PUBLIC DRAFT

MOUNTAIN HOUSE MASTER PLAN, SPECIFIC PLAN II AMENDMENTS AND REVISIONS TO APPROVED ACTIONS
INITIAL STUDY/MITIGATED NEGATIVE DECLARATION

LEAD AGENCY:

San Joaquin County
1810 Hazelton Avenue
Stockton, CA 95205
Contact: John B. Anderson, Mountain House Planner
(209) 468-3160

PREPARED FOR:

Mountain House Developers, LLC
230 S. Sterling Drive, Suite 246
Mountain House, CA 95391
Contact: David Sargent
(916) 246-0960

PREPARED BY:

ICF
980 9th Street, Suite 1200
Sacramento, CA 95814
Contact: James Alcorn, Project Manager
(916) 737-3000

April 2022

ICF. 2022. *Mountain House Master Plan and Specific Plan II Amendments Initial Study/Mitigated Negative Declaration*. Public Draft. April. (ICF 104180) Sacramento, CA. Prepared for Mountain House Developers, LLC, Rocklin, CA.

Contents

List of Tables iii
List of Figures iv
List of Acronyms and Abbreviations v

Chapter 1 Introduction 1-1
1.1 Project Overview 1-1
1.2 Purpose of this Initial Study/Mitigated Negative Declaration 1-1
1.3 Initial Study/Mitigated Negative Declaration Contents and Organization 1-2
1.4 Documents Incorporated by Reference 1-2
1.5 Project Information 1-3

Chapter 2 Project Description 2-1
2.1 Project Location 2-1
2.2 Project Background 2-1
2.3 Project Objectives 2-5
2.4 Project Description 2-5
2.4.1 Town Center 2-7
2.4.2 Neighborhood H 2-7
2.4.3 Neighborhood I 2-7
2.4.4 Neighborhood J 2-8
2.4.5 Neighborhood L 2-8
2.4.6 Utilities 2-8
2.4.7 Project Construction 2-9
2.5 Project Approvals 2-10
2.6 Reviews/Approvals by Responsible Agencies 2-11

Chapter 3 Environmental Checklist 3-1
3.1 Environmental Factors Potentially Affected 3-1
3.2 Determination 3-1
3.3 Evaluation of Environmental Impacts 3-2
3.3.1 Aesthetics 3-4
3.3.2 Agricultural and Forestry Resources 3-8
3.3.3 Air Quality 3-10
3.3.4 Biological Resources 3-27
3.3.5 Cultural Resources 3-40
3.3.6 Energy 3-45

3.3.7 Geology, Soils, and Paleontological Resources 3-47
3.3.8 Greenhouse Gas Emissions 3-54
3.3.9 Hazards and Hazardous Materials 3-63
3.3.10 Hydrology and Water Quality 3-68
3.3.11 Land Use and Planning 3-77
3.3.12 Mineral Resources 3-82
3.3.13 Noise 3-83
3.3.14 Population and Housing 3-97
3.3.15 Public Services 3-99
3.3.16 Recreation 3-103
3.3.17 Transportation 3-105
3.3.18 Tribal Cultural Resources 3-110
3.3.19 Utilities and Service Systems 3-113
3.3.20 Wildfire 3-119
3.3.21 Mandatory Findings of Significance 3-121

Chapter 4 References Cited 4-1

Appendix A Air Quality and Greenhouse Gas Emissions

Appendix B Updated Traffic Report and Vehicle Miles Traveled Memorandum

Appendix C Utilities Analysis Memorandums

Appendix D Water Supply Evaluation

Tables

		Page
2-1	Project Phasing	2-10
3.3.3-1	National and State Ambient Air Quality Standards	3-11
3.3.3-2	SJVAPCD Construction and Operational Thresholds of Significance	3-17
3.3.3-3	Annual Emissions of Criteria Pollutants from Construction Activities by Year (tons per year)	3-21
3.3.3-4	Operational Emissions of Criteria Pollutants (tons per year)	3-22
3.3.3-6	SJVAPCD Project Screening Trigger Levels for Potential Odor Sources	3-26
3.3.8-1	Lifetimes and Global Warming Potentials of Key Greenhouse Gases	3-55
3.3.8-2	Estimated GHG Emissions from Project Construction (metric tons per year)	3-59
3.3.8-3	Operational Greenhouse Gas Emissions (metric tons per year)	3-61
3.3.13-1	San Joaquin County Non-Transportation Noise Level Performance Standards for Outdoor Activity Areas (General Plan Table PHS-1)	3-84
3.3.13-2	San Joaquin Maximum Allowable Noise Exposure from Transportation Noise Sources (General Plan Table PHS-2)	3-85
3.3.13-3	Mountain House Exterior Noise Standards for Non-Transportation Noise Sources	3-86
3.3.13-4	Federal Transit Administration Ground-borne Vibration Annoyance Impact Criteria	3-87
3.3.13-5	Caltrans Vibration Guidelines for Potential Damage to Structures	3-88
3.3.13-6	Project Construction Equipment Noise Levels	3-89
3.3.13-7	Estimated Combined Construction Noise from Grading and Excavation	3-90
3.3.13-8	Estimated Combined Construction Noise from Building Construction with Pile Driver	3-91
3.3.13-9	PPV Vibration Source Levels for Typical Construction Equipment	3-94
3.3.13-10	VdB Vibration Source Levels for Typical Construction Equipment	3-95

Figures

Page

2-1 Regional Location 2-2

2-2 Project Location 2-3

2-3 Current and Future Improvements 2-4

2-4 Proposed Master Plan/Specific Plan II Amendments 2-6

Acronyms and Abbreviations

AAQA	ambient air quality analysis
AB	Assembly Bill
ADT	Average Daily Traffic
ADWF	average dry weather flow
ATCMs	airborne toxic control measures
BAAQMD	Bay Area Air Quality Management District
BAU	business as usual
BBID	Byron Bethany Irrigation District
bgs	below ground surface
BMPs	best management practices
B.P.	before present
BPS	best performance standards
°C	degrees Celsius
CAA	Clean Air Act
CAAQS	state ambient air quality standards
CalEEMod	California Emission Estimator Model
CAL FIRE	California Department of Forestry and Fire Protection
CARB	California Air Resources Board
CBC	California Building Code
CBIA	California Building Industry Association
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act
CESA	California Endangered Species Act
CFR	Code of Federal Regulations
CH_4	methane
CNDDB	California Natural Diversity Database
CNEL	community noise equivalent level
CNPPA	California Native Plant Protection Act
CNPS	California Native Plant Society
CO	Carbon Monoxide
CO_2	carbon dioxide
CO_2e	carbon dioxide equivalent
CRPR	California Rare Plant Rank
CWA	Clean Water Act
dB	decibel
dBA	a-weighted decibel
DCRC	Design Consistency Review Committee
DPM	diesel particulate matter
DWR	California Department of Water Resources
EMS	emergency medical services
EPA	Environmental Protection Agency
ESA	Endangered Species Act
F	Fahrenheit
FCMFD	French Camp McKinley Fire District
FEMA	Federal Emergency Management Agency

FTA	Federal Transit Administration
GAMAQI	Guide for Assessing and Mitigating Air Quality Impacts
GHG	greenhouse gas
gpd	gallons per day
GVB	ground-borne vibration
GWP	global warming potential
HFCs	hydrofluorocarbons
HMP	habitat mitigation plan
HVAC	heating, ventilation, and air-conditioning
I/L	Industrial
IPCC	Intergovernmental Panel on Climate Change
IS/MND	Initial Study/Mitigated Negative Declaration
ISR	Indirect Source Review
ITMMs	Incidental Take Minimization Measures
kW	kilowatt
L_{dn}	day-night average sound level
L_{eq}	equivalent sound level
L_{min} and L_{max}	minimum and maximum sound levels
LOS	level of service
LUSD	Lammersville Unified School District
MDWD	maximum daily water demand
MEIR	Master Environmental Impact Report
MG	million gallons
mgd	million gallons per day
MHCSD	Mountain House Community Services District
MHD	Mountain House Developers
MID	Modesto Irrigation District
MX	Mixed Use
N_2O	nitrous oxide
NAAQS	federal ambient air quality standards
NAHC	Native American Heritage Commission
NO_2	nitrogen dioxide
NOA	naturally occurring asbestos
NO_x	oxides of nitrogen
NPDES	National Pollutant Discharge Elimination System
O_3	ozone
OHWM	ordinary high water mark
OS	Open Space
Pb	lead
PCBs	polychlorinated biphenyls
PF	Public Facility
PGA	peak ground acceleration
PG&E	Pacific Gas & Electric Company
PJD	Preliminary Jurisdictional Determination
PM	Particulate Matter
PPV	Peak Particle Velocity
PRC	Public Resources Code
RH	Residential High
RMH	Residential Medium High
ROG	reactive organic gases

RTP/SCS	Regional Transportation Plan/Sustainable Communities Strategy
SB	Senate Bill
SF_6	sulfur hexafluoride
SJCOG	San Joaquin Council of Governments
SJCOSO	San Joaquin County Sheriff's Office
SJMSCP	San Joaquin County Multi-Species Habitat Conservation and Open Space Plan
SJRTD	San Joaquin Regional Transit District
SJVAB	San Joaquin Valley Air Basin
SJVAPCD	San Joaquin Valley Air Pollution Control District
SO2	sulfur dioxide
SR	State Route
SSC	species of special concern
SWMP	stormwater management program
SWPPP	Storm Water Pollution Prevention Plan
TACs	toxic air contaminants
TAZs	Travel Analysis Zones
TCRs	tribal cultural resources
TDM	Transportation Demand Management
TDS	total dissolved solids
$\mu g/m^3$	micrograms per cubic meter
USACE	U.S. Army Corps of Engineers
USGS	U.S. Geological Survey
UWMP	Urban Water Management Plan
Vdb	vibration decibel
VMT	vehicle miles traveled
WQB	water quality basin
WSA	water supply assessment
WSV	Water Supply Verification
WTP	Water Treatment Plant

Chapter 1
Introduction

1.1 Project Overview

This Initial Study/Mitigated Negative Declaration (IS/MND) evaluates the proposed amendments to the San Joaquin County General Plan, Mountain House Master Plan (Master Plan), Specific Plan II and Rezoning (these amendments are referred to, collectively, as the project). Specifically, the project includes amendments to Neighborhoods H, I, J, L, and the Town Center in the Mountain House development. This chapter explains the project overview, provides the purpose of the IS/MND, establishes the context and scope of the IS/MND, provides references to relevant previous environmental review documents and reports, and provides a summary of project information. San Joaquin County is the lead agency for the project for purposes of environmental review under the California Environmental Quality Act (CEQA). *Lead agency* is defined by CEQA Guidelines Section 21067 as "the public agency which has the principal responsibility for carrying out or approving a project which may have a significant effect upon the environment."

1.2 Purpose of this Initial Study/Mitigated Negative Declaration

The 1994 Master Plan was the subject of the certified 1994 *Mountain House Master Plan Final EIR* (1994 MEIR). Public Resources Code (PRC) section 21166 provides:

> When an environmental impact report has been prepared for a project pursuant to this division, no subsequent or supplemental environmental impact report shall be required by the lead agency or by any responsible agency, unless one or more of the following events occurs:
>
> (a) Substantial changes are proposed in the project which will require major revisions of the environmental impact report.
>
> (b) Substantial changes occur with respect to the circumstances under which the project is being undertaken which will require major revisions in the environmental impact report.
>
> (c) New information, which was not known and could not have been known at the time the environmental impact report was certified as complete, becomes available.

If impacts resulting from changes to a project do not differ significantly from those analyzed in the previously certified EIR, a further EIR is not required.

This IS/MND identifies the potential environmental effects resulting from the project and includes updated analyses, particularly for the resource categories of air quality, energy, greenhouse gas emissions, noise, transportation, tribal cultural resources, and wildfire. While the adoption of new regulations or issuance of new guidelines does not constitute new information within the meaning of PRC 21166(c) if the information about the underlying resource and potential project impact was

known at the time the original EIR was certified, these resource categories have had substantial regulations changes since the 1994 MEIR was certified. The new regulatory requirements in these resource areas are reflected in the updated analysis of the IS/MND.

1.3 Initial Study/Mitigated Negative Declaration Contents and Organization

This IS/MND was prepared in conformance with CEQA Guidelines and includes the following sections:

- Chapter 1: *Introduction*, provides a project overview, describes the purpose of the IS/MND, describes the document's contents and organization, lists documents incorporated by reference, and summarizes project information.
- Chapter 2: *Project Description*, describes the project location, project objectives, components of the project during operation and construction, and project approvals.
- Chapter 3, Sections 3.1 through 3.3: *Environmental Determination*, provides the required summary statement regarding the type of CEQA document appropriate for the project, considering the environmental factors analyzed within the IS/MND.
- Chapter 3, Sections 3.3.1-3.3.21: *Initial Study Environmental Setting*, *Impacts*, evaluates the environmental impacts associated with the project.
- Chapter 4: References lists the documents, agencies, and persons consulted in the preparation of the IS/MND.
- Appendices: Includes technical reports/data used in the analysis.

1.4 Documents Incorporated by Reference

This IS/MND is a stand-alone CEQA document because the *Final Environmental Impact Report (SCH No. 90020776) for the Mountain House Master Plan and Specific Plan I* (Baseline Environmental Consulting 1994) was prepared more than 25 years ago. However, because prior CEQA documentation for the Mountain House Master Plan and Specific Plan remains relevant for the proposed project, the *Final Environmental Impact Report for the Mountain House Master Plan and Specific Plan I* is incorporated by reference in this IS/MND. The *Mountain House Specific Plan II Initial Study* is also incorporated by reference (Amy Skewes Cox 2004). Incorporation by reference of the 1994 MEIR includes application of prior mitigation measures, where applicable, to the proposed project to avoid or minimize impacts.

These documents, including the technical documents supporting the 1994 MEIR, are available for review at the offices of the County of San Joaquin Community Development Department at 1810 Hazelton Avenue in Stockton. Much of the text in the *Affected Environment* section for each resource category is excerpted from the Mountain House Specific Plan II Initial Study prepared in December 2004 for the San Joaquin County Community Development Department (Amy Skewes Cox 2004b).

1.5 Project Information

Project Title:

Mountain House Master Plan and Specific Plan II Amendments and Revisions to Approved Actions

Lead Agency Name and Address:

San Joaquin County
1810 Hazelton Avenue
Stockton, CA 95205

Contact Person and Phone Number:

Contact: John B. Anderson, Contract Mountain House Planner (209) 468-3160, mountainhouseplanning@sjgov.org

Corinne King, Principal Planner (209) 953-7509, cking@sjgov.org

Project Location:

Neighborhoods H, I, J, L, and Town Center, Mountain House, CA 95391

Project Sponsor's Name and Address:

Mountain House Developers, LLC
230 S. Sterling Drive, Suite 246Mountain House, CA 95391

General Plan Designation:

Multiple: Residential Medium High, Public Facilities-Community Park, Neighborhood Park, K-8 School, Public Facilities-Private

Description of Project:

Please refer to Chapter 2, *Project Description*.

Surrounding Land Uses and Setting:

The project site, which is composed of Neighborhoods H, I, J, L, and the Town Center in Mountain House, is bounded by agricultural lands and Old River to the north, agricultural land and rural residences to the east, existing Mountain House development to the south, and agricultural lands to the west. The City of Tracy is located approximately 6 miles to the southeast. Interstates 205 and 580 are due south of the Mountain House community.

Other Public Agencies Whose Approval May Be Required (e.g., permits, financing approval, participation agreement), Potential Responsible Agencies, and Trustee Agencies:

See Section 2.4.1 (Reviews/Approvals by Responsible Agencies)

Have California Native American tribes that are traditionally and culturally affiliated with the Project area requested consultation, pursuant to Public Resources Code Section 21080.3.1? If so, has consultation begun?

See Section 3.3.18, *Tribal Cultural Resources*, below.

Chapter 2
Project Description

Mountain House Developers, LLC is proposing amendments to the Mountain House Master Plan and Specific Plan II, specifically, amendments to Neighborhoods H, I, J, L, and the Town Center in the Mountain House development. Amendment to Neighborhood I includes a revision to the Tentative Subdivision Map conditions of approval. The following sections describe the project location, project objectives, detailed project description, utilities requirements, project construction details, and project approvals.

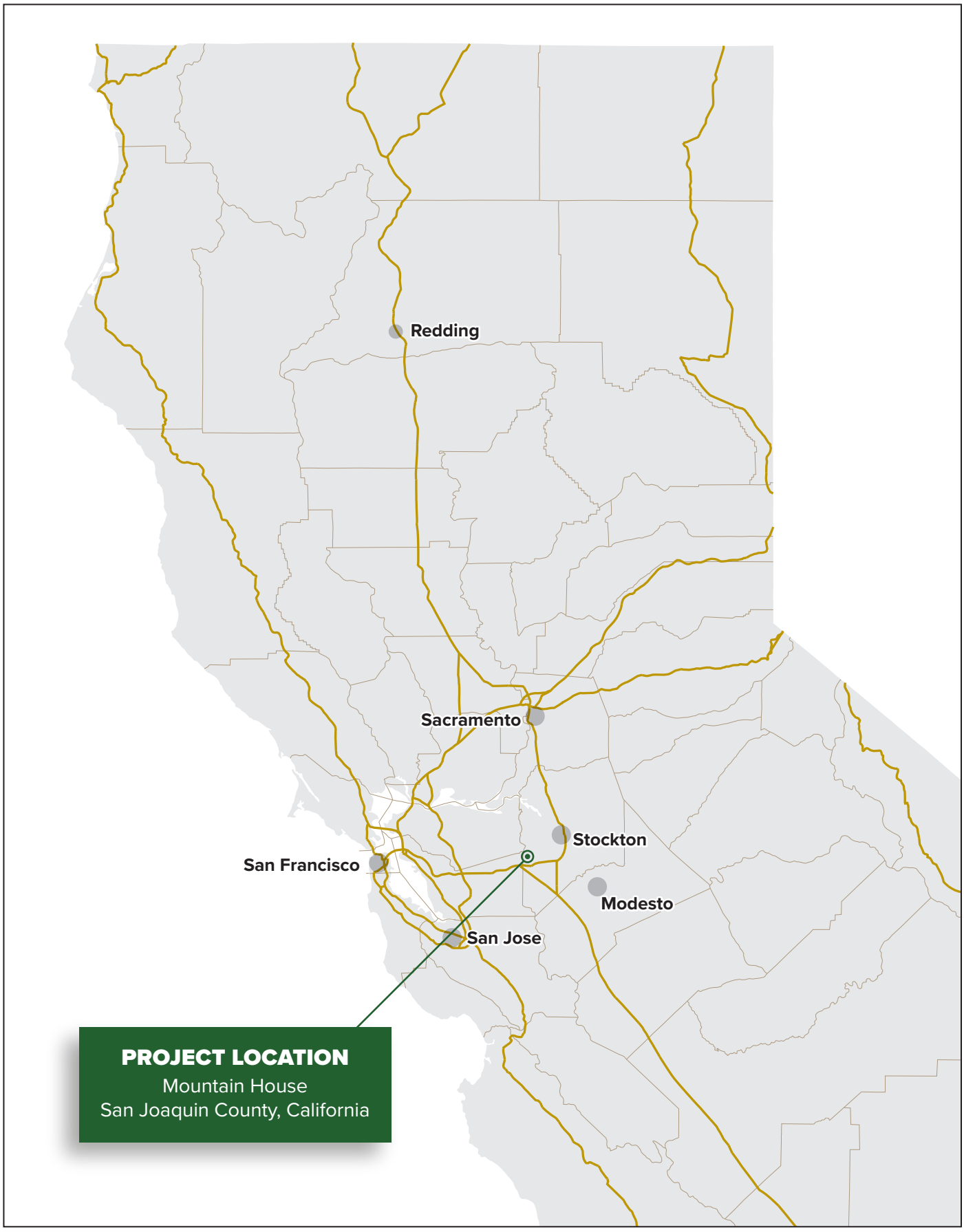
2.1 Project Location

Mountain House is located north of the city of Tracy. General boundaries of the Mountain House Community include the Alameda County/San Joaquin County line on the west, Old River on the north, Mountain House Parkway on the east, and I-205 on the south (Figure 2-1). The Town Center and Neighborhood H are located just south of Byron Road and Neighborhoods I, J, and L are located just north of Byron Road and south of Old River Road (Figure 2-2).

2.2 Project Background

Mountain House is a 4,784-acre Master Plan Community located in western San Joaquin County. The Mountain House Master Plan was approved in 1994 after certification of Final Environmental Impact Report (State Clearinghouse No. 90020776) for the Mountain House Master Plan and Specific Plan I.

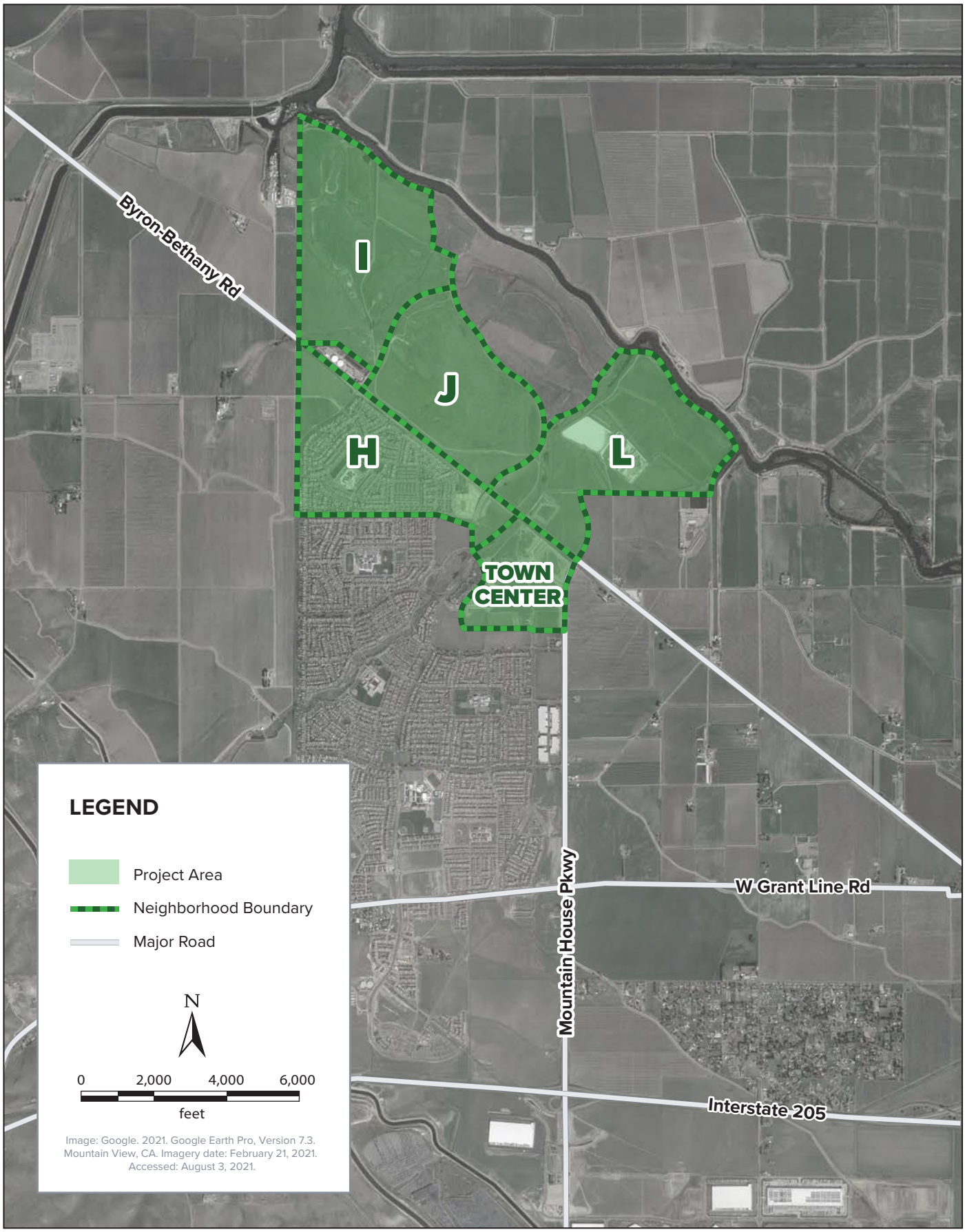
Subsequently, Specific Plan II was approved in 2004 to implement the goals and objectives of the Master Plan for Neighborhoods C, D, H, I, J, K, L and the Town Center. An Initial Study and Mitigated Negative Declaration were approved prior to adoption of Specific Plan II. Concurrent with the approval of Specific Plan II, the Master Developer (Trimark Communities, LLC) and San Joaquin County executed a Specific Plan II Development Agreement, amendments to the Master Plan and other related Community Approvals. Collectively, these approvals vested the rights of the developer to develop the number of dwelling units and non-residential acreage specified in Specific Plan II. More specifically, the developer of Specific Plan II has a vested right to build out according to the policies, standards, and ordinances of San Joaquin County existing at the time the Development Agreement was executed. This right is a Vested Element of the Development Agreement between the Developer and San Joaquin County. Part of the Vested Element includes the density and pace of development of Specific Plan II. The Development Agreement date was December 1, 2000, and date of expiration is December 1, 2025.



Graphics ... 00386.21 (8-3-21) tag

ICF

Figure 2-1
Regional Location



Graphics ... 00386.21 (8-3-21) tag

ICF

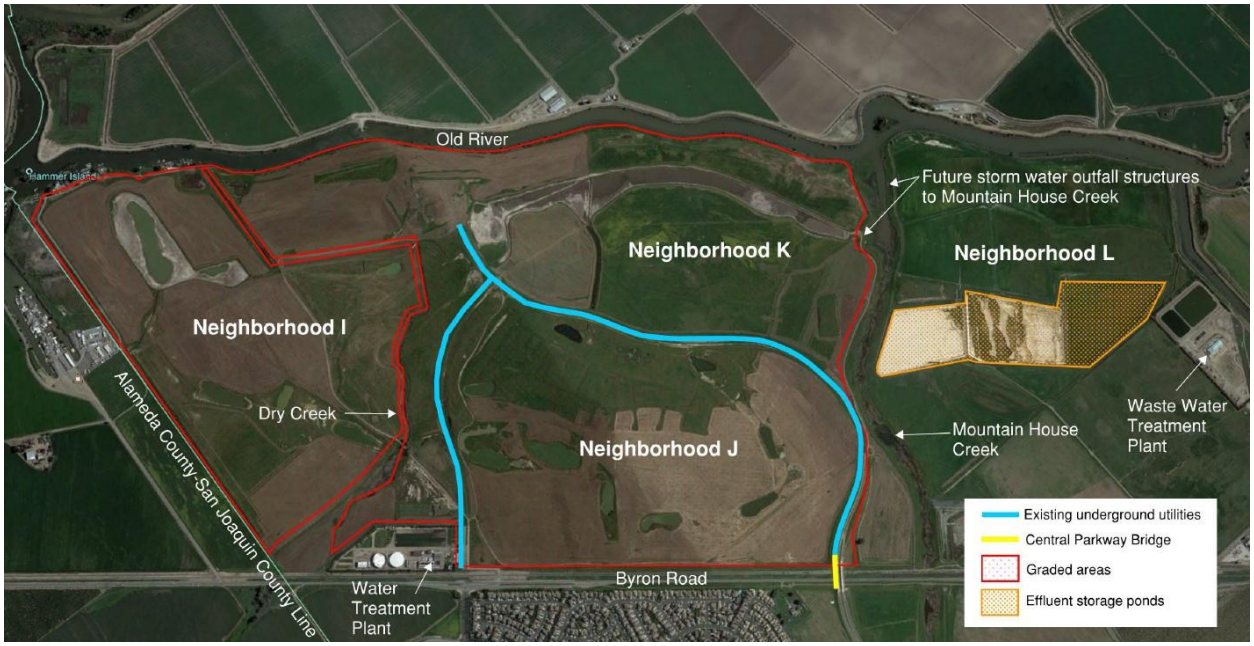
Figure 2-2
Project Location

Neighborhoods C, D, H and portions of the Town Center have been fully developed in accordance with community approvals. Significant infrastructure was installed by Mountain House Developers (MHD) in 2006 to support Neighborhoods I, J, K and L. As a result of mass grading and infrastructure installation, approximately 85% of the project area previously approved for development has been disturbed. In total, MHD has spent over $24 Million for infrastructure to support developments north of Byron Road (Neighborhoods I, J, K and L). Specifically, a bridge across Byron Road and the railroad tracks, two miles of underground utilities (storm drain pipelines, gravity sewer pipelines, sewer force main pipelines and water pipelines, reclaimed water lines) and grading. The grading included the excavation of ponds that serve as storm water quality treatment facilities for current and future Mountain House subdivisions. Storage reservoirs were also constructed in the Neighborhood L area to store treated effluent from the Mountain House Community Services District (MHCSD) Wastewater Treatment Plant. These reservoirs have been decommissioned and will eventually be demolished.

