City of SACRAMENTO
Community Development

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# Modified Initial Study/15183 Checklist

The City of Sacramento, California, a municipal corporation, does hereby prepare, declare, and publish this Modified Initial Study/15183 Checklist for the following described project:

**Ascent Apartments Project (DR22-191):** The 4.35-acre project site consists of three parcels located at the northwestern corner of Del Paso Road and El Centro Road, west of Interstate 5, within the North Natomas Community Plan area in the City of Sacramento, California. The project site, identified by Assessor's Parcel Numbers (APNs) 225-2060-003, -004, and -005, is comprised of undeveloped graded areas, paved surface parking areas, landscaping trees and vegetation, and a pergola. Surrounding existing land uses include condominiums and single-family residences to the north; undeveloped land to the east, across El Centro Road; commercial uses and surface parking immediately to the south; undeveloped land further south, across Del Paso Road; and condominiums and Westlake Park to the west. The City of Sacramento 2035 General Plan designates the project site as Suburban Center, and the site is zoned Shopping Center and Westborough Planned Unit Development (SC-PUD).

The proposed project would include the development of a 120-unit affordable housing community comprised of five multi-family buildings and a community building. Of the 120 units, 60 would be one-bedroom units, 30 would be two-bedroom units, and 30 would be three-bedroom units. Floor plans would range from 565 square feet (sf) to 1,187 sf. In addition, the project would feature several amenities, including a clubhouse, fitness center, swimming pool, and employment and educational training classrooms. The proposed project would require approval of a Density Bonus Concession.

The City of Sacramento 2035 General Plan designates the project site as Suburban Center. The Suburban Center land use designation is applied to automobile-oriented suburban centers that are currently dedicated to parking space, and which can be developed with residential and office uses. The maximum allowed density is 36 dwelling units per acre (du/ac) based on net acreage. Given that the proposed project would be residential in nature, and would have an approximate density of 28 du/ac based on net acreage, the proposed project would be consistent with the Suburban Center land use designation. In addition, in accordance with Section 17.216.510 of the Sacramento City Code, the residential use of the project site would be an allowed use under the SC-PUD zoning designation.

In March 2015, the City of Sacramento adopted the 2035 General Plan and certified an associated Master Environmental Impact Report (Master EIR) for the updated General Plan. The Master 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 Master EIR analyzed full implementation of the General Plan and identified measures to mitigate the significant adverse impacts associated with the General Plan.

Under Section 15183 of the CEQA Guidelines, where a project is consistent with the use and density established for a property under an existing general plan or zoning ordinance for which the City has already certified an EIR, additional environmental review is not required "except as might be necessary to examine whether there are project-specific significant effects which are peculiar to the project or its site." If such requirements are met, the examination of environmental effects is limited to those which the agency determines, in an initial study or other analysis:

1. Are peculiar to the project or the parcel on which the project would be located;
2. Were not analyzed as significant effects in a prior EIR on the zoning action, general plan or community plan with which the project is consistent;

3. Are potentially significant off-site impacts and cumulative impacts which were not discussed in the prior EIR prepared for the general plan, community plan or zoning action; or
4. Are previously identified significant effects which, as a result of substantial new information which was not known at the time the EIR was certified, are determined to have a more severe adverse impact than discussed in the prior EIR.

As set forth by Sections 15168 and 15183 of the CEQA Guidelines, the program EIR, in this case the City's Master EIR, serves as a basis for the Modified Initial Study/15183 Checklist to determine if project-specific impacts would occur that are not adequately covered in the previously certified EIR. The information and analysis presented in this document is organized in accordance with City of Sacramento guidance and Appendix G of the CEQA Guidelines.

This Modified Initial Study/15183 Checklist indicates whether the proposed project would result in a significant impact that: (1) is peculiar to the project or the project site; (2) was not identified as a significant effect in the Master EIR; or (3) are previously identified significant effects, which as a result of substantial new information that was not known at the time that the Master EIR was certified, are determined to have a more severe adverse impact than discussed in the Master EIR.

Regarding "peculiar" impacts, CEQA Guidelines Section 15183(f) states the following:

> An effect of a project on the environment shall not be considered peculiar to the project or the parcel for the purposes of this section if uniformly applied development policies or standards have been previously adopted by the city or county with a finding that the development policies or standards will substantially mitigate that environmental effect when applied to future projects, unless substantial new information shows that the policies or standards will not substantially mitigate the environmental effect. The finding shall be based on substantial evidence which need not include an EIR.

Based upon 15183(f), this Modified Initial Study/15183 Checklist will identify the 2035 General Plan policies and/or actions that apply to the development of the project, and have been determined in the Master EIR to substantially mitigate environmental effects. To the extent that the General Plan policies and/or actions substantially mitigate a particular project impact, the impact shall not be considered peculiar, pursuant to 15183(f), thus, eliminating the requirement for further environmental review.

A copy of this document and all supportive documentation may be reviewed through the City's website at https://www.cityofsacramento.org/Community-Development/Planning/Environmental/ Impact-Reports.

Environmental Services Manager, City of Sacramento, California, a municipal corporation

By: Scott Johnson for Tom Buford

Date: April 26, 2023

City of SACRAMENTO

# ASCENT APARTMENTS PROJECT (DR22-191)

## MODIFIED INITIAL STUDY/ 15183 CHECKLIST FOR ANTICIPATED SUBSEQUENT PROJECTS UNDER THE 2035 GENERAL PLAN MASTER EIR

This Modified Initial Study/15183 Checklist has been prepared by the City of Sacramento, Community Development Department, 300 Richards Boulevard, Third Floor, Sacramento, CA 95811, pursuant to the California Environmental Quality Act (PRC Sections 21000 *et seq.*), CEQA Guidelines (Title 14, Section 15183 of the California Code of Regulations [CCR]) and the Sacramento Local Environmental Regulations (Resolution 91-892) adopted by the City of Sacramento.

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### ORGANIZATION OF THE MODIFIED INITIAL STUDY/15183 CHECKLIST

This Modified Initial Study/15183 Checklist is organized into the following sections:

**SECTION I - BACKGROUND:** Provides summary background information about the project name, location, sponsor, and the date this Modified Initial Study/15183 Checklist was completed.

**SECTION II - PROJECT DESCRIPTION:** Includes a detailed description of the proposed project.

**SECTION III - ENVIRONMENTAL CHECKLIST AND DISCUSSION:** Reviews proposed project and states whether the project would have additional significant environmental effects (project-specific effects) that were not evaluated in the Master EIR for the 2035 General Plan.

**SECTION IV - ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:** Identifies which environmental factors were determined to have additional significant environmental effects.

**SECTION V - DETERMINATION:** States whether environmental effects associated with development of the proposed project are significant, and what, if any, added environmental documentation may be required.

**REFERENCES CITED:** Identifies source materials that have been consulted in the preparation of the Modified Initial Study/15183 Checklist.

**APPENDICES:** Appends technical information that was referenced as attached in the preparation of the Modified Initial Study/15183 Checklist.

# SECTION I - BACKGROUND

| | |
|---|---|
| Project Name and File Number: | Ascent Apartments Project (DR22-191) |
| Project Location: | Northwest of the intersection of Del Paso Road and El Centro Road<br>Sacramento, CA 95835<br>Assessor's Parcel Numbers (APNs) 225-2060-003, -004, and -005 |
| Project Applicant: | St. Anton Communities, LLC<br>1801 I Street, #200<br>Sacramento, CA 95811 |
| Project Planner: | Jose R. Quintanilla, Associate Planner<br>(916) 808-5879<br>jquintanilla@cityofsacramento.org |
| Environmental Planner: | Ron Bess, Associate Planner<br>(916) 808-8272<br>Rbess@cityofsacramento.org |
| Date Modified Initial Study Completed: | April 2023 |

This Modified Initial Study/15183 Checklist was prepared in accordance with the California Environmental Quality Act (CEQA) (PRC Sections 1500 *et seq*.). The Lead Agency is the City of Sacramento.

As part of the Master EIR process, the City is required to incorporate all feasible mitigation measures or feasible alternatives appropriate to the project as set forth in the Master EIR (CEQA Guidelines Section 15177(d)). Policies included in the 2035 General Plan that reduce significant impacts identified in the Master EIR are identified and discussed. See also the Master EIR for the 2035 General Plan. The mitigation monitoring plan for the 2035 General Plan, which provides references to applicable General Plan policies that reduce the environmental effects of development that may occur consistent with the General Plan, is included in the adopting resolution for the Master EIR. See City Council Resolution No. 2015-0060, beginning on page 60. The resolution is available at:

http://portal.cityofsacramento.org/Community-Development/Planning/Environmental/Impact-Reports.aspx.

This analysis incorporates by reference the general discussion portions of the 2035 General Plan Master EIR. (CEQA Guidelines Section 15150(a)). The Master EIR is available for review at the City of Sacramento's web site at:

http://www.cityofsacramento.org/Community-Development/Planning/Environmental/Impact-Reports.aspx

# SECTION II - PROJECT DESCRIPTION

### INTRODUCTION

The Project Description section of the Modified Initial Study/15183 Checklist provides a description of the Ascent Apartments Project (proposed project) location, existing conditions, surrounding land uses, and project components.

### PROJECT LOCATION, EXISTING CONDITIONS, AND SURROUNDING LAND USES

The 4.35-acre project site consists of three parcels located at the northwestern corner of Del Paso Road and El Centro Road, west of Interstate 5, within the North Natomas Community Plan area in the City of Sacramento, California (APNs 225-2060-003, -004, and -005) (see Figure 1). The project site is comprised of undeveloped graded areas, paved surface parking areas, landscaping trees and vegetation, and a pergola. Surrounding existing land uses include condominiums and single-family residences to the north; undeveloped land to the east, across El Centro Road; commercial uses and surface parking immediately to the south; undeveloped land further south, across Del Paso Road; and condominiums and Westlake Park to the west (see Figure 2).

The City of Sacramento 2035 General Plan designates the project site as Suburban Center, and the site is zoned SC-PUD. Following the approval of a Density Bonus Concession, the proposed project would be consistent with the current General Plan and zoning designations for the project site.

### PROJECT DESCRIPTION

The proposed project would include the development of a 120-unit affordable housing community comprised of five multi-family buildings and a community building (see Figure 3). Of the 120 units, 60 would be one-bedroom units, 30 would be two-bedroom units, and 30 would be three-bedroom units. Floor plans would range from 565 square feet (sf) to 1,187 sf. Each unit would include one to two bathrooms, a living room, kitchen, dining area, and an external balcony. Three designs are proposed for the multi-family buildings: Building A would have an elevation of 40 feet, eight inches, and Building B and Building C would have an elevation of 39 feet, ten inches (see Figure 4 and Figure 5). In addition, the project would feature several amenities, including a clubhouse, fitness center, swimming pool, and employment and educational training classrooms.

Of the 79 on-site trees, 72 would be removed to accommodate the proposed development. All on-site trees are street trees or ornamental landscape trees associated with the surrounding development. The proposed density of the project would be approximately 28 dwelling units per acre (du/ac). The proposed project would require approval by the City of Sacramento of a Density Bonus Concession to remove the mixed-use requirement within the SC-PUD and allow development of the proposed 100 percent affordable housing project.

Access to the project site would be provided through existing access driveways from El Centro Road to the east and from the existing parking lot to the south. The northeastern access point would be reserved for emergency vehicle access (EVA); two more access points would be established in the southeastern corner of the project site. All access driveways would be gated. In addition, the proposed project would establish pedestrian gate access near each vehicle access point, as well as one additional pedestrian gate access in middle of the project site's southern boundary, and another on the western boundary.

The proposed project would include the removal of approximately 78 existing parking spaces associated with the existing commercial development in the site vicinity. A total of 188 new private parking spaces would be developed throughout the project site, 60 of which would be compact spaces, and ten of which would be Americans with Disabilities Act (ADA) compliant.

**Figure 1**
**Regional Project Location**

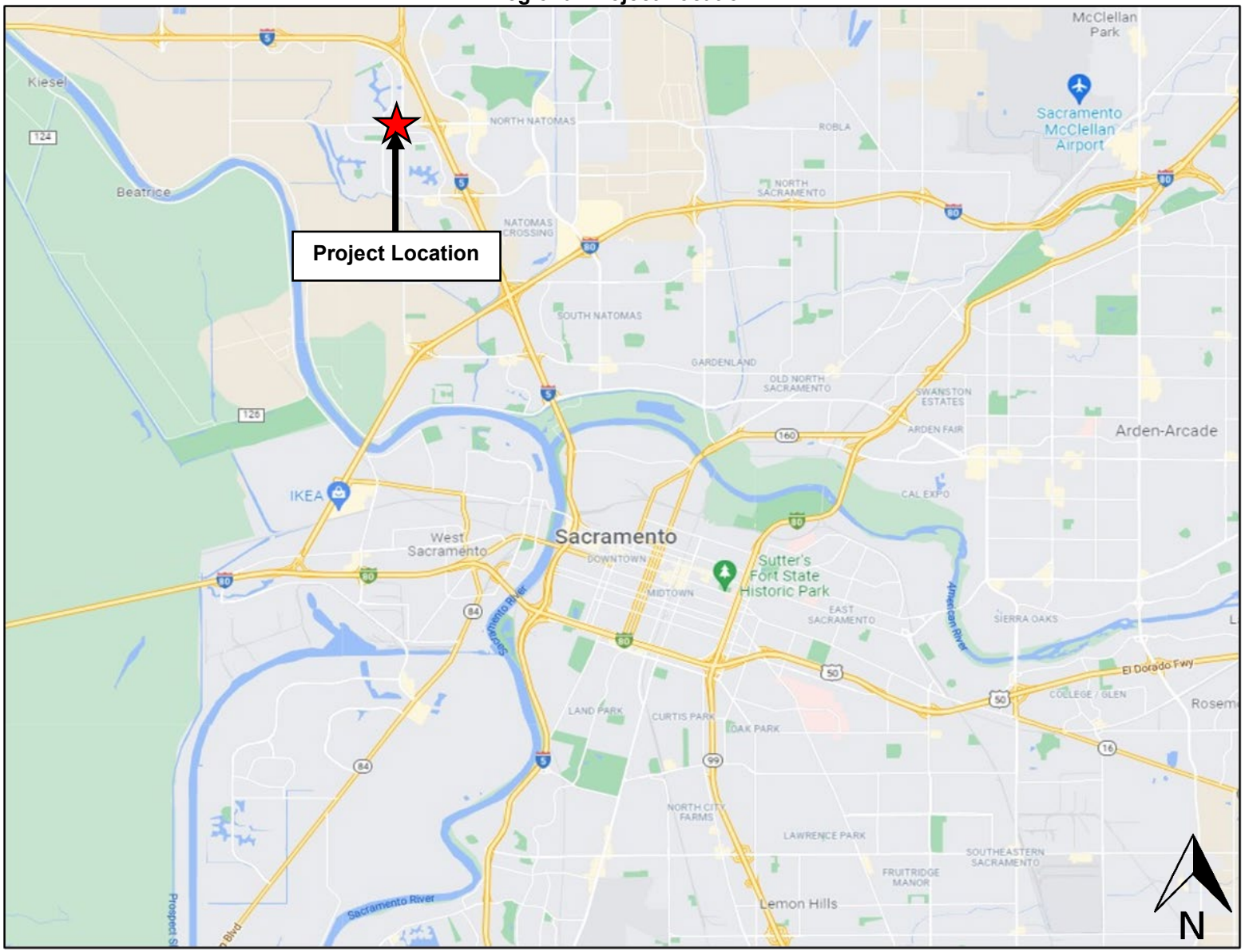
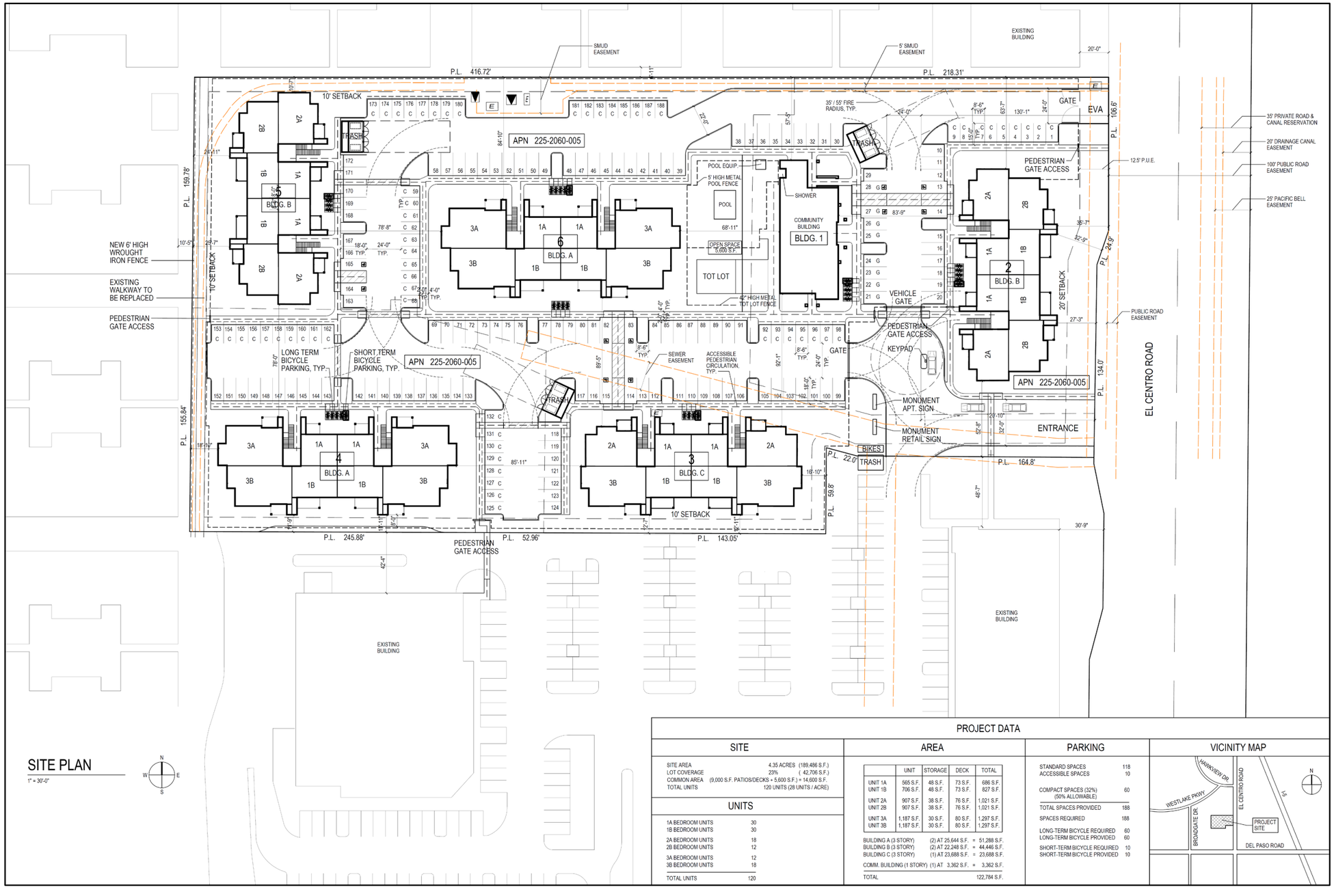


**Figure 2**
**Project Vicinity Map**

**Figure 3**
**Site Plan**




## SITE PLAN

1" = 30'-0"

## PROJECT DATA

### SITE

| | |
|---|---|
| SITE AREA | 4.35 ACRES (189,486 S.F.) |
| LOT COVERAGE | 23% ( 42,706 S.F.) |
| COMMON AREA | (9,000 S.F. PATIOS/DECKS + 5,600 S.F.) = 14,600 S.F. |
| TOTAL UNITS | 120 UNITS (28 UNITS / ACRE) |

### UNITS

| | |
|---|---|
| 1A BEDROOM UNITS | 30 |
| 1B BEDROOM UNITS | 30 |
| 2A BEDROOM UNITS | 18 |
| 2B BEDROOM UNITS | 12 |
| 3A BEDROOM UNITS | 12 |
| 3B BEDROOM UNITS | 18 |
| TOTAL UNITS | 120 |

### AREA

| | UNIT | STORAGE | DECK | TOTAL |
|---|---|---|---|---|
| UNIT 1A | 565 S.F. | 48 S.F. | 73 S.F. | 686 S.F. |
| UNIT 1B | 706 S.F. | 48 S.F. | 73 S.F. | 827 S.F. |
| UNIT 2A | 907 S.F. | 38 S.F. | 76 S.F. | 1,021 S.F. |
| UNIT 2B | 907 S.F. | 38 S.F. | 76 S.F. | 1,021 S.F. |
| UNIT 3A | 1,187 S.F. | 30 S.F. | 80 S.F. | 1,297 S.F. |
| UNIT 3B | 1,187 S.F. | 30 S.F. | 80 S.F. | 1,297 S.F. |

| | | |
|---|---|---|
| BUILDING A (3 STORY) | (2) AT 25,644 S.F. | = 51,288 S.F. |
| BUILDING B (3 STORY) | (2) AT 22,248 S.F. | = 44,446 S.F. |
| BUILDING C (3 STORY) | (1) AT 23,688 S.F. | = 23,688 S.F. |
| COMM. BUILDING (1 STORY) | (1) AT 3,362 S.F. | = 3,362 S.F. |
| TOTAL | | 122,784 S.F. |

### PARKING

| | |
|---|---|
| STANDARD SPACES | 118 |
| ACCESSIBLE SPACES | 10 |
| COMPACT SPACES (32%) (50% ALLOWABLE) | 60 |
| TOTAL SPACES PROVIDED | 188 |
| SPACES REQUIRED | 188 |
| LONG-TERM BICYCLE REQUIRED | 60 |
| LONG-TERM BICYCLE PROVIDED | 60 |
| SHORT-TERM BICYCLE REQUIRED | 10 |
| SHORT-TERM BICYCLE PROVIDED | 10 |

### VICINITY MAP

**Figure 4**
**Building A Elevations**

**Figure 5**
**Building B and Building C Elevations**

A discussion of the project's utility infrastructure and project entitlements is included below.

Utility Infrastructure

The following discussion relates to the water, wastewater, and stormwater drainage infrastructure components of the proposed project.

*Water*

Municipal water for the project area is currently supplied by the City of Sacramento Department of Utilities. The City uses surface water from the American and Sacramento rivers, as well as groundwater north of the American River to meet the City's demands. The City would supply water to the proposed project. The proposed project would connect to existing water supply infrastructure in the surrounding area.

*Wastewater*

Wastewater conveyance for the project area is provided by the Sacramento Area Sewer District (SASD) and treatment provided by the Sacramento Regional County Sanitation District (SRCSD). Wastewater generated in the project area would be collected in the SASD system through a series of sewer pipes and pump stations. Once collected in the SASD system, wastewater flows into the SRCSD interceptor system, where the wastewater is conveyed to the Sacramento Regional Wastewater Treatment Plant (SRWWTP). The SRWWTP is owned and operated by the SRCSD and provides sewage treatment for the entire City. Each building with a wastewater source on the project site would be required to have a separate connection to the sewer system.

In the vicinity of the project site, an existing eight-inch sanitary sewer main is located in El Centro Road, east of the project site (see Figure 6). The proposed project would connect to the existing sewer lines in the vicinity through a network of six-inch and eight-inch sewer mains.

*Stormwater Drainage*

The City's Department of Utilities provides storm drainage service throughout the City by using drain inlets, pumps, and canals. The City provides stormwater drainage with individual drainage sumps located throughout the City. Stormwater collected by in the project vicinity is transported to the SRCSD's SRWWTP, where runoff is then treated prior to discharge into the Sacramento River.

Existing stormwater drainage infrastructure in the project vicinity includes 12-inch lines south of the project site, in the parking lot, and in El Centro Road, east of the project site. The project site would be divided into 17 drainage management areas (DMAs) (see Figure 7). As shown in Figure 7, flows from on-site DMAs would be directed to one of the 17 proposed detention basins, which would range in size from 176 sf to 528 sf. Stormwater flows from DMAs would be directed either south or east to the existing 12-inch stormwater drainage lines.

Project Entitlements

The proposed project would require approval of the following entitlements:

- Approval of the 15183 Determination that the project is consistent with a Community Plan or Zoning;
- Site Plan and Design Review; and
- Approval of a Density Bonus Concession.

**Figure 6**
**Utility Plan**

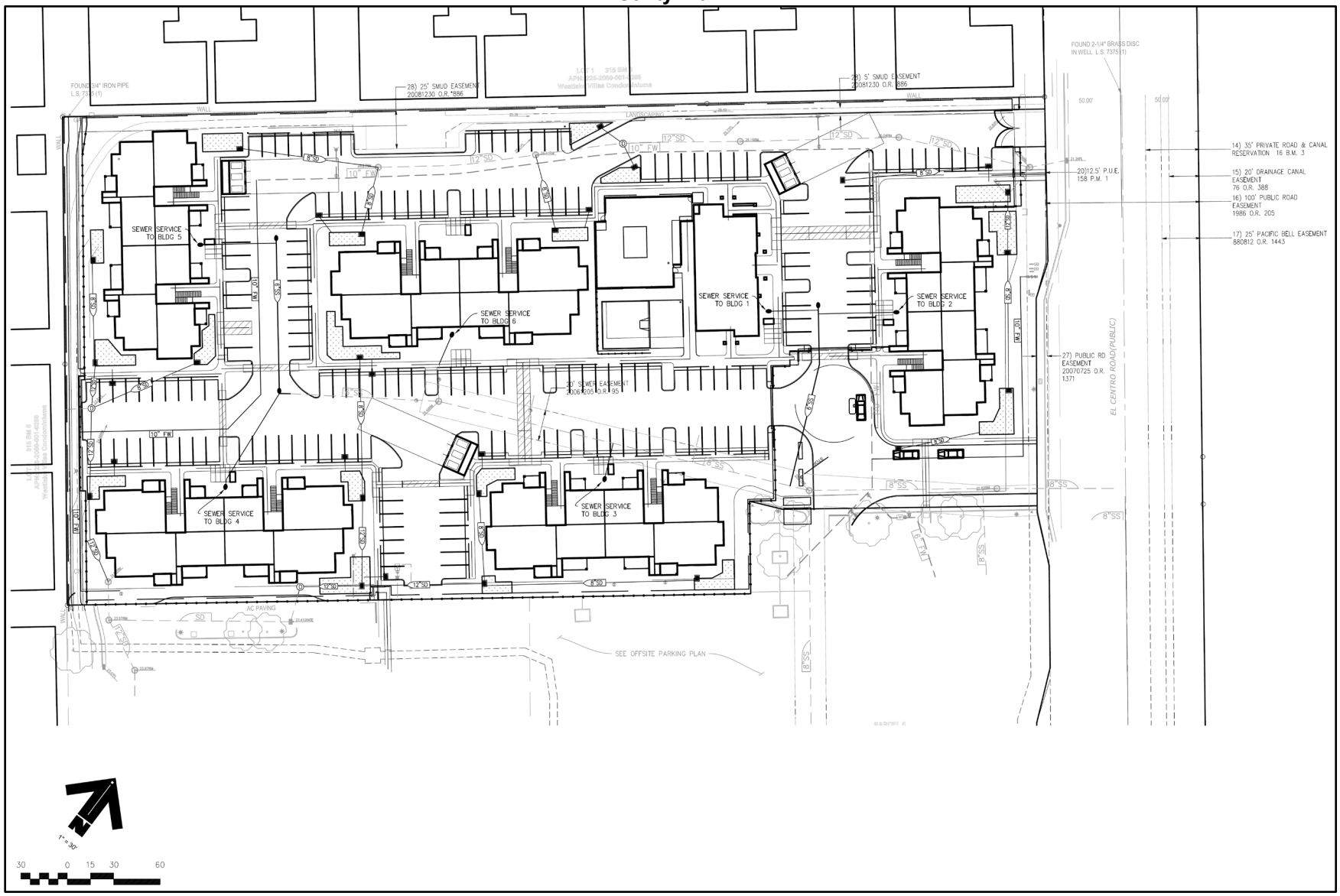
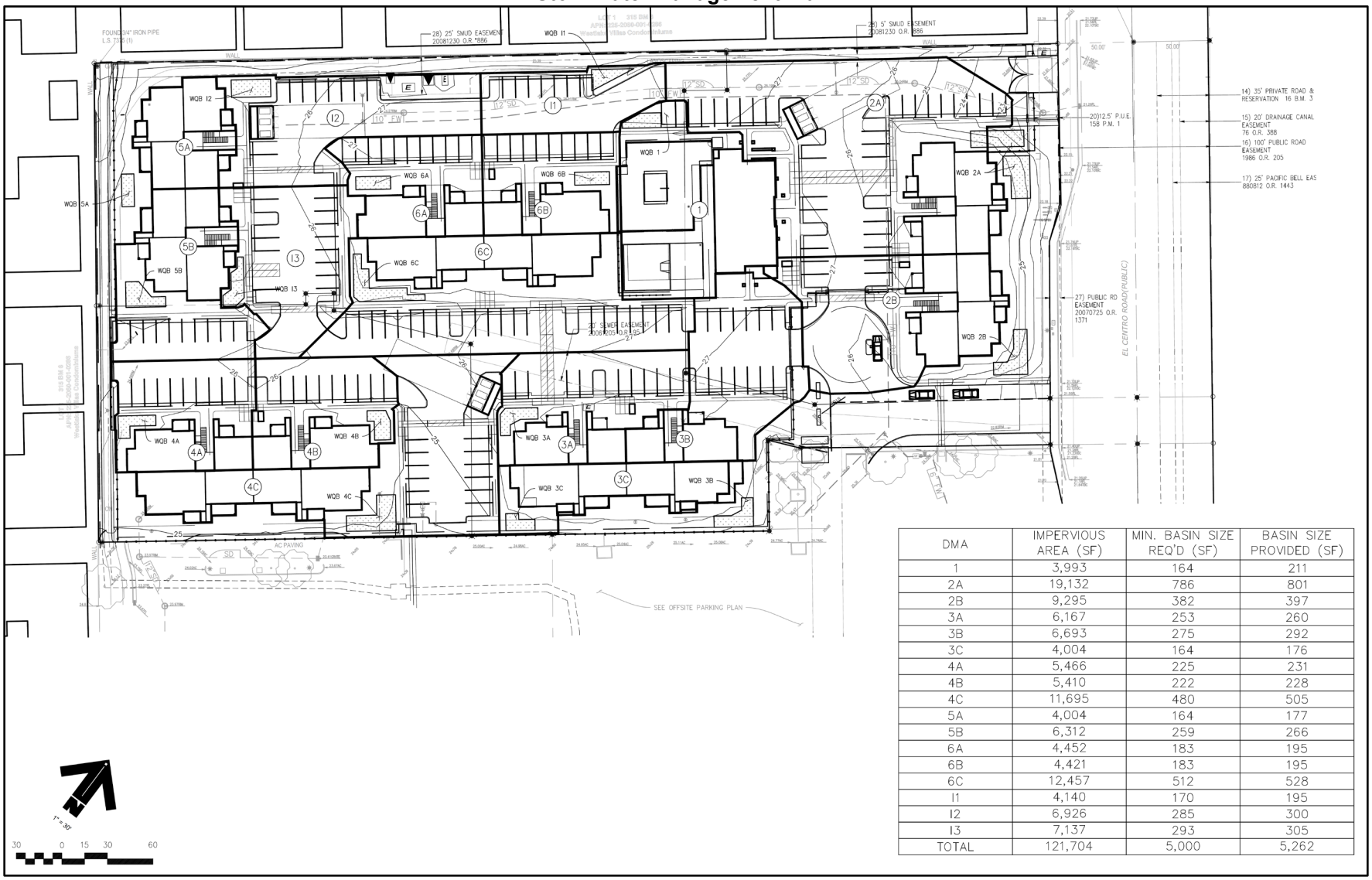


**Figure 7**
**Stormwater Management Plan**




| DMA | IMPERVIOUS AREA (SF) | MIN. BASIN SIZE REQ'D (SF) | BASIN SIZE PROVIDED (SF) |
|---|---|---|---|
| 1 | 3,993 | 164 | 211 |
| 2A | 19,132 | 786 | 801 |
| 2B | 9,295 | 382 | 397 |
| 3A | 6,167 | 253 | 260 |
| 3B | 6,693 | 275 | 292 |
| 3C | 4,004 | 164 | 176 |
| 4A | 5,466 | 225 | 231 |
| 4B | 5,410 | 222 | 228 |
| 4C | 11,695 | 480 | 505 |
| 5A | 4,004 | 164 | 177 |
| 5B | 6,312 | 259 | 266 |
| 6A | 4,452 | 183 | 195 |
| 6B | 4,421 | 183 | 195 |
| 6C | 12,457 | 512 | 528 |
| I1 | 4,140 | 170 | 195 |
| I2 | 6,926 | 285 | 300 |
| I3 | 7,137 | 293 | 305 |
| TOTAL | 121,704 | 5,000 | 5,262 |

# SECTION III – ENVIRONMENTAL CHECKLIST AND DISCUSSION

## LAND USE, POPULATION AND HOUSING, AGRICULTURAL RESOURCES, WILDFIRE

### Introduction

CEQA requires the Lead Agency to examine the effects of a project on the physical conditions that exist within the area that would be affected by the project. CEQA also requires a discussion of any inconsistency between the proposed project and applicable general plans and regional plans.

An inconsistency between the proposed project and an adopted plan for land use development in a community would not constitute a physical change in the environment. When a project diverges from an adopted plan, however, it may affect planning in the community regarding infrastructure and services, and the new demands generated by the project may result in later physical changes in response to the project.

In the same manner, the fact that a project brings new people or demand for housing to a community does not, by itself, change the physical conditions. An increase in population may, however, generate changes in retail demand or demand for governmental services, and the demand for housing may generate new activity in residential development. Physical environmental impacts that could result from implementing the proposed project are discussed in the appropriate technical sections.

This section of the Modified Initial Study/15183 Checklist identifies the applicable land use designations, plans and policies, and permissible densities and intensities of use, and discusses any inconsistencies between these plans and the proposed project. This section also discusses population and housing, agricultural resources, and wildfire, and the effect of the project on these resources.

### Discussion

Land Use

The 2035 General Plan designates the project site as Suburban Center, and the site is zoned SC-PUD. The Suburban Center designation provides predominantly for non-residential, lower-intensity single-use commercial development, or horizontal and vertical mixed-use development that includes retail, service, office, and/or residential uses, central public gathering places, and compatible public, quasi-public, and special uses. The Suburban Center designation allows for a density between 15 and 36 du/ac. The SC-PUD zone allows for residential uses subject to approval by the Planning and Design Commission. The SC-PUD zone allows for residential development at a maximum density of 30 dwelling units per net acre. As such, if the project site was developed with only residential uses, the 4.35-acre project site could have a maximum buildout of 130 residential units; however, commercial or mixed-use development would also be allowed under the 2035 General Plan land use and zoning designations.

The proposed project includes the development of 120 residential units at a density of 28 du/ac, which is within the allowable range defined by the Suburban Center land use designation and the SC-PUD zoning designation. In addition, the proposed project would include a Density Bonus Concession, which would remove the mixed-use requirement within the SC-PUD zoning designation, thus allowing for the exclusively residential nature of the proposed project. As such, the proposed project would be considered consistent with the General Plan land use and zoning designation. The proposed project would be subject to the goals and policies pursuant to the land use designation of the site within the General Plan, as well as the standards set forth for the SC-PUD zone in the City's Planning and Development Code.

The project site is located in an urbanized portion of the community. Surrounding existing land uses include condominiums and single-family residences to the north; undeveloped land to the east, across El Centro Road; commercial uses and surface parking immediately to the south; undeveloped land further south, across Del Paso Road; and condominiums and Westlake Park to the west. Development of the site would alter the site from park land and parking spaces to multi-family housing. However, the redevelopment would

be consistent with the multi-family residential land uses to the west and north. Given that the proposed project would serve as an extension of the adjacent residential uses, implementation of the project would not physically divide an established community.

Based on the above, impacts related to land use were ***adequately addressed in the Master EIR***.

Population and Housing

The proposed project would include the construction of a 120-unit affordable housing community in the North Natomas Community Plan area. Consequently, development would add to the population in the City. However, as previously mentioned, the proposed project is consistent with the General Plan land use and zoning designations for the site. As such, impacts related to population and housing associated with buildout of the project site would have been analyzed as part of the Master EIR analysis. As a result, the project would not be considered to induce population beyond what was previously analyzed in the Master EIR. Implementation of the proposed project would not displace any existing housing units or people. Construction or replacement of housing elsewhere would not be required for the project. Therefore, impacts related to population and housing were ***adequately addressed in the Master EIR***.

Agricultural Resources

The Master EIR discussed the potential impact of development under the 2035 General Plan on agricultural resources (see Master EIR, Chapter 4.1). In addition to evaluating the effect of the General Plan on sites within the City, the Master EIR noted that to the extent the Sacramento General Plan accommodates future growth within the City limits, the conversion of farmland outside the City limits is minimized (Master EIR, page 4.1-3). The Master EIR concluded that the impact of the General Plan on agricultural resources within the City was less than significant.

According to the California Department of Conservation Important Farmland Map, the project site is 100 percent Other Land, and is generally surrounded by Urban and Built-Up Land.[1] As such, the project site does not contain soils designated as Important Farmland (i.e., Prime Farmland, Unique Farmland or Farmland of Sitewide Importance). The site is not zoned for agricultural uses and is not under a Williamson Act contract. In addition, the project site is not used for agricultural or timber-harvest operations. Therefore, impacts related to agricultural resources were ***adequately addressed in the Master EIR***.

Wildfire

The Master EIR does not identify any significant impacts related to wildfire risk. According to the California Department of Forestry and Fire Protection (CAL FIRE) Fire and Resources Assessment Program (FRAP), the City of Sacramento is located within a Local Responsibility Area (LRA). The City is not located within or adjacent to a State Responsibility Area (SRA) or a designated Very High Fire Hazard Severity Zone (VHFHSZ). Furthermore, the project site is not located within a developed area where a substantial wildland-urban interface exists. Thus, the risk of wildfire at the project site is minimal. Based on the above, the proposed project would not create a substantial fire risk for existing development in the project vicinity. Therefore, impacts related to wildfire were ***adequately addressed in the Master EIR***.

[1] California Department of Conservation. *California Important Farmland Finder*. Available at: https://maps.conservation.ca.gov/DLRP/CIFF/. Accessed January 2023.

| 1. AESTHETICS<br>Would the project: | Significant Impact Peculiar to the Project or the Project Site | Significant Impact due to New Information | Impact Adequately Addressed in the Master EIR | No Impact |
|---|---|---|---|---|
| A) Create a new source of glare that would cause a public hazard or annoyance? | ☐ | ☐ | ✖ | ☐ |
| B) Create a new source of light that would be cast onto oncoming traffic or residential uses? | ☐ | ☐ | ✖ | ☐ |
| C) Substantially degrade the existing visual character of the site or its surroundings? | ☐ | ☐ | ✖ | ☐ |

**ENVIRONMENTAL SETTING**

The approximately 4.35-acre project site is comprised of undeveloped graded areas, paved surface parking areas, landscaping trees and vegetation, and a pergola. Surrounding existing land uses include condominiums and single-family residences to the north; undeveloped land to the east, across El Centro Road; commercial uses and surface parking immediately to the south; undeveloped land further south, across Del Paso Road; and condominiums and Westlake Park to the west

Public views of the project site include views from motorists, bicyclists, and pedestrians travelling on El Centro Road and Del Paso Road.

**STANDARDS OF SIGNIFICANCE**

The significance criteria used to evaluate the project impacts to aesthetics are based on Appendix G of the CEQA Guidelines, thresholds of significance adopted by the City in applicable general plans and previous environmental documents, and professional judgment. A significant impact related to aesthetics would occur if the project would:

- Substantially interfere with an important scenic resource or substantially degrade the view of an existing scenic resource;
- Substantially degrade the existing visual character of a site or its surroundings; or
- Create a new source of substantial light or glare that is substantially greater than typical urban sources and could cause sustained annoyance or hazard for nearby sensitive receptors.

**SUMMARY OF ANALYSIS UNDER THE 2035 GENERAL PLAN MASTER EIR AND APPLICABLE GENERAL PLAN POLICIES**

The Master EIR described the existing visual conditions in the City of Sacramento, and the potential changes to those conditions that could result from development consistent with the 2035 General Plan. See Master EIR, Chapter 4.13, Visual Resources.

The Master EIR identified potential impacts for light and glare (Impact 4.13-1) and concluded that impacts would be less than significant.

Policies in the 2035 General Plan Environmental Resources Element were identified as mitigating potential effects of development that could occur under the 2035 General Plan. For example, Policy ER 7.1.1 calls for the City to avoid substantial adverse effects of new developments on views from public places to the Sacramento and American rivers and the State Capitol; Policies ER 7.1.2 and ER 7.1.5 require new developments in the City to be designed to visually complement the natural environment when near the Sacramento and American Rivers and river crossings; and Policies ER 7.1.3 and ER 7.1.4 require the City to minimize obtrusive light sources and the use of reflective glass.

**ANSWERS TO CHECKLIST QUESTIONS**

Questions A and B

According to the Master EIR, the City of Sacramento is mostly built out, and a large amount of ambient light from urban uses already exists. New development under the Sacramento 2035 General Plan could add sources of light that are similar to the existing urban light sources from one of the following: exterior building lighting, new street lighting, parking lot lights, and headlights of vehicular traffic. Sensitive land uses would generally be residential uses, especially single- and multi-family residences. The nearest residential use to the project site would be the multi-family residences located directly west and north of the project site. Potential new sources of light associated with development and operation of the proposed project would be similar to the residential uses in the vicinity of the project site.

Because the City of Sacramento is mostly built-out with a level of ambient light that is typical of and consistent with the urban character of a large city and new development allowed under the 2035 General Plan would be subject to the General Plan policies, building codes, and (for larger projects) design review, the introduction of substantially greater intensity or dispersal of light would not occur. For example, Policy ER 7.1.3. Lighting requires that misdirected, excessive, or unnecessary outdoor lighting be minimized. In addition, Policy ER 7.1.4: Reflective Glass prohibits new development from resulting in any of the following:

(1) using reflective glass that exceeds 50 percent of any building surface and on the bottom three floors;
(2) using mirrored glass;
(3) using black glass that exceeds 25 percent of any surface of a building;
(4) using metal building materials that exceed 50 percent of any street-facing surface of a primarily residential building; and
(5) using exposed concrete that exceeds 50 percent of any building.

While the proposed project would introduce new sources of light and glare to the project site, the type and intensity of light and glare would be similar to that of the surrounding developments. However, the proposed project would be required to comply with the aforementioned General Plan policies, which would be ensured through the Site Plan and Design Review process. In addition, the proposed project would be consistent with what has been anticipated for the project site under the General Plan, and, thus, impacts related to light and glare associated with development of the site have been anticipated in the Master EIR. Furthermore, impacts related to aesthetics were analyzed as part of the Master EIR and were concluded to be less than significant, with compliance with all applicable General Plan goals and policies. Through the Site Plan and Design Review process, the proposed project would be required to comply with all applicable policies set forth in the General Plan pertaining to land use and the preservation of visual resources, as well as all applicable regulations set forth in the Sacramento City Code.

Based on the above, project impacts related to creating new sources of light or glare were ***adequately addressed in the Master EIR***, and the proposed project would not result in any peculiar effects that would require further CEQA review related to such.

Question C

New development associated with the 2035 General Plan could result in changes to important scenic resources, such as major natural open space features or the State Capitol (as defined by the Capitol View Protection Ordinance). The proposed project is not located near significant visual resources such as the Sacramento River, American River, or the State Capitol.

In addition, the project site does not contain scenic resources and is not located within an area designated as a scenic resource or vista. The California Department of Transportation (Caltrans) manages the State Scenic Highway System which provides guidance and assists local government agencies with the process to officially

designate scenic highways. According to Caltrans, designated scenic highways are not located in proximity to the project site and the project site is not visible from any State-designated scenic highways.[2]

The proposed project would be consistent with the land use and zoning designations for the site and compatible with the existing multi-family residential development west and north of the site. Because the proposed project is consistent with the General Plan, impacts related to aesthetics have been analyzed and anticipated within the Master EIR. In addition, General Plan Policy LU 2.7.2 provides that the City shall require Design Review that focuses on achieving appropriate form and function for new projects to promote creativity, innovation, and design quality. As such, City staff would conduct Site Plan and Design Review prior to implementation of the proposed project and, if required, apply objective design standards. As noted in Chapter 17.808 of the Sacramento City Code, the purpose of Site Plan and Design Review is to ensure that the physical aspects of development projects are consistent with the General Plan and any other applicable specific plans or design guidelines, that projects are high quality and compatible with surrounding development, among other considerations. Accordingly, Site Plan and Design Review for the proposed project would ensure that the proposed development would not result in a substantial degradation in the existing visual character of the project site or surrounding area. According to the Master EIR, with adherence to polices pursuant to aesthetics, buildout of the General Plan would not substantially alter the existing visual character.

Therefore, project impacts related to substantially degrading the existing visual character of the site or its surroundings were ***adequately addressed in the Master EIR***, and the proposed project would not result in any peculiar effects that would require further CEQA review related to such.

**MITIGATION MEASURES**

None required.

**FINDINGS**

The proposed project would not have any significant effects relating to aesthetics impacts that either have not already been analyzed in a prior EIR or that are more significant than previously analyzed.

