more sensitive to noise than others, and, thus, are referred to as sensitive noise receptors. Land uses often associated with sensitive noise receptors generally include residences, schools, libraries, hospitals, and passive recreational areas. Noise sensitive land uses are typically given special attention in order to achieve protection from excessive noise. The nearest sensitive receptors include an existing single-family residence, located approximately 30 feet south of the project site, as well as Phase I and Phase II of the Martin Street Apartment located approximately 50 feet and 20 feet north of the project site, respectively.

### **Standards of Significance**

Table 15 of the City's General Plan, which has been replicated as Table 5 below, establishes maximum exterior noise level standards for various land uses within the City.

**Table 5  
City of Lakeport General Plan Noise and Land Use  
Compatibility Standards**

<b>Land Use</b>	<b>Maximum Exterior Noise Level Standards</b>
Residential Development	Up to 60 dB
Transient Lodging: Motel and Hotel	Up to 60 dB
School, Library, Church, Hospital and Nursing Home	Up to 60 dB
Auditorium, Concert Hall, Amphitheater, Sports Arena	Up to 70 dB
Sports Arena, Outdoor Spectator Sports	Up to 75 dB
Playgrounds, Neighborhood Parks, Open Space	Up to 70 dB
Golf Course, Cemetery	Up to 70 dB
Office Building, Business, Commercial & Professional	Up to 65 dB
Industrial, Manufacturing, Utilities	Up to 70 dB

**Source: City of Lakeport General Plan, 2009.**

As shown in the table, the City has established a maximum exterior noise level standard of 60 dB for residential uses. In addition, Chapter 17.28 of the Lakeport Municipal Code includes noise related performance standards. Within the residential zoning districts, maximum 15-minute sound levels within any one-hour equivalent sound pressure levels (dBA) shall be limited to 60 dBA during the hours of 7:00 AM to 10:00 PM and 45 dBA during the hours of 10:00 PM to 7:00 AM. However, the General Plan states that outdoor areas, such as small decks and balconies, associated with multi-family residential developments, can have a higher standard of 65 dB  $L_{dn}$ . Program N1.1b of the General Plan has also established a maximum acceptable interior noise level in new residential development of 45 dB  $L_{dn}$ , in accordance with the State of California Noise Insulation Standards.

The City of Lakeport has not established a threshold for significant increases in traffic noise. However, the Federal Interagency Commission on Noise (FICON) has developed a graduated scale for use in the assessment of project-related noise level increases. The criteria shown in Table 6 was developed by FICON as a means of developing thresholds for impact identification for project-related noise level increases. FICON's significance thresholds are used to identify the significance of an incremental increase in noise levels.

**Table 6  
FICON Noise Exposure Increases for Determining Level of  
Significance**

<b>Noise Exposure without Project</b>	<b>Potential Significant Impact</b>
< 60 dB CNEL	5 dB or more
60-65 dB CNEL	3 dB or more
>65 dB CNEL	1.5 dB or more

**Source: Federal Interagency Committee on Noise (FICON), 2000.**

The use of the FICON standards is considered conservative relative to thresholds used by other agencies in the State. For example, Caltrans requires a project-related traffic noise level increase of 12 dB for a finding of significance, and the California Energy Commission (CEC) considers project-related noise level increases between 5 to 10 dB significant, depending on local factors. Therefore, the use of the FICON standards, which set the threshold for finding of significant noise impacts as low as 1.5 dB, provides a conservative approach to the impact assessment for the proposed project.

## Impact Analysis

The following sections provide an analysis of potential noise impacts associated with construction and operation of the proposed project.

### Construction Noise

Heavy-duty equipment would be used during construction of the proposed project, which would result in temporary noise level increases. Project haul truck traffic on local roadways would also result in a temporary noise level increase during construction activities. Noise levels would vary depending on the type of equipment used, how the equipment is operated, and how well the equipment is maintained. In addition, noise exposure at any single point outside the project site would vary depending on the proximity of construction activities to that point. Standard construction equipment, such as graders, backhoes, loaders, and haul trucks would be used on-site. Table 7 shows maximum noise levels associated with typical construction equipment.

<b>Table 7</b>	
<b>Construction Equipment Noise</b>	
<b>Type of Equipment</b>	<b>Maximum Level, dB at 50 feet</b>
Backhoe	78
Compactor	83
Compressor (air)	78
Concrete Saw	90
Dozer	82
Dump Truck	76
Excavator	81
Generator	81
Jackhammer	89
Pneumatic Tools	85
<b>Source: Federal Highway Administration, Roadway Construction Noise Model User's Guide, January 2006.</b>	

Based on the table, activities involved in typical construction would generate maximum noise levels ranging from 76 to 90 dB at a distance of 50 feet. However, given the nature of construction activities at the site (i.e., concrete saw and jackhammer use would not be required given the undeveloped nature of the site), the loudest piece of construction equipment used at the project site would be pneumatic tools, which produce noise levels of up to 85 dB at 50 feet.

As noted previously, the noise standards established in the General Plan allow noise levels up to 65 dB in outdoor areas for multi-family residential uses and 60 dB in outdoor areas for single-family residential uses. As one increases the distance between equipment, or increases separation of areas with simultaneous construction activity, dispersion and distance attenuation reduce the effects of combining separate noise sources. The noise levels from a source decrease at a rate of approximately 6 dB per every doubling of distance from the noise source.<sup>27</sup> The nearest outdoor area associated with the multi-family residential developments to the north would be approximately 120 feet from the northern boundary of the project site, and the nearest outdoor area associated with the single-family residence to the south would be approximately 70 feet

<sup>27</sup>

U.S. Occupational Safety and Health Administration. *OSHA Technical Manual (OTM) Section III: Chapter 5*. Available at: <https://www.osha.gov/otm/section-3-health-hazards/chapter-5#measurements>. Accessed May 2022.

from the southern boundary of the project site. As such, construction noise levels associated with the proposed project would be approximately 75 dB at the multi-family residential outdoor areas, and 82 dB at the single-family residential outdoor area, which would be less than the noise levels presented Table 7; however, based on distance attenuation alone, noise levels would still be above the noise standards established in the City's General Plan. Nevertheless, the single- and multi-family residential buildings are located between the project site and their respective outdoor areas. Therefore, the intervening structures would provide a noise buffer and further reduce construction noise levels at the outdoor areas. Furthermore, construction activities would be temporary in nature and are anticipated to occur during normal daytime work hours.

Based on the above, noise levels at the nearest sensitive receptors would be reduced from the noise levels presented in Table 7, but may still exceed the noise level thresholds that have been established by the Lakeport General Plan. The use of noise-dampened equipment would be required during project construction to ensure that a substantial temporary or periodic increase in ambient noise levels in the project vicinity associated with construction of the proposed project would not occur.

### Project Operational Noise

The primary noise generators within the City of Lakeport are vehicular traffic, boaters on Clear Lake, and events at the race track at the County Fairgrounds. Residential uses are not typically associated with the generation of substantial noise. Operation of the proposed project would include typical residential noise such as landscape maintenance, HVAC systems, etc., which would be compatible with the adjacent existing residential uses. As such, on-site operations associated with the proposed project is not anticipated to contribute a measurable operational noise level increase to the existing ambient noise environment at any sensitive receptor locations.

As noted in the City's General Plan EIR, several principal streets and highways, including Martin Street and SR 29, are projected to experience a significant increase in noise over 60 dBA upon General Plan buildout. As such, the General Plan EIR has anticipated that residences adjacent to the aforementioned streets would be exposed to noise levels over 60 dBA. Because the proposed project is consistent with the site's current land use designation and zoning designations, traffic noise level increases associated with a multi-family residential development on the project site have been previously anticipated by the City and determined to be acceptable given the overriding benefits of General Plan buildout.

Generally, a doubling in traffic volumes is required to increase traffic noise levels by 3.0 dB, which is considered to be the threshold for a significant increase per FICON when ambient noise is between 60 dB and 65 dB. Given the existing noise environment of the project area, a reasonable assumption was made that the ambient noise in the project vicinity would be between 60 dB and 65 dB. Using the standard rate of 7.32 average daily trips per unit published in the 10<sup>th</sup> Edition of the ITE Trip Generation Manual (2017) for the "Multi-Family Housing (Low-Rise)" land use (ITE Land Use Category #220), the proposed project would be expected to generate an average of 293 trips per day. Given the relatively small number of trips generated by the proposed project, and the generally urbanized nature of the project area, the reasonable assumption can be made that the proposed project would not be expected to double traffic volumes on local roadways. Thus, the proposed project would not substantially increase traffic noise in the project vicinity.



Based on the above, the proposed project is not anticipated to result in operational noise increases that would be considered to have the potential to result in significant effects on sensitive receptors in the project vicinity.

## **Conclusion**

As described above, the proposed project would not result in the generation of a substantial permanent increase in ambient noise levels during project operations; however, during project construction, a substantial temporary increase in ambient noise levels in the vicinity of the project in excess of standards established in the General Plan, the City's noise ordinance, or applicable standards of other agencies could occur. Therefore, the proposed project would result in a **potentially significant** impact.

## **Mitigation Measure(s)**

Through the combination of distance attenuation, buffering from the intervening structures, and implementation of the noise-reducing measures listed below, project construction noise would not exceed the standards established in the City's General Plan. Thus, implementation of the following mitigation measure would reduce the above potential impacts to a *less-than-significant* level.

*XIII-1. To the maximum extent practical, as determined by the City of Lakeport Community Development Department, the following measures shall be implemented during project construction:*

- *All noise-producing project equipment and vehicles using internal-combustion engines shall be equipped with manufacturers-recommended mufflers and be maintained in good working condition;*
- *All mobile or fixed noise-producing equipment used on the project site that are regulated for noise output by a federal, State, or local agency shall comply with such regulations while in the course of project construction;*
- *Electrically powered equipment shall be used instead of pneumatic or internal-combustion-powered equipment, where feasible;*
- *Material stockpiles and mobile equipment staging, parking, and maintenance areas shall be located as far as practicable from noise-sensitive receptors;*
- *An eight-foot-tall temporary sound wall shall be installed along the southern and northern boundaries of the project site, adjacent to the existing residential uses. The barrier shall consist of minimum 15/32-inch plywood or OSB. Alternate barriers or sound curtains having a sound transmission class rating of 25 would also be acceptable. Any barrier shall not include gaps between panels or under the barrier that could transmit sound;*
- *Project area and site access road speed limits shall be established and enforced during the construction period; and*
- *Nearby residences shall be notified of construction schedules so that arrangements can be made, if desired, to limit their exposure to short-term increases in ambient noise levels.*

*The above requirements shall be included via notation on project grading plans, subject to review and approval by the City of Lakeport Community Development Department.*

- b. Similar to noise, vibration involves a source, a transmission path, and a receiver. However, noise is generally considered to be pressure waves transmitted through air, whereas vibration usually consists of the excitation of a structure or surface. As with noise, vibration consists of an amplitude and frequency. A person's perception to the vibration depends on their individual sensitivity to vibration, as well as the amplitude and frequency of the source and the response of the system which is vibrating.

Vibration is measured in terms of acceleration, velocity, or displacement. A common practice is to monitor vibration in terms of peak particle velocities (PPV) in inches per second (in/sec). Standards pertaining to perception as well as damage to structures have been developed for vibration levels defined in terms of PPV. Human and structural response to different vibration levels is influenced by a number of factors, including ground type, distance between source and receptor, duration, and the number of perceived vibration events. Table 8, which was developed by Caltrans, shows that the vibration levels that would normally be required to result in damage to structures range from 0.2 to 0.6 in/sec PPV.

<b>Table 8</b>			
<b>Effects of Vibration on People and Buildings</b>			
<b>PPV</b>		<b>Human Reaction</b>	<b>Effect on Buildings</b>
<b>mm/sec</b>	<b>in/sec</b>		
0.15 to 0.30	0.006 to 0.019	Threshold of perception; possibility of intrusion	Vibrations unlikely to cause damage of any type
2.0	0.08	Vibrations readily perceptible	Recommended upper level of the vibration to which ruins and ancient monuments should be subjected
2.5	0.10	Level at which continuous vibrations begin to annoy people	Virtually no risk of "architectural" damage to normal buildings
5.0	0.20	Vibrations annoying to people in buildings (this agrees with the levels established for people standing on bridges and subjected to relative short periods of vibrations)	Threshold at which there is a risk of "architectural" damage to normal dwelling - houses with plastered walls and ceilings. Special types of finish such as lining of walls, flexible ceiling treatment, etc., would minimize "architectural" damage
10 to 15	0.4 to 0.6	Vibrations considered unpleasant by people subjected to continuous vibrations and unacceptable to some people walking on bridges	Vibrations at a greater level than normally expected from traffic, but would cause "architectural" damage and possibly minor structural damage
<b>Source: Caltrans. Transportation Related Earthborne Vibrations. TAV-02-01-R9601. February 20, 2002.</b>			

The proposed project would only cause elevated vibration levels during construction, as the proposed project would not involve any uses or operations that would generate substantial groundborne vibration.

The primary vibration-generating activities associated with the proposed project would occur during grading, placement of underground utilities, and construction of foundations.

Although noise and vibration associated with the construction of the project would add to the noise and vibration environment in the immediate project vicinity, construction activities would be temporary in nature and are anticipated to occur during normal daytime working hours.

Table 9 shows the typical vibration levels produced by construction equipment at various distances. The most substantial source of groundborne vibrations associated with project construction would be the use of vibratory compactors. Use of vibratory compactors/rollers could be required during construction of the proposed on-site drive aisles and parking areas. However, at a distance of 26 feet or greater, vibration levels from such equipment would be below the 0.20 in/sec threshold recommended by Caltrans.

<b>Table 9</b>			
<b>Vibration Levels for Various Construction Equipment</b>			
<b>Type of Equipment</b>	<b>PPV at 25 feet (in/sec)</b>	<b>PPV at 50 feet (in/sec)</b>	<b>PPV at 100 feet (in/sec)</b>
Large Bulldozer	0.089	0.031	0.011
Loaded Trucks	0.076	0.027	0.010
Small Bulldozer	0.003	0.001	0.000
Auger/drill Rigs	0.089	0.031	0.011
Jackhammer	0.035	0.012	0.004
Vibratory Hammer	0.070	0.025	0.009
Vibratory Compactor/roller	0.210	0.074	0.026
<b>Source: Federal Transit Administration, Transit Noise and Vibration Impact Assessment Guidelines, May 2006.</b>			

The proposed construction activities would occur at a distance of approximately 30 feet from the nearest existing single-family residence to the south. Per the vibration levels shown in Table 9, groundborne vibration at the nearest receptor would be below the 0.20 in/sec PPV threshold established by Caltrans for architectural damage to buildings. Therefore, the proposed project would not expose people to or generate excessive groundborne vibration or groundborne noise levels, and a **less-than-significant** impact would occur.

- c. The nearest airport to the project site is the Lampson Field Airport, which is located approximately 3.5 miles south of the project site. As such, the project site is not located within two miles of any public airports or private airstrips, and does not fall within an airport land use plan area. Therefore, the proposed project would not expose people residing or working in the project area to excessive noise levels associated with airports, and **no impact** would occur.

#### **XIV. POPULATION AND HOUSING.**

*Would the project:*

	Potentially Significant Impact	Less-Than- Significant with Mitigation Incorporated	Less-Than- Significant Impact	No Impact
a. Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (e.g., through projects in an undeveloped area or extension of major infrastructure)?	<input type="checkbox"/>	<input type="checkbox"/>	<b>✗</b>	<input type="checkbox"/>
b. Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<b>✗</b>	<input type="checkbox"/>

#### **Discussion**

- a. The proposed project would include the construction of five separate residential buildings, consisting of eight affordable housing units per building for a total of 40 affordable housing units. According to the U.S. Census Bureau, as of 2019, the average household size in Lakeport was estimated at 2.24 persons per household.<sup>28</sup> Using this average household size, the proposed project would result in an estimated population of 90 residents. Given that the City has an estimated total population of 5,006, the increase of approximately 90 residents associated with implementation of the project would equate to less than two percent of the entire City's population, and, therefore, would not be considered a substantial increase in the number of residents within the City.

The project site is currently designated Residential per the City's General Plan and is zoned R-1. While the proposed project would require a General Plan Amendment to re-designate the site from Residential to High Density Residential and a Rezone to from R-1 to R-3, the density of the proposed project is within the density range allowed within the existing Residential land use designation. Therefore, development of the project site with residential uses and the associated population growth has been generally anticipated by the City. Thus, the proposed project would not result in unplanned population growth that was not already anticipated by the City in their planning efforts. Therefore, the proposed project would not induce substantial unplanned population growth either directly or indirectly, and a ***less-than-significant*** impact would occur.

- b. The proposed project would not require the demolition of any existing residences or any other structures within the project site. As such, the proposed project would not displace a substantial number of existing housing or people and would not necessitate the construction of replacement housing elsewhere. Therefore, a ***less-than-significant*** impact would occur.

<sup>28</sup> U.S. Census Bureau. *QuickFacts: Lakeport city, California.* Available at: <https://www.census.gov/quickfacts/fact/table/lakeportcitycalifornia/PST045219>. Accessed September 2021.

## **XV. PUBLIC SERVICES.**

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

	Potentially Significant Impact	Less-Than- Significant with Mitigation Incorporated	Less-Than- Significant Impact	No Impact
a. Fire protection?	<input type="checkbox"/>	<input type="checkbox"/>	✗	<input type="checkbox"/>
b. Police protection?	<input type="checkbox"/>	<input type="checkbox"/>	✗	<input type="checkbox"/>
c. Schools?	<input type="checkbox"/>	<input type="checkbox"/>	✗	<input type="checkbox"/>
d. Parks?	<input type="checkbox"/>	<input type="checkbox"/>	✗	<input type="checkbox"/>
e. Other Public Facilities?	<input type="checkbox"/>	<input type="checkbox"/>	✗	<input type="checkbox"/>

## **Discussion**

a-e. Fire protection services are currently provided to the project area by the Lakeport Fire Protection District (LFPD). The LFPD is comprised of one chief, three captains, nine firefighters, and one administrative assistant, as well as three volunteer lieutenants and 18 volunteer firefighters.<sup>29</sup> The LFPD station is located approximately one mile northwest of the project site at 445 North Main Street. The Lakeport Police Department provides 24-hour police protection for the City. The Lakeport Police Department is comprised of 14 sworn officers, two full-time clerical staff, and two part-time clerical positions.<sup>30</sup> The Lakeport Police Department is located at 2025 South Main Street, approximately 1.7 miles southwest of the project site. The City also maintains a mutual aid agreement with the Lake County Sheriff's Department (LCSD), and dispatch is coordinated through the LCSD, including 911 calls.

The project site is currently designated Residential per the City's General Plan and is zoned R-1 As discussed throughout this IS/MND, while the proposed project would require a General Plan Amendment to re-designate the site from Residential to High Density Residential and a Rezone to from R-1 to R-3, the density of the proposed project is within the density range allowed within the Residential land use designation. Therefore, development of the project site with residential uses and the associated population growth has been generally anticipated by the City. Some increase in demand for fire and law enforcement services, as well as other public facilities, could occur as a result of the increase in population associated with development of the proposed project. However, due to the relatively low number of units, the increase would not be considered substantial and could be met by current service providers, without the need for expanding existing facilities or constructing new facilities, the construction of which could cause significant environmental effects.

Public school services for the proposed project would be provided by the Lakeport Unified School District (LUSD). The current residential developer fee rate for LUSD for residential uses is \$3.79 per sf of living area.<sup>31</sup> Given that the project would result in approximately 37,700 sf of living area, it is anticipated that the applicant would be required to pay approximately \$142,883 in developer fees. The developer fees would be used by the

<sup>29</sup> Lakeport Fire Protection District. *About*. Available at: <http://www.lakeportfire.com/about/>. Accessed March 2022.

<sup>30</sup> City of Lakeport. *City of Lakeport General Plan 2025 Environmental Impact Report* [pg. 3-113]. November 2008.

<sup>31</sup> Lakeport Unified School District. *Developer Fee Information*. Available at: <https://www.lakeport.k12.ca.us/Page/1025>. Accessed September 2021.



LUSD to address the future needs. According to SB 50, payment of the necessary school impact fees for the project would be considered full and satisfactory CEQA mitigation. Proposition 1A/SB 50 prohibits local agencies from using the inadequacy of school facilities as a basis for denying or conditioning approvals of any “[...] legislative or adjudicative act [...] involving [...] the planning, use, or development of real property” (Government Code 65996(b)). As such, payment of developer fees would be considered sufficient to reduce any potential impacts related to the provision of school services.

Issues related to parks are further discussed in Section XIV, Recreation, of this IS/MND. As noted therein, the proposed project would not be anticipated to increase the population such that the City’s parkland requirement would be reduced significantly, and new facilities would not be required.

Based on the above, the proposed project would have a ***less-than-significant*** impact related to the need for new or physically altered fire protection, law enforcement, schools, parks, or other public facilities, the construction of which could cause significant environmental impacts.

## **XVI. RECREATION.**

*Would the project:*

	Potentially Significant Impact	Less-Than- Significant with Mitigation Incorporated	Less-Than- Significant Impact	No Impact
a. Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	<input type="checkbox"/>	<input type="checkbox"/>	<b>✗</b>	<input type="checkbox"/>
b. Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<b>✗</b>	<input type="checkbox"/>

### **Discussion**

- a, b. As discussed previously, the proposed project would result in approximately 90 new residents. While the proposed project would not include the dedication of parkland, the project would include various amenities that would provide residents with outdoor recreational activities. For example, the proposed project would include the development of a community center and tot lot. The project site is located approximately 1.4 miles from the nearest park, Westside Community Park.

The City of Lakeport has adopted a standard to provide a minimum of five acres of developed parkland per 1,000 residents. According to the City's General Plan, in 2008, the City provided approximately 4.8 acres of parkland per 1,000 residents, which is below the five-acre standard. However, the City has planned to increase the size of Westside Community Park from 16.5 acres to 55 acres as funds become available. With the additional parkland of Westside Community Park, the City would have a total of 63.5 acres of parkland, and the parkland ratio would be increased to 12.7 acres of parkland per 1,000 residents.