In 2007, Master Plan Amendment (PA-0600335) and Specific Plan II Amendment (PA0600337) were approved. The 2007 approvals revised the Neighborhoods I and J land plans and included new tentative maps to implement a new lot layout, revise the golf course layout and eliminate the previously proposed work within the boundaries of Dry Creek (which would have required a United States Army Corps of Engineers Section 404 Permit pursuant to the Clean Water Act) in favor of leaving the existing Dry Creek wetland areas in place.

After the conclusion of the mass grading work, but before the roadways were paved, MHD put development on hold in 2008 due to the Great Recession. MHD has since maintained the Neighborhoods I, J K and L area and the storm water quality features within it. Figure 2-3 shows current and future improvements.

Figure 2-3. Current and Future Improvements



Master Plan Amendment (PA-1700002) and Specific Plan II Amendment (PA-1700004) were approved in 2017, revising the land plan of the Town Center to adjust the roadway network and relocate various land uses within the Town Center.

Master Plan Amendment (PA-1800039) and Specific Plan II Amendment (PA1800040) were approved in 2019, in order to reflect Neighborhoods J and K Final Map refinements in the Master Plan and Specific Plan II, including lot layout revisions, conversion of the golf course to open space and reallocation of a portion of the age restricted units within Neighborhoods J and K.

MHD is now preparing to develop Neighborhoods I, J, K and L in phases, and is seeking slight modifications to the community approvals to reflect changed market conditions. The modifications do not increase the number of approved units or the overall intensity or intensity of development.

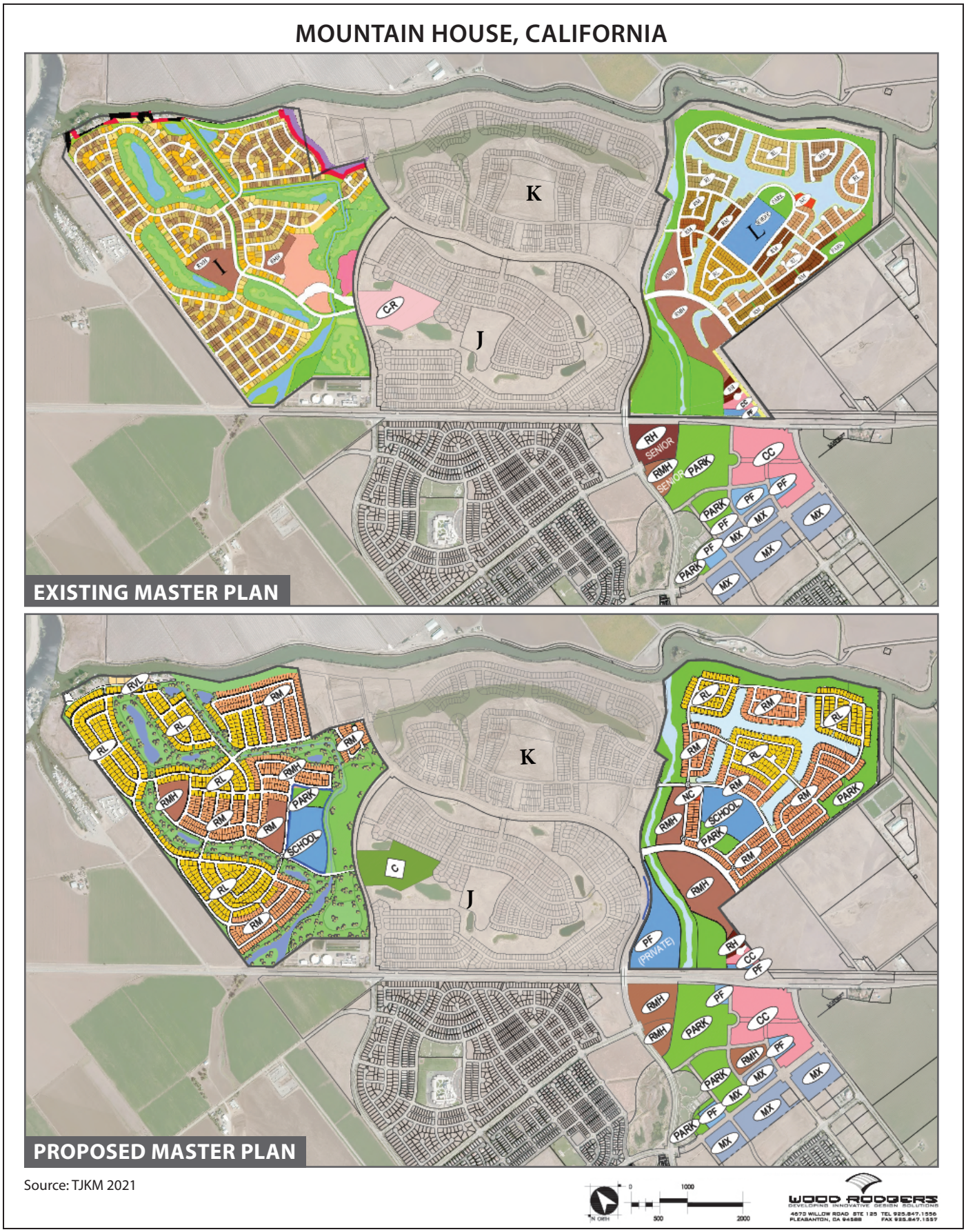
2.3 Project Objectives

This IS/MND addresses the physical impacts of the project, as required by CEQA. The applicant has identified the following objectives, which are relevant to the physical impacts considered in this document.

1. To update the Neighborhood I and L Tentative Subdivision Maps to reflect current market demand, without increasing the total number of dwelling units. In particular, to eliminate the requirement that each house in Neighborhood I be occupied by active-adult residents aged 55 and above.
2. As part of eliminating the active-adult designation in Neighborhood I, provide a K-8 school site to accommodate school age kids within the subdivision.
3. To modify the land use designations in Neighborhood H to reflect changed market demand, to balance the reduced higher density units in Neighborhood H by rezoning a corresponding acreage of higher density units in the Town Center, and to ensure no net loss of higher density housing.
4. To expand the acreage and location of the Central Community Park to accommodate the recreational needs of the Mountain House community, while ensuring that recreational services can be delivered in an efficient and cost-effective manner.
5. To relocate North Community Park to a more central location with easier vehicular and pedestrian access for residents.

2.4 Project Description

Mountain House Developers, LLC (applicant) have requested amendments to the Mountain House Master Plan and Specific Plan II as described herein and shown in Figure 2-4. The Master Plan EIR evaluated 16,105 units and the Master Plan was approved for a maximum of 16,921 dwelling units. To date, the approved tentative and/or final maps plus units allocated to undeveloped parcels would yield a total of 15,662 expected dwelling units, which is projected to be 442 dwelling units below the total number of units evaluated in the Master Plan EIR.



Graphics ... 00386.21 (8-18-21) tag

ICF

Figure 2-4

Proposed Master Plan/Specific Plan II Amendments

The project would result in changes to the following neighborhoods within the Master Plan/Specific Plan II area: Town Center, and Neighborhoods H, I, J, and L. The applicant is also requesting the elimination of the prior Condition of Approval requiring that Neighborhood I be restricted to active-adult residents and thereby prohibit school-age children from living in that area. This would require amendments to the Master Plan, Specific Plan II, and revisions to the conditions of approval for Neighborhood I. Additionally, the applicant is proposing a 16-acre K-8 school site to accommodate the additional students generated by the proposed change to Neighborhood I. The applicant is working with the Lammersville Unified School District (LUSD) to best accommodate the K-12 students that would be generated because of the changes to Neighborhood I to allow for unrestricted age conditions.

The proposed amendments to the General Plan, Master Plan, Specific Plan II, Rezoning, and Condition of Approval are described further in the following sections.

Geotechnical engineering studies have been prepared for Neighborhoods I and J and the Town Center (ENGEO 2007a, 2007b, 2019). The recommendations included in these reports, along with other sound engineering practices, would be incorporated in the design of the project and included in the improvement plans and specifications.

2.4.1 Town Center

- Redesignate 5.2 acres of PF (Private Facility-Private) to Residential Medium High (RMH) with a potential yield of 73 residential dwelling units.
- Relocate 1.8 acres of PF (Public Facility) earmarked for a future police station from Vivaldi Street to the southwest corner of Raphael Street and Byron Road.
- Redesignate 4.1 acres of MX (Mixed Use) land uses to Community Park.
- Eliminate a segment of Vivaldi Street (from Raphael Street to Providence) and integrate that segment into Community Park. This may also require a right-of-way vacation by the MHCSD.

Reference Figure 2-4 for existing and proposed zoning designations for the Town Center.

2.4.2 Neighborhood H

- Redesignate 11.5 acres from RH (Residential High, Senior) to RMH (Residential Medium High) with a potential yield of 161 dwelling units.
- Eliminate the Senior designation for a 5-acre RMH parcel with a yield of 70 dwelling units.

Reference Figure 2-4 for Neighborhood H existing and proposed amendments.

2.4.3 Neighborhood I

- Eliminate the active-adult designation from the entire neighborhood by amending the Master Plan, Specific Plan II, and the approved Tentative Subdivision Map.
- Redesignate 16 acres from Commercial Recreation Open Space (OS) to K-8 School.
- Redesignate 5 acres from Commercial Recreation OS to Neighborhood Park.

Reference Figure 2-4 for Neighborhood I existing and proposed amendments.

2.4.4 Neighborhood J

- Redesignate approximately 20 acres from Commercial Recreation OS to PF (Public Facilities-Community Park). This is the relocation of North Community Park from its current location east of Central Parkway and north of Byron Road.

Reference Figure 2-4 for Neighborhood J existing and proposed amendments.

2.4.5 Neighborhood L

- Redesignate 22 acres from Community Park to PF (Public Facilities-Private).
- Relocate the K-8 School approximately 1,000 feet south of its prior proposed location.
- Relocate Neighborhood Park approximately 1,300 feet south of its prior proposed location.
- Relocate 1-acre Neighborhood Commercial site approximately 1,300 feet south-east of its existing location.

Reference Figure 2-4 for Neighborhood L existing and proposed amendments.

2.4.6 Utilities

Onsite utilities would include electricity and natural gas, domestic water, wastewater, and storm drainage facilities, which were all analyzed in the 1994 MEIR and 2004 IS/MND. All onsite utilities would be designed in accordance with the current Master Plan and Specific Plan II, applicable county codes, standard engineering practices, and MHCSD standards and specifications, and would not substantially change from the Specific Plan II.

2.4.6.1 Energy

As under the current approved Master Plan and Specific Plan II, electricity would still be provided by Modesto Irrigation District (MID) and gas service provided by Pacific Gas & Electric Company (PG&E). These two entities would be responsible for constructing any necessary extension of their infrastructure to serve the project. A MID substation was constructed outside Mountain House, on the south side of Kelso Road in Alameda County and would serve the project. Construction of this substation was the subject of a separate environmental review document (Modesto Irrigation District 2018).

2.4.6.2 Domestic Water

MHCSD provides potable water to the Mountain House community and would provide water to the project. Domestic water demand is based upon land use and demand factors established by the MHCSD. Demand factors used for this analysis are consistent with the updated and approved 2020 Potable Water System Master Plan Update, dated November 2020, and prepared by West-Yost. In accordance with existing entitlement documents, a 14 percent water conservation reduction in demand is used. The overall increase to domestic water demand for the proposed project (maximum daily water demand [MDWD]) is 115,223 gallons per day (gpd) or 0.115 million gallons per day (mgd). The 2020 Potable Water System Master Plan Update identifies a buildout projection to require a Water Treatment Plant (WTP) expansion to a total of 18.2 mgd. However, as identified in Section 12.6 of Specific Plan II, the WTP will ultimately be expanded to 20 mgd (Carlson, Barbee &

Gibson, Inc. 2021). The domestic water demand of the proposed amendments is within the capacity of the planned water storage for the Mountain House Master Plan (Appendix C, Carlson, Barbee & Gibson, Inc. 2021).

2.4.6.3 Water Storage

Water storage requirements are based upon three factors: emergency storage (75 percent of MDWD), operational storage (30 percent of MDWD), and fire flow storage. Fire flow storage is based upon fire flow rates and duration for the most demanding land use. In Mountain House, the most demanding fire flow land use is Industrial (I/L) and, as a result, the project would not have an impact on fire flow storage. The combined requirement of emergency and operational storage equates to 105 percent of the MDWD (Carlson, Barbee & Gibson, Inc. 2021). The water storage demand of the proposed amendments is within the capacity of the planned water storage for the Mountain House Master Plan (Appendix C, Carlson, Barbee & Gibson, Inc. 2021).

2.4.6.4 Wastewater

MHCSD provides wastewater collection, treatment and disposal to the Mountain House community and would provide those services to the project. Wastewater generation is based upon land use and generation rates established by the MHCSD. While existing rates are currently published in the MHCSD Standards and Specifications, it should be noted that the MHCSD is currently working to update the Sanitary Sewer Master Plan and generation rates (Carlson, Barbee & Gibson, Inc. 2021). The wastewater demand of the proposed amendments is within the capacity of the planned water storage for the Mountain House Master Plan (Appendix C, Carlson, Barbee & Gibson, Inc. 2021).

2.4.6.5 Storm Drainage

Storm drainage improvements would remain relatively unchanged with the project compared to plans for storm drainage in the Master Plan and Specific Plan II. In accordance with the MHCSD's Storm Water Master Plan Update, and subject to additional detailed investigation and engineering, the applicant would construct two water storage and water quality lakes within Neighborhoods K and L to intercept, treat, and store nuisance and flood flows that originate in Neighborhoods H, I, J, K, and L, per the MHCSD Storm Water Master Plan Update. These lakes would store water year-round for aesthetic and recreational purposes and would be connected to Mountain House Creek via overflow weirs during large storm events.

2.4.7 Project Construction

The proposed construction methods are considered conceptual and subject to review and approval by the Community Development Department and MHCSD. For the purposes of this environmental document, the analysis considers the following construction plan.

2.4.7.1 Construction Schedule and Phasing

The project would consist of sequential construction phases (grading and site improvements) for each neighborhood and the Town Center (see Table 2-1). Construction of the residential units in Neighborhood H is expected to start in 2024. The expected completion date for Neighborhood H is the spring of 2024. Per Mountain House Community Services District requirements, construction hours would be between 7:00 a.m. to 6:00 p.m. Monday through Friday. Extended hours which may

include Saturdays and Sundays may be allowed through notice to adjacent residents and landowners, and prior approval of the Mountain House Community Services District for infrastructure construction. The first phase of Central Community Park in the Town Center (grading and site improvements) is expected to begin in Spring of 2022 and be completed within 18 months. Neighborhood J construction phase (grading and site improvements) is expected to begin in Spring 2022 and be completed within 18 months. Neighborhood I construction start phase (grading and site improvements) is expected to begin in the Spring of 2026 and be completed within 18 months. Neighborhood L construction phase (grading and site improvements) is expected to begin in Spring 2029 and be completed within 18 months.

Table 1-1. Project Phasing

Neighborhood	Start	Completion
Town Center	Spring 2022	Winter 2024
Neighborhood H	Spring 2024	Fall 2026
Neighborhood J	Spring 2022	Fall 2024
Neighborhood K	Fall 2024	Fall 2025
Neighborhood I	Spring 2026	Fall 2027
Neighborhood L	Spring 2029	Fall 2030

Source: Mountain House Developers, LLC. 2021.

2.4.7.2 Construction Equipment and Staging

Typical equipment would be used during project construction, including dozers, loaders, dump trucks, excavators, and backhoes. Pile driving is anticipated. Potential construction laydown and staging areas would be onsite in undeveloped areas or nearby depending on site acreage and availability of vacant sites.

2.4.7.3 Construction Employment

The size of the construction workforce would vary during the different phases of construction of each neighborhood and the Town Center. On average, approximately 150 workers would be at the project site per day during peak construction activity.

2.4.7.4 Construction Grading

Approximately 85% of the project's development area has been mass graded or otherwise disturbed pursuant to prior approvals. A significant amount of grading was previously completed in 2007 within neighborhoods I and J to establish rough grade elevations for the project and to create the storm water quality ponds. The project would require soil to be excavated; no structures would be demolished during site preparation. The project is expected to have an overall balance of soil, so there should be no export or import of soil into or out of Mountain House The project site does not include any existing structures, so there would be no demolition.

2.5 Project Approvals

The following county discretionary approvals would be required prior to development.

- **7th Master Plan Amendment,** to adjust the land use designations and map that were previously approved for Neighborhoods H, I, J, L, and the Town Center and to change the corresponding General Plan Land Use designations to match the suggested Master Plan.
- **San Joaquin County General Plan amendments**, to change the corresponding General Plan Land Use designations to match the suggested Master Plan.
- **4th Specific Plan II Amendment,** to adjust the land use designations and map that were previously approved for Neighborhoods H, I, J, L, and the Town Center and to change the current zoning to match the proposed zoning for Neighborhoods H, I, J, L, and the Town Center.
- **Rezoning**, to change the current zoning to match the proposed zoning for Neighborhoods H, I, J, L, and the Town Center.
- **Revisions of Approved Action,** to eliminate condition of approval for Neighborhood I, requiring occupancy by active-adults 55 years or older.

2.6 Reviews/Approvals by Responsible Agencies

Reviews and approvals by other agencies that may be needed for the project to proceed are also identified. Some of these agencies would need to approve certain parts of the project prior to full implementation, but their approval is not required for IS/MND adoption.

- **San Joaquin Valley Air Pollution Control District**—applicable construction-related permits.
- **California Regional Water Quality Control Board**—Approval of National Pollutant Discharge Elimination System (NPDES) permit for stormwater discharge.
- **San Joaquin Regional Transit District**—Review of potential effects on public transit.
- **Mountain House Community Services District**—Approval of construction plans for site improvements and proposed fire prevention systems, onsite generators, and emergency vehicle access.
- **Native American Heritage Commission**—Project review and recommendation of Native American tribes to consult.
- **San Joaquin Council of Government**—Project review.

Chapter 3
Environmental Checklist

3.1 Environmental Factors Potentially Affected

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

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

3.2 Determination

On the basis of this initial evaluation:

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

☒ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions to the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

☐ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

☐ I find that the proposed project MAY have an impact on the environment that is "potentially significant" or "potentially significant unless mitigated" 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 ENVIRONMENTAL IMPACT REPORT or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier ENVIRONMENTAL IMPACT REPORT or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the project, nothing further is required.

Signature	Date
John B. Anderson	San Joaquin County CDD
Printed Name	For

3.3 Evaluation of Environmental Impacts

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

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

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

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

Earlier analyses may be used if, pursuant to tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration (Section 15063(c)(3)(D)). In this case, a brief discussion should identify the following:

Earlier Analysis Used. Identify and state where earlier analyses are available for review.

Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards and state whether such effects were addressed by mitigation measures based on the earlier analysis.

Mitigation Measures. For effects that are "Less than Significant with Mitigation Incorporated," describe the mitigation measures that were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.

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

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

This is only a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to a project's environmental effects in whatever format is selected.

The explanation of each issue should identify: the significance criteria or threshold, if any, used to evaluate each question; and the mitigation measure identified, if any, to reduce the impact to a less-than-significant level.

3.3.1 Aesthetics

		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
Except as provided in Public Resources Code Section 21099, would the project:					
a.	Have a substantial adverse effect on a scenic vista?	☐	☐	☐	☒
b.	Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings along a scenic highway?	☐	☐	☐	☒
c.	In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	☐	☐	☒	☐
d.	Create a new source of substantial light or glare that would adversely affect daytime or nighttime views in the area?	☐	☐	☒	☐

3.3.1.1 Affected Environment

Views from Public Roads

The project area is visible from public roads that currently exist, such as Mountain House Parkway, Byron Road, Henderson Road and Central Parkway. In the future, the project area would be visible from new roads to be constructed as part of the Mountain House project. None of these roads are designated as a Scenic Corridor in the San Joaquin County's 2035 General Plan.

Neighborhoods I, J, and L are currently in various stages of development. Neighborhoods I and J have been mass graded and arterial roadways are partially constructed. Neighborhood L is partially constructed with a storm water quality basin, underground pipelines, and additional storage basins. Neighborhood H is mostly built out, and the Town Center is partially constructed (see Figure 2-4). The project area is fairly level, with only a few areas of tree cover along Mountain House Creek and near Old River. Scatterings of trees are also located in other parts of the Specific Plan II area. Mountain House Creek is the primary waterway that crosses the project area.

Neighborhoods I and J, which are visible from Byron Road, were previously graded and partially improved with underground improvements and a bridge in 2008. From Byron Road, Neighborhood L is also visible and is partially developed with an existing water quality basin and storage ponds.

The Town Center is most visible from Mountain House Parkway. From this road one looks west across fields to existing buildings and other buildings currently under construction. Visible are the Mountain House Town Hall, a Library, a School District administration building and a partially

constructed shopping center. The remaining land is disced regularly for weed and fire control. Views from Waterways

Old River forms the northern boundary of the project area and the entire Mountain House community. The existing levee along Old River is about 12 feet higher than the ground level to the south, providing long-distance views when one stands atop the levee. Thick riparian vegetation along the banks of the levee creates a visual contrast to the nearby waterway and agricultural fields. Due to the height of the levee, views into the project area from boaters using Old River are blocked. Boating use in this part of the river is limited due to the presence of the California Department of Water Resources (DWR) barrier, heavy vegetative growth (e.g., Brazilian elodea, sometimes referred to as Brazilian waterweed [*Egeria densa*]), and water hyacinth (*Eichornia crassipes*), and the shallow depth and narrow width of Old River. The nearest marina is located at the northwest corner of the Mountain House community. Many boaters head north from this point along Old River rather than east along the edge of the Mountain House community. No major roads are located at the northern side of Old River that would provide views into the project area.

Design Review Process

The MHCSD has adopted the *Mountain House Community Services District Design Manual* (as amended) (MHCSD 2013), which addresses the design standards for public facilities that would be under the jurisdiction of the MHCSD. Elements addressed by the MHCSD Design Manual include streetscapes, walls and fences, paths, street furniture, lighting, signage, entries, community edges, parks, schools, civic facilities, and public works facilities. The MHCSD will review subdivision plans, building designs, and improvement plans for all new MHCSD facilities within the community for conformance with the MHCSD Design Manual and with all applicable Master Plan programs, policies, and standards.

The design review process would also include review by the San Joaquin County Mountain House Design Consistency Review Committee (DCRC), which would review all discretionary and administrative implementing permits within Mountain House, the DCRC review manual, Tentative Subdivision Maps and Special Purpose Plans, all subsequent development permits including improvement plans for community facilities and buildings, design guidelines for private development, and all development applications and building permits. The purpose of the Design Review is to verify that proposed projects are consistent with the policies and design requirements of the Mountain House Master Plan, applicable Specific Plan, Development Title, and all other community approvals.

3.3.1.2 Discussion

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

The 1994 MEIR concluded that the project's adverse effects on scenic vistas would be insignificant with implementation of Mitigation Measures M4.8-1, M4.8-2, M4.8-3, M4.8-4, and M4.8-6. Development of the project would not be substantially different from that evaluated in the 1994 MEIR. The existing rural visual quality of the project area would be replaced with urban-type development, with buildings ranging in height from one to four stories. The areas of the tallest buildings would be in the Mixed-Use zones of the Town Center. Four story buildings would be allowed in the Residential High-Density district north of Byron Road in Neighborhood L, and the far eastern comer of Neighborhood H adjacent to the Town Center just south of Byron Road. Exceptions

to the height limit would be allowed under the County's Development Title for church steeples, flagpoles, chimneys, and ancillary roof structures. All other areas would be limited to two-story construction.

New development would be partially screened from view by proposed landscaping along roadways. Landscaping along streets and in public areas would be required as part of the MHCSD design review and approval process. In addition, a significant amount of new landscaping would be added along the Mountain House Creek corridor north of Byron Road. No designated scenic corridors are in the vicinity of the Mountain House community.

While views toward Mt. Diablo and foothills to the west would be restricted by new buildings and new landscaping, some of these views would be available during winter months when deciduous trees have lost their leaves. Views for boaters along Old River would not be significantly affected because the existing levee blocks views into the project area and most of the area along the river would be a regional park.

Views from existing homes along Old River and Mountain House Parkway would be altered by project development. Where residents now overlook agricultural fields, future development would be visible. From homes along Old River in the northwest corner of the project site, views across agricultural fields are uninterrupted. A substantial amount of fill has previously been placed on the south side of Kelso Road, bringing new homes to an elevation slightly below existing homes along the river. Slopes of a 3:1 ratio are proposed for both sides of the relocated Kelso Road. New landscaping with trees and shrubbery would screen new development from view. Fences and home sites would be set back to the south side of new landscaping along the 30-foot access easement.

For homes along Mountain House Parkway, new buildings would be screened from view by roadway trees and other landscaping. Visual impacts would not be substantially different from what was evaluated in the 1994 MEIR; therefore, there would be no impact.

The Master Plan states that sound walls shall be no higher than 7 feet in height whenever possible (Section 4.2.7). The Specific Plan II development includes a 9-foot-high sound barrier along the south side of Byron Road (for Neighborhood H). The project would not result in a change to these heights. While these walls would not adversely affect a scenic vista (as their height would be lower than adjacent rooftops), they could create a walled-in effect if not adequately screened with landscaping. Landscaping adjacent to these walls, as required by the MHCSD Design Manual, would reduce the visibility of the sound barriers, reducing any potential impacts to a less-than-significant level.

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

The closest designated scenic highway is Interstate 580 south of Interstate 205, approximately 3.3 miles south of the project site (Caltrans 2018). No aspect of the project would have an impact on Interstate 580. There would be no impact.

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

The project would not conflict with existing zoning or any other regulations governing scenic quality. The proposed amendments to the Master Plan and Specific Plan II are minor and would not result in any changes that would have an impact on scenic quality from what was analyzed in the 1994 MEIR. MHCSD adopted a design manual which addresses the design standards for public facilities that would be under the jurisdiction of the MHCSD. Elements addressed include streetscapes, walls and fences, paths, street furniture, lighting, signage, entries, community edges, parks, schools, civic facilities, and public works facilities. MHCSD would review subdivision plans, building designs, and improvement plans for all new development for conformance with the design manual and with all Master Plan and Specific Plan II programs, policies, and standards.

The design review process would also include review by DCRC per the review manual, which would review all discretionary and administrative implementing permits within Mountain House, Tentative Subdivision Maps and Special Purpose Plans, all subsequent development permits including improvement plans for community facilities and buildings, design guidelines for private development, and all development applications and building permits. The purpose of Design Review is to verify that proposed projects are consistent with the policies and design requirements of the Master Plan, Specific Plan II, the Development Title, and all other community approvals. Project adherence to the design guidelines would result in a less than significant impact.

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

The 1994 MEIR concluded that the project's light and glare impacts would be insignificant with implementation of Mitigation Measure M4.8-5. No significant new light and glare impacts would result from the project. Lighting recommendations are also included in the text of Specific Plan II. Lighting is generally to be limited to 12 to 14 feet in height in Neighborhood Centers and to be shielded. Parking area lights are to be shielded to minimize glare, as stated in Specific Plan II. The project would not have any significant new light and glare impacts not already addressed in the 1994 MEIR; therefore, impacts would be less than significant.