[2] California Department of Transportation. *California Scenic Highway Mapping System, Sacramento County.* Available at: https://caltrans.maps.arcgis.com/apps/webappviewer/index.html?id=465dfd3d807c46cc8e8057116f1aacaa. Accessed January 2023.

| 2. AIR QUALITY. Would the project: | Significant Impact Peculiar to the Project or the Project Site | Significant Impact due to New Information | Impact Adequately Addressed in the Master EIR | No Impact |
|---|---|---|---|---|
| A) Result in construction emissions of NOx above 85 pounds per day? | ☐ | ☐ | ✖ | ☐ |
| B) Result in operational emissions of $NO_x$ or ROG above 65 pounds per day? | ☐ | ☐ | ✖ | ☐ |
| C) Violate any air quality standard or have a cumulatively considerable contribution to an existing or projected air quality violation? | ☐ | ☐ | ✖ | ☐ |
| D) Result in $PM_{10}$ and $PM_{2.5}$ concentrations that exceed SAMQMD requirements? | ☐ | ☐ | ✖ | ☐ |
| E) Result in CO concentrations that exceed the 1-hour state ambient air quality standard (i.e., 20.0 ppm) or the 8-hour state ambient standard (i.e., 9.0 ppm)? | ☐ | ☐ | ✖ | ☐ |
| F) Result in exposure of sensitive receptors to substantial pollutant concentrations? | ☐ | ☐ | ✖ | ☐ |
| G) Result in TAC exposures create a risk of 10 in 1 million for stationary sources, or substantially increase the risk of exposure to TACs from mobile sources? | ☐ | ☐ | ✖ | ☐ |

**ENVIRONMENTAL SETTING**

The City of Sacramento is located within the Sacramento Valley Air Basin (SVAB), which is a valley bounded by the North Coast Mountain Ranges to the west and the Northern Sierra Nevada Mountains to the east. The terrain in the valley is flat and approximately 25 feet above sea level. The City, including the project site, is located within the jurisdiction of the Sacramento Air Quality Management District (SMAQMD).

Hot, dry summers and mild, rainy winters characterize the Mediterranean climate of the Sacramento Valley. Throughout the year, daily temperatures may range by 20 degrees Fahrenheit with summer highs often exceeding 100 degrees and winter lows occasionally below freezing. Average annual rainfall is about 20 inches and snowfall is very rare. Summertime temperatures are normally moderated by the presence of the "Delta breeze" that arrives through the Carquinez Strait in the evening hours.

The mountains surrounding the SVAB create a barrier to airflow, which can trap air pollutants in the valley. The highest frequency of air stagnation occurs in the autumn and early winter when large high-pressure cells lie over the valley. The lack of surface wind during these periods and the reduced vertical flow caused by less surface heating reduces the influx of outside air and allows air pollutants to become concentrated in a stable volume of air. The surface concentrations of pollutants are highest when these conditions are combined with temperature inversions that trap cooler air and pollutants near the ground.

The warmer months in the SVAB (May through October) are characterized by stagnant morning air or light winds, and the Delta breeze that arrives in the evening out of the southwest. Usually, the evening breeze transports a portion of airborne pollutants to the north and out of the Sacramento Valley. During about half

of the day from July to September, however, a phenomenon called the "Schultz Eddy" prevents this from occurring. Instead of allowing the prevailing wind patterns to move north carrying the pollutants out of the valley, the Schultz Eddy causes the wind pattern to circle back south. This phenomenon exacerbates the pollution levels in the area and increases the likelihood of violating Federal or State standards. The Schultz Eddy normally dissipates around noon when the Delta breeze begins.

**Criteria Air Pollutants**

Concentrations of emissions from criteria air pollutants (the most prevalent air pollutants known to be harmful to human health) are used to indicate the quality of the ambient air. Criteria air pollutants include ozone, carbon monoxide (CO), nitrogen dioxide ($NO_2$), sulfur dioxide ($SO_2$), respirable and fine particulate matter ($PM_{10}$ and $PM_{2.5}$), and lead. The sources of criteria air pollutants and their respective acute and chronic health impacts are described in Table 1.

**Existing Air Quality**

The U.S. Environmental Protection Agency (EPA) has been charged with implementing national air quality programs. EPA's air quality mandates are drawn primarily from the federal Clean Air Act (CAA), which was enacted in 1970 and most recently amended by Congress in 1990. The CAA required EPA to establish the National Ambient Air Quality Standards (NAAQS) for the following criteria air pollutants: ozone, CO, $NO_2$, $SO_2$, $PM_{10}$, $PM_{2.5}$, and lead. CAA also requires each State to prepare a State implementation plan (SIP) for attaining and maintaining the NAAQS. The federal Clean Air Act Amendments of 1990 (CAAA) added requirements for states with nonattainment areas to revise their SIPs to incorporate additional control measures to reduce air pollution. Individual SIPs are modified periodically to reflect the latest emissions inventories, planning documents, and rules and regulations of the air basins as reported by their jurisdictional agencies.

The California Air Resources Board (CARB) is the agency responsible for coordination and oversight of State and local air pollution control programs in California and for implementing the California Clean Air Act (CCAA). The CCAA, which was adopted in 1988, required CARB to establish its own California Ambient Air Quality Standards (CAAQS). CARB has established CAAQS for sulfates, hydrogen sulfide, vinyl chloride, visibility-reducing particulate matter, and the above-mentioned criteria air pollutants. In most cases the CAAQS are more stringent than the NAAQS.

The SVAB is currently designated as nonattainment for the NAAQS 8-hour ozone standard and the CAAQS for both 1-hour and 8-hour ozone ($O_3$) standard. The SVAB is also currently designated as nonattainment for the CAAQS 24-hour $PM_{10}$ standard and the NAAQS 24-hour $PM_{2.5}$ standard. The air basin is designated as unclassified or in attainment for the remaining criteria air pollutants (SMAQMD 2019).

**Toxic Air Contaminants**

According to the California Almanac of Emissions and Air Quality (CARB 2013), the majority of the estimated health risks from toxic air contaminants (TACs) can be attributed to relatively few compounds, the most important being diesel particulate matter (diesel PM). Diesel PM differs from other TACs in that it is not a single substance, but rather a complex mixture of hundreds of substances. Although diesel PM is emitted by diesel-fueled internal combustion engines, the composition of the emissions varies depending on engine type, operating conditions, fuel composition, lubricating oil, and whether an emissions control system is being used. In addition to diesel PM, the TACs for which data are available that pose the greatest existing ambient risk in California are benzene, 1,3-butadiene, acetaldehyde, carbon tetrachloride, hexavalent chromium, para-dichlorobenzene, formaldehyde, methylene chloride, and perchloroethylene.

**Table 1**
**Sources and Health Effects of Criteria Air Pollutants**

| Pollutant | Sources | Acute[1] Health Effects | Chronic[2] Health Effects |
|---|---|---|---|
| Ozone | Secondary pollutant resulting from reaction of ROG and $NO_X$ in presence of sunlight. ROG emissions result from incomplete combustion and evaporation of chemical solvents and fuels; $NO_X$ results from the combustion of fuels | Increased respiration and pulmonary resistance; cough, pain, shortness of breath, lung inflammation | Permeability of respiratory epithelia, possibility of permanent lung impairment |
| Carbon monoxide (CO) | Incomplete combustion of fuels; motor vehicle exhaust | Headache, dizziness, fatigue, nausea, vomiting, death | Permanent heart and brain damage |
| Nitrogen dioxide ($NO_2$) | Combustion devices; e.g., boilers, gas turbines, and mobile and stationary reciprocating internal combustion engines | Coughing, difficulty breathing, vomiting, headache, eye irritation, chemical pneumonitis or pulmonary edema; breathing abnormalities, cough, cyanosis, chest pain, rapid heartbeat, death | Chronic bronchitis, decreased lung function |
| Sulfur dioxide ($SO_2$) | Coal and oil combustion, steel mills, refineries, and pulp and paper mills | Irritation of upper respiratory tract, increased asthma symptoms | Insufficient evidence linking $SO_2$ exposure to chronic health impacts |
| Respirable particulate matter ($PM_{10}$), Fine particulate matter ($PM_{2.5}$) | Fugitive dust, soot, smoke, mobile and stationary sources, construction, fires and natural windblown dust, and formation in the Atmosphere by condensation and/or transformation of $SO_2$ and ROG | Breathing and respiratory symptoms, aggravation of existing respiratory and cardiovascular diseases, Premature death | Alterations to the immune system, carcinogenesis |
| Lead | Metal processing | Reproductive/developmental effects (fetuses and children) | Numerous effects including neurological, endocrine, and cardiovascular effects |

Notes: $NO_X$ = oxides of nitrogen; ROG = reactive organic gases.
1. "Acute" refers to effects of short-term exposures to criteria air pollutants, usually at fairly high concentrations.
2. "Chronic" refers to effects of long-term exposures to criteria air pollutants, usually at lower, ambient concentrations.

*Source: EPA, 2018.*

**Sensitive Receptors**

Sensitive receptors are generally considered to include those land uses where exposure to pollutants could result in health-related risks to sensitive individuals, such as children or the elderly. Residential dwellings, schools, hospitals, playgrounds, and similar facilities are of primary concern because of the presence of individuals particularly sensitive to pollutants and/or the potential for increased and prolonged exposure of individuals to pollutants. The closest sensitive receptors to the project site include the multi-family residences located immediately north and west of the project site. It is noted that the Natomas Pacific Pathways Prep High School and NP3 Elementary School are also located in the project vicinity, south of Del Paso Road.

**STANDARDS OF SIGNIFICANCE**

For purposes of this Modified Initial Study/15183 Checklist, air quality impacts may be considered significant if construction and/or implementation of the proposed project would result in the following impacts that remain significant after implementation of 2035 General Plan policies:

- Construction emissions of $NO_X$ above 85 pounds per day;
- Operational emissions of $NO_X$ or ROG above 65 pounds per day;
- Violation of any air quality standard or contribute substantially to an existing or projected air quality violation;
- Any increase in $PM_{10}$ concentrations, unless all feasible Best Available Control Technology (BACT) and Best Management Practices (BMPs) have been applied, then increases above 80 pounds per day or 14.6 tons per year;
- CO concentrations that exceed the 1-hour State ambient air quality standard (i.e., 20.0 parts per million [ppm]) or the 8-hour State ambient standard (i.e., 9.0 ppm); or
- Exposure of sensitive receptors to substantial pollutant concentrations.

Ambient air quality standards have not been established for TACs. TAC exposure is deemed to be significant if:

- TAC exposures create a risk of 10 in 1 million for stationary sources, or substantially increase the risk of exposure to TACs from mobile sources.

It is noted that the foregoing standards of significance for criteria pollutant emissions and TACs are consistent with the thresholds of significance adopted by the SMAQMD. The remainder of this discussion refers to the standards as the SMAQMD thresholds of significance.

**SUMMARY OF ANALYSIS UNDER THE 2035 GENERAL PLAN MASTER EIR AND APPLICABLE GENERAL PLAN POLICIES**

The Master EIR addressed the potential effects of the 2035 General Plan on ambient air quality and the potential for exposure of people, especially sensitive receptors such as children or the elderly, to unhealthful pollutant concentrations. See Master EIR, Chapter 4.2.

Policies in the 2035 General Plan Environmental Resources Element were identified as mitigating potential effects of development that could occur under the 2035 General Plan. For example, Policy ER 6.1.1 calls for the City to work with the CARB and the SMAQMD to meet State and federal air quality standards; Policy ER 6.1.2 requires the City to review proposed development projects to ensure that the projects incorporate feasible measures that reduce construction and operational emissions; Policy ER 6.1.4 and ER 6.1.11 calls for coordination of City efforts with SMAQMD; and Policy ER 6.1.15 requires the City to give preference to contractors using reduced-emission equipment.

The Master EIR identified exposure to sources of TACs as a potential effect. Policies in the 2035 General Plan would reduce the effect to a less-than-significant level. The policies include ER 6.1.4, requiring coordination with SMAQMD in evaluating exposure of sensitive receptors to TACs, and impose appropriate conditions on projects to protect public health and safety, as well as Policy LU 2.7.5 requiring extensive landscaping and trees along freeways and design elements that provide proper filtering, ventilation, and exhaust of vehicle air emissions from buildings.

**ANSWERS TO CHECKLIST QUESTIONS**

Questions A through D

The Master EIR concluded that impacts related to conflicting with or obstructing implementation of air quality efforts in the SVAB would be less than significant with implementation of applicable General Plan policies. In addition, the Master EIR determined that impacts related to emissions of criteria pollutants during

construction would be less than significant. However, the Master EIR concluded that a significant and unavoidable impact would occur related to operational emissions of criteria pollutants.

Implementation of the proposed project would contribute to local emissions in the area during both construction and operations of the proposed project. In order to evaluate ozone and other criteria air pollutant emissions and support attainment goals for those pollutants that the area is designated nonattainment, the SMAQMD has established recommended thresholds of significance, including mass emission thresholds for construction-related and operational ozone precursors, as the area is under nonattainment for ozone. The SMAQMD's recommended thresholds of significance for the ozone precursors reactive organic gases (ROG) and nitrous oxides ($NO_X$), $PM_{10}$, and $PM_{2.5}$, which are expressed in pounds per day (lbs/day), are presented in Table 2.

**Table 2**
**SMAQMD Thresholds of Significance (lbs/day)**

| Pollutant | Construction Thresholds | Operational Thresholds |
|---|---|---|
| $NO_X$ | 85 | 65 |
| ROG | - | 65 |
| $PM_{10}$ | Zero (0). If all feasible BACT/BMPs are applied, then: 80 lbs/day and 14.6 tons/yr | Zero (0). If all feasible BACT/BMPs are applied, then: 80 lbs/day and 14.6 tons/yr |
| $PM_{2.5}$ | Zero (0). If all feasible BACT/BMPs are applied, then: 82 lbs/day and 15 tons/yr | Zero (0). If all feasible BACT/BMPs are applied, then: 82 lbs/day and 15 tons/yr |

Notes: BACT = Best Available Control Technologies; BMP = Best Management Practices.

*Source: Sacramento Metropolitan Air Quality Management District. SMAQMD Thresholds of Significance Table. Available at: http://www.airquality.org/LandUseTransportation/Documents/CH2ThresholdsTable4-2020.pdf. Accessed January 2023.*

Because construction equipment emits relatively low levels of ROG, and ROG emissions from other construction processes (e.g., asphalt paving, architectural coatings) are typically regulated by SMAQMD, SMAQMD has not adopted a construction emissions threshold for ROG. SMAQMD has, however, adopted a construction emissions threshold for $NO_X$, as shown in Table 2, above.

The proposed project's emissions have been estimated using the California Emissions Estimator Model (CalEEMod) version 2020.4.0 software – 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 trip generation rates based on the Institute of Transportation Engineers (ITE) Manual, vehicle mix, trip length, average speed, etc. However, where project-specific data is available, such data should be input into the model. Accordingly, based on project-specific information provided by the project applicant, the model was updated to reflect that the proposed residential units would not include any fireplaces.

The results of the proposed project's emissions estimates were compared to the thresholds of significance above in order to determine the associated level of impact. All CalEEMod modeling results are included as Appendix A to this Modified Initial Study/15183 Checklist.

*Construction Emissions*

During construction of the proposed project, various types of equipment and vehicles would operate on the project site. Construction exhaust emissions would be generated from construction equipment, any earth-moving activities, construction workers' commute, and material hauling for the entire construction period. These activities would involve the use of diesel- and gasoline-powered equipment that would generate emissions of criteria pollutants.

According to the CalEEMod results, the proposed project is estimated to result in maximum daily construction emissions as shown in Table 3. As shown in the table, the proposed project's maximum unmitigated construction-related emissions would be below the applicable thresholds of significance. As noted previously, to apply the $PM_{10}$ and $PM_{2.5}$ thresholds of significance, projects must implement all feasible SMAQMD BACTs and BMPs related to dust control. In the case of construction activities, projects are required to implement the SMAQMD's identified Basic Construction Emissions Control Practices (BCECPs), which are considered by the SMAQMD to be the applicable construction BMPs. The control of fugitive dust during construction is required by SMAQMD Rule 403, and enforced by SMAQMD staff. Therefore, the non-zero thresholds of significance for PM are applicable.

**Table 3**
**Maximum Unmitigated Project Construction Emissions**

| Pollutant | Project Emissions (lbs/day) | SMAQMD Threshold of Significance (lbs/day) |
|---|---|---|
| $NO_X$ | 27.56 | 85 |
| $PM_{10}$ | 21.06 | 80 |
| $PM_{2.5}$ | 11.30 | 82 |

*Source: CalEEMod, January 2023 (see Appendix A).*

In addition, all projects under the jurisdiction of SMAQMD are required to comply with all applicable SMAQMD rules and regulations (a complete list of current rules is available at www.airquality.org/rules). Rules and regulations related to construction include, but not limited to, Rule 201 (General Permit Requirements), Rule 402 (Nuisance), Rule 403 (Fugitive Dust), Rule 404 (Particulate Matter), Rule 414 (Water Heaters, Boilers and Process Heaters Rated Less Than 1,000,000 British Thermal Units per Hour), Rule 417 (Wood Burning Appliances), Rule 442 (Architectural Coatings), Rule 453 (Cutback and Emulsified Asphalt Paving Materials), Rule 460 (Adhesives and Sealants), Rule 902 (Asbestos) and CCR requirements related to the registration of portable equipment and anti-idling. Compliance with SMAQMD rules and regulations and BCECP would ensure that construction emissions are minimized to the extent practicable, and would reduce emissions below the level presented in Table 3. Therefore, impacts related to the proposed project's construction emissions of criteria pollutants would be less than significant. This is consistent with the conclusion presented in Master EIR Impact 4.2-2. Furthermore, construction activities anticipated in the Master EIR for the project site are generally similar to construction activities associated with the proposed project.

*Operational Emissions*

Operational air quality emissions were estimated using CalEEMod, and are presented in Table 4. As shown, the proposed project's maximum unmitigated operational emissions of criteria pollutants would be below the applicable thresholds of significance presented in Table 2. It should be noted that the project would not involve installation or operation of any pieces of equipment that would require implementation of SMAQMD's BACTs; therefore, the project would be subject to SMAQMD's mass emissions thresholds for $PM_{10}$ and $PM_{2.5}$. As a result, impacts related to operational emissions of criteria pollutants would be considered less than significant.

**Table 4**
**Maximum Unmitigated Project Operational Emissions**

| Pollutant | Project Emissions (lbs/day) | SMAQMD Threshold of Significance (lbs/day) |
|---|---|---|
| $NO_X$ | 2.60 | 65 |
| ROG | 5.40 | 65 |
| $PM_{10}$ | 3.22 | 80 |
| $PM_{2.5}$ | 0.93 | 82 |

*Source: CalEEMod, January 2023 (see Appendix A).*

As noted previously, under Impact 4.2-3, the Master EIR concluded that operational criteria pollutant emissions associated with buildout of the General Plan would result in a significant and unavoidable impact.

Therefore, the proposed project, which would generate emissions that are below the applicable thresholds of significant, would not result in any new or more severe impacts beyond what was already evaluated in the Master EIR.

*Cumulative Emissions*

SMAQMD rules and regulations, as well as the thresholds of significance, have been developed with the intent to ensure continued attainment of AAQS, or to work towards attainment of AAQS for which the area is currently designated nonattainment, consistent with applicable air quality plans. As future attainment of AAQS is a function of successful implementation of SMAQMD's planning efforts, according to the SMAQMD Guide, by exceeding the SMAQMD's project-level thresholds for construction or operational emissions, a project could contribute to the region's nonattainment status for ozone and PM emissions and could be considered to conflict with or obstruct implementation of the SMAQMD's air quality planning efforts.

As discussed above and below, the proposed project would result in construction and operational emissions below all applicable SMAQMD thresholds of significance. Therefore, the proposed project would not be considered to contribute to the region's nonattainment status for ozone or PM emissions and would not conflict with or obstruct implementation of the SMAQMD's air quality planning efforts. Accordingly, the proposed project would not violate any air quality standard or contribute substantially to an existing or projected air quality violation, and a less-than-significant impact would occur.

*Conclusion*

As discussed above, because the proposed project would result in emissions below the applicable thresholds of significance during both construction and operations, the proposed project would not violate an AAQS, contribute substantially to an existing or projected air quality violation, or result in PM concentrations greater than the applicable thresholds. Therefore, the proposed project would not result in any peculiar effects related to the generation of criteria pollutants, and impacts were ***adequately addressed in the Master EIR***.

Question E

Localized concentrations of CO are related to the levels of traffic and congestion along streets and at intersections. Per the SMAQMD Guide, emissions of CO are generally of less concern than other criteria pollutants, as operational activities are not likely to generate substantial quantities of CO, and the SVAB has been in attainment for CO for multiple years.[3] The proposed project would not involve operational changes that could result in long-term generation of CO. The use of construction equipment at each site would result in limited generation of CO; however, the total amount of CO emitted by construction equipment would be minimal and would not have the potential to result in health risks to any nearby receptors. Therefore, the proposed project would result in a less-than-significant impact related to CO emissions.

The Master EIR did not specifically address impacts associated with localized CO. However, because the proposed project would not result in any impacts related to CO, the project would not result in any new or more severe impacts, and impacts were ***adequately addressed in the Master EIR***.

Question F and G

Under Impact 4.2-4, the Master EIR determined that impacts related to the exposure of sensitive receptors to pollutant concentrations would be less than significant with the implementation of applicable General Plan policies and compliance with CARB and SMAQMD guidance.

[3] Sacramento Metropolitan Air Quality Management District. *Guide to Air Quality Assessment, Chapter 4: Operational Criteria Air Pollutant and Precursor Emissions*. June 2020.

The area surrounding the project site has already been developed. The closest sensitive receptors to the project site include the multi-family residential units located to the north and west of the project site.

The CARB Handbook provides recommendations for siting new sensitive land uses near sources typically associated with significant levels of TAC emissions, including, but not limited to, freeways and high traffic roads, distribution centers, and rail yards. The CARB has identified diesel PM 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 diesel PM. Health risks from TACs are a function of both the concentration of emissions and the duration of exposure.

Operational-related emissions of TACs are typically associated with stationary diesel engines or land uses that involve heavy diesel truck traffic or idling. The proposed project does not involve long-term operation of any stationary diesel engine or other major on-site stationary source of TACs. Residential uses, such as the proposed project, do not typically involve long-term operation of any stationary sources of TACs. It is noted that residents of the proposed project may be exposed to formaldehyde used in building products. However, a study published in 2020[4] determined that due to increasingly stringent State building codes and standards regarding formaldehyde emissions , including the Airborne Toxic Control Measures adopted by CARB, formaldehyde concentrations in new development are anticipated to decrease. As such, formaldehyde concentrations would not be a significant impact for the proposed project. Therefore, the proposed project would not expose any existing sensitive receptors to any new permanent or substantial TAC emissions during operations.

Construction activities have the potential to generate diesel PM emissions related to the number and types of equipment typically associated with construction. Off-road heavy-duty diesel equipment used for site grading, paving, and other construction activities result in the generation of diesel PM. However, construction is temporary, and would occur over a relatively short duration in comparison to the operational lifetime of the proposed project. In addition, only portions of the site would be disturbed at a time, with operation of construction equipment regulated by federal, State, and local regulations, including SMAQMD rules and regulations, and occurring intermittently throughout the course of a day. Furthermore, heavy equipment would not be used for extended periods of time because mass grading of the site is not required. Thus, the likelihood that any one sensitive receptor would be exposed to high concentrations of diesel PM for any extended period of time would be low. Furthermore, emissions of the proposed project would be generally similar to emissions anticipated for the project site in the Master EIR.

Overall, the proposed project would not result in the exposure of sensitive receptors to substantial pollutant concentrations, nor substantially increase the risk of exposure to TACs from stationary or mobile sources. Therefore, new impacts or more severe impacts beyond what was evaluated in the Master EIR would not occur. In addition, the project would not result in any peculiar effects related to the exposure of sensitive receptors to substantial pollutant concentrations, and impacts were ***adequately addressed in the Master EIR***.

**MITIGATION MEASURES**

None required.

**FINDINGS**

The proposed project would not have any significant effects relating to air quality that either have not already been analyzed in a prior EIR or that are more significant than previously analyzed.

[4] California Energy Commission. *Ventilation and Indoor Air Quality in New California Homes with Gas Appliances and Mechanical Ventilation*. March 2020.

| 3. BIOLOGICAL RESOURCES<br>Would the project: | Significant Impact Peculiar to the Project or the Project Site | Significant Impact due to New Information | Impact Adequately Addressed in the Master EIR | No Impact |
|---|---|---|---|---|
| A) Create a potential health hazard, or use, production or disposal of materials that would pose a hazard to plant or animal populations in the area affected? | ☐ | ☐ | ✖ | ☐ |
| B) Result in substantial degradation of the quality of the environment, reduction of the habitat, reduction of population below self-sustaining levels of threatened or endangered species of plant or animal species? | ☐ | ☐ | ✖ | ☐ |
| C) Affect other species of special concern to agencies or natural resource organizations (such as regulatory waters and wetlands)? | ☐ | ☐ | ☐ | ✖ |

**ENVIRONMENTAL SETTING**

Prior to human development, the natural habitats within the region included perennial grasslands, riparian woodlands, oak woodlands, and a variety of wetlands including vernal pools, seasonal wetlands, freshwater marshes, ponds, streams, and rivers. Over the last 150 years, agriculture, irrigation, flood control, and urbanization have resulted in the loss or alteration of much of the natural habitat within the City limits. Non-native annual grasses have replaced the native perennial grasslands, many of the natural streams have been channelized, much of the riparian and oak woodlands have been cleared, and most of the marshes have been drained and converted to agricultural or urban uses.

Though the majority of the City is developed with residential, commercial, and other urban development, valuable plant and wildlife habitat still exists. The natural habitats are located primarily outside the City boundaries in the northern, southern and eastern portions of the City, but also occur along river and stream corridors and on a number of undeveloped parcels throughout the City. Habitats that are present in the City include annual grasslands, riparian woodlands, oak woodlands, riverine, ponds, freshwater marshes, seasonal wetlands, and vernal pools.

The Natomas Basin Habitat Conservation Plan

The Natomas Basin Habitat Conservation Plan (NBHCP), adopted in 1997 and revised in 2003, is a conservation plan designed to promote biological conservation along with economic development and continuation of agriculture in the Natomas Basin. The Natomas Basin includes portions of Sacramento and Sutter County including the North Natomas Plan Area in the City of Sacramento. The NBHCP is part of the requirements of the Endangered Species Act designed to support applications for federal permits under Section 10(a)(1)(B). The NBHCP is also intended to serve as an application for Incidental Take Permits (ITPs) under California state law pursuant to Section 2081(b) of the California Department of Fish and Game (CDFG) Code. The requirement for issuance of the federal and state permits is described in Section I.I of the NBHCP.

The NBHCP is designed to serve a number of purposes, including but not limited to the satisfaction of the federal and state Endangered Species Acts, Mitigation and Monitoring Plan requirements specified in the North Natomas Community Plan, and requirements of the Sacramento Area Flood Control Agency (SAFCA) Permit, relating to direct, indirect, and cumulative biological impacts associated with Urban Development in the Permit Area. As such, the NBHCP allows developers to pay mitigation fees to satisfy requirements covered by the plan. NBHCP fees are adjusted based on the HCP Finance Model, which is periodically

reviewed and considered by the Board of Directors of The Natomas Basin Conservancy (TNBC), and are intended to represent the true cost of a development's mitigation share within the Natomas Basin.

The NBHCP establishes a comprehensive program for the preservation and protection of habitat for threatened and endangered species potentially found on approximately 55,537 acres of undeveloped and agricultural land in northwestern Sacramento County and southern Sutter County. Preservation and protection of such is conducted by TNBC and consists of managed marsh habitats, upland habitats, rice fields, and associated buffers and infrastructure. The NBHCP also includes management measures that are intended to avoid, minimize, and mitigate effects on species during urban development activities.

The NBHCP was originally established as mitigation for development in the Natomas Basin, including North Natomas, in 1994. To comply with state and federal law, an Environmental Assessment (EA) was prepared by the U.S. Fish and Wildlife Service (USFWS) for the National Environmental Policy Act (NEPA) requirement and a Negative Declaration was prepared by the City of Sacramento for the CEQA requirement. The USFWS and CDFG (now California Department of Fish and Wildlife [CDFW]) issued an ITP to the City of Sacramento. The HCP and ITP were subsequently challenged, and on August 15, 2000, the federal court ruled that the ITP should not have been issued, and an Environmental Impact Statement (EIS) was required for the project. Based on this ruling, the City of Sacramento and Sutter County jointly prepared the joint EIR/EIS on behalf of USFWS. The USFWS was the lead federal agency for the preparation of the EIS and the City of Sacramento and Sutter County were co-lead agencies for the preparation of the EIR. The Final EIR/EIS for the NBHCP was adopted in April of 2003.

The project site is within the 8,050-acre permit area addressed by the EIR/EIS. Development within the project site is required to be consistent with the NBHCP. The project site is identified as development subject to the 2002 NBHCP and, therefore, conversion of the site from natural conditions to urbanized development would be required to pay NBHCP fees. The project site and the surroundings have already been developed; thus, NBHCP land conversion fees have already been paid for the project site, and the proposed project would not be subject to such fees.

CNDDB Search

A search of the California Natural Diversity Database (CNDDB) was performed for the project site quadrangle (Taylor Monument) as well as the surrounding quadrangles (i.e., Knights Landing, Verona, Pleasant Grove, Grays Bend, Rio Linda, Davis, Sacramento East, and Sacramento West) to determine which special-status plant and wildlife species are known to occur within the region (see Appendix B). The results of the CNDDB search identified that 16 potentially occurring special-status plant species and 31 potentially occurring special-status wildlife species; however, only five of the plant species and 11 of the wildlife species were identified as occurring within a five-mile radius of the project site.

**Vegetation**

The project site is comprised of undeveloped graded areas, paved surface parking areas, and landscaping trees and vegetation. Of the 16 potentially-occurring special-status plant species identified in the CNDDB query, five were identified as occurring within or near a five-mile radius of the project site, but none were determined to have any potential for occurring on-site due to the absence of suitable aquatic habitats (such as marshes or vernal pools).

**Wildlife**

Due to the disturbed nature of the project site, the potential for a diversified amount of wildlife is anticipated to be very low; however, several trees on and in the immediate vicinity of the project site could potentially provide nesting habitat for bird species and other raptors. Although a large portion of the project site consists of grasses, such areas are regularly disked, and, thus, highly disturbed.

Of the 31 animal species identified from the CNDDB query, 11 were identified as occurring within or near the five-mile radius of the project site. One species, the giant garter snake, was identified on-site in June 1986.

Due to the absence of suitable aquatic and/or nesting habitat or host plants, the other special-status species were determined to be unlikely to occur on the project site.

**Trees**

Chapter 12.56, Tree Planting, Maintenance, and Conservation, of the Sacramento City Code establishes guidelines for the conversation, protection, removal, and replacement of both City trees and private protected trees. Per Section 12.56.020, a private protected tree meets at least one of the following criteria:

A. A tree that is designated by City Council resolution to have special historical value, special environmental value, or significant community benefit, and is located on private property;
B. Any native Valley Oak (*Quercus lobata*), Blue Oak (*Quercus douglasii*), Interior Live Oak (*Quercus wislizenii)*, Coast Live Oak (*Quercus agrifolia*), California Buckeye (*Aesculus californica*), or California Sycamore (*Platanus racemosa*), that has a diameter at standard height (DSH) of 12 inches or more, and is located on private property;
C. A tree that has a DSH of 24 inches or more located on private property that:
    a. Is an undeveloped lot; or
    b. Does not include any single unit or duplex dwellings; or
D. A tree that has a DSH of 32 inches or more located on private property that includes any single unit or duplex dwellings.

When circumstances do not allow for retention of trees, permits are required to remove City trees or private protected trees that are within the City's jurisdiction. In addition, City Code Section 12.56.050, Tree Permits, states that no person shall perform regulated work without a tree permit. The Tree Permit application requires a statement detailing the nature and necessity for the proposed regulated work and the location of the proposed work for evaluation and approval by the City Council.

Of the 79 on-site trees, 72 would be removed. However, none of the onsite trees are considered private protected under City Code Chapter 12.56.

**Jurisdictional Waters**

The U.S. Army Corps of Engineers (USACE) has regulatory authority of "waters of the United States," which include wetlands, pursuant to Section 404 of the Clean Water Act (CWA). Waters of the U.S. includes navigable waters, interstate waters, and all other waters where the use, degradation, or destruction of the waters could affect interstate or foreign commerce, tributaries to any of these waters, and wetlands that meet any of these criteria or that are adjacent to any of these waters or their tributaries. Aquatic resources do not exist on-site or the site vicinity.[5]

**STANDARDS OF SIGNIFICANCE**

For purposes of this environmental document, an impact would be significant if any of the following conditions or potential thereof, would result with implementation of the proposed project:

- Creation of a potential health hazard, or use, production or disposal of materials that would pose a hazard to plant or animal populations in the area affected;
- Substantial degradation of the quality of the environment, reduction of the habitat, reduction of population below self-sustaining levels of threatened or endangered species of plant or animal; or
- Affect other species of special concern to agencies or natural resource organizations (such as regulatory waters and wetlands).

[5] U.S. Fish & Wildlife Service. *National Wetlands Inventory*. Available at: https://www.fws.gov/wetlands/data/Mapper.html. Accessed January 2023.

**SUMMARY OF ANALYSIS UNDER THE 2035 GENERAL PLAN MASTER EIR AND APPLICABLE GENERAL PLAN POLICIES**

Chapter 4.3 of the Master EIR evaluated the effects of the 2035 General Plan on biological resources within the City. The Master EIR identified potential impacts in terms of degradation of the quality of the environment or reduction of habitat or population below self-sustaining levels of special-status birds, through the loss of both nesting and foraging habitat.

Policies in the 2035 General Plan were identified as mitigating the effects of development that could occur under the provisions of the 2035 General Plan. Policy ER 2.1.5 calls for the City to preserve the ecological integrity of creek corridors and other riparian resources; Policy ER 2.1.10 requires the City to consider the potential impact on sensitive plants for each project and to require pre-construction surveys when appropriate; and Policy ER 2.1.11 requires the City to coordinate its actions with those of the California Department Fish and Wildlife, U.S. Fish and Wildlife Service, and other agencies in the protection of resources.

The Master EIR discussed biological resources in Chapter 4.3. The Master EIR concluded that policies in the General Plan, combined with compliance with the California Endangered Species Act (CESA), NBHCP (when applicable) and CEQA would minimize the impacts on special-status species to a less-than-significant level (see Impact 4.3-1), and that the General Plan policies, along with similar compliance with local, state and federal regulation would reduce impacts to a less-than-significant level for habitat for special-status invertebrates, birds, amphibians and reptiles, mammals and fish (Impacts 4.3-3-6).

Given the prevalence of rivers and streams in the incorporated area, impacts to riparian habitat is a common concern. Riparian habitats are known to exist throughout the City, especially along the Sacramento and American rivers and their tributaries. The Master EIR discussed impacts of development adjacent to riparian habitat that could disturb wildlife species that rely on these areas for shelter and food, and could also result in the degradation of these areas through the introduction of feral animals and contaminants that are typical of urban uses. The CDFW regulates potential impacts on lakes, streams, and associated riparian (streamside or lakeside) vegetation through the issuance of Lake or Streambed Alteration Agreements (SAA) (per CDFG Code Section 1602), and provides guidance to the City as a resource agency. While there are no federal regulations that specifically mandate the protection of riparian vegetation, federal regulations set forth in Section 404 of the CWA address areas that potentially contain riparian-type vegetation, such as wetlands.

The General Plan calls for the City to preserve the ecological integrity of creek corridors, canals and drainage ditches that support riparian resources (Policy ER 2.1.5) and wetlands (Policy ER 2.1.6) and requires habitat assessments and impact compensation for projects (Policy ER 2.1.10). The City has adopted a standard that requires coordination with State and federal agencies if a project has the potential to affect other species of special concern or habitats (including regulatory waters and wetlands) protected by agencies or natural resource organizations (Policy ER 2.1.11). In addition, the General Plan requires the City to continue to participate in and support the policies of the Natomas Basin Habitat Conservation Plan for the protection of biological resources in the Natomas Basin (Policy ER 2.1.12).

Implementation of 2035 General Plan Policy ER 2.1.5 would reduce the magnitude of potential impacts by requiring a 1:1 replacement of riparian habitat lost to development. While this would help mitigate impacts on riparian habitat, large open areas of riparian habitat used by wildlife could be lost and/or degraded directly and indirectly through development under the 2035 General Plan. Given the extent of urban development designated in the general plan, the preservation and/or restoration of riparian habitat would likely occur outside of the City limits. The Master EIR concluded that the permanent loss of riparian habitat would be a less-than-significant impact. (Impact 4.3-7).

**ANSWERS TO CHECKLIST QUESTIONS**

Question A

The use, handling, and storage of hazardous materials is regulated by both the Federal Occupational Safety and Health Administration (Fed/OSHA) and the California Occupational Safety and Health Administration (Cal/OSHA). Cal/OSHA is responsible for developing and enforcing workplace safety regulations. At the local level, the Sacramento County Environmental Management Department regulates hazardous materials within Sacramento County, including chemical storage containers, businesses that use hazardous materials, and hazardous waste management.

The use and storage of hazardous materials is regulated by Section 8.64 of the Sacramento City Code. Section 8.64.040 establishes regulation related to the designation of hazardous materials and requires that a hazardous material disclosure form be submitted within 15 days by any person using or handling a hazardous material. In addition, the routine transport, use, and disposal of hazardous materials are regulated by existing federal, State, and local regulations. For instance, the Sacramento County Environmental Management Department requires businesses handling sufficient quantities of hazardous materials to submit a Hazardous Materials Business Plan and obtain permitting.

Furthermore, residential uses are not typically associated with the routine transport, use, or disposal of hazardous materials, or present a reasonably foreseeable release of hazardous materials. Any hazardous materials associated with the residential uses would consist primarily of typical household cleaning products and fertilizers, which would be utilized in small quantities and in accordance with label instructions, which are based on federal and/or State health and safety regulations. As previously demonstrated, the proposed project was anticipated and analyzed in the Master EIR. Therefore, project impacts related to creating a potential health significant hazard to plant or animal populations in the area were ***adequately addressed in the Master EIR***, and the proposed project would not result in any peculiar effects that would require further CEQA review related to such.

Question B

*Special-Status Species*

The Master EIR determined that compliance with CESA, CEQA, and the NBHCP (as applicable), as well as implementation of 2035 General Plan goals and policies discussed above, would minimize potential direct and indirect impacts on special-status species. As stated above, General Plan Policy ER 2.1.12 requires the City to continue to participate in and support the policies of the NBHCP for the protection of biological resources in the Natomas Basin. The City is a member agency for the NBHCP, which implements conservation measures to ensure the protection of threatened and endangered species and their habitat. The NBHCP provides take authorization for 22 listed and non-listed species (i.e., covered species). In addition, the NBHCP includes conservation measures to protect the species covered by the NBHCP, as well as a conservation strategy designed to mitigate impacts on covered species and contribute to the recovery of the species in the study area.

Given the previous disturbance of the project site, special-status plant and wildlife species are not anticipated on-site, a large portion of the site is covered with impervious surfaces, reducing the possibility of the site offering suitable habitat capable of supporting special-status species. Existing trees and shrubs near the project site and along the site boundaries could provide potential nesting habitat for nesting migratory birds and raptors protected by the Migratory Bird Treaty Act (MBTA). Therefore, project construction activities, including initial site grading, soil excavation, associated improvements, and/or tree and vegetation removal occurring during the nesting period for migratory birds (typically between February 1 to August 31) could have the potential to result in nest abandonment or death of any live eggs or young, should migratory birds or their nests be present within or near the project site. In such an event, the proposed project could result in a potentially significant impact. However, given the developed nature of the project site, and the fact that habitat for nesting birds and raptors is not uncommon within the project area, the site does not include any peculiar conditions from a biological perspective.

Furthermore, conformance with 2035 General Plan Policy ER 2.1.10, Habitat Assessment and Impact Compensation, would ensure that preconstruction surveys are conducted for any construction activities that would occur between February 1 and September 15 (nesting season); surveying suitable nesting habitat within 500 feet of construction activities. Conformance with Policy ER 2.1.10 would further require that preconstruction surveys would be conducted by a qualified biologist, whom would determine if protocol-level surveys should be conducted or presence of a species shall be assumed. Under the policy, if protocol-level surveys are required or if presence of a species is assumed, survey reports would be prepared and submitted to appropriate agencies including the City, CDFW, and USFWS, for further consultation and development of avoidance and/or mitigation measures. These measures would be likely to include monitoring by a qualified biologist during construction activity or no-work buffer zones established with differing requirements depending on species and site-specific conditions. Implementation of the processes required in Policy ER 2.1.10 would ensure that potential significant impacts from the proposed project on nesting migratory birds would be reduced to a less-than-significant level.

The only special-status species that has been recorded on-site is the giant garter snake, which was recorded in June 1986. However, because the project site and the surrounding area have since been developed, the giant garter snake is unlikely to occur on-site. Nevertheless, the project site is within the NBHCP covered area; thus, the proposed project would be subject to all applicable NBHCP measures to reduce take for individual species. Giant garter snake is a covered species under the NBHCP, and the proposed project would be required to comply with the applicable NBHCP measures, including the requirement for preconstruction surveys for all NBHCP covered species; should such covered species be discovered on-site, additional measures would be taken to minimize the disturbance of habitat. Therefore, through compliance with NBHCP requirements, impacts to covered species, including the giant garter snake, would not occur.

*Trees*

As stated above, of the 79 on-site trees, 72 would be removed. However, none of the on-site trees are considered private protected under City Code Chapter 12.56. Therefore, the proposed project would not conflict with the City's tree preservation policy, tree protection ordinances, or other policies or ordinances protecting biological resources, and no impact would occur.

*Conclusion*

Based on the above, impacts to species identified as special-status species in local or regional plans, policies, or regulations, or by the CDFW or the USFWS were adequately addressed in the Master EIR, and the proposed project would not result in any peculiar effects given required compliance with applicable federal, State, regional, and local regulations, together with the goals, policies, and actions included in the 2035 General Plan, which the Master EIR found would substantially mitigate potential environmental effects. As previously demonstrated, similar development as the proposed project was anticipated and analyzed in the Master EIR. Therefore, project impacts from the proposed project were ***adequately addressed in the Master EIR***, and the proposed project would not result in any peculiar effects that would require further CEQA review related to such.

Question C

Existing water bodies or features, such as rivers, creeks, or natural ditches do not exist on the project site; Because the project site does not contain existing water body features such as rivers, creeks, or natural ditches, the proposed project would not have a substantially adverse effect on any sensitive protected wetlands. As a result, ***no impact*** would occur to other species of special concern related to regulatory waters or wetlands, and the proposed project would not result in any peculiar effects that would require further CEQA review related to such.

**MITIGATION MEASURES**

None required.

**FINDINGS**

The proposed project would have no impact to aquatic species or habitat, or riparian habitat. The proposed project would not have any significant effects relating to other biological resource impacts that either have not already been analyzed in a prior EIR or that are more significant than previously analyzed.

| 4. CULTURAL RESOURCES<br>Would the project: | Significant Impact Peculiar to the Project or the Project Site | Significant Impact due to New Information | Impact Adequately Addressed in the Master EIR | No Impact |
|---|---|---|---|---|
| A) Cause a substantial adverse change in the significance of a historical or archaeological resource as defined in § 15064.5? | ☐ | ☐ | ✖ | ☐ |
| B) Directly or indirectly destroy a unique paleontological resource? | ☐ | ☐ | ✖ | ☐ |
| C) Disturb any human remains? | ☐ | ☐ | ✖ | ☐ |

**ENVIRONMENTAL SETTING**

The City of Sacramento and the surrounding area are known to have been occupied by Native American groups for thousands of years prior to settlement by non-Native peoples. Archaeological materials, including human burials, have been found throughout the City, some in deeply buried contexts. One of the tools used to identify the potential for cultural resources to be present in the project area is the 2035 General Plan Background Report. Generalized areas of high sensitivity for cultural resources are located within close proximity to the Sacramento and American rivers and moderate sensitivity was identified near other watercourses. The proposed project site is not adjacent to these high or moderate sensitivity units shown in the 2035 General Plan Background Report. The 2035 General Plan land use diagram designates a wide swath of land along the American River as Parks, which limits development and impacts on sensitive cultural resources. High sensitivity areas may be found in other areas related to the ancient flows of the rivers, with differing meanders than found today. Recent discoveries during infill construction in downtown Sacramento have shown that the downtown area is highly sensitive for both historic period archaeological- and pre-contact indigenous resources. Native American burials and artifacts were found in 2005 during construction of the New City Hall and historic period archaeological resources are abundant downtown due to the evolving development of the area and, in part, to the raising of the surface street level in the 1860s and 1870s, which created basements out of the first floors of many buildings.

A California Historic Resources Information System (CHRIS) search was performed for the proposed project.[6] Based on the results of the project-specific CHRIS search, one cultural resource study has been previously conducted for the project area, and the project area contains three recorded historical resources: Reclamation District 1000, Del Paso Road, and El Centro Road. The CHRIS search concluded that there is low potential for previously unrecorded historic-period cultural resources to occur on-site, based on the environmental setting of the site.

**SUMMARY OF ANALYSIS UNDER THE 2035 GENERAL PLAN MASTER EIR AND APPLICABLE GENERAL PLAN POLICIES**

The Master EIR evaluated the potential effects of development under the 2035 General Plan on prehistoric and historic resources. See Chapter 4.4.

General Plan policies identified as reducing such effects call for identification of resources on project sites (Policy HCR 2.1.1), implementation of applicable laws and regulations (Policy HCR 2.1.2), early consultation with owners and land developers to minimize effects (Policy HCR 2.1.10) and encouragement of adaptive reuse of historic resources (Policy HCR 2.1.14). Demolition of historic resources is deemed a last resort. (Policy HCR 2.1.15)

The Master EIR concluded that implementation of the 2035 General Plan would have a significant and unavoidable effect on historic resources and archeological resources. (Impacts 4.4-1,2)

[6] North Central Information Center. *Records Search Results for Westlake Affordable Apartments Project.* October 3, 2022.