Additionally, while the proposed project would require a General Plan Amendment to re-designate the site from Residential to High Density Residential and a Rezone to from R-1 to R-3, the density of the proposed project is within the density range allowed within the Residential land use designation. Therefore, development of the project site with residential uses and the associated population growth has been generally anticipated by the City.

Based on the above, the proposed project would not result in increased use of existing recreational facilities, nor would the proposed project include or require construction or expansion of recreational facilities which might have an adverse physical effect on the environment. Thus, a ***less-than-significant*** impact would occur.

## **XVII. TRANSPORTATION.**

*Would the project:*

	Potentially Significant Impact	Less-Than- Significant with Mitigation Incorporated	Less-Than- Significant Impact	No Impact
a. Conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<b>✗</b>	<input type="checkbox"/>
b. Conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?	<input type="checkbox"/>	<input type="checkbox"/>	<b>✗</b>	<input type="checkbox"/>
c. Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	<input type="checkbox"/>	<input type="checkbox"/>	<b>✗</b>	<input type="checkbox"/>
d. Result in inadequate emergency access?	<input type="checkbox"/>	<input type="checkbox"/>	<b>✗</b>	<input type="checkbox"/>

### **Discussion**

- a. The law has changed with respect to how transportation-related impacts may be addressed under CEQA. Traditionally, lead agencies used level of service (LOS) to assess the significance of such impacts, with greater levels of congestion considered to be more significant than lesser levels. Enacted as part of Senate Bill 743 (2013), PRC Section 21099, subdivision (b)(1), directed the Governor's Office of Planning and Research (OPR) to prepare, develop, and transmit to the Secretary of the Natural Resources Agency for certification and adoption proposed CEQA Guidelines addressing "criteria for determining the significance of transportation impacts of projects within transit priority areas. Those criteria shall promote the reduction of greenhouse gas emissions, the development of multimodal transportation networks, and a diversity of land uses."

Pursuant to SB 743, the Natural Resources Agency promulgated CEQA Guidelines Section 15064.3 in late 2018. It became effective in early 2019. Subdivision (a) of that section provides that "[g]enerally, vehicle miles traveled is the most appropriate measure of transportation impacts. For the purposes of this section, 'vehicle miles traveled' refers to the amount and distance of automobile travel attributable to a project. Other relevant considerations may include the effects of the project on transit and non-motorized travel. Except as provided in subdivision (b)(2) below (regarding roadway capacity), a project's effect on automobile delay shall not constitute a significant environmental impact."<sup>32</sup>

Please refer to Question 'b' for a discussion of VMT.

### **Pedestrian, Bicycle, and Transit Facilities**

The proposed project's potential impacts related to pedestrian, bicycle, and transit facilities are discussed below.

#### **Pedestrian and Bicycle Facilities**

Pedestrian facilities are comprised of crosswalks, sidewalks, pedestrian signals, and off-street paths, which provide safe and convenient routes for pedestrians to access the destinations such as institutions, businesses, public transportation, and recreation facilities. Bicycle facilities include the following:

<sup>32</sup> Subdivision (b)(2) of Section 15064.3 ("transportation projects") provides that "[t]ransportation projects that reduce, or have no impact on, vehicle miles traveled should be presumed to cause a less than significant transportation impact. For roadway capacity projects, agencies have discretion to determine the appropriate measure of transportation impact consistent with CEQA and other applicable requirements. To the extent that such impacts have already been adequately addressed at a programmatic level, such as in a regional transportation plan EIR, a lead agency may tier from that analysis as provided in Section 15152.

- Bike Paths (Class I) – Paved trails that are separated from roadways;
- Bike Lanes (Class II) – Lanes on roadways designated for use by bicycles through striping, pavement legends, and signs; and
- Bike Routes (Class III) – Designated roadways for bicycle use by signs or other markings may or may not include additional pavement width for cyclists.

Per the City's General Plan, many residential areas in the City do not include sidewalks, including the project area. In addition, the City of Lakeport has a fragmented bicycle circulation network which uses a variety of local streets. East/west routes through the City are limited; however, the existing bikeway system in Lakeport provides a basis for expanding bicycle use for both work and recreation related trips. Generally, the City recognizes that sidewalks should be installed along one or both sides of all City streets, especially on streets leading to public transit facilities and to schools, to increase pedestrian safety within the City.

According to the Active Transportation Plan for Lake County, which includes transportation planning for Lakeport, due to a lack of funding, proposed pedestrian/bicycle infrastructure improvement projects within the City may take up to 20 years to complete.<sup>33</sup> The implementation of the missing sidewalk and bicycle lane segments along South Smith Street is beyond the responsibility of the proposed project because their construction would require work within, and possibly acquisition of, right-of-way that is not controlled by the project applicant. Therefore, while the proposed project would not include any off-site roadway improvements, including the development of sidewalks or bicycle lanes along the roadways in the project vicinity, implementation of the proposed project would not conflict with any planned pedestrian or bicycle facilities anticipated by the City.

### Transit Facilities

The Lakeport area is served by Lake Transit. Fixed route service links the City of Lakeport to the City of Ukiah through connections to SR 29, SR 20 and US 101, as well as with Northshore and Southshore communities of Clear Lake from the 3<sup>rd</sup> Street/Main Street transit hub located within Lakeport. A door-to-door dial-a-ride service is also available to residents within the City. Two Lake Transit bus stops are located on Martin Street at the Bella Vista Apartments approximately 0.22-mile from the project site. Based on the above, adequate transit facilities would be available to serve the future residents of the proposed project. Additionally, the proposed project would not conflict with existing or planned transit facilities.

### **Conclusion**

Based on the above, the proposed project would not conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities, and a ***less-than-significant*** impact could occur.

- b. Section 15064.3 of the CEQA Guidelines provides specific considerations for evaluating a project's transportation impacts. Pursuant to Section 15064.3, analysis of VMT attributable to a project is the most appropriate measure of transportation impacts. Other relevant considerations may include the effects of the project on transit and non-motorized travel. Although the City of Lakeport has not yet established any standards or thresholds regarding VMT, pursuant to Section 15064.3(b)(3), a lead agency may analyze a project's

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<sup>33</sup> Lake County/City Area Planning Council. *Active Transportation Plan for Lake County* [pg. 33]. December 2016.

VMT qualitatively based on the availability of transit, proximity to destinations, etc. The Governor's OPR released The Technical Advisory on Evaluating Transportation Impacts in CEQA, which includes screening thresholds to identify when a lead agency may screen out VMT impacts.<sup>34</sup> The OPR recommendations include the screening thresholds criteria listed below:

- OPR recommends that office or residential projects not exceeding a level of 15 percent below existing VMT per capita may indicate a less-than-significant impact on VMT;
- OPR recommends that projects (including office, residential, retail, and mixed-use developments) proposed within half a mile of an existing major transit stop or within a quarter of an existing stop along a high-quality transit corridor may be presumed to have a less-than-significant impact;
- OPR recommends that 100 percent of affordable residential development in infill locations be presumed to have a less-than-significant impact on VMT; and
- OPR recommends that projects that generate or attract fewer than 110 trips per day generally may be assumed to cause a less-than-significant impact.

According to OPR, adding affordable housing to an area generally improves the jobs-housing match, in turn shortening commutes and reducing VMT because low-wage workers in particular are more likely to choose a residential location close to their workplace if one is available. Additionally, even in areas where the existing jobs-housing match is closer to optimal, affordable housing is still shown to generate less VMT than market-rate housing.<sup>35</sup> The proposed project would generate 40 new residential units, 100 percent of which would be affordable housing. Given that the proposed project is Phase III of a multi-family affordable housing project, the project site would be considered an infill location. Therefore, consistent with OPR's Technical Advisory, the proposed project would have a less-than-significant impact on VMT.<sup>36</sup> Therefore, the proposed project would not conflict or be inconsistent with CEQA Guidelines Section 15064.3(b), and a **less-than-significant** impact would occur.

- c, d. The proposed project would not include design features that would affect traffic safety, nor involve any incompatible uses. Access to the project site would be provided by a primary entrance off of South Smith Street, along the eastern boundary of the project site, and an internal roadway would connect to Phase I and Phase II of the Martin Street Apartments to the north of the project site to provide secondary vehicle access. The project driveway and internal drive aisles would be designed in accordance with State and local standards, such that emergency vehicle access would be sufficient for the project site. In addition, the proposed residences, landscaping, and signage would be set back from the roadways in the project vicinity such that visibility for motorists would not be hindered. During project construction, public roads in the vicinity would remain open and available for use by emergency vehicles and other traffic.

The project site is currently designated Residential per the City's General Plan and is zoned R-1 While the proposed project would require a General Plan Amendment to re-

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<sup>34</sup> Governor's Office of Planning and Research. *Technical Advisory on Evaluating Transportation Impacts in CEQA*. December 2018.

<sup>35</sup> *Ibid.*

<sup>36</sup> Governor's Office of Planning and Research. *Technical Advisory on Evaluating Transportation Impacts in CEQA*. [pg. 14]. December 2018.

designate the site from Residential to High Density Residential and a Rezone to from R-1 to R-3, the proposed land use and zoning designations would be similar to the existing land use and zoning designations of the project site. Therefore, development of the project site with residential uses has been generally anticipated by the City, and impacts related to traffic hazards and emergency access associated with the proposed project were previously analyzed within the City's General Plan EIR.

Based on the above, the proposed project would not substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment) or result in inadequate emergency access, and a ***less-than-significant*** impact would occur.



## **XVIII. TRIBAL CULTURAL RESOURCES.**

*Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American Tribe, and that is:*

	Potentially Significant Impact	Less-Than- Significant with Mitigation Incorporated	Less-Than- Significant Impact	No Impact
a. Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k).	<input type="checkbox"/>	<b>×</b>	<input type="checkbox"/>	<input type="checkbox"/>
b. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	<input type="checkbox"/>	<b>×</b>	<input type="checkbox"/>	<input type="checkbox"/>

## **Discussion**

- a, b. As discussed in Section V, Cultural Resources, of this IS/MND, a records search of the CHRIS was performed by the NWIC for cultural resource site records and survey reports within the project area.<sup>37</sup> The NWIC concluded that a moderate to high potential of identifying Native American archaeological resources exists within the project area. A Cultural Resources Report prepared by Peak and Associates, Inc.<sup>38</sup> concluded that development of the Martin Street Apartments would not impact cultural resources. A search of the Native American Heritage Commission (NAHC) Sacred Lands File also indicated that the project site does not contain any known Tribal Cultural Resources.<sup>39</sup>

In addition, the project site has been used as a designated construction staging area during the construction of Phase I and Phase II of the Martin Street Apartments. As such, the storage of equipment and vehicles, stockpiles, waste bins, and other construction-related materials including construction trailers has occurred on the project site. Therefore, the project site has been subject to disturbance.

In compliance with AB 52 (PRC Section 21080.3.1), the City of Lakeport distributed project notification letters to a consultation list of tribes with traditional lands or cultural places located within the project area on December 28, 2021, and requests to consult were not received within the consultation period.

Because the proposed project would require a General Plan Amendment, SB 18 letters were distributed to the Big Valley Band of Pomo Indians, Elem Indian Colony Pomo Tribe, Koi Nation of Northern California, Middletown Rancheria, and Scotts Valley Band of Pomo Indians on May 9, 2022. Requests to consult under SB 18 were not received during the required 90-day response period.

<sup>37</sup> California Historical Resources Information System Northwest Information Center. *Records Search Results for the Proposed Martin Street Apartments Phase III Project*. September 21, 2021

<sup>38</sup> Peak & Associates, Inc. *Determination of Eligibility and Effect for the Martin Street Senior Apartments Project, City of Lakeport, Lake County, California*. June 7, 2016.

<sup>39</sup> Native American Heritage Commission. *Martin Street Apartments Phase III Project, Lake County*. October 20, 2021.

Although known tribal cultural resources do not exist within the project site, unknown tribal cultural resources have the potential to be uncovered during ground-disturbing activities at the proposed project site. Therefore, the proposed project could result in a substantial adverse change in the significance of a tribal cultural resource. Thus, impacts could be considered ***potentially significant***.

Mitigation Measure(s)

Implementation of the following mitigation measure would reduce the above potential impact to a *less-than-significant* level.

XVIII-1.        *Implement Mitigation Measures V-1 and V-2.*

## **XIX. UTILITIES AND SERVICE SYSTEMS.**

*Would the project:*

	Potentially Significant Impact	Less-Than- Significant with Mitigation Incorporated	Less-Than- Significant Impact	No Impact
a. Require or result in the relocation or construction of new or expanded water, wastewater treatment, or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<b>×</b>	<input type="checkbox"/>
b. Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years?	<input type="checkbox"/>	<input type="checkbox"/>	<b>×</b>	<input type="checkbox"/>
c. Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	<input type="checkbox"/>	<input type="checkbox"/>	<b>×</b>	<input type="checkbox"/>
d. Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	<input type="checkbox"/>	<input type="checkbox"/>	<b>×</b>	<input type="checkbox"/>
e. Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	<input type="checkbox"/>	<input type="checkbox"/>	<b>×</b>	<input type="checkbox"/>

## **Discussion**

- a-c. Water, sanitary sewer, stormwater, electricity, natural gas, and telecommunications, services would be provided by way of new connections to existing infrastructure in the project area. Brief discussions of each are included below.

### **Water**

As previously mentioned under Section X, Hydrology and Water Quality, water supplies for the project site would be provided by the City of Lakeport Water Division. According to the City's General Plan, the City of Lakeport obtains water from two sources: groundwater from the Scotts Valley Groundwater Basin, and water from Clear Lake treated at the City's water treatment plant (WTP). The majority of the City's water production is from groundwater wells and groundwater production varies from about 700 to 900 acre-feet per year. The WTP also has a nameplate capacity of 500 gallons per minute (gpm), and a raw water intake capacity of 1500 gpm.

Lakeport public works officials have conservatively estimated that when operating at full capacity, the WTP can serve at least an additional 3,000 to 4,000 residential unit equivalents (RUEs), which far exceeds current local growth projections.<sup>40</sup>

Given that the groundwater basin has adequate supply,<sup>41</sup> and the WTP has the capacity to serve a number of RUEs which far exceed current local growth projections, the proposed project would not significantly impact the Water Division's water supply. As such,

<sup>40</sup> City of Lakeport. *City of Lakeport General Plan 2025 Environmental Impact Report* [pg. 3-154]. November 2008.

<sup>41</sup> California Department of Water Resources. *SGMA Basin Prioritization Dashboard*. Available at: <https://gis.water.ca.gov/app/bp-dashboard/final/>. Accessed October 2021.

the Water Division would have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years. Furthermore, all infrastructure required to provide water supply to the project would be developed by a connection to existing water mains located in the project vicinity, and the proposed project would not require major relocation or expansion of any water supply infrastructure.

### **Sewer Service**

Sewer service would be provided to the site by the City of Lakeport Sewer Division. The Division operates and maintains nearly 40 miles of sewer main lines, eight sewer lift stations, and a secondary treatment and disposal facility. Collected sewage is conveyed to the City of Lakeport wastewater treatment plant (WWTP), which has an average dry-weather flow design capacity of 0.51 million gallons per day (mgd), and a peak wet weather design flow of three mgd.<sup>42</sup> According to the City's Sewer System Master Plan, based on the City's 2008 General Plan and proposed developments submitted to the City's planning department, the City anticipated that by 2028, approximately 630 RUEs would be added to the City's wastewater collection system.<sup>43</sup> Of the future RUEs, about 520 RUEs would be added to the City's main sewer area that is currently being served by the WWTP, which would result in an average dry-weather flow of approximately 0.48 mgd by 2028, which is below the WWTP's average dry-weather flow design capacity of 0.51 mgd. Given that the proposed project is consistent with the City's land use and zoning designations for the project site, the proposed project's wastewater demand would have been anticipated in the City's Sewer System Master Plan. In addition, all infrastructure required to provide sewer service to the project would be developed by way of a connection to the existing sewer service mains located within the project vicinity. As such, the proposed project would not require major relocation or expansion of any sewer service infrastructure as adequate sewer service capacity exists to serve the project.

### **Stormwater Systems**

Stormwater runoff within the project site would flow into a landscaped detention basin located in the northeast corner of the project site, which would provide treatment of the on-site stormwater runoff. In addition, the proposed project would include various other landscaping elements that would allow for stormwater infiltration. The treated stormwater would then be collected from the landscaped detention basin and conveyed to existing stormwater drainage pipes located within the project vicinity. The landscaped detention basin would be sized to adequately treat all runoff from the proposed impervious surfaces and landscaping within the project site. As such, the proposed project would not require major relocation or expansion of any stormwater infrastructure as adequate stormwater capacity exists to serve the project.

### **Other Utilities**

Electric, natural gas, and telecommunications utilities would be provided by way of connections to existing infrastructure located within the immediate project vicinity. The proposed project would not require major upgrades to, or extension of, existing infrastructure. Thus, impacts to electricity, natural gas, and telecommunications infrastructure would be less than significant.

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<sup>42</sup> City of Lakeport Municipal Sewer Division. *Sewer System Management Plan*. March 2018.

<sup>43</sup> *Ibid.*

## **Conclusion**

Based on the above, the utility infrastructure within the project vicinity has been designed with adequate capacity to accommodate demand from the proposed project. Therefore, the project would result in a **less-than-significant** impact related to the relocation or construction of new or expanded water, wastewater treatment, or stormwater drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects.

- d, e. Solid waste, recyclable materials, and compostable material collection within the project area is provided by the Lakeport Disposal Company. The nearest active landfill to the project site is Eastlake Landfill in Clearlake, California, located approximately 28 miles from the site. The Eastlake Landfill has a daily permitted disposal of approximately 200 tons per day, and a maximum permitted capacity of 6.05 million cubic yards. The Eastlake Landfill is expected to remain active until the year 2023, and has a remaining capacity of approximately 2.86 million cubic yards.<sup>44</sup> However, the Lake County Public Services Department is proposing an expansion of the Landfill to extend the landfill's life to approximately the year 2046; increasing the landfill footprint from 35 acres to 56.6 acres. In addition, prior to being sent to Eastlake Landfill, solid waste from the City of Lakeport is deposited at the Lake County Transfer Station and Recycling Center, located at 230 Soda Bay Road in Lakeport, where mixed waste is sorted to the maximum extent feasible to extract recyclables and increase diversion from landfilling.

Pursuant to the CALGreen Code, at least 65 percent diversion of construction waste is required for projects permitted after January 1, 2017. Because the project would only create a temporary increase in the amount of waste during construction activities, the proposed project would not result in a significant impact related to solid waste generation during construction.

With respect to operational solid waste generation, the proposed project would not be expected to generate substantial amounts of solid waste due to the relatively small scale of the project. In addition, the proposed project would be required to comply with all applicable provisions of Chapter 8.16, Solid Waste, Garbage Collection, and Disposal, of the Lakeport Municipal Code.

Therefore, the proposed project would not generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals and would comply with federal, State, and local management and reduction statutes and regulations related to solid waste. Therefore, a **less-than-significant** impact would occur.

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<sup>44</sup> CalRecycle. *SWIS Facility/Site Activity Details – Eastlake Sanitary Landfill (17-AA-0001)*. Available at: <https://www2.calrecycle.ca.gov/SolidWaste/SiteActivity/Details/3787?siteID=930>. Accessed December 2021.

## **XX. WILDFIRE.**

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

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

## **Discussion**

- a-d. According to the California Department of Forestry and Fire Protection's (CAL FIRE's) online Fire Hazard Severity Zones Viewer, the project site is not located within a Very High Fire Hazard Severity Zone.<sup>45</sup> Additionally, the proposed project would be required to comply with all applicable requirements of the California Fire Code through the installation of fire sprinkler systems, fire hydrants, and other applicable requirements. The developed nature of the area surrounding the project site precludes the spread of wildfire to the site. Thus, the potential for wildland fires to reach the project site would be low. Based on the above, the proposed project would not expose people or structures to the risk of loss, injury or death involving wildland fires, and a ***less-than-significant*** impact would occur.

<sup>45</sup> California Department of Forestry and Fire Protection. *FHSZ Viewer*. Available at: <https://egis.fire.ca.gov/FHSZ/>. Accessed September 2021.



## XXI. MANDATORY FINDINGS OF SIGNIFICANCE.

	Potentially Significant Impact	Less-Than- Significant with Mitigation Incorporated	Less-Than- Significant Impact	No Impact
a. Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	<input type="checkbox"/>	<b>✗</b>	<input type="checkbox"/>	<input type="checkbox"/>
b. Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	<input type="checkbox"/>	<b>✗</b>	<input type="checkbox"/>	<input type="checkbox"/>
c. Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	<input type="checkbox"/>	<b>✗</b>	<input type="checkbox"/>	<input type="checkbox"/>

## Discussion

- a. As discussed in Section IV, Biological Resources, of this IS/MND, while potential exists for special-status plants to occur on-site, Mitigation Measure IV-1 would ensure that any impacts related to special-status species would be reduced to a less-than-significant level. The project site is not known to contain any archaeological or historical resources. However, a limited potential exists for previously unknown cultural resources to occur beneath the ground surface. As such, Mitigation Measures V-1 and V-2 would ensure that, in the event that prehistoric resources are discovered within the project site, such resources would be protected in compliance with the requirements of CEQA and other State standards.

Considering the above, with implementation of the mitigation measures included herein, the proposed project would not degrade the quality of the environment, substantially reduce or impact the habitat of fish or wildlife species, cause fish or wildlife populations to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory. Therefore, a **less-than-significant** impact with mitigation incorporated would occur.

- b. The proposed project, in conjunction with other development within the City of Lakeport, could incrementally contribute to cumulative impacts in the area. However, as demonstrated in this IS/MND, all potential environmental impacts that could occur as a result of project implementation would be reduced to a less-than-significant level through compliance with the mitigation measures included in this IS/MND, as well as applicable General Plan policies, Municipal Code standards, and other applicable local and State regulations.