3.3.2 Agricultural and Forestry Resources

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
In determining whether impacts on agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts on forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment Project, and forest carbon measurement methodology provided in the Forest Protocols adopted by the California Air Resources Board. Would the project:				
a. Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	☒
b. Conflict with existing zoning for agricultural use or conflict with a Williamson Act contract?	☐	☐	☐	☒
c. Conflict with existing zoning for, or cause rezoning of forest land (as defined in Public Resources Code Section 12220(g)), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))?	☐	☐	☐	☒
d. Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒
e. Involve other changes in the existing environment that, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use?	☐	☐	☐	☒

3.3.2.1 Affected Environment

According to the California Department of Conservation's *California Important Farmland Finder* website (California Department of Conservation 2018), Neighborhoods I, J, L, and the Town Center are primarily designated Farmland of Local Importance. Neighborhood H and the built portions of

the Town Center and other surrounding neighborhoods are designated Urban and Built-Up Land. Adjacent lands to the north across Old River are designated Prime Farmland and lands to the east are designated a mix of Prime Farmland, Farmland of Local Importance, Semi-Agricultural and Rural Commercial Land, Unique Farmland, and Rural Residential Land. The lands adjacent and to the west of the project area, in Alameda County, are designated Prime Farmland, with lands further west designated primarily Grazing Land.

There are no Williamson Act contracts in the project area (San Joaquin County 2015). All previous contracts in the project area have expired. The project area has a mix of residential, commercial, mixed use, and public facility zoning designations. No lands are zoned for agricultural uses.

3.3.2.2 Discussion

a. Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?

The 1994 MEIR concluded that development of 3,600 acres of Prime Farmland in the Mountain House development was a significant and unavoidable impact, and the Board of Supervisors adopted Statements of Overriding Consideration as required by CEQA to justify the loss of 3,600 acres of Prime Farmland associated with the entire Mountain House development. The project would not have any significant new farmland conversion impacts not already addressed in the 1994 MEIR; therefore, no new impacts would result.

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

The 1994 MEIR concluded that impacts relating to a conflict with existing agricultural zoning, or a Williamson Act contract would be less than significant with mitigation. Because there are no Williamson Act contracts in the project area, and all lands are zoned for a mix of residential, commercial, mixed use, and public facility zoning designations, there would be no impact.

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

There are no forest lands or land zoned for timberland in the project area; therefore, there would be no impact.

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

There are no forest lands or land zoned for timberland in the project area; therefore, there would be no impact.

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

There are no forest lands or land zoned for timberland in the project area; therefore, there would be no impact on forest lands. As noted above under a), the 1994 MEIR concluded that development of 3,600 acres of Prime Farmland within the Mountain House development was a significant and unavoidable impact. The project would not have any significant new farmland conversion impacts not already addressed in the 1994 MEIR; therefore, no new impacts would result.

3.3.3 Air Quality

		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make the following determinations. Would the project:					
a.	Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☒	☐
b.	Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is a nonattainment area for an applicable federal or state ambient air quality standard?	☐	☐	☒	☐
c.	Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☒	☐
d.	Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	☐	☐	☒	☐

3.3.3.1 Affected Environment

Environmental Setting

This air quality setting section discusses federal and state ambient air quality standards and existing air quality conditions, identifies sensitive receptors, and describes the regulatory framework for air quality management. Air Quality modeling inputs, assumptions, and results are contained in Appendix A, *Air Quality and Greenhouse Gas Emission*. The study area for this resource is generally defined as the project construction and operational footprint, as well as the surrounding area within San Joaquin County.

Existing Conditions

This section provides a discussion of the existing conditions related to air quality at the project site and in the study area. The air quality management agencies of direct importance in San Joaquin County include the U.S. Environmental Protection Agency (EPA), California Air Resources Board (CARB), and the San Joaquin Valley Air Pollution Control District (SJVAPCD). EPA has established federal ambient air quality standards (NAAQS) for which CARB and the SJVAPCD have primary implementation responsibility. CARB and SJVAPCD are also responsible for ensuring that state ambient air quality standards (CAAQS) are met. The SJVAPCD has further responsibility for implementing strategies for air quality improvement and recommending mitigation measures for new growth and development.

Local Air Quality and Attainment Status

Existing air quality conditions in the project area can be characterized in terms of the NAAQS and CAAQS established for several different pollutants. For some pollutants, separate standards have been set for different measurement periods. Most standards have been set to protect public health and welfare with an adequate margin of safety. For some pollutants, standards have been based on other values (such as protection of crops, protection of materials, or avoidance of nuisance conditions). The NAAQS describe acceptable conditions that were first authorized by the federal Clean Air Act of 1970 (CAA). Air quality is considered in *attainment* if pollutant levels are continuously below or equal to the NAAQS and exceed them no more than once each year. The CAAQS, which describe adverse conditions, were authorized by the California State Legislature in 1967. Pollution levels must be below the CAAQS before a basin can attain the standard. California standards are generally more stringent than the national standards. State and federal criteria pollutant emission standards have been established for six pollutants: carbon monoxide (CO), ozone (O_3), particulate matter (PM) consisting of PM less than or equal to 10 micrometers in diameter (PM10) and PM less than or equal to 2.5 micrometers in diameter (PM2.5), nitrogen dioxide (NO_2), sulfur dioxide (SO_2), and lead (Pb). Furthermore, the CAAQS established standards for sulfates, hydrogen sulfide, and vinyl chloride. Within the San Joaquin Valley Air Basin (SJVAB), the SJVAPCD is responsible for ensuring that these emission standards are not violated. The pollutants of greatest concern in the project area are CO, O_3, and PM10 and PM2.5. NAAQS and CAAQS are presented in Table 3.3.3-1.

Table 3.3.3-1. National and State Ambient Air Quality Standards

Criteria Pollutant	Average Time	California Standards	National Standards [a]	
			Primary	Secondary
Ozone	1-hour	0.09 ppm	None	None
	8–hour	0.070 ppm	0.070 ppm	0.070 ppm
Particulate Matter (PM10)	24-hour	50 μg/m^3	150 μg/m^3	150 μg/m^3
	Annual mean	20 μg/m^3	None	None
Fine Particulate Matter (PM2.5)	24-hour	None	35 μg/m^3	35 μg/m^3
	Annual mean	12 μg/m^3	12.0 μg/m^3	15 μg/m^3
Carbon Monoxide	8-hour	9.0 ppm	9 ppm	None
	1-hour	20 ppm	35 ppm	None
Nitrogen Dioxide	Annual mean	0.030 ppm	0.053 ppm	0.053 ppm
	1-hour	0.18 ppm	0.100 ppm	None
Sulfur Dioxide	Annual mean	None	0.030 ppm	None
	24-hour	0.04 ppm	0.014 ppm	None
	3-hour	None	None	0.5 ppm
	1-hour	0.25 ppm	0.075 ppm	None
Lead	30-day Average	1.5 μg/m^3	None	None
	Calendar quarter	None	1.5 μg/m^3	1.5 μg/m^3
	3-month average	None	0.15 μg/m^3	0.15 μg/m^3
Sulfates	24-hour	25 μg/m^3	None	None
Hydrogen Sulfide	1-hour	0.03 ppm	None	None

Criteria Pollutant	Average Time	California Standards	National Standards [a]	
			Primary	Secondary
Vinyl Chloride	24-hour	0.01 ppm	None	None

Sources: California Air Resources Board 2020.

μg/m^3 = micrograms per cubic meter; ppm = parts per million.

[a] National standards are divided into primary and secondary standards. Primary standards are intended to protect public health, whereas secondary standards are intended to protect public welfare and the environment.

Climate and Topography

The SJVAB is the southern half of California's Central Valley and is approximately 250 miles long and averages 35 miles wide. The San Joaquin Valley is bordered by the Sierra Nevada in the east (8,000 to 14,491 feet in elevation), the Coast Ranges in the west (averaging 3,000 feet in elevation), and the Tehachapi Mountains in the south (6,000 to 7,981 feet in elevation). There is a slight downward elevation gradient from Bakersfield at the southeast end of the valley (elevation 408 feet) to sea level at the northwest end where the valley opens to the San Francisco Bay at the Carquinez Strait. At the valley's northern end is the Sacramento Valley, which comprises the northern half of California's Central Valley. The bowl-shaped topography inhibits movement of pollutants out of the valley.

The San Joaquin Valley is in a Mediterranean Climate Zone. Mediterranean Climate Zones occur on the west coast of continents at 30 to 40 degrees latitude and are influenced by a subtropical high-pressure cell most of the year. Mediterranean climates are characterized by sparse rainfall, which occurs mainly in winter. Summers are hot and dry. Summertime maximum temperatures often exceed 100 degrees Farenheit in the valley.

The subtropical high-pressure cell is strongest during spring, summer, and fall and produces subsiding air, which can result in temperature inversions in the valley. A temperature inversion can act like a lid, inhibiting vertical mixing of the air mass at the surface. Any emissions of pollutants can be trapped below the inversion. Most of the surrounding mountains are above the normal height of summer inversions (1,500–3,000 feet).

Winter-time high pressure events can often last many weeks with surface temperatures often lowering into the thirties (degrees Fahrenheit [°F]). During these events, fog can be present, and inversions are extremely strong. These wintertime inversions can inhibit vertical mixing of pollutants to a few hundred feet (SJVAPCD 2015).

Criteria Pollutants

The ambient concentrations of criteria pollutants are the primary indicators of air quality; the six criteria pollutants are O_3, CO, NO_2, SO_2, Pb, and PM (PM10, and PM2.5). The NAAQS and CAAQS have been established for these pollutants. O_3, NO_2, and PM are generally considered to be regional pollutants, as these pollutants or their precursors affect air quality on a regional scale. Pollutants such as CO, SO_2, Pb, and PM are considered to be local pollutants that tend to accumulate in the air in the same region where the pollutants were emitted (note that PM is considered to be both a local and a regional pollutant). In the project vicinity, O_3, PM2.5, and PM10 are considered pollutants of concern. Brief descriptions of these pollutants are provided below. Toxic air contaminants (TACs) are also discussed below, although no state or federal ambient air quality standards exist for these pollutants.

Ozone

O_3 increases susceptibility to respiratory infections and is a severe eye, nose, and throat irritant. It is an oxidant that can cause extensive damage to plants by leaf discoloration and cell damage, and also attacks synthetic rubber, textiles, and other materials. O_3 is primarily a summer air pollution problem. Reactive organic gases (ROG) and oxides of nitrogen (NO_X) are O_3 precursors mainly emitted by mobile sources, such as passenger vehicles, and stationary combustion equipment.

Carbon Monoxide

CO is a public health concern because it combines readily with hemoglobin and reduces the amount of oxygen transported in the bloodstream. CO can cause health problems such as fatigue, headache, confusion, dizziness, and even death. Motor vehicles are the dominant source of CO emissions in most areas. Data indicate that local CO concentrations do not approach the state standards; however, CO concentrations in the vicinity of congested intersections and freeways would be expected to be higher than those recorded at the monitoring station. CO concentrations are expected to continue to decline in the SJVAB because of existing controls and programs and the continued retirement of older, higher-polluting vehicles.

Particulate Matter

Particulate Matter (PM10 and PM2.5) can damage human health and delay plant growth. Particulates also reduce visibility and corrode materials. Health concerns associated with suspended particulate matter focus on those particles small enough to reach the lungs when inhaled. Particulate emissions are generated by a wide variety of sources, including agricultural activities, industrial emissions, dust suspended by vehicle traffic and construction equipment, and secondary aerosols formed by reactions in the atmosphere.

Air Quality Standards and Attainment Status

Areas are classified as either attainment or nonattainment by comparing actual monitored air pollutant concentrations to state and federal standards. If a pollutant concentration is lower than the state or federal standard, the area is classified as being in attainment of the standard for that pollutant. If a pollutant violates the standard, the area is considered a nonattainment area. If data are insufficient to determine whether a pollutant is violating the standard, the area is designated unclassified. Areas that were previously designated as nonattainment areas but have subsequently met the standard are called maintenance areas.

The state has classified San Joaquin County as being in nonattainment for state standards for ozone, PM10, and PM2.5; in attainment for Pb, NO_2, SO_2, and sulfates; and unclassified for CO, hydrogen sulfide, and visibility-reducing particles (California Air Resources Board 2017).
The EPA has classified San Joaquin County as being in extreme nonattainment for 8-hour O_3, and moderate nonattainment for PM2.5 (U.S. Environmental Protection Agency 2021).

Background Health Risks

Toxic Air Contaminants

In addition to the criteria pollutants discussed above, TACs are another group of pollutants of concern. Some examples of TACs include: benzene, butadiene, formaldehyde, and hydrogen sulfide. Potential human health effects of TACs include birth defects, neurological damage, cancer, and

death. There are hundreds of different types of TACs with varying degrees of toxicity. Individual TACs vary greatly in the health risk they present; at a given level of exposure, one TAC may pose a hazard that is many times greater than another.

TACs do not have ambient air quality standards, but are regulated by EPA and CARB. In 1998, CARB identified PM from diesel-fueled engines as a toxic air contaminant. CARB has completed a risk management process that identified potential cancer risks for a range of activities and land uses that are characterized by use of diesel-fueled engines. High volume freeways, stationary diesel engines, and facilities attracting heavy and constant diesel vehicle traffic (e.g., distribution centers, truck stops) were identified as posing the highest risk to adjacent receptors. Other facilities associated with increased risk include warehouse distribution centers, large retail or industrial facilities, high volume transit centers, and schools with a high volume of bus traffic. Health risks from TACs are a function of both concentration and duration of exposure. SJVAPCD regulates TACs using a risk-based approach. This approach uses a health risk assessment to determine what sources and pollutants to control as well as the degree of control. A health risk assessment is an analysis in which human health exposure to toxic substances is estimated, and considered together with information regarding the toxic potency of the substances, in order to provide a quantitative estimate of health risks.

Unlike TACs emitted from industrial and other stationary sources noted above, most diesel particulate matter (DPM) is emitted from mobile sources—primarily diesel-powered construction and mining equipment, agricultural equipment, and truck-mounted refrigeration units, as well as trucks and buses traveling on freeways and local roadways. CARB estimated that about 70 percent of total known cancer related to air toxics is attributable to DPM (California Air Resources Board 2021).

CARB Diesel Risk Reduction Plan is intended to substantially reduce DPM emissions and associated health risks through introduction of ultra-low-sulfur diesel fuel—a step already implemented—and cleaner burning diesel engines (California Air Resources Board 2000). The technology for reducing DPM emissions from heavy-duty trucks is well established, and both state and federal agencies are moving aggressively to regulate engines and emission control systems to reduce and remediate diesel emissions. This plan also established airborne toxic control measures (ATCMs) for mobile sources, including on-road and off-road vehicles, as well as stationary sources. With implementation of ATCMs, statewide DPM concentrations decreased from approximately 1.8 micrograms per cubic meter ($\mu g/m^3$) to approximately 0.61 $\mu g/m^3$ between 1990 and 2010, resulting in a 66 percent reduction over that period. CARB continues to explore strategies to reduce DPM emissions through engine retrofit mandates, cleaner diesel fuels, advanced engine technologies, and alternative fuels. CARB estimates that, by 2035, DPM emissions will be less than half of what they were in 2010. CARB anticipates that by 2020 average statewide diesel particulate matter concentrations will decrease by 85 percent from levels in 2000 with full implementation of the Diesel Risk Reduction Plan, meaning that the statewide health risk from DPM is expected to decrease from 540 cancer cases in 1,000,000 to 21.5 cancer cases in 1,000,000 (California Air Resources Board 2021).

Asbestos

Asbestos is the name given to many naturally occurring fibrous silicate minerals. It has been mined for applications requiring thermal insulation, chemical and thermal stability, and high tensile strength. It is also found in its natural state in rock or soil (known as naturally occurring asbestos or NOA). Mapping published by the U.S. Geological Survey (USGS) and California Geological Survey

indicates that the project site does not have any reported historic asbestos mines, historic asbestos prospects, asbestos-bearing talc deposits, fibrous amphiboles, or ultramafic rock outcrops (California Department of Conservation 2000).

Valley Fever

Although not considered a criteria pollutant, Valley Fever (also known as Coccidioidomycosis), an infectious disease caused by the fungus *Coccidioides immitis* commonly found in the SJVAB, is transmitted through the air, and poses a significant health risk to local residents. Valley Fever is caused by inhalation of *Coccidioides immitis* spores that have become airborne when dry, dusty soil or dirt is disturbed by wind, construction, farming, or other activities.

The Valley Fever fungus tends to be found at the base of hillsides in virgin, undisturbed soil. It usually grows in the top few inches of soil but can grow down to 12 inches. The fungus does not survive well in highly populated areas because there is not usually enough undisturbed soil for the fungus to grow. The fungus is not likely to be found in soil that has been or is being cultivated and fertilized because human-made fertilizers, such as ammonium sulfate, enhance the growth of the natural microbial competitors of the *Coccidioides* fungus.

After the fungal spores have settled in the lungs, they change into a multicellular structure called a spherule. Valley Fever symptoms generally occur within 2 to 3 weeks of exposure. Approximately 60 percent of Valley Fever cases are mild and display flu-like symptoms or no symptoms at all. Of those who are exposed and seek medical treatment, the most common symptoms are fatigue, cough, chest pain, fever, rash, headache, and joint aches.

Valley Fever infection is most frequent during summers that follow a rainy winter or spring, especially after wind and dust storms. Valley Fever infection is common only in arid and semiarid areas of the western hemisphere. In the United States, it is mostly found from southern California to southern Texas.

Most new residents to SJVAB have never been exposed to Valley Fever, and consequently are particularly susceptible to the infection. Many longtime residents of the area have at some time been exposed to the fungus, become infected, and have recovered, and are thus immune.

Sensitive Receptors

SJVAPCD defines sensitive receptors as “facilities that house or attract children, the elderly, people with illnesses, or others who are especially sensitive to the effects of air pollutants” (SJVAPCD 2015). Typical sensitive receptors include residences, hospitals, schools, and places of worship. The nearest sensitive land uses to the portions of the project site north of Byron Road are single-family residences located north of the Neighborhood I border, north of Kelso Road. The nearest homes are located between 75 and 100 feet from the project perimeter in this area. Additional residential land uses are located west of the Town Center. The closest schools to the project site are Sebastian Questa Elementary School located at 685 North Montebello Street, Bethany Elementary School located at 570 South Escuala Drive, and Wicklund Elementary School located at 300 East Legacy Drive. Each of these schools are located in the Mountain House community south of Byron Road. Sebastian Questa Elementary School is located in Neighborhood H. None of these schools are located within 1,000 feet of Neighborhoods H, I, J, L, and the Town Center.

Odors

Although offensive odors rarely cause physical harm, they can be unpleasant and lead to considerable distress among the public. This distress often generates citizen complaints to local governments and air districts. According to SJVAPCD's *Guidance for Assessing and Mitigating Air Quality Impacts* (2015 Guide for Assessing and Mitigating Air Quality Impacts [GAMAQI]) land uses associated with odor complaints typically include wastewater treatment plants, landfills, transfer stations, composting facilities, petroleum refineries, asphalt batch plants, chemical manufacturing, fiberglass manufacturing, paining/coating operations, food processing facilities, feed lot/dairy, and rendering plants. SJVAPCD provides recommended screening distances for citing new receptors near existing odor sources. However, the California Supreme Court issued it's opinion in the *California Building Industry Association V. Bay Area Air Quality Management District* (CBIA V. BAAQMD) that: "*In light of CEQA's text, statutory structure, and purpose, we conclude that agencies subject to CEQA generally are not required to analyze the impact of existing environmental conditions on a project's future users or residents. But when a proposed project risks exacerbating those environmental hazards or conditions that already exist, an agency must analyze the potential impact of such hazards on future residents or users. In those specific instances, it is the project's impact on the environment—and not the environment's impact on the project—that compels an evaluation of how future residents or users could be affected by exacerbated conditions.*"

Regulatory Setting

Regional and Local

San Joaquin Valley Air Pollution Control District

The project may be subject to the following district rules. These are rules that have been adopted by SJVAPCD to reduce emissions throughout the San Joaquin Valley.

- Rule 2010 (Permits Required). The purpose of this rule is to require any person constructing, altering, replacing or operating any source operation which emits, may emit, or may reduce emissions to obtain an Authority to Construct or a Permit to Operate. This rule also explains the posting requirements for a Permit to Operate and the illegality of a person willfully altering, defacing, forging, counterfeiting or falsifying any Permit to Operate.
- Rule 2201 (New and Modified Stationary-Source Review Rule). This rule applies to all new stationary sources and all modifications to existing stationary sources subject to SJVAPCD permit requirements that, after construction, emit or may emit one or more pollutants regulated by the rule.
- Rule 3135 (Dust Control Plan Fees). This rule requires the applicant to submit a fee in addition to a dust control plan. The purpose of this rule is to recover SJVAPCD's cost for reviewing these plans and conducting compliance inspections.
- Rule 4101 (Visible Emissions). This rule prohibits emissions of visible air contaminants to the atmosphere and applies to any source operation that emits or may emit air contaminants.
- Rule 4102 (Nuisance). This rule applies to any source operation that emits or may emit air contaminants or other materials. In the event that the project or construction of the project

creates a public nuisance, it could be in violation and subject to SJVAPCD enforcement action.

- Rule 4641 (Cutback, Slow-Cure, and Emulsified Asphalt, Paving, and Maintenance Operations). This rule applies to the manufacture and use of cutback asphalt, slow-cure asphalt, and emulsified asphalt for paving and maintenance operations.
- Regulation VIII (Fugitive PM10 Prohibitions). This is a series of rules (Rules 8011–8081) designed to reduce PM emissions (predominantly dust/dirt) generated by human activity, including construction, road construction, bulk materials storage, landfill operations, and other activities. The project would be required to comply with Regulation VIII by law.

The Indirect Source Review (ISR) rule, Rule 9510, which went into effect March 1, 2006, requires developers of new residential, commercial, and industrial projects to reduce smog-forming and particulate emissions generated by their projects. The ISR rule seeks to reduce the growth in NOx and PM10 emissions associated with construction and operation of new development, transportation, and transit projects in the San Joaquin Valley. This rule fulfills the district's emission reduction commitments in the PM10 and Extreme Ozone Attainment Demonstration Plan and 2007 Ozone Plan through emissions reductions for construction and use of development projects through design features and onsite measures.

The project would include new residential and commercial uses and thus would be required to comply with SJVAPCD Rule 9510. However, according to SJVAPCD Rule 9510, project's that emit less than two tons per year of NOx and PM10 are excluded from the general mitigation and off-site emission reduction fee requirements.

Thresholds

SJVAPCD Regional Thresholds for Air Basin Attainment of State and Federal Ambient Air Quality Standards

Appendix G in the CEQA Guidelines states that the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to determine the project's level of impact. SJVAPCD's published guidelines in the 2015 GAMAQI, which includes the following thresholds, are shown in Table 3.3.3-2.

Table 3.3.3-2. SJVAPCD Construction and Operational Thresholds of Significance

Pollutant/Precursor	Construction Emissions (tons per year)	Operational Emissions (tons per year)
CO	100	100
NO_X	10	10
ROG	10	10
SO_X	27	27
PM10	15	15
PM2.5	15	15

Source: San Joaquin Valley Air Pollution Control District 2015.

ROG = reactive organic compounds; NO_X = nitrogen oxides; CO= carbon monoxide; SO_X = sulfur oxides; PM10 = particulate matter; PM2.5 = fine particulate matter.

The SJVAPCD's 2015 GAMAQI introduced screening-level thresholds for construction and operational emissions to help determine when an ambient air quality analysis (AAQA) must be performed. An AAQA would entail the use of air dispersion modeling to determine whether emission increases from a project will cause or contribute to a violation of the CAAQS or NAAQS. The SJVAPCD's AAQA screening-level thresholds are 100 pounds per day of any criteria pollutant; projects with emissions in excess of this threshold would require dispersion modeling, while projects below this threshold are presumed to not result in a violation of the CAAQS or NAAQS. While the SJVAPCD's AAQA screening-level thresholds are presented in pounds per day, they have been annualized and converted to tons per year for comparison to the project's annual emissions. The annualization is calculated from the SJVAPCD's 100 pounds per day AAQA screening-level threshold and the assumed corresponding 250-day construction period, resulting in a calculated annual AAQA-equivalency threshold of 12.5 tons per year.

Health-Based Thresholds for Project-Generated Pollutants of Human Health Concern

As discussed above, all criteria pollutants are associated with some form of health risk (e.g., asthma, asphyxiation). Adverse health effects associated with criteria pollutant emissions are highly dependent on a multitude of interconnected variables (e.g., cumulative concentrations, local meteorology, and atmospheric conditions, as well as the number and character of exposed individuals [e.g., age, gender]). Moreover, ozone precursors (ROG and NO_X) affect air quality on a regional scale. Health effects related to ozone are therefore the product of emissions generated by numerous sources throughout a region. Existing models have limited sensitivity to small changes in criteria pollutant concentrations, and, as such, translating project-generated criteria pollutants to specific health effects would produce meaningless results.

In an amicus curiae brief filed in a court case for the Friant Ranch Project in Fresno County, SJVAPCD has stated that there is a distinction between TACs and criteria air pollutants with respect to local health risk assessments. While local health risk assessments for TACs are routinely performed, SJVAPCD concluded that a local health risk assessment for criteria air pollutants would produce "speculative results." The results of such an analysis would be speculative and not produce reliable information, because the currently available modeling tools "are not well suited" to correlate an individual project's criteria air pollutant emissions and specific health outcomes. Due to the complex processes by which ozone formation occurs, increases in specific amounts of ozone precursor emissions (ROG and NOx) from projects do not lead to consistent concentrations of ozone. Further, SJVAPCD has concluded that, if modeling tools are developed in the future that are sufficient to correlate a project's emissions with ozone formation and concentrations, there are currently no tools available to determine specific health outcomes associated with specific ozone concentrations. Current models have been designed to evaluate health outcomes at a regional level and not at a localized level (Supreme Court of California 2015).

As such, an analysis of impacts on human health associated with project-generated regional emissions is not included in the project-level analysis. Increased emissions of ozone precursors (ROG and NO_X) generated by the project could increase photochemical reactions and the formation of tropospheric ozone, which at certain concentrations, could lead to respiratory symptoms (e.g., coughing), decreased lung function, and inflammation of airways. As documented by SJVAPCD in their amicius curiae brief, summarized above, although these health effects are associated with ozone the impacts are a result of cumulative and regional ROG and NO_X emissions; therefore, specific health outcomes from criteria pollutant emissions cannot be solely traced to the project.

Because localized pollutants generated by a project can directly affect adjacent sensitive receptors, the analysis of project-related impacts on human health focuses only on those localized pollutants with the greatest potential to result in a significant, material impact on human health. This is consistent with the current state-of-practice and published guidance by the California Air Pollution Control Officers Association (2009), California OEHHA (2015), and CARB (2000). These pollutants are (1) DPM,[1] (2) locally concentrated CO, and (3) asbestos. As discussed above, the project is not located in an area with any reported historic asbestos mines, historic asbestos prospects, asbestos-bearing talc deposits, fibrous amphiboles, or ultramafic rock outcrops. The project would not remove any buildings or structures that could contain asbestos containing materials or lead based materials. As such, this analysis focuses on DPM and locally concentration CO.

Localized Carbon Monoxide Concentrations

The following criteria from SJVAPCD's 2015 GAMAQI were used to determine whether the project would result in a significant health risk from receptor exposure to CO.

Odors

Odors would be considered significant if the project would exacerbate potential odors within the project area by incorporating new odor-generating facilities within the project area, consistent with the CBIA v. BAAQMD ruling.

Methodology

As discussed in Chapter 2, the project would result in changes to the following neighborhoods within the Master Plan/Specific Plan II area: Town Center, and Neighborhoods H, I, J, and L. These proposed changes would differ from what was previously analyzed within the 1994 MEIR and the 2004 *Mountain House Specific Plan II Initial Study* and approved within the Master Plan/Specific Plan II area.

To analyze the potential air quality impacts from these changes, the existing approved land uses[2] that would be modified, and the new proposed project land uses were modeled within the California Emission Estimator Model (CalEEMod) version 2020.4.0. The net project emissions were then calculated by subtracting the existing approved air quality emissions from the new proposed project air quality emissions.

[1] DPM is the primary TAC of concern for mobile sources—of all controlled TACs, emissions of DPM are estimated to be responsible for about 70 percent of the total ambient TAC risk. Given the risks associated with DPM, tools and factors for evaluating human health impacts from project-generated DPM have been developed and are readily available. Conversely, tools and techniques for assessing project-specific health outcomes because of exposure to other TAC (e.g., benzene) remain limited. These limitations impede the ability to evaluate and precisely quantify potential public health risks posed by TAC exposure.