**ANSWERS TO CHECKLIST QUESTIONS**

Questions A through C

The Office of Historic Preservation (OHP) has determined that structures in excess of 50 years of age could be important historical resources, and former building and structure locations could be important archaeological sites; however, the project site was developed in 2008, less than 50 years ago. Therefore, the existing pergola on-site would not be considered an important historical resource.

Based on the results of the records search of the CHRIS, known archaeological resources have not been identified on or adjacent to the project site. In addition, a search of the Native American Heritage Commission (NAHC) Sacred Lands File did not yield any information regarding the presence of Tribal Cultural Resources within the project site.[7]

Pursuant to CEQA Guidelines Section 15183(f), "An effect of a project on the environment shall not be considered peculiar to the project or the parcel for the purposes of this section if uniformly applied development policies or standards have been previously adopted by the city or county with a finding that the development policies or standards will substantially mitigate that environmental effect when applied to future projects, unless substantial new information shows that the policies or standards will not substantially mitigate the environmental effect. […]" The Master EIR determined that even with compliance with the General Plan Policies defined above, buildout of the General Plan would result in a significant and unavoidable impact on historic and archeological resources. Because the proposed project would be consistent with what was anticipated for the project site in the Master EIR, and would be required to comply with the all applicable regulations and requirements, impacts upon cultural resources resulting from buildout of the proposed project have been generally anticipated in the Master EIR. Furthermore, given the disturbed nature of the project site, and the built-out nature of the surrounding area, surface cultural resources are not likely to be found on-site.

Potential impacts to paleontological resources were discussed under Impact 4.5-5 in the Master EIR. As described therein, the City is not considered sensitive for paleontological resources, and the likelihood of encountering such resources would be very low. However, ground-disturbing activities in fossil-bearing soils and rock formations have the potential to damage or destroy unrecorded paleontological resources that may be present below the ground surface. Implementation of Policy HCR 2.1.16 of the 2035 General Plan would require the City to identify and protect paleontological resources in compliance with accepted protocols. Specifically, Implementation Program 12 requires amendment of the Sacramento Code to require discovery procedures for paleontological resources found during grading, excavation, or construction. These procedures include protocols and criteria for qualifications of personnel, and for survey, research, testing, training, monitoring, cessation and resumption of construction, identification, evaluation, and reporting, as well as compliance with recommendations to address any significant adverse effects where determined by the City to be feasible. The Master EIR determined that compliance with Policy HCR 2.1.16 would reduce impacts to paleontological resources to a less-than-significant level.

Based on the above, project impacts related to causing a substantial adverse change in the significance of a historic or archaeological resource pursuant to CEQA Guidelines Section 15064.5 and/or disturbing human remains, including those interred outside of formal cemeteries, were ***adequately addressed in the Master EIR***, and the proposed project would not result in any peculiar effects that would require further CEQA review related to such.

**MITIGATION MEASURES**

None required.

[7] Native American Heritage Commission. *Westlake Affordable Apartments Project, Sacramento County.* November 9, 2022.

**FINDINGS**

The proposed project would not have any significant effects relating to other cultural resource impacts that either have not already been analyzed in a prior EIR or that are more significant than previously analyzed.

| 5. ENERGY<br>Would the project: | Significant Impact Peculiar to the Project or the Project Site | Significant Impact due to New Information | Impact Adequately Addressed in the General Plan EIR | No Impact |
|---|---|---|---|---|
| A) Result in a potentially significant environmental impact due to wasteful. Inefficient, or unnecessary consumption of energy, or wasteful use of energy resources, during project construction or operation? | ☐ | ☐ | ✖ | ☐ |
| B) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency? | ☐ | ☐ | ✖ | ☐ |

**ENVIRONMENTAL SETTING**

The project site is within the service area of the Sacramento Municipal Utility District (SMUD). SMUD is a community-owned and not-for-profit utility that provides electric services to 900 square miles, including most of Sacramento County. PG&E is an investor-owned utility that provides electric and natural gas services to approximately 16 million people within a 70,000-square-mile service area in both northern and central California. SMUD is the primary electricity supplier, and PG&E is the primary natural gas supplier for the City of Sacramento and the project area.

Energy demand related to the proposed project would include energy directly consumed for space heating and cooling and proposed electric facilities and lighting. Indirect energy consumption would be associated with the generation of electricity at power plants. Transportation-related energy consumption includes the use of fuels and electricity to power cars, trucks, and public transportation. Energy would also be consumed by equipment and vehicles used during project construction and routine maintenance activities.

**Energy Policy and Conservation Act, and CAFE Standards**

The Energy Policy and Conservation Act of 1975 established nationwide fuel economy standards to conserve oil. Under this act, the National Highway Traffic and Safety Administration is responsible for revising existing fuel economy standards and establishing new vehicle economy standards. The Corporate Average Fuel Economy (CAFE) program was established to determine vehicle manufacturer compliance with the government's fuel economy standards. Three Energy Policy Acts have been passed, in 1992, 2005, and 2007, to reduce dependence on foreign petroleum, provide tax incentives for alternative fuels, and support energy conservation.

**Energy Policy Act of 1992 and 2005**

The Energy Policy Act of 1992 (EPAct) was passed to reduce the country's dependence on foreign petroleum and improve air quality. EPAct includes several parts intended to build an inventory of alternative fuel vehicles (AFVs) in large, centrally fueled fleets in metropolitan areas. EPAct requires certain federal, state, and local government and private fleets to purchase a percentage of light-duty AFVs capable of running on alternative fuels each year. In addition, financial incentives are also included in EPAct. Federal tax deductions are allowed for businesses and individuals to cover the incremental cost of AFVs. States are also required by the act to consider a variety of incentive programs to help promote AFVs. The EPAct of 2005 provides renewed and expanded tax credits for electricity generated by qualified energy sources, such as landfill gas; provides bond financing, tax incentives, grants, and loan guarantees for clean renewable energy and rural community electrification; and establishes a federal purchase requirement for renewable energy.

**Energy Independence and Security Act of 2007**

The Energy Independence and Security Act of 2007 is designed to improve vehicle fuel economy and help reduce U.S. dependence on oil. It represents a major step forward in expanding the production of renewable fuels, reducing dependence on oil, and confronting global climate change. The Energy Independence and Security Act of 2007 increases the supply of alternative fuel sources by setting a mandatory Renewable Fuel Standard requiring fuel producers to use at least 36 billion gallons of biofuel in 2022, which represents a nearly five-fold increase over previous levels; and reduces U.S. demand for oil by setting a national fuel economy standard of 35 miles per gallon by 2020—an increase in fuel economy standards of 40 percent.

By addressing renewable fuels and the CAFE standards, the Energy Independence and Security Act of 2007 builds upon progress made by the Energy Policy Act of 2005 in setting out a comprehensive national energy strategy for the 21st century.

**State of California Energy Efficiency Action Plan**

The 2019 California Energy Efficiency Action Plan has three primary goals for the State: double energy efficiency savings by 2030 relative to a 2015 base year (per Senate Bill [SB] 350), expand energy efficiency in low-income and disadvantaged communities, and reduce GHG emissions from buildings. This plan provides guiding principles and recommendations on how the State would achieve those goals. These recommendations include:

- Identifying funding sources that support energy efficiency programs;
- Identifying opportunities to improve energy efficiency through data analysis;
- Using program designs as a way to encourage increased energy efficiency on the consumer end;
- Improving energy efficiency through workforce education and training; and
- Supporting rulemaking and programs that incorporate energy demand flexibility and building decarbonization.

**California Green Building Standards Code**

The 2022 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 on January 1, 2023. 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 (EV) 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' Model Water Efficient Landscape Ordinance (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;
- Incentives for installation of electric heat pumps, which use less energy than traditional heating, ventilation, and air conditioning (HVAC) systems and water heaters;
- Required solar photovoltaic (PV) system and battery storage standards for certain buildings; and
- Mandatory use of low-pollutant emitting interior finish materials such as paints, carpet, vinyl flooring, and particle board.

**California Energy Code**

The energy consumption of new residential and nonresidential buildings in California is regulated by the state's Title 24, Part 6, Building Energy Efficiency Standards (California Energy Code). The California Energy Code was established by the California Energy Commission (CEC) in 1978 in response to a legislative mandate to create uniform building codes to reduce California's energy consumption and provide energy efficiency standards for residential and non-residential buildings. CEC updates the California Energy Code every three years with more stringent design requirements for reduced energy consumption, which results in the generation of fewer greenhouse gas (GHG) emissions.

The 2022 California Energy Code applies to projects constructed after January 1, 2023. The California Energy Code is enforced through the local plan check and building permit process. Local government agencies may adopt and enforce additional energy standards for new buildings as reasonably necessary due to local climatologic, geologic, or topographic conditions, provided that these standards exceed those provided in the California Energy Code.

**Transportation-Related Regulations**

Various regulatory and planning efforts are aimed at reducing dependency on fossil fuels, increasing the use of alternative fuels, and improving California's vehicle fleet. SB 375 aligns regional transportation planning efforts, regional GHG emission reduction targets, and land use and housing allocation. CARB, in consultation with the metropolitan planning organizations, provides each affected region with reduction targets for GHGs emitted by passenger cars and light trucks in their respective regions for 2020 and 2035.

Pursuant to Assembly Bill (AB) 2076 (Chapter 936, Statutes of 2000), CEC and the CARB prepared and adopted a joint agency report in 2003, Reducing California's Petroleum Dependence. Included in this report are recommendations to increase the use of alternative fuels to 20 percent of on-road transportation fuel use by 2020 and 30 percent by 2030, significantly increase the efficiency of motor vehicles, and reduce per capita vehicle miles traveled (VMT).

AB 1007 (Chapter 371, Statues of 2005) required CEC to prepare the State Alternative Fuels Plan to increase the use of alternative fuels in California.

In January 2012, CARB approved the Advanced Clean Cars program which combines the control of GHG emissions and criteria air pollutants, as well as requirements for greater numbers of zero-emission vehicles, into a single package of standards for vehicle model years 2017 through 2025. The program's zero-emission vehicle regulation requires battery, fuel cell, and/or plug-in hybrid electric vehicles to account for up to 15 percent of California's new vehicle sales by 2025.

On August 2, 2018, the National Highway Traffic Safety Administration (NHTSA) and EPA proposed the Safer Affordable Fuel-Efficient Vehicles Rule (SAFE Rule). Part One of the SAFE Rule revokes a waiver granted by EPA to the State of California under Section 209 of the CAA to enforce more stringent emission standards for motor vehicles than those required by EPA for the explicit purpose of GHG emission reduction, and indirectly, criteria air pollutant and ozone precursor emission reduction. On March 31, 2020, Part Two of the SAFE Rule was published and would amend existing CAFE and tailpipe $CO_2$ emissions standards for passenger cars and light trucks and establish new standards covering model years 2021 through 2026.

**GHG Reduction Regulations**

Several regulatory measures such as AB 32 and the Climate Change Scoping Plan, EO B-30-15, SB 32, and AB 197 were enacted to reduce GHG emissions and have the co-benefit of reducing California's dependency on fossil fuels and making land use development and transportation systems more energy efficient.

**Renewable Energy Regulations**

SB X1-2 of 2011 requires all California utilities to generate 33 percent of their electricity from renewables by 2020. SB X1-2 also requires the renewable electricity standard to be met increasingly with renewable energy that is supplied to the California grid from sources within, or directly proximate to, California. SB X1-2 mandates that renewables from these sources make up at least 50 percent of the total renewable energy for the 2011-2013 compliance period, at least 65 percent for the 2014 to 2016 compliance period, and at least 75 percent for 2016 and beyond.

SB 100, signed in September 2018, requires that all California utilities, including independently-owned utilities, energy service providers, and community choice aggregators, supply 44 percent of retail sales from renewable resources by December 31, 2024, 50 percent of all electricity sold by December 31, 2026, 52 percent by December 31, 2027, and 60 percent by December 31, 2030. The law also requires that eligible renewable energy resources and zero-carbon resources supply 100 percent of retail sales of electricity to California end-use customers and 100 percent of electricity procured to serve all State agencies by December 31, 2045.

The Sacramento City Council adopted the New Building Electrification Ordinance on June 1, 2021. The Ordinances amended Title 15 of the Sacramento City Code making local amendments to the CBSC requiring building permit applications filed on or after January 1, 2023 for newly constructed buildings of three stories or less to be all-electric buildings, as well as requiring building permit applications filed on or after January 1, 2026 for newly constructed buildings of four stories or more to be all-electric buildings. An updated New Building Electrification Ordinance was adopted by the City Council on November 29, 2022 to align the Ordinance with the 2022 CBSC.

**SUMMARY OF ANALYSIS UNDER THE 2035 GENERAL PLAN MASTER EIR AND APPLICABLE GENERAL PLAN POLICIES**

Structures built as part of buildout of the General Plan would be subject to Titles 20 and 24 of the CCR, which reduce demand for electrical energy by implementing energy-efficient standards for residential and non-residential buildings. The 2035 General Plan includes policies (see 2035 General Plan Energy Resources Goal U 6.1.1 and related policies) to encourage energy-efficient technology by offering rebates and other incentives to commercial and residential developers, coordination with local utility providers, and recruitment of businesses that research and promote energy conservation and efficiency.

The Master EIR discussed energy conservation and relevant General Plan policies in Section 6.3 (page 6-3). The discussion concluded that with implementation of the General Plan policies and energy regulation (e.g., Title 24) development allowed in the General Plan would not result in the inefficient, wasteful or unnecessary consumption of energy.

The Master EIR concluded that implementation of State regulations, coordination with energy providers, and implementation of General Plan policies would reduce the potential impacts from construction of new energy production or transmission facilities to a less-than-significant level.

**Sacramento Climate Action Plan**

The Sacramento Climate Action Plan (CAP) was adopted on February 14, 2012 by the Sacramento City Council and was incorporated into the 2035 General Plan. The Sacramento CAP includes GHG emission reduction targets, strategies, and implementation measures developed to help the City reach these targets. Reduction strategies address GHG emissions associated with transportation and land use, energy, water, waste management and recycling, agriculture, and open space.

**ANSWERS TO CHECKLIST QUESTIONS**

Questions A and B

Neither federal or State law nor the State CEQA Guidelines establish thresholds that define when energy consumption is considered wasteful, inefficient and unnecessary. Compliance with CCR Title 24 Energy Efficiency Standards would result in energy-efficient buildings. However, compliance with building codes does not adequately address all potential energy impacts during construction and operation. For example, energy would be required to transport people and goods to and from the project site. Energy use is discussed by anticipated use type below.

*Construction*

Construction of the proposed project would involve on-site 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 on-site lighting, welding, and for supplying energy to areas of the sites where energy supply cannot be met via 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 and off-site improvement areas would be disturbed at a time, with operation of construction equipment occurring at different locations on the project site, rather than a single location. In addition, all construction equipment and operation thereof would be regulated per the CARB In-Use Off-Road Diesel Vehicle Regulation. The In-Use Off-Road Diesel Vehicle Regulation 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. 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.

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, as anticipated in the Master EIR, construction activities on the project site 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*

The proposed project would be subject to all relevant provisions of the most recent update of the CBSC, including the Building Energy Efficiency Standards. Adherence to the most recent CALGreen Code, the Building Energy Efficiency Standards, and all applicable regulations included within the City's CAP would ensure that the proposed structures would consume energy efficiently through the incorporation of such features as efficient water heating systems, high performance attics and walls, and high efficacy lighting. Required compliance with the CBSC would ensure that the building energy use associated with the project would not be wasteful, inefficient, or unnecessary. In addition, electricity supplied to the project by SMUD would comply with the State's Renewables Portfolio Standard, which requires investor-owned utilities, electric service providers, and community choice aggregators to increase procurement from eligible renewable energy resources to 60 percent by 2030. Pursuant to the 2022 CBSC, the proposed project would be required to incorporate rooftop solar panels to meet the electricity demands of future residents. As a result, a portion of the electricity consumed during project operations would be generated from renewable sources. It is noted that at least 50 percent of the proposed parking area would be shaded by landscaping trees, which would reduce heat island effects on the project and discourage energy use associated with air conditioning systems.

With regard to transportation energy use, the proposed project would comply with all applicable regulations associated with vehicle efficiency and fuel economy. In addition, as discussed in Section 13, Transportation,

of this Modified Initial Study/15183 Checklist, the VMT associated with development of the proposed project is assumed to be less than the regional average.

*Conclusion*

Based on the above, the proposed project would involve energy use associated with construction activities and operations; however, given that the proposed project would be consistent with the site's General Plan land use designation, buildout of the project site and associated energy demands have been anticipated by the City and analyzed in the Master EIR. In addition, the project would comply with applicable General Plan policies, as well as other State energy standards, which would ensure that 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. Based on the above, project impacts related to energy use were ***adequately addressed in the Master EIR***, and the proposed project would not result in any peculiar effects that would require further CEQA review related to such.

**MITIGATION MEASURES**

None required.

**FINDINGS**

The proposed project would not have any significant effects relating to other energy impacts that either have not already been analyzed in a prior EIR or that are more significant than previously analyzed.

| 6. GEOLOGY AND SOILS<br>Would the project: | Significant Impact Peculiar to the Project or the Project Site | Significant Impact due to New Information | Impact Adequately Addressed in the Master EIR | No Impact |
|---|---|---|---|---|
| A) Would the project allow a project to be built that will either introduce geologic or seismic hazards by allowing the construction of the project on such a site without protection against those hazards? | ☐ | ☐ | ✖ | ☐ |

**ENVIRONMENTAL SETTING**

**Seismicity**

The City of Sacramento is not located within an Alquist-Priolo Earthquake Fault Zone, and known faults do not exist within the Policy Area. Therefore, fault rupture within the Policy Area is highly unlikely and, consequently, implementation of buildout of the General Plan would not expose people or structures to the possibility of fault rupture.

Nonetheless, the City may be subject to seismic hazards caused by major seismic events outside the City. Per the Master EIR, the greatest earthquake threat to the City comes from earthquakes along Northern California's major faults, including the San Andreas, Calaveras, and Hayward faults. Ground shaking on any of the aforementioned faults could cause shaking within the City to an intensity of 5 to 6 moment magnitude (Mw). However, as noted above, the City is not within an Alquist-Priolo Earthquake Fault Zone and does not include any known active faults. As such, the City's seismic ground-shaking hazard is low, ranking among the lowest in the State. Additionally, the City is in Seismic Zone 3. Accordingly, any future development, rehabilitation, reuse, or possible change of use of a structure would be required to comply with all design standards applicable to Seismic Zone 3.

**Topography**

Terrain in the City of Sacramento features very little relief and the potential for slope instability within the City is minor due to the relatively flat topography of the area. The topography of the project site is relatively level, and is not a risk of seismically-induced landslides. Due to the relatively flat topography of the area, the potential for slope instability within the City and at the project site is minor.

**Regional Geology**

The City of Sacramento is located in the Great Valley Geomorphic Province. The Great Valley Geomorphic Province consists of a deep, northwest-trending sedimentary basin that borders the east of the Coast Ranges. The Great Valley Geomorphic Province is a flat alluvial plain approximately 50 miles wide and 400 miles long in the central portion of California. The northern portion of the Great Valley Geomorphic Province is the Sacramento Valley drained by the Sacramento River, and the southern part is the San Joaquin Valley drained by the San Joaquin River. The valley is surrounded by the Sierra Nevada to the east, the Tehachapi Mountains to the south, Coastal Range to the west, and Cascade Range to the north.

**SUMMARY OF ANALYSIS UNDER THE 2035 GENERAL PLAN MASTER EIR AND APPLICABLE GENERAL PLAN POLICIES**

Chapter 4.5 of the Master EIR evaluated the potential effects related to seismic hazards, underlying soil characteristics, slope stability, erosion, existing mineral resources and paleontological resources in the City. Implementation of identified policies in the 2035 General Plan reduced all effects to a less-than-significant level. Policy EC 1.1.1 requires regular review of the City's seismic and geologic safety standards, and Policy EC 1.1.2 requires geotechnical investigations for project sites to identify and respond to geologic hazards,

when present. Policy HCR 2.1.16 requires the City to develop or ensure compliance with protocols that protect or mitigate impacts to archaeological and cultural resources, including prehistoric resources. Specifically, Implementation Program 12 requires amendment of the Sacramento Code to require discovery procedures for paleontological resources found during grading, excavation, or construction. These procedures include protocols and criteria for qualifications of personnel, and for survey, research, testing, training, monitoring, cessation and resumption of construction, identification, evaluation, and reporting, as well as compliance with recommendations to address any significant adverse effects where determined by the City to be feasible.

**ANSWERS TO CHECKLIST QUESTIONS**

Question A

As stated above, the City of Sacramento's topography is relatively flat, the City is not located within an Alquist-Priolo Earthquake Fault Zone, and the City is not located in the immediate vicinity of an active fault. However, Sacramento is located in a moderate seismically-active region. The 2035 General Plan indicates that ground shaking would occur periodically in Sacramento as a result of distant earthquakes. The 2035 General Plan further states that the earthquake resistance of any building is dependent on an interaction of seismic frequency, intensity, and duration with the structure's height, condition, and construction materials. Although the project site is not located near any active or potentially active faults, strong ground shaking could occur at the project site during a major earthquake on any of the major regional faults.

The proposed project would include the development of 120 residential units. Due to the seismic activity in the State, construction is required to comply with Title 24 of the Uniform Building Code (UBC). Chapter 15.20 of the Sacramento City Code adopts the UBC and mandates compliance; therefore, all new construction and modifications to existing structures within the City are subject to the requirements of the UBC. The UBC contains standards to ensure that all structures and infrastructure are constructed to minimize the impacts from seismic activity, to the extent feasible, including exposure of people or structures to substantial, adverse effects as a result of strong groundshaking, seismic-related ground failure, liquefaction, lateral spreading, landslides, or lurch cracking. As a result, seismic activity in the area of the proposed development would not expose people or structures to substantial, adverse effects as a result of strong groundshaking and seismic-related ground failure.

In addition, issues related to fault rupture, seismic groundshaking, and seismically induced ground failures are addressed in the City's adopted Standard Specifications for Public Works Construction (2007), which requires construction contractors to build to City standards related to structural integrity, thus ensuring that erosion and unstable soil conditions do not occur as a result of construction. The construction specification document contains provisions that require contractors to be responsible for damage caused during construction and to be responsible for the repair of such damages (e.g., settling of adjacent land and structures). The proposed project would require heavy construction, and individual components used in the construction of the project would be constructed to industry-provided design specifications and requirements, including the American Society for Testing and Materials (ASTM) standards.

Soils typically found most susceptible to liquefaction are saturated and loose, fine to medium grained sand. Liquefaction occurs where surface soils become saturated with water and become mobile during groundshaking caused by a seismic event. When soils subject to liquefaction move, the foundations of structures move as well which can cause structural damage. Liquefaction generally occurs below the water table, but could move upward through soils after development. The Master EIR identified soils subject to liquefaction to be found within areas primarily within the Central City, Pocket, and North and South Natomas Community. However, the Master EIR recommends using site-specific geotechnical studies to determine if in fact, a specific location may be subject to liquefaction hazard.

According to the U.S. Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) Web Soil Survey, the soil within the project site is composed of Clear Lake clay, 0 to 1 percent slopes, and

Jacktone clay, 0 to 2 percent slopes.[8] Both soils carry a rating of "Very limited" for development of dwellings without basements, which indicates that the soil has features that are not favorable for the specified use. However, in compliance with Policy EC 1.1.2, a geotechnical investigation for project site must be performed in order to identify and respond to any site-specific geologic hazards.

The proposed project would be required to comply with all applicable provisions of the 2022 CBSC, which incorporates elements of the UBC, and was adopted by the City through Sacramento City Code Section 15.04.050. The CBSC contains the latest seismic safety requirements to resist ground shaking through modern construction techniques, which are periodically updated to reflect the most recent seismic research.

Furthermore, the Master EIR evaluated exposure of people to risk from seismic hazards, such as groundshaking and liquefaction, under Impact 4.5-1 and concluded that with compliance with all applicable regulations and policies established by the Sacramento City Code, impacts related to geologic or seismic hazards would be less than significant. The proposed project is consistent with the land use designation and zoning established in the 2035 General Plan, and would comply with all applicable policies and regulations. In addition, development of the project site would be built to City of Sacramento Building Code, UBC Standards, and CBSC.

Based on the above, project impacts related to introducing geologic or seismic hazards were ***adequately addressed in the Master EIR***, and the proposed project would not result in any peculiar effects that would require further CEQA review related to such.

**MITIGATION MEASURES**

None required.

**FINDINGS**

The proposed project would not have any significant effects relating to geology and soils impacts that either have not already been analyzed in a prior EIR or that are more significant than previously analyzed.

[8] United States Department of Agriculture. *Natural Resources Conservation Science.* Available at: https://websoilsurvey.sc.egov.usda.gov/App/WebSoilSurvey.aspx. Accessed January 2023.

| Issues: | Significant Impact Peculiar to the Project or the Project Site | Significant Impact due to New Information | Impact Adequately Addressed in the Master EIR | No Impact |
|---|---|---|---|---|
| 7. GREENHOUSE GAS EMISSIONS Would the project: | | | | |
| A) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment? | ☐ | ☐ | ✖ | ☐ |
| B) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases? | ☐ | ☐ | ✖ | ☐ |

**Environmental Setting**

The City of Sacramento is located within the SVAB, which is a valley bounded by the North Coast Mountain Ranges to the west and the Northern Sierra Nevada Mountains to the east. The terrain in the valley is flat and approximately 25 feet above sea level.

Hot, dry summers and mild, rainy winters characterize the Mediterranean climate of the Sacramento Valley. Throughout the year, daily temperatures may range by 20 degrees Fahrenheit with summer highs often exceeding 100 degrees and winter lows occasionally below freezing. Average annual rainfall is about 20 inches and snowfall is very rare. Summertime temperatures are normally moderated by the presence of the "Delta breeze" that arrives through the Carquinez Strait in the evening hours.

The mountains surrounding the SVAB create a barrier to airflow, which can trap air pollutants in the valley. The highest frequency of air stagnation occurs in the autumn and early winter when large high-pressure cells lie over the valley. The lack of surface wind during these periods and the reduced vertical flow caused by less surface heating reduces the influx of outside air and allows air pollutants to become concentrated in a stable volume of air. The surface concentrations of pollutants are highest when these conditions are combined with temperature inversions that trap cooler air and pollutants near the ground.

The warmer months in the SVAB (May through October) are characterized by stagnant morning air or light winds, and the Delta breeze that arrives in the evening out of the southwest. Usually, the evening breeze transports a portion of airborne pollutants to the north and out of the Sacramento Valley. During about half of the day from July to September, however, a phenomenon called the "Schultz Eddy" prevents this from occurring. Instead of allowing the prevailing wind patterns to move north carrying the pollutants out of the valley, the Schultz Eddy causes the wind pattern to circle back south. This phenomenon exacerbates the pollution levels in the area and increases the likelihood of violating Federal or State standards. The Schultz Eddy normally dissipates around noon when the Delta breeze begins.

**Greenhouse Gases**

Certain gases in the earth's atmosphere, classified as GHGs, play a critical role in determining the earth's surface temperature. GHGs are responsible for "trapping" solar radiation in the earth's atmosphere, a phenomenon known as the greenhouse effect. Prominent GHGs contributing to the greenhouse effect are carbon dioxide ($CO_2$), methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride. Human-caused emissions of these GHGs in excess of natural ambient concentrations are believed responsible for intensifying the greenhouse effect and leading to a trend of unnatural warming of

the earth's climate, known as global climate change or global warming. Emissions of GHGs contributing to global climate change are attributable, in large part, to human activities associated with on-road and off-road transportation, industrial/manufacturing, electricity generation by utilities and consumption by end users, residential and commercial on-site fuel usage, and agriculture and forestry. Emissions of $CO_2$ are, largely, byproducts of fossil fuel combustion.

The quantity of GHGs in the atmosphere responsible for climate change is not precisely known, but it is enormous. No single project alone would measurably contribute to an incremental change in the global average temperature or to global or local climates or microclimates. From the standpoint of CEQA, GHG impacts relative to global climate change are inherently cumulative.

Several regulations currently exist related to GHG emissions, predominantly AB 32, Executive Order S-3-05, and SB 32. AB 32 requires that Statewide GHG emissions be reduced to 1990 levels by 2020. Executive Order S-3-05 established the GHG emission reduction target for the State to reduce to the 2000 level by 2010, the 1990 level by 2020 (AB 32), 40 percent below the 1990 level by 2030, and to 80 percent below the 1990 level by 2050 (SB 32).

To meet the statewide GHG emission targets, the City adopted the City of Sacramento CAP on February 14, 2012 to comply with AB 32. The CAP identified how the City and the broader community could reduce Sacramento's GHG emissions and included reduction targets, strategies, and specific actions. In 2015, the City of Sacramento adopted the 2035 General Plan Update. The update incorporated measures and actions from the CAP into Appendix B, General Plan CAP Policies and Programs, which includes citywide policies and programs that are supportive of reducing GHG emissions.

**STANDARDS OF SIGNIFICANCE**

- A project is considered to have a significant effect relating to GHG emissions if it fails to satisfy the requirements of the City's Climate Action Plan.

**SUMMARY OF ANALYSIS UNDER THE 2035 GENERAL PLAN MASTER EIR AND APPLICABLE GENERAL PLAN POLICIES**

The Master EIR found that GHG emissions that would be generated by development consistent with the 2035 General Plan would contribute to climate change on a cumulative basis. Policies of the General Plan identified in the Master EIR that would reduce construction related GHG emissions include: ER 6.1.2, ER 6.1.11 requiring coordination with SMAQMD to ensure feasible mitigation measures are incorporated to reduce GHG emissions, and ER 6.1.15. The 2035 General Plan incorporates the GHG reduction strategy of the 2012 CAP, which demonstrates compliance mechanism for achieving the City's adopted GHG reduction target of 15 percent below 2005 emissions by 2020. Policy ER 6.1.8 commits the City to assess and monitor performance of GHG emission reduction efforts beyond 2020, and progress toward meeting long-term GHG emission reduction goals, ER 6.1.9 also commits the City to evaluate the feasibility and effectiveness of new GHG emissions reduction measures in view of the City's longer-term GHG emission reductions goal. The discussion of GHG emissions and climate change in the 2035 General Plan Master EIR are incorporated by reference in this Modified Initial Study/15183 Checklist. (CEQA Guidelines Section 15150)

The Master EIR identified numerous policies included in the 2035 General Plan that addressed GHG emissions and climate change. See Draft Master EIR, Chapter 4.14, and pages 4.14-1 et seq. The Master EIR is available for review online at:

http://www.cityofsacramento.org/Community-Development/Planning/Environmental/Impact-Reports

Questions A and B

The Master EIR evaluated impacts related to GHG emissions and climate change under Impact 4.14-1, and determined that a less-than-significant impact would occur, given consistency with the City's CAP.

GHG emissions associated with the proposed project were modeled in accordance with the assumptions presented in Section 2, Air Quality, of this Modified Initial Study/15183 Checklist. Maximum annual GHG emissions from construction and operations of the proposed project were quantified and would equal approximately 289.53 metric tons of $CO_2$ equivalent units per year ($MTCO_2e$/yr) and 670.72 $MTCO_2e$/yr, respectively. However, the foregoing emissions are presented for disclosure purposes only, and the following discussion evaluated project consistency with the City of Sacramento CAP.

The City of Sacramento has integrated a CAP into the City's General Plan. Thus, potential impacts related to climate change from development within the City are also assessed based on the project's compliance with the City's adopted General Plan CAP Policies and Programs set forth in Appendix B of the General Plan Update. The majority of the policies and programs set forth in Appendix B are citywide efforts in support of reducing overall citywide emissions of GHG. However, various policies related to new development within the City would directly apply to the proposed project. The project's general consistency with City policies that would reduce GHG emissions from buildout of the City's General Plan are discussed below.

Goal LU 1.1 and Policy LU 1.1.5 encourage infill development within existing urbanized areas. Given that the proposed project would be consistent with the site's current land use and zoning designations and the surrounding areas are already built out, the project would be consistent with Goal LU 1.1 and Policy LU 1.1.5. The proposed project would be constructed in compliance with the CBSC, which includes the California Building Energy Efficiency Standards and the California Green Building Code. The CBSC, and the foregoing standards and codes, increase the sustainability of new development through requiring energy efficiency and sustainable design practices (Policy ER 6.1.7). Such sustainable design would support the City's Policy U 6.1.5, which states that energy consumption per capita should be reduced as compared to the year 2005.

Goal LU 2.5, Policy LU 2.5.1, and Policy LU 2.7.6 require that new urban developments should be well-connected, minimize barriers between uses, and create pedestrian-scaled, walkable areas. Sacramento RT Route 13 provides transit opportunities in proximity to the project site, and a bus stop is located at the intersection of El Centro Road and Del Paso Road, approximately 250 feet south of the project site. Additionally, the proposed project would not result in removal of any existing bicycle or pedestrian facilities or preclude the implementation of any proposed or existing off-street trails in the vicinity of the project. Rather, the proposed project would improve and replace the existing walkway located along the western border of the site, and the project would include several pedestrian gate access points to further support pedestrian activity. As such, the proposed project would comply with the aforementioned goals and policies.

The Master EIR concluded that buildout of the City's General Plan, including the project site, would not result in a conflict with applicable plans, policies, or regulations adopted for the purpose of reducing GHG emissions. The proposed project would be allowable within the existing General Plan land use designation for the site, and the project is consistent with the policies discussed above that are intended to reduce GHG emissions from buildout of the City's General Plan. Additionally, it is noted that the existing General Plan land use designation allows for commercial land uses on the project site. Therefore, the Master EIR likely assumed the operation of some commercial development on the project site. Commercial land uses are known to result in greater GHG emissions during operations as compared to residential uses due to the increased motor vehicle trip generation rates. As the proposed project would include only residential uses, the proposed project is expected to result in fewer operational GHG emissions as compared to what was assumed for the site in the Master EIR. Thus, GHG emissions from operation of the proposed project were encompassed within what was analyzed in the Master EIR, and the proposed project would be consistent with the CAP.

*Conclusion*

Based on the above, the project would be consistent with the City's CAP and the City's General Plan policies intended to reduce GHG emissions. Therefore, project impacts were ***adequately addressed in the Master EIR***, and the proposed project would not result in any peculiar effects that would require further CEQA review related to such.

**MITIGATION MEASURES**

None required.

**FINDINGS**

The proposed project would not have any significant effects relating to GHG emissions that either have not already been analyzed in a prior EIR or that are more significant than previously analyzed.

| 8. HAZARDS<br>Would the project: | Significant Impact Peculiar to the Project or the Project Site | Significant Impact due to New Information | Impact Adequately Addressed in the Master EIR | No Impact |
|---|---|---|---|---|
| A) Expose people (e.g., residents, pedestrians, construction workers) to existing contaminated soil during construction activities? | ☐ | ☐ | ✖ | ☐ |
| B) Expose people (e.g., residents, pedestrians, construction workers) to asbestos-containing materials or other hazardous materials? | ☐ | ☐ | ✖ | ☐ |
| C) Expose people (e.g., residents, pedestrians, construction workers) to existing contaminated groundwater during dewatering activities? | ☐ | ☐ | ✖ | ☐ |

**ENVIRONMENTAL SETTING**

The project site is located within a developed, urban setting. The project site is currently developed with paved surface parking areas, landscaping trees and vegetation, and a pergola. A site-specific investigation for the presence of hazardous materials has not been conducted for the project site. The California Environmental Protection Agency (Cal-EPA) has compiled a list of data resources that provide information regarding the facilities or sites identified as meeting the "Cortese List" requirements, pursuant to Government Code 65962.5. The components of the Cortese List include the Department of Toxic Substances Control (DTSC) Hazardous Waste and Substances Site List, the list of leaking underground storage tank (UST) sites from the State Water Resources Control Board (SWRCB's) GeoTracker database, the list of solid waste disposal sites identified by the SWRCB, and the list of active Cease and Desist Orders (CDO) and Cleanup and Abatement Orders (CAO) from the SWRCB. The project site is not included on the DTSC Hazardous Waste and Substances Site List.[9] In addition, the project site is not included on the list of leaking UST sites from SWRCB's GeoTracker database, or the list of active CDO and CAO from the SWRCB.[10] Furthermore, the project site is not located within 1,000 feet of any site listed on the aforementioned databases.

**STANDARDS OF SIGNIFICANCE**

For the purposes of this Modified Initial Study/15183 Checklist, an impact is considered significant if the proposed project would:

- Expose people (e.g., residents, pedestrians, construction workers) to existing contaminated soil during construction activities;
- Expose people (e.g., residents, pedestrians, construction workers) to asbestos-containing materials or other hazardous materials; or
- Expose people (e.g., residents, pedestrians, construction workers) to existing contaminated groundwater during dewatering activities.

[9] Department of Toxic Substances Control. *Hazardous Waste and Substances Site List (Cortese).* Available at: https://www.envirostor.dtsc.ca.gov/public/map/?myaddress=3561+Del+Paso+Rd%2C+Sacramento%2C+CA+95835. Accessed January 2023.

[10] State Water Resources Control Board. *GeoTracker*. Available at: https://geotracker.waterboards.ca.gov/map/?CMD=runreport&myaddress=3561+Del+Paso+Rd%2C+Sacramento%2C+CA+95835. Accessed January 2023.

**SUMMARY OF ANALYSIS UNDER THE 2035 GENERAL PLAN MASTER EIR AND APPLICABLE GENERAL PLAN POLICIES**

The Master EIR evaluated effects of development on hazardous materials, emergency response and aircraft crash hazards. See Chapter 4.6. The Master EIR determined that implementation of the General Plan may result in the exposure of people to hazards and hazardous materials during construction activities, and exposure of people to hazards and hazardous materials during the life of the General Plan. Impacts identified related to construction activities and operations were found to be less than significant. Policies included in the 2035 General Plan, including PHS 3.1.1 (investigation of sites for contamination) and PHS 3.1.2 (preparation of hazardous materials actions plans when appropriate) were effective in reducing the identified impacts.

**ANSWERS TO CHECKLIST QUESTIONS**

Questions A and C

According to the City's Master EIR, grading, excavation, and dewatering of sites for new development may expose construction workers and the public to known or previously unreported hazardous substances present in the soil or groundwater. If new development is proposed at or near a documented or suspected hazardous materials site, investigation, remediation, and cleanup of the site would be required before construction could begin.

Based on aerial photography, the project site appears to be vacant dating back to 1985, and the existing pergola and parking area appear around 2007. In addition, neither the project site, nor any site within 1,000 feet of the project site, appear on the DTSC Hazardous Waste and Substances Site List or SWRCB's GeoTracker database. However, in the absence of detailed information, prior uses on and adjacent to the project site may have included the use of hazardous materials, substances, or waste.

The proposed project would be required to comply with Policy PHS 3.1.1, which ensures that sites under considerations for redevelopment be subject to a site-specific investigation for the presence of hazardous materials prior to development activities for the project site. Because the project site is currently developed with a pergola and multiple parking spaces, the proposed project would be subject to Policy PHS 3.1.1. Conformance with Policy PHS 3.1.1 would ensure that any hazardous materials on the project site would be identified and subject to a treatment plan prior to the commencement of demolition activities associated with the proposed project, such as removal of the on-site pergola and parking spaces.

The Master EIR analyzed potential impacts to the public or the environment from exposure to hazards or hazardous materials, resulting from buildout of the 2035 General Plan, including development of the project site. The City determined in the Master EIR that compliance with the applicable policies as well as implementation of 2035 General Plan goals and policies discussed above would minimize potential impacts related to exposing people to existing contaminated soil or contaminated groundwater during construction activities. As previously demonstrated, the proposed project would be consistent with the development assumptions of the 2035 General Plan and would comply with applicable General Plan policies. Therefore, project impacts were ***adequately addressed in the Master EIR***, and the proposed project would not result in any peculiar effects that would require further CEQA review related to such.

Questions B

The Master EIR determined that compliance with applicable regulations and guidelines would reduce impacts related to asbestos-containing materials and lead-based paint (LBP) to a less-than-significant level. These requirements include: Sacramento Metropolitan Air Quality Management District's Rule 902 pertaining to asbestos abatement; Construction Safety Orders 1529 (pertaining to asbestos) and 1532.1 (pertaining to lead) from Title 8 of the CCR; Part 61, Subpart M of the Code of Federal Regulations (pertaining to asbestos); and lead exposure guidelines provided by the U.S. Department of Housing and Urban Development.

Asbestos is the name for a group of naturally occurring silicate minerals that are considered to be "fibrous" and, through processing, can be separated into smaller and smaller fibers. The fibers are strong, durable, chemical resistant, and resistant to heat and fire. They are also long, thin and flexible, so they can even be woven into cloth. Because of these qualities, asbestos was considered an ideal product and has been used in thousands of consumer, industrial, maritime, automotive, scientific and building products. However, later discoveries found that, when inhaled, the material caused serious illness.

For buildings constructed prior to 1980, the Code of Federal Regulations (29 CFR 1926.1101) states that all thermal system insulation (boiler insulation, pipe lagging, and related materials) and surface materials must be designated as "presumed asbestos-containing material" unless proven otherwise through sampling in accordance with the standards of the Asbestos Hazard Emergency Response Act. Asbestos-containing materials could include, but are not limited to, plaster, ceiling tiles, thermal systems insulation, floor tiles, vinyl sheet flooring, adhesives, and roofing materials.

LBP is defined as any paint, varnish, stain, or other applied coating that has one milligram per cubic centimeter or greater (5,000 micrograms per gram or 5,000 parts per million) of lead by federal guidelines. Lead is a highly toxic material that may cause a range of serious illnesses and, in some cases, death. In buildings constructed after 1978, LBP is unlikely to be present. Structures built prior to 1978 and especially prior to the 1960s should be expected to contain LBP.

The proposed project includes the construction of the development of a 120-unit affordable housing community comprised of five multi-family buildings and a community building. The project site was vacant until approximately 2007, which is when the existing pergola and parking areas were installed. As a result, asbestos and LBP are unlikely to be present on the project site, and construction would not result in exposure to such hazards. Furthermore, the proposed project would be required to comply with Policy PHS 3.1.1, which requires that sites under considerations for redevelopment be subject to a site-specific investigation for the presence of hazardous materials prior to development activities for the project site. Conformance with Policy PHS 3.1.1 would ensure that any hazardous materials on the project site would be identified and subject to a treatment plan, prior to the commencement of demolition activities.

In addition, the project site is not located in eastern Sacramento County and is not in an area identified as likely to contain naturally-occurring asbestos (NOA). Thus, receptors would not be exposed to NOA as a result of ground-disturbing activities associated with implementation of the proposed project.

Based on the above, because the project site does not contain structures built prior to the 1960s, activities associated with the proposed project would not result in the exposure of people to asbestos-containing materials or other hazardous materials. As previously demonstrated, the proposed project would be consistent with the development assumptions of the 2035 General Plan and will comply with applicable General Plan policies. Therefore, project impacts related to exposing people to asbestos-containing materials or other hazardous materials were ***adequately addressed in the Master EIR***, and the proposed project would not result in any peculiar effects that would require further CEQA review related to such.

**MITIGATION MEASURES**

None required.

**FINDINGS**

The proposed project would not have any significant effects relating to hazards impacts that either have not already been analyzed in a prior EIR or that are more significant than previously analyzed.

| 9. HYDROLOGY AND WATER QUALITY<br>Would the project: | Significant Impact Peculiar to the Project or the Project Site | Significant Impact due to New Information | Impact Adequately Addressed in the General Plan EIR | No Impact |
|---|---|---|---|---|
| A) Substantially degrade water quality and violate any water quality objectives set by the State Water Resources Control Board, due to increases in sediments and other contaminants generated by construction and/or development of the project? | ☐ | ☐ | ✖ | ☐ |
| B) Substantially increase the exposure of people and/or property to the risk of injury and damage in the event of a 100-year flood? | ☐ | ☐ | ☐ | ✖ |

**ENVIRONMENTAL SETTING**

The project site is located in an urbanized area within the North Natomas Community Plan Area. The project site is comprised of undeveloped graded areas, paved surface parking areas, landscaping trees and vegetation, and a pergola. Although portions of the project site contain existing storm drainage infrastructure, and such infrastructure exists in the project vicinity, the majority of the site does not currently contain storm drainage infrastructure.

The Federal Emergency Management Agency (FEMA) publishes Flood Insurance Rate Maps (FIRM) that delineate flood hazard zones for communities. The project site is located within an area designated as Zone X, which is applied to areas of 0.2 percent annual chance flood, areas of one percent annual chance flood with average depths of less than one foot, or with drainage areas less than one square mile, and areas protected by levees from one percent annual chance flood, identified on FEMA FIRM Panel 06067C0045J.[11] FEMA does not have building regulations for development in areas designated Zone X and would not require mandatory flood insurance for structures in Zone X.

The City of Sacramento's Grading Ordinance requires that development projects comply with the requirements of the City's Stormwater Quality Improvement Plan (SQIP). The SQIP outlines the priorities, key elements, strategies, and evaluation methods of the City's Stormwater Management Program. The City's Stormwater Management Program is based on the National Pollutant Discharge Elimination System (NPDES) municipal stormwater discharge permit. The comprehensive Stormwater Management Program includes pollution reduction activities for construction sites, industrial sites, illegal discharges and illicit connections, new development, and municipal operations. In addition, before the onset of any construction activities, where the disturbed area is one acre or more in size, projects are required to obtain coverage under the NPDES General Construction Permit and include erosion and sediment control plans. BMPs may consist of a wide variety of measures taken to reduce pollutants in stormwater and other non-point source runoff. Measures that reduce or eliminate post-construction-related water quality problems range from source controls, such as reduced surface disturbance, to treatment of polluted runoff, such as detention or retention basins. The City's SQIP and the *Stormwater Quality Design Manual for the Sacramento Region* (Sacramento Stormwater Quality Partnership 2014) include BMPs to be implemented to mitigate impacts from new development and redevelopment projects, as well as requirements for low impact development (LID) standards.