Therefore, when viewed in conjunction with other closely related past, present, or reasonably foreseeable future projects, development of the proposed project would not result in a cumulatively considerable contribution to cumulative impacts in the City of

Lakeport, and the project's incremental contribution to cumulative impacts would be ***less than significant*** with mitigation incorporated.

- c. As described in this IS/MND, the proposed project would comply with all applicable General Plan policies, Municipal Code standards, other applicable local and State regulations, in addition to the mitigation measures included herein. Additionally, as discussed in Section III, Air Quality, Section IX, Hazards and Hazardous Materials, and Section XIII, Noise, of this IS/MND, the proposed project would not cause substantial effects to human beings, including effects related to exposure to air pollutants, and hazardous materials. Therefore, the proposed project would result in a ***less-than-significant*** impact with mitigation incorporated.

## **APPENDIX A**

### **AIR QUALITY AND GHG MODELING RESULTS**

## Martin Street Apartments Project - Lake County AQMD Air District, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied****Martin Street Apartments Project****Lake County AQMD Air District, Annual****1.0 Project Characteristics****1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	81.00	Space	0.73	32,400.00	0
Apartment Mid Rise	40.00	Dwelling Unit	3.57	40,169.00	114

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.2	<b>Precipitation Freq (Days)</b>	67
<b>Climate Zone</b>	1			<b>Operational Year</b>	2024
<b>Utility Company</b>	Pacific Gas and Electric Company				
<b>CO2 Intensity (lb/MWhr)</b>	203.98	<b>CH4 Intensity (lb/MWhr)</b>	0.033	<b>N2O Intensity (lb/MWhr)</b>	0.004

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

Project Characteristics -

Land Use - Building square footage based on site plan prepared for the proposed project, acreage based on AQ questionnaire.

Construction Phase - Construction phase timing based on applicant provided AQ questionnaire. Architectural coating assumed to begin two weeks after building construction, and last for the duration of construction.

Off-road Equipment -

Off-road Equipment -

Off-road Equipment - left as defaults.

Off-road Equipment -

Trips and VMT -

Grading -

Mobile Land Use Mitigation - Information based on applicant provided AQ questionnaire. Bus stop located along Martin Street, directly in front of the Bella Vista Apartments.

## Martin Street Apartments Project - Lake County AQMD Air District, Annual

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

Energy Mitigation -

Water Mitigation - Compliant with MWELO.

Area Mitigation -

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	18.00	260.00
tblConstructionPhase	NumDays	230.00	260.00
tblConstructionPhase	NumDays	8.00	30.00
tblConstructionPhase	NumDays	18.00	5.00
tblConstructionPhase	NumDays	5.00	30.00
tblLandUse	LandUseSquareFeet	40,000.00	40,169.00
tblLandUse	LotAcreage	1.05	3.57

**2.0 Emissions Summary**

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## Martin Street Apartments Project - Lake County AQMD Air District, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied****2.1 Overall Construction****Unmitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2023	0.3916	1.5131	1.5352	2.8500e-003	0.4289	0.0697	0.4986	0.2104	0.0651	0.2754	0.0000	249.7907	249.7907	0.0592	2.3700e-003	251.9749
2024	0.5839	1.2582	1.6251	2.9100e-003	0.0376	0.0554	0.0930	0.0101	0.0525	0.0626	0.0000	253.8702	253.8702	0.0470	3.5200e-003	256.0933
<b>Maximum</b>	<b>0.5839</b>	<b>1.5131</b>	<b>1.6251</b>	<b>2.9100e-003</b>	<b>0.4289</b>	<b>0.0697</b>	<b>0.4986</b>	<b>0.2104</b>	<b>0.0651</b>	<b>0.2754</b>	<b>0.0000</b>	<b>253.8702</b>	<b>253.8702</b>	<b>0.0592</b>	<b>3.5200e-003</b>	<b>256.0933</b>

**Mitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2023	0.3916	1.5131	1.5352	2.8500e-003	0.4289	0.0697	0.4986	0.2104	0.0651	0.2754	0.0000	249.7904	249.7904	0.0592	2.3700e-003	251.9747
2024	0.5839	1.2582	1.6251	2.9100e-003	0.0376	0.0554	0.0930	0.0101	0.0525	0.0626	0.0000	253.8700	253.8700	0.0470	3.5200e-003	256.0931
<b>Maximum</b>	<b>0.5839</b>	<b>1.5131</b>	<b>1.6251</b>	<b>2.9100e-003</b>	<b>0.4289</b>	<b>0.0697</b>	<b>0.4986</b>	<b>0.2104</b>	<b>0.0651</b>	<b>0.2754</b>	<b>0.0000</b>	<b>253.8700</b>	<b>253.8700</b>	<b>0.0592</b>	<b>3.5200e-003</b>	<b>256.0931</b>



## Martin Street Apartments Project - Lake County AQMD Air District, Annual

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	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)
1	5-1-2023	7-31-2023	0.7616	0.7616
2	8-1-2023	10-31-2023	0.6155	0.6155
3	11-1-2023	1-31-2024	0.7625	0.7625
4	2-1-2024	4-30-2024	0.7194	0.7194
5	5-1-2024	7-31-2024	0.7336	0.7336
6	8-1-2024	9-30-2024	0.1356	0.1356
		Highest	0.7625	0.7625

## Martin Street Apartments Project - Lake County AQMD Air District, Annual

**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	tons/yr										MT/yr					
Area	2.7418	0.0524	3.3958	5.6300e-003		0.4360	0.4360		0.4360	0.4360	41.3183	17.8149	59.1332	0.0386	3.2500e-003	61.0667
Energy	8.2000e-004	6.9700e-003	2.9700e-003	4.0000e-005		5.6000e-004	5.6000e-004		5.6000e-004	5.6000e-004	0.0000	23.8227	23.8227	2.7000e-003	4.6000e-004	24.0264
Mobile	0.1888	0.2633	1.5441	2.3600e-003	0.2188	2.8000e-003	0.2216	0.0586	2.6300e-003	0.0612	0.0000	220.8252	220.8252	0.0181	0.0130	225.1479
Waste						0.0000	0.0000		0.0000	0.0000	3.7350	0.0000	3.7350	0.2207	0.0000	9.2534
Water						0.0000	0.0000		0.0000	0.0000	0.8268	1.8368	2.6636	0.0852	2.0400e-003	5.4024
<b>Total</b>	<b>2.9314</b>	<b>0.3227</b>	<b>4.9428</b>	<b>8.0300e-003</b>	<b>0.2188</b>	<b>0.4394</b>	<b>0.6582</b>	<b>0.0586</b>	<b>0.4392</b>	<b>0.4978</b>	<b>45.8802</b>	<b>264.2996</b>	<b>310.1797</b>	<b>0.3654</b>	<b>0.0187</b>	<b>324.8967</b>

## Martin Street Apartments Project - Lake County AQMD Air District, Annual

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

## 2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.2319	3.4300e-003	0.2976	2.0000e-005		1.6500e-003	1.6500e-003		1.6500e-003	1.6500e-003	0.0000	0.4866	0.4866	4.7000e-004	0.0000	0.4983
Energy	8.2000e-004	6.9700e-003	2.9700e-003	4.0000e-005		5.6000e-004	5.6000e-004		5.6000e-004	5.6000e-004	0.0000	23.8227	23.8227	2.7000e-003	4.6000e-004	24.0264
Mobile	0.1795	0.2381	1.4026	2.1100e-003	0.1949	2.5100e-003	0.1975	0.0522	2.3600e-003	0.0546	0.0000	197.3206	197.3206	0.0168	0.0118	201.2669
Waste						0.0000	0.0000		0.0000	0.0000	3.7350	0.0000	3.7350	0.2207	0.0000	9.2534
Water						0.0000	0.0000		0.0000	0.0000	0.8268	1.7304	2.5572	0.0852	2.0400e-003	5.2949
<b>Total</b>	<b>0.4122</b>	<b>0.2485</b>	<b>1.7032</b>	<b>2.1700e-003</b>	<b>0.1949</b>	<b>4.7200e-003</b>	<b>0.1997</b>	<b>0.0522</b>	<b>4.5700e-003</b>	<b>0.0568</b>	<b>4.5618</b>	<b>223.3603</b>	<b>227.9221</b>	<b>0.3259</b>	<b>0.0143</b>	<b>240.3400</b>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
<b>Percent Reduction</b>	<b>85.94</b>	<b>22.99</b>	<b>65.54</b>	<b>72.98</b>	<b>10.90</b>	<b>98.93</b>	<b>69.66</b>	<b>10.90</b>	<b>98.96</b>	<b>88.59</b>	<b>90.06</b>	<b>15.49</b>	<b>26.52</b>	<b>10.79</b>	<b>23.53</b>	<b>26.03</b>

## 3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	5/1/2023	6/9/2023	5	30	
2	Grading	Grading	6/10/2023	7/21/2023	5	30	
3	Paving	Paving	7/22/2023	7/28/2023	5	5	

## Martin Street Apartments Project - Lake County AQMD Air District, Annual

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

4	Building Construction	Building Construction	8/16/2023	8/13/2024	5	260
5	Architectural Coating	Architectural Coating	8/30/2023	8/27/2024	5	260

**Acres of Grading (Site Preparation Phase): 45****Acres of Grading (Grading Phase): 30****Acres of Paving: 0.73****Residential Indoor: 81,342; Residential Outdoor: 27,114; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 1,944 (Architectural Coating – sqft)****OffRoad Equipment**

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	1	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Paving	Cement and Mortar Mixers	2	6.00	9	0.56
Paving	Cranes	0		231	0.29
Paving	Forklifts	0		89	0.20
Paving	Generator Sets	0		84	0.74
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
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Paving	Welders	0		46	0.45
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20

## Martin Street Apartments Project - Lake County AQMD Air District, Annual

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

Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Architectural Coating	Air Compressors	1	6.00	78	0.48

**Trips and VMT**

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	9	23.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	9	23.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	42.00	10.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	8.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

**3.1 Mitigation Measures Construction**

## Martin Street Apartments Project - Lake County AQMD Air District, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied****3.2 Site Preparation - 2023****Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.2949	0.0000	0.2949	0.1515	0.0000	0.1515	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0399	0.4129	0.2737	5.7000e-004		0.0190	0.0190		0.0175	0.0175	0.0000	50.1760	50.1760	0.0162	0.0000	50.5817
<b>Total</b>	<b>0.0399</b>	<b>0.4129</b>	<b>0.2737</b>	<b>5.7000e-004</b>	<b>0.2949</b>	<b>0.0190</b>	<b>0.3139</b>	<b>0.1515</b>	<b>0.0175</b>	<b>0.1690</b>	<b>0.0000</b>	<b>50.1760</b>	<b>50.1760</b>	<b>0.0162</b>	<b>0.0000</b>	<b>50.5817</b>

**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	1.7400e-003	1.1000e-003	0.0108	2.0000e-005	2.1300e-003	2.0000e-005	2.1500e-003	5.7000e-004	1.0000e-005	5.8000e-004	0.0000	1.8449	1.8449	9.0000e-005	8.0000e-005	1.8702
<b>Total</b>	<b>1.7400e-003</b>	<b>1.1000e-003</b>	<b>0.0108</b>	<b>2.0000e-005</b>	<b>2.1300e-003</b>	<b>2.0000e-005</b>	<b>2.1500e-003</b>	<b>5.7000e-004</b>	<b>1.0000e-005</b>	<b>5.8000e-004</b>	<b>0.0000</b>	<b>1.8449</b>	<b>1.8449</b>	<b>9.0000e-005</b>	<b>8.0000e-005</b>	<b>1.8702</b>



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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied****3.2 Site Preparation - 2023****Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.2949	0.0000	0.2949	0.1515	0.0000	0.1515	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0399	0.4129	0.2737	5.7000e-004		0.0190	0.0190		0.0175	0.0175	0.0000	50.1760	50.1760	0.0162	0.0000	50.5817
<b>Total</b>	<b>0.0399</b>	<b>0.4129</b>	<b>0.2737</b>	<b>5.7000e-004</b>	<b>0.2949</b>	<b>0.0190</b>	<b>0.3139</b>	<b>0.1515</b>	<b>0.0175</b>	<b>0.1690</b>	<b>0.0000</b>	<b>50.1760</b>	<b>50.1760</b>	<b>0.0162</b>	<b>0.0000</b>	<b>50.5817</b>

**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	1.7400e-003	1.1000e-003	0.0108	2.0000e-005	2.1300e-003	2.0000e-005	2.1500e-003	5.7000e-004	1.0000e-005	5.8000e-004	0.0000	1.8449	1.8449	9.0000e-005	8.0000e-005	1.8702
<b>Total</b>	<b>1.7400e-003</b>	<b>1.1000e-003</b>	<b>0.0108</b>	<b>2.0000e-005</b>	<b>2.1300e-003</b>	<b>2.0000e-005</b>	<b>2.1500e-003</b>	<b>5.7000e-004</b>	<b>1.0000e-005</b>	<b>5.8000e-004</b>	<b>0.0000</b>	<b>1.8449</b>	<b>1.8449</b>	<b>9.0000e-005</b>	<b>8.0000e-005</b>	<b>1.8702</b>

## Martin Street Apartments Project - Lake County AQMD Air District, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied****3.3 Grading - 2023****Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1062	0.0000	0.1062	0.0514	0.0000	0.0514	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0257	0.2690	0.2213	4.4000e-004		0.0116	0.0116		0.0107	0.0107	0.0000	39.0909	39.0909	0.0126	0.0000	39.4070
<b>Total</b>	<b>0.0257</b>	<b>0.2690</b>	<b>0.2213</b>	<b>4.4000e-004</b>	<b>0.1062</b>	<b>0.0116</b>	<b>0.1179</b>	<b>0.0514</b>	<b>0.0107</b>	<b>0.0621</b>	<b>0.0000</b>	<b>39.0909</b>	<b>39.0909</b>	<b>0.0126</b>	<b>0.0000</b>	<b>39.4070</b>

**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	1.4500e-003	9.2000e-004	9.0000e-003	2.0000e-005	1.7700e-003	1.0000e-005	1.7900e-003	4.7000e-004	1.0000e-005	4.8000e-004	0.0000	1.5374	1.5374	8.0000e-005	6.0000e-005	1.5585
<b>Total</b>	<b>1.4500e-003</b>	<b>9.2000e-004</b>	<b>9.0000e-003</b>	<b>2.0000e-005</b>	<b>1.7700e-003</b>	<b>1.0000e-005</b>	<b>1.7900e-003</b>	<b>4.7000e-004</b>	<b>1.0000e-005</b>	<b>4.8000e-004</b>	<b>0.0000</b>	<b>1.5374</b>	<b>1.5374</b>	<b>8.0000e-005</b>	<b>6.0000e-005</b>	<b>1.5585</b>

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied****3.3 Grading - 2023****Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1062	0.0000	0.1062	0.0514	0.0000	0.0514	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0257	0.2690	0.2213	4.4000e-004		0.0116	0.0116		0.0107	0.0107	0.0000	39.0909	39.0909	0.0126	0.0000	39.4069
<b>Total</b>	<b>0.0257</b>	<b>0.2690</b>	<b>0.2213</b>	<b>4.4000e-004</b>	<b>0.1062</b>	<b>0.0116</b>	<b>0.1179</b>	<b>0.0514</b>	<b>0.0107</b>	<b>0.0621</b>	<b>0.0000</b>	<b>39.0909</b>	<b>39.0909</b>	<b>0.0126</b>	<b>0.0000</b>	<b>39.4069</b>

**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	1.4500e-003	9.2000e-004	9.0000e-003	2.0000e-005	1.7700e-003	1.0000e-005	1.7900e-003	4.7000e-004	1.0000e-005	4.8000e-004	0.0000	1.5374	1.5374	8.0000e-005	6.0000e-005	1.5585
<b>Total</b>	<b>1.4500e-003</b>	<b>9.2000e-004</b>	<b>9.0000e-003</b>	<b>2.0000e-005</b>	<b>1.7700e-003</b>	<b>1.0000e-005</b>	<b>1.7900e-003</b>	<b>4.7000e-004</b>	<b>1.0000e-005</b>	<b>4.8000e-004</b>	<b>0.0000</b>	<b>1.5374</b>	<b>1.5374</b>	<b>8.0000e-005</b>	<b>6.0000e-005</b>	<b>1.5585</b>

## Martin Street Apartments Project - Lake County AQMD Air District, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied****3.4 Paving - 2023****Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	2.6700e-003	0.0258	0.0361	6.0000e-005		1.2800e-003	1.2800e-003		1.1800e-003	1.1800e-003	0.0000	4.7786	4.7786	1.5100e-003	0.0000	4.8163
Paving	9.6000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>3.6300e-003</b>	<b>0.0258</b>	<b>0.0361</b>	<b>6.0000e-005</b>		<b>1.2800e-003</b>	<b>1.2800e-003</b>		<b>1.1800e-003</b>	<b>1.1800e-003</b>	<b>0.0000</b>	<b>4.7786</b>	<b>4.7786</b>	<b>1.5100e-003</b>	<b>0.0000</b>	<b>4.8163</b>

**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	7.4000e-004	4.7000e-004	4.6000e-003	1.0000e-005	1.6900e-003	1.0000e-005	1.7000e-003	4.3000e-004	1.0000e-005	4.4000e-004	0.0000	0.7858	0.7858	4.0000e-005	3.0000e-005	0.7966
<b>Total</b>	<b>7.4000e-004</b>	<b>4.7000e-004</b>	<b>4.6000e-003</b>	<b>1.0000e-005</b>	<b>1.6900e-003</b>	<b>1.0000e-005</b>	<b>1.7000e-003</b>	<b>4.3000e-004</b>	<b>1.0000e-005</b>	<b>4.4000e-004</b>	<b>0.0000</b>	<b>0.7858</b>	<b>0.7858</b>	<b>4.0000e-005</b>	<b>3.0000e-005</b>	<b>0.7966</b>

## Martin Street Apartments Project - Lake County AQMD Air District, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied****3.4 Paving - 2023****Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	2.6700e-003	0.0258	0.0361	6.0000e-005		1.2800e-003	1.2800e-003		1.1800e-003	1.1800e-003	0.0000	4.7786	4.7786	1.5100e-003	0.0000	4.8163
Paving	9.6000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>3.6300e-003</b>	<b>0.0258</b>	<b>0.0361</b>	<b>6.0000e-005</b>		<b>1.2800e-003</b>	<b>1.2800e-003</b>		<b>1.1800e-003</b>	<b>1.1800e-003</b>	<b>0.0000</b>	<b>4.7786</b>	<b>4.7786</b>	<b>1.5100e-003</b>	<b>0.0000</b>	<b>4.8163</b>

**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	7.4000e-004	4.7000e-004	4.6000e-003	1.0000e-005	1.6900e-003	1.0000e-005	1.7000e-003	4.3000e-004	1.0000e-005	4.4000e-004	0.0000	0.7858	0.7858	4.0000e-005	3.0000e-005	0.7966
<b>Total</b>	<b>7.4000e-004</b>	<b>4.7000e-004</b>	<b>4.6000e-003</b>	<b>1.0000e-005</b>	<b>1.6900e-003</b>	<b>1.0000e-005</b>	<b>1.7000e-003</b>	<b>4.3000e-004</b>	<b>1.0000e-005</b>	<b>4.4000e-004</b>	<b>0.0000</b>	<b>0.7858</b>	<b>0.7858</b>	<b>4.0000e-005</b>	<b>3.0000e-005</b>	<b>0.7966</b>

## Martin Street Apartments Project - Lake County AQMD Air District, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied****3.5 Building Construction - 2023****Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0771	0.7049	0.7960	1.3200e-003		0.0343	0.0343		0.0323	0.0323	0.0000	113.5843	113.5843	0.0270	0.0000	114.2598
<b>Total</b>	<b>0.0771</b>	<b>0.7049</b>	<b>0.7960</b>	<b>1.3200e-003</b>		<b>0.0343</b>	<b>0.0343</b>		<b>0.0323</b>	<b>0.0323</b>	<b>0.0000</b>	<b>113.5843</b>	<b>113.5843</b>	<b>0.0270</b>	<b>0.0000</b>	<b>114.2598</b>

**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	9.9000e-004	0.0309	7.7800e-003	1.1000e-004	3.2000e-003	1.8000e-004	3.3900e-003	9.3000e-004	1.7000e-004	1.1000e-003	0.0000	10.2915	10.2915	4.0000e-005	1.5000e-003	10.7401
Worker	0.0133	8.3900e-003	0.0823	1.5000e-004	0.0162	1.2000e-004	0.0164	4.3200e-003	1.1000e-004	4.4300e-003	0.0000	14.0619	14.0619	7.1000e-004	5.9000e-004	14.2553
<b>Total</b>	<b>0.0143</b>	<b>0.0393</b>	<b>0.0901</b>	<b>2.6000e-004</b>	<b>0.0194</b>	<b>3.0000e-004</b>	<b>0.0197</b>	<b>5.2500e-003</b>	<b>2.8000e-004</b>	<b>5.5300e-003</b>	<b>0.0000</b>	<b>24.3533</b>	<b>24.3533</b>	<b>7.5000e-004</b>	<b>2.0900e-003</b>	<b>24.9954</b>



## Martin Street Apartments Project - Lake County AQMD Air District, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied****3.5 Building Construction - 2023****Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0771	0.7049	0.7960	1.3200e-003		0.0343	0.0343		0.0323	0.0323	0.0000	113.5842	113.5842	0.0270	0.0000	114.2597
<b>Total</b>	<b>0.0771</b>	<b>0.7049</b>	<b>0.7960</b>	<b>1.3200e-003</b>		<b>0.0343</b>	<b>0.0343</b>		<b>0.0323</b>	<b>0.0323</b>	<b>0.0000</b>	<b>113.5842</b>	<b>113.5842</b>	<b>0.0270</b>	<b>0.0000</b>	<b>114.2597</b>