[2] These land uses were originally analyzed in the 1994 MEIR and 2004 Specific Plan IS and are shown in the Master Plan and Specific Plan II. The project's specific changes in land uses from the Master Plan and Specific Plan II are discussed in greater detail in Chapter 2. It should be noted that only project land uses that would change from the Master Plan and Specific Plan II area were modeled. Land uses that would be relocated or would remove the active-adult residents' requirements were not modeled since the construction and operational emissions would not change from what was previously approved.

3.3.3.2 Discussion

This section describes the environmental impacts of the project in the context of air quality. It describes the methods used to evaluate the impacts and the thresholds used to determine whether an impact would be significant.

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

A project would be deemed inconsistent with air quality plans if it would result in population and/or employment growth that exceeds estimates used to develop applicable air quality plans. Projects that propose development that are consistent with the growth anticipated by the relevant land use plans would be consistent with the current SJVAPCD air quality plans. If a project proposes development that exceeds the anticipated growth projections, the project would be in conflict with the SJVAPCD air quality plans and might have a potentially significant impact on air quality, because emissions would exceed estimates developed for the region.

As discussed in Section 3.3.11, *Land Use and Planning*, the project would not cause a significant environmental impact due to a conflict with the General Plan, Master Plan, or Specific Plan II. The project would not have any significant new land use plan or policy impacts not already addressed in the 1994 MEIR; therefore, no new impacts would result. Thus, the project would not conflict with the land use assumptions used to develop applicable air quality plans.

As discussed in Section 3.3.14, *Population and Housing*, the project would not have any significant unplanned population/housing impacts not already addressed in the 1994 MEIR; therefore, the project would be consistent with recent growth projections for the region and would not conflict with the population growth assumptions used to develop applicable air quality plans.

Although the project would result in criteria pollutant emissions during the construction and operational periods, the emissions would not be expected to exceed SJVAPCD significance thresholds nor impede attainment or maintenance of the NAAQS or CAAQS.

Because the project would not conflict with any applicable land use plan or policy, would be consistent with recent growth projections for the region, and would not exceed SJVAPCD's significance thresholds, it would not conflict with or obstruct implementation of the current SJVAPCD air quality plans. Therefore, the impact would be less than significant.

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

Construction

Construction of the project has the potential to result in air quality impacts through the use of heavy-duty construction equipment, construction worker vehicle trips, and on-road truck hauling trips. Additionally, off-gassing from paving and architectural coating activities would result in ROG emissions and odors, and fugitive dust emissions would result from site preparation and grading activities. The quantified estimates of criteria pollutant emissions from construction activities were modeled with CalEEMod version 2020.4.0; based on project-specific construction data (e.g., schedule and land-use size). In order to quantify the net project construction emissions impact, the existing approved land uses construction emissions, and the proposed new land uses construction emissions were quantified.

Construction of the existing proposed land uses, and the newly proposed project land uses within the Master Plan/Specific Plan II area: Town Center, and Neighborhoods H, I, J, and L are anticipated to start in 2024 and end in 2033, with no construction occurring during 2027. The existing approved land uses and project emissions that would result in each year of construction have been individually compared to the SJVAPCD's thresholds of significance (as shown in Table 3.3.3-2). The annual emissions that have been quantified for the project construction activities are shown in Table 3.3.3-3 for the existing approved emissions, the amended or project emissions, and the net project emissions. Refer to Appendix A for the assumptions used in the air quality analysis and a more detailed description of methodology.

Table 3.3.3-3. Annual Emissions of Criteria Pollutants from Construction Activities by Year (tons per year)

Year of Construction	ROG	NO_X	CO	SO_2	PM10	PM2.5
Existing Master Plan/Specific Plan II Approved Land Uses						
2024	0.43	3.65	4.19	0.01	0.65	0.31
2025	1.82	2.86	4.15	0.01	0.46	0.20
2026	1.48	0.13	0.24	<0.01	0.02	0.01
2028	0.17	1.44	1.78	<0.01	0.28	0.13
2029	0.23	1.90	2.57	0.01	0.31	0.13
2030	2.26	4.65	7.54	0.02	2.02	0.83
2031	0.78	5.35	8.75	0.03	1.49	0.46
2032	0.71	1.94	3.23	0.01	0.54	0.17
2033	0.47	0.13	0.31	<0.01	0.02	0.01
Proposed Project Land Use Amendments						
2024	0.42	3.64	4.07	0.01	0.60	0.30
2025	1.00	2.83	4.00	0.01	0.40	0.18
2026	1.05	0.13	0.24	<0.01	0.02	0.01
2028	0.16	1.46	1.75	<0.01	0.26	0.13
2029	0.22	1.92	2.51	0.01	0.28	0.12
2030	1.40	4.39	7.17	0.02	2.28	1.00
2031	0.75	5.08	8.46	0.03	1.32	0.41
2032	1.21	1.94	3.23	0.01	0.53	0.17
2033	0.47	0.13	0.31	<0.01	0.02	0.01
Net Project Emissions						
2024	-0.02	-0.01	-0.12	<0.01	-0.05	-0.01
2025	-0.82	-0.03	-0.15	<0.01	-0.06	-0.02
2026	-0.43	<0.01	-0.01	<0.01	0.00	0.00
2028	<0.01	0.02	-0.03	<0.01	-0.02	0.00
2029	-0.01	0.03	-0.06	<0.01	-0.03	-0.01
2030	-0.86	-0.26	-0.37	<0.01	0.26	0.17
2031	-0.03	-0.27	-0.29	<0.01	-0.17	-0.05
2032	0.50	<0.01	-0.01	<0.01	<0.01	<0.01

2033	0.00	0.00	0.00	0.00	0.00	0.00
SJVAPCD Annual Threshold	10	10	100	27	15	15
SJVAPCD AAQA screening-level thresholds [a]	12.5	12.5	12.5	12.5	12.5	12.5
SJVAPCD Threshold Exceed?	No	No	No	No	No	No

Notes: ROG = reactive organic compounds; NO_x = nitrogen oxides; CO= carbon monoxide; SO_x = sulfur oxides; PM10 = coarse particulate matter; PM2.5 = fine particulate matter

[a] The SJVAPCD's 100 pounds of pollutant-per-day AAQA screening-level thresholds have been annualized and converted to tons per year for comparison to the Project's annual emissions. The annualization is based on 100 pounds per day over the assumed 250- construction days per year.

As shown in Table 3.3.3-3, the proposed amendments to the Master Plan/Specific Plan II area would result in a net reduction of air quality emissions for the majority of years and criteria pollutants compared to the existing approved Master Plan and Specific Plan II. Thus, the proposed land use amendments to the Master Plan and Specific Plan II would reduce the air quality impacts that were previously modeled and approved in the 1994 MEIR and the 2004 *Mountain House Specific Plan II Initial Study*. Furthermore, the net project construction activities would be substantially below the SJVAPCD's adopted numeric threshold for criteria pollutants and the AAQA screening-level threshold in all years of construction and would thus not result in a violation of the CAAQS or NAAQS. Construction emissions would also be well below the AAQA screening-level threshold, and thus no further air dispersion modeling is required. Construction of the project would not result in a violation of the CAAQS or NAAQS. Additionally, the net project NOx and PM10 emissions would be below the SJVAPCD Rule 9510 applicability threshold of two tons per year. Consequently, the project would not have any new significant impacts related to construction air emissions not already addressed in the 1994 MEIR and the 2004 *Mountain House Specific Plan II Initial Study*. Construction impacts would be less than significant.

Operation

During the operational phase of the project, mobile source emissions would be generated by the different vehicle trips that would travel to and from the project site. Total vehicle miles traveled (VMT) was provided by TJKM for the existing approved Master Plan/Specific Plan II area land uses and the project amendments (TJKM 2021). Area source emissions would be caused by consumer products, architectural coatings, and landscaping equipment. Energy source emissions would result from the project's electricity and natural gas demand. The evaluation of the project's long-term operational impacts were quantified using CalEEMod. Refer to Appendix A for the CalEEMod output files.

The estimated annual operational emissions from the project uses are presented in Table 3.3.3-4 and are compared to SJVAPCD's criteria pollutant threshold in addition to the calculated annual AAQA-equivalency threshold of 18.25 tons per year (100 pounds per day average over 365 days per year for Project operation).

Table 3.3.3-4. Operational Emissions of Criteria Pollutants (tons per year)

Operational Emissions Source	ROG	NO_X	CO	SO_2	PM10	PM2.5
Existing Approved Master Plan/Specific Plan II Land Uses						
Area Sources	3.19	0.04	3.19	<0.01	0.02	0.02
Energy Source	0.03	0.29	0.15	<0.01	0.02	0.02

Operational Emissions Source	ROG	NO_X	CO	SO_2	PM10	PM2.5
Mobile Sources	0.69	0.65	4.32	0.01	0.65	0.18
Proposed Project Amendments						
Area Sources	4.14	0.02	1.74	<0.01	0.01	0.01
Energy Source	0.04	0.37	0.26	<0.01	0.03	0.03
Mobile Sources	0.31	0.39	2.58	0.01	0.65	0.18
Net Project Emissions						
Area Sources	0.96	-0.02	-1.45	-0.01	-0.01	-0.01
Energy Source	0.01	0.08	0.12	-0.01	0.01	0.01
Mobile Sources	-0.38	-0.27	-1.74	-0.01	-0.01	-0.01
Net Total Operational Emissions	**0.58**	**-0.20**	**-3.07**	**-0.01**	**-0.01**	**-0.01**
SJVAPCD Threshold	10	10	100	27	15	15
SJVAPCD AAQA screening-level thresholds [a]	*18.25*	*18.25*	*18.25*	*18.25*	*18.25*	*18.25*
Exceeds Threshold?	No	No	No	No	No	No

Notes: ROG = reactive organic compounds; NOx = nitrogen oxides; CO= carbon monoxide; SOx = sulfur oxides; PM10 = coarse particulate matter; PM2.5 = fine particulate matter

[a] The SJVAPCD's 100 pounds of pollutant-per-day AAQA screening-level thresholds have been annualized and converted to tons per year for comparison to the proposed Project's annual emissions. The annualization is based on 100 pounds per day over 365 days per year.

As shown in Table 3.3.3-4, the emissions generated from the project amendments to the Master Plan/Specific Plan II would reduce all criteria pollutant emissions except for ROG compared to the original approved land uses in the Master Plan/Specific Plan II. Furthermore, these emissions are substantially below the SJVAPCD's adopted numeric threshold for criteria pollutants. Operational emissions would also be well below the AAQA screening-level threshold and thus no further air dispersion modeling is required. Additionally, the net project NOx and PM10 emissions would be below the SJVAPCD Rule 9510 applicability threshold of two tons per year. The project would not result in a violation of the CAAQS or NAAQS, and thus would not create a new impact compared to the 1994 MEIR and 2004 IS/MND. Operational impacts would be less than significant.

c. Expose sensitive receptors to substantial pollutant concentrations?

Sensitive land uses are defined as locations where human populations, especially children, seniors, and sick persons, are located and where there is reasonable expectation of continuous human exposure, according to the averaging period for the air quality standards (i.e., 24 hours, 8 hours). Per SJVAPCD, typical sensitive receptors are schools, parks and playgrounds, day care centers, nursing homes, hospitals, and residential dwelling unit(s). The nearest sensitive land uses to the portions of the project site north of Byron Road are single-family residences located north of the Neighborhood I border, north of Kelso Road. The nearest homes are located between 75 and 100 feet from the project perimeter in this area. The closest schools to the project site are Sebastian Questa Elementary School located at 685 North Montebello Street, Bethany Elementary School located at 570 South Escuala Drive, and Wicklund Elementary School located at 300 East Legacy Drive. Each of these schools are located in the Mountain House community south of Byron Road. Sebastian Questa Elementary School is located in Neighborhood H. None of these schools are located within 1,000 feet of Neighborhoods H, I, J, L, and the Town Center.

The primary pollutants of concern with regard to health risks for sensitive receptors are criteria pollutants (including localized CO hot spots), asbestos, diesel particulate matter (DPM), and localized PM2.5. Each of these pollutants, including the potential impact on nearby receptors, is analyzed in the paragraphs that follow.

Criteria Pollutants

As discussed above, SJVAPCD has developed region-specific CEQA thresholds of significance in consideration of existing air quality concentrations and attainment designations under the NAAQS and CAAQS. The NAAQS and CAAQS are informed by a wide range of scientific evidence that demonstrates that there are safe concentrations for criteria pollutants. Although recognizing that air quality is a cumulative problem, SJVAPCD considers the impacts of projects that generate criteria pollutant and ozone precursor emissions that are below the thresholds to be minor in nature. Such projects would not adversely affect air quality or cause the NAAQS or CAAQS to be exceeded.

As shown in Table 3.3.3-3, construction of the project would not generate regional criteria pollutants that would be in excess of SJVAPCD thresholds. As such, construction of the project would not be expected to contribute a significant level of air pollution that would degrade air quality within the SJVAB. For criteria air pollutants during construction, the project would not expose receptors to substantial pollutant concentrations or risks. Thus, a less than significant impact would occur.

As shown in Table 3.3.3-4, operation of the project would not generate regional criteria pollutants or precursors that would exceed SJVAPCD's thresholds of significance. For criteria air pollutants during operations, the project would not expose receptors to substantial pollutant concentrations or risks. Thus, a less than significant impact would occur.

Valley Fever

Disturbance of soil containing *Coccidioides* fungus could expose the general public to spores known to cause Valley Fever. Over 75 percent of Valley Fever cases in California have been in people who live in the San Joaquin Valley. Fresno County has a relatively high Valley Fever rate, with greater than 10 cases reported per 100,000 people per year between 2008 and 2012 (California Department of Public Health 2016). Construction activities in areas known to contain *Coccidioides* fungus may expose workers and the general public to spores that could result in Valley Fever. However, construction of the project would be required to comply with SJVAPCD Regulation VIII to implement a Dust Control Plan. Compliance with SJVAPCD Regulation VIII/Dust Control Plan would reduce the risk of contracting Valley Fever. Thus, this impact is considered less than significant.

Toxic Air Contaminants

Construction

Asbestos

Asbestos is a naturally occurring mineral that was once used in building construction because of its heat resistance and strong insulating properties. Exposure to asbestos, however, has been shown to cause many disabling or fatal diseases, including lung cancer, mesothelioma, and pleural plaques. The project would not demolish any buildings as part of construction activities but would require site preparation and grading/excavation. However, the project site is not within an area known to have naturally occurring asbestos. Thus, impacts associated with asbestos emissions would be less than significant.

Diesel Particulate Matter and Localized PM2.5

As shown in Tables 3.3.3-3, the proposed project amendments would result in lower construction emissions compared to the original approved land uses in the Master Plan/Specific Plan II area. Specifically, the net construction PM2.5 and PM10 emissions are negative compared to the original approved land uses. In addition, all construction equipment would be required to comply with CARB and SJVAPCD Rules and Regulations and would be short-term in nature. Therefore, the proposed Project amendments would not expose sensitive receptors to alleviated concentrations of DPM or localized PM2.5 emissions compared to the existing approved land uses in the Master Plan/Specific Plan II. Impacts would be less than significant.

Operation

Diesel Particulate Matter

As discussed in Table 3.3.3-4, the project would result in lower mobile emissions compared to the existing approved land uses within the Master Plan/Specific Plan II area. In total, implementation of the project would lower yearly VMT by approximately 3,226 (TJKM 2021). In addition, future on-site stationary source engines or other DPM emitting stationary sources would be required to be permitted by SJVAPCD prior to installation. As such, the operational period of the project would not expose sensitive receptors to substantial pollutant concentrations and impacts would be less than significant.

Carbon Monoxide

According to Section 3.3.17, *Transportation*, the existing base year per capita VMT is 12.96 for Neighborhoods H, I, J, and L. Adding in the project land use bumps the per capita VMT up to 16.09, an increase of 3.13. While there is an increase in residential VMT per capita once the various neighborhood residential developments are added into the Travel Analysis Zones (TAZs), 16.09 is still lower than the 15 percent threshold of the county average, which is 22.61. Furthermore, the implementation of the project would reduce total yearly VMT by 3,226 compared to the existing proposed land uses. As such, the project would reduce VMT compared to the county average and the approved Master Plan/Specific Plan II area and is not anticipated to worsen the LOS at any intersection or on any roadway segment, and neither of the SJVAPCD screening criteria conditions would be met. Therefore, the project would not generate CO hotspots, and this impact would be less than significant.

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

Construction

During construction of the project, diesel exhaust from construction equipment and activities associated with the application of architectural coatings or paving may produce discernible odors. These odors are typical of most construction sites. Such odors may be a temporary source of nuisance to the nearest sensitive receptor, approximately 75 feet away, but would not affect a substantial number of people. Furthermore, Title 13, Section 2485 of the California Code of Regulations limits the idling of a vehicle's primary diesel engine to 5 minutes at any location. Compliance with Section 2485 of the CCR would help further reduce detectable exhaust odors. In addition, any construction odors would cease after construction is completed. The impact would be less than significant.

Operation

The SJVAPCD has identified certain types of land uses as being commonly associated with odors. Based on these land uses, the SJVAPCD has established screening criteria that identifies reasonable buffer distances by odor-generating facility in which the location of sensitive receptors located within these distances could result in significant odor impacts. Table 3.3.3-6 summarizes the SJVAPCD's odor screening distances as a function of facility type. However, as noted above, the project does not need to analyze potential impacts from the existing environmental conditions on the project but analyze potential impacts to the environment caused by the project.

Table 3.3.3-5. SJVAPCD Project Screening Trigger Levels for Potential Odor Sources

Type of Facility	SJVAPCD Recommended Buffer Distance
Wastewater Treatment Facilities	2 miles
Sanitary Landfill	1 mile
Transfer Station	1 mile
Composting Facility	1 mile
Petroleum Refinery	2 miles
Asphalt Batch Plant	1 mile
Chemical Manufacturing	1 mile
Fiberglass Manufacturing	1 mile
Painting/Coating Operations (e.g., auto body shops)	1 mile
Food Processing Facility	1 mile
Feed Lot/Dairy	1 mile
Rendering Plant	1 mile

Source: San Joaquin Valley Air Pollution Control District 2015.

The project involves the construction of residential, commercial, public uses and a variety of green spaces (community parks, etc.). All of these proposed uses are approved in the Master Plan/Specific Plan II. Furthermore, these uses do not include any type of odor-generating facility show in Table 3.3.3-6. As such, the operations of the project would not propose an odor-generating facility that would cause nuisance odors, and a less than significant impact would occur.

3.3.4 Biological Resources

		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
Would the project:					
a.	Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	☐	☐	☒	☐
b.	Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	☐	☐	☒	☐
c.	Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marshes, vernal pools, coastal wetlands, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☐	☐	☒
d.	Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☐	☒	☒
e.	Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☒	☐
f.	Conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☒	☐

3.3.4.1 Affected Environment

Evaluation of biological resources in the project area is based on information from database searches, the 1994 MEIR and 2004 IS/MND for the project, and other data that describe the biological conditions and potential biological resources in the study area. No new field surveys were conducted for the evaluation of biological resources. The primary sources of information used for the biological resources analysis are as follows.

- Mountain House Master Plan and Specific Plan I Final Environmental Impact Report (BASELINE Environmental Consulting 1994).

- Mountain House Specific Plan II Initial Study (Amy Skewes-Cox 2004).
- California Natural Diversity Database (California Department of Fish and Wildlife 2021a).
- California Native Plant Society Inventory of Rare and Endangered Plants (California Native Plant Society 2021).
- California Essential Habitat Connectivity Project (Spencer et al. 2010).
- San Joaquin County Multi-Species Habitat Conservation and Open Space Plan (SJMSCP).

Since the 2004 approval of Specific Plan II, approximately 85% of the project's development area has been mass graded or otherwise disturbed by the installation of infrastructure. This IS/MND also reflects updated results from the California Natural Diversity Database (CNDDB) and California Native Plant Society (CNPS) Inventory of Rare and Endangered Plans to capture more recent known occurrences of species and habitat in the project area. As noted below, implementation of prior mitigation measures, which include compliance with the San Joaquin Multi-Species Habitat Conservation and Open Space Plan (SJMSCP) and regulatory permits, and also will require site specific surveys prior to project construction.

Setting

The project area is located on the San Joaquin Valley floor, northwest of the city of Tracy, in northwestern San Joaquin County, California. The historically farmed, and subsequent to 2004, developed or graded and maintained fields that comprise most of the project area generally provide low quality habitat for special-status wildlife and botanical resources. The Mountain House Creek, Dry Creek, and Old River corridors that are excluded from the project's development area contain more diverse habitats that may support a variety of wildlife species.

Vegetation

Vegetation communities in the project area are described in the *Final Environmental Impact Report for the Mountain House Master Plan and Specific Plan I* (Amy Skewes Cox 2004). The project area has historically been farmed and developed with infrastructure or graded and maintained (including annual weed abatement and fire control operations) and in the fields that cover the majority of the project area, natural vegetation communities are essentially absent. Operations that include disking, mowing, and spraying herbicides occur in these areas, primarily for weed control and fire suppression. The only natural communities in the project area are the seasonal wetland swale and riparian areas associated with the on-site drainages, which are discussed in the *Waters of the United States and State* section below, and which are excluded from the project's development area.

Disturbed California annual grassland series (Sawyer and Keeler-Wolf 1995) best describes vegetation within the historically farmed fields that have since been graded and maintained throughout the project area.

The riparian habitat within the Old River corridor would be best described as highly fragmented Arroyo willow series (Sawyer and Keeler-Wolf 1995). The riparian habitats adjacent to the Old River levee and in some of the agricultural ditches along the landward side of the levee are vegetated with small tree and shrub species that include willows *(Salix* spp.), Himalayan blackberry *(Rubus discolor),* California wild rose *(Rosa californica),* and alder *(Alnus rhombifolia).* Species such as mugwort *(Artemisia douglasii),* creeping wild rye *(Leymus triticoides),* and poison hemlock *(Conium maculatum)* are found in the understory of the riparian scrub habitats.

Wildlife

The historically farmed and more recently graded and maintained areas that comprise most of the project area generally provide limited quality habitat for wildlife species capable of living in disturbed areas. For example, a variety of raptors forage on small rodents in agricultural and/or grassland fields; however, both the diversity and abundance of these small mammals are limited by past farming practices and current weed abatement and fire control operations. Songbirds and migratory birds also forage on grains and stubble in the fields; this use is seasonal. Wildlife use of ruderal areas adjacent to roads and maintained fields and ditches is limited due to habitat disturbance and activity levels associated with weed abatement and fire control operations.

During the spring 2004 surveys, Swainson's hawks *(Buteo swainsoni*) were observed in the project area. Desert cottontail *(Sylvilagus audubonii),* black-tailed hare *(Lepus californicus),* California ground squirrel *(Spermophilus beecheyi),* and signs of coyote *(Canis latrans)* and raccoon *(Procyon lotor)* were observed during surveys in November 2003 through April 2004. Species such as striped skunk *(Mephitis mephitis)* and Virginia opossum *(Didelphis virginiana)* are known from the greater project area and are expected to occur within portions of the project area. Small rodents, including mice *(Mus musculus, Reithrodontomys megalotis,* and *Peromyscus maniculatus)* and voles *(Microtus californicus),* also likely occur throughout the project area.

Based on habitat types present, a number of amphibians and reptiles are expected to use habitats within the project area. Bullfrogs *(Rana catesbeiana)* were observed in aquatic habitats associated with Old River and the eastern portion of Mountain House Creek during the 2004 and prior surveys. Western fence lizard *(Sceloporus occidentalis)* has been observed in numerous locations in the project area.

Waters of the United States and State

Waters of the United States, including wetlands, are defined under 33 Code of Federal Regulations (CFR) 328 to include navigable waterways, their tributaries, and adjacent wetlands. The boundaries of non-tidal, non-wetland waters (streams) are at the ordinary high water mark (OHWM) as defined in 33 CFR 328.3. The OHWM represents the limit of potential U.S. Army Corps of Engineers (USACE) jurisdiction over non-tidal waters (e.g., streams, ponds) in the absence of adjacent wetlands (33 CFR 328.04).

USACE defines *jurisdictional wetlands* under CWA Section 404 as areas that exhibit positive field indicators for all three wetland parameters. The three parameters used to determine the presence of CWA Section 404 wetlands are (1) hydrophytic vegetation, (2) hydric soils, and (3) wetland hydrology. According to the *U.S. Army Corps of Engineers Wetlands Delineation Manual* (1987 Manual) (Environmental Laboratory 1987:12), "evidence of a minimum of one positive wetland indicator from each parameter (hydrology, soil, and vegetation) must be found in order to make a positive wetland delineation."

Under the Porter-Cologne Act definition, waters of the state are "any surface water or groundwater, including saline waters, within the boundaries of the state." Although all waters of the United States that are within the borders of California are also waters of the state, the reverse is not true. Therefore, California retains authority to regulate discharges of waste into any waters of the state, regardless of whether USACE has concurrent jurisdiction under CWA Section 404 and defines discharges to receiving waters more broadly than the CWA does. Revised definitions for state

wetlands and procedures for permitting impacts on these wetlands were recently adopted by the State Water Resources Control Board (State Water Board) (2019).

CWA Section 404 requires that a permit be secured prior to the discharge of dredged or fill materials into any waters of the United States, including wetlands. California Water Code requires implementation of waste discharge requirements for waters of the state. Section 1600 of the California Fish and Game Code requires a streambed alteration agreement for work in the bed or on the bank of streams.

Waters of the United States and State in the Mountain House Area

Wetland delineations have been conducted that have documented the types, locations, and areal extent of waters of the United States and wetlands within the study area. The most recent aquatic resources delineation in the Mountain House area is referenced in a February 18, 2019 Preliminary Jurisdictional Determination (PJD) of the property that concurred with ECORP's October 10, 2018, wetland delineation of the property and was subsequently verified by the USACE. Waters of the United States include a seasonal creek in Mountain House Creek and Dry Creek (23.27 acres) and seasonal wetland swale of 0.914 acres at the southwest corner of the project area north of Byron (Neighborhood I). These wetland areas are to remain in place and would not be impacted by the project. Development authorized by the project would not occur within Dry Creek, Mountain House Creek or other wetland areas identified in the 2019 PJD of the property.

Mountain House Creek and Dry Creek are tributaries to Old River. Both creeks are situated in well-defined corridors that meander through the project area. Along most reaches of these waterways, there is patchy, poorly to moderately well-developed riparian corridor. Where they exist, riparian woodland areas are dominated by species such as willows, Himalayan blackberry, and California wild rose. Patches of marsh habitat are found in lower-gradient areas with relatively more available water throughout the year. Mountain House Creek and Dry Creek are to remain in place and would not be impacted by the project. Mountain House Creek was the subject of a habitat restoration project that was completed in 2005.

Special-Status Species

For the purposes of CEQA, the following categories are considered special-status species.

- Species listed or proposed for listing as threatened or endangered under the federal Endangered Species Act (ESA) (50 CFR 17.12 [listed plants], 50 CFR 17.11 [listed animals], and various notices in the *Federal Register* [proposed species]).
- Species that are candidates for possible future listing as threatened or endangered under ESA (85 FR 73164, November 16, 2020).
- Species listed or proposed for listing by the State of California as threatened or endangered under the California Endangered Species Act (CESA) (California Code of Regulations [CCR], Title 14, Section 670.5).
- Species that meet the definitions of rare or endangered under CEQA Guidelines Section 15380.
- Animals fully protected in California (California Fish and Game Code Section 3511 [birds], 4700 [mammals], and 5050 [amphibians and reptiles]).

- Animal species of special concern (SSC) to the California Department of Fish and Wildlife (CDFW) (California Department of Fish and Wildlife 2021b).
- Plants listed as rare under the California Native Plant Protection Act (CNPPA) (California Fish and Game Code Section 1900 et seq.).
- Plants with a California Rare Plant Rank of 1A, 1B, 2A, 2B, 3, and 4 (California Native Plant Society 2021).

The 2004 IS/MND identifies the listing status and habitat type for each special-status species identified in the CNDDB search and CNPS reviews conducted at that time. Special-status species surveys were conducted in the Specific Plan II area between 2001 and 2004.