Section 13.08.145 of the Sacramento City Code (Mitigation of drainage impacts; design and procedures manual for water, sanitary sewer, storm drainage, and water quality facilities) requires that when a property contributes drainage to the storm drain system or combined sewer system, all stormwater and surface

[11] Federal Emergency Management Agency. *Flood Insurance Rate Map 06067C0045J.* Effective June 16, 2015.

runoff drainage impacts resulting from the improvement or development must be fully mitigated to ensure that the improvement or development does not affect the function of the storm drain system or combined sewer system, and that an increase in flooding or in water surface elevation that adversely affects individuals, streets, structures, infrastructure, or property does not occur. The project is within the SRCSD; in order to connect with the SRCSD wastewater conveyance and treatment system, developers must pay impact fees.[12] Multi-family residential infill development is required to pay $2,701 per dwelling unit.

**STANDARDS OF SIGNIFICANCE**

For purposes of this Modified Initial Study/15183 Checklist, impacts to hydrology and water quality may be considered significant if construction and/or implementation of the proposed project would result in the following impacts that remain significant after implementation of general plan policies or mitigation from the 2035 General Plan Master EIR:

- Substantially degrade water quality and violate any water quality objectives set by the State Water Resources Control Board (SWRCB), due to increases in sediments and other contaminants generated by construction and/or development of the proposed project; or
- Substantially increase the exposure of people and/or property to the risk of injury and damage in the event of a 100-year flood.

**SUMMARY OF ANALYSIS UNDER THE 2035 GENERAL PLAN MASTER EIR AND APPLICABLE GENERAL PLAN POLICIES**

Chapter 4.7 of the Master EIR evaluates the potential effects of the 2035 General Plan as they relate to surface water, groundwater, flooding, stormwater and water quality. Potential effects include water quality degradation due to construction activities (Impacts 4.7-1, 4.7-2), and exposure of people to flood risks (Impacts 4.7-3). Policies included in the 2035 General Plan, including a directive for regional cooperation (Policies ER 1.1.2, EC 2.1.1), comprehensive flood management (Policy EC 2.1.23), and construction of adequate drainage facilities with new development (Policy ER 1.1.1 to ER 1.1.10) were identified that the Master EIR concluded would reduce all impacts to a less-than-significant level.

**ANSWERS TO CHECKLIST QUESTIONS**

Question A

The proposed project has the potential to affect water quality during both construction and operation. Further details regarding the potential effects are provided below.

*Construction*

Construction activities associated with the proposed project would create the potential to degrade water quality from increased sedimentation and increased discharge (increased flow and volume of runoff) associated with storm water runoff. The SWRCB adopted a statewide general NPDES permit for stormwater discharges associated with construction activity. Dischargers whose projects disturb one or more acres of soil are required to obtain coverage under the General Permit for Discharges of Storm Water Associated with Construction Activity Construction General Permit Order 2012-0006-DWQ. Construction activity subject to the General Permit includes clearing, grading and disturbances to the ground such as stockpiling, or excavation. The proposed project would include disturbance of approximately 4.35 acres; thus, the project would be subject to the aforementioned regulations.

The City's SQIP contains a Construction Element that guides implementation of the NPDES Permit for Storm Water Discharges Associated with Construction Activity. This General Construction Permit requires the development and implementation of a Storm Water Pollution Prevention Plan (SWPPP). The SWPPP

[12] Regional San. *Impact Fees.* Available at: https://www.regionalsan.com/impact-fees-businesses. Accessed January 2023.

should contain a site map(s) which shows the construction site perimeter, existing and proposed buildings, lots, roadways, storm water collection and discharge points, general topography both before and after construction, and drainage patterns across the project. The SWPPP must list BMPs the discharger would use to protect storm water runoff and the placement of those BMPs. Additionally, the SWPPP must contain a visual monitoring program; a chemical monitoring program for "non-visible" pollutant to be implemented if there is a failure of BMPs; and a sediment monitoring plan if the site discharges directly to a water body listed on the 303(d) list for sediment. Section A of the Construction General Permit describes the elements that must be contained in a SWPPP. Compliance with City requirements to protect storm water inlets would require the developer to implement BMPs such as the use of straw wattles, sandbags, gravel traps, and filters; erosion control measures such as vegetation and physical stabilization; and sediment control measure such as fences, dams, barriers, berms, traps, and basins. City staff inspects and enforces the erosion, sediment and pollution control requirements in accordance with City codes (Grading, Erosion and Sediment Control Ordinance).

The Master EIR determined that conformance with City regulations and permit requirements along with implementation of BMPs would ensure that construction activities associated with buildout of the General Plan would result in a less-than-significant impact related to water quality. Because the proposed project would be consistent with the development assumptions of the 2035 General Plan and would comply with applicable General Plan policies, development of the proposed project would result in a less-than-significant impact related to water quality.

*Operations*

The discussion of Impact 4.7-2 in the Master EIR identified that development under the 2035 General Plan would result in new residential, commercial, recreation, and landscaping practices that would increase impervious surfaces within the Policy Area. New development would increase stormwater and non-stormwater runoff entering local streams, the Sacramento and American rivers, and the SRCSD, compared to existing conditions, which could affect water quality by potentially increasing sediment and contaminant loads.

The City has identified a range of BMPs and measurable goals to address the stormwater discharges in the City. A key component of this compliance is implementation of the SQIP new development element that requires stormwater quality treatment and/or BMPs to be incorporated in the project design phase. Post-construction stormwater quality controls for new development require use of source control, runoff reduction, and treatment control measures set forth in the Stormwater Quality Design Manual for the Sacramento Region. Such measures include the use of regional water quality control features (e.g., detention basins) for large developments (over 20 acres), use of treatment control measures, including swales, filter strips, media filters and infiltration, and housekeeping practices (e.g., spill prevention, proper storage measures and clean-up procedures).

Further, the Master EIR determined that General Plan Policies ER 1.1.3 through ER 1.1.10 would implement measures to reduce post-construction increases in runoff rates, maintain agreements for selected on-site stormwater quality facilities through the development permit process, reduce use of chemicals applied for landscape use, provide recycling programs and facilities to prevent unauthorized dumping, and provide watershed education to City staff. Implementation of General Plan Policies U1.1.1 through 1.1.5 requires that the City provides and maintains adequate stormwater drainage utility services. In addition, meeting these policies and the previous mentioned requirements would minimize the likelihood of urban pollutants in stormwater runoff from percolating into the soil and degrading groundwater.

The Master EIR stated that implementation of development proposed under the 2035 General Plan would improve and maintain stormwater protection measures through maintenance of existing stormwater facilities, and implementation of new development requirements in the Policy Area to meet the City's water quality design criteria. Therefore, including all the aforementioned requirements would help reduce the potential for sediments and pollutants from entering receiving waters and reduce impacts on water quality to less-than-significant levels.

The proposed project would incorporate LID measures as required for all projects above the impervious surface threshold applicable based upon land use, as described in the Stormwater Quality Design Manual for the Sacramento Region. Because a large portion of the project site currently contains permeable surfaces, implementation of the proposed project would increase the amount of impervious surface area from existing conditions. As a result, following implementation of the project, less pervious surface area would be available for stormwater to infiltrate on-site soils. Consistent with Chapter 13.16 of the City Code, the post-development stormwater flows from the site would be required to be equal to or less than pre-development conditions. As shown in Figure 7, the proposed project would include the development of 13 stormwater detention basins throughout the project site. The proposed stormwater detention basins would allow for groundwater infiltration before flows would be directed to the existing stormwater inlets located south and east of the project site. In addition, project landscaping would include trees in vegetated areas, a common LID design method for improving groundwater infiltration.

*Conclusion*

The Master EIR analyzed potential impacts to the implementation of water quality standards, maintenance of groundwater supplies, drainage, or water quality, resulting from buildout of the 2035 General Plan, including development of the project site. The City determined in the Master EIR that compliance with applicable 2035 General Plan policies, City regulations and permit requirements, along with implementation of BMPs through conditions of approval, construction and operational activities pursuant to buildout of the 2035 General Plan would result in a less-than-significant impact related to storm water absorption rates, discharges, flows, and water quality. As previously demonstrated, the proposed project was anticipated and analyzed in the Master EIR. Therefore, project impacts related to water quality were ***adequately addressed in the Master EIR***, and the proposed project would not result in any peculiar effects that would require further CEQA review related to such.

Question B

The proposed project would be an entirely residential development that would include the development of 120 residential units. Due to the inland location of the project site and the absence of a large body of water such as a lake or reservoir in the local area, the proposed project site is not located within a tsunami or seiche zone. As described above, the proposed project site is located within Flood Zone X of the FEMA FIRM. The project area designation under Flood Zone X is determined to be outside the area having a 0.2 percent chance of a flood. Therefore, the project site would not be subject to flooding from the 100 or 500-year storm events. Because the proposed project site is located outside the FEMA 100-year floodplain, the potential for impacts related to substantially increasing the exposure of people and/or property to the risk of injury and damage in the event of a 100-year flood is low. Furthermore, development of the project site with the proposed project was anticipated and analyzed in the Master EIR, and the proposed project would not result in any peculiar effects. Therefore, ***no impact*** would occur.

**MITIGATION MEASURES**

None required.

**FINDINGS**

The proposed project would not have any significant effects relating to hydrology and water quality impacts that either have not already been analyzed in a prior EIR or that are more significant than previously analyzed.

| 10. NOISE<br>Would the project result in: | Significant Impact Peculiar to the Project or the Project Site | Significant Impact due to New Information | Impact Adequately Addressed in the General Plan EIR | No Impact |
|---|---|---|---|---|
| A) Result in exterior noise levels in the project area that are above the upper value of the normally acceptable category for various land uses due to the project's noise level increases? | ☐ | ☐ | ✖ | ☐ |
| B) Result in residential interior noise levels of 45 dBA $L_{dn}$ or greater caused by noise level increases due to the project? | ☐ | ☐ | ✖ | ☐ |
| C) Result in construction noise levels that exceed the standards in the City of Sacramento general plan or Noise Ordinance? | ☐ | ☐ | ✖ | ☐ |
| D) Permit existing and/or planned residential and commercial areas to be exposed to vibration-peak-particle velocities greater than 0.5 inches per second due to project construction? | ☐ | ☐ | ✖ | ☐ |
| E) Permit adjacent residential and commercial areas to be exposed to vibration peak particle velocities greater than 0.5 inches per second due to highway traffic and rail operations? | ☐ | ☐ | ✖ | ☐ |
| F) Permit historic buildings and archaeological sites to be exposed to vibration-peak-particle velocities greater than 0.2 inches per second due to project construction and highway traffic? | ☐ | ☐ | ✖ | ☐ |

**ENVIRONMENTAL SETTING**

The following provides a summary of the existing noise and vibration environment associated with the project site and vicinity.

**Noise**

Sound is defined as any pressure variation in air that the human ear can detect. If the pressure variations occur frequently enough (at least 20 times per second), they can be heard and are called sound. The number of pressure variations per second is called the frequency of sound, and is expressed as cycles per second, called Hertz (Hz). Discussing sound directly in terms of pressure would require a very large and awkward range of numbers. To avoid this, the decibel (dB) scale was devised. The decibel scale uses the hearing threshold (20 micropascals of pressure), as a point of reference defined as 0 dB. Other sound pressures are compared to the reference pressure and the logarithm is taken to keep the numbers in practical range. The dB scale allows a million-fold increase in pressure to be expressed as 120 dB. To better relate overall sound levels and loudness to human perception, frequency-dependent weighting networks were developed. A strong correlation exists between the way humans perceive sound and A-weighted sound levels. For this reason, the A-weighted sound level has become the standard tool of environmental noise assessment for community exposures. All sound levels expressed as dB in this section are A-weighted sound levels, unless noted otherwise.

Community noise is commonly described in terms of the "ambient" noise level, which is defined as the all-encompassing noise level associated with a given noise environment. A common statistical tool to measure the ambient noise level is the average, or equivalent, sound level ($L_{eq}$), over a given time period (usually one hour). The $L_{eq}$ is the foundation of the composite noise descriptors, day-night average level ($L_{dn}$) and the community noise equivalent level (CNEL), and shows very good correlation with community response to noise for the average person. The median noise level descriptor, denoted $L_{50}$, represents the noise level which is exceed 50 percent of the hour. In other words, half of the hour ambient conditions are higher than the $L_{50}$ and the other half are lower than the $L_{50}$.

The $L_{dn}$ is based upon the average noise level over a 24-hour day, with a +10 dB weighting applied to noise occurring during nighttime (10:00 PM to 7:00 AM) hours. The nighttime penalty is based upon the assumption that people react to nighttime noise exposures as though they were twice as loud as daytime exposures. Because $L_{dn}$ represents a 24-hour average, $L_{dn}$ tends to disguise short-term variation in the noise environment. Where short-term noise sources are an issue, noise impacts may be assessed in terms of maximum noise levels, hourly averages, or other statistical descriptors.

Another common descriptor is the CNEL. The CNEL is similar to the $L_{dn}$, except CNEL has an additional weighting factor. Both average noise energy over a 24-hour period. The CNEL applies a +5 dB weighting to events that occur between 7:00 PM and 10:00 PM, in addition to the +10 dB weighting between 10:00 PM and 7:00 AM associated with $L_{dn}$. Typically, the CNEL and $L_{dn}$ show similar results for the same noise events, with the CNEL sometimes resulting in reporting a 1 dB increase compared to the $L_{dn}$ to account for noise events between 7:00 PM and 10:00 PM that have the additional weighting factor.

**Vibration**

Vibration is like noise in that vibration involves a source, a transmission path, and a receiver. While vibration is related to noise, vibration differs in that 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 a frequency. A person's perception to the vibration will depend 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 can be measured in terms of acceleration, velocity, or displacement. Vibration magnitude is measured in vibration decibels (VdB) relative to a reference level of 1 micro-inch per second peak particle velocity (ppv), the human threshold of perception. The background vibration level in residential areas is usually 50 VdB or lower. Most perceptible indoor vibration is caused by sources within buildings such as operation of mechanical equipment, movement of people, or slamming of doors. Typical outdoor sources of perceptible ground-borne vibration are construction equipment, steel-wheeled trains, and traffic on rough roads. If the roadway is smooth, the vibration from traffic is rarely perceptible. The range of environmental interest is typically from 50 VdB to 90 VdB (or 0.12 inch per second ppv), the latter being the general threshold where structural damage can begin to occur in fragile buildings.

**Existing Noise Environment**

The primary source of ambient noise and groundborne vibration in the project vicinity is commercial traffic associated with the commercial uses south of the project site, as well as traffic on El Centro Road and Del Paso Road, located east and south of the project site, respectively.

**STANDARDS OF SIGNIFICANCE**

For purposes of this Modified Initial Study/15183 Checklist, impacts due to noise may be considered significant if construction and/or implementation of the proposed project would result in the following impacts that remain significant after implementation of General Plan policies:

- Result in exterior noise levels in the project area that are above the upper value of the normally acceptable category for various land uses due to the project's noise level increases;
- Result in residential interior noise levels of 45 dBA $L_{dn}$ or greater caused by noise level increases due to the project;

- Result in construction noise levels that exceed the standards in the City of Sacramento Noise Ordinance;
- Permit existing and/or planned residential and commercial areas to be exposed to vibration-peak-particle velocities greater than 0.5 inches per second due to project construction;
- Permit adjacent residential and commercial areas to be exposed to vibration peak particle velocities greater than 0.5 inches per second due to highway traffic and rail operations; or
- Permit historic buildings and archaeological sites to be exposed to vibration-peak-particle velocities greater than 0.2 inches per second due to project construction and highway traffic.

**SUMMARY OF ANALYSIS UNDER THE 2035 GENERAL PLAN MASTER EIR AND APPLICABLE GENERAL PLAN POLICIES**

The Master EIR evaluated the potential for development under the 2035 General Plan to increase noise levels in the community. New noise sources include vehicular traffic, aircraft, railways, light rail and stationary sources. The General Plan policies establish exterior (Policies EC 3.1.1 and EC 3.1.2) and interior (EC 3.1.3) noise standards. A variety of policies provide standards for the types of development envisioned in the General Plan.

See Policy EC 3.1.8, which requires new mixed-use, commercial and industrial development to mitigate the effects of noise from operations on adjoining sensitive land use, and Policy EC 3.1.9, which calls for the City to limit hours of operations for parks and active recreation areas to minimize disturbance to nearby residences. Notwithstanding application of the general plan policies, noise impacts for exterior noise levels (Impact 4.8-1) and interior noise levels (Impact 4.8-2), and vibration impacts (Impact 4.8-4) were found to be significant and unavoidable.

**ANSWERS TO CHECKLIST QUESTIONS**

Questions A and B

The Master EIR analyzed potential noise impacts from buildout of the 2035 General Plan, and determined that some new development may be located in areas with high noise generation where implementation of all feasible mitigation would not fully reduce exterior noise levels below the City's noise standards, and existing sensitive uses could be exposed to noise increases associated with growth under the 2035 General Plan, such as increased roadway, rail, and air traffic. Consequently, the City determined that with the implementation of feasible mitigation and noise-reduction policies, the City-wide increase in noise levels from development pursuant to the 2035 General Plan would continue to be significant and unavoidable.

The proposed project includes development of a 120-unit affordable housing community comprised of five multi-family buildings and a community building. Residential land uses typically do not generate substantial noise. In addition, typical residential noise associated with the proposed project would be compatible with the adjacent existing residential uses. The primary source of noise during project operations would be generated from traffic on the adjacent roadways.

The Master EIR analyzed potential increase in noise levels along roadways within the City, including El Centro Road, which is located immediately east of the project site, and Del Paso Road, which is located to the south. According to Table 4.8-4 of the Master EIR, the existing noise levels along El Centro Road in the vicinity of the project site is 64.9 dBA, and the existing noise levels along Del Paso Road in the vicinity of the project site is 68.4 dBA. Because the existing noise conditions exceed the standard of 60 dBA for residential uses, the Master EIR determined that the 2035 General Plan would result in a significant and unavoidable impact resulting from increase of exterior noise levels. The proposed project is consistent with the project site's General Plan land use and zoning designations, and thus was planned as part of the 2035 General Plan. As such, buildout of the project site and the associated increase in noise have already been anticipated in the Master EIR, and would not result in new impacts or more severe impacts beyond what was identified in the Master EIR. Therefore, project impacts related to operational noise levels in the project were ***adequately addressed in the Master EIR***, and the proposed project would not result in any peculiar effects that would require further CEQA review related to such.

Question C

Construction phases of the proposed project would add to the noise environment in the immediate project vicinity. Table 7 shows maximum noise levels associated with typical construction equipment. Based on the table, activities associated with typical construction would generate maximum noise levels up to 85 dB at a distance of 50 feet.

**Table 5**
**Construction Equipment Noise**

| Type of Equipment | Maximum Level, dB at 50 feet |
|---|---|
| Backhoe | 78 |
| Compactor | 83 |
| Compressor (air) | 78 |
| Dozer | 82 |
| Dump Truck | 76 |
| Excavator | 81 |
| Generator | 81 |
| Pneumatic Tools | 85 |

*Source: Federal Highway Administration, Roadway Construction Noise Model User's Guide, January 2006.*

As one increases the distance from a source of noise, dispersion and distance attenuation reduce the effects of the source. The noise levels from a source will decrease at a rate of approximately six dB per every doubling of distance from the noise source. The nearest sensitive receptor to the project site are the multi-family residences located approximately 15 feet to the west and north of the project site. Although noise levels experienced by the nearest sensitive receptors would be higher than those presented above because the nearest receptor is less than 50 feet away, construction noise would occur over a relatively short period of time. In addition, construction activities would occur at different locations on the project site at different times. Thus, whatever noise levels the nearest sensitive receptors would be exposed to would only occur at certain points in the construction activities, not throughout.

In addition, the 2035 General Plan includes Policy EC 3.1.10, which requires project proponents to assess and minimize impacts on nearby sensitive uses, to the extent feasible. Development of the proposed project would include the implementation of BMPs for the minimization of construction noise impacts to sensitive receptors, including the use of temporary noise barriers, ensuring that all construction equipment has mufflers, strategically locating heavy equipment staging areas away from sensitive receptors, placing stationary equipment away from residential areas, and minimizing idling time. Because Policy EC 3.1.10 would require consideration of construction noise from the proposed project, and because project construction noise would be restricted in intensity and hours of operation by the City's Noise Ordinance contained in Title 8 – Health and Safety, Chapter 8.68 of the Municipal Code, development of the proposed project would include appropriate consideration of noise issues.

The City's Noise Ordinance exempts construction operations that occur between 7:00 AM and 6:00 PM, Monday through Saturday, and between 9:00 AM and 6:00 PM on Sundays, from the applicable noise standards. However, if construction operations were to occur during the noise-sensitive hours of 6:00 PM to 7:00 AM, Monday through Saturday, or from 6:00 PM to 9:00 AM on Sunday, the applicable noise standards could potentially be exceeded at the aforementioned sensitive receptors surrounding the project site. However, because the City has determined that all construction within the City limits must comply with the City's Noise Ordinance, nighttime construction activities would not occur and construction noise associated with use of on-site equipment during the project construction phases would be insignificant.

The Master EIR analyzed potential noise impacts from buildout of the 2035 General Plan, and redevelopment of the project site was included in development assumptions. The City determined in the Master EIR that the development process would include appropriate consideration of construction noise issues. Compliance with 2035 General Plan policies and Municipal Code would reduce the severity of construction noise from development pursuant to the 2035 General Plan to less-than-significant levels. As

previously demonstrated, the proposed project would be consistent with the development assumptions and policies of the 2035 General Plan and the proposed project would not result in any new specific effects not addressed in the Master EIR. Therefore, project impacts related to construction noise were ***adequately addressed in the Master EIR***, and the proposed project would not result in any peculiar effects that would require further CEQA review related to such.

Questions D through F

The Master EIR determined that even with implementation of Policy EC 3.1.5, which would require construction projects anticipated to generate a significant amount of vibration to ensure acceptable interior vibration levels at nearby residential and commercial uses, impacts related to the generation of groundborne vibration would be significant and unavoidable.

Operations of the proposed residential project would not generate groundborne vibration. During project construction, heavy equipment would be used for grading, excavation, paving, and building construction, which would generate localized vibration in the immediate vicinity of construction activities. However, as previously demonstrated, the project site was anticipated for development and construction on the site analyzed in the Master EIR. Therefore, project impacts related to vibration were ***adequately addressed in the Master EIR***, and the proposed project would not result in any peculiar effects that would require further CEQA review related to such.

**MITIGATION MEASURES**

None required.

**FINDINGS**

The proposed project would not have any significant effects relating to noise and vibration that either have not already been analyzed in a prior EIR or that are more significant than previously analyzed.

| 11. PUBLIC SERVICES<br>Would the project: | Significant Impact Peculiar to the Project or the Project Site | Significant Impact due to New Information | Impact Adequately Addressed in the General Plan EIR | No Impact |
|---|---|---|---|---|
| A) Would the project result in the need for new or altered services related to fire protection, police protection, school facilities, or other governmental services beyond what was anticipated in the 2035 General Plan? | ☐ | ☐ | ✖ | ☐ |

**ENVIRONMENTAL SETTING**

The City of Sacramento provides fire, police, and parks and recreation services in the vicinity of the proposed project site.

The Sacramento Fire Department (SFD) provides fire protection services to the entire City and some small areas just outside the City boundaries within the County limits. SFD provides fire protection and emergency medical services to the project area. First-response service is provided by Station 43, located at 4201 El Centro Road, approximately one mile south of the project site.

The Sacramento City Police Department (SPD) provides police protection services to the project area. The project area is serviced by North Command which is located at the 3550 Marysville Boulevard, approximately 8.8 miles southeast of the project site. In addition to the SPD, the Sacramento County Sheriff's Department, California Highway Patrol (CHP), UC Davis Medical Center Police Department, and the Regional Transit Police Department aid the SPD to provide protection for the City.

The project site is within the Natomas Unified School District. The Natomas Unified School District serves approximately 11,868 students on 15 campuses.[13] The nearest school, Natomas Pacific Pathways Prep Elementary School, is located approximately 1,350 feet southwest of the project site.

The nearest park to the project site is Westlake Park, located approximately 500 west of the project site.

**STANDARDS OF SIGNIFICANCE**

For the purposes of this Modified Initial Study/15183 Checklist, an impact would be considered significant if the project resulted in the need for new or altered services related to fire protection, police protection, school facilities, or other governmental services beyond what was anticipated in the 2035 General Plan.

**SUMMARY OF ANALYSIS UNDER THE 2035 GENERAL PLAN MASTER EIR AND APPLICABLE GENERAL PLAN POLICIES**

The Master EIR evaluated the potential effects of the 2035 General Plan on various public services. Police, fire protection, schools, libraries and emergency services were evaluated in Chapter 4.10 of the Master EIR.

The General Plan provides that adequate staffing levels for police and fire are important for the long-term health, safety and well-being of the community (Goal PHS 1.1, PHS 2.1). The Master EIR concluded that effects of development that could occur under the General Plan would be less than significant.

General Plan policies that call for the City to consider impacts of new development on schools (see, for example, Policy ERC 1.1.2 setting forth locational criteria, and Policy ERC 1.1.4 that encourages joint-use

[13] Natomas Unified School District. *About Us*. Available at: https://natomasunified.org/about-us/. Accessed January 2023.

development of facilities) reduce impacts on schools to a less-than-significant level (Impacts 4.10-3, 4). Impacts on library facilities were considered less than significant (Impact 4.10-5).

Chapter 4.9 of the Master EIR considered the effects of the 2035 General Plan on the City's existing parkland, urban forest, recreational facilities and recreational services. The General Plan identified a goal of providing an integrated park and recreation system in the City (Goal ERC 2.1) and a park acreage service level goal of five acres per 1,000 residents (Policy ERC 2.2.4). New residential development is required to dedicate land, pay in-lieu fees or otherwise contribute a fair share to the acquisition and development of parks and recreation facilities (Policy ERC 2.2.5). Impacts were considered less than significant after application of the applicable policies (Impacts 4.9-1 and 4.9-2).

**ANSWERS TO CHECKLIST QUESTIONS**

Question A

The following discussions pertains to the existing fire, police, and school facilities, as well as the proposed project's impacts related to such facilities and services.

*Fire Protection*

The SFD provides fire protection services to the entire City, and small areas within Sacramento County that include the Pacific Fruitridge and the Natomas Fire Protection Districts. The SFD serves a population of over 738,000 in a 358 square mile service area. The SFD has approximately 155 on-duty personnel working daily to serve the City.[14]

The proposed project would be a residential development consisting of 120 units. Using the City's average persons per household of 2.63, the proposed project would be anticipated to house approximately 316 residents. As such, the proposed project would result in an increase in demand for fire protection services. The project site would be served by Station 43, located at 4201 El Centro Road, approximately one mile south of the project site.

The Master EIR analyzed the need to construct new or expanded fire stations to serve development pursuant to buildout of the 2035 General Plan. According to the Master EIR, the SFD requires a ratio of one fire station for every 1.5-mile service radius, per every 16,000 City residents, and where a company experiences call volumes exceeding 3,500 in a year. For the purposes of the Master EIR analysis, a 1-station-per 16,000-city-residents threshold is used to determine citywide need for fire stations and whether the additional growth beyond what was anticipated to occur under the 2035 General Plan would require the construction of additional fire stations, resulting in additional environmental impacts that were not evaluated in the Master EIR.

As previously mentioned, the proposed project would be consistent with buildout of the 2035 General Plan and, thus, the increase in population associated with the project has been anticipated by the City. Within the General Plan, Policy PHS 2.1.11 states that the City shall require development projects to contribute fees for fire protection services and facilities. As a result of Policy PHS 2.1.11, the project would be required to pay applicable development fees financially supporting the SFD. Considering that the project is consistent with the General Plan and the proximity of the site to Station 43, the proposed project would not result in the need for new or altered services related to fire protection. Therefore, the proposed project would not result in any peculiar effects or impacts related to fire protection services beyond what was anticipated in the Master EIR.

[14] Metro Fire Sacramento. *About Us*. Available at: https://metrofire.ca.gov/. Accessed January 2023.

*Police Protection*

The SPD provides police protection services within the City boundaries. The SPD uses a variety of data that includes GIS based data, call and crime frequency information, and available personnel to rebalance the deployment of resources on an annual basis to meet the changing demands of the City. In addition, the Sacramento County Sheriff's Department provides police protection services outside the City limits but within the Planning Area. According to the General Plan Master EIR, as buildout of the General Plan occurs, the SPD would need new, decentralized facilities that would be required to maintain adequate response times. Currently, the SPD averages an eight minute and five second response time for Priority 2 calls.

Similar to the SFD, the added population from the proposed project would create an increased demand in police services to the project area; however, as mentioned above, because the proposed project is consistent with the 2035 General Plan, the associated increase in population has already been anticipated by the City. The General Plan policies include measures to accommodate for growth and increased service demands. Specifically, Policy PHS 1.1.1 calls for the City to prepare a Police Master Plan to address staffing and facility needs. In addition, Policy PHS 1.1.8 within the Master EIR requires development projects to contribute fees for police facilities. As a result, the proposed project would be required to pay applicable development impact fees to fund necessary police services. Implementation of polices and goals required within the 2035 General Plan would ensure that the proposed project would not result in any peculiar effects or impacts related to police protection services beyond what was anticipated in the Master EIR.

*Schools*

As stated above, the proposed project would include the development of 120 multi-family residential units, which would house approximately 316 residents. The Master EIR evaluated potential impacts to schools due to generation of additional students resulting from buildout of the 2035 General Plan, including development of the project site. The 2035 General Plan provides policies for the reduction of impacts to schools from development pursuant to the 2035 General Plan. For example, implementation of Sacramento 2035 General Plan Policies ERC 1.1.1 through ERC 1.1.3 would ensure that adequate school facilities are provided to serve the anticipated student growth in the city. The Master EIR determined that compliance with the aforementioned policies, combined with required payment of statutory fees, would be sufficient to minimize potential impacts to school facilities to less-than-significant levels. Therefore, the proposed project would not result in any peculiar effects or impacts related to schools beyond what was anticipated in the Master EIR.

*Other Governmental Services*

The Sacramento Public Library (SPL) serves the cities of Sacramento, Citrus Heights, Elk Grove, Galt, Iselton, Rancho Cordova, and the County of Sacramento. The SPL authority is governed by a Joint Exercise of Powers Agreement between these cities and counties to provide public library services to all citizens in the jurisdiction. Currently, 16 new libraries are planned for construction in the City and County of Sacramento by 2025. Based on plans set forth in the SPL Authority Facility Master Plan, the SPL expects to provide 1,007,274 sf of library space throughout the SPL Authority's service area by 2025. The new library spaced would meet the target level, 0.40 sf library facilities per capita, defined in the General Plan EIR.

The proposed project would result in an increase in demand for other governmental services, such as library service. The North Natomas Public Library, located approximately 1.6 miles east of the project site, currently serves the project site and the surrounding area. However, because the proposed project would be required to comply with the General Plan policies, and the SPL Facility Master Plan outlines plans to meet the library target level in 2025, the proposed project would not result in the need for new or altered services related to other governmental services beyond what was anticipated in the 2035 General Plan. Therefore, the proposed project would not result in any peculiar effects or impacts related to governmental services beyond what was anticipated in the Master EIR.

*Conclusion*

As noted above, the applicant would be required to pay all of the required development fees to the appropriate public services departments. Payment of such would ensure that impacts related to fire protection, police protection, school facilities, or other governmental services would be reduced to a less-than-significant level. Furthermore, the proposed project is consistent with buildout of the 2035 General Plan and, thus, the increase in population associated with the project has been anticipated by the City. Therefore, impacts from the proposed project were ***adequately addressed in the Master EIR***, and the proposed project would not result in any effects that would require further CEQA review for this topic.

**MITIGATION MEASURES**

None required.

**FINDINGS**

The proposed project would not have any significant effects relating to public service impacts that either have not already been analyzed in a prior EIR or that are more significant than previously analyzed.

| 12. RECREATION<br>Would the project: | Significant Impact Peculiar to the Project or the Project Site | Significant Impact due to New Information | Impact Adequately Addressed in the General Plan EIR | No Impact |
|---|---|---|---|---|
| A) Cause or accelerate substantial physical deterioration of existing area parks or recreational facilities? | ☐ | ☐ | ✖ | ☐ |
| B) Create a need for construction or expansion of recreational facilities beyond what was anticipated in the 2035 General Plan? | ☐ | ☐ | ✖ | ☐ |

**ENVIRONMENTAL SETTING**

Natural resources and parks provide a wide range of recreational opportunities for residents in the vicinity of the project site. The City currently contains 230 developed and undeveloped park sites, 88 miles of off-street bikeways and trails, 21 lakes/ponds or beaches, over 20 aquatic facilities, and extensive recreation facilities in the City parks. With the inclusion of the City's golf courses (633 acres) and Camp Sacramento, which is located in El Dorado County (19 acres), the City's parkland total is approximately 4,829 acres. The proposed project is nearby to various recreational and park facilities. The nearest park to the project site is Westlake Park, located approximately 500 west of the project site.

**STANDARDS OF SIGNIFICANCE**

For purposes of this Modified Initial Study/15183 Checklist, impacts to recreational resources are considered significant if the proposed project would do either of the following:

- Cause or accelerate substantial physical deterioration of existing area parks or recreational facilities; or
- Create a need for construction or expansion of recreational facilities beyond what was anticipated in the 2035 General Plan.

**SUMMARY OF ANALYSIS UNDER THE 2035 GENERAL PLAN MASTER EIR AND APPLICABLE GENERAL PLAN POLICIES**

Chapter 4.9 of the Master EIR considered the effects of the 2035 General Plan on the City's existing parkland, urban forest, recreational facilities and recreational services. The General Plan identified a goal of providing an integrated park and recreation system in the City (Goal ERC 2.1). New residential development will be required to dedicate land, pay in-lieu fees or otherwise contribute a fair share to the acquisition and development of parks and recreation facilities (Policy ERC 2.2.5). Impacts were considered less than significant after application of the applicable policies. (Impacts 4.9-1 and 4.9-2).

**ANSWERS TO CHECKLIST QUESTIONS**

Questions A and B

The Master EIR analyzed the potential impacts to existing parks and the potential to increase need for construction of new parks or park expansions to adequately serve development pursuant to buildout of the 2035 General Plan. As described in the Master EIR, the 2035 General Plan goals, policies and implementation measures would provide resources to protect and enhance existing facilities, while also supporting the programming and development of new parks, with the aid of developer impact fees. The Master EIR determined that implementation of 2035 General Plan policies and the existing park planning process would be sufficient to minimize impacts, from development pursuant to the 2035 General Plan, to less-than-significant levels.

The proposed project would include the development of recreational amenities, such as a clubhouse, fitness center, and swimming pool, but would not include the development of public park facilities on-site. The City of Sacramento Parks and Recreation Department maintains parks and recreational facilities within the project area, as described in the Environmental Setting, above. The City requires developers to comply with the City's Park Development Impact Fee requirements to finance the construction of park and recreational facilities that are impacted by development. The proposed project would be required to comply with all 2035 General Plan policies related to park impacts and pay any relevant park impact fees. The proposed project would be consistent with the development assumptions and policies of the 2035 General Plan. Therefore, impacts from the proposed project were analyzed in a prior EIR, and impacts from the proposed project were ***adequately addressed in the Master EIR***, and the proposed project would not result in any effects that would require further CEQA review for this topic.

**MITIGATION MEASURES**

None required.

**FINDINGS**

The proposed project would not have any significant effects relating to recreation impacts that either have not already been analyzed in a prior EIR or that are more significant than previously analyzed.

| 13. TRANSPORTATION AND CIRCULATION<br>Would the project: | Significant Impact Peculiar to the Project or the Project Site | Significant Impact due to New Information | Impact Adequately Addressed in the General Plan EIR | No Impact |
|---|---|---|---|---|
| A) Conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadways, bicycle, and pedestrian facilities? | ☐ | ☐ | ✖ | ☐ |
| B) Would the project conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b)? | ☐ | ☐ | ✖ | ☐ |
| C) Substantially increase hazards due to a geometric design feature (e.g. sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)? | ☐ | ☐ | ✖ | ☐ |
| D) Result in inadequate emergency access? | ☐ | ☐ | ✖ | ☐ |

**ENVIRONMENTAL SETTING**

The following section is based on information from the City of Sacramento 2035 General Plan and the 2035 General Plan Master EIR.

Roadways in the project vicinity include El Centro Road to the east, and Del Paso Road to the south. El Centro Road is a two- to four-lane arterial roadway with 45 miles per hour (mph) posted speed limit. In the vicinity of the project site, El Centro Road is divided with a concrete median. Where El Centro Road intersects with Del Paso Road, the north-bound lane includes dedicated left and right turning lanes, and the south-bound lane includes two dedicated left turning lanes and one dedicated right turning lane. In addition, El Centro Road includes a dedicated right turn lane into the southeastern portion of the project site. Similarly, Del Paso Road is a two- to four-lane arterial roadway with a 40 mph posted speed limit. In the vicinity of the project site, Del Paso Road is divided with a concrete median. Where Del Paso Road intersects with El Centro Road, the west-bound lane includes two dedicated right turn lanes and two dedicated left turn lanes, and the east-bound lane includes one dedicated left turn lane and one dedicated right turn lane. Interstate 5 (I-5) is located approximately 0.3-miles east of the project site and I-80 is located approximately 2.5 miles south of the project site.

In the vicinity of the project site, continuous sidewalks and bike lanes exist along both sides of El Centro Road and Del Paso Road. A bike lane currently exists on the project site's eastern frontage along El Centro Road.

Public transit service in the project area is provided by bus, which is operated by the Sacramento Regional Transit (RT). Route 13 provides service on Del Paso Road. The route features a bus stop at the intersection of El Centro Road and Del Paso Road, located approximately 250 feet south of the project site. The route begins at El Centro Road and Del Paso Road and the last stop is at Butano Drive and El Comino Avenue. Monday through Friday, Route 13 operates from 5:53 AM to 9:06 PM. On Saturdays and Sundays, Route 13 operates from 7:23 AM to 9:35 PM.

**STANDARDS OF SIGNIFICANCE**

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, with other relevant considerations consisting of the effects of

the project on transit and non-motorized travel. VMT is the total miles of travel by personal motorized vehicles a project is expected to generate in a day. VMT measures the full distance of personal motorized vehicle-trips, with one end within the project site. Based on current practices from the City of Sacramento for residential projects, transportation impacts for CEQA purposes are considered significant if the proposed project would generate Household VMT per capita figures that exceed 85 percent of the regional average for Household VMT per capita, consistent with technical advisory guidance published by the Governor's Office of Planning and Research (OPR) in 2018.

Several screening thresholds are used to quickly determine whether a project may be presumed to have a less-than-significant VMT impact without conducting a detailed project generated VMT analysis. For residential projects, screening criteria includes:

1. Small Projects – projects that generate or attract fewer than 110 trips per day;
2. Map-Based Screening – projects located in areas that are known to generate below-average VMT;
3. Near Transit Stations – projects within 0.5-mile of an existing major transit stop or an existing stop along a high-quality transit corridor; or
4. Affordable Residential Development – projects that include 100 percent affordable housing within an infill location.

Lastly, for purposes of this Modified Initial Study/15183 Checklist, impacts resulting from changes in transportation or circulation may be considered significant if construction and/or implementation of the proposed project would result in the following impacts that remain significant after implementation of General Plan policies or mitigation from the General Plan Master EIR:

**Transit**

- Adversely affect public transit operations; or
- Fail to adequately provide for access to public transit.

**Bicycle Facilities**

- Adversely affect bicycle travel, bicycle paths; or
- Fail to adequately provide for access by bicycle.

**Pedestrian Circulation**

- Adversely affect pedestrian travel, pedestrian paths; or
- Fail to adequately provide for access by pedestrians.

**Construction-Related Traffic Impacts**

- Degrade an intersection or roadway to an unacceptable level;
- Cause inconveniences to motorists due to prolonged road closures; or
- Result in an increased frequency of potential conflicts between vehicles, pedestrians, and bicyclists.

**SUMMARY OF ANALYSIS UNDER THE 2035 GENERAL PLAN MASTER EIR AND APPLICABLE GENERAL PLAN POLICIES**

Transportation and circulation were discussed in the Master EIR in Chapter 4.12. Various modes of travel were included in the analysis, including vehicular, transit, bicycle, pedestrian and aviation components. Provisions of the 2035 General Plan that provide substantial guidance include Mobility Goal 1.1, calling for a transportation system that is effectively planned, managed, operated and maintained, promotion of multimodal choices (Policy M 1.2.1), support for state highway expansion and management consistent with the Sacramento Area Council of Governments Metropolitan Transportation Plan/Sustainable Communities

Strategy (SACOG MTP/SCS) (Policy M 1.5.6) and development that encourages walking and biking (Policy LU 4.2.1).

While the General Plan includes numerous policies that direct the development of the City's transportation system, the Master EIR concluded that the General Plan development would result in significant and unavoidable effects. See Impacts 4.12-3 (roadway segments in adjacent communities, and Impact 4.12-4 (freeway segments).

**ANSWERS TO CHECKLIST QUESTIONS**

Question A

Under Impact 4.12-1, the Master EIR determined that buildout of the General Plan would result in a less-than-significant impact related to transit, bicycle and pedestrian facilities. The following analysis provides a summary of the project trip generation, and impacts to transit, bicycle, and pedestrian facilities.

*Project Trip Generation and Distribution*

Based on the ITE Trip Generation Handbook, 10th Edition, the proposed 120-unit residential project is anticipated to generate approximately 653 new vehicle trips per day.[15] The proposed project is consistent with the land use designation for the site in the 2035 General Plan. As such, the Master EIR included an analysis of the increase in traffic associated with buildout of the project site. The proposed project would not increase traffic volumes beyond what was anticipated for the site in the Master EIR.

*Transit, Bicycle, and Pedestrian Facilities*

As stated above, Sacramento RT Route 19 provides transit opportunities from the project site, and the project is consistent with the General Plan land use and zoning designations for the project site. The project would not add noticeable transit demand; however, any demand added to the transit system could be adequately accommodated by the existing/planned transit system and has been anticipated in the 2035 General Plan and Master EIR. Additionally, the proposed project would not result in removal of any existing bicycle or pedestrian facilities or preclude the implementation of any proposed or existing off-street trails in the vicinity of the project. Rather, the proposed project would improve and replace the existing walkway located along the western border of the site, and the project would include several pedestrian gate access points to further support pedestrian activity. As such, the proposed project would not conflict with a program plan, ordinance or policy addressing roadway, bicycle, and pedestrian facilities beyond what has been anticipated by the City in the Master EIR.

*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 would occur. Therefore, impacts from the proposed project were ***adequately addressed in the Master EIR***, and the proposed project would not result in any peculiar effects that would require further CEQA review related to such.

Question B

Considering SB 743 was not enacted until 2020, the Master EIR (published in 2014) did not specifically evaluate impacts related to VMT.

Pursuant to SB 743 and the technical guidance published by OPR, several screening procedures exist to potentially streamline project analysis. As noted above, the OPR determined that 100 percent affordable

[15] Institute of Transportation Engineers. *Trip Generation Manual, 10th Edition.* September 2017.

residential development projects in an infill location, such as the proposed project, would result in a less-than-significant impact related to VMT. Therefore, the proposed project would not conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b).

As noted above, the Master EIR did not specifically address impacts associated with VMT. However, because the proposed project would not result in any impacts related to VMT, the project would not result in any new, peculiar, or more severe impacts, and impacts were ***adequately addressed in the Master EIR***.

Question C

Primary vehicle access to the project site would be provided by a new 32-foot-wide driveway off El Centro Road. In addition, emergency vehicle access would be provided by an additional 24-foot-wide, gated driveway (refer to Figure 3). Internal site circulation would be accommodated by a generally circular roadway that covers the site.

The proposed project would not involve any off-site roadway improvements and, therefore, would not affect the circulation system in a way that would result in new roadway hazards. In addition, given that the proposed project is consistent with the General Plan land use designation for the site, incompatible uses, such as farm equipment, are not anticipated to operate on-site.

Overall, implementation of 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), and a less-than-significant impact would occur. This impact was not explicitly evaluated in the Master EIR. However, based on the conclusion presented above, the project would not result in any new, peculiar, or more severe impacts, and impacts were ***adequately addressed in the Master EIR***.

Question D

The proposed project would be required to comply with all building, fire, and safety codes and specific development plans would be subject to review and approval by the City's Public Works Department and the SFD. Required review by the aforementioned departments would ensure that the proposed circulation system for the project site would provide adequate emergency access. In addition, Section 12.20.030 of the Sacramento City Code requires that a construction traffic control plan be prepared and approved prior to the beginning of project construction, to the satisfaction of the City Traffic Engineer and subject to review by all affected agencies. All work performed during construction must conform to the conditions and requirements of the approved plan. The plan would ensure that safe and efficient movement of traffic through the construction work zone(s) is maintained. At a minimum, the plan must include the following:

- Time and day of street closures;
- Proper advance warning and posted signage regarding street closures;
- Provision of driveway access plan to ensure safe vehicular, pedestrian, and bicycle movements;
- Safe and efficient access routes for emergency vehicles;
- Provisions for pedestrian safety;
- Use of manual traffic control when necessary;
- Number of anticipated truck trips, and time of day of arrival and departure of trucks;
- Provision of a truck circulation pattern and staging area with a limitation on the number of trucks that can be waiting and any limitations on the size and type of trucks appropriate for the surrounding transportation network; and
- The plan must be available at the site for inspection by the City representative during all work.