**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	9.9000e-004	0.0309	7.7800e-003	1.1000e-004	3.2000e-003	1.8000e-004	3.3900e-003	9.3000e-004	1.7000e-004	1.1000e-003	0.0000	10.2915	10.2915	4.0000e-005	1.5000e-003	10.7401
Worker	0.0133	8.3900e-003	0.0823	1.5000e-004	0.0162	1.2000e-004	0.0164	4.3200e-003	1.1000e-004	4.4300e-003	0.0000	14.0619	14.0619	7.1000e-004	5.9000e-004	14.2553
<b>Total</b>	<b>0.0143</b>	<b>0.0393</b>	<b>0.0901</b>	<b>2.6000e-004</b>	<b>0.0194</b>	<b>3.0000e-004</b>	<b>0.0197</b>	<b>5.2500e-003</b>	<b>2.8000e-004</b>	<b>5.5300e-003</b>	<b>0.0000</b>	<b>24.3533</b>	<b>24.3533</b>	<b>7.5000e-004</b>	<b>2.0900e-003</b>	<b>24.9954</b>

## Martin Street Apartments Project - Lake County AQMD Air District, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied****3.5 Building Construction - 2024****Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1192	1.0890	1.3095	2.1800e-003		0.0497	0.0497		0.0467	0.0467	0.0000	187.7978	187.7978	0.0444	0.0000	188.9080
<b>Total</b>	<b>0.1192</b>	<b>1.0890</b>	<b>1.3095</b>	<b>2.1800e-003</b>		<b>0.0497</b>	<b>0.0497</b>		<b>0.0467</b>	<b>0.0467</b>	<b>0.0000</b>	<b>187.7978</b>	<b>187.7978</b>	<b>0.0444</b>	<b>0.0000</b>	<b>188.9080</b>

**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	1.5100e-003	0.0498	0.0122	1.8000e-004	5.3000e-003	2.9000e-004	5.5900e-003	1.5300e-003	2.8000e-004	1.8100e-003	0.0000	16.8171	16.8171	6.0000e-005	2.4500e-003	17.5491
Worker	0.0204	0.0122	0.1229	2.4000e-004	0.0268	1.8000e-004	0.0270	7.1400e-003	1.7000e-004	7.3100e-003	0.0000	22.7056	22.7056	1.0600e-003	8.9000e-004	22.9967
<b>Total</b>	<b>0.0219</b>	<b>0.0620</b>	<b>0.1350</b>	<b>4.2000e-004</b>	<b>0.0321</b>	<b>4.7000e-004</b>	<b>0.0326</b>	<b>8.6700e-003</b>	<b>4.5000e-004</b>	<b>9.1200e-003</b>	<b>0.0000</b>	<b>39.5226</b>	<b>39.5226</b>	<b>1.1200e-003</b>	<b>3.3400e-003</b>	<b>40.5457</b>

## Martin Street Apartments Project - Lake County AQMD Air District, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied****3.5 Building Construction - 2024****Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1192	1.0889	1.3095	2.1800e-003		0.0497	0.0497		0.0467	0.0467	0.0000	187.7976	187.7976	0.0444	0.0000	188.9078
<b>Total</b>	<b>0.1192</b>	<b>1.0889</b>	<b>1.3095</b>	<b>2.1800e-003</b>		<b>0.0497</b>	<b>0.0497</b>		<b>0.0467</b>	<b>0.0467</b>	<b>0.0000</b>	<b>187.7976</b>	<b>187.7976</b>	<b>0.0444</b>	<b>0.0000</b>	<b>188.9078</b>

**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	1.5100e-003	0.0498	0.0122	1.8000e-004	5.3000e-003	2.9000e-004	5.5900e-003	1.5300e-003	2.8000e-004	1.8100e-003	0.0000	16.8171	16.8171	6.0000e-005	2.4500e-003	17.5491
Worker	0.0204	0.0122	0.1229	2.4000e-004	0.0268	1.8000e-004	0.0270	7.1400e-003	1.7000e-004	7.3100e-003	0.0000	22.7056	22.7056	1.0600e-003	8.9000e-004	22.9967
<b>Total</b>	<b>0.0219</b>	<b>0.0620</b>	<b>0.1350</b>	<b>4.2000e-004</b>	<b>0.0321</b>	<b>4.7000e-004</b>	<b>0.0326</b>	<b>8.6700e-003</b>	<b>4.5000e-004</b>	<b>9.1200e-003</b>	<b>0.0000</b>	<b>39.5226</b>	<b>39.5226</b>	<b>1.1200e-003</b>	<b>3.3400e-003</b>	<b>40.5457</b>

## Martin Street Apartments Project - Lake County AQMD Air District, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied****3.6 Architectural Coating - 2023****Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.2165					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	8.4300e-003	0.0573	0.0797	1.3000e-004		3.1200e-003	3.1200e-003		3.1200e-003	3.1200e-003	0.0000	11.2343	11.2343	6.7000e-004	0.0000	11.2511
<b>Total</b>	<b>0.2249</b>	<b>0.0573</b>	<b>0.0797</b>	<b>1.3000e-004</b>		<b>3.1200e-003</b>	<b>3.1200e-003</b>		<b>3.1200e-003</b>	<b>3.1200e-003</b>	<b>0.0000</b>	<b>11.2343</b>	<b>11.2343</b>	<b>6.7000e-004</b>	<b>0.0000</b>	<b>11.2511</b>

**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	2.2700e-003	1.4300e-003	0.0141	3.0000e-005	2.7800e-003	2.0000e-005	2.8000e-003	7.4000e-004	2.0000e-005	7.6000e-004	0.0000	2.4051	2.4051	1.2000e-004	1.0000e-004	2.4382
<b>Total</b>	<b>2.2700e-003</b>	<b>1.4300e-003</b>	<b>0.0141</b>	<b>3.0000e-005</b>	<b>2.7800e-003</b>	<b>2.0000e-005</b>	<b>2.8000e-003</b>	<b>7.4000e-004</b>	<b>2.0000e-005</b>	<b>7.6000e-004</b>	<b>0.0000</b>	<b>2.4051</b>	<b>2.4051</b>	<b>1.2000e-004</b>	<b>1.0000e-004</b>	<b>2.4382</b>

## Martin Street Apartments Project - Lake County AQMD Air District, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied****3.6 Architectural Coating - 2023****Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.2165					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	8.4300e-003	0.0573	0.0797	1.3000e-004		3.1200e-003	3.1200e-003		3.1200e-003	3.1200e-003	0.0000	11.2343	11.2343	6.7000e-004	0.0000	11.2511
<b>Total</b>	<b>0.2249</b>	<b>0.0573</b>	<b>0.0797</b>	<b>1.3000e-004</b>		<b>3.1200e-003</b>	<b>3.1200e-003</b>		<b>3.1200e-003</b>	<b>3.1200e-003</b>	<b>0.0000</b>	<b>11.2343</b>	<b>11.2343</b>	<b>6.7000e-004</b>	<b>0.0000</b>	<b>11.2511</b>

**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	2.2700e-003	1.4300e-003	0.0141	3.0000e-005	2.7800e-003	2.0000e-005	2.8000e-003	7.4000e-004	2.0000e-005	7.6000e-004	0.0000	2.4051	2.4051	1.2000e-004	1.0000e-004	2.4382
<b>Total</b>	<b>2.2700e-003</b>	<b>1.4300e-003</b>	<b>0.0141</b>	<b>3.0000e-005</b>	<b>2.7800e-003</b>	<b>2.0000e-005</b>	<b>2.8000e-003</b>	<b>7.4000e-004</b>	<b>2.0000e-005</b>	<b>7.6000e-004</b>	<b>0.0000</b>	<b>2.4051</b>	<b>2.4051</b>	<b>1.2000e-004</b>	<b>1.0000e-004</b>	<b>2.4382</b>

## Martin Street Apartments Project - Lake County AQMD Air District, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied****3.6 Architectural Coating - 2024****Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.4231					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0156	0.1048	0.1557	2.6000e-004		5.2400e-003	5.2400e-003		5.2400e-003	5.2400e-003	0.0000	21.9580	21.9580	1.2400e-003	0.0000	21.9889
<b>Total</b>	<b>0.4387</b>	<b>0.1048</b>	<b>0.1557</b>	<b>2.6000e-004</b>		<b>5.2400e-003</b>	<b>5.2400e-003</b>		<b>5.2400e-003</b>	<b>5.2400e-003</b>	<b>0.0000</b>	<b>21.9580</b>	<b>21.9580</b>	<b>1.2400e-003</b>	<b>0.0000</b>	<b>21.9889</b>

**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	4.1300e-003	2.4700e-003	0.0249	5.0000e-005	5.4300e-003	4.0000e-005	5.4600e-003	1.4400e-003	3.0000e-005	1.4800e-003	0.0000	4.5918	4.5918	2.1000e-004	1.8000e-004	4.6507
<b>Total</b>	<b>4.1300e-003</b>	<b>2.4700e-003</b>	<b>0.0249</b>	<b>5.0000e-005</b>	<b>5.4300e-003</b>	<b>4.0000e-005</b>	<b>5.4600e-003</b>	<b>1.4400e-003</b>	<b>3.0000e-005</b>	<b>1.4800e-003</b>	<b>0.0000</b>	<b>4.5918</b>	<b>4.5918</b>	<b>2.1000e-004</b>	<b>1.8000e-004</b>	<b>4.6507</b>

## Martin Street Apartments Project - Lake County AQMD Air District, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied****3.6 Architectural Coating - 2024****Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.4231					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0156	0.1048	0.1557	2.6000e-004		5.2400e-003	5.2400e-003		5.2400e-003	5.2400e-003	0.0000	21.9580	21.9580	1.2400e-003	0.0000	21.9889
<b>Total</b>	<b>0.4387</b>	<b>0.1048</b>	<b>0.1557</b>	<b>2.6000e-004</b>		<b>5.2400e-003</b>	<b>5.2400e-003</b>		<b>5.2400e-003</b>	<b>5.2400e-003</b>	<b>0.0000</b>	<b>21.9580</b>	<b>21.9580</b>	<b>1.2400e-003</b>	<b>0.0000</b>	<b>21.9889</b>

**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	4.1300e-003	2.4700e-003	0.0249	5.0000e-005	5.4300e-003	4.0000e-005	5.4600e-003	1.4400e-003	3.0000e-005	1.4800e-003	0.0000	4.5918	4.5918	2.1000e-004	1.8000e-004	4.6507
<b>Total</b>	<b>4.1300e-003</b>	<b>2.4700e-003</b>	<b>0.0249</b>	<b>5.0000e-005</b>	<b>5.4300e-003</b>	<b>4.0000e-005</b>	<b>5.4600e-003</b>	<b>1.4400e-003</b>	<b>3.0000e-005</b>	<b>1.4800e-003</b>	<b>0.0000</b>	<b>4.5918</b>	<b>4.5918</b>	<b>2.1000e-004</b>	<b>1.8000e-004</b>	<b>4.6507</b>



## Martin Street Apartments Project - Lake County AQMD Air District, 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**

Increase Transit Accessibility

Improve Pedestrian Network

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	0.1795	0.2381	1.4026	2.1100e-003	0.1949	2.5100e-003	0.1975	0.0522	2.3600e-003	0.0546	0.0000	197.3206	197.3206	0.0168	0.0118	201.2669
Unmitigated	0.1888	0.2633	1.5441	2.3600e-003	0.2188	2.8000e-003	0.2216	0.0586	2.6300e-003	0.0612	0.0000	220.8252	220.8252	0.0181	0.0130	225.1479

**4.2 Trip Summary Information**

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	217.60	196.40	163.60	592,077	527,540
Parking Lot	0.00	0.00	0.00		
Total	217.60	196.40	163.60	592,077	527,540

**4.3 Trip Type Information**

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Mid Rise	10.80	7.30	7.50	42.30	19.60	38.10	86	11	3
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

## Martin Street Apartments Project - Lake County AQMD Air District, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied****4.4 Fleet Mix**

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Mid Rise	0.464659	0.064863	0.191817	0.155973	0.051760	0.009603	0.008536	0.006240	0.000416	0.000000	0.037661	0.001217	0.007255
Parking Lot	0.464659	0.064863	0.191817	0.155973	0.051760	0.009603	0.008536	0.006240	0.000416	0.000000	0.037661	0.001217	0.007255

**5.0 Energy Detail**

Historical Energy Use: N

**5.1 Mitigation Measures Energy**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	15.7511	15.7511	2.5500e-003	3.1000e-004	15.9069
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	15.7511	15.7511	2.5500e-003	3.1000e-004	15.9069
NaturalGas Mitigated	8.2000e-004	6.9700e-003	2.9700e-003	4.0000e-005		5.6000e-004	5.6000e-004		5.6000e-004	5.6000e-004	0.0000	8.0716	8.0716	1.5000e-004	1.5000e-004	8.1196
NaturalGas Unmitigated	8.2000e-004	6.9700e-003	2.9700e-003	4.0000e-005		5.6000e-004	5.6000e-004		5.6000e-004	5.6000e-004	0.0000	8.0716	8.0716	1.5000e-004	1.5000e-004	8.1196

## Martin Street Apartments Project - Lake County AQMD Air District, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied****5.2 Energy by Land Use - NaturalGas****Unmitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Mid Rise	151256	8.2000e-004	6.9700e-003	2.9700e-003	4.0000e-005		5.6000e-004	5.6000e-004		5.6000e-004	5.6000e-004	0.0000	8.0716	8.0716	1.5000e-004	1.5000e-004	8.1196
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>8.2000e-004</b>	<b>6.9700e-003</b>	<b>2.9700e-003</b>	<b>4.0000e-005</b>		<b>5.6000e-004</b>	<b>5.6000e-004</b>		<b>5.6000e-004</b>	<b>5.6000e-004</b>	<b>0.0000</b>	<b>8.0716</b>	<b>8.0716</b>	<b>1.5000e-004</b>	<b>1.5000e-004</b>	<b>8.1196</b>

**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	151256	8.2000e-004	6.9700e-003	2.9700e-003	4.0000e-005		5.6000e-004	5.6000e-004		5.6000e-004	5.6000e-004	0.0000	8.0716	8.0716	1.5000e-004	1.5000e-004	8.1196
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>8.2000e-004</b>	<b>6.9700e-003</b>	<b>2.9700e-003</b>	<b>4.0000e-005</b>		<b>5.6000e-004</b>	<b>5.6000e-004</b>		<b>5.6000e-004</b>	<b>5.6000e-004</b>	<b>0.0000</b>	<b>8.0716</b>	<b>8.0716</b>	<b>1.5000e-004</b>	<b>1.5000e-004</b>	<b>8.1196</b>

## Martin Street Apartments Project - Lake County AQMD Air District, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied****5.3 Energy by Land Use - Electricity****Unmitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	158898	14.7019	2.3800e-003	2.9000e-004	14.8473
Parking Lot	11340	1.0492	1.7000e-004	2.0000e-005	1.0596
<b>Total</b>		<b>15.7511</b>	<b>2.5500e-003</b>	<b>3.1000e-004</b>	<b>15.9068</b>

**Mitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	158898	14.7019	2.3800e-003	2.9000e-004	14.8473
Parking Lot	11340	1.0492	1.7000e-004	2.0000e-005	1.0596
<b>Total</b>		<b>15.7511</b>	<b>2.5500e-003</b>	<b>3.1000e-004</b>	<b>15.9068</b>

**6.0 Area Detail**

## Martin Street Apartments Project - Lake County AQMD Air District, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied****6.1 Mitigation Measures Area**

No Hearths Installed

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	0.2319	3.4300e-003	0.2976	2.0000e-005		1.6500e-003	1.6500e-003		1.6500e-003	1.6500e-003	0.0000	0.4866	0.4866	4.7000e-004	0.0000	0.4983
Unmitigated	2.7418	0.0524	3.3958	5.6300e-003		0.4360	0.4360		0.4360	0.4360	41.3183	17.8149	59.1332	0.0386	3.2500e-003	61.0667

## Martin Street Apartments Project - Lake County AQMD Air District, 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	0.0640					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1590					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	2.5099	0.0490	3.0981	5.6100e-003		0.4344	0.4344		0.4344	0.4344	41.3183	17.3283	58.6466	0.0381	3.2500e-003	60.5684
Landscaping	9.0000e-003	3.4300e-003	0.2976	2.0000e-005		1.6500e-003	1.6500e-003		1.6500e-003	1.6500e-003	0.0000	0.4866	0.4866	4.7000e-004	0.0000	0.4983
<b>Total</b>	<b>2.7418</b>	<b>0.0524</b>	<b>3.3958</b>	<b>5.6300e-003</b>		<b>0.4360</b>	<b>0.4360</b>		<b>0.4360</b>	<b>0.4360</b>	<b>41.3183</b>	<b>17.8149</b>	<b>59.1332</b>	<b>0.0386</b>	<b>3.2500e-003</b>	<b>61.0667</b>

## Martin Street Apartments Project - Lake County AQMD Air District, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied****6.2 Area by SubCategory****Mitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0640					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1590					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	9.0000e-003	3.4300e-003	0.2976	2.0000e-005		1.6500e-003	1.6500e-003		1.6500e-003	1.6500e-003	0.0000	0.4866	0.4866	4.7000e-004	0.0000	0.4983
<b>Total</b>	<b>0.2319</b>	<b>3.4300e-003</b>	<b>0.2976</b>	<b>2.0000e-005</b>		<b>1.6500e-003</b>	<b>1.6500e-003</b>		<b>1.6500e-003</b>	<b>1.6500e-003</b>	<b>0.0000</b>	<b>0.4866</b>	<b>0.4866</b>	<b>4.7000e-004</b>	<b>0.0000</b>	<b>0.4983</b>

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

Apply Water Conservation Strategy



## Martin Street Apartments Project - Lake County AQMD Air District, Annual

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

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	2.5572	0.0852	2.0400e-003	5.2949
Unmitigated	2.6636	0.0852	2.0400e-003	5.4024

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

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	2.60616 / 1.64301	2.6636	0.0852	2.0400e-003	5.4024
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>2.6636</b>	<b>0.0852</b>	<b>2.0400e-003</b>	<b>5.4024</b>

## Martin Street Apartments Project - Lake County AQMD Air District, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied****7.2 Water by Land Use****Mitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	2.60616 / 1.31441	2.5572	0.0852	2.0400e-003	5.2949
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>2.5572</b>	<b>0.0852</b>	<b>2.0400e-003</b>	<b>5.2949</b>

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

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	3.7350	0.2207	0.0000	9.2534
Unmitigated	3.7350	0.2207	0.0000	9.2534

## Martin Street Apartments Project - Lake County AQMD Air District, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied****8.2 Waste by Land Use****Unmitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	18.4	3.7350	0.2207	0.0000	9.2534
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>3.7350</b>	<b>0.2207</b>	<b>0.0000</b>	<b>9.2534</b>

**Mitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	18.4	3.7350	0.2207	0.0000	9.2534
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>3.7350</b>	<b>0.2207</b>	<b>0.0000</b>	<b>9.2534</b>

**9.0 Operational Offroad**

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## Martin Street Apartments Project - Lake County AQMD Air District, Annual

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

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

**10.0 Stationary Equipment**

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**Fire Pumps and Emergency Generators**

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

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

Equipment Type	Number
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**11.0 Vegetation**

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## Martin Street Apartments Project - Lake County AQMD Air District, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied****Martin Street Apartments Project  
Lake County AQMD Air District, Summer****1.0 Project Characteristics****1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	81.00	Space	0.73	32,400.00	0
Apartment Mid Rise	40.00	Dwelling Unit	3.57	40,169.00	114

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.2	<b>Precipitation Freq (Days)</b>	67
<b>Climate Zone</b>	1			<b>Operational Year</b>	2024
<b>Utility Company</b>	Pacific Gas and Electric Company				
<b>CO2 Intensity (lb/MWhr)</b>	203.98	<b>CH4 Intensity (lb/MWhr)</b>	0.033	<b>N2O Intensity (lb/MWhr)</b>	0.004

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

Project Characteristics -

Land Use - Building square footage based on site plan prepared for the proposed project, acreage based on AQ questionnaire.

Construction Phase - Construction phase timing based on applicant provided AQ questionnaire. Architectural coating assumed to begin two weeks after building construction, and last for the duration of construction.

Off-road Equipment -

Off-road Equipment -

Off-road Equipment - left as defaults.

Off-road Equipment -

Trips and VMT -

Grading -

Mobile Land Use Mitigation - Information based on applicant provided AQ questionnaire. Bus stop located along Martin Street, directly in front of the Bella Vista Apartments.

## Martin Street Apartments Project - Lake County AQMD Air District, Summer

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

Energy Mitigation -

Water Mitigation - Compliant with MWELO.