- In March and August of 2001, surveys for burrowing owl (*Athene cunnicularia*) and San Joaquin kit fox (*Vulpes macrotis mutica*) conducted along or adjacent to Byron Road within portions of Specific Plan II Neighborhoods I, J, and L found burrowing owls just east of the detention basin site in Neighborhood L.
- In April, June, and August of 2003, a pair of nesting Swainson's hawks were observed in a eucalyptus tree just west of Mountain House Parkway in the central portion of the proposed Town Center.
- A single blue elderberry (*Sambucus*) shrub grows within the project area, along the north side of Byron Road approximately 300 feet west of its intersection with Mountain House Creek. The elderberry shrub has been subject to past disturbance. No other blue elderberry shrubs were observed within or adjacent to the project area during the 2003 or 2004 surveys.
- In September 2003, a focused search for rose mallow (*Hibiscus lasiocarpus*) along the banks of Old River did not find the species.

Special-Status Plants

Fifteen special-status plant species were identified in the CNDDB search and CNPS review from 2004: round leaved filaree *(Erodium macrophyllum)* [no longer special-status], rose mallow, big tarplant *(Blepharizonia plumosa* ssp*. plumosa),* Lemmon's jewelflower *(Caulanthus coulteri* var*. lemmonii),* caper-fruited tropidocarpum *(Tropidocarpum capparideum*), San Joaquin saltbush *(Extriplex joaquiniana),* alkali milk-vetch *(Astragalus tener* var*. tener),* showy madia *(Madia radiata),* rayless ragwort *(Senecio aphanactis),* large-flowered fiddleneck *(Amsinckia grandiflora),* recurved larkspur *(Delphinium recurvatum),* Mason's lilaeopsis *(Lilaeopsis masonii),* Mount Diablo buckwheat *(Eriogonum truncatum*), Delta mudwort *(Limosella subulata)* and diamond-petaled California poppy *(Eschscholzia rhombipetala).*

Updated searches of the CNDDB and CNPS Inventory (California Department of Fish and Wildlife 2021a and California Native Plant Society 2021) added four state- and/or federally listed species to this list, including palmate-bracted bird's-beak (*Chloropyron palmatum*), Livermore tarplant (*Deinandra bacigalupii*), Delta button-celery (*Eryngium racemosum*), and Antioch Dunes evening-primrose (*Oenothera deltoides* ssp. *howellii*). Suitable habitat for these species include alkaline grassland and wetlands, riparian scrub, and inland dunes. There is no suitable habitat for these four species in the project area. Another 22 California Rare Plant Rank (CRPR) 1A, 1B.1, 1B.2, 2B.1, 2B.2, or 3.1 species and nine CRPR 4 species not previously considered were also on the CNDDB and CNPS Inventory database query results.

No special-status plants were observed within the project area during 2004 surveys of agricultural lands. The likelihood of occurrence within disturbed ruderal areas along roads, maintained fields, and railroad tracks is very low. While there is a field of annual grassland habitat in the southwestern portion of the project area where natural topography exists (i.e., it has not been leveled), this area is considered marginally suitable for upland species such as big tarplant and large-flowered fiddleneck, as this area has been subject to both dry-land farming and cattle grazing in the recent past (Skewes-Cox 2004).

Potentially suitable habitat for Mason's lilaeopsis and rose mallow exists in some of the wetland areas associated with Old River, and Mason's lilaeopsis has been located along Old River, near the northwest comer of the project area in the past (Baseline Environmental Consulting 1994). However, neither Mason's lilaeopsis nor rose mallow was observed during 2003 surveys.

Special-Status Wildlife

A total of 19 special-status wildlife species were listed in the CNDDB as potentially occurring within the project area from 2004. Updated searches of the CNDDB (California Department of Fish and Wildlife 2021a) identified an additional 21 special-status species as occurring within the region: pallid bat (*Antrozous pallidus*), golden eagle (*Aquila chrysaetos*), California glossy snake (*Arizona elegans occidentalis*), short-eared owl (*Asio flammeus*), Crotch bumble bee (*Bombus crotchii*), western bumble bee (*Bombus occidentalis*), longhorn fairy shrimp (*Brachinecta longiantenna*), northern harrier (*Circus hudsonius*), Townsend's big-eared bat (*Corynorhinus townsendii*), delta smelt (*Hypomesus transpacificus*), loggerhead shrike (*Lanius ludovicianus*), California black rail (*Laterallus jamaicensis coturniculus*), San Joaquin coachwhip (*Masticophis flagellum ruddocki*), Alameda whipsnake (*Masticophis lateralis euryxanthus*), song sparrow (Modesto population) (*Melospiza melodia*), foothill yellow-legged frog (*Rana boylii*), riparian brush rabbit (*Sylvilagus bachmani riparius*), American badger (*Taxidea taxus*), eulachon (*Thaleichthys pacificus*), giant gartersnake (*Thamnophis gigas*), and least Bell's vireo (*Vireo bellii pusillus*). Of these species, only six were added to the 2004 list of potentially occurring species within the project area based on the presence of potential habitat and distribution throughout the region—short-eared owl, northern harrier, loggerhead shrike, San Joaquin coachwhip, song sparrow (Modesto population), and American badger. While many of these species are described as potentially occurring within the Specific Plan II area, the distribution of potentially suitable habitat for most of these special-status wildlife species is very patchy, consistent with the fragmented and highly disturbed habitats.

The overall potential for intensive use of terrestrial habitats within the Specific Plan II area by special-status wildlife species is considered moderate. Swainson's hawk and western pond turtle *(Emmys marmorata)* have been observed or are known to occur in habitats associated with Old River (California Department of Fish and Wildlife 2021a; Amy Skewes-Cox 2004). Of the species identified in the 2004 IS/MND, there is presence of or potential habitat for Swainson's hawk, burrowing owl, white-tailed kite *(Elanus leucurus),* tricolored blackbird *(Agelaius tricolor),* western pond turtle, San Joaquin kit fox, and valley elderberry longhorn beetle within the project area. San Joaquin coachwhip occur in open terrain habitat such as grassland and pasture habitats. American badger occurs in a variety of habitat types, particularly open, drier stages of herbaceous habitats with friable soil. These species and other special-status birds, with moderate or higher potential, are described in the 2004 IS/MND and habitat in the project area is discussed below.

Swainson 's Hawk

Suitable nest trees for Swainson's hawks exist in several portions of the project area, especially those associated with Old River (California Department of Fish and Wildlife 2021a; Skewes-Cox 2004). Swainson's hawk was observed nesting in a blue gum *(Eucalyptus globulus)* within Neighborhood G (Specific Plan I area just south of Neighborhood H in Specific Plan II) during a 2003 pre-construction survey along the Mountain House Creek corridor (Skewes-Cox 2004).

Burrowing Owl

A notable cluster of at least seven pairs of burrowing owls was observed in 2001 within the unleveled grasslands in the southwest portion of the project area. Burrowing owls have also been observed in other parts of the project area in prior surveys (Skewes-Cox 2004). Numerous ground squirrel burrows that provide suitable burrowing owl habitat occur throughout the entire project area, but with the exception of the burrows in the grasslands in the southwest portion of the area, none of the other burrows had evidence (i.e., pellets, whitewash, feathers) of ongoing or past use by burrowing owls during 2004 surveys.

Tricolored Blackbird

No tricolored blackbirds were observed nesting, foraging, or perching within the project area (including the area along Old River) during the general habitat surveys conducted in November 2003 and early 2004.

White-Tailed Kite

White-tailed kites forage in grasslands and agricultural fields (Dunk 2020) and may nest in onsite trees (Skewes-Cox 2004). Suitable nest trees exist in the Specific Plan II area, especially trees associated with the Mountain House Creek, Dry Creek, and Old River corridors (Skewes-Cox 2004).

Western Pond Turtle

Old River and the lower section of Mountain House Creek are suitable habitat for western pond turtle. This species has been observed in Old River adjacent to the project area (Baseline Environmental Consulting 1994).

San Joaquin Kit Fox

The extreme western edge of the project area is located on the boundary or just outside the perceived range of the San Joaquin kit fox. The majority of the project area represents potential San Joaquin kit fox movement/dispersal and foraging habitat, although intensive historical agricultural operations and current weed abatement and fire control operations, residential buildout on adjacent properties (e.g., Neighborhoods E, F, G, H and Town Center), and human activity have substantially reduced habitat suitability.

The potential for occurrence of San Joaquin kit fox in the overall Mountain House community area has been a topic of significant controversy and debate throughout the life of the project. No San Joaquin kit fox or concrete evidence of kit fox (i.e., scat, tracks, photographs) has been recorded in the overall Mountain House project area. There is a site-specific occurrence, from 2000, of this species recorded approximately 1 mile west of the project area and another occurrence from 1992 located approximately 1.25 miles south of the project area (California Department of Fish and Wildlife 2021a).

Valley Elderberry Longhorn Beetle

The valley elderberry longhorn beetle is a federally threatened species, and its hostplant is the blue elderberry shrub. During surveys in 2003 and 2004, one blue elderberry shrub was observed within the project area along the north side of Byron Road approximately 300 feet west of its intersection with Mountain House Creek. No exit holes indicative of past occupancy by valley elderberry longhorn beetle were observed in the stems in 2003 or 2004. The likelihood of valley elderberry longhorn beetle occupancy is considered low.

Other Special-Status and/or Migratory Nesting Bird Species

The project area contains patches of habitats that may be foraging and/or nesting habitat for song sparrow (Modesto population) (*Melospiza melodia*), grasshopper sparrow (*Ammodramus savannarum*), short-eared owl (*Asio flammeus*), northern harrier *(Circus cyaneus)*, California horned lark *(Eremophilia alpestris actica)*, loggerhead shrike *(Lanius ludovicianus), barn swallow (Hirundo rustica),* snowy egret *(Egretta thula),* white-face ibis *(Plegadis chihi),* and Aleutian Canada goose *(Branta canadensis leucopareia)*.

Habitat Conservation Plans and Natural Community Conservation Plans

The SJMSCP was prepared and adopted to provide a strategy for balancing the need to conserve agricultural lands and wildlife habitat while accommodating a growing population in the County (San Joaquin Council of Governments 2000). The SJMSCP is designed to establish an assessment process for conversion of land to non-open space uses when such conversion may affect the plant, fish, and wildlife species covered by the SJMSCP. The SJMSCP includes all the lands within Mountain House, but some lands outside and adjoining Mountain House are not covered by the SJMSCP. Some of the covered species under the SJMSCP include Swainson's hawk, California tiger salamander, western pond turtle, giant garter snake, and valley elderberry longhorn beetle. The ultimate goal of the SJMSCP is to provide 100,841 acres of preserves over the 50-year lifetime of the plan, with most acres purchased as conservation easements over agricultural lands.

3.3.4.2 Discussion

The impact analysis for biological resources focuses on the land use changes associated with adoption of the project. Impacts on land cover, special-status plants, and special-status wildlife as a result of proposed land use changes in the Master Plan and Specific Plan II were determined by comparing the baseline conditions, as described in the 1994 MEIR and 2004 IS/MND, with current regulations and updated special-status species data.

The following impacts that could occur in the project area were identified as potentially significant in the 1994 MEIR:

- Project implementation would result in the elimination of over 4,000 acres of agricultural land and associated wildlife habitat on the site.
- Project implementation would result in the elimination of all existing and potential onsite foraging habitat for Swainson's hawk.
- Proposed development could affect special-status species other than San Joaquin kit fox and Swainson’s hawk.

- The project would block the movement of most terrestrial species between the eastern base of the Altamont Hills and the Delta farmland region to the east.

No new significant impacts on biological resources were identified for the proposed amendments to the Master Plan and Specific Plan II, and the proposed amendments would have less-than-significant impacts on biological resources with the implementation of mitigation measures from the 1994 MEIR and 2004 IS/MND and the SJMSCP. All development approvals in Mountain House are required to comply with pre-construction survey conditions of approval of project permits and are subject to participation in the SJMSCP to reduce any impacts to sensitive species to a less-than-significant level.

a. Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?

The 1994 MEIR concluded that the project's adverse effects on special-status species would be less than significant with implementation of Mitigation Measures M4.11-2 (for San Joaquin kit fox), M4.11-3 (for Swainson's hawk), and M4.11-4 (for burrowing owl and other special-status raptors). The proposed amendments to the Master Plan and Specific Plan II would not be substantially different from that evaluated in the 1994 MEIR. The existing mitigation measures and participation in the SJMSCP or implementation of the habitat mitigation plan (HMP) would reduce impacts on any new special-status species that could occur in the project area and mitigate for the loss of habitat for biological resources (e.g., migratory nesting birds).

The Master Plan calls for a combination of mitigation lands for impacts on wildlife and preservation of agricultural land. The Master Plan further indicates that reclaimed wastewater may be used on lands designated for habitat conservation.

Offsite lands dedicated to habitat mitigation are intended to offset the loss of Swainson's hawk, white-tailed kite, and northern harrier foraging habitat from development projects. The Master Plan calls in a general sense for preservation of a suite of sensitive plant and animal species that may occur in the area. Finally, the Master Plan identifies the need for future surveys of each Specific Plan area focused on identifying special-status species. Such surveys were completed for Specific Plan II in the early 2000s, as discussed earlier in this section. The presence or absence of special-status plant and wildlife species in the project area would be determined through pre-construction surveys and Incidental Take Minimization Measures (ITMMs) pursuant to the SJMSCP. Any new findings of special-status species during the surveys would be addressed through implementation of the mitigation measures in the 1994 MEIR and 2004 IS/MND and the SJMSCP.

To offset the loss of general habitat and open space, as well as obtain authorization for incidental take of special-status species, one of the primary Specific Plan II implementation measures includes participation in the SJMSCP, including all required take avoidance and pre-construction measures.

Alternatively, if the SJMSCP terminates or is unable to serve the project, applicants within the Specific Plan II area would use the HMP adopted for the Master Plan in Mitigation Measure M4.11-3. The HMP addresses loss of foraging habitat for raptors, including Swainson's hawk, northern harrier, white-tailed kite, and tricolored blackbird; conversion of agricultural lands to nonagricultural uses; and land disposal of treated wastewater. A second Specific Plan II implementation measure requires compliance with CESA and ESA and assures that the applicant

take sole responsibility for such compliance. A third Specific Plan II implementation measure directs preservation of the existing Old River levee and associated habitats for both common and sensitive plant and wildlife species. A full copy of the Specific Plan II text can be viewed at the San Joaquin County Community Development Department, 1810 East Hazelton Avenue, Stockton, California.

Detailed mitigation measures addressing the potential impacts of development on special-status species were incorporated into the Master Plan during the 1994 CEQA review process. No new significant impacts on biological resources have been identified related to development of the Specific Plan II that were not addressed during the 1994 or the 2004 CEQA review process. The policies of Specific Plan II and the implementation measures outlined in Sections 7.3.1, 7.3.2, and 7.3.4 of Specific Plan II would ensure that no significant impacts would occur. The project would not have any significant new special-status species impacts not already addressed in the 1994 MEIR; therefore, no new impacts would result. The impact would be less than significant.

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

Specific Plan II improvements would not impact the Mountain House Creek and Dry Creek riparian corridors as project development would occur outside the corridors. The project would not result in substantial adverse impacts on sensitive natural communities.

Riparian habitats within the Specific Plan II area include Mountain House Creek, Dry Creek, and Old River. Specific Plan II would not include the previously proposed marina along Old River or proposed modifications to the Old River levee. The marina was eliminated from the Master Plan in a 2004 Master Plan Amendment prior to the Specific Plan II. With these previously proposed features eliminated, potential impacts on the Old River corridor would be less than significant as compared to the potentially significant impacts addressed in the 1994 MEIR.

Project impacts on Mountain House Creek and Dry Creek riparian corridors would be limited to a few perpendicular road crossings of these corridors, and the proposed project would not change the previously disclosed impacts in the 1994 MEIR.

There are no other sensitive natural communities identified in local or regional plans, policies, or regulations, or by CDFW or the U.S. Fish and Wildlife Service, within the Specific Plan II area affected by Specific Plan II. The project would not have any significant new riparian or sensitive natural communities impacts not already addressed in the 1994 MEIR; therefore, no new impacts would result. The impact would be less than significant.

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

Implementation of the project would not have an impact on waters of the United States and waters of the state. The project would not impact Old River, Mountain House Creek, or Dry Creek corridors.

Federally protected wetlands, as defined by CWA Section 404, within the Specific Plan II area include Mountain House Creek, Dry Creek, and Old River. Mountain House Creek, Dry Creek, and Old River would not be disturbed by the project.

The Master Plan requires maximum practicable preservation of jurisdictional waters of the United States and wetlands and mitigation for unavoidable impacts. The Master Plan also identifies the need for buffers around preserved and enhanced wetlands, while still allowing passive recreation within the buffered areas. Further, urban (i.e., stormwater) runoff must be treated prior to discharge into the jurisdictional areas contained within Dry Creek. The Master Plan requires preparation of a Wetlands Management Plan for every Specific Plan area that contains wetlands (Baseline Environmental Consulting 1994).

While impacts on waters of the United States and waters of the state within the Specific Plan II area are expected to be minimal, Specific Plan II contains a number of implementation measures related to wetlands.

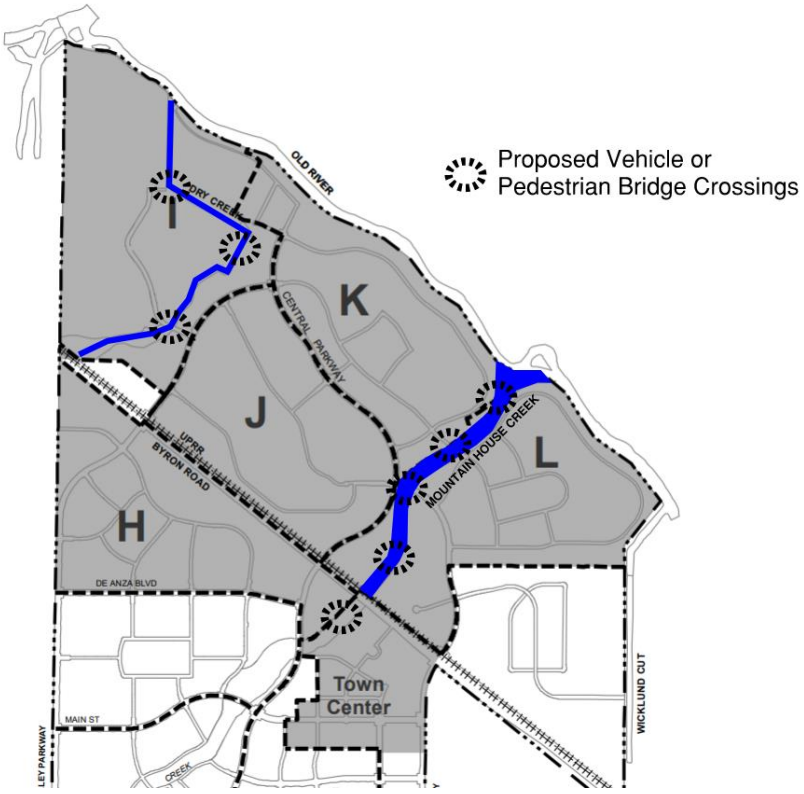
The primary Specific Plan II implementation measure for potential impacts on jurisdictional wetlands calls for mitigation via onsite creation to offset loss of wetlands, if any. Specific Plan II implementation measures also identify a requirement for buffering of the enhanced Mountain House Creek and Dry Creek corridors, including fencing and maintenance of these wetland preserves. The final Specific Plan II implementation measure for wetlands specifies that any modifications to wetlands within the Mountain House Creek and Dry Creek corridors must be conducted in compliance with the federal CWA. The recommended implementation measures identified in Specific Plan II would apply to the proposed project and would reduce potential impacts to wetlands to a less-than-significant level. Additionally, the MHCSD requires treatment of runoff water from developed or landscaped surfaces consistent with best management practices. The project would not have any significant new wetlands impacts not already addressed in the 1994 MEIR; therefore, no new impacts would result. The impact would be less than significant.

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

Specific Plan II would result in the conversion of open cropland and undeveloped areas to urban uses (e.g., conversion of Community Park to Public Facilities-Private in Neighborhood L) and increased outdoor lighting and human presence along or near the Mountain House Creek and Dry Creek corridors could result in a reduction in the habitat suitability of the riparian corridors. The loss of habitat and increased human activities could generate potentially significant impacts on species that occasionally move through the Specific Plan II area. The 1994 MEIR Mitigation Measure M4.11-5, which was subsequently incorporated into the Master Plan, would serve to mitigate the potential impact to a less-than-significant level.

Due to historical intensive agriculture and current weed abatement operations, movement of native resident or migratory fish or wildlife species through the Specific Plan II area is generally limited. Lack of dense vegetation cover and the presence of human-made structures, including fences and roads, currently limit movement of some wildlife species with specialized wildlife habitat requirements (e.g., mountain lion), and no established native resident or migratory wildlife corridors are known to exist within the Specific Plan II area. However, conversion of open cropland to urban uses would contribute to a cumulative loss of habitat and limit the future movement of any species that occasionally move through the open fields and riparian corridor of the Specific Plan II area. This cumulative loss of habitat was addressed in the 1994 MEIR and 2004 IS/MND and would be mitigated through participation in the SJMSCP.

The Old River, Mountain House Creek, and Dry Creek corridors provide opportunities for wildlife movement, as these corridors contain variable topography, trees, shrubs, and a source of water conducive to movement of species. The only project riparian corridor impacts are the few perpendicular road crossings of the corridors. However, the crossings would not physically impact the wetland areas of Dry Creek and Mountain House Creek. There would be 8 road crossings of Dry Creek and Mountain House Creek as shown in the image below. There are no new road crossings in the proposed Amendments. The project Applicant anticipates the need for San Joaquin County and California Department of Fish and Wildlife permits for the projects. Elimination of the previously proposed marina along Old River, the completed restoration of Mountain House Creek and the preservation of the Dry Creek corridor would reduce the potential impacts to migratory wildlife using these corridors to a less-than-significant level, as compared to the potentially significant impact addressed in the 1994 MEIR.



Increased outdoor lighting, increased noise, and human presence along or near these corridors could result in a reduction in the habitat suitability of the riparian corridors. Outdoor lighting throughout the neighborhoods may further reduce the movement of any species that opt to move through the urban areas. The potential impact of increased lighting and increased noise throughout the Specific Plan II area on wildlife movement is considered a minor, yet potentially significant impact. However, implementation of adopted Master Plan policies addresses this issue and would mitigate the impact to a less-than significant level. The project would not have any significant new wildlife movement impacts not already addressed in the 1994 MEIR; therefore, no new impacts would result.

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

The Master Plan requires maximum practicable preservation of healthy trees. The Specific Plan II area contains only a few notable patches of trees; all of these trees are along creek corridors or are associated with an old farm site located between Central Parkway and Mountain House Parkway. There are a number of trees in a patchy distribution along the Dry Creek corridor that would be removed for the project. Any trees along the original alignment of Mountain House Creek have already been removed as part of the completed Mountain House Creek restoration project. The blue gum and palm trees at the old farm site are in the central portion of the proposed Town Center and would also be removed. No trees along Old River would be removed.

The trees planted along the Mountain House Creek and Dry Creek corridors as part of future landscaping projects would more than fully replace the trees along these creeks that have been or would be removed for project development. The trees at the old farm site are planted ornamentals that are not considered heritage oaks or historical trees in San Joaquin County. The proposed project would not conflict with any policy or ordinance protecting biological resources. There would be no impact.

f. Conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan?

The project would not conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved conservation plan. The Specific Plan II area is located within lands covered by the SJMSCP, which was approved and adopted by the San Joaquin County Board of Supervisors. The applicant would participate in the SJMSCP and comply with the SJMSCP Incidental Take Minimization Measures to assure compliance with the applicable habitat conservation plan and the 1994 MEIR. If the SJMSCP terminates, the applicant(s) within the Specific Plan II area would be required to comply with the HMP adopted for the Master Plan. The applicant has already paid HCP fees for all of Neighborhoods I, J, K and L and for a portion of Neighborhood H and the Town Center. Use of the HMP would not conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved conservation plan. There would be no impact.

3.3.5 Cultural Resources

		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
Would the project:					
a.	Cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5?	☐	☒	☐	☐
b.	Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?	☐	☒	☐	☐
c.	Disturb any human remains, including those interred outside of dedicated cemeteries?	☐	☒	☐	☐

3.3.5.1 Affected Environment

Analysis of cultural resources in the project area is based on information from the project's confidential cultural resources inventory, composed of a records search, pedestrian survey, archaeological excavations, and evaluations of significance by Peak & Associates (2003). Subsequently, significant infrastructure was installed in 2006 to support development of Neighborhoods I, J, K and L. Specifically, the improvements to date include the construction of a bridge across Byron Road and the railroad tracks, significant mass grading, and two miles of underground utilities (storm drain pipelines, gravity sewer pipelines, sewer force main pipelines and water pipelines and reclaimed water lines). The grading included the excavation of ponds that serve as storm water quality treatment facilities for current and future Mountain House subdivisions. Consequently, the previously recorded resources that were approved for impact under the prior CEQA reviews have been removed. Because the current modifications to the project, as proposed, do not result in a change to the impact footprint, this CEQA document is based on the Peak & Associates study and on an updated records search including previously recorded resources and previously conducted studies conducted at the California Historical Resources Information System's Central California Information Center located at California State University, Stanislaus.

Cultural Setting

Prehistoric Context

Although few archaeological sites demonstrate evidence of human occupation of the San Joaquin Valley during the late Pleistocene and early Holocene epochs (12,000–6,000 before present [B.P.]), this is likely a product of the archaeological record itself rather than lack of human habitation in the San Joaquin Valley. Most Pleistocene- and Holocene-epoch archaeological sites are deeply buried in accumulated gravels and silts or have eroded away.

The closest available prehistoric chronology to the study area comes from the western side of the San Joaquin Valley. The chronology is most clearly presented by Olsen and Payen (1969) and Moratto (1984).

The Positas Complex (5,200–4,600 B.P.) is characterized by small, shaped mortars; cylindrical pestles; millingstones; perforated flat cobbles; small flake scrapers; handstones; and spire-lopped Olivella beads. To date, archaeologists have not identified burials or structures associated with the Positas Complex (Mikkelsen and Hildebrandt 1990).

The Pacheco Complex (4,600–1,600 B.P.) is characterized by foliate bifaces, rectangular shell ornaments, flexed burials, and thick rectangular Olivella beads. Sites attributed to the Pacheco Complex exhibit spire-ground Olivella beads, perforated canine teeth, bone awls, whistles, grass saws, large stemmed and side-notched points, flexed burials, millingstones, mortars, and pestles. Domestic structure remnants attributed to the Pacheco Complex were probably circular in outline and 10 to 12 feet in diameter (Mikkelsen and Hildebrandt 1990; Olsen and Payen 1969).

The Gonzaga Complex (1,600–1,000 B.P.) is characterized by extended and flexed burials, bowl mortars, shaped pestles, squared and tapered-stem points, few bone awls, distinctive shell ornaments, and thin rectangular, split-punched, and oval Olivella beads (Mikkelsen and Hildebrandt 1990; Olsen and Payen 1969). Projectile points are rare in comparison to the Pacheco Complex and are made predominantly from silicate stones. Archaeologists have reported a few fragmentary serrated projectile points fashioned from obsidian. Architectural features from the Gonzaga Complex are larger than those reported from earlier complexes. Archaeologists hypothesize that the Gonzaga Complex marks the arrival of the Yokuts in the San Joaquin Valley (Mikkelsen and Hildebrandt 1990).

The Panoche Complex (400–200 B.P.) is recognized by large circular structures (pits), flexed burials and primary and secondary cremations, varied mortars and pestles, bone awls, whistles, small side-notched points, clamshell disk beads, and other bead types. The Panoche Complex appears to represent the Yokuts' occupation of the San Joaquin Valley (Mikkelsen and Hildebrandt 1990; Olsen and Payen 1969).

Ethnographic Context

(Except where otherwise noted, this section is summarized from Wallace 1978.)

The project area was aboriginally inhabited by the Northern Valley Yokuts, whose territory is defined roughly by the crest of the Diablo Range on the west and the foothills of the Sierra Nevada on the east. The southern boundary is approximately where the San Joaquin River bends northward, and the northern boundary is roughly halfway between the Calaveras and Mokelumne Rivers. The Yokuts may have been fairly recent arrivals in the San Joaquin Valley, perhaps being pushed out of the foothills about 500 years ago.