With implementation of the aforementioned traffic control plan, local roadways and freeway facilities would continue to operate at acceptable operating conditions during construction, and the proposed project would not result in inadequate emergency access to the project site.

Under Impact 4.12-5, the Master EIR determined that buildout of the General Plan would result in a less-than-significant impact related to construction hazards on the local roadway network. Considering the discussion above, impacts from the proposed project were ***adequately addressed in the Master EIR***, and the proposed project would not result in any peculiar effects that would require further CEQA review related to such.

**MITIGATION MEASURES**

None required.

**FINDINGS**

The proposed project would not have any significant effects relating to transportation and circulation that either have not already been analyzed in a prior EIR or that are more significant than previously analyzed.

| 14. TRIBAL CULTURAL RESOURCES<br>Would the project: | Significant Impact Peculiar to the Project or the Project Site | Significant Impact due to New Information | Impact Adequately Addressed in the General Plan EIR | No Impact |
|---|---|---|---|---|
| A) Cause a substantial adverse change in the significance of a tribal cultural resource, as defined in Public Resources Code 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:<br><br>i. Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources code section 5020.1(k) or | ☐ | ☐ | ✖ | ☐ |
| ii . A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe. | ☐ | ☐ | ✖ | ☐ |

**ENVIRONMENTAL AND REGULATORY SETTING**

Please reference the Cultural Resources Chapter of the Master EIR for the Ethnohistory of the historic indigenous groups that occupied the region. This section focuses on the contemporary tribal communities and tribal cultural resources as they pertain to AB 52.

This section analyzes and evaluates the potential impacts of the project on tribal cultural resources, both identified and undiscovered. Tribal cultural resources, as defined by AB 52, Statutes of 2014, in PRC Section 21074, are sites, features, places, cultural landscapes, sacred places and objects, with cultural value to a Tribe. A tribal cultural landscape is defined as a geographic area (including both cultural and natural resources and the wildlife therein), associated with a historic event, activity, or person or exhibiting other cultural or aesthetic values.

The unanticipated find of Native American human remains would also be considered a tribal cultural resource, and are therefore analyzed in this section.

The proposed project area is situated within the lands traditionally occupied by the Valley Nisenan, or Southern Maidu. Many descendants of Valley Nisenan throughout the larger Sacramento region belong to the United Auburn Indian Community, Shingle Springs, Ione Band, Colfax-Todds Valley, and Wilton

Rancheria Tribes. The Tribes actively participate in the identification, evaluation, preservation, and restoration of tribal cultural resources.

A search of the Sacred Lands File was requested from the NAHC, and a response was received on November 9, 2022 indicating that Sacred Sites have not been identified within the project vicinity.[16]

**Federal Regulations**

Federal plans, policies, or regulations related to tribal cultural resources that are directly applicable to the proposed project do not exist. However, Section 106 of the National Historic Preservation Act does require consultation with Native Americans to identify and consider certain types of cultural resources. Cultural resources of Native American origin identified as a result of the identification efforts conducted under Section 106 may also qualify as tribal cultural resources under CEQA.

**State Regulations**

- **California Environmental Quality Act:** CEQA requires that public agencies that finance or approve public or private projects must assess the effects of the project on tribal cultural resources. Tribal cultural resources are defined in PRC 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 that is (1) listed or determined eligible for listing on the California Register of Historical Resources (CRHR) or a local register, or (2) that are determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of PRC Section 5024.1. In applying the criteria set forth in subdivision (c) of PRC Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American Tribe.
- **California PRC Section 5024:** PRC Section 5024.1 establishes the CRHR, which is the authoritative guide for identifying the State's historical resources to indicate what properties are to be protected, if feasible, from substantial adverse change. For a resource to be eligible for the CRHR, it must be more than 50 years old, retain its historic integrity, and satisfy one or more of the following criteria:

    1. Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage.
    2. Is associated with the lives of persons important in our past.
    3. Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values.
    4. Has yielded, or may be likely to yield, information important in prehistory or history.

**STANDARDS OF SIGNIFICANCE**

For the purposes of this Modified Initial Study/15183 Checklist, a tribal cultural resource is considered to be a significant resource if the resource is: 1) listed or eligible for listing in the California Register of Historical Resources or in a local register of historical resources; or 2) the resource has been determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of PRC Section 5024.1. For purposes of this Modified Initial Study/15183 Checklist, impacts on tribal cultural resources may be considered significant if construction and/or implementation of the proposed project would result in the following:

- Cause a substantial change in the significance of a tribal cultural resource as defined in Public Resources Code 21074.

[16] Native American Heritage Commission. *Westlake Affordable Apartments Project, Sacramento County*. November 9, 2022.

**SUMMARY OF ANALYSIS UNDER THE 2035 GENERAL PLAN MASTER EIR AND APPLICABLE GENERAL PLAN POLICIES**

The Master EIR evaluated the potential effects of development under the 2035 General Plan on prehistoric and historic resources (see Master EIR Chapter 4.4 and Appendix C – Background Report, B. Cultural Resources Appendix), but did not specifically address tribal cultural resources because that resource type had not yet been defined in CEQA at the time the Master EIR was adopted. The Master EIR identified significant and unavoidable effects on historic resources and archaeological resources, some of which could be tribal cultural resources as defined PRC Section 21074. Ground-disturbing activities resulting from implementation of development under the 2035 General Plan could affect the integrity of an archaeological site (which may be a tribal cultural resource), thereby causing a substantial change in the significance of the resource. General plan policies identified as reducing such effects on cultural resources that may also be tribal cultural resources include identification of resources on project sites (Policy HCR 2.1.1); implementation of applicable laws and regulations (Policy HCR 2.1.2); consultation with appropriate organizations and individuals including the Native American Heritage Commission and implementation of their consultation guidelines (Policy HCR 2.1.3); enforcement programs to promote the maintenance, rehabilitation, preservation, and interpretation of the City's historic resources (Policy HCR 2.1.4); listing of qualified historic resources under appropriate national, State, and local registers (Policy HCR 2.1.5); consideration of historic and cultural resources in planning studies (Policy HCR 2.1.6); enforcement of compliance with local, State, and federal historic and cultural preservation requirements (Policy HCR 2.1.8); and early consultation with owners and land developers to minimize effects (Policy HCR 2.1.10).

Of particular relevance to this project are policies that ensure compliance with protocol that protect or mitigate impacts to archaeological resources (Policy HCR 2.1.16) and that encourage preservation and minimization of impacts on cultural resources (Policy HCR 2.1.17).

**ANSWERS TO CHECKLIST QUESTIONS**

Questions A)i and A)ii

As discussed in the Master EIR, the growth projected to occur within the City would occur both through infill development and buildout of currently undeveloped or underdeveloped areas, which could potentially result in development that could damage prehistoric- and historic-period archaeological resources, including tribal cultural resources. The 2035 General Plan contains policies that would work to identify and protect tribal cultural resources along with other federal and State regulations, which could result in the preservation of tribal cultural resources. Policies HCR 2.1.2 and HCR 2.1.16 in the 2035 General Plan would protect tribal cultural resources by requiring proper handling of discovered resources and enforcement of applicable laws and regulations. The project site is not located in an area identified as high or moderate sensitivity for the occurrence of tribal cultural resources, as defined in the 2035 General Plan Background Report. Based on the Sacred Lands File search performed for the proposed project, tribal cultural resources have not been recorded on-site or within the project vicinity. However, while unlikely, the potential exists to uncover previously undocumented tribal cultural resources during ground-disturbing activities associated with the proposed project. Implementation of policies HCR 2.1.2 and HCR 2.1.16 of the 2035 General Plan would ensure that any previously undocumented tribal cultural resources, unearthed during project activities, would be appropriately handled so as to minimize impacts to those resources. Thus, implementation of existing City policy would be sufficient to offset potential adverse impacts to previously undiscovered tribal cultural resources. Therefore, impacts from the proposed project were ***adequately addressed in the Master EIR***, and the proposed project would not result in any peculiar effects that would require further CEQA review related to such.

**MITIGATION MEASURES**

None required.

**FINDINGS**

The proposed project would not have any significant effects relating to tribal cultural resources that either have not already been analyzed in a prior EIR or that are more significant than previously analyzed.

| 15. UTILITIES AND SERVICE SYSTEMS<br>Would the project: | Significant Impact Peculiar to the Project or the Project Site | Significant Impact due to New Information | Impact Adequately Addressed in the General Plan EIR | No Impact |
|---|---|---|---|---|
| A) Result in the determination that adequate capacity is not available to serve the project's demand in addition to existing commitments? | ☐ | ☐ | ✖ | ☐ |
| B) Require or result in either the construction of new utilities or the expansion of existing utilities, the construction of which could cause significant environmental impacts? | ☐ | ☐ | ✖ | ☐ |

**ENVIRONMENTAL SETTING**

The project site is not currently connected to existing utilities and service systems. The project site is located adjacent to existing development, including multi-family residences and commercial uses. Therefore, utility infrastructure exists in the project vicinity. The existing utilities and service systems in the project vicinity are discussed below.

**Wastewater**

Wastewater collection and treatment services for the proposed project would be provided SASD and SRCSD. Wastewater generated in the project area would be collected in the SASD system through a series of sewer pipes and pump stations. Once collected in the SASD system, wastewater flows into the SRCSD interceptor system, where the wastewater is conveyed to the SRWWTP located near Elk Grove. The City's Department of Utilities (DOU) is responsible for providing and maintaining the majority of the water, sewer collection, storm drainage, and flood control services for residents and businesses within City limits.

**Water Supply**

The City uses surface water from the Sacramento and American rivers to meet the majority of its water demands. To meet the City's water demand, the City uses surface water from the Sacramento and American rivers, and groundwater pumped from the North American and South American Subbasins. According to the City's 2020 Urban Water Management Plan (UWMP), under all drought conditions, the City possesses sufficient water supply entitlements to meet the demands of the City's customers up to the year 2040.[17] In addition, according to the DOU's 2021 Consumer Confidence Report, the City's drinking water meets or exceeds all federal and State drinking water standards.[18]

**Solid Waste Disposal**

The City of Sacramento does not provide commercial solid waste collection services. Rather, commercial garbage, recycling, and yard waste services are provided by a franchised hauler authorized by the Sacramento Solid Waste Authority to collect commercial garbage and commingled recycling within the City. The Sacramento County Kiefer Landfill, located at 12701 Kiefer Boulevard in Sloughhouse, California, is the primary location for the disposal of waste for the City. According to the Master EIR, the Kiefer Landfill should serve the City adequately until the year 2065. As growth continues in the City, in accordance with the County General Plan and the City's General Plan, population would increase and the solid waste stream would continue to grow. However, implementation of the Solid Waste Authority and the Sacramento

[17] City of Sacramento. *2020 Urban Water Management Plan*. December 2021.

[18] City of Sacramento Department of Utilities. *2021 Consumer Confidence Report*. Available at: http://www.cityofsacramento.org/-/media/Corporate/Files/DOU/Reports/CCR_2020_Report_5_28_21_FINAL_WEB.pdf. Accessed January 2023.

recycling requirements, would continue to significantly reduce potential cumulative impact on landfill capacity to a less-than-significant effect.

**STANDARDS OF SIGNIFICANCE**

For the purposes of this Initial Study, an impact would be considered significant if the project resulted in the following:

- Result in the determination that adequate capacity is not available to serve the project's demand in addition to existing commitments; or
- Require or result in either the construction of new utilities or the expansion of existing utilities, the construction of which could cause significant environmental impacts.

**SUMMARY OF ANALYSIS UNDER THE 2035 GENERAL PLAN MASTER EIR AND APPLICABLE GENERAL PLAN POLICIES**

The Master EIR evaluated the effects of development under the 2035 General Plan on water supply, sewer and storm drainage, solid waste, electricity, natural gas and telecommunications. See Chapter 4.11.

The Master EIR evaluated the impacts of increased demand for water that would occur with development under the 2035 General Plan. Policies in the general plan would reduce the impact generally to a less-than-significant level (see Impact 4.11-1) but the need for new water supply facilities results in a significant and unavoidable effect (Impact 4.11-2). The potential need for expansion of wastewater treatment facilities was identified as having a significant and unavoidable effect (Impacts 4.11-4, 4.11-5). Impacts on solid waste facilities were less than significant (Impacts 4.11-7, 4.11-8).

**ANSWERS TO CHECKLIST QUESTIONS**

Questions A and B

The Master EIR analyzed the potential impacts from development of the 2035 General Plan. As described therein, the existing facilities for utilities and service systems would be expanded to meet the demands of development pursuant to the 2035 General Plan through a process of long range planning. As described in the Master EIR, RegionalSan has a program in place to continually evaluate demand/capacity needs, and the master planning effort provides the flexibility to respond to changes in demand that can be anticipated in advance of planned improvements so that capacity issues are addressed in a timely and cost-effective manner. Master planning efforts that would identify necessary improvement in capacity to accommodate City growth beyond the 2020 Master Plan timeframe would be initiated well in advance of 2035.

The proposed project would be served by existing sewer and storm water lines underlying the project site and existing water supply, electrical, natural gas, and telecommunication infrastructure adjacent to the project site. Other than connections between the project buildings and the existing infrastructure further improvements to such systems would not be required. As such, the proposed project would not require or result in the relocation or construction of new or expanded water, wastewater treatment, storm water drainage, electric power, natural gas or telecommunications facilities, the construction of which could cause significant environmental effects. The project's effects on the capacity of the existing systems and services are discussed below.

*Wastewater*

As stated above, RegionalSan has a program in place to continually evaluate demand/capacity needs, and the master planning effort provides the flexibility to respond to changes in demand that can be anticipated in advance of planned improvements so that capacity issues are addressed in a timely and cost-effective manner. Master planning efforts that would identify necessary improvement in capacity to accommodate City growth beyond the 2020 Master Plan timeframe would be initiated well in advance of 2035. In order to

fund expansions to the conveyance systems, RegionalSan requires a regional connection fee be paid to the District for any users connecting to or expanding sewer collection systems.

As previously determined, based on the maximum allowable density for the project site, a maximum of 130 multi-family residential units would be allowed on-site. Because the proposed project would include the development of 120 multi-family residential units, the wastewater demands of the proposed project would be less than what is allowable by the General Plan and what was generally anticipated in the Master EIR. Furthermore, the proposed project would be subject to all applicable RegionalSan connection fees. Because the proposed project would be required to comply with such requirements as well as policies to increase conveyance and treatment facility capacity in response to increased demand, and because the project was anticipated in the Master EIR, impacts related to wastewater treatment capacity were adequately addressed in the Master EIR.

*Water Supply*

Because the proposed project is consistent with the project site's 2035 General Plan land use and zoning designations, the projected water demand from the proposed project was accounted for in the City's 2035 General Plan and Master EIR. The Master EIR concluded that the City's existing water right permits and United States Bureau of Reclamation (USBR) contract are sufficient to meet the total water demand projected for buildout of the proposed 2035 General Plan, including the proposed project site. In addition, according to the 2020 UWMP, which is based on the development assumptions in the 2035 General Plan, under all drought conditions, the City possesses sufficient water supply entitlements to meet the demands of the City's customers up to the year 2040.[19] Because the City would have adequate capacity of water supply at buildout of the 2035 General Plan, and the proposed project is consistent with the General Plan, impacts from the proposed project, as they relate to water supply, were adequately addressed in the Master EIR.

*Solid Waste*

Solid waste collected at residential uses in the area is currently disposed of at the Kiefer Landfill. Kiefer Landfill, located at 12701 Kiefer Boulevard in Sloughhouse, California, is the primary location for the disposal of waste by the City. According to the Master EIR, the landfill is permitted to accept up to 10,815 tons per day and the current peak and average daily disposal is substantially lower than the permitted amount. The landfill is anticipated to be capable of adequately serving the area, including the anticipated population growth, until the year 2065.

According to the CalRecycle Jurisdiction Diversion/Disposal Rate Summary for Sacramento, the most recently approved (2015) annual per capita disposal rate is 5.8 pounds per day per resident.[20] Based on the average household size as given in the City's 2035 Housing Element, the proposed project would house approximately 316 residents. Operation of the proposed project would generate approximately 1,833 pounds of waste per day (0.95 tons). Operational waste generation of 0.95 tons per day would equal less than 0.01 percent of the Kiefer Landfill's remaining daily capacity. Therefore, the proposed project's operational waste generation could be accommodated by the existing capacity of the Kiefer Landfill.

The proposed project would comply with federal, state, and local regulations pertaining to solid waste management. Construction of the proposed project would be required to comply with City construction requirements to divert a minimum of 50 percent of construction wastes to a certified recycling processor. Operation of the proposed project would result in the generation of municipal wastes, as described above.

The Master EIR analyzed the potential solid waste impacts from development pursuant to the 2035 General Plan. As described in the Master EIR, the existing capacities of landfills that serve the City of Sacramento

[19] City of Sacramento. *2020 Urban Water Management Plan*. December 2021.

[20] CalRecycle. *Jurisdiction Diversion/Disposal Rate Summary (2007 – Current).* Available at: https://www2.calrecycle.ca.gov/LGCentral/DiversionProgram/JurisdictionDiversionPost2006. Accessed January 2023.

substantially exceed the necessary capacities to accept solid waste through buildout of the 2035 General Plan, with capacities anticipated to be sufficient through 2065. In addition, the 2035 General Plan includes goals, policies and implementation measures that would increase recycling and solid waste diversion. In conjunction with increasing diversion requirements, cumulative impacts on landfill capacity would be such that expansion or creation of new landfill or solid waste management facilities would not be required. Construction and operation of the proposed project would be consistent with the development assumptions and policies of the 2035 General Plan, and would be in compliance with federal, State, and local requirements regarding solid waste disposal and diversion. Therefore, impacts related to solid waste capacity and disposal were adequately addressed in the Master EIR.

*Conclusion*

Based on the above, adequate capacity exists to serve the project's demands in addition to existing commitments, and construction of new utilities or expansion of existing facilities would not be required. As previously demonstrated, the development of the project site was anticipated and analyzed in the Master EIR. Therefore, project impacts related to utilities and service systems were ***adequately addressed in the Master EIR***, and the proposed project would not result in any peculiar effects that would require further CEQA review related to such.

**MITIGATION MEASURES**

None required.

**FINDINGS**

The proposed project would not have any significant effects relating to utilities and service system impacts that either have not already been analyzed in a prior EIR or that are more significant than previously analyzed.

| 16. MANDATORY FINDINGS OF SIGNIFICANCE | Significant Impact Peculiar to the Project or the Project Site | Significant Impact due to New Information | Impact Adequately Addressed in the General Plan EIR | No Impact |
|---|---|---|---|---|
| A) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory? | ☐ | ☐ | ✖ | ☐ |
| 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.) | ☐ | ☐ | ✖ | ☐ |
| C) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly? | ☐ | ☐ | ✖ | ☐ |

**ANSWERS TO CHECKLIST QUESTIONS**

Question A

Implementation of the proposed project would have the potential to adversely impact special-status animals and previously undiscovered cultural, tribal cultural resources, and/or human remains. The proposed project would implement and comply with applicable 2035 General Plan policies, as discussed throughout this Modified Initial Study/15183 Checklist. With compliance with 2035 General Plan policies and application of standard BMPs during construction, development of the proposed project would not result in any of the following: 1) degrade the quality of the environment; 2) substantially reduce or impact the habitat of fish or wildlife species; 3) cause fish or wildlife populations to drop below self-sustaining levels; 4) threaten to eliminate a plant or animal community; 5) reduce the number or restrict the range of a rare or endangered plant or animal; or 6) eliminate important examples of the major periods of California history or prehistory. Impacts associated with such resources have been adequately addressed and would not change from what was identified in the Master EIR, and the criteria for requiring further CEQA review are not met.

Question B

The proposed project is an allowed use under the project site's General Plan land use designation, and the population growth associated with development of the proposed project was accounted for in the regional population growth projection evaluated in the Master EIR. Thus, the population growth associated with development of the project was included in the cumulative analysis of City buildout in the Master EIR. The Master EIR concluded that cumulative impacts to air quality, biological resources, cultural resources, noise and vibration, public utilities, and transportation and circulation would be significant and unavoidable. For those impacts determined to be significant in a Master EIR, CEQA Section 15183 allows for future environmental documents to limit examination of environmental effects to those impacts which were not

already analyzed as a significant effect in the prior EIR, provided that the proposed project is consistent with the General Plan. Given that the proposed project is consistent with the 2035 General Plan land use designation for the project site, cumulative impacts associated with buildout of the site have been anticipated by the City and were analyzed in the Master EIR. Cumulative effects peculiar to the project or project site do not exist. Additionally, the proposed project does not include cumulative impacts that were not analyzed or discussed in the previous EIR. Furthermore, as discussed throughout this Modified Initial Study/15183 Checklist, all impacts associated with the proposed project were adequately addressed in the Master EIR, and the proposed project would not result in any peculiar effects that would require further CEQA review. As such, this Modified Initial Study/15183 Checklist does not include any substantial new information that shows impacts are more severe than previously discussed, and further analysis is not required.

Question C

As described in this Modified Initial Study/15183 Checklist, the proposed project would comply with all applicable 2035 General Plan policies, City Code standards, other applicable local, county and State regulations. In addition, as discussed in the Air Quality, Geology and Soils, Hazards, and Noise sections of this Modified Initial Study/15183 Checklist, the proposed project would not cause substantial effects to human beings, including effects related to exposure to air pollutants, geologic hazards, hazardous materials, and excessive noise, beyond the effects previously analyzed as part of the Master EIR. Therefore, further analysis is not required in this Modified Initial Study/15183 Checklist.

## SECTION IV - ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

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

| | | | |
|---|---|---|---|
| ____ | Aesthetics | ____ | Hydrology and Water Quality |
| ____ | Air Quality | ____ | Noise |
| ____ | Biological Resources | ____ | Public Services |
| ____ | Cultural Resources | ____ | Recreation |
| ____ | Energy | ____ | Transportation and Circulation |
| ____ | Geology and Soils | ____ | Tribal Cultural Resources |
| ____ | Hazards | ____ | Utilities and Service Systems |
| X | None Identified | | |

## SECTION V - DETERMINATION

On the basis of this Modified Initial Study/15183 Checklist:

☐ 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.

Scott Johnson For Ron Bess — April 25, 2023

Signature — Date

Ron Bess, Associate Planner — City of Sacramento

Printed Name — For

# REFERENCES CITED

It should be noted that all of the technical reports used for the purposes of the analysis throughout this Modified Initial Study/15183 Checklist are attached as appendices to this Modified Initial Study/15183 Checklist and are available on the City's website at https://www.cityofsacramento.org/Community-Development/Planning/Environmental/ Impact-Reports. The following documents are referenced information sources used for the analysis within this Modified Initial Study/15183 Checklist:

1. California Department of Conservation. *California Important Farmland Finder*. Available at: https://maps.conservation.ca.gov/DLRP/CIFF/. Accessed January 2023.
2. California Department of Transportation. *California Scenic Highway Mapping System, Sacramento County.* Available at: https://caltrans.maps.arcgis.com/apps/webappviewer/index.html?id=465dfd3d807c46cc8e8057116f1aacaa. Accessed January 2023.
3. California Department of Transportation. *Transportation and Construction Vibration Guidance Manual*. September 2013.
4. California Energy Commission. *Ventilation and Indoor Air Quality in New California Homes with Gas Appliances and Mechanical Ventilation*. March 2020.
5. CalRecycle. *Jurisdiction Diversion/Disposal Rate Summary (2007 – Current).* Available at: https://www2.calrecycle.ca.gov/LGCentral/DiversionProgram/JurisdictionDiversionPost2006. Accessed January 2023.
6. City of Sacramento Department of Utilities. *2021 Consumer Confidence Report*. Available at: http://www.cityofsacramento.org/-/media/Corporate/Files/DOU/Reports/CCR_2020_Report_5_28_21_FINAL_WEB.pdf. Accessed January 2023.
7. City of Sacramento. *2020 Urban Water Management Plan*. December 2021.
8. Department of Toxic Substances Control. *Hazardous Waste and Substances Site List (Cortese).* Available at: https://www.envirostor.dtsc.ca.gov/public/map/?myaddress=3561+Del+Paso+Rd%2C+Sacramento%2C+CA+95835. Accessed January 2023.
9. Federal Emergency Management Agency. *Flood Insurance Rate Map 06067C0045J.* Effective June 16, 2015.
10. Institute of Transportation Engineers. *Trip Generation Manual, 10th Edition.* September 2017.
11. Metro Fire Sacramento. *About Us*. Available at: https://metrofire.ca.gov/. Accessed January 2023.
12. Native American Heritage Commission. *Westlake Affordable Apartments Project, Sacramento County*. November 9, 2022.
13. Natomas Unified School District. *About Us*. Available at: https://natomasunified.org/about-us/. Accessed January 2023.
14. North Central Information Center. *Records Search Results for Westlake Affordable Apartments Project.* October 3, 2022.
15. Regional San. *Impact Fees.* Available at: https://www.regionalsan.com/impact-fees-businesses. Accessed January 2023.
16. Sacramento Metropolitan Air Quality Management District. *Guide to Air Quality Assessment, Chapter 4: Operational Criteria Air Pollutant and Precursor Emissions*. June 2020.
17. State Water Resources Control Board. *GeoTracker*. Available at: https://geotracker.waterboards.ca.gov/map/?CMD=runreport&myaddress=3561+Del+Paso+Rd%2C+Sacramento%2C+CA+95835. Accessed January 2023.
18. U.S. Fish & Wildlife Service. *National Wetlands Inventory*. Available at: https://www.fws.gov/wetlands/data/Mapper.html. Accessed January 2023.
19. United States Department of Agriculture. *Natural Resources Conservation Science.* Available at: https://websoilsurvey.sc.egov.usda.gov/App/WebSoilSurvey.aspx. Accessed January 2023.

# APPENDIX A
# AIR QUALITY AND GHG MODELING RESULTS

Westlake Affordable Housing - Sacramento Metropolitan AQMD Air District, Summer

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

# Westlake Affordable Housing

**Sacramento Metropolitan AQMD Air District, Summer**

## 1.0 Project Characteristics

### 1.1 Land Usage

| Land Uses | Size | Metric | Lot Acreage | Floor Surface Area | Population |
|---|---|---|---|---|---|
| Parking Lot | 190.00 | Space | 1.58 | 76,000.00 | 0 |
| Apartments Mid Rise | 120.00 | Dwelling Unit | 2.77 | 120,000.00 | 320 |

### 1.2 Other Project Characteristics

| | | | | | |
|---|---|---|---|---|---|
| **Urbanization** | Urban | **Wind Speed (m/s)** | 3.5 | **Precipitation Freq (Days)** | 58 |
| **Climate Zone** | 6 | | | **Operational Year** | 2024 |
| **Utility Company** | Sacramento Municipal Utility District | | | | |
| **CO2 Intensity (lb/MWhr)** | 357.98 | **CH4 Intensity (lb/MWhr)** | 0.033 | **N2O Intensity (lb/MWhr)** | 0.004 |

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

Project Characteristics -

Land Use - Lot acreages updated to match site plan.

Construction Phase - Phase timing adjusted per AQ Questionnaire.

Grading -

Mobile Land Use Mitigation - Applied "increase transit accessiblity", and "improve pedestrian network"

| Table Name | Column Name | Default Value | New Value |
|---|---|---|---|
| tblConstructionPhase | NumDays | 20.00 | 5.00 |
| tblConstructionPhase | NumDays | 5.00 | 60.00 |
| tblConstructionPhase | NumDays | 8.00 | 10.00 |
| tblConstructionPhase | NumDays | 230.00 | 220.00 |

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

| | | | |
|---|---|---|---|
| tblConstructionPhase | NumDays | 18.00 | 4.00 |
| tblConstructionPhase | NumDays | 18.00 | 220.00 |
| tblConstructionPhase | PhaseEndDate | 6/28/2023 | 6/7/2023 |
| tblConstructionPhase | PhaseEndDate | 7/5/2023 | 8/30/2023 |
| tblConstructionPhase | PhaseEndDate | 7/17/2023 | 9/14/2023 |
| tblConstructionPhase | PhaseEndDate | 6/3/2024 | 7/24/2024 |
| tblConstructionPhase | PhaseEndDate | 6/27/2024 | 9/20/2023 |
| tblConstructionPhase | PhaseEndDate | 7/23/2024 | 8/7/2024 |
| tblConstructionPhase | PhaseStartDate | 6/29/2023 | 6/8/2023 |
| tblConstructionPhase | PhaseStartDate | 7/6/2023 | 9/1/2023 |
| tblConstructionPhase | PhaseStartDate | 7/18/2023 | 9/21/2023 |
| tblConstructionPhase | PhaseStartDate | 6/4/2024 | 9/15/2023 |
| tblConstructionPhase | PhaseStartDate | 6/28/2024 | 9/29/2023 |
| tblLandUse | LotAcreage | 1.71 | 1.58 |
| tblLandUse | LotAcreage | 3.16 | 2.77 |

## 2.0 Emissions Summary

Westlake Affordable Housing - Sacramento Metropolitan 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 | 9.1985 | 27.5533 | 22.2854 | 0.0446 | 19.7939 | 1.2667 | 21.0607 | 10.1388 | 1.1654 | 11.3042 | 0.0000 | 4,358.2309 | 4,358.2309 | 1.1961 | 0.0997 | 4,404.5730 |
| 2024 | 9.0534 | 16.0020 | 21.9184 | 0.0441 | 1.2308 | 0.6859 | 1.9167 | 0.3299 | 0.6488 | 0.9787 | 0.0000 | 4,323.5053 | 4,323.5053 | 0.6575 | 0.0967 | 4,368.7695 |
| **Maximum** | **9.1985** | **27.5533** | **22.2854** | **0.0446** | **19.7939** | **1.2667** | **21.0607** | **10.1388** | **1.1654** | **11.3042** | **0.0000** | **4,358.2309** | **4,358.2309** | **1.1961** | **0.0997** | **4,404.5730** |

### 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 | 9.1985 | 27.5533 | 22.2854 | 0.0446 | 19.7939 | 1.2667 | 21.0607 | 10.1388 | 1.1654 | 11.3042 | 0.0000 | 4,358.2309 | 4,358.2309 | 1.1961 | 0.0997 | 4,404.5730 |
| 2024 | 9.0534 | 16.0020 | 21.9184 | 0.0441 | 1.2308 | 0.6859 | 1.9167 | 0.3299 | 0.6488 | 0.9787 | 0.0000 | 4,323.5053 | 4,323.5053 | 0.6575 | 0.0967 | 4,368.7695 |
| **Maximum** | **9.1985** | **27.5533** | **22.2854** | **0.0446** | **19.7939** | **1.2667** | **21.0607** | **10.1388** | **1.1654** | **11.3042** | **0.0000** | **4,358.2309** | **4,358.2309** | **1.1961** | **0.0997** | **4,404.5730** |

Westlake Affordable Housing - Sacramento Metropolitan 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 | N20 | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Percent Reduction | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

Westlake Affordable Housing - Sacramento Metropolitan 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 | 3.3115 | 0.1142 | 9.9154 | 5.2000e-004 | | 0.0549 | 0.0549 | | 0.0549 | 0.0549 | 0.0000 | 17.8679 | 17.8679 | 0.0172 | 0.0000 | 18.2982 |
| Energy | 0.0334 | 0.2853 | 0.1214 | 1.8200e-003 | | 0.0231 | 0.0231 | | 0.0231 | 0.0231 | | 364.2055 | 364.2055 | 6.9800e-003 | 6.6800e-003 | 366.3698 |
| Mobile | 2.1484 | 2.0948 | 17.3128 | 0.0356 | 3.5325 | 0.0265 | 3.5589 | 0.9418 | 0.0247 | 0.9665 | | 3,691.0389 | 3,691.0389 | 0.2243 | 0.1636 | 3,745.3966 |
| **Total** | **5.4933** | **2.4943** | **27.3496** | **0.0380** | **3.5325** | **0.1045** | **3.6369** | **0.9418** | **0.1027** | **1.0445** | **0.0000** | **4,073.1123** | **4,073.1123** | **0.2485** | **0.1703** | **4,130.0646** |

### Mitigated Operational

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Area | 3.3115 | 0.1142 | 9.9154 | 5.2000e-004 | | 0.0549 | 0.0549 | | 0.0549 | 0.0549 | 0.0000 | 17.8679 | 17.8679 | 0.0172 | 0.0000 | 18.2982 |
| Energy | 0.0334 | 0.2853 | 0.1214 | 1.8200e-003 | | 0.0231 | 0.0231 | | 0.0231 | 0.0231 | | 364.2055 | 364.2055 | 6.9800e-003 | 6.6800e-003 | 366.3698 |
| Mobile | 2.0596 | 1.9046 | 15.6368 | 0.0315 | 3.1156 | 0.0237 | 3.1393 | 0.8307 | 0.0221 | 0.8528 | | 3,267.4450 | 3,267.4450 | 0.2063 | 0.1489 | 3,316.9632 |
| **Total** | **5.4045** | **2.3041** | **25.6735** | **0.0339** | **3.1156** | **0.1017** | **3.2173** | **0.8307** | **0.1001** | **0.9308** | **0.0000** | **3,649.5184** | **3,649.5184** | **0.2305** | **0.1555** | **3,701.6311** |

Westlake Affordable Housing - Sacramento Metropolitan 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 | N20 | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Percent Reduction** | **1.62** | **7.62** | **6.13** | **10.77** | **11.80** | **2.69** | **11.54** | **11.80** | **2.56** | **10.89** | **0.00** | **10.40** | **10.40** | **7.24** | **8.65** | **10.37** |

## 3.0 Construction Detail

**Construction Phase**

| Phase Number | Phase Name | Phase Type | Start Date | End Date | Num Days Week | Num Days | Phase Description |
|---|---|---|---|---|---|---|---|
| 1 | Demolition | Demolition | 6/1/2023 | 6/7/2023 | 5 | 5 | |
| 2 | Site Preparation | Site Preparation | 6/8/2023 | 8/30/2023 | 5 | 60 | |
| 3 | Grading | Grading | 9/1/2023 | 9/14/2023 | 5 | 10 | |
| 4 | Building Construction | Building Construction | 9/21/2023 | 7/24/2024 | 5 | 220 | |
| 5 | Paving | Paving | 9/15/2023 | 9/20/2023 | 5 | 4 | |
| 6 | Architectural Coating | Architectural Coating | 9/29/2023 | 8/7/2024 | 5 | 220 | |

**Acres of Grading (Site Preparation Phase): 90**

**Acres of Grading (Grading Phase): 10**

**Acres of Paving: 1.58**

**Residential Indoor: 243,000; Residential Outdoor: 81,000; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 4,560 (Architectural Coating – sqft)**

**OffRoad Equipment**

| Phase Name | Offroad Equipment Type | Amount | Usage Hours | Horse Power | Load Factor |
|---|---|---|---|---|---|
| Architectural Coating | Air Compressors | 1 | 6.00 | 78 | 0.48 |
| Paving | Cement and Mortar Mixers | 2 | 6.00 | 9 | 0.56 |
| Demolition | Concrete/Industrial Saws | 1 | 8.00 | 81 | 0.73 |
| Building Construction | Cranes | 1 | 7.00 | 231 | 0.29 |
| Demolition | Excavators | 3 | 8.00 | 158 | 0.38 |

Westlake Affordable Housing - Sacramento Metropolitan AQMD Air District, Summer

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

| | | | | | |
|---|---|---|---|---|---|
| Grading | Excavators | 1 | 8.00 | 158 | 0.38 |
| Building Construction | Forklifts | 3 | 8.00 | 89 | 0.20 |
| Building Construction | Generator Sets | 1 | 8.00 | 84 | 0.74 |
| Grading | Graders | 1 | 8.00 | 187 | 0.41 |
| Paving | Pavers | 1 | 8.00 | 130 | 0.42 |
| Paving | Paving Equipment | 2 | 6.00 | 132 | 0.36 |
| Paving | Rollers | 2 | 6.00 | 80 | 0.38 |
| Demolition | Rubber Tired Dozers | 2 | 8.00 | 247 | 0.40 |
| Grading | Rubber Tired Dozers | 1 | 8.00 | 247 | 0.40 |
| Site Preparation | Rubber Tired Dozers | 3 | 8.00 | 247 | 0.40 |
| Building Construction | Tractors/Loaders/Backhoes | 3 | 7.00 | 97 | 0.37 |
| Grading | Tractors/Loaders/Backhoes | 3 | 8.00 | 97 | 0.37 |
| Paving | Tractors/Loaders/Backhoes | 1 | 8.00 | 97 | 0.37 |
| Site Preparation | Tractors/Loaders/Backhoes | 4 | 8.00 | 97 | 0.37 |
| Building Construction | Welders | 1 | 8.00 | 46 | 0.45 |

## Trips and VMT

| Phase Name | Offroad Equipment Count | Worker Trip Number | Vendor Trip Number | Hauling Trip Number | Worker Trip Length | Vendor Trip Length | Hauling Trip Length | Worker Vehicle Class | Vendor Vehicle Class | Hauling Vehicle Class |
|---|---|---|---|---|---|---|---|---|---|---|
| Architectural Coating | 1 | 24.00 | 0.00 | 0.00 | 10.00 | 6.50 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Building Construction | 9 | 118.00 | 25.00 | 0.00 | 10.00 | 6.50 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Demolition | 6 | 15.00 | 0.00 | 0.00 | 10.00 | 6.50 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Grading | 6 | 15.00 | 0.00 | 0.00 | 10.00 | 6.50 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Paving | 8 | 20.00 | 0.00 | 0.00 | 10.00 | 6.50 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Site Preparation | 7 | 18.00 | 0.00 | 0.00 | 10.00 | 6.50 | 20.00 | LD_Mix | HDT_Mix | HHDT |

## 3.1 Mitigation Measures Construction

Westlake Affordable Housing - Sacramento Metropolitan AQMD Air District, Summer

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

## 3.2 Demolition - 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 | 2.2691 | 21.4844 | 19.6434 | 0.0388 | | 0.9975 | 0.9975 | | 0.9280 | 0.9280 | | 3,746.9840 | 3,746.9840 | 1.0494 | | 3,773.2183 |
| **Total** | **2.2691** | **21.4844** | **19.6434** | **0.0388** | | **0.9975** | **0.9975** | | **0.9280** | **0.9280** | | **3,746.9840** | **3,746.9840** | **1.0494** | | **3,773.2183** |

**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 | 0.0505 | 0.0243 | 0.4088 | 1.0400e-003 | 0.1141 | 5.9000e-004 | 0.1147 | 0.0303 | 5.4000e-004 | 0.0308 | | 106.7548 | 106.7548 | 2.9300e-003 | 2.6200e-003 | 107.6093 |
| **Total** | **0.0505** | **0.0243** | **0.4088** | **1.0400e-003** | **0.1141** | **5.9000e-004** | **0.1147** | **0.0303** | **5.4000e-004** | **0.0308** | | **106.7548** | **106.7548** | **2.9300e-003** | **2.6200e-003** | **107.6093** |

Westlake Affordable Housing - Sacramento Metropolitan AQMD Air District, Summer

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

## 3.2 Demolition - 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 | 2.2691 | 21.4844 | 19.6434 | 0.0388 | | 0.9975 | 0.9975 | | 0.9280 | 0.9280 | 0.0000 | 3,746.9840 | 3,746.9840 | 1.0494 | | 3,773.2183 |
| **Total** | **2.2691** | **21.4844** | **19.6434** | **0.0388** | | **0.9975** | **0.9975** | | **0.9280** | **0.9280** | **0.0000** | **3,746.9840** | **3,746.9840** | **1.0494** | | **3,773.2183** |

### 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 | 0.0505 | 0.0243 | 0.4088 | 1.0400e-003 | 0.1141 | 5.9000e-004 | 0.1147 | 0.0303 | 5.4000e-004 | 0.0308 | | 106.7548 | 106.7548 | 2.9300e-003 | 2.6200e-003 | 107.6093 |
| **Total** | **0.0505** | **0.0243** | **0.4088** | **1.0400e-003** | **0.1141** | **5.9000e-004** | **0.1147** | **0.0303** | **5.4000e-004** | **0.0308** | | **106.7548** | **106.7548** | **2.9300e-003** | **2.6200e-003** | **107.6093** |

Westlake Affordable Housing - Sacramento Metropolitan AQMD Air District, Summer

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

## 3.3 Site Preparation - 2023

### Unmitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Fugitive Dust | | | | | 19.6570 | 0.0000 | 19.6570 | 10.1025 | 0.0000 | 10.1025 | | | 0.0000 | | | 0.0000 |
| Off-Road | 2.6595 | 27.5242 | 18.2443 | 0.0381 | | 1.2660 | 1.2660 | | 1.1647 | 1.1647 | | 3,687.3081 | 3,687.3081 | 1.1926 | | 3,717.1219 |
| **Total** | **2.6595** | **27.5242** | **18.2443** | **0.0381** | **19.6570** | **1.2660** | **20.9230** | **10.1025** | **1.1647** | **11.2672** | | **3,687.3081** | **3,687.3081** | **1.1926** | | **3,717.1219** |

### Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 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 | 0.0607 | 0.0291 | 0.4906 | 1.2500e-003 | 0.1369 | 7.1000e-004 | 0.1376 | 0.0363 | 6.5000e-004 | 0.0370 | | 128.1058 | 128.1058 | 3.5200e-003 | 3.1500e-003 | 129.1312 |
| **Total** | **0.0607** | **0.0291** | **0.4906** | **1.2500e-003** | **0.1369** | **7.1000e-004** | **0.1376** | **0.0363** | **6.5000e-004** | **0.0370** | | **128.1058** | **128.1058** | **3.5200e-003** | **3.1500e-003** | **129.1312** |

Westlake Affordable Housing - Sacramento Metropolitan AQMD Air District, Summer

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

## 3.3 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 | 3,687.3081 | 3,687.3081 | 1.1926 | | 3,717.1219 |
| **Total** | **2.6595** | **27.5242** | **18.2443** | **0.0381** | **19.6570** | **1.2660** | **20.9230** | **10.1025** | **1.1647** | **11.2672** | **0.0000** | **3,687.3081** | **3,687.3081** | **1.1926** | | **3,717.1219** |

### Mitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 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 | 0.0607 | 0.0291 | 0.4906 | 1.2500e-003 | 0.1369 | 7.1000e-004 | 0.1376 | 0.0363 | 6.5000e-004 | 0.0370 | | 128.1058 | 128.1058 | 3.5200e-003 | 3.1500e-003 | 129.1312 |
| **Total** | **0.0607** | **0.0291** | **0.4906** | **1.2500e-003** | **0.1369** | **7.1000e-004** | **0.1376** | **0.0363** | **6.5000e-004** | **0.0370** | | **128.1058** | **128.1058** | **3.5200e-003** | **3.1500e-003** | **129.1312** |

Westlake Affordable Housing - Sacramento Metropolitan AQMD Air District, Summer

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

## 3.4 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 |
| **Total** | **1.7109** | **17.9359** | **14.7507** | **0.0297** | **7.0826** | **0.7749** | **7.8575** | **3.4247** | **0.7129** | **4.1377** | | **2,872.6910** | **2,872.6910** | **0.9291** | | **2,895.9182** |

### Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 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 | 0.0505 | 0.0243 | 0.4088 | 1.0400e-003 | 0.1141 | 5.9000e-004 | 0.1147 | 0.0303 | 5.4000e-004 | 0.0308 | | 106.7548 | 106.7548 | 2.9300e-003 | 2.6200e-003 | 107.6093 |
| **Total** | **0.0505** | **0.0243** | **0.4088** | **1.0400e-003** | **0.1141** | **5.9000e-004** | **0.1147** | **0.0303** | **5.4000e-004** | **0.0308** | | **106.7548** | **106.7548** | **2.9300e-003** | **2.6200e-003** | **107.6093** |

Westlake Affordable Housing - Sacramento Metropolitan AQMD Air District, Summer

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

## 3.4 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 |
| **Total** | **1.7109** | **17.9359** | **14.7507** | **0.0297** | **7.0826** | **0.7749** | **7.8575** | **3.4247** | **0.7129** | **4.1377** | **0.0000** | **2,872.6910** | **2,872.6910** | **0.9291** | | **2,895.9182** |

### Mitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 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 | 0.0505 | 0.0243 | 0.4088 | 1.0400e-003 | 0.1141 | 5.9000e-004 | 0.1147 | 0.0303 | 5.4000e-004 | 0.0308 | | 106.7548 | 106.7548 | 2.9300e-003 | 2.6200e-003 | 107.6093 |
| **Total** | **0.0505** | **0.0243** | **0.4088** | **1.0400e-003** | **0.1141** | **5.9000e-004** | **0.1147** | **0.0303** | **5.4000e-004** | **0.0308** | | **106.7548** | **106.7548** | **2.9300e-003** | **2.6200e-003** | **107.6093** |

Westlake Affordable Housing - Sacramento Metropolitan 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 |
| **Total** | **1.5728** | **14.3849** | **16.2440** | **0.0269** | | **0.6997** | **0.6997** | | **0.6584** | **0.6584** | | **2,555.2099** | **2,555.2099** | **0.6079** | | **2,570.4061** |

### Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 0.0335 | 1.1576 | 0.3604 | 4.7600e-003 | 0.1506 | 6.4600e-003 | 0.1571 | 0.0434 | 6.1800e-003 | 0.0495 | | 510.9605 | 510.9605 | 0.0126 | 0.0749 | 533.5963 |
| Worker | 0.3976 | 0.1910 | 3.2158 | 8.2100e-003 | 0.8976 | 4.6300e-003 | 0.9023 | 0.2381 | 4.2600e-003 | 0.2424 | | 839.8047 | 839.8047 | 0.0231 | 0.0206 | 846.5267 |
| **Total** | **0.4311** | **1.3486** | **3.5762** | **0.0130** | **1.0483** | **0.0111** | **1.0593** | **0.2815** | **0.0104** | **0.2919** | | **1,350.7652** | **1,350.7652** | **0.0357** | **0.0955** | **1,380.1230** |