Area Mitigation -

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	18.00	260.00
tblConstructionPhase	NumDays	230.00	260.00
tblConstructionPhase	NumDays	8.00	30.00
tblConstructionPhase	NumDays	18.00	5.00
tblConstructionPhase	NumDays	5.00	30.00
tblLandUse	LandUseSquareFeet	40,000.00	40,169.00
tblLandUse	LotAcreage	1.05	3.57

**2.0 Emissions Summary**

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## Martin Street Apartments Project - Lake County AQMD Air District, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied****2.1 Overall Construction (Maximum Daily Emission)****Unmitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2023	7.0498	27.5890	20.3858	0.0395	19.8049	1.2671	21.0720	10.1417	1.1657	11.3074	0.0000	3,831.142 7	3,831.142 7	1.1991	0.0483	3,862.677 6
2024	6.9117	15.4150	20.0847	0.0359	0.4784	0.6805	1.1589	0.1284	0.6437	0.7721	0.0000	3,456.140 1	3,456.140 1	0.6373	0.0466	3,485.946 3
<b>Maximum</b>	<b>7.0498</b>	<b>27.5890</b>	<b>20.3858</b>	<b>0.0395</b>	<b>19.8049</b>	<b>1.2671</b>	<b>21.0720</b>	<b>10.1417</b>	<b>1.1657</b>	<b>11.3074</b>	<b>0.0000</b>	<b>3,831.142 7</b>	<b>3,831.142 7</b>	<b>1.1991</b>	<b>0.0483</b>	<b>3,862.677 6</b>

**Mitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2023	7.0498	27.5890	20.3858	0.0395	19.8049	1.2671	21.0720	10.1417	1.1657	11.3074	0.0000	3,831.142 7	3,831.142 7	1.1991	0.0483	3,862.677 6
2024	6.9117	15.4150	20.0847	0.0359	0.4784	0.6805	1.1589	0.1284	0.6437	0.7721	0.0000	3,456.140 1	3,456.140 1	0.6373	0.0466	3,485.946 3
<b>Maximum</b>	<b>7.0498</b>	<b>27.5890</b>	<b>20.3858</b>	<b>0.0395</b>	<b>19.8049</b>	<b>1.2671</b>	<b>21.0720</b>	<b>10.1417</b>	<b>1.1657</b>	<b>11.3074</b>	<b>0.0000</b>	<b>3,831.142 7</b>	<b>3,831.142 7</b>	<b>1.1991</b>	<b>0.0483</b>	<b>3,862.677 6</b>



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

[illegible]

## Martin Street Apartments Project - Lake County AQMD Air District, 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	62.5373	1.2336	78.8712	0.1371		10.6131	10.6131		10.6131	10.6131	1,110.869 2	471.8422	1,582.711 4	1.0309	0.0874	1,634.522 5
Energy	4.4700e-003	0.0382	0.0163	2.4000e-004		3.0900e-003	3.0900e-003		3.0900e-003	3.0900e-003		48.7529	48.7529	9.3000e-004	8.9000e-004	49.0427
Mobile	1.2328	1.4087	9.0132	0.0142	1.3164	0.0162	1.3326	0.3515	0.0152	0.3667		1,469.535 6	1,469.535 6	0.1084	0.0783	1,495.575 9
<b>Total</b>	<b>63.7746</b>	<b>2.6805</b>	<b>87.9007</b>	<b>0.1516</b>	<b>1.3164</b>	<b>10.6324</b>	<b>11.9489</b>	<b>0.3515</b>	<b>10.6314</b>	<b>10.9830</b>	<b>1,110.869 2</b>	<b>1,990.130 7</b>	<b>3,101.000 0</b>	<b>1.1402</b>	<b>0.1666</b>	<b>3,179.141 1</b>

**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	1.3215	0.0381	3.3069	1.7000e-004		0.0183	0.0183		0.0183	0.0183	0.0000	5.9598	5.9598	5.7500e-003	0.0000	6.1035
Energy	4.4700e-003	0.0382	0.0163	2.4000e-004		3.0900e-003	3.0900e-003		3.0900e-003	3.0900e-003		48.7529	48.7529	9.3000e-004	8.9000e-004	49.0427
Mobile	1.1801	1.2736	8.1527	0.0127	1.1730	0.0145	1.1875	0.3132	0.0137	0.3269		1,312.891 5	1,312.891 5	0.1002	0.0713	1,336.639 1
<b>Total</b>	<b>2.5061</b>	<b>1.3499</b>	<b>11.4759</b>	<b>0.0131</b>	<b>1.1730</b>	<b>0.0359</b>	<b>1.2089</b>	<b>0.3132</b>	<b>0.0351</b>	<b>0.3483</b>	<b>0.0000</b>	<b>1,367.604 2</b>	<b>1,367.604 2</b>	<b>0.1069</b>	<b>0.0722</b>	<b>1,391.785 3</b>

## Martin Street Apartments Project - Lake County AQMD Air District, Summer

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	96.07	49.64	86.94	91.34	10.90	99.66	89.88	10.90	99.67	96.83	100.00	31.28	55.90	90.62	56.67	56.22

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

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	5/1/2023	6/9/2023	5	30	
2	Grading	Grading	6/10/2023	7/21/2023	5	30	
3	Paving	Paving	7/22/2023	7/28/2023	5	5	
4	Building Construction	Building Construction	8/16/2023	8/13/2024	5	260	
5	Architectural Coating	Architectural Coating	8/30/2023	8/27/2024	5	260	

**Acres of Grading (Site Preparation Phase): 45****Acres of Grading (Grading Phase): 30****Acres of Paving: 0.73****Residential Indoor: 81,342; Residential Outdoor: 27,114; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 1,944 (Architectural Coating – sqft)****OffRoad Equipment**

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	1	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37

## Martin Street Apartments Project - Lake County AQMD Air District, Summer

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

Paving	Cement and Mortar Mixers	2	6.00	9	0.56
Paving	Cranes	0		231	0.29
Paving	Forklifts	0		89	0.20
Paving	Generator Sets	0		84	0.74
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
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Paving	Welders	0		46	0.45
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Architectural Coating	Air Compressors	1	6.00	78	0.48

**Trips and VMT**

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	9	23.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	9	23.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	42.00	10.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	8.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

**3.1 Mitigation Measures Construction**

## Martin Street Apartments Project - Lake County AQMD Air District, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied****3.2 Site Preparation - 2023****Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					19.6570	0.0000	19.6570	10.1025	0.0000	10.1025			0.0000			0.0000
Off-Road	2.6595	27.5242	18.2443	0.0381		1.2660	1.2660		1.1647	1.1647		3,687.308 1	3,687.308 1	1.1926		3,717.121 9
<b>Total</b>	<b>2.6595</b>	<b>27.5242</b>	<b>18.2443</b>	<b>0.0381</b>	<b>19.6570</b>	<b>1.2660</b>	<b>20.9230</b>	<b>10.1025</b>	<b>1.1647</b>	<b>11.2672</b>		<b>3,687.308 1</b>	<b>3,687.308 1</b>	<b>1.1926</b>		<b>3,717.121 9</b>

**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	0.1242	0.0648	0.7829	1.4100e-003	0.1479	1.0600e-003	0.1489	0.0392	9.8000e-004	0.0402		143.8346	143.8346	6.5500e-003	5.2300e-003	145.5558
<b>Total</b>	<b>0.1242</b>	<b>0.0648</b>	<b>0.7829</b>	<b>1.4100e-003</b>	<b>0.1479</b>	<b>1.0600e-003</b>	<b>0.1489</b>	<b>0.0392</b>	<b>9.8000e-004</b>	<b>0.0402</b>		<b>143.8346</b>	<b>143.8346</b>	<b>6.5500e-003</b>	<b>5.2300e-003</b>	<b>145.5558</b>

## Martin Street Apartments Project - Lake County AQMD Air District, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied****3.2 Site Preparation - 2023****Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					19.6570	0.0000	19.6570	10.1025	0.0000	10.1025			0.0000			0.0000
Off-Road	2.6595	27.5242	18.2443	0.0381		1.2660	1.2660		1.1647	1.1647	0.0000	3,687.308 1	3,687.308 1	1.1926		3,717.121 9
<b>Total</b>	<b>2.6595</b>	<b>27.5242</b>	<b>18.2443</b>	<b>0.0381</b>	<b>19.6570</b>	<b>1.2660</b>	<b>20.9230</b>	<b>10.1025</b>	<b>1.1647</b>	<b>11.2672</b>	<b>0.0000</b>	<b>3,687.308 1</b>	<b>3,687.308 1</b>	<b>1.1926</b>		<b>3,717.121 9</b>

**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	0.1242	0.0648	0.7829	1.4100e-003	0.1479	1.0600e-003	0.1489	0.0392	9.8000e-004	0.0402		143.8346	143.8346	6.5500e-003	5.2300e-003	145.5558
<b>Total</b>	<b>0.1242</b>	<b>0.0648</b>	<b>0.7829</b>	<b>1.4100e-003</b>	<b>0.1479</b>	<b>1.0600e-003</b>	<b>0.1489</b>	<b>0.0392</b>	<b>9.8000e-004</b>	<b>0.0402</b>		<b>143.8346</b>	<b>143.8346</b>	<b>6.5500e-003</b>	<b>5.2300e-003</b>	<b>145.5558</b>

## Martin Street Apartments Project - Lake County AQMD Air District, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied****3.3 Grading - 2023****Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					7.0826	0.0000	7.0826	3.4247	0.0000	3.4247			0.0000			0.0000
Off-Road	1.7109	17.9359	14.7507	0.0297		0.7749	0.7749		0.7129	0.7129		2,872.6910	2,872.6910	0.9291		2,895.9182
<b>Total</b>	<b>1.7109</b>	<b>17.9359</b>	<b>14.7507</b>	<b>0.0297</b>	<b>7.0826</b>	<b>0.7749</b>	<b>7.8575</b>	<b>3.4247</b>	<b>0.7129</b>	<b>4.1377</b>		<b>2,872.6910</b>	<b>2,872.6910</b>	<b>0.9291</b>		<b>2,895.9182</b>

**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	0.1035	0.0540	0.6524	1.1700e-003	0.1232	8.8000e-004	0.1241	0.0327	8.1000e-004	0.0335		119.8622	119.8622	5.4600e-003	4.3600e-003	121.2965
<b>Total</b>	<b>0.1035</b>	<b>0.0540</b>	<b>0.6524</b>	<b>1.1700e-003</b>	<b>0.1232</b>	<b>8.8000e-004</b>	<b>0.1241</b>	<b>0.0327</b>	<b>8.1000e-004</b>	<b>0.0335</b>		<b>119.8622</b>	<b>119.8622</b>	<b>5.4600e-003</b>	<b>4.3600e-003</b>	<b>121.2965</b>

## Martin Street Apartments Project - Lake County AQMD Air District, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied****3.3 Grading - 2023****Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					7.0826	0.0000	7.0826	3.4247	0.0000	3.4247			0.0000			0.0000
Off-Road	1.7109	17.9359	14.7507	0.0297		0.7749	0.7749		0.7129	0.7129	0.0000	2,872.691 0	2,872.691 0	0.9291		2,895.918 2
<b>Total</b>	<b>1.7109</b>	<b>17.9359</b>	<b>14.7507</b>	<b>0.0297</b>	<b>7.0826</b>	<b>0.7749</b>	<b>7.8575</b>	<b>3.4247</b>	<b>0.7129</b>	<b>4.1377</b>	<b>0.0000</b>	<b>2,872.691 0</b>	<b>2,872.691 0</b>	<b>0.9291</b>		<b>2,895.918 2</b>

**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	0.1035	0.0540	0.6524	1.1700e-003	0.1232	8.8000e-004	0.1241	0.0327	8.1000e-004	0.0335		119.8622	119.8622	5.4600e-003	4.3600e-003	121.2965
<b>Total</b>	<b>0.1035</b>	<b>0.0540</b>	<b>0.6524</b>	<b>1.1700e-003</b>	<b>0.1232</b>	<b>8.8000e-004</b>	<b>0.1241</b>	<b>0.0327</b>	<b>8.1000e-004</b>	<b>0.0335</b>		<b>119.8622</b>	<b>119.8622</b>	<b>5.4600e-003</b>	<b>4.3600e-003</b>	<b>121.2965</b>



## Martin Street Apartments Project - Lake County AQMD Air District, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied****3.4 Paving - 2023****Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0694	10.3260	14.4218	0.0221		0.5115	0.5115		0.4723	0.4723		2,107.0069	2,107.0069	0.6648		2,123.6271
Paving	0.3825					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>1.4520</b>	<b>10.3260</b>	<b>14.4218</b>	<b>0.0221</b>		<b>0.5115</b>	<b>0.5115</b>		<b>0.4723</b>	<b>0.4723</b>		<b>2,107.0069</b>	<b>2,107.0069</b>	<b>0.6648</b>		<b>2,123.6271</b>

**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	0.3173	0.1657	2.0008	3.5900e-003	0.7063	2.7000e-003	0.7090	0.1808	2.4900e-003	0.1833		367.5773	367.5773	0.0167	0.0134	371.9759
<b>Total</b>	<b>0.3173</b>	<b>0.1657</b>	<b>2.0008</b>	<b>3.5900e-003</b>	<b>0.7063</b>	<b>2.7000e-003</b>	<b>0.7090</b>	<b>0.1808</b>	<b>2.4900e-003</b>	<b>0.1833</b>		<b>367.5773</b>	<b>367.5773</b>	<b>0.0167</b>	<b>0.0134</b>	<b>371.9759</b>

## Martin Street Apartments Project - Lake County AQMD Air District, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied****3.4 Paving - 2023****Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0694	10.3260	14.4218	0.0221		0.5115	0.5115		0.4723	0.4723	0.0000	2,107.0069	2,107.0069	0.6648		2,123.6271
Paving	0.3825					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>1.4520</b>	<b>10.3260</b>	<b>14.4218</b>	<b>0.0221</b>		<b>0.5115</b>	<b>0.5115</b>		<b>0.4723</b>	<b>0.4723</b>	<b>0.0000</b>	<b>2,107.0069</b>	<b>2,107.0069</b>	<b>0.6648</b>		<b>2,123.6271</b>

**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	0.3173	0.1657	2.0008	3.5900e-003	0.7063	2.7000e-003	0.7090	0.1808	2.4900e-003	0.1833		367.5773	367.5773	0.0167	0.0134	371.9759
<b>Total</b>	<b>0.3173</b>	<b>0.1657</b>	<b>2.0008</b>	<b>3.5900e-003</b>	<b>0.7063</b>	<b>2.7000e-003</b>	<b>0.7090</b>	<b>0.1808</b>	<b>2.4900e-003</b>	<b>0.1833</b>		<b>367.5773</b>	<b>367.5773</b>	<b>0.0167</b>	<b>0.0134</b>	<b>371.9759</b>

## Martin Street Apartments Project - Lake County AQMD Air District, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied****3.5 Building Construction - 2023****Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584		2,555.2099	2,555.2099	0.6079		2,570.4061
<b>Total</b>	<b>1.5728</b>	<b>14.3849</b>	<b>16.2440</b>	<b>0.0269</b>		<b>0.6997</b>	<b>0.6997</b>		<b>0.6584</b>	<b>0.6584</b>		<b>2,555.2099</b>	<b>2,555.2099</b>	<b>0.6079</b>		<b>2,570.4061</b>

**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	0.0203	0.6096	0.1559	2.2000e-003	0.0676	3.7000e-003	0.0713	0.0195	3.5400e-003	0.0230		231.4519	231.4519	9.7000e-004	0.0337	241.5293
Worker	0.2897	0.1513	1.8268	3.2800e-003	0.3450	2.4700e-003	0.3475	0.0915	2.2800e-003	0.0938		335.6141	335.6141	0.0153	0.0122	339.6301
<b>Total</b>	<b>0.3100</b>	<b>0.7609</b>	<b>1.9827</b>	<b>5.4800e-003</b>	<b>0.4126</b>	<b>6.1700e-003</b>	<b>0.4188</b>	<b>0.1110</b>	<b>5.8200e-003</b>	<b>0.1168</b>		<b>567.0659</b>	<b>567.0659</b>	<b>0.0163</b>	<b>0.0459</b>	<b>581.1594</b>

## Martin Street Apartments Project - Lake County AQMD Air District, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied****3.5 Building Construction - 2023****Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584	0.0000	2,555.2099	2,555.2099	0.6079		2,570.4061
<b>Total</b>	<b>1.5728</b>	<b>14.3849</b>	<b>16.2440</b>	<b>0.0269</b>		<b>0.6997</b>	<b>0.6997</b>		<b>0.6584</b>	<b>0.6584</b>	<b>0.0000</b>	<b>2,555.2099</b>	<b>2,555.2099</b>	<b>0.6079</b>		<b>2,570.4061</b>

**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	0.0203	0.6096	0.1559	2.2000e-003	0.0676	3.7000e-003	0.0713	0.0195	3.5400e-003	0.0230		231.4519	231.4519	9.7000e-004	0.0337	241.5293
Worker	0.2897	0.1513	1.8268	3.2800e-003	0.3450	2.4700e-003	0.3475	0.0915	2.2800e-003	0.0938		335.6141	335.6141	0.0153	0.0122	339.6301
<b>Total</b>	<b>0.3100</b>	<b>0.7609</b>	<b>1.9827</b>	<b>5.4800e-003</b>	<b>0.4126</b>	<b>6.1700e-003</b>	<b>0.4188</b>	<b>0.1110</b>	<b>5.8200e-003</b>	<b>0.1168</b>		<b>567.0659</b>	<b>567.0659</b>	<b>0.0163</b>	<b>0.0459</b>	<b>581.1594</b>

## Martin Street Apartments Project - Lake County AQMD Air District, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied****3.5 Building Construction - 2024****Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769		2,555.6989	2,555.6989	0.6044		2,570.8077
<b>Total</b>	<b>1.4716</b>	<b>13.4438</b>	<b>16.1668</b>	<b>0.0270</b>		<b>0.6133</b>	<b>0.6133</b>		<b>0.5769</b>	<b>0.5769</b>		<b>2,555.6989</b>	<b>2,555.6989</b>	<b>0.6044</b>		<b>2,570.8077</b>

**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	0.0186	0.5939	0.1470	2.1700e-003	0.0676	3.5500e-003	0.0712	0.0195	3.4000e-003	0.0229		228.7869	228.7869	8.8000e-004	0.0333	238.7349
Worker	0.2693	0.1332	1.6471	3.1800e-003	0.3450	2.2800e-003	0.3473	0.0915	2.1000e-003	0.0936		327.7733	327.7733	0.0137	0.0111	331.4300
<b>Total</b>	<b>0.2879</b>	<b>0.7271</b>	<b>1.7941</b>	<b>5.3500e-003</b>	<b>0.4126</b>	<b>5.8300e-003</b>	<b>0.4185</b>	<b>0.1110</b>	<b>5.5000e-003</b>	<b>0.1165</b>		<b>556.5602</b>	<b>556.5602</b>	<b>0.0145</b>	<b>0.0444</b>	<b>570.1648</b>

## Martin Street Apartments Project - Lake County AQMD Air District, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied****3.5 Building Construction - 2024****Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769	0.0000	2,555.6989	2,555.6989	0.6044		2,570.8077
<b>Total</b>	<b>1.4716</b>	<b>13.4438</b>	<b>16.1668</b>	<b>0.0270</b>		<b>0.6133</b>	<b>0.6133</b>		<b>0.5769</b>	<b>0.5769</b>	<b>0.0000</b>	<b>2,555.6989</b>	<b>2,555.6989</b>	<b>0.6044</b>		<b>2,570.8077</b>

**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	0.0186	0.5939	0.1470	2.1700e-003	0.0676	3.5500e-003	0.0712	0.0195	3.4000e-003	0.0229		228.7869	228.7869	8.8000e-004	0.0333	238.7349
Worker	0.2693	0.1332	1.6471	3.1800e-003	0.3450	2.2800e-003	0.3473	0.0915	2.1000e-003	0.0936		327.7733	327.7733	0.0137	0.0111	331.4300
<b>Total</b>	<b>0.2879</b>	<b>0.7271</b>	<b>1.7941</b>	<b>5.3500e-003</b>	<b>0.4126</b>	<b>5.8300e-003</b>	<b>0.4185</b>	<b>0.1110</b>	<b>5.5000e-003</b>	<b>0.1165</b>		<b>556.5602</b>	<b>556.5602</b>	<b>0.0145</b>	<b>0.0444</b>	<b>570.1648</b>

## Martin Street Apartments Project - Lake County AQMD Air District, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied****3.6 Architectural Coating - 2023****Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	4.9202					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708		281.4481	281.4481	0.0168		281.8690
<b>Total</b>	<b>5.1119</b>	<b>1.3030</b>	<b>1.8111</b>	<b>2.9700e-003</b>		<b>0.0708</b>	<b>0.0708</b>		<b>0.0708</b>	<b>0.0708</b>		<b>281.4481</b>	<b>281.4481</b>	<b>0.0168</b>		<b>281.8690</b>

**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	0.0552	0.0288	0.3480	6.2000e-004	0.0657	4.7000e-004	0.0662	0.0174	4.3000e-004	0.0179		63.9265	63.9265	2.9100e-003	2.3200e-003	64.6915
<b>Total</b>	<b>0.0552</b>	<b>0.0288</b>	<b>0.3480</b>	<b>6.2000e-004</b>	<b>0.0657</b>	<b>4.7000e-004</b>	<b>0.0662</b>	<b>0.0174</b>	<b>4.3000e-004</b>	<b>0.0179</b>		<b>63.9265</b>	<b>63.9265</b>	<b>2.9100e-003</b>	<b>2.3200e-003</b>	<b>64.6915</b>

## Martin Street Apartments Project - Lake County AQMD Air District, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied****3.6 Architectural Coating - 2023****Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	4.9202					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708	0.0000	281.4481	281.4481	0.0168		281.8690
<b>Total</b>	<b>5.1119</b>	<b>1.3030</b>	<b>1.8111</b>	<b>2.9700e-003</b>		<b>0.0708</b>	<b>0.0708</b>		<b>0.0708</b>	<b>0.0708</b>	<b>0.0000</b>	<b>281.4481</b>	<b>281.4481</b>	<b>0.0168</b>		<b>281.8690</b>

**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	0.0552	0.0288	0.3480	6.2000e-004	0.0657	4.7000e-004	0.0662	0.0174	4.3000e-004	0.0179		63.9265	63.9265	2.9100e-003	2.3200e-003	64.6915
<b>Total</b>	<b>0.0552</b>	<b>0.0288</b>	<b>0.3480</b>	<b>6.2000e-004</b>	<b>0.0657</b>	<b>4.7000e-004</b>	<b>0.0662</b>	<b>0.0174</b>	<b>4.3000e-004</b>	<b>0.0179</b>		<b>63.9265</b>	<b>63.9265</b>	<b>2.9100e-003</b>	<b>2.3200e-003</b>	<b>64.6915</b>