Population estimates for the Northern Valley Yokuts vary from 11,000 to more than 31,000 individuals. Populations were concentrated along waterways and on the more hospitable east side of the San Joaquin River. Villages, or clusters of villages, made up tribelets (miniature tribes) were led by headmen. The number of tribelets is estimated at 30–40; each tribe spoke its own dialect of the Yokut language. Combined with the Southern Valley Yokut and the Foothill Yokut dialects, these tongues formed the Yokutsan linguistic family of the Penutian Stock (Shipley 1978).

Principal settlements were located on the tops of low mounds or on or near the banks of the larger watercourses. Settlements were composed of single-family dwellings, sweathouses, and ceremonial assembly chambers. Dwellings were small and lightly constructed, semisubterranean, and oval. The

public structures were large, and earth covered. Sedentism was fostered by the abundance of riverine resources in the area.

Subsistence among the Northern Valley Yokuts revolved around the waterways and marshes of the lower San Joaquin Valley. Fishing with dragnets, harpoons, and hook and line yielded salmon, white sturgeon, river perch, and other species of edible fish. Waterfowl and small game attracted to the water also provided a source of protein. The contribution of big game to the diet was probably minimal. Vegetal staples included acorns, tule roots, and seeds.

Most Northern Valley Yokuts groups had their first contact with Europeans in the early 1800s, when the Spanish began exploring the Sacramento–San Joaquin River Delta. The gradual erosion of Yokuts culture began during the Mission Period. Epidemics of European diseases played a large role in the decimation of the native population. The final blow to the aboriginal population came with the gold rush and its aftermath. In the rush to the southern mines, native populations were displaced from their territories. Ex-miners settling in the fertile valley applied further pressure to the native groups and altered the landforms and waterways of the valley. Many Yokuts resorted to wage labor on farms and ranches. Others were settled on land set aside for them on the Fresno and Tule River Reserves.

Historic Context

The project area is located in San Joaquin County, northwest of the City of Tracy. San Joaquin County, one of California's original 27 counties, took its name from the San Joaquin River, which in turn, was named for Saint Joachim by Gabriel Moraga in 1813. The centrally located city of Stockton has remained the county seat since the county was established (Rensch et al. 1990).

Early explorers visited the region relatively frequently. Eighteenth-century explorers included Pedro Fages (1772), Juan Bautista de Anza (1776), and Francisco Eliza (1793). Between 1806 and 1817, mission site reconnaissance expeditions were led by Gabriel Moraga (1806, 1808), Father Ramon Abella (1811), Jose Antonio Sanchez (1811), and Father Narciso Duran (1817) (Rensch et al. 1990).

The first Euro-American to traverse the area was likely Jedediah Strong Smith, who opened the Sacramento Trail in the late 1820s. Smith reported to the Hudson's Bay Company about the quantity and quality of furs available in California, and in 1828, the company sent its first trapping expedition. Trappers working for Hudson's Bay Company established the settlement of French Camp south of the modern city of Stockton (Rensch et al. 1990).

The San Joaquin Valley remained largely unsettled during the Spanish and Mexican Periods. Mexican land grants common to many coastal counties were sparsely scattered along the San Joaquin Valley. In fact, much of the region consisted of public lands. Following California's gold rush, settlement of the San Joaquin Valley gradually increased as former gold seekers realized the potential for crop production (initially wheat and later row/orchard crops) and cattle raising in the region. Many small towns were founded in the San Joaquin Valley because railroad development throughout the area provided access, goods, and employment; in turn, these small towns further influenced settlement patterns in the area. The region has historically been used for agricultural and ranching practices, and these practices continue into the present.

The City of Tracy began in 1878 as a railroad town to connect the growing Central Pacific and Southern Pacific Railroads. In 1869, Central Pacific Railroad laid railroad tracks from Sacramento

through present-day Tracy and over the Altamont Pass to the San Francisco Peninsula. As was common along railroad alignments statewide, small railroad towns sprang up along the line, including Lathrop (near Stockton) and Ellis at the base of the Altamont Pass. In 1878, a Southern Pacific railroad line was constructed from Oakland through Martinez to connect with the Central Pacific just east of Ellis. A station was established in present-day Tracy and was named after Lathrop J. Tracy, a railroad official. Given its location within the agricultural region, the new community of Tracy grew as a railroad center. In 1894, railroad headquarters were moved from nearby Lathrop to Tracy.

Tracy formally incorporated in 1910, and the new city grew rapidly after the first irrigation district was established in 1915. Although railroad operations began to decline during the early- to mid-twentieth century, Tracy and the surrounding area continued to prosper as an agricultural region.

Known Cultural Resources

Records search results indicate that 15 cultural resources are within the study area and no resources are within .25-mile of the study area. Of these, 9 are built environment resources and 6 are archaeological resources including 2 historic era archaeological sites, 1 prehistoric archaeological site, and 3 single prehistoric isolated artifacts. A total of 17 previous cultural resources studies have been conducted within the study area. None of these resources are still present within the impact area for this project. None of these resources are still present within the impact area for this project.

3.3.5.2 Discussion

Would the Project:

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

The project area has been subjected to grading and utilities installation, following the prior approvals by the County, and none of the previously recorded resources currently remain. Therefore, there would be no impact to known historical resources as a result of the action being considered by the County. However, during ground disturbing activities, buried cultural resources may be encountered, and if found to be significant, they would be considered historical resources as defined in Section 15064.5. This could be a potentially significant impact. The approved Specific Plan and Tentative Subdivision maps include conditions requiring that all activities stop in the event cultural resources are discovered during ground-disturbing activities. If the resource if determined to be significant, appropriate treatment would be implemented. This condition will continue to apply to the project. Therefore, this impact is considered less than significant.

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

Despite the fact that the project site has been previously graded, there is also potential that buried cultural resources could be inadvertently unearthed during construction and/or operations. If archaeological resources are encountered and found to be unique archaeological resources, then this could be a potentially significant impact. The approved Specific Plan and Tentative Subdivision maps include conditions requiring that all activities stop in the event archaeological resources are discovered during ground-disturbing activities. If the resource is determined to be significant,

appropriate treatment, such as data recovery, will be implemented. This condition will continue to apply to the project. Therefore, this impact is considered less than significant.

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

See discussion b) above. Additionally, the project would be subject to the County's Development Title Chapter 9-1053M regarding uncovering of human remains or of a human prehistorical burial site during construction. Procedures of conduct following the discovery of human remains on non-federal lands are mandated by Health and Safety Code § 7050.5, by PRC § 5097.98, and by CEQA in California Code of Regulations (CCR) § 15064.5(e). In the event of the discovery of human remains, all work shall be halted, and the County Coroner shall be notified immediately, and the aforementioned procedures will be implemented. This impact is considered less than significant.

3.3.6 Energy

		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
Would the project:					
a.	Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	☐	☐	☒	☐
b.	Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	☐	☐	☐	☒

3.3.6.1 Affected Environment

As under the current approved Master Plan and Specific Plan II, electricity for the project would be provided by MID and gas service provided by PG&E. These two entities would be responsible for constructing any necessary extension of their infrastructure to serve the project. A MID substation was constructed outside Mountain House, on the south side of Kelso Road in Alameda County and would serve the project.

The Master Plan identified the total constant electric demand of the project (the amount of energy required to be available at all times) with energy efficiency design implemented to be about 100,000 kilowatts (kW), and total natural gas demand to be about 630,000 cubic feet at project buildout. These values include a 25 percent reduction in energy use compared with typical designs. The Master Plan specifies that energy efficiency would be incorporated from the initial phase of development through the life of the community. The consumption of energy would be minimized through building design and orientation, landscape design, community programs, and use of PG&E' s Energy Planning Services. Through PG&Es Energy Planning Service, PG&E assists in determining energy requirements and potential costs and provides site- or facility-specific recommendations to increase energy efficiency.

3.3.6.2 Discussion

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

The 1994 MEIR concluded that project energy impacts would be less than significant with mitigation. Policies of the Master Plan for energy efficiency include incorporating measures to save energy, such as designing residential streets and homes to promote the use of solar energy, designing buildings and facilities within the community to incorporate cost-effective measures to reduce the need for energy use and maximize the benefits of solar energy including native landscaping and efficient use of water resources, and planning infrastructure systems to include cost-effective energy efficient designs and technology. No conflicts with the Master Plan have been identified.

The project would not result in the wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation because the project would adhere to the energy efficiency policies of the Master Plan. In accordance with the Master Plan, MHCSD would provide, through contracts with utility providers, all dry utilities to the project site. All Master Plan assumed energy efficiency standards are the jurisdiction of MHCSD and would be enforced through contracts between MHCSD and each utility provider. All future builders would be subject to all MHCSD standards with regard to energy efficiency. Additionally, each neighborhood and the Town Center would comply with the applicable provisions of the MHCSD Energy Conservation Plan and current Title 24 energy standards for new construction and new installations and retrofits in existing buildings. The project would not have any significant new energy impacts not already addressed in the 1994 MEIR; therefore, no new impacts would result. The impact would be less than significant.

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

The 1994 MEIR concluded that the commitment of non-renewable energy resources for vehicular travel, construction activity, and indoor climate controls would be a significant irreversible environmental change.

The project would adhere to the policies of the Master Plan for energy efficiency including incorporating measures to save energy, such as designing residential streets and homes to promote the use of solar energy, designing buildings and facilities within the community to incorporate cost-effective measures to reduce the need for energy use and maximize the benefits of solar energy including native landscaping and efficient use of water resources, and planning infrastructure systems to include cost-effective energy efficient designs and technology. The project would also adhere to the applicable provisions of the MHCSD Energy Conservation Plan. No aspect of the project would conflict with either of these plans. There would be no impact.

3.3.7 Geology, Soils, and Paleontological Resources

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

3.3.7.1 Affected Environment

Topography

The project area is relatively flat, sloping gently (less than 2 percent) northeast toward Old River. Elevation ranges within the project area are between 0 and 70 feet above mean sea level.

Regional Geology

The project area is located in the upper San Joaquin Valley of the Great Valley geomorphic province of California. The Great Valley is a relatively flat alluvial plain that is infilled with as much as 6 vertical miles of alluvial and marine sediment. The Great Valley is bound to the west by the Coast Ranges and to the east by the Sierra Nevada. The Great Valley is drained by the Sacramento and San Joaquin Rivers through the San Francisco Bay.

Regional geologic maps indicate that the geology in the vicinity of the project area is dominated by sediments that were deposited by streams draining the eastern slopes of the Altamont Hills to the west. These unconsolidated sedimentary deposits are of Holocene age (less than 11,000 years old) and comprise the surface and near-surface soils across the Mountain House community.

Seismicity

The San Joaquin Valley is a seismically active region of California. The seismicity of this region is primarily related to the boundary between the Coast Ranges and the Great Valley, two diverse geographic and geologic provinces. No known active or potentially active faults have been mapped across the project area, and the area is not located in a Fault Rupture Hazard Zone as established by the Alquist-Priolo Earthquake Fault Zoning Act. The California State Mining and Geology Board has defined active faults as faults that have had surface displacement within Holocene time (within the last 11,000 years). Potentially active faults are faults that show evidence of surface displacement during Quaternary time (within the past 1.6 million years). The active and potentially active faults in the vicinity of the project area are the Great Valley Thrust (Segment 7, active), Greenville (potentially active), Concord-Green Valley (active), Calaveras (potentially active), Hayward (active), and San Andreas (active) faults.

The Great Valley Thrust fault is the nearest active fault to the project area. The USGS Working Group on California Earthquakes has mapped the surface rupture of the nearest segment of the Great Valley Thrust fault zone beneath the eastern foothills of the Diablo Range, approximately 5 miles southeast of the project area. Since rupture of the Great Valley fault zone does not usually extend to the ground surface, this fault system has only recently been recognized as a potential source of earthquakes.

Soils

Under the San Joaquin County Development Title and Chapter 4 Article 7 of the California Subdivision Act, project applicants are required to prepare preliminary soils reports (i.e., geotechnical studies) prior to the submittal of each Tentative Subdivision Map area within the Mountain House community. Several geotechnical studies have been prepared for the various neighborhoods in Mountain House. The most recent was a geotechnical report update for Neighborhoods I and J in 2019 (ENGEO 2019), which concluded that the recommendations provided in the 2007 and 2010 reports are still applicable for the project site with the addition of the supplemental recommendations provided in the 2019 report.

Geotechnical engineering studies were also conducted in March 2004 for Neighborhoods H, I, and J and included subsurface explorations and laboratory soil testing. The purpose of the completed studies was to characterize geotechnical conditions that might affect design or construction of proposed development and to provide geotechnical recommendations and design criteria to mitigate any identified impacts.

Subsurface explorations were conducted throughout the project area to depths ranging from 21.5 to 51.5 feet below ground surface (bgs). The explorations indicate the neighborhoods are underlain by natural residual soil and unconsolidated alluvium composed generally of lean clays and silts with varying percentages of silts and sands.

Soil expansion is a phenomenon in which clayey soils expand in volume as a result of an increase in moisture content and shrink in volume upon drying. Changes in soil volume as a result of changes in moisture content can cause stress and result in damage to foundations. Expansive soils are identified with an expansion index test that evaluates the percentage of clays and liquid limit. It is generally accepted that soils with an expansion index greater than 50 are susceptible to soil expansion. Surface residual soils in the project area were characterized as having a moderate to high expansion potential.

Liquefaction hazards may be present in loose to medium dense, saturated soils, such as sands or silty sands, in which the space between individual particles is completely filled with water. Liquefaction can occur when the strength and density of a soil is decreased by seismic shaking. Liquefaction is dominated by four main factors: depth of groundwater, soil type, soil density, and the seismicity of the area. Liquefaction can be responsible for widespread structural failure, lateral spreading of liquefied deposits and overlying soils, and localized settlement of the ground surface.

The liquefiable potential of site soils was determined using the Cone Penetration Test method, a peak ground acceleration (PGA) of 0.4g, and an earthquake magnitude of 6.7. The results of the analysis indicate that potentially thin, discontinuous deposits of liquefiable materials exist in the project area at depths of 6 to 35 feet bgs. However, the geotechnical engineering studies also suggest that a sufficiently thick cap of nonliquefiable soils exists above potentially liquefiable deposits, making liquefaction-induced ground disturbance in the project area unlikely.

Lateral spreading is defined as the lateral movement of earth materials and overlying structures during an earthquake as a result of pore pressure build-up or liquefaction. The variable depth and discontinuous lateral extent of potentially liquefiable deposits suggests the potential magnitude of lateral spreading in the project area is not likely to exceed a few inches in the event of a major earthquake.

3.3.7.2 Discussion

a. Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:

1. ***Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.***

The 1994 MEIR concluded that even with implementation of a community earthquake preparedness plan by the MHCSD (Mitigation Measure M5.6-1), impacts from seismic hazards would be significant and unavoidable. No Alquist-Priolo Earthquake Fault Zones have been mapped in San Joaquin County. No active faults have been identified within the project area. Therefore, surface ground rupture from faulting is not considered a significant hazard in the project area. There would be no impact.

2. Strong seismic ground shaking?

The 1994 MEIR concluded that even with implementation of a community earthquake preparedness plan by the MHCSD (Mitigation Measure M5.6-1), impacts from seismic hazards would be significant and unavoidable. The San Joaquin Valley is a seismically active region of California. Strong ground shaking resulting from earthquakes along nearby or distant faults represents the greatest seismic hazard at the Mountain House community. The active and potentially active faults in the vicinity of the project area are the Great Valley Thrust (Segment 7, active), Greenville (potentially active), Concord-Green Valley (active), Calaveras (potentially active), Hayward (active), and San Andreas (active).

The intensity of ground shaking at any particular site is a function of many factors including earthquake magnitude, distance from the epicenter, the duration of strong ground motion, local geologic conditions (soil characteristics and topography), and depth to bedrock. The project area may be susceptible to earthquake magnitudes of 6.7 or higher. During an earthquake, structural damage in the project area may include damage to buildings and infrastructure (e.g., roads, bridges, utilities).

The project would be required to comply with all California laws designed to minimize the potential adverse effects of an earthquake. These laws include the Hospital Seismic Safety Act of 1972, the Essential Services Buildings Seismic Safety Act of 1986, the Field Act of 1933, and the requirements of the latest California Building Code (CBC), and MHCSD standards.

The 1994 MEIR identified Mitigation Measure M4.6-1 (preparation of a Community Earthquake Preparedness Plan) to promote public awareness and education on earthquake hazards. This plan has been completed and is currently being implemented by the MHCSD.

Existing mitigation measures and policies related to strong seismic ground shaking can be found in the 1994 MEIR (Mitigation Measure M4.6-1) and the Master Plan (Policies 6.5 I(b) [*Emergency preparedness*] and 6.8.3 [*Soils, Geologic, and Seismic Hazards*]).

Despite project compliance with California laws related to earthquake hazards and the implementation of mitigation measures called for in the Master Plan and 1994 MEIR, project impacts related to ground shaking would still be significant and unavoidable and cannot be mitigated to a less-than-significant level. Findings for this impact were addressed in the 1994 MEIR and a Statement of Overriding Considerations was adopted. The project would not have any significant new seismic impacts not already addressed in the 1994 MEIR; therefore, no new impacts would result, and no additional mitigation measures are necessary. The impact would be less than significant.

3. Seismic-related ground failure, including liquefaction?

Laboratory soil testing conducted and summarized in geotechnical engineering studies for the project area indicate that thin, discontinuous, potentially liquefiable deposits are present in the project area (ENGEO 2007a, ENGEO 2007b, ENGEO 2019). Although the reports also suggest that overlying non-liquefiable soils make liquefaction in the area unlikely, recommendations to mitigate potential liquefaction hazards in the project area were provided in the reports and are summarized below.

Liquefaction hazards in the project area were evaluated using Standard Penetration Test data, a PGA between 0.3g and 0.5g. The results of the analysis indicate that potentially thin, discontinuous

deposits of liquefiable materials exist in the project area. However, the geotechnical engineering studies also suggest that a sufficiently thick cap of nonliquefiable soils exists above potentially liquefiable deposits, making liquefaction-induced ground disturbance at the project site unlikely.

Liquefaction hazards were also previously discussed in the 1994 MEIR (Mitigation Measure 4.6-1) and the Master Plan (Policies 6.8.3 [*Soils, Geologic, and Seismic Hazards*] and 5.1.4.P.d [S*chool Siting Criteria*]).

With respect to seismic-related ground failure, the project would result in less-than significant impacts with mitigation incorporated, as identified in required geotechnical studies. Thin, discontinuous deposits of silts and sands encountered in the project area during subsurface investigations indicate liquefaction hazards may be present in the project area, creating the potential for hazards to people or structures. Unless properly mitigated, liquefiable deposits in in the project area could result in damage to structural foundations, lateral spreading, and/or localized settlement of ground surfaces. The geotechnical engineering studies for these neighborhoods identified a number of ways to minimize such impacts. Measures include recommendations for demolition and stripping, subgrade preparation, fill placement, dewatering, foundation design, vapor reduction, exterior flatwork, retaining walls, sound walls, pavement design, drainage, landscaping, and utilities. These measures would be integrated into the design of structures (i.e., improvement plans and specifications) for Neighborhoods H, I, J, L and Town Center, thereby reducing the impact of any potential seismic-related hazards to a less-than-significant level. No new mitigation measures are necessary.

4. Landslides?

The 1994 MEIR concluded that the project would not result in landslides and the impact is less than significant. The project area is located on flat terrain (less than 1 percent slopes). The 1994 MEIR indicated that the project area is located outside areas of southwest San Joaquin County identified as susceptible to landslides. Evidence of slope failures and/or landslides has not been mapped within or immediately adjacent to the project area or the greater Mountain House community area. The impact is less than significant.

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

The 1994 MEIR concluded that the project would not result in substantial soil erosion or the loss of topsoil and that the impact would be less than significant. Excessive soil erosion is not expected to occur within the project area because average slopes at the site are less than 1 percent. However, project grading for cuts and fills made for building pads, roadbeds, and surface drainage would require the stripping of such areas of all vegetation, debris, organic topsoil, or any existing fill or other unsuitable material or soil. The placement of engineered fill behind the Old River levee constitutes the largest amount of earthwork in the project area. Each neighborhood and the Town Center would have a balanced site with no export or import of soil.

Project construction would be required to comply with NPDES program requirements. The Phase I NPDES stormwater program, administered by the State Water Board's Division of Water Quality, regulates stormwater discharges from major industrial facilities, large- and medium-sized municipal separate storm sewer systems (those serving more than 100,000 people), and construction sites that disturb 5 or more acres of land. Under the program, all land disturbances of 5 acres or more are required to implement best management practices (BMPs) to prevent soil erosion and the offsite migration of sediment-laden runoff during construction. The site-specific plan that includes erosion

control BMPs is called the Storm Water Pollution Prevention Plan (SWPPP). Additionally, Master Plan Policy 6.8.3(b) and the County Development Title require that adequate efforts be implemented during construction to control or eliminate soil erosion and sedimentation associated with construction activities.

Once construction is completed and project topsoil has become stabilized with hardscape and vegetation, soil erosion in the project area would be greatly reduced. Additionally, all urban runoff from the project area would flow to online water quality basins within the Mountain House Creek corridor that would help to remove sediment and soil particles from site runoff. These basins would require periodic maintenance, including desilting and vegetative clearing to ensure proper functionality. Sedimentation and soil erosion water quality issues are further addressed in Section 3.3.10, *Hydrology and Water Quality*, of this IS/MND.

Soil erosion and sedimentation were also addressed by Policies 4.2.2.P.a and 4.2.2.P.d, (*Grading Standards*) and Policy 6.8.3.P.b (*Soils, Geologic, and Seismic Hazards*) of the Master Plan. No additional mitigation measures are required to reduce project impacts related to soil erosion and loss of topsoil, and the impact would be less than significant.

c. Be located on a geologic unit or soil that is unstable or that would become unstable as a result of the project and potentially result in an onsite or offsite landslide, lateral spreading, subsidence, liquefaction, or collapse?

See responses under a), 1-4 above. The impact would be less than significant.

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

The 1994 MEIR concluded that the project would have a less-than-significant impact with regard to expansive soils. Structures and flatwork supported on expansive soil experience cyclic seasonal heave and settlement as the soil expands and contracts through wetting and drying cycles. If the structures are not properly designed, the cyclic expansion and contraction can undermine structural stability. To reduce impacts from expansive soils, the project would be designed and constructed to meet or exceed standards set forth by the county as well as the current CBC. Laboratory testing classified soil samples from the project area as having a medium to high potential for expansion. Soil expansion was also addressed in Master Plan Policy 6.8.3.O.a (*Soils, Geologic, and Seismic Hazards*).

Laboratory testing indicates that soils in the project area have a medium to high expansion potential, creating the potential for substantial risks to life or property. Unless properly mitigated, soil expansion has the potential to damage foundations, cause large cracks in exterior walls, floors, and ceilings, and cause wavy "roller coaster" surfaces along driveways, sidewalks, and streets. Site preparation and structural design in the project area would be completed in accordance with geotechnical engineering studies. Adherence to the geotechnical recommendations and design criteria in these studies would result in a less-than-significant impact.

e. Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems in areas where sewers are not available for the disposal of wastewater?

The 1994 MEIR concluded that the project would have a less than significant impact on soils adequately supporting the use of septic tanks or alternative wastewater disposal systems. No septic tanks or alternative waste disposal systems are proposed for the project. All wastewater would be

collected in a piping system connected to the MHCSD wastewater treatment plant. The wastewater treatment plant is further discussed in Section 3.3.19, *Utilities and Service Systems*, of this IS/MND. The project would have no impact on septic systems or alternative wastewater disposal systems; therefore, there would be no impact.

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

The 1994 MEIR concluded that the project would have a less than significant impact on paleontological resources. There is no evidence that paleontological resources exist in the project area and the proposed project would have no new impact on paleontological resources. The impact would be less than significant.

3.3.8 Greenhouse Gas Emissions

		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
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?	☐	☐	☒	☐

3.3.8.1 Affected Environment

Environmental Setting

This section describes greenhouse gas (GHG) emissions in the study area and impacts on GHG emissions that could result from construction and operation of the project. GHG modeling inputs, assumptions, and results are contained in Appendix A, *Air Quality and Greenhouse Gas Emission*. The study area for this resource is generally defined as San Joaquin County and the state of California, although GHG emissions and climate change are a global issue.

Existing Conditions

This section provides a discussion of the existing conditions related to GHG emissions at the project site and in the study area. Information in this section is based on state, regional, and local regulations.

Global Climate Change

The process known as the *greenhouse effect* keeps the atmosphere near the Earth's surface warm enough for the successful habitation of humans and other life forms. The greenhouse effect is created by sunlight that passes through the atmosphere. Some of the sunlight striking Earth is absorbed and converted to heat, which warms the surface. The surface emits a portion of this heat as infrared radiation, some of which is re-emitted toward the surface by GHGs. Human activities that generate GHGs increase the amount of infrared radiation absorbed by the atmosphere, thus enhancing the greenhouse effect, and amplifying the warming of Earth.

Increases in fossil fuel combustion and deforestation have exponentially increased concentrations of GHGs in the atmosphere since the Industrial Revolution (IPCC 2007). Rising atmospheric concentrations of GHGs in excess of natural levels result in increasing global surface temperatures—a process commonly referred to as *global warming*. Higher global surface temperatures, in turn, result in changes to the Earth's climate system, including increased ocean temperature and acidity, reduced sea ice, variable precipitation, and increased frequency and intensity of extreme weather events (IPCC 2018). Large-scale changes to the Earth's system are collectively referred to as *climate change.*

The Intergovernmental Panel on Climate Change (IPCC) was established by the World Meteorological Organization and United Nations Environment Programme to assess scientific, technical, and socioeconomic information relevant to the understanding of climate change, its potential impacts, and options for adaptation and mitigation. The IPCC estimates that human-induced warming reached approximately 1 degree Celsius (°C) above pre-industrial levels in 2017, increasing at 0.2°C per decade. Under the current nationally determined contributions of mitigation from each country until 2030, global warming is expected to rise to 3°C by 2100, with warming to continue afterward (IPCC 2018). Large increases in global temperatures could have substantial adverse effects on the natural and human environments worldwide and in California.

Greenhouse Gases

The principle anthropogenic (human-made) GHGs are carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), and fluorinated compounds, including sulfur hexafluoride (SF_6), hydrofluorocarbons (HFCs), and perfluorocarbons. The primary GHGs that would be emitted by project-related construction and operations include CO_2, CH_4, and N_2O.

Carbon dioxide enters the atmosphere through fossil fuels (e.g., oil, natural gas, and coal) combustion, solid waste decomposition, plant and animal respiration, and chemical reactions (e.g., manufacture of cement). CO_2 is also removed from the atmosphere (or *sequestered*) when it is absorbed by plants as part of the biological carbon cycle.

Methane is emitted during the production and transport of coal, natural gas, and oil. Methane emissions also result from livestock and other agricultural practices and from the anaerobic decay of organic waste in municipal solid waste landfills.

Nitrous oxide is emitted by agricultural and industrial activities, as well as during combustion of fossil fuels and solid waste. Methods have been set forth to describe emissions of GHGs in terms of a single gas to simplify reporting and analysis. The most commonly accepted method to compare GHG emissions is the global warming potential (GWP) methodology defined in IPCC reference documents. IPCC defines the GWP of various GHG emissions on a normalized scale that recasts all GHG emissions in terms of carbon dioxide equivalent (CO_2e), which compares the gas in question to that of the same mass of CO_2. By definition, CO_2 has a GWP of 1.

Table 3.3.8-1 lists the global warming potential of CO_2, CH_4, and N_2O and their lifetimes in the atmosphere.

Table 3.3-6. Lifetimes and Global Warming Potentials of Key Greenhouse Gases

Greenhouse Gas	Global Warming Potential (100 years)	Lifetime (years)
Carbon Dioxide (CO_2)	1	— [a]
Methane (CH_4)	25	12
Nitrous Oxide (N_2O)	298	114

Source: California Air Resources Board 2020.

[a] No lifetime (years) for carbon dioxide was presented by the California Air Resources Board.