Westlake Affordable Housing - Sacramento Metropolitan 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 |
| **Total** | **1.5728** | **14.3849** | **16.2440** | **0.0269** | | **0.6997** | **0.6997** | | **0.6584** | **0.6584** | **0.0000** | **2,555.2099** | **2,555.2099** | **0.6079** | | **2,570.4061** |

### Mitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 0.0335 | 1.1576 | 0.3604 | 4.7600e-003 | 0.1506 | 6.4600e-003 | 0.1571 | 0.0434 | 6.1800e-003 | 0.0495 | | 510.9605 | 510.9605 | 0.0126 | 0.0749 | 533.5963 |
| Worker | 0.3976 | 0.1910 | 3.2158 | 8.2100e-003 | 0.8976 | 4.6300e-003 | 0.9023 | 0.2381 | 4.2600e-003 | 0.2424 | | 839.8047 | 839.8047 | 0.0231 | 0.0206 | 846.5267 |
| **Total** | **0.4311** | **1.3486** | **3.5762** | **0.0130** | **1.0483** | **0.0111** | **1.0593** | **0.2815** | **0.0104** | **0.2919** | | **1,350.7652** | **1,350.7652** | **0.0357** | **0.0955** | **1,380.1230** |

**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 |
| **Total** | **1.4716** | **13.4438** | **16.1668** | **0.0270** | | **0.6133** | **0.6133** | | **0.5769** | **0.5769** | | **2,555.6989** | **2,555.6989** | **0.6044** | | **2,570.8077** |

### Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 0.0320 | 1.1346 | 0.3491 | 4.6700e-003 | 0.1506 | 6.3700e-003 | 0.1570 | 0.0434 | 6.0900e-003 | 0.0494 | | 501.2294 | 501.2294 | 0.0123 | 0.0736 | 523.4822 |
| Worker | 0.3714 | 0.1702 | 2.9852 | 7.9400e-003 | 0.8976 | 4.4100e-003 | 0.9020 | 0.2381 | 4.0600e-003 | 0.2422 | | 818.6283 | 818.6283 | 0.0208 | 0.0192 | 824.8661 |
| **Total** | **0.4034** | **1.3048** | **3.3343** | **0.0126** | **1.0482** | **0.0108** | **1.0590** | **0.2815** | **0.0102** | **0.2916** | | **1,319.8576** | **1,319.8576** | **0.0331** | **0.0928** | **1,348.3482** |

Westlake Affordable Housing - Sacramento Metropolitan 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 |
| **Total** | **1.4716** | **13.4438** | **16.1668** | **0.0270** | | **0.6133** | **0.6133** | | **0.5769** | **0.5769** | **0.0000** | **2,555.6989** | **2,555.6989** | **0.6044** | | **2,570.8077** |

### Mitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 0.0320 | 1.1346 | 0.3491 | 4.6700e-003 | 0.1506 | 6.3700e-003 | 0.1570 | 0.0434 | 6.0900e-003 | 0.0494 | | 501.2294 | 501.2294 | 0.0123 | 0.0736 | 523.4822 |
| Worker | 0.3714 | 0.1702 | 2.9852 | 7.9400e-003 | 0.8976 | 4.4100e-003 | 0.9020 | 0.2381 | 4.0600e-003 | 0.2422 | | 818.6283 | 818.6283 | 0.0208 | 0.0192 | 824.8661 |
| **Total** | **0.4034** | **1.3048** | **3.3343** | **0.0126** | **1.0482** | **0.0108** | **1.0590** | **0.2815** | **0.0102** | **0.2916** | | **1,319.8576** | **1,319.8576** | **0.0331** | **0.0928** | **1,348.3482** |

Westlake Affordable Housing - Sacramento Metropolitan AQMD Air District, Summer

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

## 3.6 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 | 0.9181 | 8.7903 | 12.1905 | 0.0189 | | 0.4357 | 0.4357 | | 0.4025 | 0.4025 | | 1,805.4304 | 1,805.4304 | 0.5673 | | 1,819.6122 |
| Paving | 1.0349 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| **Total** | **1.9530** | **8.7903** | **12.1905** | **0.0189** | | **0.4357** | **0.4357** | | **0.4025** | **0.4025** | | **1,805.4304** | **1,805.4304** | **0.5673** | | **1,819.6122** |

### 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 | 0.0674 | 0.0324 | 0.5451 | 1.3900e-003 | 0.1521 | 7.8000e-004 | 0.1529 | 0.0404 | 7.2000e-004 | 0.0411 | | 142.3398 | 142.3398 | 3.9100e-003 | 3.5000e-003 | 143.4791 |
| **Total** | **0.0674** | **0.0324** | **0.5451** | **1.3900e-003** | **0.1521** | **7.8000e-004** | **0.1529** | **0.0404** | **7.2000e-004** | **0.0411** | | **142.3398** | **142.3398** | **3.9100e-003** | **3.5000e-003** | **143.4791** |

Westlake Affordable Housing - Sacramento Metropolitan AQMD Air District, Summer

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

## 3.6 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 | 0.9181 | 8.7903 | 12.1905 | 0.0189 | | 0.4357 | 0.4357 | | 0.4025 | 0.4025 | 0.0000 | 1,805.4304 | 1,805.4304 | 0.5673 | | 1,819.6122 |
| Paving | 1.0349 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| **Total** | **1.9530** | **8.7903** | **12.1905** | **0.0189** | | **0.4357** | **0.4357** | | **0.4025** | **0.4025** | **0.0000** | **1,805.4304** | **1,805.4304** | **0.5673** | | **1,819.6122** |

### 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 | 0.0674 | 0.0324 | 0.5451 | 1.3900e-003 | 0.1521 | 7.8000e-004 | 0.1529 | 0.0404 | 7.2000e-004 | 0.0411 | | 142.3398 | 142.3398 | 3.9100e-003 | 3.5000e-003 | 143.4791 |
| **Total** | **0.0674** | **0.0324** | **0.5451** | **1.3900e-003** | **0.1521** | **7.8000e-004** | **0.1529** | **0.0404** | **7.2000e-004** | **0.0411** | | **142.3398** | **142.3398** | **3.9100e-003** | **3.5000e-003** | **143.4791** |

Westlake Affordable Housing - Sacramento Metropolitan AQMD Air District, Summer

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

## 3.7 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 | 6.9222 | | | | | 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 |
| **Total** | **7.1138** | **1.3030** | **1.8111** | **2.9700e-003** | | **0.0708** | **0.0708** | | **0.0708** | **0.0708** | | **281.4481** | **281.4481** | **0.0168** | | **281.8690** |

### 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 | 0.0809 | 0.0389 | 0.6541 | 1.6700e-003 | 0.1826 | 9.4000e-004 | 0.1835 | 0.0484 | 8.7000e-004 | 0.0493 | | 170.8077 | 170.8077 | 4.6900e-003 | 4.1900e-003 | 172.1749 |
| **Total** | **0.0809** | **0.0389** | **0.6541** | **1.6700e-003** | **0.1826** | **9.4000e-004** | **0.1835** | **0.0484** | **8.7000e-004** | **0.0493** | | **170.8077** | **170.8077** | **4.6900e-003** | **4.1900e-003** | **172.1749** |

Westlake Affordable Housing - Sacramento Metropolitan AQMD Air District, Summer

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

## 3.7 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 | 6.9222 | | | | | 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 |
| **Total** | **7.1138** | **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** |

### 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 | 0.0809 | 0.0389 | 0.6541 | 1.6700e-003 | 0.1826 | 9.4000e-004 | 0.1835 | 0.0484 | 8.7000e-004 | 0.0493 | | 170.8077 | 170.8077 | 4.6900e-003 | 4.1900e-003 | 172.1749 |
| **Total** | **0.0809** | **0.0389** | **0.6541** | **1.6700e-003** | **0.1826** | **9.4000e-004** | **0.1835** | **0.0484** | **8.7000e-004** | **0.0493** | | **170.8077** | **170.8077** | **4.6900e-003** | **4.1900e-003** | **172.1749** |

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

## 3.7 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 | 6.9222 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Off-Road | 0.1808 | 1.2188 | 1.8101 | 2.9700e-003 | | 0.0609 | 0.0609 | | 0.0609 | 0.0609 | | 281.4481 | 281.4481 | 0.0159 | | 281.8443 |
| **Total** | **7.1029** | **1.2188** | **1.8101** | **2.9700e-003** | | **0.0609** | **0.0609** | | **0.0609** | **0.0609** | | **281.4481** | **281.4481** | **0.0159** | | **281.8443** |

### Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 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 | 0.0755 | 0.0346 | 0.6072 | 1.6100e-003 | 0.1826 | 9.0000e-004 | 0.1835 | 0.0484 | 8.3000e-004 | 0.0493 | | 166.5007 | 166.5007 | 4.2300e-003 | 3.9000e-003 | 167.7694 |
| **Total** | **0.0755** | **0.0346** | **0.6072** | **1.6100e-003** | **0.1826** | **9.0000e-004** | **0.1835** | **0.0484** | **8.3000e-004** | **0.0493** | | **166.5007** | **166.5007** | **4.2300e-003** | **3.9000e-003** | **167.7694** |

Westlake Affordable Housing - Sacramento Metropolitan AQMD Air District, Summer

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

## 3.7 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 | 6.9222 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Off-Road | 0.1808 | 1.2188 | 1.8101 | 2.9700e-003 | | 0.0609 | 0.0609 | | 0.0609 | 0.0609 | 0.0000 | 281.4481 | 281.4481 | 0.0159 | | 281.8443 |
| **Total** | **7.1029** | **1.2188** | **1.8101** | **2.9700e-003** | | **0.0609** | **0.0609** | | **0.0609** | **0.0609** | **0.0000** | **281.4481** | **281.4481** | **0.0159** | | **281.8443** |

**Mitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 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 | 0.0755 | 0.0346 | 0.6072 | 1.6100e-003 | 0.1826 | 9.0000e-004 | 0.1835 | 0.0484 | 8.3000e-004 | 0.0493 | | 166.5007 | 166.5007 | 4.2300e-003 | 3.9000e-003 | 167.7694 |
| **Total** | **0.0755** | **0.0346** | **0.6072** | **1.6100e-003** | **0.1826** | **9.0000e-004** | **0.1835** | **0.0484** | **8.3000e-004** | **0.0493** | | **166.5007** | **166.5007** | **4.2300e-003** | **3.9000e-003** | **167.7694** |

**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 | 2.0596 | 1.9046 | 15.6368 | 0.0315 | 3.1156 | 0.0237 | 3.1393 | 0.8307 | 0.0221 | 0.8528 | | 3,267.4450 | 3,267.4450 | 0.2063 | 0.1489 | 3,316.9632 |
| Unmitigated | 2.1484 | 2.0948 | 17.3128 | 0.0356 | 3.5325 | 0.0265 | 3.5589 | 0.9418 | 0.0247 | 0.9665 | | 3,691.0389 | 3,691.0389 | 0.2243 | 0.1636 | 3,745.3966 |

## 4.2 Trip Summary Information

| | Average Daily Trip Rate | | | Unmitigated | Mitigated |
|---|---|---|---|---|---|
| Land Use | Weekday | Saturday | Sunday | Annual VMT | Annual VMT |
| Apartments Mid Rise | 652.80 | 589.20 | 490.80 | 1,592,454 | 1,404,544 |
| Parking Lot | 0.00 | 0.00 | 0.00 | | |
| Total | 652.80 | 589.20 | 490.80 | 1,592,454 | 1,404,544 |

## 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 | 10.00 | 5.00 | 6.50 | 46.50 | 12.50 | 41.00 | 86 | 11 | 3 |
| Parking Lot | 10.00 | 5.00 | 6.50 | 0.00 | 0.00 | 0.00 | 0 | 0 | 0 |

**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 | 0.542485 | 0.056811 | 0.183752 | 0.130945 | 0.025591 | 0.005989 | 0.013266 | 0.009393 | 0.000917 | 0.000565 | 0.025954 | 0.000983 | 0.003351 |
| Parking Lot | 0.542485 | 0.056811 | 0.183752 | 0.130945 | 0.025591 | 0.005989 | 0.013266 | 0.009393 | 0.000917 | 0.000565 | 0.025954 | 0.000983 | 0.003351 |

## 5.0 Energy Detail

Historical Energy Use: N

### 5.1 Mitigation Measures Energy

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| NaturalGas Mitigated | 0.0334 | 0.2853 | 0.1214 | 1.8200e-003 | | 0.0231 | 0.0231 | | 0.0231 | 0.0231 | | 364.2055 | 364.2055 | 6.9800e-003 | 6.6800e-003 | 366.3698 |
| NaturalGas Unmitigated | 0.0334 | 0.2853 | 0.1214 | 1.8200e-003 | | 0.0231 | 0.0231 | | 0.0231 | 0.0231 | | 364.2055 | 364.2055 | 6.9800e-003 | 6.6800e-003 | 366.3698 |

**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 | 3095.75 | 0.0334 | 0.2853 | 0.1214 | 1.8200e-003 | | 0.0231 | 0.0231 | | 0.0231 | 0.0231 | | 364.2055 | 364.2055 | 6.9800e-003 | 6.6800e-003 | 366.3698 |
| Parking Lot | 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Total** | | **0.0334** | **0.2853** | **0.1214** | **1.8200e-003** | | **0.0231** | **0.0231** | | **0.0231** | **0.0231** | | **364.2055** | **364.2055** | **6.9800e-003** | **6.6800e-003** | **366.3698** |

**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 | 3.09575 | 0.0334 | 0.2853 | 0.1214 | 1.8200e-003 | | 0.0231 | 0.0231 | | 0.0231 | 0.0231 | | 364.2055 | 364.2055 | 6.9800e-003 | 6.6800e-003 | 366.3698 |
| Parking Lot | 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Total** | | **0.0334** | **0.2853** | **0.1214** | **1.8200e-003** | | **0.0231** | **0.0231** | | **0.0231** | **0.0231** | | **364.2055** | **364.2055** | **6.9800e-003** | **6.6800e-003** | **366.3698** |

## 6.0 Area Detail

Westlake Affordable Housing - Sacramento Metropolitan 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

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Mitigated | 3.3115 | 0.1142 | 9.9154 | 5.2000e-004 | | 0.0549 | 0.0549 | | 0.0549 | 0.0549 | 0.0000 | 17.8679 | 17.8679 | 0.0172 | 0.0000 | 18.2982 |
| Unmitigated | 3.3115 | 0.1142 | 9.9154 | 5.2000e-004 | | 0.0549 | 0.0549 | | 0.0549 | 0.0549 | 0.0000 | 17.8679 | 17.8679 | 0.0172 | 0.0000 | 18.2982 |

Westlake Affordable Housing - Sacramento Metropolitan 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 | 0.4172 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Consumer Products | 2.5949 | | | | | 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 | 0.2993 | 0.1142 | 9.9154 | 5.2000e-004 | | 0.0549 | 0.0549 | | 0.0549 | 0.0549 | | 17.8679 | 17.8679 | 0.0172 | | 18.2982 |
| **Total** | **3.3115** | **0.1142** | **9.9154** | **5.2000e-004** | | **0.0549** | **0.0549** | | **0.0549** | **0.0549** | **0.0000** | **17.8679** | **17.8679** | **0.0172** | **0.0000** | **18.2982** |

Westlake Affordable Housing - Sacramento Metropolitan 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 | 0.4172 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Consumer Products | 2.5949 | | | | | 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 | 0.2993 | 0.1142 | 9.9154 | 5.2000e-004 | | 0.0549 | 0.0549 | | 0.0549 | 0.0549 | | 17.8679 | 17.8679 | 0.0172 | | 18.2982 |
| **Total** | **3.3115** | **0.1142** | **9.9154** | **5.2000e-004** | | **0.0549** | **0.0549** | | **0.0549** | **0.0549** | **0.0000** | **17.8679** | **17.8679** | **0.0172** | **0.0000** | **18.2982** |

# 7.0 Water Detail

## 7.1 Mitigation Measures Water

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

## 8.0 Waste Detail

### 8.1 Mitigation Measures Waste

## 9.0 Operational Offroad

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

## 10.0 Stationary Equipment

**Fire Pumps and Emergency Generators**

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

**Boilers**

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

**User Defined Equipment**

| Equipment Type | Number |
|---|---|

## 11.0 Vegetation

Westlake Affordable Housing - Sacramento Metropolitan AQMD Air District, Winter

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

# Westlake Affordable Housing

**Sacramento Metropolitan AQMD Air District, Winter**

## 1.0 Project Characteristics

### 1.1 Land Usage

| Land Uses | Size | Metric | Lot Acreage | Floor Surface Area | Population |
|---|---|---|---|---|---|
| Parking Lot | 190.00 | Space | 1.58 | 76,000.00 | 0 |
| Apartments Mid Rise | 120.00 | Dwelling Unit | 2.77 | 120,000.00 | 320 |

### 1.2 Other Project Characteristics

| | | | | | |
|---|---|---|---|---|---|
| **Urbanization** | Urban | **Wind Speed (m/s)** | 3.5 | **Precipitation Freq (Days)** | 58 |
| **Climate Zone** | 6 | | | **Operational Year** | 2024 |
| **Utility Company** | Sacramento Municipal Utility District | | | | |
| **CO2 Intensity (lb/MWhr)** | 357.98 | **CH4 Intensity (lb/MWhr)** | 0.033 | **N2O Intensity (lb/MWhr)** | 0.004 |

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

Project Characteristics -

Land Use - Lot acreages updated to match site plan.

Construction Phase - Phase timing adjusted per AQ Questionnaire.

Grading -

Mobile Land Use Mitigation - Applied "increase transit accessiblity", and "improve pedestrian network"

| Table Name | Column Name | Default Value | New Value |
|---|---|---|---|
| tblConstructionPhase | NumDays | 20.00 | 5.00 |
| tblConstructionPhase | NumDays | 5.00 | 60.00 |
| tblConstructionPhase | NumDays | 8.00 | 10.00 |
| tblConstructionPhase | NumDays | 230.00 | 220.00 |

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

| | | | |
|---|---|---|---|
| tblConstructionPhase | NumDays | 18.00 | 4.00 |
| tblConstructionPhase | NumDays | 18.00 | 220.00 |
| tblConstructionPhase | PhaseEndDate | 6/28/2023 | 6/7/2023 |
| tblConstructionPhase | PhaseEndDate | 7/5/2023 | 8/30/2023 |
| tblConstructionPhase | PhaseEndDate | 7/17/2023 | 9/14/2023 |
| tblConstructionPhase | PhaseEndDate | 6/3/2024 | 7/24/2024 |
| tblConstructionPhase | PhaseEndDate | 6/27/2024 | 9/20/2023 |
| tblConstructionPhase | PhaseEndDate | 7/23/2024 | 8/7/2024 |
| tblConstructionPhase | PhaseStartDate | 6/29/2023 | 6/8/2023 |
| tblConstructionPhase | PhaseStartDate | 7/6/2023 | 9/1/2023 |
| tblConstructionPhase | PhaseStartDate | 7/18/2023 | 9/21/2023 |
| tblConstructionPhase | PhaseStartDate | 6/4/2024 | 9/15/2023 |
| tblConstructionPhase | PhaseStartDate | 6/28/2024 | 9/29/2023 |
| tblLandUse | LotAcreage | 1.71 | 1.58 |
| tblLandUse | LotAcreage | 3.16 | 2.77 |

## 2.0 Emissions Summary

Westlake Affordable Housing - Sacramento Metropolitan 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 | 9.1427 | 27.5599 | 21.8024 | 0.0435 | 19.7939 | 1.2667 | 21.0607 | 10.1388 | 1.1654 | 11.3042 | 0.0000 | 4,246.9557 | 4,246.9557 | 1.1966 | 0.1035 | 4,294.5416 |
| 2024 | 9.0020 | 16.1335 | 21.4857 | 0.0431 | 1.2308 | 0.6860 | 1.9168 | 0.3299 | 0.6489 | 0.9787 | 0.0000 | 4,215.3895 | 4,215.3895 | 0.6614 | 0.1003 | 4,261.8088 |
| **Maximum** | **9.1427** | **27.5599** | **21.8024** | **0.0435** | **19.7939** | **1.2667** | **21.0607** | **10.1388** | **1.1654** | **11.3042** | **0.0000** | **4,246.9557** | **4,246.9557** | **1.1966** | **0.1035** | **4,294.5416** |

### 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 | 9.1427 | 27.5599 | 21.8024 | 0.0435 | 19.7939 | 1.2667 | 21.0607 | 10.1388 | 1.1654 | 11.3042 | 0.0000 | 4,246.9557 | 4,246.9557 | 1.1966 | 0.1035 | 4,294.5416 |
| 2024 | 9.0020 | 16.1335 | 21.4857 | 0.0431 | 1.2308 | 0.6860 | 1.9168 | 0.3299 | 0.6489 | 0.9787 | 0.0000 | 4,215.3895 | 4,215.3895 | 0.6614 | 0.1003 | 4,261.8088 |
| **Maximum** | **9.1427** | **27.5599** | **21.8024** | **0.0435** | **19.7939** | **1.2667** | **21.0607** | **10.1388** | **1.1654** | **11.3042** | **0.0000** | **4,246.9557** | **4,246.9557** | **1.1966** | **0.1035** | **4,294.5416** |

Westlake Affordable Housing - Sacramento Metropolitan 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 | N20 | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Percent Reduction | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

Westlake Affordable Housing - Sacramento Metropolitan 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 | 3.3115 | 0.1142 | 9.9154 | 5.2000e-004 | | 0.0549 | 0.0549 | | 0.0549 | 0.0549 | 0.0000 | 17.8679 | 17.8679 | 0.0172 | 0.0000 | 18.2982 |
| Energy | 0.0334 | 0.2853 | 0.1214 | 1.8200e-003 | | 0.0231 | 0.0231 | | 0.0231 | 0.0231 | | 364.2055 | 364.2055 | 6.9800e-003 | 6.6800e-003 | 366.3698 |
| Mobile | 1.6887 | 2.4248 | 17.0944 | 0.0326 | 3.5325 | 0.0265 | 3.5590 | 0.9418 | 0.0248 | 0.9666 | | 3,375.0785 | 3,375.0785 | 0.2532 | 0.1788 | 3,434.6814 |
| **Total** | **5.0336** | **2.8243** | **27.1311** | **0.0349** | **3.5325** | **0.1045** | **3.6370** | **0.9418** | **0.1028** | **1.0445** | **0.0000** | **3,757.1519** | **3,757.1519** | **0.2774** | **0.1855** | **3,819.3494** |

### Mitigated Operational

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Area | 3.3115 | 0.1142 | 9.9154 | 5.2000e-004 | | 0.0549 | 0.0549 | | 0.0549 | 0.0549 | 0.0000 | 17.8679 | 17.8679 | 0.0172 | 0.0000 | 18.2982 |
| Energy | 0.0334 | 0.2853 | 0.1214 | 1.8200e-003 | | 0.0231 | 0.0231 | | 0.0231 | 0.0231 | | 364.2055 | 364.2055 | 6.9800e-003 | 6.6800e-003 | 366.3698 |
| Mobile | 1.5961 | 2.2036 | 15.6208 | 0.0288 | 3.1156 | 0.0237 | 3.1393 | 0.8307 | 0.0222 | 0.8528 | | 2,989.1338 | 2,989.1338 | 0.2353 | 0.1628 | 3,043.5364 |
| **Total** | **4.9410** | **2.6031** | **25.6576** | **0.0312** | **3.1156** | **0.1017** | **3.2173** | **0.8307** | **0.1001** | **0.9308** | **0.0000** | **3,371.2072** | **3,371.2072** | **0.2595** | **0.1695** | **3,428.2044** |

Westlake Affordable Housing - Sacramento Metropolitan 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 | N20 | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Percent Reduction** | **1.84** | **7.83** | **5.43** | **10.66** | **11.80** | **2.69** | **11.54** | **11.80** | **2.56** | **10.89** | **0.00** | **10.27** | **10.27** | **6.47** | **8.60** | **10.24** |

## 3.0 Construction Detail

**Construction Phase**

| Phase Number | Phase Name | Phase Type | Start Date | End Date | Num Days Week | Num Days | Phase Description |
|---|---|---|---|---|---|---|---|
| 1 | Demolition | Demolition | 6/1/2023 | 6/7/2023 | 5 | 5 | |
| 2 | Site Preparation | Site Preparation | 6/8/2023 | 8/30/2023 | 5 | 60 | |
| 3 | Grading | Grading | 9/1/2023 | 9/14/2023 | 5 | 10 | |
| 4 | Building Construction | Building Construction | 9/21/2023 | 7/24/2024 | 5 | 220 | |
| 5 | Paving | Paving | 9/15/2023 | 9/20/2023 | 5 | 4 | |
| 6 | Architectural Coating | Architectural Coating | 9/29/2023 | 8/7/2024 | 5 | 220 | |

**Acres of Grading (Site Preparation Phase): 90**

**Acres of Grading (Grading Phase): 10**

**Acres of Paving: 1.58**

**Residential Indoor: 243,000; Residential Outdoor: 81,000; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 4,560 (Architectural Coating – sqft)**

**OffRoad Equipment**

| Phase Name | Offroad Equipment Type | Amount | Usage Hours | Horse Power | Load Factor |
|---|---|---|---|---|---|
| Architectural Coating | Air Compressors | 1 | 6.00 | 78 | 0.48 |
| Paving | Cement and Mortar Mixers | 2 | 6.00 | 9 | 0.56 |
| Demolition | Concrete/Industrial Saws | 1 | 8.00 | 81 | 0.73 |
| Building Construction | Cranes | 1 | 7.00 | 231 | 0.29 |
| Demolition | Excavators | 3 | 8.00 | 158 | 0.38 |

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

| | | | | | |
|---|---|---|---|---|---|
| Grading | Excavators | 1 | 8.00 | 158 | 0.38 |
| Building Construction | Forklifts | 3 | 8.00 | 89 | 0.20 |
| Building Construction | Generator Sets | 1 | 8.00 | 84 | 0.74 |
| Grading | Graders | 1 | 8.00 | 187 | 0.41 |
| Paving | Pavers | 1 | 8.00 | 130 | 0.42 |
| Paving | Paving Equipment | 2 | 6.00 | 132 | 0.36 |
| Paving | Rollers | 2 | 6.00 | 80 | 0.38 |
| Demolition | Rubber Tired Dozers | 2 | 8.00 | 247 | 0.40 |
| Grading | Rubber Tired Dozers | 1 | 8.00 | 247 | 0.40 |
| Site Preparation | Rubber Tired Dozers | 3 | 8.00 | 247 | 0.40 |
| Building Construction | Tractors/Loaders/Backhoes | 3 | 7.00 | 97 | 0.37 |
| Grading | Tractors/Loaders/Backhoes | 3 | 8.00 | 97 | 0.37 |
| Paving | Tractors/Loaders/Backhoes | 1 | 8.00 | 97 | 0.37 |
| Site Preparation | Tractors/Loaders/Backhoes | 4 | 8.00 | 97 | 0.37 |
| Building Construction | Welders | 1 | 8.00 | 46 | 0.45 |

## Trips and VMT

| Phase Name | Offroad Equipment Count | Worker Trip Number | Vendor Trip Number | Hauling Trip Number | Worker Trip Length | Vendor Trip Length | Hauling Trip Length | Worker Vehicle Class | Vendor Vehicle Class | Hauling Vehicle Class |
|---|---|---|---|---|---|---|---|---|---|---|
| Architectural Coating | 1 | 24.00 | 0.00 | 0.00 | 10.00 | 6.50 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Building Construction | 9 | 118.00 | 25.00 | 0.00 | 10.00 | 6.50 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Demolition | 6 | 15.00 | 0.00 | 0.00 | 10.00 | 6.50 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Grading | 6 | 15.00 | 0.00 | 0.00 | 10.00 | 6.50 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Paving | 8 | 20.00 | 0.00 | 0.00 | 10.00 | 6.50 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Site Preparation | 7 | 18.00 | 0.00 | 0.00 | 10.00 | 6.50 | 20.00 | LD_Mix | HDT_Mix | HHDT |

## 3.1 Mitigation Measures Construction

Westlake Affordable Housing - Sacramento Metropolitan AQMD Air District, Winter

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

## 3.2 Demolition - 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 | 2.2691 | 21.4844 | 19.6434 | 0.0388 | | 0.9975 | 0.9975 | | 0.9280 | 0.9280 | | 3,746.9840 | 3,746.9840 | 1.0494 | | 3,773.2183 |
| **Total** | **2.2691** | **21.4844** | **19.6434** | **0.0388** | | **0.9975** | **0.9975** | | **0.9280** | **0.9280** | | **3,746.9840** | **3,746.9840** | **1.0494** | | **3,773.2183** |

### 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 | 0.0448 | 0.0298 | 0.3560 | 9.3000e-004 | 0.1141 | 5.9000e-004 | 0.1147 | 0.0303 | 5.4000e-004 | 0.0308 | | 94.9617 | 94.9617 | 3.3700e-003 | 3.0100e-003 | 95.9421 |
| **Total** | **0.0448** | **0.0298** | **0.3560** | **9.3000e-004** | **0.1141** | **5.9000e-004** | **0.1147** | **0.0303** | **5.4000e-004** | **0.0308** | | **94.9617** | **94.9617** | **3.3700e-003** | **3.0100e-003** | **95.9421** |

Westlake Affordable Housing - Sacramento Metropolitan AQMD Air District, Winter

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

## 3.2 Demolition - 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 | 2.2691 | 21.4844 | 19.6434 | 0.0388 | | 0.9975 | 0.9975 | | 0.9280 | 0.9280 | 0.0000 | 3,746.9840 | 3,746.9840 | 1.0494 | | 3,773.2183 |
| **Total** | **2.2691** | **21.4844** | **19.6434** | **0.0388** | | **0.9975** | **0.9975** | | **0.9280** | **0.9280** | **0.0000** | **3,746.9840** | **3,746.9840** | **1.0494** | | **3,773.2183** |

### 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 | 0.0448 | 0.0298 | 0.3560 | 9.3000e-004 | 0.1141 | 5.9000e-004 | 0.1147 | 0.0303 | 5.4000e-004 | 0.0308 | | 94.9617 | 94.9617 | 3.3700e-003 | 3.0100e-003 | 95.9421 |
| **Total** | **0.0448** | **0.0298** | **0.3560** | **9.3000e-004** | **0.1141** | **5.9000e-004** | **0.1147** | **0.0303** | **5.4000e-004** | **0.0308** | | **94.9617** | **94.9617** | **3.3700e-003** | **3.0100e-003** | **95.9421** |

Westlake Affordable Housing - Sacramento Metropolitan AQMD Air District, Winter

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

## 3.3 Site Preparation - 2023

### Unmitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Fugitive Dust | | | | | 19.6570 | 0.0000 | 19.6570 | 10.1025 | 0.0000 | 10.1025 | | | 0.0000 | | | 0.0000 |
| Off-Road | 2.6595 | 27.5242 | 18.2443 | 0.0381 | | 1.2660 | 1.2660 | | 1.1647 | 1.1647 | | 3,687.3081 | 3,687.3081 | 1.1926 | | 3,717.1219 |
| **Total** | **2.6595** | **27.5242** | **18.2443** | **0.0381** | **19.6570** | **1.2660** | **20.9230** | **10.1025** | **1.1647** | **11.2672** | | **3,687.3081** | **3,687.3081** | **1.1926** | | **3,717.1219** |

### Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 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 | 0.0537 | 0.0358 | 0.4272 | 1.1100e-003 | 0.1369 | 7.1000e-004 | 0.1376 | 0.0363 | 6.5000e-004 | 0.0370 | | 113.9541 | 113.9541 | 4.0500e-003 | 3.6100e-003 | 115.1305 |
| **Total** | **0.0537** | **0.0358** | **0.4272** | **1.1100e-003** | **0.1369** | **7.1000e-004** | **0.1376** | **0.0363** | **6.5000e-004** | **0.0370** | | **113.9541** | **113.9541** | **4.0500e-003** | **3.6100e-003** | **115.1305** |

Westlake Affordable Housing - Sacramento Metropolitan AQMD Air District, Winter

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

## 3.3 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 | 3,687.3081 | 3,687.3081 | 1.1926 | | 3,717.1219 |
| **Total** | **2.6595** | **27.5242** | **18.2443** | **0.0381** | **19.6570** | **1.2660** | **20.9230** | **10.1025** | **1.1647** | **11.2672** | **0.0000** | **3,687.3081** | **3,687.3081** | **1.1926** | | **3,717.1219** |

### Mitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 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 | 0.0537 | 0.0358 | 0.4272 | 1.1100e-003 | 0.1369 | 7.1000e-004 | 0.1376 | 0.0363 | 6.5000e-004 | 0.0370 | | 113.9541 | 113.9541 | 4.0500e-003 | 3.6100e-003 | 115.1305 |
| **Total** | **0.0537** | **0.0358** | **0.4272** | **1.1100e-003** | **0.1369** | **7.1000e-004** | **0.1376** | **0.0363** | **6.5000e-004** | **0.0370** | | **113.9541** | **113.9541** | **4.0500e-003** | **3.6100e-003** | **115.1305** |

Westlake Affordable Housing - Sacramento Metropolitan AQMD Air District, Winter

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

## 3.4 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 |
| **Total** | **1.7109** | **17.9359** | **14.7507** | **0.0297** | **7.0826** | **0.7749** | **7.8575** | **3.4247** | **0.7129** | **4.1377** | | **2,872.6910** | **2,872.6910** | **0.9291** | | **2,895.9182** |

### Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 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 | 0.0448 | 0.0298 | 0.3560 | 9.3000e-004 | 0.1141 | 5.9000e-004 | 0.1147 | 0.0303 | 5.4000e-004 | 0.0308 | | 94.9617 | 94.9617 | 3.3700e-003 | 3.0100e-003 | 95.9421 |
| **Total** | **0.0448** | **0.0298** | **0.3560** | **9.3000e-004** | **0.1141** | **5.9000e-004** | **0.1147** | **0.0303** | **5.4000e-004** | **0.0308** | | **94.9617** | **94.9617** | **3.3700e-003** | **3.0100e-003** | **95.9421** |

Westlake Affordable Housing - Sacramento Metropolitan AQMD Air District, Winter

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

## 3.4 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 |
| **Total** | **1.7109** | **17.9359** | **14.7507** | **0.0297** | **7.0826** | **0.7749** | **7.8575** | **3.4247** | **0.7129** | **4.1377** | **0.0000** | **2,872.6910** | **2,872.6910** | **0.9291** | | **2,895.9182** |

### Mitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 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 | 0.0448 | 0.0298 | 0.3560 | 9.3000e-004 | 0.1141 | 5.9000e-004 | 0.1147 | 0.0303 | 5.4000e-004 | 0.0308 | | 94.9617 | 94.9617 | 3.3700e-003 | 3.0100e-003 | 95.9421 |
| **Total** | **0.0448** | **0.0298** | **0.3560** | **9.3000e-004** | **0.1141** | **5.9000e-004** | **0.1147** | **0.0303** | **5.4000e-004** | **0.0308** | | **94.9617** | **94.9617** | **3.3700e-003** | **3.0100e-003** | **95.9421** |

Westlake Affordable Housing - Sacramento Metropolitan 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 |
| **Total** | **1.5728** | **14.3849** | **16.2440** | **0.0269** | | **0.6997** | **0.6997** | | **0.6584** | **0.6584** | | **2,555.2099** | **2,555.2099** | **0.6079** | | **2,570.4061** |

### Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 0.0323 | 1.2442 | 0.3768 | 4.7700e-003 | 0.1506 | 6.5400e-003 | 0.1572 | 0.0434 | 6.2500e-003 | 0.0496 | | 511.3267 | 511.3267 | 0.0126 | 0.0751 | 534.0146 |
| Worker | 0.3522 | 0.2344 | 2.8008 | 7.3000e-003 | 0.8976 | 4.6300e-003 | 0.9023 | 0.2381 | 4.2600e-003 | 0.2424 | | 747.0322 | 747.0322 | 0.0265 | 0.0237 | 754.7446 |
| **Total** | **0.3845** | **1.4786** | **3.1776** | **0.0121** | **1.0483** | **0.0112** | **1.0594** | **0.2815** | **0.0105** | **0.2920** | | **1,258.3590** | **1,258.3590** | **0.0391** | **0.0987** | **1,288.7592** |

Westlake Affordable Housing - Sacramento Metropolitan 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 |
| **Total** | **1.5728** | **14.3849** | **16.2440** | **0.0269** | | **0.6997** | **0.6997** | | **0.6584** | **0.6584** | **0.0000** | **2,555.2099** | **2,555.2099** | **0.6079** | | **2,570.4061** |

### Mitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 0.0323 | 1.2442 | 0.3768 | 4.7700e-003 | 0.1506 | 6.5400e-003 | 0.1572 | 0.0434 | 6.2500e-003 | 0.0496 | | 511.3267 | 511.3267 | 0.0126 | 0.0751 | 534.0146 |
| Worker | 0.3522 | 0.2344 | 2.8008 | 7.3000e-003 | 0.8976 | 4.6300e-003 | 0.9023 | 0.2381 | 4.2600e-003 | 0.2424 | | 747.0322 | 747.0322 | 0.0265 | 0.0237 | 754.7446 |
| **Total** | **0.3845** | **1.4786** | **3.1776** | **0.0121** | **1.0483** | **0.0112** | **1.0594** | **0.2815** | **0.0105** | **0.2920** | | **1,258.3590** | **1,258.3590** | **0.0391** | **0.0987** | **1,288.7592** |

Westlake Affordable Housing - Sacramento Metropolitan 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 |
| **Total** | **1.4716** | **13.4438** | **16.1668** | **0.0270** | | **0.6133** | **0.6133** | | **0.5769** | **0.5769** | | **2,555.6989** | **2,555.6989** | **0.6044** | | **2,570.8077** |

### Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 0.0309 | 1.2198 | 0.3652 | 4.6700e-003 | 0.1506 | 6.4400e-003 | 0.1570 | 0.0434 | 6.1600e-003 | 0.0495 | | 501.6522 | 501.6522 | 0.0122 | 0.0738 | 523.9552 |
| Worker | 0.3296 | 0.2087 | 2.6123 | 7.0600e-003 | 0.8976 | 4.4100e-003 | 0.9020 | 0.2381 | 4.0600e-003 | 0.2422 | | 728.4342 | 728.4342 | 0.0241 | 0.0220 | 735.5902 |
| **Total** | **0.3605** | **1.4285** | **2.9775** | **0.0117** | **1.0482** | **0.0109** | **1.0591** | **0.2815** | **0.0102** | **0.2917** | | **1,230.0865** | **1,230.0865** | **0.0363** | **0.0958** | **1,259.5453** |

Westlake Affordable Housing - Sacramento Metropolitan 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 |
| **Total** | **1.4716** | **13.4438** | **16.1668** | **0.0270** | | **0.6133** | **0.6133** | | **0.5769** | **0.5769** | **0.0000** | **2,555.6989** | **2,555.6989** | **0.6044** | | **2,570.8077** |

### Mitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 0.0309 | 1.2198 | 0.3652 | 4.6700e-003 | 0.1506 | 6.4400e-003 | 0.1570 | 0.0434 | 6.1600e-003 | 0.0495 | | 501.6522 | 501.6522 | 0.0122 | 0.0738 | 523.9552 |
| Worker | 0.3296 | 0.2087 | 2.6123 | 7.0600e-003 | 0.8976 | 4.4100e-003 | 0.9020 | 0.2381 | 4.0600e-003 | 0.2422 | | 728.4342 | 728.4342 | 0.0241 | 0.0220 | 735.5902 |
| **Total** | **0.3605** | **1.4285** | **2.9775** | **0.0117** | **1.0482** | **0.0109** | **1.0591** | **0.2815** | **0.0102** | **0.2917** | | **1,230.0865** | **1,230.0865** | **0.0363** | **0.0958** | **1,259.5453** |

Westlake Affordable Housing - Sacramento Metropolitan AQMD Air District, Winter

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

## 3.6 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 | 0.9181 | 8.7903 | 12.1905 | 0.0189 | | 0.4357 | 0.4357 | | 0.4025 | 0.4025 | | 1,805.4304 | 1,805.4304 | 0.5673 | | 1,819.6122 |
| Paving | 1.0349 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| **Total** | **1.9530** | **8.7903** | **12.1905** | **0.0189** | | **0.4357** | **0.4357** | | **0.4025** | **0.4025** | | **1,805.4304** | **1,805.4304** | **0.5673** | | **1,819.6122** |

### 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 | 0.0597 | 0.0397 | 0.4747 | 1.2400e-003 | 0.1521 | 7.8000e-004 | 0.1529 | 0.0404 | 7.2000e-004 | 0.0411 | | 126.6156 | 126.6156 | 4.5000e-003 | 4.0100e-003 | 127.9228 |
| **Total** | **0.0597** | **0.0397** | **0.4747** | **1.2400e-003** | **0.1521** | **7.8000e-004** | **0.1529** | **0.0404** | **7.2000e-004** | **0.0411** | | **126.6156** | **126.6156** | **4.5000e-003** | **4.0100e-003** | **127.9228** |

Westlake Affordable Housing - Sacramento Metropolitan AQMD Air District, Winter

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

## 3.6 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 | 0.9181 | 8.7903 | 12.1905 | 0.0189 | | 0.4357 | 0.4357 | | 0.4025 | 0.4025 | 0.0000 | 1,805.4304 | 1,805.4304 | 0.5673 | | 1,819.6122 |
| Paving | 1.0349 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| **Total** | **1.9530** | **8.7903** | **12.1905** | **0.0189** | | **0.4357** | **0.4357** | | **0.4025** | **0.4025** | **0.0000** | **1,805.4304** | **1,805.4304** | **0.5673** | | **1,819.6122** |

### 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 | 0.0597 | 0.0397 | 0.4747 | 1.2400e-003 | 0.1521 | 7.8000e-004 | 0.1529 | 0.0404 | 7.2000e-004 | 0.0411 | | 126.6156 | 126.6156 | 4.5000e-003 | 4.0100e-003 | 127.9228 |
| **Total** | **0.0597** | **0.0397** | **0.4747** | **1.2400e-003** | **0.1521** | **7.8000e-004** | **0.1529** | **0.0404** | **7.2000e-004** | **0.0411** | | **126.6156** | **126.6156** | **4.5000e-003** | **4.0100e-003** | **127.9228** |

Westlake Affordable Housing - Sacramento Metropolitan AQMD Air District, Winter

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

## 3.7 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 | 6.9222 | | | | | 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 |
| **Total** | **7.1138** | **1.3030** | **1.8111** | **2.9700e-003** | | **0.0708** | **0.0708** | | **0.0708** | **0.0708** | | **281.4481** | **281.4481** | **0.0168** | | **281.8690** |

### 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 | 0.0716 | 0.0477 | 0.5697 | 1.4800e-003 | 0.1826 | 9.4000e-004 | 0.1835 | 0.0484 | 8.7000e-004 | 0.0493 | | 151.9388 | 151.9388 | 5.4000e-003 | 4.8100e-003 | 153.5074 |
| **Total** | **0.0716** | **0.0477** | **0.5697** | **1.4800e-003** | **0.1826** | **9.4000e-004** | **0.1835** | **0.0484** | **8.7000e-004** | **0.0493** | | **151.9388** | **151.9388** | **5.4000e-003** | **4.8100e-003** | **153.5074** |

Westlake Affordable Housing - Sacramento Metropolitan AQMD Air District, Winter

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

## 3.7 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 | 6.9222 | | | | | 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 |
| **Total** | **7.1138** | **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** |

**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 | 0.0716 | 0.0477 | 0.5697 | 1.4800e-003 | 0.1826 | 9.4000e-004 | 0.1835 | 0.0484 | 8.7000e-004 | 0.0493 | | 151.9388 | 151.9388 | 5.4000e-003 | 4.8100e-003 | 153.5074 |
| **Total** | **0.0716** | **0.0477** | **0.5697** | **1.4800e-003** | **0.1826** | **9.4000e-004** | **0.1835** | **0.0484** | **8.7000e-004** | **0.0493** | | **151.9388** | **151.9388** | **5.4000e-003** | **4.8100e-003** | **153.5074** |

Westlake Affordable Housing - Sacramento Metropolitan AQMD Air District, Winter

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

## 3.7 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 | 6.9222 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Off-Road | 0.1808 | 1.2188 | 1.8101 | 2.9700e-003 | | 0.0609 | 0.0609 | | 0.0609 | 0.0609 | | 281.4481 | 281.4481 | 0.0159 | | 281.8443 |
| **Total** | **7.1029** | **1.2188** | **1.8101** | **2.9700e-003** | | **0.0609** | **0.0609** | | **0.0609** | **0.0609** | | **281.4481** | **281.4481** | **0.0159** | | **281.8443** |

### Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 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 | 0.0670 | 0.0425 | 0.5313 | 1.4400e-003 | 0.1826 | 9.0000e-004 | 0.1835 | 0.0484 | 8.3000e-004 | 0.0493 | | 148.1561 | 148.1561 | 4.9000e-003 | 4.4700e-003 | 149.6116 |
| **Total** | **0.0670** | **0.0425** | **0.5313** | **1.4400e-003** | **0.1826** | **9.0000e-004** | **0.1835** | **0.0484** | **8.3000e-004** | **0.0493** | | **148.1561** | **148.1561** | **4.9000e-003** | **4.4700e-003** | **149.6116** |

Westlake Affordable Housing - Sacramento Metropolitan AQMD Air District, Winter

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

## 3.7 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 | 6.9222 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Off-Road | 0.1808 | 1.2188 | 1.8101 | 2.9700e-003 | | 0.0609 | 0.0609 | | 0.0609 | 0.0609 | 0.0000 | 281.4481 | 281.4481 | 0.0159 | | 281.8443 |
| **Total** | **7.1029** | **1.2188** | **1.8101** | **2.9700e-003** | | **0.0609** | **0.0609** | | **0.0609** | **0.0609** | **0.0000** | **281.4481** | **281.4481** | **0.0159** | | **281.8443** |

**Mitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 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 | 0.0670 | 0.0425 | 0.5313 | 1.4400e-003 | 0.1826 | 9.0000e-004 | 0.1835 | 0.0484 | 8.3000e-004 | 0.0493 | | 148.1561 | 148.1561 | 4.9000e-003 | 4.4700e-003 | 149.6116 |
| **Total** | **0.0670** | **0.0425** | **0.5313** | **1.4400e-003** | **0.1826** | **9.0000e-004** | **0.1835** | **0.0484** | **8.3000e-004** | **0.0493** | | **148.1561** | **148.1561** | **4.9000e-003** | **4.4700e-003** | **149.6116** |

**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 | 1.5961 | 2.2036 | 15.6208 | 0.0288 | 3.1156 | 0.0237 | 3.1393 | 0.8307 | 0.0222 | 0.8528 | | 2,989.1338 | 2,989.1338 | 0.2353 | 0.1628 | 3,043.5364 |
| Unmitigated | 1.6887 | 2.4248 | 17.0944 | 0.0326 | 3.5325 | 0.0265 | 3.5590 | 0.9418 | 0.0248 | 0.9666 | | 3,375.0785 | 3,375.0785 | 0.2532 | 0.1788 | 3,434.6814 |

## 4.2 Trip Summary Information

| | Average Daily Trip Rate | | | Unmitigated | Mitigated |
|---|---|---|---|---|---|
| Land Use | Weekday | Saturday | Sunday | Annual VMT | Annual VMT |
| Apartments Mid Rise | 652.80 | 589.20 | 490.80 | 1,592,454 | 1,404,544 |
| Parking Lot | 0.00 | 0.00 | 0.00 | | |
| Total | 652.80 | 589.20 | 490.80 | 1,592,454 | 1,404,544 |

## 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 | 10.00 | 5.00 | 6.50 | 46.50 | 12.50 | 41.00 | 86 | 11 | 3 |
| Parking Lot | 10.00 | 5.00 | 6.50 | 0.00 | 0.00 | 0.00 | 0 | 0 | 0 |

**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 | 0.542485 | 0.056811 | 0.183752 | 0.130945 | 0.025591 | 0.005989 | 0.013266 | 0.009393 | 0.000917 | 0.000565 | 0.025954 | 0.000983 | 0.003351 |
| Parking Lot | 0.542485 | 0.056811 | 0.183752 | 0.130945 | 0.025591 | 0.005989 | 0.013266 | 0.009393 | 0.000917 | 0.000565 | 0.025954 | 0.000983 | 0.003351 |

## 5.0 Energy Detail

Historical Energy Use: N

### 5.1 Mitigation Measures Energy

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| NaturalGas Mitigated | 0.0334 | 0.2853 | 0.1214 | 1.8200e-003 | | 0.0231 | 0.0231 | | 0.0231 | 0.0231 | | 364.2055 | 364.2055 | 6.9800e-003 | 6.6800e-003 | 366.3698 |
| NaturalGas Unmitigated | 0.0334 | 0.2853 | 0.1214 | 1.8200e-003 | | 0.0231 | 0.0231 | | 0.0231 | 0.0231 | | 364.2055 | 364.2055 | 6.9800e-003 | 6.6800e-003 | 366.3698 |

**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 | 3095.75 | 0.0334 | 0.2853 | 0.1214 | 1.8200e-003 | | 0.0231 | 0.0231 | | 0.0231 | 0.0231 | | 364.2055 | 364.2055 | 6.9800e-003 | 6.6800e-003 | 366.3698 |
| Parking Lot | 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Total** | | **0.0334** | **0.2853** | **0.1214** | **1.8200e-003** | | **0.0231** | **0.0231** | | **0.0231** | **0.0231** | | **364.2055** | **364.2055** | **6.9800e-003** | **6.6800e-003** | **366.3698** |

**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 | 3.09575 | 0.0334 | 0.2853 | 0.1214 | 1.8200e-003 | | 0.0231 | 0.0231 | | 0.0231 | 0.0231 | | 364.2055 | 364.2055 | 6.9800e-003 | 6.6800e-003 | 366.3698 |
| Parking Lot | 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Total** | | **0.0334** | **0.2853** | **0.1214** | **1.8200e-003** | | **0.0231** | **0.0231** | | **0.0231** | **0.0231** | | **364.2055** | **364.2055** | **6.9800e-003** | **6.6800e-003** | **366.3698** |

## 6.0 Area Detail

Westlake Affordable Housing - Sacramento Metropolitan 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

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Mitigated | 3.3115 | 0.1142 | 9.9154 | 5.2000e-004 | | 0.0549 | 0.0549 | | 0.0549 | 0.0549 | 0.0000 | 17.8679 | 17.8679 | 0.0172 | 0.0000 | 18.2982 |
| Unmitigated | 3.3115 | 0.1142 | 9.9154 | 5.2000e-004 | | 0.0549 | 0.0549 | | 0.0549 | 0.0549 | 0.0000 | 17.8679 | 17.8679 | 0.0172 | 0.0000 | 18.2982 |

Westlake Affordable Housing - Sacramento Metropolitan 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 | 0.4172 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Consumer Products | 2.5949 | | | | | 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 | 0.2993 | 0.1142 | 9.9154 | 5.2000e-004 | | 0.0549 | 0.0549 | | 0.0549 | 0.0549 | | 17.8679 | 17.8679 | 0.0172 | | 18.2982 |
| **Total** | **3.3115** | **0.1142** | **9.9154** | **5.2000e-004** | | **0.0549** | **0.0549** | | **0.0549** | **0.0549** | **0.0000** | **17.8679** | **17.8679** | **0.0172** | **0.0000** | **18.2982** |

**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 | 0.4172 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Consumer Products | 2.5949 | | | | | 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 | 0.2993 | 0.1142 | 9.9154 | 5.2000e-004 | | 0.0549 | 0.0549 | | 0.0549 | 0.0549 | | 17.8679 | 17.8679 | 0.0172 | | 18.2982 |
| **Total** | **3.3115** | **0.1142** | **9.9154** | **5.2000e-004** | | **0.0549** | **0.0549** | | **0.0549** | **0.0549** | **0.0000** | **17.8679** | **17.8679** | **0.0172** | **0.0000** | **18.2982** |

# 7.0 Water Detail

## 7.1 Mitigation Measures Water

Westlake Affordable Housing - Sacramento Metropolitan 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

### 8.1 Mitigation Measures Waste

## 9.0 Operational Offroad

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

## 10.0 Stationary Equipment

**Fire Pumps and Emergency Generators**

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

**Boilers**

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

**User Defined Equipment**

| Equipment Type | Number |
|---|---|

## 11.0 Vegetation

Westlake Affordable Housing - Sacramento Metropolitan AQMD Air District, Annual

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

# Westlake Affordable Housing

**Sacramento Metropolitan AQMD Air District, Annual**

## 1.0 Project Characteristics

### 1.1 Land Usage

| Land Uses | Size | Metric | Lot Acreage | Floor Surface Area | Population |
|---|---|---|---|---|---|
| Parking Lot | 190.00 | Space | 1.58 | 76,000.00 | 0 |
| Apartments Mid Rise | 120.00 | Dwelling Unit | 2.77 | 120,000.00 | 320 |

### 1.2 Other Project Characteristics

| | | | | | |
|---|---|---|---|---|---|
| **Urbanization** | Urban | **Wind Speed (m/s)** | 3.5 | **Precipitation Freq (Days)** | 58 |
| **Climate Zone** | 6 | | | **Operational Year** | 2024 |
| **Utility Company** | Sacramento Municipal Utility District | | | | |
| **CO2 Intensity (lb/MWhr)** | 357.98 | **CH4 Intensity (lb/MWhr)** | 0.033 | **N2O Intensity (lb/MWhr)** | 0.004 |

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

Project Characteristics -

Land Use - Lot acreages updated to match site plan.

Construction Phase - Phase timing adjusted per AQ Questionnaire.

Grading -

Mobile Land Use Mitigation - Applied "increase transit accessiblity", and "improve pedestrian network"

| Table Name | Column Name | Default Value | New Value |
|---|---|---|---|
| tblConstructionPhase | NumDays | 20.00 | 5.00 |
| tblConstructionPhase | NumDays | 5.00 | 60.00 |
| tblConstructionPhase | NumDays | 8.00 | 10.00 |
| tblConstructionPhase | NumDays | 230.00 | 220.00 |

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

| | | | |
|---|---|---|---|
| tblConstructionPhase | NumDays | 18.00 | 4.00 |
| tblConstructionPhase | NumDays | 18.00 | 220.00 |
| tblConstructionPhase | PhaseEndDate | 6/28/2023 | 6/7/2023 |
| tblConstructionPhase | PhaseEndDate | 7/5/2023 | 8/30/2023 |
| tblConstructionPhase | PhaseEndDate | 7/17/2023 | 9/14/2023 |
| tblConstructionPhase | PhaseEndDate | 6/3/2024 | 7/24/2024 |
| tblConstructionPhase | PhaseEndDate | 6/27/2024 | 9/20/2023 |
| tblConstructionPhase | PhaseEndDate | 7/23/2024 | 8/7/2024 |
| tblConstructionPhase | PhaseStartDate | 6/29/2023 | 6/8/2023 |
| tblConstructionPhase | PhaseStartDate | 7/6/2023 | 9/1/2023 |
| tblConstructionPhase | PhaseStartDate | 7/18/2023 | 9/21/2023 |
| tblConstructionPhase | PhaseStartDate | 6/4/2024 | 9/15/2023 |
| tblConstructionPhase | PhaseStartDate | 6/28/2024 | 9/29/2023 |
| tblLandUse | LotAcreage | 1.71 | 1.58 |
| tblLandUse | LotAcreage | 3.16 | 2.77 |

## 2.0 Emissions Summary

Westlake Affordable Housing - Sacramento Metropolitan 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 | 0.4069 | 1.6016 | 1.4860 | 3.0300e-003 | 0.6725 | 0.0732 | 0.7457 | 0.3329 | 0.0681 | 0.4010 | 0.0000 | 267.4986 | 267.4986 | 0.0619 | 3.4100e-003 | 270.0641 |
| 2024 | 0.7008 | 1.1963 | 1.5963 | 3.2300e-003 | 0.0889 | 0.0511 | 0.1400 | 0.0239 | 0.0483 | 0.0722 | 0.0000 | 286.4543 | 286.4543 | 0.0443 | 6.6100e-003 | 289.5334 |
| **Maximum** | **0.7008** | **1.6016** | **1.5963** | **3.2300e-003** | **0.6725** | **0.0732** | **0.7457** | **0.3329** | **0.0681** | **0.4010** | **0.0000** | **286.4543** | **286.4543** | **0.0619** | **6.6100e-003** | **289.5334** |

### 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 | 0.4069 | 1.6016 | 1.4860 | 3.0300e-003 | 0.6725 | 0.0732 | 0.7457 | 0.3329 | 0.0681 | 0.4010 | 0.0000 | 267.4984 | 267.4984 | 0.0619 | 3.4100e-003 | 270.0638 |
| 2024 | 0.7008 | 1.1963 | 1.5963 | 3.2300e-003 | 0.0889 | 0.0511 | 0.1400 | 0.0239 | 0.0483 | 0.0722 | 0.0000 | 286.4541 | 286.4541 | 0.0443 | 6.6100e-003 | 289.5332 |
| **Maximum** | **0.7008** | **1.6016** | **1.5963** | **3.2300e-003** | **0.6725** | **0.0732** | **0.7457** | **0.3329** | **0.0681** | **0.4010** | **0.0000** | **286.4541** | **286.4541** | **0.0619** | **6.6100e-003** | **289.5332** |

Westlake Affordable Housing - Sacramento Metropolitan 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 | N20 | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Percent Reduction** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** |

| Quarter | Start Date | End Date | Maximum Unmitigated ROG + NOX (tons/quarter) | Maximum Mitigated ROG + NOX (tons/quarter) |
|---|---|---|---|---|
| **1** | **6-1-2023** | **8-31-2023** | 0.9678 | 0.9678 |
| **2** | **9-1-2023** | **11-30-2023** | 0.7655 | 0.7655 |
| **3** | **12-1-2023** | **2-29-2024** | 0.8304 | 0.8304 |
| **4** | **3-1-2024** | **5-31-2024** | 0.8241 | 0.8241 |
| **5** | **6-1-2024** | **8-31-2024** | 0.5254 | 0.5254 |
| | | **Highest** | 0.9678 | 0.9678 |

## 2.2 Overall Operational

### Unmitigated Operational

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Area | 0.5871 | 0.0143 | 1.2394 | 7.0000e-005 | | 6.8600e-003 | 6.8600e-003 | | 6.8600e-003 | 6.8600e-003 | 0.0000 | 2.0262 | 2.0262 | 1.9500e-003 | 0.0000 | 2.0750 |
| Energy | 6.0900e-003 | 0.0521 | 0.0222 | 3.3000e-004 | | 4.2100e-003 | 4.2100e-003 | | 4.2100e-003 | 4.2100e-003 | 0.0000 | 140.4876 | 140.4876 | 8.5500e-003 | 2.0000e-003 | 141.2977 |
| Mobile | 0.3025 | 0.3936 | 2.7731 | 5.7300e-003 | 0.5903 | 4.5800e-003 | 0.5948 | 0.1578 | 4.2800e-003 | 0.1621 | 0.0000 | 539.2403 | 539.2403 | 0.0369 | 0.0268 | 548.1364 |
| Waste | | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 11.2051 | 0.0000 | 11.2051 | 0.6622 | 0.0000 | 27.7602 |
| Water | | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 2.7662 | 9.1269 | 11.8931 | 0.0104 | 6.1200e-003 | 13.9752 |
| **Total** | **0.8957** | **0.4599** | **4.0347** | **6.1300e-003** | **0.5903** | **0.0157** | **0.6059** | **0.1578** | **0.0154** | **0.1732** | **13.9713** | **690.8809** | **704.8522** | **0.7200** | **0.0349** | **733.2445** |

**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 | 0.5871 | 0.0143 | 1.2394 | 7.0000e-005 | | 6.8600e-003 | 6.8600e-003 | | 6.8600e-003 | 6.8600e-003 | 0.0000 | 2.0262 | 2.0262 | 1.9500e-003 | 0.0000 | 2.0750 |
| Energy | 6.0900e-003 | 0.0521 | 0.0222 | 3.3000e-004 | | 4.2100e-003 | 4.2100e-003 | | 4.2100e-003 | 4.2100e-003 | 0.0000 | 140.4876 | 140.4876 | 8.5500e-003 | 2.0000e-003 | 141.2977 |
| Mobile | 0.2871 | 0.3575 | 2.5217 | 5.0800e-003 | 0.5206 | 4.0900e-003 | 0.5247 | 0.1392 | 3.8200e-003 | 0.1430 | 0.0000 | 477.5070 | 477.5070 | 0.0342 | 0.0244 | 485.6161 |
| Waste | | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 11.2051 | 0.0000 | 11.2051 | 0.6622 | 0.0000 | 27.7602 |
| Water | | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 2.7662 | 9.1269 | 11.8931 | 0.0104 | 6.1200e-003 | 13.9752 |
| **Total** | **0.8803** | **0.4239** | **3.7833** | **5.4800e-003** | **0.5206** | **0.0152** | **0.5358** | **0.1392** | **0.0149** | **0.1541** | **13.9713** | **629.1477** | **643.1190** | **0.7172** | **0.0325** | **670.7241** |

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N20 | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Percent Reduction** | **1.72** | **7.84** | **6.23** | **10.60** | **11.80** | **3.13** | **11.57** | **11.80** | **3.00** | **11.02** | **0.00** | **8.94** | **8.76** | **0.38** | **6.91** | **8.53** |

## 3.0 Construction Detail

**Construction Phase**

| Phase Number | Phase Name | Phase Type | Start Date | End Date | Num Days Week | Num Days | Phase Description |
|---|---|---|---|---|---|---|---|
| 1 | Demolition | Demolition | 6/1/2023 | 6/7/2023 | 5 | 5 | |
| 2 | Site Preparation | Site Preparation | 6/8/2023 | 8/30/2023 | 5 | 60 | |
| 3 | Grading | Grading | 9/1/2023 | 9/14/2023 | 5 | 10 | |

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

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 4 | Building Construction | Building Construction | 9/21/2023 | 7/24/2024 | 5 | 220 | |
| 5 | Paving | Paving | 9/15/2023 | 9/20/2023 | 5 | 4 | |
| 6 | Architectural Coating | Architectural Coating | 9/29/2023 | 8/7/2024 | 5 | 220 | |

**Acres of Grading (Site Preparation Phase): 90**

**Acres of Grading (Grading Phase): 10**

**Acres of Paving: 1.58**

**Residential Indoor: 243,000; Residential Outdoor: 81,000; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 4,560 (Architectural Coating – sqft)**

**OffRoad Equipment**

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

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

| | | | | | |
|---|---|---|---|---|---|
| Paving | Tractors/Loaders/Backhoes | 1 | 8.00 | 97 | 0.37 |
| Site Preparation | Tractors/Loaders/Backhoes | 4 | 8.00 | 97 | 0.37 |
| Building Construction | Welders | 1 | 8.00 | 46 | 0.45 |

**Trips and VMT**

| Phase Name | Offroad Equipment Count | Worker Trip Number | Vendor Trip Number | Hauling Trip Number | Worker Trip Length | Vendor Trip Length | Hauling Trip Length | Worker Vehicle Class | Vendor Vehicle Class | Hauling Vehicle Class |
|---|---|---|---|---|---|---|---|---|---|---|
| Architectural Coating | 1 | 24.00 | 0.00 | 0.00 | 10.00 | 6.50 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Building Construction | 9 | 118.00 | 25.00 | 0.00 | 10.00 | 6.50 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Demolition | 6 | 15.00 | 0.00 | 0.00 | 10.00 | 6.50 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Grading | 6 | 15.00 | 0.00 | 0.00 | 10.00 | 6.50 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Paving | 8 | 20.00 | 0.00 | 0.00 | 10.00 | 6.50 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Site Preparation | 7 | 18.00 | 0.00 | 0.00 | 10.00 | 6.50 | 20.00 | LD_Mix | HDT_Mix | HHDT |

## 3.1 Mitigation Measures Construction

## 3.2 Demolition - 2023

**Unmitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Off-Road | 5.6700e-003 | 0.0537 | 0.0491 | 1.0000e-004 | | 2.4900e-003 | 2.4900e-003 | | 2.3200e-003 | 2.3200e-003 | 0.0000 | 8.4980 | 8.4980 | 2.3800e-003 | 0.0000 | 8.5575 |
| **Total** | **5.6700e-003** | **0.0537** | **0.0491** | **1.0000e-004** | | **2.4900e-003** | **2.4900e-003** | | **2.3200e-003** | **2.3200e-003** | **0.0000** | **8.4980** | **8.4980** | **2.3800e-003** | **0.0000** | **8.5575** |

Westlake Affordable Housing - Sacramento Metropolitan AQMD Air District, Annual

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

## 3.2 Demolition - 2023

### Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | 1.1000e-004 | 7.0000e-005 | 8.7000e-004 | 0.0000 | 2.8000e-004 | 0.0000 | 2.8000e-004 | 7.0000e-005 | 0.0000 | 7.0000e-005 | 0.0000 | 0.2209 | 0.2209 | 1.0000e-005 | 1.0000e-005 | 0.2230 |
| **Total** | **1.1000e-004** | **7.0000e-005** | **8.7000e-004** | **0.0000** | **2.8000e-004** | **0.0000** | **2.8000e-004** | **7.0000e-005** | **0.0000** | **7.0000e-005** | **0.0000** | **0.2209** | **0.2209** | **1.0000e-005** | **1.0000e-005** | **0.2230** |

### Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Off-Road | 5.6700e-003 | 0.0537 | 0.0491 | 1.0000e-004 | | 2.4900e-003 | 2.4900e-003 | | 2.3200e-003 | 2.3200e-003 | 0.0000 | 8.4980 | 8.4980 | 2.3800e-003 | 0.0000 | 8.5575 |
| **Total** | **5.6700e-003** | **0.0537** | **0.0491** | **1.0000e-004** | | **2.4900e-003** | **2.4900e-003** | | **2.3200e-003** | **2.3200e-003** | **0.0000** | **8.4980** | **8.4980** | **2.3800e-003** | **0.0000** | **8.5575** |

Westlake Affordable Housing - Sacramento Metropolitan AQMD Air District, Annual

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

## 3.2 Demolition - 2023

**Mitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | 1.1000e-004 | 7.0000e-005 | 8.7000e-004 | 0.0000 | 2.8000e-004 | 0.0000 | 2.8000e-004 | 7.0000e-005 | 0.0000 | 7.0000e-005 | 0.0000 | 0.2209 | 0.2209 | 1.0000e-005 | 1.0000e-005 | 0.2230 |
| **Total** | **1.1000e-004** | **7.0000e-005** | **8.7000e-004** | **0.0000** | **2.8000e-004** | **0.0000** | **2.8000e-004** | **7.0000e-005** | **0.0000** | **7.0000e-005** | **0.0000** | **0.2209** | **0.2209** | **1.0000e-005** | **1.0000e-005** | **0.2230** |

## 3.3 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 | | | | | 0.5897 | 0.0000 | 0.5897 | 0.3031 | 0.0000 | 0.3031 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 0.0798 | 0.8257 | 0.5473 | 1.1400e-003 | | 0.0380 | 0.0380 | | 0.0349 | 0.0349 | 0.0000 | 100.3521 | 100.3521 | 0.0325 | 0.0000 | 101.1635 |
| **Total** | **0.0798** | **0.8257** | **0.5473** | **1.1400e-003** | **0.5897** | **0.0380** | **0.6277** | **0.3031** | **0.0349** | **0.3380** | **0.0000** | **100.3521** | **100.3521** | **0.0325** | **0.0000** | **101.1635** |

Westlake Affordable Housing - Sacramento Metropolitan AQMD Air District, Annual

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

## 3.3 Site Preparation - 2023

### Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 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 | 1.5500e-003 | 9.6000e-004 | 0.0126 | 3.0000e-005 | 3.9700e-003 | 2.0000e-005 | 3.9900e-003 | 1.0500e-003 | 2.0000e-005 | 1.0700e-003 | 0.0000 | 3.1816 | 3.1816 | 1.0000e-004 | 9.0000e-005 | 3.2112 |
| **Total** | **1.5500e-003** | **9.6000e-004** | **0.0126** | **3.0000e-005** | **3.9700e-003** | **2.0000e-005** | **3.9900e-003** | **1.0500e-003** | **2.0000e-005** | **1.0700e-003** | **0.0000** | **3.1816** | **3.1816** | **1.0000e-004** | **9.0000e-005** | **3.2112** |

### 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 | | | | | 0.5897 | 0.0000 | 0.5897 | 0.3031 | 0.0000 | 0.3031 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 0.0798 | 0.8257 | 0.5473 | 1.1400e-003 | | 0.0380 | 0.0380 | | 0.0349 | 0.0349 | 0.0000 | 100.3520 | 100.3520 | 0.0325 | 0.0000 | 101.1634 |
| **Total** | **0.0798** | **0.8257** | **0.5473** | **1.1400e-003** | **0.5897** | **0.0380** | **0.6277** | **0.3031** | **0.0349** | **0.3380** | **0.0000** | **100.3520** | **100.3520** | **0.0325** | **0.0000** | **101.1634** |

Westlake Affordable Housing - Sacramento Metropolitan AQMD Air District, Annual

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

## 3.3 Site Preparation - 2023

**Mitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 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 | 1.5500e-003 | 9.6000e-004 | 0.0126 | 3.0000e-005 | 3.9700e-003 | 2.0000e-005 | 3.9900e-003 | 1.0500e-003 | 2.0000e-005 | 1.0700e-003 | 0.0000 | 3.1816 | 3.1816 | 1.0000e-004 | 9.0000e-005 | 3.2112 |
| **Total** | **1.5500e-003** | **9.6000e-004** | **0.0126** | **3.0000e-005** | **3.9700e-003** | **2.0000e-005** | **3.9900e-003** | **1.0500e-003** | **2.0000e-005** | **1.0700e-003** | **0.0000** | **3.1816** | **3.1816** | **1.0000e-004** | **9.0000e-005** | **3.2112** |

## 3.4 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 | | | | | 0.0354 | 0.0000 | 0.0354 | 0.0171 | 0.0000 | 0.0171 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 8.5500e-003 | 0.0897 | 0.0738 | 1.5000e-004 | | 3.8700e-003 | 3.8700e-003 | | 3.5600e-003 | 3.5600e-003 | 0.0000 | 13.0303 | 13.0303 | 4.2100e-003 | 0.0000 | 13.1357 |
| **Total** | **8.5500e-003** | **0.0897** | **0.0738** | **1.5000e-004** | **0.0354** | **3.8700e-003** | **0.0393** | **0.0171** | **3.5600e-003** | **0.0207** | **0.0000** | **13.0303** | **13.0303** | **4.2100e-003** | **0.0000** | **13.1357** |

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

## 3.4 Grading - 2023

### Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 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 | 2.2000e-004 | 1.3000e-004 | 1.7500e-003 | 0.0000 | 5.5000e-004 | 0.0000 | 5.5000e-004 | 1.5000e-004 | 0.0000 | 1.5000e-004 | 0.0000 | 0.4419 | 0.4419 | 1.0000e-005 | 1.0000e-005 | 0.4460 |
| **Total** | **2.2000e-004** | **1.3000e-004** | **1.7500e-003** | **0.0000** | **5.5000e-004** | **0.0000** | **5.5000e-004** | **1.5000e-004** | **0.0000** | **1.5000e-004** | **0.0000** | **0.4419** | **0.4419** | **1.0000e-005** | **1.0000e-005** | **0.4460** |

### 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 | | | | | 0.0354 | 0.0000 | 0.0354 | 0.0171 | 0.0000 | 0.0171 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 8.5500e-003 | 0.0897 | 0.0738 | 1.5000e-004 | | 3.8700e-003 | 3.8700e-003 | | 3.5600e-003 | 3.5600e-003 | 0.0000 | 13.0303 | 13.0303 | 4.2100e-003 | 0.0000 | 13.1357 |
| **Total** | **8.5500e-003** | **0.0897** | **0.0738** | **1.5000e-004** | **0.0354** | **3.8700e-003** | **0.0393** | **0.0171** | **3.5600e-003** | **0.0207** | **0.0000** | **13.0303** | **13.0303** | **4.2100e-003** | **0.0000** | **13.1357** |

Westlake Affordable Housing - Sacramento Metropolitan AQMD Air District, Annual

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

## 3.4 Grading - 2023

**Mitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 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 | 2.2000e-004 | 1.3000e-004 | 1.7500e-003 | 0.0000 | 5.5000e-004 | 0.0000 | 5.5000e-004 | 1.5000e-004 | 0.0000 | 1.5000e-004 | 0.0000 | 0.4419 | 0.4419 | 1.0000e-005 | 1.0000e-005 | 0.4460 |
| **Total** | **2.2000e-004** | **1.3000e-004** | **1.7500e-003** | **0.0000** | **5.5000e-004** | **0.0000** | **5.5000e-004** | **1.5000e-004** | **0.0000** | **1.5000e-004** | **0.0000** | **0.4419** | **0.4419** | **1.0000e-005** | **1.0000e-005** | **0.4460** |

## 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 | 0.0566 | 0.5179 | 0.5848 | 9.7000e-004 | | 0.0252 | 0.0252 | | 0.0237 | 0.0237 | 0.0000 | 83.4497 | 83.4497 | 0.0199 | 0.0000 | 83.9460 |
| **Total** | **0.0566** | **0.5179** | **0.5848** | **9.7000e-004** | | **0.0252** | **0.0252** | | **0.0237** | **0.0237** | **0.0000** | **83.4497** | **83.4497** | **0.0199** | **0.0000** | **83.9460** |

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**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 Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 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 | 1.1700e-003 | 0.0439 | 0.0132 | 1.7000e-004 | 5.2700e-003 | 2.3000e-004 | 5.5000e-003 | 1.5200e-003 | 2.2000e-004 | 1.7500e-003 | 0.0000 | 16.6922 | 16.6922 | 4.1000e-004 | 2.4500e-003 | 17.4324 |
| Worker | 0.0122 | 7.5400e-003 | 0.0990 | 2.7000e-004 | 0.0312 | 1.7000e-004 | 0.0314 | 8.3000e-003 | 1.5000e-004 | 8.4500e-003 | 0.0000 | 25.0284 | 25.0284 | 7.9000e-004 | 7.2000e-004 | 25.2614 |
| **Total** | **0.0134** | **0.0514** | **0.1123** | **4.4000e-004** | **0.0365** | **4.0000e-004** | **0.0369** | **9.8200e-003** | **3.7000e-004** | **0.0102** | **0.0000** | **41.7207** | **41.7207** | **1.2000e-003** | **3.1700e-003** | **42.6938** |

### 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 | 0.0566 | 0.5179 | 0.5848 | 9.7000e-004 | | 0.0252 | 0.0252 | | 0.0237 | 0.0237 | 0.0000 | 83.4496 | 83.4496 | 0.0199 | 0.0000 | 83.9459 |
| **Total** | **0.0566** | **0.5179** | **0.5848** | **9.7000e-004** | | **0.0252** | **0.0252** | | **0.0237** | **0.0237** | **0.0000** | **83.4496** | **83.4496** | **0.0199** | **0.0000** | **83.9459** |

Westlake Affordable Housing - Sacramento Metropolitan 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 Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 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 | 1.1700e-003 | 0.0439 | 0.0132 | 1.7000e-004 | 5.2700e-003 | 2.3000e-004 | 5.5000e-003 | 1.5200e-003 | 2.2000e-004 | 1.7500e-003 | 0.0000 | 16.6922 | 16.6922 | 4.1000e-004 | 2.4500e-003 | 17.4324 |
| Worker | 0.0122 | 7.5400e-003 | 0.0990 | 2.7000e-004 | 0.0312 | 1.7000e-004 | 0.0314 | 8.3000e-003 | 1.5000e-004 | 8.4500e-003 | 0.0000 | 25.0284 | 25.0284 | 7.9000e-004 | 7.2000e-004 | 25.2614 |
| **Total** | **0.0134** | **0.0514** | **0.1123** | **4.4000e-004** | **0.0365** | **4.0000e-004** | **0.0369** | **9.8200e-003** | **3.7000e-004** | **0.0102** | **0.0000** | **41.7207** | **41.7207** | **1.2000e-003** | **3.1700e-003** | **42.6938** |

## 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 | 0.1089 | 0.9948 | 1.1963 | 1.9900e-003 | | 0.0454 | 0.0454 | | 0.0427 | 0.0427 | 0.0000 | 171.5683 | 171.5683 | 0.0406 | 0.0000 | 172.5826 |
| **Total** | **0.1089** | **0.9948** | **1.1963** | **1.9900e-003** | | **0.0454** | **0.0454** | | **0.0427** | **0.0427** | **0.0000** | **171.5683** | **171.5683** | **0.0406** | **0.0000** | **172.5826** |

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**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 Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 2.3100e-003 | 0.0884 | 0.0263 | 3.5000e-004 | 0.0108 | 4.7000e-004 | 0.0113 | 3.1300e-003 | 4.5000e-004 | 3.5800e-003 | 0.0000 | 33.6602 | 33.6602 | 8.2000e-004 | 4.9500e-003 | 35.1558 |
| Worker | 0.0234 | 0.0138 | 0.1895 | 5.4000e-004 | 0.0641 | 3.3000e-004 | 0.0645 | 0.0171 | 3.0000e-004 | 0.0174 | 0.0000 | 50.1631 | 50.1631 | 1.4800e-003 | 1.3700e-003 | 50.6074 |
| **Total** | **0.0257** | **0.1022** | **0.2158** | **8.9000e-004** | **0.0750** | **8.0000e-004** | **0.0758** | **0.0202** | **7.5000e-004** | **0.0209** | **0.0000** | **83.8232** | **83.8232** | **2.3000e-003** | **6.3200e-003** | **85.7632** |

### 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 | 0.1089 | 0.9948 | 1.1963 | 1.9900e-003 | | 0.0454 | 0.0454 | | 0.0427 | 0.0427 | 0.0000 | 171.5681 | 171.5681 | 0.0406 | 0.0000 | 172.5824 |
| **Total** | **0.1089** | **0.9948** | **1.1963** | **1.9900e-003** | | **0.0454** | **0.0454** | | **0.0427** | **0.0427** | **0.0000** | **171.5681** | **171.5681** | **0.0406** | **0.0000** | **172.5824** |

Westlake Affordable Housing - Sacramento Metropolitan 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 Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 2.3100e-003 | 0.0884 | 0.0263 | 3.5000e-004 | 0.0108 | 4.7000e-004 | 0.0113 | 3.1300e-003 | 4.5000e-004 | 3.5800e-003 | 0.0000 | 33.6602 | 33.6602 | 8.2000e-004 | 4.9500e-003 | 35.1558 |
| Worker | 0.0234 | 0.0138 | 0.1895 | 5.4000e-004 | 0.0641 | 3.3000e-004 | 0.0645 | 0.0171 | 3.0000e-004 | 0.0174 | 0.0000 | 50.1631 | 50.1631 | 1.4800e-003 | 1.3700e-003 | 50.6074 |
| **Total** | **0.0257** | **0.1022** | **0.2158** | **8.9000e-004** | **0.0750** | **8.0000e-004** | **0.0758** | **0.0202** | **7.5000e-004** | **0.0209** | **0.0000** | **83.8232** | **83.8232** | **2.3000e-003** | **6.3200e-003** | **85.7632** |

## 3.6 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 | 1.8400e-003 | 0.0176 | 0.0244 | 4.0000e-005 | | 8.7000e-004 | 8.7000e-004 | | 8.1000e-004 | 8.1000e-004 | 0.0000 | 3.2757 | 3.2757 | 1.0300e-003 | 0.0000 | 3.3015 |
| Paving | 2.0700e-003 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Total** | **3.9100e-003** | **0.0176** | **0.0244** | **4.0000e-005** | | **8.7000e-004** | **8.7000e-004** | | **8.1000e-004** | **8.1000e-004** | **0.0000** | **3.2757** | **3.2757** | **1.0300e-003** | **0.0000** | **3.3015** |

Westlake Affordable Housing - Sacramento Metropolitan AQMD Air District, Annual

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

## 3.6 Paving - 2023

### Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | 1.1000e-004 | 7.0000e-005 | 9.3000e-004 | 0.0000 | 2.9000e-004 | 0.0000 | 3.0000e-004 | 8.0000e-005 | 0.0000 | 8.0000e-005 | 0.0000 | 0.2357 | 0.2357 | 1.0000e-005 | 1.0000e-005 | 0.2379 |
| **Total** | **1.1000e-004** | **7.0000e-005** | **9.3000e-004** | **0.0000** | **2.9000e-004** | **0.0000** | **3.0000e-004** | **8.0000e-005** | **0.0000** | **8.0000e-005** | **0.0000** | **0.2357** | **0.2357** | **1.0000e-005** | **1.0000e-005** | **0.2379** |

### Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Off-Road | 1.8400e-003 | 0.0176 | 0.0244 | 4.0000e-005 | | 8.7000e-004 | 8.7000e-004 | | 8.1000e-004 | 8.1000e-004 | 0.0000 | 3.2757 | 3.2757 | 1.0300e-003 | 0.0000 | 3.3014 |
| Paving | 2.0700e-003 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Total** | **3.9100e-003** | **0.0176** | **0.0244** | **4.0000e-005** | | **8.7000e-004** | **8.7000e-004** | | **8.1000e-004** | **8.1000e-004** | **0.0000** | **3.2757** | **3.2757** | **1.0300e-003** | **0.0000** | **3.3014** |

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

## 3.6 Paving - 2023

**Mitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | 1.1000e-004 | 7.0000e-005 | 9.3000e-004 | 0.0000 | 2.9000e-004 | 0.0000 | 3.0000e-004 | 8.0000e-005 | 0.0000 | 8.0000e-005 | 0.0000 | 0.2357 | 0.2357 | 1.0000e-005 | 1.0000e-005 | 0.2379 |
| **Total** | **1.1000e-004** | **7.0000e-005** | **9.3000e-004** | **0.0000** | **2.9000e-004** | **0.0000** | **3.0000e-004** | **8.0000e-005** | **0.0000** | **8.0000e-005** | **0.0000** | **0.2357** | **0.2357** | **1.0000e-005** | **1.0000e-005** | **0.2379** |

## 3.7 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 | 0.2284 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 6.3200e-003 | 0.0430 | 0.0598 | 1.0000e-004 | | 2.3400e-003 | 2.3400e-003 | | 2.3400e-003 | 2.3400e-003 | 0.0000 | 8.4257 | 8.4257 | 5.0000e-004 | 0.0000 | 8.4383 |
| **Total** | **0.2348** | **0.0430** | **0.0598** | **1.0000e-004** | | **2.3400e-003** | **2.3400e-003** | | **2.3400e-003** | **2.3400e-003** | **0.0000** | **8.4257** | **8.4257** | **5.0000e-004** | **0.0000** | **8.4383** |

Westlake Affordable Housing - Sacramento Metropolitan AQMD Air District, Annual

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

## 3.7 Architectural Coating - 2023

### Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 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 | 1.4000e-003 | 0.0185 | 5.0000e-005 | 5.8200e-003 | 3.0000e-005 | 5.8500e-003 | 1.5500e-003 | 3.0000e-005 | 1.5800e-003 | 0.0000 | 4.6663 | 4.6663 | 1.5000e-004 | 1.3000e-004 | 4.7098 |
| **Total** | **2.2700e-003** | **1.4000e-003** | **0.0185** | **5.0000e-005** | **5.8200e-003** | **3.0000e-005** | **5.8500e-003** | **1.5500e-003** | **3.0000e-005** | **1.5800e-003** | **0.0000** | **4.6663** | **4.6663** | **1.5000e-004** | **1.3000e-004** | **4.7098** |

### 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 | 0.2284 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 6.3200e-003 | 0.0430 | 0.0598 | 1.0000e-004 | | 2.3400e-003 | 2.3400e-003 | | 2.3400e-003 | 2.3400e-003 | 0.0000 | 8.4257 | 8.4257 | 5.0000e-004 | 0.0000 | 8.4383 |
| **Total** | **0.2348** | **0.0430** | **0.0598** | **1.0000e-004** | | **2.3400e-003** | **2.3400e-003** | | **2.3400e-003** | **2.3400e-003** | **0.0000** | **8.4257** | **8.4257** | **5.0000e-004** | **0.0000** | **8.4383** |

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

## 3.7 Architectural Coating - 2023

**Mitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 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 | 1.4000e-003 | 0.0185 | 5.0000e-005 | 5.8200e-003 | 3.0000e-005 | 5.8500e-003 | 1.5500e-003 | 3.0000e-005 | 1.5800e-003 | 0.0000 | 4.6663 | 4.6663 | 1.5000e-004 | 1.3000e-004 | 4.7098 |
| **Total** | **2.2700e-003** | **1.4000e-003** | **0.0185** | **5.0000e-005** | **5.8200e-003** | **3.0000e-005** | **5.8500e-003** | **1.5500e-003** | **3.0000e-005** | **1.5800e-003** | **0.0000** | **4.6663** | **4.6663** | **1.5000e-004** | **1.3000e-004** | **4.7098** |

## 3.7 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 | 0.5469 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 0.0143 | 0.0963 | 0.1430 | 2.3000e-004 | | 4.8100e-003 | 4.8100e-003 | | 4.8100e-003 | 4.8100e-003 | 0.0000 | 20.1707 | 20.1707 | 1.1400e-003 | 0.0000 | 20.1991 |
| **Total** | **0.5611** | **0.0963** | **0.1430** | **2.3000e-004** | | **4.8100e-003** | **4.8100e-003** | | **4.8100e-003** | **4.8100e-003** | **0.0000** | **20.1707** | **20.1707** | **1.1400e-003** | **0.0000** | **20.1991** |

Westlake Affordable Housing - Sacramento Metropolitan AQMD Air District, Annual

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

## 3.7 Architectural Coating - 2024

### Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | 5.0800e-003 | 2.9900e-003 | 0.0411 | 1.2000e-004 | 0.0139 | 7.0000e-005 | 0.0140 | 3.7000e-003 | 7.0000e-005 | 3.7700e-003 | 0.0000 | 10.8920 | 10.8920 | 3.2000e-004 | 3.0000e-004 | 10.9885 |
| **Total** | **5.0800e-003** | **2.9900e-003** | **0.0411** | **1.2000e-004** | **0.0139** | **7.0000e-005** | **0.0140** | **3.7000e-003** | **7.0000e-005** | **3.7700e-003** | **0.0000** | **10.8920** | **10.8920** | **3.2000e-004** | **3.0000e-004** | **10.9885** |

### 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 | 0.5469 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 0.0143 | 0.0963 | 0.1430 | 2.3000e-004 | | 4.8100e-003 | 4.8100e-003 | | 4.8100e-003 | 4.8100e-003 | 0.0000 | 20.1707 | 20.1707 | 1.1400e-003 | 0.0000 | 20.1991 |
| **Total** | **0.5611** | **0.0963** | **0.1430** | **2.3000e-004** | | **4.8100e-003** | **4.8100e-003** | | **4.8100e-003** | **4.8100e-003** | **0.0000** | **20.1707** | **20.1707** | **1.1400e-003** | **0.0000** | **20.1991** |

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

### 3.7 Architectural Coating - 2024

**Mitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | 5.0800e-003 | 2.9900e-003 | 0.0411 | 1.2000e-004 | 0.0139 | 7.0000e-005 | 0.0140 | 3.7000e-003 | 7.0000e-005 | 3.7700e-003 | 0.0000 | 10.8920 | 10.8920 | 3.2000e-004 | 3.0000e-004 | 10.9885 |
| **Total** | **5.0800e-003** | **2.9900e-003** | **0.0411** | **1.2000e-004** | **0.0139** | **7.0000e-005** | **0.0140** | **3.7000e-003** | **7.0000e-005** | **3.7700e-003** | **0.0000** | **10.8920** | **10.8920** | **3.2000e-004** | **3.0000e-004** | **10.9885** |

## 4.0 Operational Detail - Mobile

### 4.1 Mitigation Measures Mobile

Increase Transit Accessibility

Improve Pedestrian Network

Westlake Affordable Housing - Sacramento Metropolitan 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Mitigated | 0.2871 | 0.3575 | 2.5217 | 5.0800e-003 | 0.5206 | 4.0900e-003 | 0.5247 | 0.1392 | 3.8200e-003 | 0.1430 | 0.0000 | 477.5070 | 477.5070 | 0.0342 | 0.0244 | 485.6161 |
| Unmitigated | 0.3025 | 0.3936 | 2.7731 | 5.7300e-003 | 0.5903 | 4.5800e-003 | 0.5948 | 0.1578 | 4.2800e-003 | 0.1621 | 0.0000 | 539.2403 | 539.2403 | 0.0369 | 0.0268 | 548.1364 |

## 4.2 Trip Summary Information

| | Average Daily Trip Rate | | | Unmitigated | Mitigated |
|---|---|---|---|---|---|
| Land Use | Weekday | Saturday | Sunday | Annual VMT | Annual VMT |
| Apartments Mid Rise | 652.80 | 589.20 | 490.80 | 1,592,454 | 1,404,544 |
| Parking Lot | 0.00 | 0.00 | 0.00 | | |
| Total | 652.80 | 589.20 | 490.80 | 1,592,454 | 1,404,544 |

## 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 | 10.00 | 5.00 | 6.50 | 46.50 | 12.50 | 41.00 | 86 | 11 | 3 |
| Parking Lot | 10.00 | 5.00 | 6.50 | 0.00 | 0.00 | 0.00 | 0 | 0 | 0 |

## 4.4 Fleet Mix

| Land Use | LDA | LDT1 | LDT2 | MDV | LHD1 | LHD2 | MHD | HHD | OBUS | UBUS | MCY | SBUS | MH |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Apartments Mid Rise | 0.542485 | 0.056811 | 0.183752 | 0.130945 | 0.025591 | 0.005989 | 0.013266 | 0.009393 | 0.000917 | 0.000565 | 0.025954 | 0.000983 | 0.003351 |
| Parking Lot | 0.542485 | 0.056811 | 0.183752 | 0.130945 | 0.025591 | 0.005989 | 0.013266 | 0.009393 | 0.000917 | 0.000565 | 0.025954 | 0.000983 | 0.003351 |

# 5.0 Energy Detail

Westlake Affordable Housing - Sacramento Metropolitan AQMD Air District, Annual

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

Historical Energy Use: N

## 5.1 Mitigation Measures Energy

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Electricity Mitigated | | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 80.1893 | 80.1893 | 7.3900e-003 | 9.0000e-004 | 80.6411 |
| Electricity Unmitigated | | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 80.1893 | 80.1893 | 7.3900e-003 | 9.0000e-004 | 80.6411 |
| NaturalGas Mitigated | 6.0900e-003 | 0.0521 | 0.0222 | 3.3000e-004 | | 4.2100e-003 | 4.2100e-003 | | 4.2100e-003 | 4.2100e-003 | 0.0000 | 60.2983 | 60.2983 | 1.1600e-003 | 1.1100e-003 | 60.6566 |
| NaturalGas Unmitigated | 6.0900e-003 | 0.0521 | 0.0222 | 3.3000e-004 | | 4.2100e-003 | 4.2100e-003 | | 4.2100e-003 | 4.2100e-003 | 0.0000 | 60.2983 | 60.2983 | 1.1600e-003 | 1.1100e-003 | 60.6566 |