## Martin Street Apartments Project - Lake County AQMD Air District, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied****3.6 Architectural Coating - 2024****Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	4.9202					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609		281.4481	281.4481	0.0159		281.8443
<b>Total</b>	<b>5.1010</b>	<b>1.2188</b>	<b>1.8101</b>	<b>2.9700e-003</b>		<b>0.0609</b>	<b>0.0609</b>		<b>0.0609</b>	<b>0.0609</b>		<b>281.4481</b>	<b>281.4481</b>	<b>0.0159</b>		<b>281.8443</b>

**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	0.0513	0.0254	0.3137	6.1000e-004	0.0657	4.3000e-004	0.0662	0.0174	4.0000e-004	0.0178		62.4330	62.4330	2.6000e-003	2.1200e-003	63.1295
<b>Total</b>	<b>0.0513</b>	<b>0.0254</b>	<b>0.3137</b>	<b>6.1000e-004</b>	<b>0.0657</b>	<b>4.3000e-004</b>	<b>0.0662</b>	<b>0.0174</b>	<b>4.0000e-004</b>	<b>0.0178</b>		<b>62.4330</b>	<b>62.4330</b>	<b>2.6000e-003</b>	<b>2.1200e-003</b>	<b>63.1295</b>

## Martin Street Apartments Project - Lake County AQMD Air District, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied****3.6 Architectural Coating - 2024****Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	4.9202					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609	0.0000	281.4481	281.4481	0.0159		281.8443
<b>Total</b>	<b>5.1010</b>	<b>1.2188</b>	<b>1.8101</b>	<b>2.9700e-003</b>		<b>0.0609</b>	<b>0.0609</b>		<b>0.0609</b>	<b>0.0609</b>	<b>0.0000</b>	<b>281.4481</b>	<b>281.4481</b>	<b>0.0159</b>		<b>281.8443</b>

**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	0.0513	0.0254	0.3137	6.1000e-004	0.0657	4.3000e-004	0.0662	0.0174	4.0000e-004	0.0178		62.4330	62.4330	2.6000e-003	2.1200e-003	63.1295
<b>Total</b>	<b>0.0513</b>	<b>0.0254</b>	<b>0.3137</b>	<b>6.1000e-004</b>	<b>0.0657</b>	<b>4.3000e-004</b>	<b>0.0662</b>	<b>0.0174</b>	<b>4.0000e-004</b>	<b>0.0178</b>		<b>62.4330</b>	<b>62.4330</b>	<b>2.6000e-003</b>	<b>2.1200e-003</b>	<b>63.1295</b>

## Martin Street Apartments Project - Lake County AQMD Air District, 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**

Increase Transit Accessibility

Improve Pedestrian Network

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	1.1801	1.2736	8.1527	0.0127	1.1730	0.0145	1.1875	0.3132	0.0137	0.3269		1,312.8915	1,312.8915	0.1002	0.0713	1,336.6391
Unmitigated	1.2328	1.4087	9.0132	0.0142	1.3164	0.0162	1.3326	0.3515	0.0152	0.3667		1,469.5356	1,469.5356	0.1084	0.0783	1,495.5759

**4.2 Trip Summary Information**

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	217.60	196.40	163.60	592,077	527,540
Parking Lot	0.00	0.00	0.00		
Total	217.60	196.40	163.60	592,077	527,540

**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	42.30	19.60	38.10	86	11	3
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

## Martin Street Apartments Project - Lake County AQMD Air District, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied****4.4 Fleet Mix**

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Mid Rise	0.464659	0.064863	0.191817	0.155973	0.051760	0.009603	0.008536	0.006240	0.000416	0.000000	0.037661	0.001217	0.007255
Parking Lot	0.464659	0.064863	0.191817	0.155973	0.051760	0.009603	0.008536	0.006240	0.000416	0.000000	0.037661	0.001217	0.007255

**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	4.4700e-003	0.0382	0.0163	2.4000e-004		3.0900e-003	3.0900e-003		3.0900e-003	3.0900e-003		48.7529	48.7529	9.3000e-004	8.9000e-004	49.0427
NaturalGas Unmitigated	4.4700e-003	0.0382	0.0163	2.4000e-004		3.0900e-003	3.0900e-003		3.0900e-003	3.0900e-003		48.7529	48.7529	9.3000e-004	8.9000e-004	49.0427

## Martin Street Apartments Project - Lake County AQMD Air District, Summer

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

## 5.2 Energy by Land Use - NaturalGas

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	414.4	4.4700e-003	0.0382	0.0163	2.4000e-004		3.0900e-003	3.0900e-003		3.0900e-003	3.0900e-003		48.7529	48.7529	9.3000e-004	8.9000e-004	49.0427
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>4.4700e-003</b>	<b>0.0382</b>	<b>0.0163</b>	<b>2.4000e-004</b>		<b>3.0900e-003</b>	<b>3.0900e-003</b>		<b>3.0900e-003</b>	<b>3.0900e-003</b>		<b>48.7529</b>	<b>48.7529</b>	<b>9.3000e-004</b>	<b>8.9000e-004</b>	<b>49.0427</b>

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	0.4144	4.4700e-003	0.0382	0.0163	2.4000e-004		3.0900e-003	3.0900e-003		3.0900e-003	3.0900e-003		48.7529	48.7529	9.3000e-004	8.9000e-004	49.0427
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>4.4700e-003</b>	<b>0.0382</b>	<b>0.0163</b>	<b>2.4000e-004</b>		<b>3.0900e-003</b>	<b>3.0900e-003</b>		<b>3.0900e-003</b>	<b>3.0900e-003</b>		<b>48.7529</b>	<b>48.7529</b>	<b>9.3000e-004</b>	<b>8.9000e-004</b>	<b>49.0427</b>

## 6.0 Area Detail

## Martin Street Apartments Project - Lake County AQMD Air District, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied****6.1 Mitigation Measures Area**

No Hearths Installed

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	1.3215	0.0381	3.3069	1.7000e-004		0.0183	0.0183		0.0183	0.0183	0.0000	5.9598	5.9598	5.7500e-003	0.0000	6.1035
Unmitigated	62.5373	1.2336	78.8712	0.1371		10.6131	10.6131		10.6131	10.6131	1,110.8692	471.8422	1,582.7114	1.0309	0.0874	1,634.5225

## Martin Street Apartments Project - Lake County AQMD Air District, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied****6.2 Area by SubCategory****Unmitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.3505					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.8711					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	61.2158	1.1955	75.5643	0.1369		10.5948	10.5948		10.5948	10.5948	1,110.869 2	465.8824	1,576.751 6	1.0252	0.0874	1,628.419 0
Landscaping	0.1000	0.0381	3.3069	1.7000e- 004		0.0183	0.0183		0.0183	0.0183		5.9598	5.9598	5.7500e- 003		6.1035
<b>Total</b>	<b>62.5373</b>	<b>1.2336</b>	<b>78.8712</b>	<b>0.1371</b>		<b>10.6131</b>	<b>10.6131</b>		<b>10.6131</b>	<b>10.6131</b>	<b>1,110.869 2</b>	<b>471.8422</b>	<b>1,582.711 4</b>	<b>1.0309</b>	<b>0.0874</b>	<b>1,634.522 5</b>

## Martin Street Apartments Project - Lake County AQMD Air District, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied****6.2 Area by SubCategory****Mitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.3505					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.8711					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	0.1000	0.0381	3.3069	1.7000e-004		0.0183	0.0183		0.0183	0.0183		5.9598	5.9598	5.7500e-003		6.1035
<b>Total</b>	<b>1.3215</b>	<b>0.0381</b>	<b>3.3069</b>	<b>1.7000e-004</b>		<b>0.0183</b>	<b>0.0183</b>		<b>0.0183</b>	<b>0.0183</b>	<b>0.0000</b>	<b>5.9598</b>	<b>5.9598</b>	<b>5.7500e-003</b>	<b>0.0000</b>	<b>6.1035</b>

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

Apply Water Conservation Strategy



## Martin Street Apartments Project - Lake County AQMD Air District, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied****8.0 Waste Detail**

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**8.1 Mitigation Measures Waste****9.0 Operational Offroad**

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

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**Fire Pumps and Emergency Generators**

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

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

Equipment Type	Number
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**11.0 Vegetation**

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## Martin Street Apartments Project - Lake County AQMD Air District, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied****Martin Street Apartments Project****Lake County AQMD Air District, Winter****1.0 Project Characteristics****1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	81.00	Space	0.73	32,400.00	0
Apartment Mid Rise	40.00	Dwelling Unit	3.57	40,169.00	114

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.2	<b>Precipitation Freq (Days)</b>	67
<b>Climate Zone</b>	1			<b>Operational Year</b>	2024
<b>Utility Company</b>	Pacific Gas and Electric Company				
<b>CO2 Intensity (lb/MWhr)</b>	203.98	<b>CH4 Intensity (lb/MWhr)</b>	0.033	<b>N2O Intensity (lb/MWhr)</b>	0.004

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

Project Characteristics -

Land Use - Building square footage based on site plan prepared for the proposed project, acreage based on AQ questionnaire.

Construction Phase - Construction phase timing based on applicant provided AQ questionnaire. Architectural coating assumed to begin two weeks after building construction, and last for the duration of construction.

Off-road Equipment -

Off-road Equipment -

Off-road Equipment - left as defaults.

Off-road Equipment -

Trips and VMT -

Grading -

Mobile Land Use Mitigation - Information based on applicant provided AQ questionnaire. Bus stop located along Martin Street, directly in front of the Bella Vista Apartments.

## Martin Street Apartments Project - Lake County AQMD Air District, Winter

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

Energy Mitigation -

Water Mitigation - Compliant with MWELO.

Area Mitigation -

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	18.00	260.00
tblConstructionPhase	NumDays	230.00	260.00
tblConstructionPhase	NumDays	8.00	30.00
tblConstructionPhase	NumDays	18.00	5.00
tblConstructionPhase	NumDays	5.00	30.00
tblLandUse	LandUseSquareFeet	40,000.00	40,169.00
tblLandUse	LotAcreage	1.05	3.57

**2.0 Emissions Summary**

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## Martin Street Apartments Project - Lake County AQMD Air District, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied****2.1 Overall Construction (Maximum Daily Emission)****Unmitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2023	7.1302	27.5887	20.2692	0.0394	19.8049	1.2671	21.0720	10.1417	1.1657	11.3074	0.0000	3,827.501 2	3,827.501 2	1.1991	0.0482	3,859.029 9
2024	6.9864	15.4203	19.9810	0.0358	0.4784	0.6805	1.1589	0.1284	0.6437	0.7721	0.0000	3,446.468 2	3,446.468 2	0.6373	0.0465	3,476.268 5
<b>Maximum</b>	<b>7.1302</b>	<b>27.5887</b>	<b>20.2692</b>	<b>0.0394</b>	<b>19.8049</b>	<b>1.2671</b>	<b>21.0720</b>	<b>10.1417</b>	<b>1.1657</b>	<b>11.3074</b>	<b>0.0000</b>	<b>3,827.501 2</b>	<b>3,827.501 2</b>	<b>1.1991</b>	<b>0.0482</b>	<b>3,859.029 9</b>

**Mitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2023	7.1302	27.5887	20.2692	0.0394	19.8049	1.2671	21.0720	10.1417	1.1657	11.3074	0.0000	3,827.501 2	3,827.501 2	1.1991	0.0482	3,859.029 9
2024	6.9864	15.4203	19.9810	0.0358	0.4784	0.6805	1.1589	0.1284	0.6437	0.7721	0.0000	3,446.468 2	3,446.468 2	0.6373	0.0465	3,476.268 5
<b>Maximum</b>	<b>7.1302</b>	<b>27.5887</b>	<b>20.2692</b>	<b>0.0394</b>	<b>19.8049</b>	<b>1.2671</b>	<b>21.0720</b>	<b>10.1417</b>	<b>1.1657</b>	<b>11.3074</b>	<b>0.0000</b>	<b>3,827.501 2</b>	<b>3,827.501 2</b>	<b>1.1991</b>	<b>0.0482</b>	<b>3,859.029 9</b>

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

[illegible]

## Martin Street Apartments Project - Lake County AQMD Air District, 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	62.5373	1.2336	78.8712	0.1371		10.6131	10.6131		10.6131	10.6131	1,110.869 2	471.8422	1,582.711 4	1.0309	0.0874	1,634.522 5
Energy	4.4700e-003	0.0382	0.0163	2.4000e-004		3.0900e-003	3.0900e-003		3.0900e-003	3.0900e-003		48.7529	48.7529	9.3000e-004	8.9000e-004	49.0427
Mobile	1.3927	1.4136	8.6742	0.0140	1.3164	0.0162	1.3326	0.3515	0.0152	0.3667		1,442.354 5	1,442.354 5	0.1085	0.0784	1,468.413 7
<b>Total</b>	<b>63.9345</b>	<b>2.6854</b>	<b>87.5616</b>	<b>0.1513</b>	<b>1.3164</b>	<b>10.6324</b>	<b>11.9489</b>	<b>0.3515</b>	<b>10.6314</b>	<b>10.9830</b>	<b>1,110.869 2</b>	<b>1,962.949 6</b>	<b>3,073.818 8</b>	<b>1.1403</b>	<b>0.1666</b>	<b>3,151.978 9</b>

**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	1.3215	0.0381	3.3069	1.7000e-004		0.0183	0.0183		0.0183	0.0183	0.0000	5.9598	5.9598	5.7500e-003	0.0000	6.1035
Energy	4.4700e-003	0.0382	0.0163	2.4000e-004		3.0900e-003	3.0900e-003		3.0900e-003	3.0900e-003		48.7529	48.7529	9.3000e-004	8.9000e-004	49.0427
Mobile	1.3405	1.2782	7.8535	0.0125	1.1730	0.0145	1.1875	0.3132	0.0137	0.3269		1,288.683 6	1,288.683 6	0.1005	0.0713	1,312.455 2
<b>Total</b>	<b>2.6665</b>	<b>1.3545</b>	<b>11.1767</b>	<b>0.0129</b>	<b>1.1730</b>	<b>0.0359</b>	<b>1.2089</b>	<b>0.3132</b>	<b>0.0351</b>	<b>0.3483</b>	<b>0.0000</b>	<b>1,343.396 4</b>	<b>1,343.396 4</b>	<b>0.1071</b>	<b>0.0722</b>	<b>1,367.601 3</b>

## Martin Street Apartments Project - Lake County AQMD Air District, Winter

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	95.83	49.56	87.24	91.47	10.90	99.66	89.88	10.90	99.67	96.83	100.00	31.56	56.30	90.61	56.65	56.61

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

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	5/1/2023	6/9/2023	5	30	
2	Grading	Grading	6/10/2023	7/21/2023	5	30	
3	Paving	Paving	7/22/2023	7/28/2023	5	5	
4	Building Construction	Building Construction	8/16/2023	8/13/2024	5	260	
5	Architectural Coating	Architectural Coating	8/30/2023	8/27/2024	5	260	

**Acres of Grading (Site Preparation Phase): 45****Acres of Grading (Grading Phase): 30****Acres of Paving: 0.73****Residential Indoor: 81,342; Residential Outdoor: 27,114; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 1,944 (Architectural Coating – sqft)****OffRoad Equipment**

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	1	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37

## Martin Street Apartments Project - Lake County AQMD Air District, Winter

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

Paving	Cement and Mortar Mixers	2	6.00	9	0.56
Paving	Cranes	0		231	0.29
Paving	Forklifts	0		89	0.20
Paving	Generator Sets	0		84	0.74
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
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Paving	Welders	0		46	0.45
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Architectural Coating	Air Compressors	1	6.00	78	0.48

**Trips and VMT**

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	9	23.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	9	23.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	42.00	10.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	8.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

**3.1 Mitigation Measures Construction**



## Martin Street Apartments Project - Lake County AQMD Air District, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied****3.2 Site Preparation - 2023****Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					19.6570	0.0000	19.6570	10.1025	0.0000	10.1025			0.0000			0.0000
Off-Road	2.6595	27.5242	18.2443	0.0381		1.2660	1.2660		1.1647	1.1647		3,687.308 1	3,687.308 1	1.1926		3,717.121 9
<b>Total</b>	<b>2.6595</b>	<b>27.5242</b>	<b>18.2443</b>	<b>0.0381</b>	<b>19.6570</b>	<b>1.2660</b>	<b>20.9230</b>	<b>10.1025</b>	<b>1.1647</b>	<b>11.2672</b>		<b>3,687.308 1</b>	<b>3,687.308 1</b>	<b>1.1926</b>		<b>3,717.121 9</b>

**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	0.1527	0.0645	0.7395	1.3700e-003	0.1479	1.0600e-003	0.1489	0.0392	9.8000e-004	0.0402		140.1931	140.1931	6.5100e-003	5.2100e-003	141.9081
<b>Total</b>	<b>0.1527</b>	<b>0.0645</b>	<b>0.7395</b>	<b>1.3700e-003</b>	<b>0.1479</b>	<b>1.0600e-003</b>	<b>0.1489</b>	<b>0.0392</b>	<b>9.8000e-004</b>	<b>0.0402</b>		<b>140.1931</b>	<b>140.1931</b>	<b>6.5100e-003</b>	<b>5.2100e-003</b>	<b>141.9081</b>

## Martin Street Apartments Project - Lake County AQMD Air District, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied****3.2 Site Preparation - 2023****Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					19.6570	0.0000	19.6570	10.1025	0.0000	10.1025			0.0000			0.0000
Off-Road	2.6595	27.5242	18.2443	0.0381		1.2660	1.2660		1.1647	1.1647	0.0000	3,687.308 1	3,687.308 1	1.1926		3,717.121 9
<b>Total</b>	<b>2.6595</b>	<b>27.5242</b>	<b>18.2443</b>	<b>0.0381</b>	<b>19.6570</b>	<b>1.2660</b>	<b>20.9230</b>	<b>10.1025</b>	<b>1.1647</b>	<b>11.2672</b>	<b>0.0000</b>	<b>3,687.308 1</b>	<b>3,687.308 1</b>	<b>1.1926</b>		<b>3,717.121 9</b>

**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	0.1527	0.0645	0.7395	1.3700e-003	0.1479	1.0600e-003	0.1489	0.0392	9.8000e-004	0.0402		140.1931	140.1931	6.5100e-003	5.2100e-003	141.9081
<b>Total</b>	<b>0.1527</b>	<b>0.0645</b>	<b>0.7395</b>	<b>1.3700e-003</b>	<b>0.1479</b>	<b>1.0600e-003</b>	<b>0.1489</b>	<b>0.0392</b>	<b>9.8000e-004</b>	<b>0.0402</b>		<b>140.1931</b>	<b>140.1931</b>	<b>6.5100e-003</b>	<b>5.2100e-003</b>	<b>141.9081</b>

## Martin Street Apartments Project - Lake County AQMD Air District, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied****3.3 Grading - 2023****Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					7.0826	0.0000	7.0826	3.4247	0.0000	3.4247			0.0000			0.0000
Off-Road	1.7109	17.9359	14.7507	0.0297		0.7749	0.7749		0.7129	0.7129		2,872.6910	2,872.6910	0.9291		2,895.9182
<b>Total</b>	<b>1.7109</b>	<b>17.9359</b>	<b>14.7507</b>	<b>0.0297</b>	<b>7.0826</b>	<b>0.7749</b>	<b>7.8575</b>	<b>3.4247</b>	<b>0.7129</b>	<b>4.1377</b>		<b>2,872.6910</b>	<b>2,872.6910</b>	<b>0.9291</b>		<b>2,895.9182</b>

**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	0.1272	0.0538	0.6162	1.1400e-003	0.1232	8.8000e-004	0.1241	0.0327	8.1000e-004	0.0335		116.8276	116.8276	5.4300e-003	4.3400e-003	118.2567
<b>Total</b>	<b>0.1272</b>	<b>0.0538</b>	<b>0.6162</b>	<b>1.1400e-003</b>	<b>0.1232</b>	<b>8.8000e-004</b>	<b>0.1241</b>	<b>0.0327</b>	<b>8.1000e-004</b>	<b>0.0335</b>		<b>116.8276</b>	<b>116.8276</b>	<b>5.4300e-003</b>	<b>4.3400e-003</b>	<b>118.2567</b>

## Martin Street Apartments Project - Lake County AQMD Air District, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied****3.3 Grading - 2023****Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					7.0826	0.0000	7.0826	3.4247	0.0000	3.4247			0.0000			0.0000
Off-Road	1.7109	17.9359	14.7507	0.0297		0.7749	0.7749		0.7129	0.7129	0.0000	2,872.6910	2,872.6910	0.9291		2,895.9182
<b>Total</b>	<b>1.7109</b>	<b>17.9359</b>	<b>14.7507</b>	<b>0.0297</b>	<b>7.0826</b>	<b>0.7749</b>	<b>7.8575</b>	<b>3.4247</b>	<b>0.7129</b>	<b>4.1377</b>	<b>0.0000</b>	<b>2,872.6910</b>	<b>2,872.6910</b>	<b>0.9291</b>		<b>2,895.9182</b>

**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	0.1272	0.0538	0.6162	1.1400e-003	0.1232	8.8000e-004	0.1241	0.0327	8.1000e-004	0.0335		116.8276	116.8276	5.4300e-003	4.3400e-003	118.2567
<b>Total</b>	<b>0.1272</b>	<b>0.0538</b>	<b>0.6162</b>	<b>1.1400e-003</b>	<b>0.1232</b>	<b>8.8000e-004</b>	<b>0.1241</b>	<b>0.0327</b>	<b>8.1000e-004</b>	<b>0.0335</b>		<b>116.8276</b>	<b>116.8276</b>	<b>5.4300e-003</b>	<b>4.3400e-003</b>	<b>118.2567</b>

## Martin Street Apartments Project - Lake County AQMD Air District, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied****3.4 Paving - 2023****Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0694	10.3260	14.4218	0.0221		0.5115	0.5115		0.4723	0.4723		2,107.0069	2,107.0069	0.6648		2,123.6271
Paving	0.3825					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>1.4520</b>	<b>10.3260</b>	<b>14.4218</b>	<b>0.0221</b>		<b>0.5115</b>	<b>0.5115</b>		<b>0.4723</b>	<b>0.4723</b>		<b>2,107.0069</b>	<b>2,107.0069</b>	<b>0.6648</b>		<b>2,123.6271</b>