CARB recognizes the importance of short-lived climate pollutants and reducing these emissions to achieve the State's overall climate change goals. Short-lived climate pollutants have atmospheric lifetimes on the order of a few days to a few decades, and their relative climate forcing impacts, when measured in terms of how they heat the atmosphere, can be tens, hundreds, or even thousands of times greater than that of CO_2 (California Air Resources Board 2017a). Recognizing their short-term lifespan and warming impact, short-lived climate pollutants are measured in terms of CO_2e using a 20-year time period. The use of GWPs with a time horizon of 20 years better captures the importance of the short-lived climate pollutants and gives a better perspective on the speed at which emission controls will impact the atmosphere relative to CO_2 emission controls. The *Short-Lived Climate Pollutant Reduction Strategy* (SLCP Reduction Strategy) addresses CH_4, HFCs, and anthropogenic black carbon. CH_4 has a lifetime of 12 years and a 20-year GWP of 72. HFC gases have lifetimes of 1.4 to 52 years and a 20-year GWP of 437 to 6,350. Anthropogenic black carbon has a lifetime of a few days to weeks and a 20-year GWP of 3,200(California Air Resources Board 2017a).

Regulatory Setting

State

California has established various regulations to address GHG emissions. The most relevant of these regulations are described below.

State Legislative Reduction Targets

Reducing GHG emissions in California has been the focus of the state government for approximately two decades. GHG emission targets established by the California State Legislature include reducing statewide GHG emissions to 1990 levels by 2020 (Assembly Bill [AB] 32 of 2006) and reducing them to 40 percent below 1990 levels by 2030 (Senate Bill [SB] 32 of 2016). Executive Order S-3-05 calls for statewide GHG emissions to be reduced to 80 percent below 1990 levels by 2050. These targets are in line with the scientifically established levels needed in the United States to limit the rise in global temperature to no more than 2°C, the warming threshold at which major climate disruptions, such as super droughts and rising sea levels, are projected (United Nations 2015). Executive Order B-55-18 further recognizes the climate stabilization goal adopted by 194 states and the European Union under the Paris Agreement. Based on the worldwide scientific agreement that carbon neutrality must be achieved by midcentury, Executive Order B-55-18 establishes a state goal to achieve carbon neutrality as soon as possible, and no later than 2045, and to achieve and maintain net negative emissions thereafter. Executive Order B-55-18 charges CARB with developing a framework for implementing and tracking progress towards these goals. This executive order extends Executive Order S-3-05 and acknowledges the role of increased carbon sequestration by natural and working lands for the state to achieve carbon neutrality and becoming net carbon negative.

California's *2017 Climate Change Scoping Plan* (2017 Scoping Plan), prepared by CARB, outlines the main strategies California will implement to achieve the legislated GHG emission target for 2030 and "substantially advance toward our 2050 climate goals" (California Air Resources Board 2017b). It identifies the reductions needed by each GHG emission sector (e.g., transportation, industry, electricity generation, agriculture, commercial and residential, pollutants with high global warming potential, and recycling and solid waste).

Energy Efficiency Standards

The California Green Building Standards Code (Title 24, proposed Part 11) was adopted as part of the California Building Standards Code (CCR Title 24). Part 11 established voluntary standards (known as the CALGreen standards) that became mandatory under the 2010 edition of the code. The standards concerned sustainable site development, energy efficiency (in excess of California Energy Code requirements), water conservation, material conservation, and internal air contaminants. The current energy efficiency standards were adopted in 2019 and took effect on January 1, 2020. The non-residential energy standards are approximately 30 percent more energy efficient than the previous version.

CEQA Guidelines

The CEQA Guidelines require lead agencies to describe, calculate, or estimate the amount of GHG emissions resulting from a project. Moreover, the guidelines emphasize the necessity to determine potential climate change effects of the project and propose mitigation as necessary. The guidelines confirm the discretion of lead agencies to determine appropriate significance thresholds but require the preparation of an environmental impact report if "there is substantial evidence that the possible effects of a particular project are still cumulatively considerable notwithstanding compliance with adopted regulations or requirements" (Section 15064.4). SJVAPCD updated their CEQA guidelines to include guidance for evaluating GHG significance in December 2009.

Regional and Local Regulation

San Joaquin Valley Air Pollution Control District

In the absence of scientific evidence supporting establishment of a numerical threshold, SJVAPCD has adopted performance-based standards to assess project-specific GHG emission impacts on global climate change. The SJVAPCD policy provides for a tiered approach in assessing significance of project specific GHG emission increases.

Projects complying with an approved GHG emission reduction plan or GHG mitigation program that avoids or substantially reduces GHG emissions within the geographic area in which the project is located would be determined to have a less than significant individual and cumulative impact for GHG emissions. Such plans or programs must be specified in law or approved by the lead agency with jurisdiction over the affected resource and supported by a CEQA-compliant environmental review document adopted by the lead agency. Projects complying with an approved GHG emission reduction plan or GHG mitigation program would not be required to implement best performance standards (BPS).

Projects implementing BPS would not require quantification of project specific GHG emissions. Consistent with the CEQA Guidelines, such projects would be determined to have a less than significant individual and cumulative impact for GHG emissions.

Projects not implementing BPS would require quantification of project specific GHG emissions and demonstration that project specific GHG emissions would be reduced or mitigated by at least 29 percent, compared to business as usual (BAU), including GHG emission reductions achieved since the 2002 through 2004 baseline period, consistent with GHG emission reduction targets established in CARB's AB 32 Scoping Plan. Projects achieving at least a 29 percent GHG emission reduction

compared to BAU would be determined to have a less-than-significant individual and cumulative impact for GHG.

SJVAPCD has adopted GHG guidance to assist lead agencies in determining the level of significance of operational-related GHG emissions, pursuant to CEQA. However, much of the guidance for analyzing GHG emissions has changed in light of the rulings from the recent *Centers for Biological Diversity et al. vs. California Department of Fish and Wildlife, the Newhall Land and Farming Company* (S217763) (hereafter *Newhall Ranch*) Supreme Court opinion. Additionally, the project would be built after the year 2020 and the AB 32 thresholds that the SJVAPCD guidance is based off is no longer applicable.

Mountain House Master Plan and Specific Plan II

The Master Plan and Specific Plan II were adopted prior to GHG emissions being included in Appendix G of the CEQA Guidelines.

3.3.8.2 Discussion

Climate change is a global problem and GHGs are global pollutants, unlike criteria air pollutants (such as ozone precursors), which are primarily pollutants of regional and local concern. Given their long atmospheric lifetimes, GHGs emitted by many sources worldwide accumulate in the atmosphere. No single emitter of GHGs is large enough to trigger global climate change on its own. Rather, climate change is the result of the individual contributions of countless past, present, and future sources. Thus, GHG impacts are inherently cumulative.

SJVAPCD has not established a quantitative threshold for the evaluation of construction related GHG emissions. SJVAPCD has published *Guidance for Valley Land-use Agencies in Addressing GHG Emission Impacts for New Projects under CEQA* to assist lead agencies in determining the level of significance of operation-related GHG emissions pursuant to CEQA (SJVAPCD 2009). This guidance has since been incorporated into SJVAPCD's 2015 GAMAQI.

The *Newhall Ranch* case confirmed that the use of BAU analysis (i.e., 29 percent below BAU), a performance-based approach, would be satisfactory. However, for a project-level analysis that uses CARB's statewide BAU targets, substantial evidence must be presented to support the use of those targets for a particular project at a specific location. The Supreme Court notes that this may require examination of the data behind the statewide model and adjustment to the levels of reduction from BAU used for project evaluation. To date, neither CARB nor any lead agencies have provided any guidance on how to adjust AB 32's statewide BAU target for use at the project level.

The *Newhall Ranch* decision suggested several approaches for determining significance of GHG emissions are appropriate as alternatives to the percentage below BAU approach but did not foreclose other methodologies that may be used by lead agencies. In any case, the decision affirmed that "thresholds only define the level at which an environmental effect 'normally' is considered significant; they do not relieve the lead agency of its duty to determine the significance of an impact independently." In addition, the SJVAPCD GHG guidance is not applicable to the project as the project would be operational before 2020. Thus, the significance of the project's GHG emissions is, therefore, evaluated with respect to its ability to comply with the 2017 Scoping Plan, the San Joaquin Council of Governments (SJCOG) 2018 Regional Transportation Plan/Sustainable Communities Strategy (2018 RTP/SCS), and the state's long term GHG reduction goals.

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

Construction

Construction of the existing approved land uses, and project amendments would result in GHG emissions from operation of off-road construction equipment and on-road vehicles used to transport workers, building materials, and equipment to and from the project site. GHG emissions from project construction activities were quantified using the CalEEMod, version 2020.4.0, and based on project-specific construction data (e.g., schedule, land uses, etc.). As discussed in Section 3.3.3, construction of the existing approved land uses, and project amendments would occur from 2024 to 2033 with no construction during the year 2027. The results of the construction analysis are summarized in Table 3.3.8-2. Refer to Appendix A for the assumptions used in the greenhouse analysis and a more detailed description of methodology.

Table 3.3-7. Estimated GHG Emissions from Project Construction (metric tons per year)

Year	CO_2	CH_4	N_2O	CO_2e
Existing Master Plan/Specific Plan II Approved Land Uses				
2024	859	<0.1	<0.1	869
2025	841	<0.1	<0.1	852
2026	38	<0.1	<0.1	39
2028	361	<0.1	<0.1	366
2029	538	<0.1	<0.1	545
2030	2105	<0.1	<0.1	2129
2031	2567	<0.1	<0.1	2611
2032	926	<0.1	<0.1	942
2033	54	<0.1	<0.1	54
Proposed Project Land Use Amendments				
2024	824	<0.1	<0.1	834
2025	791	<0.1	<0.1	802
2026	37	<0.1	<0.1	37
2028	355	<0.1	<0.1	360
2029	527	<0.1	<0.1	534
2030	1944	<0.1	<0.1	1966
2031	2397	<0.1	<0.1	2436
2032	924	<0.1	<0.1	939
2033	54	<0.1	<0.1	54
Net Project Emissions				
2024	-35	<0.1	<0.1	-35
2025	-50	<0.1	<0.1	-50
2026	-1	<0.1	<0.1	-1
2028	-6	<0.1	<0.1	-6
2029	-11	<0.1	<0.1	-11
2030	-161	<0.1	<0.1	-163
2031	-170	<0.1	<0.1	-175

Year	CO_2	CH_4	N_2O	CO_2e
2032	-2	<0.1	<0.1	-2
2033	0	0	0	0
Total	**-418**	**<0.1**	**<0.1**	**-425**

CO_2 = carbon dioxide; CH_4 = methane; N_2O = nitrous oxide; CO_2e = carbon dioxide equivalent, which includes the relative warming capacity (i.e., global warming potential) of each GHG.

As shown in Table 3.3.8-2, it is estimated that the net construction of the project would reduce emissions by approximately 425 metric tons of CO_2e compared to the existing approved Master Plan/Specific Plan II land uses. Construction emissions would cease once construction of the project is complete and, thus, are considered to be short-term. The total construction emissions amortized over a 30-year period, which is a reasonable approximation of the lifetime of the project, would equal approximately -14 metric tons of CO_2e per year compared to the existing approved Master Plan/Specific Plan II land uses. Thus, the project amendments would help reduce construction GHG emissions compared to the existing proposed uses in the Master Plan/Specific Plan II.

As discussed above, SJVAPCD's CEQA guidelines do not identify a GHG emission threshold for construction-related emissions. As such, the project's GHG emissions during construction have been amortized over the length of the project's lifespan and added to the project's operational emissions.

Operation

During the operational phase of the project, GHG emissions would result from on-road vehicle trips within the Town Center and Neighborhoods H, I, J, and L. GHG emissions sources also include energy use, water demand, solid waste generation, and area sources. Energy and water demand, as well as solid waste generation, would result in indirect emissions that would occur off-site. However, even though electricity, water, and solid waste-related emissions do not occur at the project site, GHGs are global pollutants that affect the entire planet's atmosphere and are thus included in the project's emissions. Area source emissions would occur from maintenance equipment.

Operational emissions associated with the project have been estimated using CalEEMod defaults and operational inputs provided by the applicant, such as land use type and size. With respect to electricity GHG emissions, the MID emission factors for the most recent year of data in CalEEMod were utilized.

As shown in Table 3.3.8-3, the project would result in approximately 328 metric tons of CO_2e per year compared to the existing approved Master Plan/Specific Plan II land uses. The bulk of these emissions are from increased energy demand, water demand, and solid waste generation. The proposed amendments would lower mobile emissions due to a reduction in VMT and would reduce area sources from landscaping maintenance.

The SJVAPCD and San Joaquin County do not have an approved quantitative GHG threshold for operational emissions that pertains to the State's SB 32 goals. Therefore, the project's GHG impacts are analyzed against the 2017 Scoping Plan and 2018 RTP/SCS, since the goal of these plans are to reduce GHG emissions. As discussed below, the project would not conflict with the 2017 Scoping Plan or the 2018 RTP/SCS. Thus, the project's GHG operational emissions would be less than significant.

Table 3.3-8. Operational Greenhouse Gas Emissions (metric tons per year)

	Estimated Total Emissions (metric tons)			
Project Component	**CO_2**	**CH_4**	**N_2O**	**CO_2e**
Existing Master Plan/Specific Plan II Approved Land Uses				
Area Sources	5	<0.1	<0.1	5
Energy Use	880	<0.1	<0.1	884
Mobile Sources	581	<0.1	<0.1	596
Solid Waste Generation	21	1	<0.1	53
Water Use	113	1	<0.1	148
Proposed Project Land Use Amendments				
Area Sources	3	<0.1	<0.1	3
Energy Use	1241	<0.1	<0.1	1247
Mobile Sources	520	<0.1	<0.1	530
Solid Waste Generation	28	2	<0.1	70
Water Use	128	2	<0.1	179
Net Project Emissions				
Area Sources	-2	0	0	-2
Energy Use	361	0	0	363
Mobile Sources	-60	0	0	-66
Solid Waste Generation	7	0	0	17
Water Use	14	1	0	31
Amortized Construction Emissions	-14	< 0.1	< 0.1	-14
Total Net Change GHG Emissions	**306**	**<0.1**	**<0.1**	**328**

CH_4 = methane; CO_2 = carbon dioxide; CO_2e = carbon dioxide equivalent; N_2O = nitrous oxide

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

San Joaquin County and Mountain House do not have a qualified GHG reduction plan. Thus, the project was analyzed with consistency to the 2018 RTP/SCS and the CARB 2017 Scoping Plan.

As discussed above, the project amendments would help reduce construction GHG emissions compared to the existing proposed uses within the Master Plan and Specific Plan II area. Additionally, the project would result in a reduction of VMT compared to the original Master Plan and Specific Plan II land uses. The project would also have a per capita VMT of 16.09, which is substantially lower than the San Joaquin County average of 22.61 (TJKM 2021). The reduction of VMT and lower per capita VMT would help the project be consistent with the transportation goals of the 2017 Scoping Plan and the 2018 RTP/SCS. Specifically, the reduction in mobile emissions would be consistent with the 2018 RTP/SCS Policy of reducing VMT per capita below 21.98, and as discussed in Section 3.3.17, the project would include transit, bicycle, and pedestrian facilities which would help reduce per capita GHG emissions. The project would be required to include electric vehicle charging stations and designated electric vehicle parking per the Master Plan, which would promote the adoption of electric vehicles and further reduce mobile emissions. The project would

also be required to implement the Transportation Demand Management measures as required by the Master Plan such as a volunteer rideshare matching program, a vanpool program, distribution of transit and rideshare information to all households, reduced fee transit passes for employees, special ridesharing and transit promotions, and construction of bicycle facilities.

The three net project emission sources that would increase due to the project would be energy sources, solid waste generation, and water use. The project would implement the most current CalGreen code at the time of construction which would help reduce energy demand and water use. Additionally, the State of California is requiring that 100 percent electricity comes from renewable or zero-carbon sources by 2045. As such, the project's energy use GHG emissions would continue to decline in the future. SB 100 would also reduce the GHG emissions from water treatment and conveyance. Lastly, AB 341 requires that at least 75 percent of solid waste be diverted from landfills, helping reduce solid waste GHG emissions.

Over time these indirect sources of GHG emissions would be reduced by regulatory measures and as such the project would be consistent with the 2017 Scoping Plan and the project would not conflict with the State's plans to reduce GHG emissions to meet the 2030 and 2050 targets, as specified in SB 32, and EO S-3-05, respectively. Accordingly, this impact would be less than significant.

3.3.9 Hazards and Hazardous Materials

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

3.3.9.1 Affected Environment

Hazardous Materials

A hazardous material is any substance that, because of its quantity, concentration, or physical or chemical properties, may pose a hazard to human health and the environment. Under CCR Title 22, the term *hazardous substance* refers to both hazardous materials and hazardous wastes. Both of these are classified according to four properties: (1) toxicity, (2) ignitability, (3) corrosiveness, and (4) reactivity (CCR Title 22, Chapter 11, Article 3). A hazardous material is defined in CCR Title 22 as:

> [a] substance or combination of substances that, because of its quantity, concentration, or physical, chemical or infectious characteristics, may either (1) cause, or significantly contribute to, an increase in mortality or an increase in serious irreversible, or incapacitating reversible, illness; or (2) pose a substantial present or potential hazard to human health or environment when improperly treated, stored, transported or disposed of or otherwise managed (CCR Title 22 Section 66260.10).

Exposure to hazardous materials in various forms can cause death, serious injury, long-lasting health effects, and damage to buildings, homes, and other property. Hazards to human health and the environment can occur during production, storage, transportation, use, or disposal of hazardous materials.

Phase I Environmental Site Assessments have been completed for each neighborhood by CONDOR EARTH (formerly Condor Earth Technologies, Inc.). The purpose of the Phase I reports is to conduct an appropriate inquiry into previous ownership and uses of the property to help in partially satisfying the innocent landowner defense to the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) and to document those environmental conditions that could potentially impact development.

A review of regulatory agency databases (i.e., Cortese List Data Resources) did not reveal a history of hazardous waste releases or documented environmental contamination at the project site (California Department of Toxic Substances Control 2021; State Water Resources Control Board 2021a, 2021b, 2021c; California Environmental Protection Agency 2021). Furthermore, there is no record of hazardous materials use, underground storage tanks, hazardous waste generation, or other environmental issues at bordering properties with reasonable potential to adversely affect the project site.

Proximity to Schools

The closest schools to the project site are Sebastian Questa Elementary School located at 685 North Montebello Street, Bethany Elementary School located at 570 South Escuala Drive, and Wicklund Elementary School located at 300 East Legacy Drive. Each of these schools are located in the Mountain House community south of Byron Road. Sebastian Questa Elementary School is located in Neighborhood H.

Proximity to Airports and Airstrips

The closest airport to the project site is the Byron Airport in Contra Costa County, approximately 4.5 miles northwest of Neighborhood I. Byron Airport is a public airport located at 550 Eagle Court in Byron. No private airstrips are within 2 miles of the project site.

Wildland Fire

According to the California Department of Forestry and Fire Protection's (CAL FIRE's) Fire Hazard Severity Zone Viewer, the project site is not within a moderate, high or very high fire hazard severity zone (California Department of Forestry and Fire Protection 2021). Therefore, the risk of wildfire at the project site is very low. Lands to the west in Alameda and Contra Costa Counties are designated moderate and high fire hazard severity zones.

3.3.9.2 Discussion

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

Issues related to the routine transport, use, or disposal of hazardous materials were addressed in the following Master Plan sections: 6.8.4 (Implementation Measures [c] and [d]) (School Siting Criteria), 6.3 (Implementation Measure [fJ) (Fire Protection and Emergency Response), 6.5 (Implementation Measure [e]) (Emergency Preparedness), 6. 7 (Implementation Measures [b] and [c]) (Waste Management), 6.7 (Implementation Measures [al, [b], [c], and [d]) (Hazardous Waste), and 6.7 (Implementation Measure [h]) (Household Hazardous Waste).

The 1994 MEIR concluded that impacts from pesticides/herbicides or public exposure to polychlorinated biphenyls (PCBs) would be insignificant after implementation of Mitigation Measures M4.10-1 and M4.10-2. During project construction, minor amounts of hazardous materials would be transported through the project area. Construction activities typically involve the use of potentially toxic substances, such as paints, fuels, and solvents. Construction activities would be subject to federal, state, and local laws and requirements designed to minimize and avoid the potential health and safety risks associated with hazardous materials. Furthermore, a SWPPP would be required of the applicant to obtain coverage under the Phase I NPDES permit (see Section 3.3.10, *Hydrology and Water Quality*) and would outline methods to protect against the accidental release of construction-related chemicals into site runoff.

Project development would result in the addition of residential and commercial businesses that would change the nature of hazardous materials transported, stored, and used onsite compared to existing conditions. Each business would have specific permit and reporting requirements under various federal, state, and local regulations associated with the proper transport, use, storage, and disposal of hazardous materials and wastes. Impacts related to the transport, use, or storage of hazardous materials are anticipated to be less than significant. No new mitigation measures are necessary.

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

Issues regarding the accidental release or upset of hazardous materials were addressed in the following Master Plan sections: 6.5 (Implementation Measures [a] and [b]) (Emergency Preparedness), 6.7 (Implementation Measure [e]) (Waste Management), 6.8.4 (Implementation Measure [b]) (Other Potential Hazards), and 6.10 (Implementation Measures [a] and [b]) (Asbestos).

The 1994 MEIR concluded that impacts from pesticides/herbicides or public exposure to PCBs would be insignificant after implementation of Mitigation Measures M4.10-1 and M4.10-2. The 1994 MEIR concluded that impacts from household hazardous waste would be insignificant after implementation of Mitigation Measure M4.3.5-1. The 1994 MEIR also concluded that impacts from asbestos in existing structures would be insignificant after implementation of Mitigation Measure M4.10-3.

The project area has been in agricultural production since the early 1900s. The potential contaminant level and associated human health risks associated with the use of agri-chemicals in Neighborhoods I, and J were assessed in the Limited Phase II Environmental Site Assessment report

for these neighborhoods (Condor Earth Technologies Inc. 2008). Laboratory analysis performed for Neighborhoods H, I, and J did not indicate the presence of chemicals of potential concern in soil samples from these neighborhoods. The requirement for corrective action for any identified soil contamination is addressed in Section 6.8.4 of Specific Plan II.

The Phase I Environmental Site Assessment for Neighborhoods I and J (Condor Earth Technologies, Inc. 2008) concluded that the potential residual pesticides in agricultural fields of both neighborhoods are no longer considered a recognized environmental condition, and there are no additional recognized environmental conditions relating to the site. The monitoring wells and abandoned gas well are considered *de minimis* conditions. These wells should be properly abandoned before development is completed. The Phase I Environmental Site Assessment for Neighborhood L (Condor Earth Technologies, Inc. 2011) concluded that the only remaining recognized environmental condition for Neighborhood L is the potential for petroleum hydrocarbons in soil and/or groundwater associated with the petroleum pipelines adjacent to the southern portion of Neighborhood L. There are no additional recognized environmental conditions relating to the project site. The monitoring wells are considered *de minimis* conditions. These wells should be properly abandoned/destroyed before development is completed. The Phase I Environmental Site Assessment for the Town Center (Condor Earth Technologies, Inc. 2018) concluded that there are no additional recognized environmental conditions relating to the project site. All recognized environmental conditions identified in the 2004 Phase I Environmental Site Assessment (Condor Earth Technologies, Inc. 2004) are no longer considered recognized environmental conditions with the exception of the active petroleum pipelines on the north side of Byron Road. The Phase I Environmental Site Assessment recommends no further evaluation of the project site for hazardous materials or petroleum products. The project would not have any significant new hazards or hazardous materials impacts not already addressed in the 1994 MEIR; therefore, no new impacts would result, and no additional mitigation measures are necessary. The impact would be less than significant.

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

The 1994 MEIR concluded that impacts from high voltage transmission lines, natural gas lines, and/or household disposal areas could pose a risk to students but would be insignificant after implementation of Mitigation Measure M4.3.2-2. The 1994 MEIR also concluded that impacts from schools not conforming to all siting criteria in accordance with state and local regulations would be insignificant after implementation of Mitigation Measure M4.3.2-3.

Part of the project includes redesignating 16 acres from Commercial Recreation Open Space to a K-8 School in Neighborhood I and relocating the K-8 School in Neighborhood L approximately 1,000 feet south of its existing proposed location. School siting criteria with respect to hazardous materials were discussed in the following Master Plan section: 5.1.4 (Implementation Measures [a] and [b]) (School Siting Criteria). With implementation of these measures, and because there are no schools within 0.25 mile of the project site; this impact would be less than significant.

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

A review of regulatory agency databases (i.e., Cortese List Data Resources) did not reveal a history of hazardous waste releases or documented environmental contamination at the project site

(California Department of Toxic Substances Control 2021; State Water Resources Control Board 2021a, 2021b, 2021c; California Environmental Protection Agency 2021); therefore, there would be no impact.

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

No private airstrips are located within or near the project area. No safety impact related to private airstrips would occur. The project site is not located within the boundaries of an airport land use plan. The nearest airport is Byron Airport, located approximately 5 miles northwest of the project site. The Byron Airport does not pose health risks to future residents of the project area. However, the Contra Costa County Comprehensive Airport Land Use Plan shows that portions of Neighborhood H are located within Zone D, where structures will stand no taller than 100 feet to ensure that no safety concerns exist. No structures in the Specific Plan II area are proposed to exceed 100 feet in height. Therefore, there would be no safety impact.

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

The proposed project would not interfere with an emergency response plan or emergency evacuation plan. There would be no impact.

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

According to CAL FIRE's Fire Hazard Severity Zone Viewer, the project site is not within a moderate, high, or very high fire hazard severity zone (California Department of Forestry and Fire Protection 2021). Therefore, the risk of wildfire at the project site is very low. There would be no impact.

3.3.10 Hydrology and Water Quality

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

3.3.10.1 Affected Environment

Climate

Mountain House is located on the western edge of the San Joaquin River Valley. Average annual rainfall in the project area is approximately 12 inches. Average temperatures generally range from 38° Fahrenheit (F) in winter months to 93°F in summer months.

Surface Water

Regionally, the Mountain House community is located within the San Francisco Bay/Sacramento–San Joaquin River Delta System. The Sacramento–San Joaquin Delta estuary is the largest estuary on the West Coast and drains over 40 percent of the water in California. The Delta system, consisting of over 1,100 square miles, lies at the confluence of the southward-flowing Sacramento River and northward-flowing San Joaquin River. The Delta is a flat, low-lying network of 57 islands, interconnected by 700 miles of waterways. The Delta and its watershed are an important source of drinking water and irrigation water in California.

Locally, the project site is located within the Mountain House Creek and Dry Creek watersheds. Mountain House Creek drains an area of approximately 6.5 square miles. The creek has its headwaters approximately 6.5 miles southwest of the project site in the Altamont Hills. The creek flows in a generally northeast direction to drainpipes that pass under the California Aqueduct and the Delta-Mendota Canal. The creek continues northeast, traversing Neighborhood E and forming the easternmost boundary of Neighborhood G. The creek is conveyed beneath Byron Road, across Neighborhood L, and eventually discharges into Old River.

Dry Creek is located parallel to and approximately 8,000 feet northwest of Mountain House Creek. Dry Creek has a drainage area of approximately 1.3 square miles and runs in a general northerly direction across Neighborhood I to Old River. Significant modifications to the natural creek have resulted from agricultural practices in the area, particularly downstream of the Delta-Mendota Canal.

Currently, runoff generally flows in a northeasterly direction across the Mountain House site to Old River. Prior to any development of the Mountain House community, drainage infrastructure was limited to agricultural drainage ditches and some drainage pipes at street crossings. Agricultural ditches in the project area are gradually being replaced with new drainage infrastructure as Mountain House builds out. Runoff from some portions of the northwestern portion of the project area currently drains west toward existing residences and other properties along Kelso Road and in Alameda County.

100-Year Floodplain

Current Federal Emergency Management Agency (FEMA) maps covering the Mountain House community show that the areas south of Old River +/- 2,000 feet are in a special flood hazard area subject to inundation by the 1 percent annual chance flood (Zone AE, base flood elevation 10) (Federal Emergency Management Agency 2009). The existing levee along Old River was constructed without certification by USACE. The applicant proposes to mitigate this potential flood hazard by using engineered fill in the areas behind the existing levee to elevate proposed building pads above the base flood elevation (bfe). This improvement would transform the area behind the levee into a continuous earthen platform. Once building pads have been raised above the bfe, a 'Letter of Map Revision Fill' would be requested from FEMA to remove the extent of the raised area from the 100-year flood hazard zone.