**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 | 1.12995e+006 | 6.0900e-003 | 0.0521 | 0.0222 | 3.3000e-004 | | 4.2100e-003 | 4.2100e-003 | | 4.2100e-003 | 4.2100e-003 | 0.0000 | 60.2983 | 60.2983 | 1.1600e-003 | 1.1100e-003 | 60.6566 |
| Parking Lot | 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Total** | | **6.0900e-003** | **0.0521** | **0.0222** | **3.3000e-004** | | **4.2100e-003** | **4.2100e-003** | | **4.2100e-003** | **4.2100e-003** | **0.0000** | **60.2983** | **60.2983** | **1.1600e-003** | **1.1100e-003** | **60.6566** |

**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 | 1.12995e+006 | 6.0900e-003 | 0.0521 | 0.0222 | 3.3000e-004 | | 4.2100e-003 | 4.2100e-003 | | 4.2100e-003 | 4.2100e-003 | 0.0000 | 60.2983 | 60.2983 | 1.1600e-003 | 1.1100e-003 | 60.6566 |
| Parking Lot | 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Total** | | **6.0900e-003** | **0.0521** | **0.0222** | **3.3000e-004** | | **4.2100e-003** | **4.2100e-003** | | **4.2100e-003** | **4.2100e-003** | **0.0000** | **60.2983** | **60.2983** | **1.1600e-003** | **1.1100e-003** | **60.6566** |

**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 | 467246 | 75.8701 | 6.9900e-003 | 8.5000e-004 | 76.2976 |
| Parking Lot | 26600 | 4.3192 | 4.0000e-004 | 5.0000e-005 | 4.3436 |
| **Total** | | **80.1893** | **7.3900e-003** | **9.0000e-004** | **80.6411** |

**Mitigated**

| | Electricity Use | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|
| Land Use | kWh/yr | MT/yr | | | |
| Apartments Mid Rise | 467246 | 75.8701 | 6.9900e-003 | 8.5000e-004 | 76.2976 |
| Parking Lot | 26600 | 4.3192 | 4.0000e-004 | 5.0000e-005 | 4.3436 |
| **Total** | | **80.1893** | **7.3900e-003** | **9.0000e-004** | **80.6411** |

## 6.0 Area Detail

Westlake Affordable Housing - Sacramento Metropolitan 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

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 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 | 0.5871 | 0.0143 | 1.2394 | 7.0000e-005 | | 6.8600e-003 | 6.8600e-003 | | 6.8600e-003 | 6.8600e-003 | 0.0000 | 2.0262 | 2.0262 | 1.9500e-003 | 0.0000 | 2.0750 |
| Unmitigated | 0.5871 | 0.0143 | 1.2394 | 7.0000e-005 | | 6.8600e-003 | 6.8600e-003 | | 6.8600e-003 | 6.8600e-003 | 0.0000 | 2.0262 | 2.0262 | 1.9500e-003 | 0.0000 | 2.0750 |

Westlake Affordable Housing - Sacramento Metropolitan 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 | 0.0761 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Consumer Products | 0.4736 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Hearth | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Landscaping | 0.0374 | 0.0143 | 1.2394 | 7.0000e-005 | | 6.8600e-003 | 6.8600e-003 | | 6.8600e-003 | 6.8600e-003 | 0.0000 | 2.0262 | 2.0262 | 1.9500e-003 | 0.0000 | 2.0750 |
| **Total** | **0.5871** | **0.0143** | **1.2394** | **7.0000e-005** | | **6.8600e-003** | **6.8600e-003** | | **6.8600e-003** | **6.8600e-003** | **0.0000** | **2.0262** | **2.0262** | **1.9500e-003** | **0.0000** | **2.0750** |

Westlake Affordable Housing - Sacramento Metropolitan 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 | 0.0761 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Consumer Products | 0.4736 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Hearth | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Landscaping | 0.0374 | 0.0143 | 1.2394 | 7.0000e-005 | | 6.8600e-003 | 6.8600e-003 | | 6.8600e-003 | 6.8600e-003 | 0.0000 | 2.0262 | 2.0262 | 1.9500e-003 | 0.0000 | 2.0750 |
| **Total** | **0.5871** | **0.0143** | **1.2394** | **7.0000e-005** | | **6.8600e-003** | **6.8600e-003** | | **6.8600e-003** | **6.8600e-003** | **0.0000** | **2.0262** | **2.0262** | **1.9500e-003** | **0.0000** | **2.0750** |

# 7.0 Water Detail

## 7.1 Mitigation Measures Water

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

| | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|
| Category | MT/yr | | | |
| Mitigated | 11.8931 | 0.0104 | 6.1200e-003 | 13.9752 |
| Unmitigated | 11.8931 | 0.0104 | 6.1200e-003 | 13.9752 |

## 7.2 Water by Land Use

**Unmitigated**

| | Indoor/Outdoor Use | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|
| Land Use | Mgal | MT/yr | | | |
| Apartments Mid Rise | 7.81848 / 4.92904 | 11.8931 | 0.0104 | 6.1200e-003 | 13.9752 |
| Parking Lot | 0 / 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Total** | | **11.8931** | **0.0104** | **6.1200e-003** | **13.9752** |

### 7.2 Water by Land Use

**Mitigated**

| | Indoor/Outdoor Use | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|
| Land Use | Mgal | MT/yr | | | |
| Apartments Mid Rise | 7.81848 / 4.92904 | 11.8931 | 0.0104 | 6.1200e-003 | 13.9752 |
| Parking Lot | 0 / 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Total** | | **11.8931** | **0.0104** | **6.1200e-003** | **13.9752** |

## 8.0 Waste Detail

### 8.1 Mitigation Measures Waste

**Category/Year**

| | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|
| | MT/yr | | | |
| Mitigated | 11.2051 | 0.6622 | 0.0000 | 27.7602 |
| Unmitigated | 11.2051 | 0.6622 | 0.0000 | 27.7602 |

**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 | 55.2 | 11.2051 | 0.6622 | 0.0000 | 27.7602 |
| Parking Lot | 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Total** | | **11.2051** | **0.6622** | **0.0000** | **27.7602** |

**Mitigated**

| | Waste Disposed | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|
| Land Use | tons | MT/yr | | | |
| Apartments Mid Rise | 55.2 | 11.2051 | 0.6622 | 0.0000 | 27.7602 |
| Parking Lot | 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Total** | | **11.2051** | **0.6622** | **0.0000** | **27.7602** |

## 9.0 Operational Offroad

Westlake Affordable Housing - Sacramento Metropolitan 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

**Fire Pumps and Emergency Generators**

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

**Boilers**

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

**User Defined Equipment**

| Equipment Type | Number |
|---|---|

## 11.0 Vegetation

# Westlake Affordable Housing

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

**Sacramento Metropolitan 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 |
| Demolition | 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

# Westlake Affordable Housing

## 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 |
| Concrete/Industrial Saws | Diesel | No Change | 0 | 1 | No Change | 0.00 |
| Cranes | Diesel | No Change | 0 | 1 | No Change | 0.00 |
| Excavators | Diesel | No Change | 0 | 4 | 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 | 6 | No Change | 0.00 |
| Tractors/Loaders/Backhoes | Diesel | No Change | 0 | 11 | No Change | 0.00 |
| Welders | Diesel | No Change | 0 | 1 | No Change | 0.00 |

# Westlake Affordable Housing

## 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 | 2.06100E-002 | 1.39280E-001 | 2.02770E-001 | 3.30000E-004 | 7.15000E-003 | 7.15000E-003 | 0.00000E+000 | 2.85964E+001 | 2.85964E+001 | 1.64000E-003 | 0.00000E+000 | 2.86374E+001 |
| Cement and Mortar Mixers | 1.80000E-004 | 1.10000E-003 | 9.30000E-004 | 0.00000E+000 | 4.00000E-005 | 4.00000E-005 | 0.00000E+000 | 1.37480E-001 | 1.37480E-001 | 1.00000E-005 | 0.00000E+000 | 1.37840E-001 |
| Concrete/Industrial Saws | 8.30000E-004 | 6.46000E-003 | 9.14000E-003 | 2.00000E-005 | 3.20000E-004 | 3.20000E-004 | 0.00000E+000 | 1.34414E+000 | 1.34414E+000 | 7.00000E-005 | 0.00000E+000 | 1.34580E+000 |
| Cranes | 3.25500E-002 | 3.47090E-001 | 1.72700E-001 | 5.60000E-004 | 1.44600E-002 | 1.33000E-002 | 0.00000E+000 | 4.87935E+001 | 4.87935E+001 | 1.57800E-002 | 0.00000E+000 | 4.91880E+001 |
| Excavators | 2.36000E-003 | 1.93600E-002 | 4.07200E-002 | 6.00000E-005 | 9.50000E-004 | 8.70000E-004 | 0.00000E+000 | 5.67110E+000 | 5.67110E+000 | 1.83000E-003 | 0.00000E+000 | 5.71696E+000 |
| Forklifts | 3.19900E-002 | 2.99790E-001 | 3.76560E-001 | 5.00000E-004 | 1.77300E-002 | 1.63100E-002 | 0.00000E+000 | 4.43161E+001 | 4.43161E+001 | 1.43300E-002 | 0.00000E+000 | 4.46745E+001 |
| Generator Sets | 3.21000E-002 | 2.86060E-001 | 4.03220E-001 | 7.20000E-004 | 1.28100E-002 | 1.28100E-002 | 0.00000E+000 | 6.21728E+001 | 6.21728E+001 | 2.59000E-003 | 0.00000E+000 | 6.22375E+001 |
| Graders | 1.92000E-003 | 2.32700E-002 | 8.46000E-003 | 3.00000E-005 | 7.50000E-004 | 6.90000E-004 | 0.00000E+000 | 2.90687E+000 | 2.90687E+000 | 9.40000E-004 | 0.00000E+000 | 2.93037E+000 |
| Pavers | 3.80000E-004 | 3.77000E-003 | 5.77000E-003 | 1.00000E-005 | 1.80000E-004 | 1.60000E-004 | 0.00000E+000 | 8.25930E-001 | 8.25930E-001 | 2.70000E-004 | 0.00000E+000 | 8.32610E-001 |
| Paving Equipment | 5.10000E-004 | 4.81000E-003 | 7.67000E-003 | 1.00000E-005 | 2.30000E-004 | 2.20000E-004 | 0.00000E+000 | 1.07356E+000 | 1.07356E+000 | 3.50000E-004 | 0.00000E+000 | 1.08224E+000 |
| Rollers | 4.60000E-004 | 4.83000E-003 | 5.56000E-003 | 1.00000E-005 | 2.70000E-004 | 2.40000E-004 | 0.00000E+000 | 6.91570E-001 | 6.91570E-001 | 2.20000E-004 | 0.00000E+000 | 6.97160E-001 |
| Rubber Tired Dozers | 6.84700E-002 | 7.12720E-001 | 3.10630E-001 | 8.50000E-004 | 3.20900E-002 | 2.95200E-002 | 0.00000E+000 | 7.50242E+001 | 7.50242E+001 | 2.42600E-002 | 0.00000E+000 | 7.56309E+001 |
| Tractors/Loaders/Backhoes | 6.30000E-002 | 6.36830E-001 | 9.50820E-001 | 1.33000E-003 | 3.04600E-002 | 2.80200E-002 | 0.00000E+000 | 1.16513E+002 | 1.16513E+002 | 3.76800E-002 | 0.00000E+000 | 1.17455E+002 |
| Welders | 2.66100E-002 | 1.53320E-001 | 1.83520E-001 | 2.80000E-004 | 5.50000E-003 | 5.50000E-003 | 0.00000E+000 | 2.07043E+001 | 2.07043E+001 | 2.16000E-003 | 0.00000E+000 | 2.07583E+001 |

# Westlake Affordable Housing

## 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 | 2.06100E-002 | 1.39280E-001 | 2.02770E-001 | 3.30000E-004 | 7.15000E-003 | 7.15000E-003 | 0.00000E+000 | 2.85964E+001 | 2.85964E+001 | 1.64000E-003 | 0.00000E+000 | 2.86374E+001 |
| Cement and Mortar Mixers | 1.80000E-004 | 1.10000E-003 | 9.30000E-004 | 0.00000E+000 | 4.00000E-005 | 4.00000E-005 | 0.00000E+000 | 1.37480E-001 | 1.37480E-001 | 1.00000E-005 | 0.00000E+000 | 1.37840E-001 |
| Concrete/Industrial Saws | 8.30000E-004 | 6.46000E-003 | 9.14000E-003 | 2.00000E-005 | 3.20000E-004 | 3.20000E-004 | 0.00000E+000 | 1.34414E+000 | 1.34414E+000 | 7.00000E-005 | 0.00000E+000 | 1.34580E+000 |
| Cranes | 3.25500E-002 | 3.47090E-001 | 1.72700E-001 | 5.60000E-004 | 1.44600E-002 | 1.33000E-002 | 0.00000E+000 | 4.87934E+001 | 4.87934E+001 | 1.57800E-002 | 0.00000E+000 | 4.91879E+001 |
| Excavators | 2.36000E-003 | 1.93600E-002 | 4.07200E-002 | 6.00000E-005 | 9.50000E-004 | 8.70000E-004 | 0.00000E+000 | 5.67110E+000 | 5.67110E+000 | 1.83000E-003 | 0.00000E+000 | 5.71695E+000 |
| Forklifts | 3.19900E-002 | 2.99790E-001 | 3.76560E-001 | 5.00000E-004 | 1.77300E-002 | 1.63100E-002 | 0.00000E+000 | 4.43161E+001 | 4.43161E+001 | 1.43300E-002 | 0.00000E+000 | 4.46744E+001 |
| Generator Sets | 3.21000E-002 | 2.86060E-001 | 4.03220E-001 | 7.20000E-004 | 1.28100E-002 | 1.28100E-002 | 0.00000E+000 | 6.21728E+001 | 6.21728E+001 | 2.59000E-003 | 0.00000E+000 | 6.22374E+001 |
| Graders | 1.92000E-003 | 2.32700E-002 | 8.46000E-003 | 3.00000E-005 | 7.50000E-004 | 6.90000E-004 | 0.00000E+000 | 2.90687E+000 | 2.90687E+000 | 9.40000E-004 | 0.00000E+000 | 2.93037E+000 |
| Pavers | 3.80000E-004 | 3.77000E-003 | 5.77000E-003 | 1.00000E-005 | 1.80000E-004 | 1.60000E-004 | 0.00000E+000 | 8.25930E-001 | 8.25930E-001 | 2.70000E-004 | 0.00000E+000 | 8.32610E-001 |
| Paving Equipment | 5.10000E-004 | 4.81000E-003 | 7.67000E-003 | 1.00000E-005 | 2.30000E-004 | 2.20000E-004 | 0.00000E+000 | 1.07356E+000 | 1.07356E+000 | 3.50000E-004 | 0.00000E+000 | 1.08224E+000 |
| Rollers | 4.60000E-004 | 4.83000E-003 | 5.56000E-003 | 1.00000E-005 | 2.70000E-004 | 2.40000E-004 | 0.00000E+000 | 6.91570E-001 | 6.91570E-001 | 2.20000E-004 | 0.00000E+000 | 6.97160E-001 |
| Rubber Tired Dozers | 6.84700E-002 | 7.12710E-001 | 3.10630E-001 | 8.50000E-004 | 3.20900E-002 | 2.95200E-002 | 0.00000E+000 | 7.50242E+001 | 7.50242E+001 | 2.42600E-002 | 0.00000E+000 | 7.56308E+001 |
| Tractors/Loaders/Backhoes | 6.30000E-002 | 6.36830E-001 | 9.50810E-001 | 1.33000E-003 | 3.04600E-002 | 2.80200E-002 | 0.00000E+000 | 1.16512E+002 | 1.16512E+002 | 3.76800E-002 | 0.00000E+000 | 1.17455E+002 |
| Welders | 2.66100E-002 | 1.53320E-001 | 1.83520E-001 | 2.80000E-004 | 5.50000E-003 | 5.50000E-003 | 0.00000E+000 | 2.07042E+001 | 2.07042E+001 | 2.16000E-003 | 0.00000E+000 | 2.07583E+001 |

# Westlake Affordable Housing

## 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 | 1.04908E-006 | 1.04908E-006 | 0.00000E+000 | 0.00000E+000 | 1.39677E-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 |
| Concrete/Industrial Saws | 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 | 1.22967E-006 | 1.22967E-006 | 0.00000E+000 | 0.00000E+000 | 1.21981E-006 |
| Excavators | 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 | 1.74918E-006 |
| Forklifts | 0.00000E+000 | 0.00000E+000 | 0.00000E+000 | 0.00000E+000 | 0.00000E+000 | 0.00000E+000 | 0.00000E+000 | 1.12826E-006 | 1.12826E-006 | 0.00000E+000 | 0.00000E+000 | 1.11921E-006 |
| Generator Sets | 0.00000E+000 | 0.00000E+000 | 0.00000E+000 | 0.00000E+000 | 0.00000E+000 | 0.00000E+000 | 0.00000E+000 | 1.12589E-006 | 1.12589E-006 | 0.00000E+000 | 0.00000E+000 | 1.28540E-006 |
| Graders | 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 |
| Pavers | 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 |
| 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 | 1.40308E-005 | 0.00000E+000 | 0.00000E+000 | 0.00000E+000 | 0.00000E+000 | 0.00000E+000 | 1.19961E-006 | 1.19961E-006 | 0.00000E+000 | 0.00000E+000 | 1.18999E-006 |
| Tractors/Loaders/Backhoes | 0.00000E+000 | 0.00000E+000 | 1.05172E-005 | 0.00000E+000 | 0.00000E+000 | 0.00000E+000 | 0.00000E+000 | 1.20159E-006 | 1.20159E-006 | 0.00000E+000 | 0.00000E+000 | 1.10681E-006 |
| Welders | 0.00000E+000 | 0.00000E+000 | 0.00000E+000 | 0.00000E+000 | 0.00000E+000 | 0.00000E+000 | 0.00000E+000 | 1.44898E-006 | 1.44898E-006 | 0.00000E+000 | 0.00000E+000 | 1.44521E-006 |

## Fugitive Dust Mitigation

| Yes/No | Mitigation Measure | Mitigation Input | Mitigation Input | Mitigation Input |
|---|---|---|---|---|

# Westlake Affordable Housing

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

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| No | Soil Stabilizer for unpaved Roads | PM10 Reduction | | PM2.5 Reduction | | | |
| 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 | | | | |

| | | Unmitigated | | Mitigated | | Percent Reduction | |
|---|---|---|---|---|---|---|---|
| Phase | Source | 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 | 0.02 | 0.01 | 0.02 | 0.01 | 0.00 | 0.00 |
| Building Construction | Fugitive Dust | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Building Construction | Roads | 0.11 | 0.03 | 0.11 | 0.03 | 0.00 | 0.00 |
| Demolition | Fugitive Dust | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Demolition | Roads | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Grading | Fugitive Dust | 0.04 | 0.02 | 0.04 | 0.02 | 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 | 0.59 | 0.30 | 0.59 | 0.30 | 0.00 | 0.00 |
| Site Preparation | Roads | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

# Westlake Affordable Housing

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

### Operational Percent Reduction Summary

| 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 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 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 | 5.09 | 9.17 | 9.07 | 11.34 | 10.70 | 10.75 | 0.00 | 11.45 | 11.45 | 7.50 | 9.01 | 11.41 |
| 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 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 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 | 0.09 | 0.30 | | |
| No | Land Use | Improve Walkability Design | 0.00 | | | |
| No | Land Use | Improve Destination Accessibility | 0.00 | | | |
| Yes | Land Use | Increase Transit Accessibility | 0.23 | 0.05 | | |

## Westlake Affordable Housing

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

| | | | | | | |
|---|---|---|---|---|---|---|
| No | Land Use | Integrate Below Market Rate Housing | 0.00 | | | |
| | Land Use | Land Use SubTotal | 0.10 | | | |
| Yes | Neighborhood Enhancements | Improve Pedestrian Network | 2.00 | Project Site and Connecting Off-Site | | |
| No | Neighborhood Enhancements | Provide Traffic Calming Measures | | | | |
| No | Neighborhood Enhancements | Implement NEV Network | 0.00 | | | |
| | Neighborhood Enhancements | Neighborhood Enhancements Subtotal | 0.02 | | | |
| 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 | 0.12 | | | |
| 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 | | | |

## Westlake Affordable Housing

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

| | | | | | | |
|---|---|---|---|---|---|---|
| No | Commute | Market Commute Trip Reduction Option | 0.00 | | | |
| No | Commute | Employee Vanpool/Shuttle | 0.00 | | 2.00 | |
| 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 | 0.12 | | | |

### Area Mitigation

| Measure Implemented | Mitigation Measure | Input Value |
|---|---|---|
| No | Only Natural Gas Hearth | |
| No | No Hearth | |
| No | Use Low VOC Cleaning Supplies | |
| No | Use Low VOC Paint (Residential Interior) | 100.00 |
| No | Use Low VOC Paint (Residential Exterior) | 100.00 |
| No | Use Low VOC Paint (Non-residential Interior) | 100.00 |
| No | Use Low VOC Paint (Non-residential Exterior) | 100.00 |
| No | Use Low VOC Paint (Parking) | 100.00 |
| No | % Electric Lawnmower | |
| No | % Electric Leafblower | |
| No | % Electric Chainsaw | |

### Energy Mitigation Measures

# Westlake Affordable Housing

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

| Measure Implemented | Mitigation Measure | Input Value 1 | Input Value 2 |
|---|---|---|---|
| No | Exceed Title 24 | | |
| No | Install High Efficiency Lighting | | |
| No | On-site Renewable | | |

| 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 |
|---|---|---|---|
| No | Apply Water Conservation on Strategy | | |
| No | Use Reclaimed Water | | |
| No | Use Grey Water | | |
| 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 | | |
| No | Use Water Efficient Irrigation Systems | 6.10 | |

# Westlake Affordable Housing

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

| | | | |
|---|---|---|---|
| No | Water Efficient Landscape | | |

## Solid Waste Mitigation

| Mitigation Measures | Input Value |
|---|---|
| Institute Recycling and Composting Services<br>Percent Reduction in Waste Disposed | |

# APPENDIX B
# CNDDB SEARCH RESULTS

CALIFORNIA DEPARTMENT OF FISH and WILDLIFE **BIOS**

Add Data: BIOS ▼ | Click here to search and see list of datasets

Filter by extent ? | Identify Features ▼ | Advanced Tools ▽

Hello, ebloom@raneymanagement.com Log off

v5.108.311 Fx Hel

Basemaps | Layers

Active Layer: California Natural Diversity Database (CNDDB) Commercial [ds85]

**Graphics and Selections**

*Identify Graphic* X

California Natural Diversity Database (CNDDB) Commercial [ds85] *Selection* Go

T + RF X

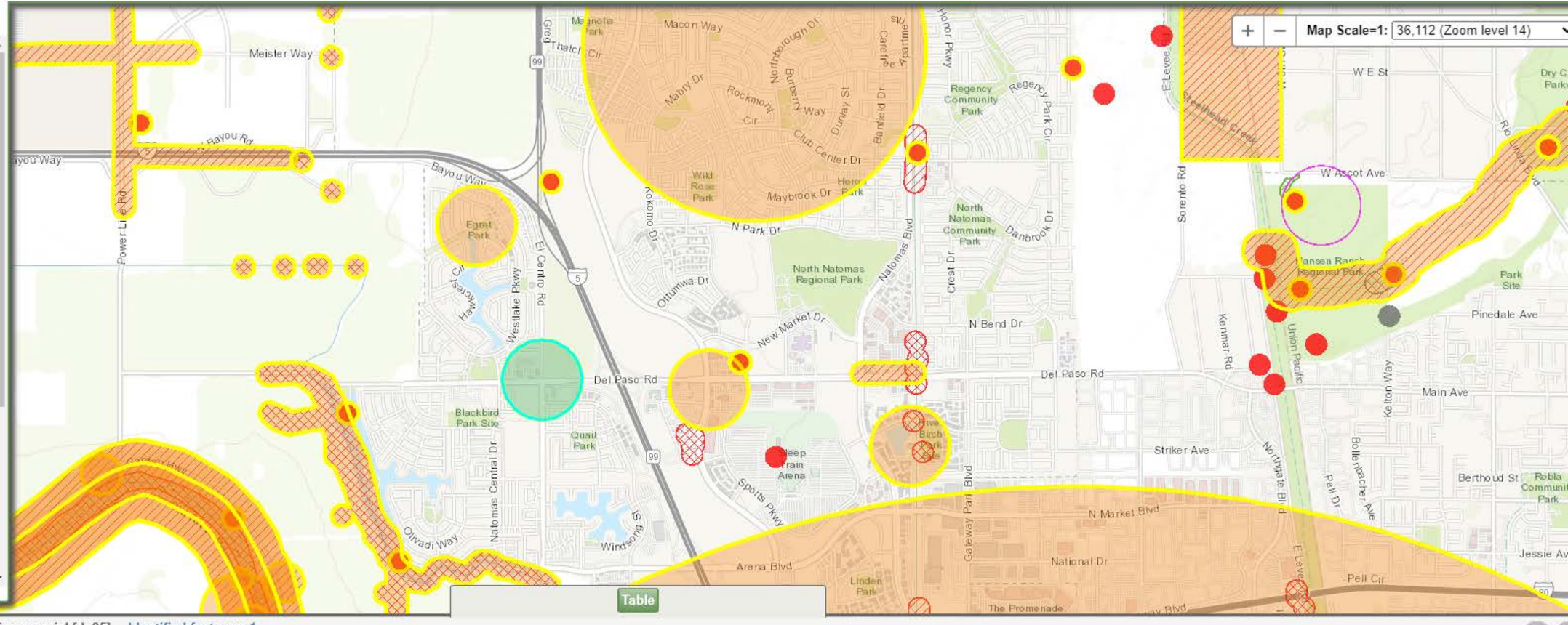
**BIOS Layers**

California Natural Diversity Database (CNDDB) Commercial [ds85] Go +

RF ? X

Symbology

- Plant (80m)
- Plant (specific)
- Plant (non-specific)
- Plant (circular)
- Animal (80m)
- Animal (specific)
- Animal (non-specific)
- Animal (circular)
- Terrestrial Comm. (80m)
- Terrestrial Comm. (specific)
- Terrestrial Comm. (non-specific)
- Terrestrial Comm. (circular)
- Aquatic Comm. (80m)
- Aquatic Comm. (specific)
- Aquatic Comm. (non-specific)
- Aquatic Comm. (circular)




Table

California Natural Diversity Database (CNDDB) Commercial [ds85] Identified features: 1

| Number | MAPNDX | EONDX | Key_Quad_Code | Key_Quad_Name | Key_County_Code | Accuracy | Presence | Occ_Type | Occ_Rank | Sensitive | Site_Date | Elm_Date | Owner_Management | Federal_Status | State_Status | Global_Rank | State_Rank | Rare_Plant_Rank | CDFW_Status | Other_Status | Symbology | Taxon_Grou |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 72 | 11199 | 27555 | 3812165 | Taylor Monument | SAC | 1/5 mile | Possibly Extirpated | Natural/Native occurrence | None | N | 19860625 | 19860625 | UNKNOWN | Threatened | Threatened | G2 | S2 | - | - | IUCN_VU | 204 | Reptiles |

CALIFORNIA DEPARTMENT OF FISH and WILDLIFE **RareFind**

**Query Summary:**
Quad IS (Taylor Monument (3812165) OR Sacramento West (3812155) OR Sacramento East (3812154) OR Knights Landing (3812176) OR Verona (3812175) OR Pleasant Grove (3812174) OR Grays Bend (3812166) OR Rio Linda (3812164) OR Davis (3812156))
AND Other Status CONTAINS (CDFW_FP-Fully Protected OR CDFW_SSC-Species of Special Concern)

Print Close

**CNDDB Element Query Results**

| Scientific Name | Common Name | Taxonomic Group | Element Code | Total Occs | Returned Occs | Federal Status | State Status | Global Rank | State Rank | CA Rare Plant Rank | Other Status | Habitats |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Agelaius tricolor | tricolored blackbird | Birds | ABPBXB0020 | 955 | 21 | None | Threatened | G1G2 | S1S2 | null | BLM_S-Sensitive, CDFW_SSC-Species of Special Concern, IUCN_EN-Endangered, NABCI_RWL-Red Watch List, USFWS_BCC-Birds of Conservation Concern | Freshwater marsh, Marsh & swamp, Swamp, Wetland |
| Antrozous pallidus | pallid bat | Mammals | AMACC10010 | 420 | 1 | None | None | G4 | S3 | null | BLM_S-Sensitive, CDFW_SSC-Species of Special Concern, IUCN_LC-Least Concern, USFS_S-Sensitive | Chaparral, Coastal scrub, Desert wash, Great Basin grassland, Great Basin scrub, Mojavean desert scrub, Riparian woodland, Sonoran desert scrub, Upper montane coniferous forest, Valley & foothill grassland |
| Archoplites interruptus | Sacramento perch | Fish | AFCQB07010 | 5 | 1 | None | None | G1 | S1 | null | AFS_TH-Threatened, CDFW_SSC-Species of Special Concern, IUCN_EN-Endangered | Aquatic, Sacramento/San Joaquin flowing waters, Sacramento/San Joaquin standing waters |
| Athene cunicularia | burrowing owl | Birds | ABNSB10010 | 2011 | 48 | None | None | G4 | S3 | null | BLM_S-Sensitive, CDFW_SSC-Species of Special Concern, IUCN_LC-Least Concern, USFWS_BCC-Birds of Conservation Concern | Coastal prairie, Coastal scrub, Great Basin grassland, Great Basin scrub, Mojavean desert scrub, Sonoran desert scrub, Valley & foothill grassland |
| Charadrius montanus | mountain plover | Birds | ABNNB03100 | 90 | 4 | None | None | G3 | S2S3 | null | BLM_S-Sensitive, CDFW_SSC-Species of Special Concern, IUCN_NT-Near Threatened, NABCI_RWL-Red Watch List, USFWS_BCC-Birds of Conservation Concern | Chenopod scrub, Valley & foothill grassland |
| Charadrius nivosus nivosus | western snowy plover | Birds | ABNNB03031 | 138 | 2 | Threatened | None | G3T3 | S3 | null | CDFW_SSC-Species of Special Concern, NABCI_RWL-Red Watch List | Great Basin standing waters, Sand shore, Wetland |
| Elanus leucurus | white-tailed kite | Birds | ABNKC06010 | 184 | 15 | None | None | G5 | S3S4 | null | BLM_S-Sensitive, CDFW_FP-Fully | Cismontane woodland, Marsh & swamp, Riparian woodland, Valley & foothill grassland, Wetland |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | Protected, IUCN_LC-Least Concern | |
| Emys marmorata | western pond turtle | Reptiles | ARAAD02030 | 1421 | 4 | None | None | G3G4 | S3 | null | BLM_S-Sensitive, CDFW_SSC-Species of Special Concern, IUCN_VU-Vulnerable, USFS_S-Sensitive | Aquatic, Artificial flowing waters, Klamath/North coast flowing waters, Klamath/North coast standing waters, Marsh & swamp, Sacramento/San Joaquin flowing waters, Sacramento/San Joaquin standing waters, South coast flowing waters, South coast standing waters, Wetland |
| Lasiurus frantzii | western red bat | Mammals | AMACC05080 | 128 | 1 | None | None | G4 | S3 | null | CDFW_SSC-Species of Special Concern, IUCN_LC-Least Concern | Cismontane woodland, Lower montane coniferous forest, Riparian forest, Riparian woodland |
| Laterallus jamaicensis coturniculus | California black rail | Birds | ABNME03041 | 303 | 1 | None | Threatened | G3T1 | S1 | null | BLM_S-Sensitive, CDFW_FP-Fully Protected, IUCN_EN-Endangered, NABCI_RWL-Red Watch List | Brackish marsh, Freshwater marsh, Marsh & swamp, Salt marsh, Wetland |
| Melospiza melodia pop. 1 | song sparrow ("Modesto" population) | Birds | ABPBXA3013 | 92 | 3 | None | None | G5T3?Q | S3? | null | CDFW_SSC-Species of Special Concern | Artificial flowing waters, Freshwater marsh, Riparian forest, Riparian scrub, Riparian woodland, Sacramento/San Joaquin flowing waters, Sacramento/San Joaquin standing waters |
| Pogonichthys macrolepidotus | Sacramento splittail | Fish | AFCJB34020 | 15 | 1 | None | None | G3 | S3 | null | AFS_VU-Vulnerable, CDFW_SSC-Species of Special Concern, IUCN_LC-Least Concern | Aquatic, Estuary, Freshwater marsh, Sacramento/San Joaquin flowing waters |
| Progne subis | purple martin | Birds | ABPAU01010 | 71 | 10 | None | None | G5 | S3 | null | CDFW_SSC-Species of Special Concern, IUCN_LC-Least Concern | Broadleaved upland forest, Lower montane coniferous forest |
| Spea hammondii | western spadefoot | Amphibians | AAABF02020 | 1425 | 4 | None | None | G2G3 | S3S4 | null | BLM_S-Sensitive, CDFW_SSC-Species of Special Concern, IUCN_NT-Near Threatened | Cismontane woodland, Coastal scrub, Valley & foothill grassland, Vernal pool, Wetland |
| Taxidea taxus | American badger | Mammals | AMAJF04010 | 594 | 2 | None | None | G5 | S3 | null | CDFW_SSC-Species of Special Concern, IUCN_LC-Least Concern | Alkali marsh, Alkali playa, Alpine, Alpine dwarf scrub, Bog & fen, Brackish marsh, Broadleaved upland forest, Chaparral, Chenopod scrub, Cismontane woodland, Closed-cone coniferous forest, Coastal bluff scrub, Coastal dunes, Coastal prairie, Coastal scrub, Desert dunes, Desert wash, Freshwater marsh, Great Basin grassland, Great Basin scrub, Interior dunes, Ione formation, Joshua tree woodland, Limestone, Lower montane coniferous forest, Marsh & swamp, Meadow & seep, Mojavean desert scrub, Montane dwarf scrub, North coast coniferous forest, Oldgrowth, Pavement plain, Redwood, Riparian forest, Riparian scrub, Riparian woodland, Salt marsh, Sonoran desert scrub, Sonoran thorn woodland, Ultramafic, Upper montane coniferous forest, Upper Sonoran scrub, Valley & foothill grassland |

CALIFORNIA DEPARTMENT OF FISH and WILDLIFE **RareFind**

**Query Summary:**
Quad IS (Taylor Monument (3812165) OR Sacramento West (3812155) OR Sacramento East (3812154) OR Knights Landing (3812176) OR Verona (3812175) OR Pleasant Grove (3812174) OR Grays Bend (3812166) OR Rio Linda (3812164) OR Davis (3812156))
AND CA Rare Plant Rank IS (1A OR 1B OR 1B.1 OR 1B.2 OR 1B.3 OR 2A OR 2B OR 2B.1 OR 2B.2 OR 2B.3)

Print Close

**CNDDB Element Query Results**

| Scientific Name | Common Name | Taxonomic Group | Element Code | Total Occs | Returned Occs | Federal Status | State Status | Global Rank | State Rank | CA Rare Plant Rank | Other Status | Habitats |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Astragalus tener var. ferrisiae | Ferris' milk-vetch | Dicots | PDFAB0F8R3 | 18 | 2 | None | None | G2T1 | S1 | 1B.1 | null | Meadow & seep, Valley & foothill grassland, Wetland |
| Astragalus tener var. tener | alkali milk-vetch | Dicots | PDFAB0F8R1 | 65 | 3 | None | None | G2T1 | S1 | 1B.2 | SB_UCSC-UC Santa Cruz | Alkali playa, Valley & foothill grassland, Vernal pool, Wetland |
| Atriplex cordulata var. cordulata | heartscale | Dicots | PDCHE040B0 | 66 | 1 | None | None | G3T2 | S2 | 1B.2 | BLM_S-Sensitive | Chenopod scrub, Meadow & seep, Valley & foothill grassland |
| Atriplex depressa | brittlescale | Dicots | PDCHE042L0 | 60 | 5 | None | None | G2 | S2 | 1B.2 | null | Alkali playa, Chenopod scrub, Meadow & seep, Valley & foothill grassland, Vernal pool, Wetland |
| Centromadia parryi ssp. parryi | pappose tarplant | Dicots | PDAST4R0P2 | 39 | 1 | None | None | G3T2 | S2 | 1B.2 | BLM_S-Sensitive | Chaparral, Coastal prairie, Marsh & swamp, Meadow & seep, Valley & foothill grassland |
| Chloropyron palmatum | palmate-bracted bird's-beak | Dicots | PDSCR0J0J0 | 25 | 3 | Endangered | Endangered | G1 | S1 | 1B.1 | SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden | Chenopod scrub, Meadow & seep, Valley & foothill grassland, Wetland |
| Downingia pusilla | dwarf downingia | Dicots | PDCAM060C0 | 132 | 12 | None | None | GU | S2 | 2B.2 | null | Valley & foothill grassland, Vernal pool, Wetland |
| Extriplex joaquinana | San Joaquin spearscale | Dicots | PDCHE041F3 | 127 | 7 | None | None | G2 | S2 | 1B.2 | BLM_S-Sensitive, SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden | Alkali playa, Chenopod scrub, Meadow & seep, Valley & foothill grassland |
| Gratiola heterosepala | Boggs Lake hedge-hyssop | Dicots | PDSCR0R060 | 99 | 2 | None | Endangered | G2 | S2 | 1B.2 | BLM_S-Sensitive | Freshwater marsh, Marsh & swamp, Vernal pool, Wetland |
| Hibiscus lasiocarpos var. occidentalis | woolly rose-mallow | Dicots | PDMAL0H0R3 | 173 | 5 | None | None | G5T3 | S3 | 1B.2 | SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden, SB_UCBG-UC Botanical Garden at Berkeley | Freshwater marsh, Marsh & swamp, Wetland |
| Legenere limosa | legenere | Dicots | PDCAM0C010 | 83 | 2 | None | None | G2 | S2 | 1B.1 | BLM_S-Sensitive, SB_UCBG-UC Botanical Garden at Berkeley | Vernal pool, Wetland |
| Lepidium latipes var. heckardii | Heckard's pepper-grass | Dicots | PDBRA1M0K1 | 14 | 3 | None | None | G4T1 | S1 | 1B.2 | null | Valley & foothill grassland, Vernal pool |
| Puccinellia simplex | California alkali grass | Monocots | PMPOA53110 | 80 | 8 | None | None | G2 | S2 | 1B.2 | BLM_S-Sensitive | Chenopod scrub, Meadow & seep, Valley & foothill grassland, Vernal pool |
| Sagittaria sanfordii | Sanford's arrowhead | Monocots | PMALI040Q0 | 143 | 12 | None | None | G3 | S3 | 1B.2 | BLM_S-Sensitive | Marsh & swamp, Wetland |
| Symphyotrichum lentum | Suisun Marsh aster | Dicots | PDASTE8470 | 175 | 2 | None | None | G2 | S2 | 1B.2 | SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden, SB_USDA-US Dept of Agriculture | Brackish marsh, Freshwater marsh, Marsh & swamp, Wetland |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Trifolium hydrophilum | saline clover | Dicots | PDFAB400R5 | 56 | 2 | None | None | G2 | S2 | 1B.2 | null | Marsh & swamp, Valley & foothill grassland, Vernal pool, Wetland |

CALIFORNIA DEPARTMENT OF FISH and WILDLIFE **RareFind**

**Query Summary:**
Quad IS (Taylor Monument (3812165) OR Sacramento West (3812155) OR Sacramento East (3812154) OR Knights Landing (3812176) OR Verona (3812175) OR Pleasant Grove (3812174) OR Grays Bend (3812166) OR Rio Linda (3812164) OR Davis (3812156))
AND Federal Listing Status IS (Endangered OR Threatened OR Proposed Endangered OR Proposed Threatened OR Candidate) OR State Listing Status IS (Endangered OR Threatened OR Candidate Endangered OR Candidate Threatened)

Print Close

**CNDDB Element Query Results**

| Scientific Name | Common Name | Taxonomic Group | Element Code | Total Occs | Returned Occs | Federal Status | State Status | Global Rank | State Rank | CA Rare Plant Rank | Other Status | Habitats |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Acipenser medirostris pop. 1 | green sturgeon - southern DPS | Fish | AFCAA01031 | 14 | 3 | Threatened | None | G2T1 | S1 | null | AFS_VU-Vulnerable, IUCN_EN-Endangered | Aquatic, Estuary, Marine bay, Sacramento/San Joaquin flowing waters |
| Agelaius tricolor | tricolored blackbird | Birds | ABPBXB0020 | 955 | 21 | None | Threatened | G1G2 | S1S2 | null | BLM_S-Sensitive, CDFW_SSC-Species of Special Concern, IUCN_EN-Endangered, NABCI_RWL-Red Watch List, USFWS_BCC-Birds of Conservation Concern | Freshwater marsh, Marsh & swamp, Swamp, Wetland |
| Bombus crotchii | Crotch bumble bee | Insects | IIHYM24480 | 437 | 1 | None | Candidate Endangered | G2 | S2 | null | IUCN_EN-Endangered | null |
| Bombus occidentalis | western bumble bee | Insects | IIHYM24252 | 306 | 1 | None | Candidate Endangered | G3 | S1 | null | IUCN_VU-Vulnerable, USFS_S-Sensitive | null |
| Branchinecta lynchi | vernal pool fairy shrimp | Crustaceans | ICBRA03030 | 796 | 37 | Threatened | None | G3 | S3 | null | IUCN_VU-Vulnerable | Valley & foothill grassland, Vernal pool, Wetland |
| Buteo swainsoni | Swainson's hawk | Birds | ABNKC19070 | 2548 | 242 | None | Threatened | G5 | S3 | null | BLM_S-Sensitive, IUCN_LC-Least Concern | Great Basin grassland, Riparian forest, Riparian woodland, Valley & foothill grassland |
| Charadrius nivosus nivosus | western snowy plover | Birds | ABNNB03031 | 138 | 2 | Threatened | None | G3T3 | S3 | null | CDFW_SSC-Species of Special Concern, NABCI_RWL-Red Watch List | Great Basin standing waters, Sand shore, Wetland |
| Chloropyron palmatum | palmate-bracted bird's-beak | Dicots | PDSCR0J0J0 | 25 | 3 | Endangered | Endangered | G1 | S1 | 1B.1 | SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden | Chenopod scrub, Meadow & seep, Valley & foothill grassland, Wetland |
| Coccyzus americanus occidentalis | western yellow-billed cuckoo | Birds | ABNRB02022 | 165 | 4 | Threatened | Endangered | G5T2T3 | S1 | null | BLM_S-Sensitive, NABCI_RWL-Red Watch List, USFS_S-Sensitive | Riparian forest |
| Desmocerus californicus dimorphus | valley elderberry longhorn beetle | Insects | IICOL48011 | 271 | 26 | Threatened | None | G3T2T3 | S3 | null | null | Riparian scrub |
| Gratiola heterosepala | Boggs Lake hedge-hyssop | Dicots | PDSCR0R060 | 99 | 2 | None | Endangered | G2 | S2 | 1B.2 | BLM_S-Sensitive | Freshwater marsh, Marsh & swamp, Vernal pool, Wetland |
| Laterallus jamaicensis coturniculus | California black rail | Birds | ABNME03041 | 303 | 1 | None | Threatened | G3T1 | S1 | null | BLM_S-Sensitive, CDFW_FP-Fully Protected, IUCN_EN-Endangered, NABCI_RWL-Red Watch List | Brackish marsh, Freshwater marsh, Marsh & swamp, Salt marsh, Wetland |
| Lepidurus packardi | vernal pool tadpole shrimp | Crustaceans | ICBRA10010 | 329 | 10 | Endangered | None | G4 | S3 | null | IUCN_EN-Endangered | Valley & foothill grassland, Vernal pool, Wetland |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Oncorhynchus mykiss irideus pop. 11 | steelhead - Central Valley DPS | Fish | AFCHA0209K | 31 | 7 | Threatened | None | G5T2Q | S2 | null | AFS_TH-Threatened | Aquatic, Sacramento/San Joaquin flowing waters |
| Oncorhynchus tshawytscha pop. 11 | chinook salmon - Central Valley spring-run ESU | Fish | AFCHA0205L | 13 | 2 | Threatened | Threatened | G5T2Q | S2 | null | AFS_TH-Threatened | Aquatic, Sacramento/San Joaquin flowing waters |
| Oncorhynchus tshawytscha pop. 7 | chinook salmon - Sacramento River winter-run ESU | Fish | AFCHA0205B | 2 | 1 | Endangered | Endangered | G5T1Q | S2 | null | AFS_EN-Endangered | Aquatic, Sacramento/San Joaquin flowing waters |
| Riparia riparia | bank swallow | Birds | ABPAU08010 | 299 | 10 | None | Threatened | G5 | S2 | null | BLM_S-Sensitive, IUCN_LC-Least Concern | Riparian scrub, Riparian woodland |
| Spirinchus thaleichthys | longfin smelt | Fish | AFCHB03010 | 46 | 2 | Candidate | Threatened | G5 | S1 | null | IUCN_LC-Least Concern | Aquatic, Estuary |
| Thaleichthys pacificus | eulachon | Fish | AFCHB04010 | 10 | 1 | Threatened | None | G5 | S1 | null | IUCN_LC-Least Concern | Aquatic, Klamath/North coast flowing waters |
| Thamnophis gigas | giant gartersnake | Reptiles | ARADB36150 | 373 | 110 | Threatened | Threatened | G2 | S2 | null | IUCN_VU-Vulnerable | Marsh & swamp, Riparian scrub, Wetland |
| Vireo bellii pusillus | least Bell's vireo | Birds | ABPBW01114 | 504 | 2 | Endangered | Endangered | G5T2 | S2 | null | NABCI_YWL-Yellow Watch List | Riparian forest, Riparian scrub, Riparian woodland |