**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	0.3901	0.1650	1.8897	3.5000e-003	0.7063	2.7000e-003	0.7090	0.1808	2.4900e-003	0.1833		358.2713	358.2713	0.0166	0.0133	362.6540
<b>Total</b>	<b>0.3901</b>	<b>0.1650</b>	<b>1.8897</b>	<b>3.5000e-003</b>	<b>0.7063</b>	<b>2.7000e-003</b>	<b>0.7090</b>	<b>0.1808</b>	<b>2.4900e-003</b>	<b>0.1833</b>		<b>358.2713</b>	<b>358.2713</b>	<b>0.0166</b>	<b>0.0133</b>	<b>362.6540</b>

## Martin Street Apartments Project - Lake County AQMD Air District, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied****3.4 Paving - 2023****Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0694	10.3260	14.4218	0.0221		0.5115	0.5115		0.4723	0.4723	0.0000	2,107.0069	2,107.0069	0.6648		2,123.6271
Paving	0.3825					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>1.4520</b>	<b>10.3260</b>	<b>14.4218</b>	<b>0.0221</b>		<b>0.5115</b>	<b>0.5115</b>		<b>0.4723</b>	<b>0.4723</b>	<b>0.0000</b>	<b>2,107.0069</b>	<b>2,107.0069</b>	<b>0.6648</b>		<b>2,123.6271</b>

**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	0.3901	0.1650	1.8897	3.5000e-003	0.7063	2.7000e-003	0.7090	0.1808	2.4900e-003	0.1833		358.2713	358.2713	0.0166	0.0133	362.6540
<b>Total</b>	<b>0.3901</b>	<b>0.1650</b>	<b>1.8897</b>	<b>3.5000e-003</b>	<b>0.7063</b>	<b>2.7000e-003</b>	<b>0.7090</b>	<b>0.1808</b>	<b>2.4900e-003</b>	<b>0.1833</b>		<b>358.2713</b>	<b>358.2713</b>	<b>0.0166</b>	<b>0.0133</b>	<b>362.6540</b>

## Martin Street Apartments Project - Lake County AQMD Air District, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied****3.5 Building Construction - 2023****Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584		2,555.2099	2,555.2099	0.6079		2,570.4061
<b>Total</b>	<b>1.5728</b>	<b>14.3849</b>	<b>16.2440</b>	<b>0.0269</b>		<b>0.6997</b>	<b>0.6997</b>		<b>0.6584</b>	<b>0.6584</b>		<b>2,555.2099</b>	<b>2,555.2099</b>	<b>0.6079</b>		<b>2,570.4061</b>

**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	0.0215	0.6154	0.1601	2.2000e-003	0.0676	3.7200e-003	0.0713	0.0195	3.5500e-003	0.0230		231.6151	231.6151	9.5000e-004	0.0338	241.7012
Worker	0.3562	0.1506	1.7254	3.2000e-003	0.3450	2.4700e-003	0.3475	0.0915	2.2800e-003	0.0938		327.1173	327.1173	0.0152	0.0122	331.1189
<b>Total</b>	<b>0.3777</b>	<b>0.7660</b>	<b>1.8855</b>	<b>5.4000e-003</b>	<b>0.4126</b>	<b>6.1900e-003</b>	<b>0.4188</b>	<b>0.1110</b>	<b>5.8300e-003</b>	<b>0.1168</b>		<b>558.7323</b>	<b>558.7323</b>	<b>0.0161</b>	<b>0.0459</b>	<b>572.8201</b>

## Martin Street Apartments Project - Lake County AQMD Air District, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied****3.5 Building Construction - 2023****Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584	0.0000	2,555.2099	2,555.2099	0.6079		2,570.4061
<b>Total</b>	<b>1.5728</b>	<b>14.3849</b>	<b>16.2440</b>	<b>0.0269</b>		<b>0.6997</b>	<b>0.6997</b>		<b>0.6584</b>	<b>0.6584</b>	<b>0.0000</b>	<b>2,555.2099</b>	<b>2,555.2099</b>	<b>0.6079</b>		<b>2,570.4061</b>

**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	0.0215	0.6154	0.1601	2.2000e-003	0.0676	3.7200e-003	0.0713	0.0195	3.5500e-003	0.0230		231.6151	231.6151	9.5000e-004	0.0338	241.7012
Worker	0.3562	0.1506	1.7254	3.2000e-003	0.3450	2.4700e-003	0.3475	0.0915	2.2800e-003	0.0938		327.1173	327.1173	0.0152	0.0122	331.1189
<b>Total</b>	<b>0.3777</b>	<b>0.7660</b>	<b>1.8855</b>	<b>5.4000e-003</b>	<b>0.4126</b>	<b>6.1900e-003</b>	<b>0.4188</b>	<b>0.1110</b>	<b>5.8300e-003</b>	<b>0.1168</b>		<b>558.7323</b>	<b>558.7323</b>	<b>0.0161</b>	<b>0.0459</b>	<b>572.8201</b>



## Martin Street Apartments Project - Lake County AQMD Air District, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied****3.5 Building Construction - 2024****Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769		2,555.6989	2,555.6989	0.6044		2,570.8077
<b>Total</b>	<b>1.4716</b>	<b>13.4438</b>	<b>16.1668</b>	<b>0.0270</b>		<b>0.6133</b>	<b>0.6133</b>		<b>0.5769</b>	<b>0.5769</b>		<b>2,555.6989</b>	<b>2,555.6989</b>	<b>0.6044</b>		<b>2,570.8077</b>

**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	0.0196	0.5999	0.1511	2.1700e-003	0.0676	3.5700e-003	0.0712	0.0195	3.4100e-003	0.0229		228.9640	228.9640	8.7000e-004	0.0333	238.9211
Worker	0.3311	0.1326	1.5565	3.1000e-003	0.3450	2.2800e-003	0.3473	0.0915	2.1000e-003	0.0936		319.5001	319.5001	0.0136	0.0111	323.1442
<b>Total</b>	<b>0.3508</b>	<b>0.7324</b>	<b>1.7076</b>	<b>5.2700e-003</b>	<b>0.4126</b>	<b>5.8500e-003</b>	<b>0.4185</b>	<b>0.1110</b>	<b>5.5100e-003</b>	<b>0.1165</b>		<b>548.4641</b>	<b>548.4641</b>	<b>0.0145</b>	<b>0.0444</b>	<b>562.0653</b>

## Martin Street Apartments Project - Lake County AQMD Air District, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied****3.5 Building Construction - 2024****Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769	0.0000	2,555.6989	2,555.6989	0.6044		2,570.8077
<b>Total</b>	<b>1.4716</b>	<b>13.4438</b>	<b>16.1668</b>	<b>0.0270</b>		<b>0.6133</b>	<b>0.6133</b>		<b>0.5769</b>	<b>0.5769</b>	<b>0.0000</b>	<b>2,555.6989</b>	<b>2,555.6989</b>	<b>0.6044</b>		<b>2,570.8077</b>

**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	0.0196	0.5999	0.1511	2.1700e-003	0.0676	3.5700e-003	0.0712	0.0195	3.4100e-003	0.0229		228.9640	228.9640	8.7000e-004	0.0333	238.9211
Worker	0.3311	0.1326	1.5565	3.1000e-003	0.3450	2.2800e-003	0.3473	0.0915	2.1000e-003	0.0936		319.5001	319.5001	0.0136	0.0111	323.1442
<b>Total</b>	<b>0.3508</b>	<b>0.7324</b>	<b>1.7076</b>	<b>5.2700e-003</b>	<b>0.4126</b>	<b>5.8500e-003</b>	<b>0.4185</b>	<b>0.1110</b>	<b>5.5100e-003</b>	<b>0.1165</b>		<b>548.4641</b>	<b>548.4641</b>	<b>0.0145</b>	<b>0.0444</b>	<b>562.0653</b>

## Martin Street Apartments Project - Lake County AQMD Air District, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied****3.6 Architectural Coating - 2023****Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	4.9202					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708		281.4481	281.4481	0.0168		281.8690
<b>Total</b>	<b>5.1119</b>	<b>1.3030</b>	<b>1.8111</b>	<b>2.9700e-003</b>		<b>0.0708</b>	<b>0.0708</b>		<b>0.0708</b>	<b>0.0708</b>		<b>281.4481</b>	<b>281.4481</b>	<b>0.0168</b>		<b>281.8690</b>

**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	0.0679	0.0287	0.3287	6.1000e-004	0.0657	4.7000e-004	0.0662	0.0174	4.3000e-004	0.0179		62.3081	62.3081	2.8900e-003	2.3100e-003	63.0703
<b>Total</b>	<b>0.0679</b>	<b>0.0287</b>	<b>0.3287</b>	<b>6.1000e-004</b>	<b>0.0657</b>	<b>4.7000e-004</b>	<b>0.0662</b>	<b>0.0174</b>	<b>4.3000e-004</b>	<b>0.0179</b>		<b>62.3081</b>	<b>62.3081</b>	<b>2.8900e-003</b>	<b>2.3100e-003</b>	<b>63.0703</b>

## Martin Street Apartments Project - Lake County AQMD Air District, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied****3.6 Architectural Coating - 2023****Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	4.9202					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708	0.0000	281.4481	281.4481	0.0168		281.8690
<b>Total</b>	<b>5.1119</b>	<b>1.3030</b>	<b>1.8111</b>	<b>2.9700e-003</b>		<b>0.0708</b>	<b>0.0708</b>		<b>0.0708</b>	<b>0.0708</b>	<b>0.0000</b>	<b>281.4481</b>	<b>281.4481</b>	<b>0.0168</b>		<b>281.8690</b>

**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	0.0679	0.0287	0.3287	6.1000e-004	0.0657	4.7000e-004	0.0662	0.0174	4.3000e-004	0.0179		62.3081	62.3081	2.8900e-003	2.3100e-003	63.0703
<b>Total</b>	<b>0.0679</b>	<b>0.0287</b>	<b>0.3287</b>	<b>6.1000e-004</b>	<b>0.0657</b>	<b>4.7000e-004</b>	<b>0.0662</b>	<b>0.0174</b>	<b>4.3000e-004</b>	<b>0.0179</b>		<b>62.3081</b>	<b>62.3081</b>	<b>2.8900e-003</b>	<b>2.3100e-003</b>	<b>63.0703</b>

## Martin Street Apartments Project - Lake County AQMD Air District, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied****3.6 Architectural Coating - 2024****Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	4.9202					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609		281.4481	281.4481	0.0159		281.8443
<b>Total</b>	<b>5.1010</b>	<b>1.2188</b>	<b>1.8101</b>	<b>2.9700e-003</b>		<b>0.0609</b>	<b>0.0609</b>		<b>0.0609</b>	<b>0.0609</b>		<b>281.4481</b>	<b>281.4481</b>	<b>0.0159</b>		<b>281.8443</b>

**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	0.0631	0.0253	0.2965	5.9000e-004	0.0657	4.3000e-004	0.0662	0.0174	4.0000e-004	0.0178		60.8572	60.8572	2.5900e-003	2.1100e-003	61.5513
<b>Total</b>	<b>0.0631</b>	<b>0.0253</b>	<b>0.2965</b>	<b>5.9000e-004</b>	<b>0.0657</b>	<b>4.3000e-004</b>	<b>0.0662</b>	<b>0.0174</b>	<b>4.0000e-004</b>	<b>0.0178</b>		<b>60.8572</b>	<b>60.8572</b>	<b>2.5900e-003</b>	<b>2.1100e-003</b>	<b>61.5513</b>

## Martin Street Apartments Project - Lake County AQMD Air District, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied****3.6 Architectural Coating - 2024****Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	4.9202					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609	0.0000	281.4481	281.4481	0.0159		281.8443
<b>Total</b>	<b>5.1010</b>	<b>1.2188</b>	<b>1.8101</b>	<b>2.9700e-003</b>		<b>0.0609</b>	<b>0.0609</b>		<b>0.0609</b>	<b>0.0609</b>	<b>0.0000</b>	<b>281.4481</b>	<b>281.4481</b>	<b>0.0159</b>		<b>281.8443</b>

**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	0.0631	0.0253	0.2965	5.9000e-004	0.0657	4.3000e-004	0.0662	0.0174	4.0000e-004	0.0178		60.8572	60.8572	2.5900e-003	2.1100e-003	61.5513
<b>Total</b>	<b>0.0631</b>	<b>0.0253</b>	<b>0.2965</b>	<b>5.9000e-004</b>	<b>0.0657</b>	<b>4.3000e-004</b>	<b>0.0662</b>	<b>0.0174</b>	<b>4.0000e-004</b>	<b>0.0178</b>		<b>60.8572</b>	<b>60.8572</b>	<b>2.5900e-003</b>	<b>2.1100e-003</b>	<b>61.5513</b>

## Martin Street Apartments Project - Lake County AQMD Air District, 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**

Increase Transit Accessibility

Improve Pedestrian Network

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	1.3405	1.2782	7.8535	0.0125	1.1730	0.0145	1.1875	0.3132	0.0137	0.3269		1,288.683 6	1,288.683 6	0.1005	0.0713	1,312.455 2
Unmitigated	1.3927	1.4136	8.6742	0.0140	1.3164	0.0162	1.3326	0.3515	0.0152	0.3667		1,442.354 5	1,442.354 5	0.1085	0.0784	1,468.413 7

**4.2 Trip Summary Information**

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	217.60	196.40	163.60	592,077	527,540
Parking Lot	0.00	0.00	0.00		
Total	217.60	196.40	163.60	592,077	527,540

**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	42.30	19.60	38.10	86	11	3
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

## Martin Street Apartments Project - Lake County AQMD Air District, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied****4.4 Fleet Mix**

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Mid Rise	0.464659	0.064863	0.191817	0.155973	0.051760	0.009603	0.008536	0.006240	0.000416	0.000000	0.037661	0.001217	0.007255
Parking Lot	0.464659	0.064863	0.191817	0.155973	0.051760	0.009603	0.008536	0.006240	0.000416	0.000000	0.037661	0.001217	0.007255

**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	4.4700e-003	0.0382	0.0163	2.4000e-004		3.0900e-003	3.0900e-003		3.0900e-003	3.0900e-003		48.7529	48.7529	9.3000e-004	8.9000e-004	49.0427
NaturalGas Unmitigated	4.4700e-003	0.0382	0.0163	2.4000e-004		3.0900e-003	3.0900e-003		3.0900e-003	3.0900e-003		48.7529	48.7529	9.3000e-004	8.9000e-004	49.0427



## Martin Street Apartments Project - Lake County AQMD Air District, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied****5.2 Energy by Land Use - NaturalGas****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	414.4	4.4700e-003	0.0382	0.0163	2.4000e-004		3.0900e-003	3.0900e-003		3.0900e-003	3.0900e-003		48.7529	48.7529	9.3000e-004	8.9000e-004	49.0427
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>4.4700e-003</b>	<b>0.0382</b>	<b>0.0163</b>	<b>2.4000e-004</b>		<b>3.0900e-003</b>	<b>3.0900e-003</b>		<b>3.0900e-003</b>	<b>3.0900e-003</b>		<b>48.7529</b>	<b>48.7529</b>	<b>9.3000e-004</b>	<b>8.9000e-004</b>	<b>49.0427</b>

**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	0.4144	4.4700e-003	0.0382	0.0163	2.4000e-004		3.0900e-003	3.0900e-003		3.0900e-003	3.0900e-003		48.7529	48.7529	9.3000e-004	8.9000e-004	49.0427
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>4.4700e-003</b>	<b>0.0382</b>	<b>0.0163</b>	<b>2.4000e-004</b>		<b>3.0900e-003</b>	<b>3.0900e-003</b>		<b>3.0900e-003</b>	<b>3.0900e-003</b>		<b>48.7529</b>	<b>48.7529</b>	<b>9.3000e-004</b>	<b>8.9000e-004</b>	<b>49.0427</b>

**6.0 Area Detail**

## Martin Street Apartments Project - Lake County AQMD Air District, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied****6.1 Mitigation Measures Area**

No Hearths Installed

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	1.3215	0.0381	3.3069	1.7000e-004		0.0183	0.0183		0.0183	0.0183	0.0000	5.9598	5.9598	5.7500e-003	0.0000	6.1035
Unmitigated	62.5373	1.2336	78.8712	0.1371		10.6131	10.6131		10.6131	10.6131	1,110.8692	471.8422	1,582.7114	1.0309	0.0874	1,634.5225

## Martin Street Apartments Project - Lake County AQMD Air District, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied****6.2 Area by SubCategory****Unmitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.3505					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.8711					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	61.2158	1.1955	75.5643	0.1369		10.5948	10.5948		10.5948	10.5948	1,110.869 2	465.8824	1,576.751 6	1.0252	0.0874	1,628.419 0
Landscaping	0.1000	0.0381	3.3069	1.7000e-004		0.0183	0.0183		0.0183	0.0183		5.9598	5.9598	5.7500e-003		6.1035
<b>Total</b>	<b>62.5373</b>	<b>1.2336</b>	<b>78.8712</b>	<b>0.1371</b>		<b>10.6131</b>	<b>10.6131</b>		<b>10.6131</b>	<b>10.6131</b>	<b>1,110.869 2</b>	<b>471.8422</b>	<b>1,582.711 4</b>	<b>1.0309</b>	<b>0.0874</b>	<b>1,634.522 5</b>

## Martin Street Apartments Project - Lake County AQMD Air District, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied****6.2 Area by SubCategory****Mitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.3505					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.8711					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	0.1000	0.0381	3.3069	1.7000e-004		0.0183	0.0183		0.0183	0.0183		5.9598	5.9598	5.7500e-003		6.1035
<b>Total</b>	<b>1.3215</b>	<b>0.0381</b>	<b>3.3069</b>	<b>1.7000e-004</b>		<b>0.0183</b>	<b>0.0183</b>		<b>0.0183</b>	<b>0.0183</b>	<b>0.0000</b>	<b>5.9598</b>	<b>5.9598</b>	<b>5.7500e-003</b>	<b>0.0000</b>	<b>6.1035</b>

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

Apply Water Conservation Strategy

## Martin Street Apartments Project - Lake County AQMD Air District, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied****8.0 Waste Detail**

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**8.1 Mitigation Measures Waste****9.0 Operational Offroad**

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

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**Fire Pumps and Emergency Generators**

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

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

Equipment Type	Number
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**11.0 Vegetation**

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## Martin Street Apartments Project

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

#### Lake County AQMD Air District, Mitigation Report

### Construction Mitigation Summary

Phase	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction												
Architectural Coating	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Building Construction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grading	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Site Preparation	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

### OFFROAD Equipment Mitigation

**Martin Street Apartments Project****EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

Equipment Type	Fuel Type	Tier	Number Mitigated	Total Number of Equipment	DPF	Oxidation Catalyst
Air Compressors	Diesel	No Change	0	1	No Change	0.00
Cement and Mortar Mixers	Diesel	No Change	0	2	No Change	0.00
Cranes	Diesel	No Change	0	1	No Change	0.00
Excavators	Diesel	No Change	0	1	No Change	0.00
Forklifts	Diesel	No Change	0	3	No Change	0.00
Generator Sets	Diesel	No Change	0	1	No Change	0.00
Graders	Diesel	No Change	0	1	No Change	0.00
Pavers	Diesel	No Change	0	1	No Change	0.00
Paving Equipment	Diesel	No Change	0	2	No Change	0.00
Rollers	Diesel	No Change	0	2	No Change	0.00
Rubber Tired Dozers	Diesel	No Change	0	4	No Change	0.00
Tractors/Loaders/Backhoes	Diesel	No Change	0	12	No Change	0.00
Welders	Diesel	No Change	0	1	No Change	0.00

**Martin Street Apartments Project****EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

Equipment Type	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Unmitigated tons/yr							Unmitigated mt/yr					
Air Compressors	2.39800E-002	1.62150E-001	2.35360E-001	3.90000E-004	8.35000E-003	8.35000E-003	0.00000E+000	3.31923E+001	3.31923E+001	1.91000E-003	0.00000E+000	3.32400E+001
Cement and Mortar Mixers	2.20000E-004	1.38000E-003	1.16000E-003	0.00000E+000	5.00000E-005	5.00000E-005	0.00000E+000	1.71850E-001	1.71850E-001	2.00000E-005	0.00000E+000	1.72300E-001
Cranes	3.85800E-002	4.11960E-001	2.04430E-001	6.60000E-004	1.71700E-002	1.57900E-002	0.00000E+000	5.76651E+001	5.76651E+001	1.86500E-002	0.00000E+000	5.81313E+001
Excavators	2.83000E-003	2.32300E-002	4.88700E-002	8.00000E-005	1.14000E-003	1.05000E-003	0.00000E+000	6.80532E+000	6.80532E+000	2.20000E-003	0.00000E+000	6.86035E+000
Forklifts	3.79600E-002	3.55770E-001	4.45140E-001	6.00000E-004	2.11200E-002	1.94300E-002	0.00000E+000	5.23736E+001	5.23736E+001	1.69400E-002	0.00000E+000	5.27971E+001
Generator Sets	3.80800E-002	3.39170E-001	4.76570E-001	8.60000E-004	1.52500E-002	1.52500E-002	0.00000E+000	7.34770E+001	7.34770E+001	3.07000E-003	0.00000E+000	7.35538E+001
Graders	5.75000E-003	6.98000E-002	2.53900E-002	1.00000E-004	2.26000E-003	2.08000E-003	0.00000E+000	8.72061E+000	8.72061E+000	2.82000E-003	0.00000E+000	8.79112E+000
Pavers	4.80000E-004	4.71000E-003	7.21000E-003	1.00000E-005	2.20000E-004	2.00000E-004	0.00000E+000	1.03242E+000	1.03242E+000	3.30000E-004	0.00000E+000	1.04076E+000
Paving Equipment	6.40000E-004	6.01000E-003	9.59000E-003	2.00000E-005	2.90000E-004	2.70000E-004	0.00000E+000	1.34195E+000	1.34195E+000	4.30000E-004	0.00000E+000	1.35280E+000
Rollers	5.80000E-004	6.04000E-003	6.95000E-003	1.00000E-005	3.30000E-004	3.10000E-004	0.00000E+000	8.64460E-001	8.64460E-001	2.80000E-004	0.00000E+000	8.71450E-001
Rubber Tired Dozers	4.10800E-002	4.27630E-001	1.86380E-001	5.10000E-004	1.92600E-002	1.77100E-002	0.00000E+000	4.50146E+001	4.50146E+001	1.45600E-002	0.00000E+000	4.53785E+001
Tractors/Loaders/Backhoes	6.67200E-002	6.74390E-001	1.00779E+000	1.41000E-003	3.22200E-002	2.96500E-002	0.00000E+000	1.23492E+002	1.23492E+002	3.99400E-002	0.00000E+000	1.24491E+002
Welders	3.15700E-002	1.81450E-001	2.16980E-001	3.30000E-004	6.55000E-003	6.55000E-003	0.00000E+000	2.44687E+001	2.44687E+001	2.56000E-003	0.00000E+000	2.45327E+001



**Martin Street Apartments Project****EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

Equipment Type	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Mitigated tons/yr							Mitigated mt/yr					
Air Compressors	2.39800E-002	1.62150E-001	2.35360E-001	3.90000E-004	8.35000E-003	8.35000E-003	0.00000E+000	3.31923E+001	3.31923E+001	1.91000E-003	0.00000E+000	3.32400E+001
Cement and Mortar Mixers	2.20000E-004	1.38000E-003	1.16000E-003	0.00000E+000	5.00000E-005	5.00000E-005	0.00000E+000	1.71850E-001	1.71850E-001	2.00000E-005	0.00000E+000	1.72300E-001
Cranes	3.85800E-002	4.11960E-001	2.04430E-001	6.60000E-004	1.71700E-002	1.57900E-002	0.00000E+000	5.76650E+001	5.76650E+001	1.86500E-002	0.00000E+000	5.81312E+001
Excavators	2.83000E-003	2.32300E-002	4.88700E-002	8.00000E-005	1.14000E-003	1.05000E-003	0.00000E+000	6.80531E+000	6.80531E+000	2.20000E-003	0.00000E+000	6.86034E+000
Forklifts	3.79600E-002	3.55770E-001	4.45130E-001	6.00000E-004	2.11200E-002	1.94300E-002	0.00000E+000	5.23736E+001	5.23736E+001	1.69400E-002	0.00000E+000	5.27970E+001
Generator Sets	3.80800E-002	3.39170E-001	4.76570E-001	8.60000E-004	1.52500E-002	1.52500E-002	0.00000E+000	7.34769E+001	7.34769E+001	3.07000E-003	0.00000E+000	7.35537E+001
Graders	5.75000E-003	6.98000E-002	2.53900E-002	1.00000E-004	2.26000E-003	2.08000E-003	0.00000E+000	8.72060E+000	8.72060E+000	2.82000E-003	0.00000E+000	8.79111E+000
Pavers	4.80000E-004	4.71000E-003	7.21000E-003	1.00000E-005	2.20000E-004	2.00000E-004	0.00000E+000	1.03241E+000	1.03241E+000	3.30000E-004	0.00000E+000	1.04076E+000
Paving Equipment	6.40000E-004	6.01000E-003	9.59000E-003	2.00000E-005	2.90000E-004	2.70000E-004	0.00000E+000	1.34195E+000	1.34195E+000	4.30000E-004	0.00000E+000	1.35280E+000
Rollers	5.80000E-004	6.04000E-003	6.95000E-003	1.00000E-005	3.30000E-004	3.10000E-004	0.00000E+000	8.64460E-001	8.64460E-001	2.80000E-004	0.00000E+000	8.71450E-001
Rubber Tired Dozers	4.10800E-002	4.27630E-001	1.86380E-001	5.10000E-004	1.92600E-002	1.77100E-002	0.00000E+000	4.50145E+001	4.50145E+001	1.45600E-002	0.00000E+000	4.53785E+001
Tractors/Loaders/Balckhoes	6.67200E-002	6.74390E-001	1.00779E+000	1.41000E-003	3.22200E-002	2.96500E-002	0.00000E+000	1.23492E+002	1.23492E+002	3.99400E-002	0.00000E+000	1.24491E+002
Welders	3.15700E-002	1.81450E-001	2.16980E-001	3.30000E-004	6.55000E-003	6.55000E-003	0.00000E+000	2.44687E+001	2.44687E+001	2.56000E-003	0.00000E+000	2.45327E+001

**Martin Street Apartments Project****EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

Equipment Type	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction												
Air Compressors	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.20510E-006	1.20510E-006	0.00000E+000	0.00000E+000	1.20337E-006
Cement and Mortar Mixers	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000
Cranes	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.21391E-006	1.21391E-006	0.00000E+000	0.00000E+000	1.20417E-006
Excavators	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.46944E-006	1.46944E-006	0.00000E+000	0.00000E+000	1.45765E-006
Forklifts	0.00000E+000	0.00000E+000	2.24648E-005	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.14562E-006	1.14562E-006	0.00000E+000	0.00000E+000	1.13643E-006
Generator Sets	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.22487E-006	1.22487E-006	0.00000E+000	0.00000E+000	1.22359E-006
Graders	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.14671E-006	1.14671E-006	0.00000E+000	0.00000E+000	1.13751E-006
Pavers	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	9.68598E-006	9.68598E-006	0.00000E+000	0.00000E+000	0.00000E+000
Paving Equipment	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000
Rollers	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000
Rubber Tired Dozers	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.33290E-006	1.33290E-006	0.00000E+000	0.00000E+000	1.10184E-006
Tractors/Loaders/Balckhoes	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.21465E-006	1.21465E-006	0.00000E+000	0.00000E+000	1.20491E-006
Welders	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.22606E-006	1.22606E-006	0.00000E+000	0.00000E+000	1.22286E-006

**Fugitive Dust Mitigation**

Yes/No    Mitigation Measure    Mitigation Input    Mitigation Input    Mitigation Input

No	Soil Stabilizer for unpaved Roads	PM10 Reduction		PM2.5 Reduction		
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**Martin Street Apartments Project****EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

No	Replace Ground Cover of Area Disturbed	PM10 Reduction		PM2.5 Reduction			
No	Water Exposed Area	PM10 Reduction		PM2.5 Reduction		Frequency (per day)	
No	Unpaved Road Mitigation	Moisture Content %		Vehicle Speed (mph)	0.00		
No	Clean Paved Road	% PM Reduction	0.00				

Phase	Source	Unmitigated		Mitigated		Percent Reduction	
		PM10	PM2.5	PM10	PM2.5	PM10	PM2.5
Architectural Coating	Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00
Architectural Coating	Roads	0.01	0.00	0.01	0.00	0.00	0.00
Building Construction	Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00
Building Construction	Roads	0.05	0.01	0.05	0.01	0.00	0.00
Grading	Fugitive Dust	0.11	0.05	0.11	0.05	0.00	0.00
Grading	Roads	0.00	0.00	0.00	0.00	0.00	0.00
Paving	Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00
Paving	Roads	0.00	0.00	0.00	0.00	0.00	0.00
Site Preparation	Fugitive Dust	0.29	0.15	0.29	0.15	0.00	0.00
Site Preparation	Roads	0.00	0.00	0.00	0.00	0.00	0.00

**Operational Percent Reduction Summary**

**Martin Street Apartments Project****EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

Category	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction												
Architectural Coating	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hearth	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Landscaping	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mobile	4.94	9.57	9.16	10.59	10.36	10.27	0.00	10.64	10.64	7.06	8.93	10.61
Natural Gas	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Water Indoor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.79	3.99	0.02	0.00	1.99
Water Outdoor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

**Operational Mobile Mitigation**

Project Setting: Suburban Center

Mitigation	Category	Measure	% Reduction	Input Value 1	Input Value 2	Input Value 3
No	Land Use	Increase Density	0.00			
No	Land Use	Increase Diversity	0.10	0.31		
No	Land Use	Improve Walkability Design	0.00			
No	Land Use	Improve Destination Accessibility	0.00			
Yes	Land Use	Increase Transit Accessibility	0.17	0.22		
No	Land Use	Integrate Below Market Rate Housing	0.00			
	Land Use	Land Use SubTotal	0.10			

**Martin Street Apartments Project****EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

Yes	Neighborhood Enhancements	Improve Pedestrian Network	1.00	Project Site		
No	Neighborhood Enhancements	Provide Traffic Calming Measures				
No	Neighborhood Enhancements	Implement NEV Network	0.00			
	Neighborhood Enhancements	Neighborhood Enhancements Subtotal	0.01			
No	Parking Policy Pricing	Limit Parking Supply	0.00			
No	Parking Policy Pricing	Unbundle Parking Costs	0.00			
No	Parking Policy Pricing	On-street Market Pricing	0.00			
	Parking Policy Pricing	Parking Policy Pricing Subtotal	0.00			
No	Transit Improvements	Provide BRT System	0.00			
No	Transit Improvements	Expand Transit Network	0.00			
No	Transit Improvements	Increase Transit Frequency	0.00			
	Transit Improvements	Transit Improvements Subtotal	0.00			
		Land Use and Site Enhancement Subtotal	0.11			
No	Commute	Implement Trip Reduction Program				
No	Commute	Transit Subsidy				
No	Commute	Implement Employee Parking "Cash Out"	4.50			
No	Commute	Workplace Parking Charge				
No	Commute	Encourage Telecommuting and Alternative Work Schedules	0.00			
No	Commute	Market Commute Trip Reduction Option	0.00			
No	Commute	Employee Vanpool/Shuttle	0.00			2.00

**Martin Street Apartments Project****EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

No	Commute	Provide Ride Sharing Program	10.00		
	Commute	Commute Subtotal	0.00		
No	School Trip	Implement School Bus Program	0.00		
		Total VMT Reduction	0.11		

**Area Mitigation**

Measure Implemented	Mitigation Measure	Input Value
No	Only Natural Gas Hearth	
Yes	No Hearth	
No	Use Low VOC Cleaning Supplies	
No	Use Low VOC Paint (Residential Interior)	250.00
No	Use Low VOC Paint (Residential Exterior)	250.00
No	Use Low VOC Paint (Non-residential Interior)	250.00
No	Use Low VOC Paint (Non-residential Exterior)	250.00
No	Use Low VOC Paint (Parking)	250.00
No	% Electric Lawnmower	0.00
No	% Electric Leafblower	0.00
No	% Electric Chainsaw	0.00

**Energy Mitigation Measures**

Measure Implemented	Mitigation Measure	Input Value 1	Input Value 2
No	Exceed Title 24	0.00	

**Martin Street Apartments Project****EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

No	Install High Efficiency Lighting	0.00	
No	On-site Renewable	0.00	0.00

Appliance Type	Land Use Subtype	% Improvement
ClothWasher		30.00
DishWasher		15.00
Fan		50.00
Refrigerator		15.00

**Water Mitigation Measures**

Measure Implemented	Mitigation Measure	Input Value 1	Input Value 2
Yes	Apply Water Conservation on Strategy	0.00	20.00
No	Use Reclaimed Water	0.00	0.00
No	Use Grey Water	0.00	
No	Install low-flow bathroom faucet	32.00	
No	Install low-flow Kitchen faucet	18.00	
No	Install low-flow Toilet	20.00	
No	Install low-flow Shower	20.00	
No	Turf Reduction	0.00	
No	Use Water Efficient Irrigation Systems	6.10	
No	Water Efficient Landscape	0.00	0.00

**Solid Waste Mitigation**

**Martin Street Apartments Project**

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

Mitigation Measures	Input Value
Institute Recycling and Composting Services Percent Reduction in Waste Disposed	



## **APPENDIX B**

### **BIOLOGICAL RESOURCES PEER REVIEW MEMO**



Environmental Consulting,  
Regulatory Compliance and  
Aerial Photographic Services

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August 25, 2022

Raney Planning &  
Management, Inc. 1501  
Sports Drive  
Sacramento, CA 95834

**ATTN: Mr. Rod Stinson**

**RE: BIOLOGICAL RESOURCES PEER REVIEW MEMO for the Martin Street Apartments Phase II project in the City of Lakeport, CA.**

Barnett Environmental (Barnett) has been asked by Raney Planning & Management (Raney) to prepare a *Biological Resources Peer Review Memo* to review this project parcel's existing habitats, available species occurrence records (e.g. CNDDDB, etc.), and any other relevant information for the site and provide our professional opinion regarding potential for onsite species occurrence and adverse project impacts.

**METHODOLOGY**

To perform this task, I reviewed the following documents and databases, either made available to us by Raney or discovered during our own research on this and/or other projects in the vicinity. These materials include, but are not limited to:

1. Barnett Environmental. 2022. *Wetland & Biological Resources Assessment of the Proposed Bevins Street Senior Apartments Property at 447 Bevins Street in Lakeport, CA 95453 (APN 025-431-137)*.
2. CalFlora. 2022. What Grows Here (<https://www.calflora.org/entry/wgh.html>) & Observation Search (<https://www.calflora.org/entry/observ.html>) Databases.
3. California Department of Fish & Wildlife. 2022. California Natural Diversity Database (CNDDDB). <https://apps.wildlife.ca.gov/rarefind/view/RareFind.aspx>
4. California Native Plant Society (CNPS). 2022. Rare Plant Inventory. <https://rareplants.cnps.org/Home/Index/>
5. EcoAtlas. 2022. California Aquatic Resources Inventory. <https://www.ecoatlas.org/regions/ecoregion/sacramento-valley>
6. Lake County, California. 2022. County Serpentine Soils GIS Database. <https://gispublic.co.lake.ca.us/portal/apps/webappviewer/index.html?id=87dfc0c535b2478bb67df69d6d319eca>
7. McCarten, Niall F. 1988. *Rare and Endemic Plants of Lake County Serpentine Soil Habitats*.
8. Northwest Biosurvey. 2017. *Biological Resource Assessment with Botanical Survey and Delineation of Waters of the U.S. for Chris Jennings' APN 010-045-06, in Lake County, California*.

9. Raney Planning & Management, Inc. 2022. *Martin Street Apartments Phase III Project Initial Study/Mitigated Negative Declaration*.
10. U.S. Fish & Wildlife Service. 2022. *National Wetlands Inventory* <https://fwsprimary.wim.usgs.gov/wetlands/apps/wetlands-mapper/>
11. U.S. Fish & Wildlife Service. 2022. *iPac Database*. <https://ipac.ecosphere.fws.gov/>
12. U.S. Natural Resources Conservation Service. 2022. Web Soil Survey. <https://websoilsurvey.sc.egov.usda.gov/App/WebSoilSurvey.aspx>
13. WRA Environmental Consultants. 2019. *Biological Resources Assessment Report for the Lakeport Drive-In at 52 Soda Bay Road in Unincorporated Lake County*.

Following the above desk review, Dr. Barnett visited the site to investigate the applicability of species occurrence predictions to actual, existing habitat types and conditions in order to realistically determine the actual probability (if any) of each species occurrence.

## **RESULTS**

### ***Special Status Plants***

I reviewed plant species occurrence records from the CDFW's *Natural Diversity*, Calflora's *What Grows Here?*, and the California Native Plant Society's *Rare Plant Inventory* databases, along with Lake County's serpentine soils GIS database, Niall McCarten's seminal work on serpentine soil plants of Lake County, and several other, recent *Biological Resources Assessments* (BRAs) in the vicinity (see references #8 - Northwest BioSurvey and #13 - WRA, above) to identify those species with any real potential to occur onsite, not including those species either deemed extinct or extirpated, as their likelihood of current presence is close to nil. And the real likelihood of occurrence (e.g., very low) of the remaining species must also be tempered by the ongoing, highly disturbed nature of the site. I also included those plant species that prefer serpentine soils, as these soils occur in the project area's NE corner and could conceivably occur elsewhere onsite as well (see Figure 1).

The resulting rare species with any potential to occur onsite are therefore summarized in Table 1.

### ***Special Status Wildlife***

I also re-examined CDFW's *Natural Diversity Database* and queried the USFWS *Information for Planning & Consultation* (iPac), as well as the previous BRAs on nearby properties in the City to determine the real potential for sensitive wildlife occurrence on this site. Due to the relative absence of native habitat on the project site, I was also only able to identify a single species (American badger) with even the slightest potential to occur here. However, routine disturbance of this site by ongoing human activity likely precludes even this species from occurring here, though they could conceivably traverse the site at night, when no activity or human presence is likely.

### ***Wildlife Movement Corridors***

As accurately stated in the project MND, the site is located in a relatively urbanized near other existing development, including the Phase I and Phase II of the Martin Street Apartments to the north, SR 29 to the west and south, and residential and industrial uses to the east and south. The currently disturbed nature of this and surrounding properties, along with the fact that the project site does not contain streams or other waterways for fish or wildlife movement, would greatly limit its value as a wildlife movement corridor.

**Table 1 – Rare Plants with the Possibility to Occur in the Project Area**

Scientific Name	Common Name	Legal Status			Habitat	Prefers Serpentine Soils?	Blooming Period	Likelihood of Occurrence
		Federal	State	CNPS				
<i>Amsinckia lunaris</i>	bent-flowered fiddleneck	None	None	1.B.2	Cismontane woodland, Coastal bluff scrub, <b>Valley/foothill grassland</b> , often serpentine soils	Yes	March-June	Very low
<i>Calycadenia micrantha</i>	small-flowered calycadenia	None	None	1.B.2	Rocky talus/scree in Chaparral, Meadows & seeps, <b>Valley/foothill grassland</b> , often serpentine soils	Yes	June- September	Very low
<i>Cryptantha dissita</i>	Serpentine cryptantha	None	None	1.B.2	Chaparral	Yes	April-June	none
<i>Hesperolinon adenophyllum</i>	glandular western flax	None	None	1.B.2	Chaparral, Cismontane woodland, <b>Valley/foothill grassland</b> , often serpentine soils	Yes	May- August	Very low
<i>Horkelia bolanderi</i>	Bolander's horkelia	None	None	1.B.2	Chaparral, montane coniferous forest, Meadows & seeps, <b>Valley/foothill grassland</b>	No	May- August	low
<i>Layia septentrionalis</i>	Colusa layia	None	None	1.B.2	Chaparral, Cismontane woodland, <b>Valley/foothill grassland</b>	Yes, or sandy soils	April-May	Very low
<i>Navarretia leucocephala ssp. pauciflora</i>	few- flowered navarretia	Endangered	Threatened	1.B.1	Vernal pools	No	May-June	none
<i>Quercus dumosa</i>	Nuttall's scrub oak	None	None	1.B.1	Clay/loam/sandy soils in chaparral, closed-cone coniferous forest, coastal scrub	No	February- August	none
<i>Tracyina rostrata</i>	Beaked tracyina	None	None	1.B.2	Grassy meadows in Chaparral, Cismontane woodland, <b>Valley/foothill grassland</b>	No	May-June	low
<i>Trichostema ruygtii</i>	Napa bluecurls	None	None	1.B.2	Chaparral, Cismontane woodland, montane coniferous forest, <b>Valley/foothill grassland</b> , Vernal pools	No	June- October	low

## CA RARE PLANT RANK

1B Rare or Endangered — Rare, threatened, or endangered in California and elsewhere. Rare throughout their entire range with the majority also being endemic to California. Most plants ranked 1B have declined significantly over the last century. All Rare Plant Rank 1B plants meet definitions of California Endangered Species Act, California Department of Fish & Game Code, and are eligible for state listing. Impacts to these species or their habitat must be analyzed during preparation of environmental documents relating to CEQA, or those considered to be functionally equivalent to CEQA, as they meet the definition of Rare or Endangered under CEQA Guidelines §15125 (c) and/or §15380.

2B Rare or Endangered in California — Rare, threatened, or endangered in California, but common elsewhere. If not common beyond California boundaries, 2B plants would have been ranked 1B. From the federal perspective, plants common in other states or countries are not eligible for consideration under the provisions of the Federal Endangered Species Act. All Rare Plant Rank 2B plants meet the definitions of the California Endangered Species Act of the California Department of Fish and Game Code, and are eligible for state listing. Impacts to these species or their habitat must be analyzed during preparation of environmental documents relating to CEQA, or those considered to be functionally equivalent to CEQA, as they meet the definition of Rare or Endangered under CEQA Guidelines §15125 (c) and/or §15380.

## CNPS THREAT RANK

- 0.1 Seriously threatened in California — Over 80% of occurrences threatened / high degree and immediacy of threat.
- 0.2 Moderately threatened in California — 20-80% of occurrences threatened / moderate degree and immediacy of threat.

## RECOMMENDATIONS

Based on the above analysis, I propose modifying the *Special- Status Plants* discussion in *Section IV – Biological Resources* of the MND to include this report's Table 1 on special status plants, along with brief discussions of each (additonal) species identified with potential to occur onsite, even though the ongoing, highly disturbed nature of the parcel would likely preclude presence of any of these species. I do not propose revision of Section IV's wildlife section and I feel that Mitigation Measure IV-2 (Tree Removal) appropriately requests an arborist report and tree inventory for the site to inform the City to either retain the trees proposed for removal or mitigate the impact of the loss of trees on-site in accordance with Section 17.21.050 of the Lakeport Municipal Code.

Barnett therefore considers *Section IV – Biological Resources* of the MND to be generally complete and sufficient with regards to special status plant & wildlife species and identification of the need to develop additional information on trees occurring onsite and in its evaluation of the generally disturbed nature of the site and very low potential for species occurrence.

Please do not hesitate to contact me (Dr. Barnett) with any questions regarding this peer review or to further discuss my methods, conclusions, or recommendations.

Yours most sincerely,

A handwritten signature in blue ink that reads "Bruce D. Barnett". The signature is fluid and cursive, with a horizontal line extending from the end.

Bruce D. Barnett, Ph.D.  
Barnett Environmental