200-Year Floodplain

California Senate Bill 5 (SB 5, 2007) established policy for 200-year flood protection within the Sacramento-San Joaquin Valley. Mountain House is within the Sacramento-San Joaquin Valley. SB 5 requires that new residential development in urban and urbanizing areas to have an urban level of

flood protection, i.e., would experience no more than 3 feet of flooding during a 200-year flood event. Cities and counties are required to make findings related to urban levels of flood protection for various land use decisions, including approval of certain discretionary entitlements and tentative maps. The California Department of Water Resources has determined that portions of Mountain House, within Neighborhoods I, J K and L are within the 200-year floodplain as shown on their Best Available Maps website (https://gis.bam.water.ca.gov/bam/). DWR's Best Available Maps does not provide exact water surface flood elevations so more detailed local analysis was necessary to ascertain the exact 200 Year flood water surface elevation. To determine the 200-year flood water surface elevation, Peterson Brustad Inc. used the best available information, as required by SB 5, to determine that the 200-year floodplain water surface elevation is 16.2 feet for Neighborhoods I, J and K, and 16.9 feet for Neighborhood L (Peterson Brustad Inc. and R&F Engineering 2022). Therefore, the building pad elevations must have a minimum elevation of 13.2 feet for Neighborhoods I, J and K and 13.9 feet for Neighborhood L. The applicant proposes to mitigate this potential flood hazard by using engineered fill to fill the areas behind the existing levee and elevate proposed building pads so that the building pads will not experience more than 3 feet of flooding during a 200-year flood event.

Groundwater

DWR defines state groundwater basins based on geologic and hydrogeologic conditions. According to the DWR, the project area is located within the Tracy groundwater subbasin. The subbasin has an area of approximately 540 square miles and is drained by the San Joaquin River and Corral Hollow Creek Primary water-bearing formations in the subbasin include semi-consolidated deposits of clay, silt, and gravel of the Tulare Formation, flood basin deposits, and older and younger alluvium (California Department of Water Resources 2006).

Generally, groundwater flows as a subdued reflection of the surface topography. Hydrographs for the Tracy subbasin indicate that the majority of water levels in wells within the subbasin have remained relatively stable over time. During subsurface investigations performed in the project area in 2007, groundwater was encountered at depths of approximately 4 to 13 feet bgs (ENGEO 2007).

The water quality of the Tracy subbasin is somewhat impaired. Areas of poor water quality exist throughout the subbasin, and elevated levels of chloride and nitrate have been encountered in the vicinity of the city of Tracy. According to the 1994 MEIR, elevated levels of total dissolved solids (TDS), nitrates, and sulfides have been encountered in groundwater resources in the vicinity of the project area. The high levels of TDS may be the result of saltwater intrusion from the Delta. Relatively high levels of nitrates may be the result of poor livestock management in the surrounding area and/or releases from household septic systems.

Reclaimed Water

The MHCSD wastewater treatment plant has been constructed as a secondary and tertiary treatment facility. Tertiary treatment is considered to be one of the highest levels of wastewater treatment. Title 22 of the CCR allows the use of disinfected tertiary water for many uses, including landscape irrigation and agricultural irrigation of all food crops. While the use of secondary treated reclaimed water is somewhat restricted, it is considered suitable for most landscape irrigation and food crops where the edible portion does not touch the reclaimed water.

Wastewater generated by the project may be disposed of in one or a combination of the following ways: (1) year-round discharge to Old River; (2) land reclamation (subject to permitting by the Central Valley Regional Water Quality Control Board on MHCSD parks, open space, private recreation and open space areas, (3) distribution of reclaimed wastewater to users within Mountain House and outside the limits of the MHCSD including nearby agricultural fields; and/or (4) use by the East Altamont Energy Facility in Alameda County as cooling water.

The MHCSD treats its wastewater to Title 22 disinfected tertiary recycled water requirements but does not currently have plans to develop a recycled water system due to the high salinity of the treated wastewater and desalinating wastewater for general use is currently considered to be prohibitively expensive (MHCSD 2015).

3.3.10.2 Discussion

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

The 1994 MEIR concluded that surface or groundwater quality impacts would be insignificant after implementation of Mitigation Measures M4.7-1, M4.7-2, M4.7-3 and M4.7-4, which are still applicable to the project. However, because the marina is no longer a project component, some of these impacts from the 1994 MEIR are no longer relevant.

Issues related to water quality standards and waste discharge requirements are also addressed in the following Master Plan provisions: Policy 7.2.8 (Implementation Measure [h] and Implementation Measure [z]) (Mountain House Creek Park), Policy 7.3.6 (Implementation Measure [e]) (Wetlands Management), Policy 15.6 (Implementation Measure [a]) (Mountain House Creek Improvements), and Policy 15.7 (Implementation Measure [a]) (BMPs).

The changes as a result of the project would not substantially degrade surface or groundwater quality. During project construction, grading operations would result in the removal of onsite soil cover and the exposure of soils to the erosional forces of rainfall and runoff. The project would be required to comply with the Phase I NPDES permit program. The Phase I NPDES stormwater program, administered by the State Water Board, regulates stormwater discharges from major industrial facilities, large- and medium-sized municipal separate storm sewer systems (those serving more than 100,000 people), and construction sites that disturb 5 or more acres of land. Under the program, all land disturbances of 5 acres or more are required to implement BMPs to prevent the offsite migration of sediment-laden runoff. Each neighborhood and the Town Center would have a balanced site with no export or import of soil. The earthwork quantity does not include grading for Mountain House Creek, the industrial park, the wastewater treatment plant, or the water treatment plant (CARLSON, BARBEE & GIBSON, INC. 2004).

The site-specific plan to implement the erosion control BMPs is the SWPPP. The SWPPP would also include BMPs for preventing the discharge of other non-point source pollutants (i.e., paint, concrete, petroleum hydrocarbons) from the project area during the construction period.

Upon project completion, water quality ponds in the Mountain House and Dry Creek corridors, lake BMPs, and water quality basin (WQB) No. 1 would serve to treat stormwater runoff from the project site prior to discharge to Old River. These BMPs would help to settle out sediment and particulates from runoff, as well as trace metals, nutrients, and hydrocarbons, as these pollutants tend to adhere to soil particles. Commercial and industrial facilities may also be required to implement additional

water quality BMPs, depending on the operations that are proposed at each facility. Commercial and industrial BMPs would be determined on a case-by-case basis and approved by the MHCSD.

The MHCSD treats its wastewater to Title 22 disinfected tertiary recycled water requirements but does not currently have plans to develop a recycled water system due to the high salinity of the treated wastewater and desalinating wastewater for general use is currently considered to be prohibitively expensive (MHCSD 2015). Thus, no impacts associated with use of reclaimed water are expected.

The water quality ponds would require periodic maintenance including desilting, vegetation clearing, and trash and debris removal. A Maintenance and Operations Manual for WQB #1 has been prepared by the MHCSD as required by the Master Plan. The manual describes sediment basin and water quality pond maintenance activities (including mosquito abatement), access and maintenance to access roads, desilting, vegetation clearing, and trash and debris removal, to ensure the continued maintenance of the ponds. The MHCSD would expand the existing plan to include water quality ponds in Mountain House Creek and Dry Creek.

Master Plan Policy 15. 7 (Implementation Measure [a]) states that Mountain House shall implement a stormwater management program (SWMP) to reduce the discharge of pollutants from the storm sewer system to the maximum extent practicable and protect water quality in the receiving waters. At a minimum, the Master Plan states that the SWMP shall include the following elements: (1) public education and outreach on stormwater impacts, (2) public involvement/participation, (3) illicit discharge detection and elimination, (4) construction site stormwater runoff control, (5) post-construction stormwater management, and (6) pollution prevention/good housekeeping for municipal operations.

A SWMP was developed in August 2008. In October 2015, the Mountain House SWMP was developed to comply with the NPDES Phase II requirements for small municipal separate storm sewer systems. The goal of the SWMP is to reduce the discharge of stormwater pollutants to the maximum extent practicable, protect water quality and satisfy the requirements of the CWA. The SWMP includes the implementation of BMPs in each of six categories, an implementation schedule, and measurable goals to help ensure that stormwater discharged is of the highest quality that is economically possible. The project would not have any significant new surface or groundwater quality impacts not already addressed in the 1994 MEIR; therefore, no new impacts would result, and no additional mitigation measures are necessary. The impact would be less than significant.

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

The 1994 MEIR concluded that water supply impacts would be insignificant after implementation of Mitigation Measures M4.4.1-1, M4.4.1-2, M4.4.1-3, M4.4.1-4, M4.4.1-5, m4.4.1-6, and M4.4.1-7, which are still applicable to the project.

The project would result in a substantial increase in impervious surface areas and could reduce the amount of onsite aquifer recharge. Groundwater quality in the vicinity of the project area is considered marginal; however, with relatively high levels of TDS, nitrates, and sulfides detected in wells in the area (SJCCDD 1994).

The farmland surrounding the project area is irrigated primarily by agricultural drainage ditches and not by groundwater wells. Therefore, while project development would result in an increase in

impervious surfaces over a recharge area, any slight change in groundwater levels would not affect surrounding farmland.

The Master Plan requires the evaluation of using reclaimed secondary and/or tertiary water for onsite and/or offsite landscape and/or agricultural irrigation. The MHCSD treats its wastewater to Title 22 disinfected tertiary recycled water requirements but does not currently have plans to develop a recycled water system due to the high salinity of the treated wastewater and desalinating wastewater for general use is currently considered to be prohibitively expensive (MHCSD 2015).

Water supply for the project area would be provided by the Byron Bethany Irrigation District (BBID). BBID's water supply is primarily from surface water sources. The installation of new wells is not a part of the project and, thus, little or no groundwater would be used for the project's water supply. The water supply and treatment system adequately serve all of the present developed area and would be expanded as necessary by MHCSD through developer funds to meet increasing demand. All facility expansion work is funded by the developers with a reimbursement mechanism paid into a capital facility fund maintained by the MHCSD for reimbursement to developers as funds are collected from a capital construction fee included in the monthly utility bill for each customer. The impact is less than significant, and no new mitigation measures are necessary.

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

1. Result in substantial erosion or siltation on or off site?

The 1994 MEIR concluded that erosion impacts from the proposed marina would be insignificant with implementation of Mitigation Measure M4.7-3 and M4.7-5. However, since the marina is no longer a project component, these impacts from the 1994 MEIR are no longer relevant.

Development of the project, compared to the currently approved project, would not substantially alter the existing drainage patterns of the project area in such a way that could result in erosion both during and after construction. During the construction period, grading operations would result in the removal of onsite soil cover and the exposure of site soils to the erosional forces of runoff. Under the Phase I NPDES permit requirements, the applicant would be required to prepare a SWPPP to mitigate soil erosion and sedimentation resulting from construction activities. Each neighborhood and the Town Center would have a balanced site with no export or import of soil.

When the project is completed, the increase in impervious surface area resulting from project development would increase the amount of runoff leaving the project area. The onsite runoff, which currently occurs primarily as sheet flow and concentrated shallow flow to Mountain House Creek and Dry Creek, would be concentrated and discharged at storm drain outfalls to water quality ponds in the Mountain House Creek and Dry Creek corridors, lake/BMPs, or WQB No. 1. In locations where the velocity of discharge can be expected to cause erosion, erosion protection measures (e.g., concrete, rip rap, soil reinforcement products) would be used to prevent erosion and protect water quality, as addressed in the Storm Water Master Plan Update (PACE 2003). Adherence to the erosion protection measures in the SWPPP, the SWMP, and Storm Water Master Plan Update would result in less-than-significant impacts as a result of erosion and siltation.

Issues related to drainage and potential erosion/siltation are also addressed in the following Master Plan sections: 15.3 (Implementation Measure [a]) (Offsite Watersheds), 15.4 (Policies [b], [c], and [h] (Primary Storm Drain Collection System), 15.6 (Policy [d] and Implementation Measure [a])

(Mountain House Creek Improvements), 4.2.2 (Policies [a] and [d] (Grading Standards), and 6.8.3 (Objective [b] and Policy [b]) (Soils, Geologic and Seismic Hazards).

2. Substantially increase the rate or amount of surface runoff in a manner that would result in flooding on or off site?

The 1994 MEIR concluded that flooding from the failure of levees around wastewater treatment and storage ponds would be insignificant with implementation of Mitigation Measure M4.4.2-5, which is still applicable to the project.

Development of the project, compared to the currently approved project, would substantially alter existing drainage patterns, increase the amount of impervious surface area, and result in an increase in volumetric runoff from the development area. According to the Storm Water Master Plan Update (PACE 2004), project development would result in a volumetric increase of 70 and 4 acre-feet of runoff volume for the 100-year and 24-hour storm in Mountain House Creek and Dry Creek, respectively. However, the restoration improvements completed for Mountain House Creek have resulted in an increase in flood capacity and 100-year flood protection throughout the creek channels based on project build-out projections. This has been done by deepening the stream centerlines, widening the stream channels, and constructing stream sections that restrict flow.

Additional flood storage would be provided by the interconnected water features in Neighborhoods I and J and permanent lake features proposed for Neighborhood L. This additional flood storage, coupled with the completed restoration improvements to Mountain House, and the placement of engineered fill behind the existing levee along Old River would reduce the flooding potential in the project area. Therefore, project development would not result in onsite flooding.

Post-development drainage patterns and drainage infrastructure would reroute runoff from 250 of the total 330 acres currently draining toward the northwest portions of the community in the interior of the Mountain House development. Changes in drainage patterns and proposed infrastructure on- and offsite would reduce runoff to this area by approximately 75 percent during the 100-year storm event. There are no other structures or properties in the vicinity of the project area that could experience flood problems due to project development. Therefore, project development would not result in an increase in offsite flooding. However, it should be noted that there are 10 existing residences that are located inside the Old River levee. These homes will be incorporated into the Specific Plan II area and will remain in the 100-year floodplain of Old River. Project development would not increase flood hazards associated with these homes. The project would not have any significant new flooding impacts not already addressed in the 1994 MEIR; therefore, no new impacts would result, and the impact is less than significant. No new or additional mitigation measures are necessary.

Issues related to potential flooding are also addressed in the following Master Plan sections: 4.3.1 (Policy [e]) (Community Edges); 5.1.4 (Policy [d]) (School Siting Criteria), 6.5 (Implementation Measure [b]) (Emergency Preparedness); 7.2.8 (Objective [c], Policy [a], Policy [e], Implementation Measure [a] and Implementation [g]) (Mountain House Creek Park); 15.4 (Policy [a]) (Primary Storm Drain Collection System); 15.5 (Policy [a]) (Secondary Storm Drain Collection System); 15.6 (Policy [a], Implementation Measure [a](l), and Implementation Measure [a])(9) (Mountain House Creek Improvements); 15.8 (Flood Protection); and 15.l l.2(a) (Operations and Maintenance).

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

The 1994 MEIR concluded that impacts from increased sedimentation within Old River caused by runoff from Mountain House Creek and operation of the proposed marina would be insignificant with implementation of Mitigation Measure M4.7-1. However, because the marina is no longer a project component, the marina impacts from the 1994 MEIR are no longer relevant.

Runoff quantity and the adequacy of the stormwater drainage system are addressed above under Item c. 2. Due to the current agricultural land uses in the project area, it is likely that the non-point source pollutants currently found in site runoff are sediment, nutrients, pathogens, and oxygen-demanding solids. While conversion of the site from agricultural uses to suburban uses would likely result in a decrease in sediment and nutrients in site runoff, the conversion would likely result in an increase in the levels of oils, grease, metals, and petroleum hydrocarbons. Typical sources of such non-point source pollutants in suburban environments include household products and home maintenance supplies, landscape chemicals, automobiles, and fuels. Due to the change in land use and the size of the development, the anticipated increase in oil, grease, metals, and petroleum hydrocarbons would likely be substantial.

As described earlier in this section, all urban water originating from the project site would be treated in water quality BMPs prior to discharge to Mountain House Creek, Dry Creek, and Old River. Water quality BMPs would allow for the settlement of sediments and particulates, as well as trace metals, nutrients, and hydrocarbons that tend to adhere to soil particles. Additionally, water quality BMPs for commercial and industrial uses that generate polluted runoff that differs in concentration and/or content of residential runoff would also be required. These BMPs would be determined on a case-by-case basis and approved by the MHCSD. The MHCSD has prepared a Water Quality BMP manual that provides stormwater quality guidelines that may be implemented in some areas of the project site. The project would not have any significant new runoff impacts not already addressed in the 1994 MEIR; therefore, no new impacts would result. Adherence to the Water Quality BMP manual would result in a less-than-significant impact.

Issues related to runoff quality and quantity are also discussed in the following Master Plan sections 7.3.6 (Implementation [e]) (Wetland Management) and 15.7 (Implementation Measures [a], [c], [d], [e], [g], [h], and [i]) (BMPs).

4. Impede or redirect flood flows?

See the discussion under Item c. 2. above.

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

See the discussion under Item c. 2. above and in the Setting section under the 100-year and 200-year floodplain. Additionally, the Specific Plan II identified that grading for residential building pads along Old River would range from elevation 10.5 to 14 feet (instead of 6.5 to 12 feet as envisioned by the Master Plan). The Peterson Brustad Inc. memorandum prepared for the project used the best available information, as required by SB 5, to determine that the 200-year floodplain water surface elevation is 16.2 feet for Neighborhoods I, J and K, and 16.9 feet for Neighborhood L (Peterson Brustad Inc. and R&F Engineering 2022). Therefore, the building pad elevations must have a minimum elevation of 13.2 feet for Neighborhoods I, J and K and 13.9 feet for Neighborhood L. The

applicant proposes to mitigate this potential flood hazard by using engineered fill to fill the areas behind the existing levee and elevate proposed building pads so that the building pads will not experience more than 3 feet of flooding during a 200-year flood event. Additionally, Specific Plan II includes the following flood protection implementation measures: 1) All implementing projects shall comply with the applicable provisions of the MHCSD Development Standards. 2) All implementing projects shall comply with the applicable provisions of the MHCSD Storm Drainage Master Plan. 3) After the new river flood protection improvements are constructed along Old River, an application shall be made to FEMA to change the flood insurance maps. 4) The MHCSD Design Manual shall be revised to be consistent with all provisions of this Specific Plan related to grading and flood control along Old River. Adherence to the Specific Plan II flood protection implementation measures and building pad elevations as recommended in the Peterson Brustad Inc. memorandum would result in a less than significant impact.

A seiche is a rhythmic motion of water in a partially or completely landlocked water body caused by landslides, earthquake-induced ground accelerations, or ground offset. Under Specific Plan II, Neighborhoods I, J, and L would include landlocked water features. However, these water features wind through the neighborhoods and are not large enough to pose a threat of inundation by seiches. The project site is not situated in an area that is vulnerable to tsunamis or mudflows. Therefore, there would be no impact.

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

Project implementation would not conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan. The project would result in an increase in pervious area, which would increase capacity for groundwater recharge and decrease the amount of pollutants leaving the project site because of the water quality treatment/detention basins. The applicant would comply with the appropriate water quality objectives for the region. Commonly practiced BMPs would be implemented to control construction site runoff and reduce discharges of pollutants (i.e., stormwater and other nonpoint-source runoff) to storm drainage system. As part of compliance with permit requirements during ground-disturbing or construction activities, implementation of water quality control measures and BMPs would ensure that water quality standards would be achieved, including water quality objectives that protect designated beneficial uses of surface water and groundwater, as defined in the Water Quality Control Plan (Basin Plan) for the Sacramento River Basin and the San Joaquin River Basin. The NPDES Construction General Permit also requires stormwater discharges not to contain pollutants that cause or contribute to an exceedance of any applicable water quality objectives or water quality standards, including designated beneficial uses. Adherence to the NPDES Construction General Permit and water quality control measures and BMPs would be consistent with the water quality objectives of the Basin Plan. Therefore, the impact would be less than significant.

3.3.11 Land Use and Planning

		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
Would the project:					
a.	Physically divide an established community?	☐	☐	☐	☒
b.	Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☒	☐

3.3.11.1 Affected Environment

Land Uses

The majority of the project area has historically been used for irrigated and non-irrigated pasture, alfalfa, and irrigated farmland. Other land uses in the project area are as follows.

- **Neighborhood H**: A PG&E gas distribution line runs northwest through Neighborhood H.
- **Town Center**: Mountain House Creek extends through the northwestern part of the Town Center. The PG&E gas distribution line runs northwest through the Town Center and into Neighborhood H.
- **Neighborhoods L, J, and L**: A water treatment plant that is to serve all of Mountain House has been constructed in the southern portion of Neighborhood I near Byron Road. A cluster of houses and a levee are located at the northern boundary of Neighborhood I, adjoining Old River. The 60-kilovolt PG&E Weber Herdlyn electrical line, which extends from Weber Point in Stockton to the Herdlyn substation has been relocated from its alignment through the northern part of the project to an alignment on the north side of Byron Road. A PG&E gas distribution line previously ran northwest through Neighborhoods I and J but has been removed.

Existing land uses surrounding the project area are as follows.

- **South of Neighborhood H and Town Center**: Residential Neighborhoods E F and G have been built. Neighborhoods E F and G containK-8 schools and neighborhood parks that have been completed. Drainage and restoration improvements to Mountain House Creek, which flows through Neighborhoods E and G, have been constructed. Neighborhoods E, F, and G have been built.
- **North of Neighborhoods I and L**: Old River forms the northern boundary of Specific Plan II, adjoining the northern boundaries of Neighborhoods I, K, and L. The Livermore Yacht Club and Del's Boat Harbor are located immediately northwest, in Alameda County. The Livermore Yacht Club is a collection of houseboats and small commercial establishments and is located along a slough of the Sacramento-San Joaquin Delta. Del's Boat Harbor provides boat launching and guest docking facilities, a snack bar, and fishing boat rentals. To the north of the marina facilities, in Contra Costa County, lands are in agricultural grain crop

production. The East Contra Costa County Airport is located approximately 5 miles northwest of the project area.

- **South of Neighborhood L**: A wastewater treatment plant that is to serve all of Mountain House is located in the Old River Industrial Park south of Neighborhood L. The remainder of the industrial park is undeveloped.
- **To the east and west**: Lands under agricultural production for corn, Sudan grass, winter wheat, and alfalfa are located to the east and west of the project area. Lands to the west are within Alameda County. Two small houses are located along Mountain House Creek within Alameda County, about 1,000 feet west of Neighborhood E. Lands to the east of the Specific Plan II portion of Neighborhood D are planned for industrial use as part of Specific Plan III. The unincorporated community of Lammersville, containing about 210 houses and an elementary school, is located about one-half mile east of Mountain House, near the intersection of Hansen and Van Sosten Roads. The northwestern edge of the city of Tracy is approximately 3 miles southeast of Mountain House.

Land Use Plans, Policies, and Regulations

The project area is subject to the San Joaquin County General Plan and the Mountain House Master Plan. Current General Plan and Master Plan designations for the project site are Medium High Density Residential, Mixed Use, Community Commercial, Public, Community Park, and Right-of-Way. The County General Plan land use designation for lands to the east of Mountain House is General Agriculture. Lands to the west in Alameda County are designated for agricultural use. Lands to the north are within Contra Costa County and are also designated for agricultural use. Lands to the south of project area are within the boundaries of Specific Plan III and are designated for urban uses as part of the Master Plan.

The project area is also subject to the San Joaquin County Development Title, which includes zoning regulations. Lands within the project area are zoned consistent with the General Plan Land Use designations above. Zoning designations are defined at the time of adoption of the Specific Plan for areas within Mountain House.

3.3.11.2 Discussion

a. Physically divide an established community?

No aspect of the project would physically divide the Mountain House community. The project includes amendments to Neighborhoods H, I, J, L, and the Town Center in the Mountain House development as described in Chapter 2, *Project Description*. There would be no impact.

b. Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?

The project site is subject to the San Joaquin County General Plan and the Master Plan and Specific Plan II. Current General Plan and Master Plan designations for the project site are Medium High Density Residential, Mixed Use, Community Commercial, Public, Community Park, and Right-of-Way. The project site is also subject to the San Joaquin County Development Title, which includes zoning regulations. Lands within the project site are currently zoned consistent with the General Plan land use designations above.

The project includes applications for amendments to the Mountain House Master Plan and Specific Plan II as described in Chapter 2, *Project Description*.

The changes would apply to Neighborhoods H, I, J, L, and the Town Center as described in Chapter 2, *Project Description* and as shown in Figure 2-4. The amendments proposed by the project are designed to avoid any conflict with the other plans, policies, and regulations that are applicable to the project.

The Master Plan has over 300 policies addressing land use, environmental issues, densities, provision of services/utilities, and other issues for development within the Mountain House community. This analysis will briefly address areas of the Master Plan where the project could be inconsistent.

The discussion below reviews the main chapters of the Master Plan. For each topic, the potential for the project to conflict with goals and policies of the Master Plan is addressed. Where appropriate, reference is made to specific sections of the 2004 IS/MND where the topic is addressed in more detail.

Community Vision

This section of the Master Plan addresses the overall goals for the community as related to community character, land use, housing, and other topics. The project conforms to the Master Plan in terms of community character, land use, and housing.

Land Use

Land uses within the project site generally conform to land uses identified in the Master Plan and Specific Plan II. The acreage and total square footage of development would be similar to that identified in the 1994 MEIR, but with fewer housing units.

Development and Design

No major design changes for the project are proposed other than the realignment of internal roadways, the addition of a K-8 school, and redesignation of some land uses from park to public facilities or public facilities to residential. At buildout these uses would be similar to other similar land uses throughout the Mountain House community. No policy conflicts have been identified.

Education, Child Care, and Library Services

No libraries would be located within the project site. In Neighborhood I 16 acres would be redesignated from Commercial Recreation OS to K-8 School, and in Neighborhood L the K-8 school would be relocated approximately 1,000 feet south of its existing location. No policy conflicts have been identified.

Public Health and Safety

Public health and safety are addressed herein in Section 3.3.9, *Hazards and Hazardous Materials*. No policy conflicts have been identified.

Recreation and Open Space

Recreational impacts are discussed in Section 3.3.16, *Recreation* of this IS/MND. No policy conflicts have been identified. Protection of cultural resources is also addressed in this section of the Master Plan. Potential project impacts are discussed in Section 3.3.5, *Cultural Resources*, of this IS/MND. No policy conflicts have been identified.

Energy and Telecommunications

This section of the Master Plan addresses the provision of gas and electrical service to the community, as well as telecommunications systems. No conflicts with the Master Plan have been identified.

Transportation and Circulation

The Master Plan addresses many steps that developers within Mountain House must take regarding improvements to roadways affected by the project. This section also addresses freeway improvements, arterial intersections, roadway maintenance, parking, bicycle and pedestrian facilities, and transit. Section 3.3.17, *Transportation*, of this IS/MND addresses all of these topics and compares the project to that identified in the Master Plan and Specific Plan II. No conflicts with the Master Plan have been identified.

Air Quality and Transportation Management

This section of the Master Plan addresses both the protection of air quality and the need for a Transportation Demand Management (TDM) program for the overall community. Air quality has been addressed in Section 3.3.3, *Air Quality*, of this IS/MND. No major conflicts with this section of the Master Plan have been identified and no policy changes for this topic are proposed by the applicant.

Noise

This section of the Master Plan addresses mobile and stationary noise sources at Mountain House. No amendments are proposed to this section of the Master Plan and no major conflicts with Master Plan policies have been identified.

Potable Water Systems

This section of the Master Plan addresses water supply, water demand, water treatment, and water storage. Section 3.3.19, *Utilities and Service Systems*, of this IS/MND addresses water issues. No amendments are proposed to this section of the Master Plan, and no major conflicts with Master Plan policies have been identified.

Wastewater Treatment and Collection System

This section of the Master Plan addresses wastewater generation and collection, treatment, sludge disposal, odors, and costs/permits. No amendments are proposed for this section of the Master Plan, and no major conflicts with Master Plan policies have been identified. This topic is covered in Section 3.3.19, *Utilities and Service Systems*, of this IS/MND.

Storm Drainage and Flood Protection

The northern portions of Neighborhoods I and L are in the 100-year floodplain. The issue of storm drainage is addressed in Section 3.3.10, *Hydrology and Water Quality*, of this IS/MND. No major policy conflicts have been identified.

The project would not cause a significant environmental impact due to a conflict with the General Plan, Master Plan, or Specific Plan II. The project would not have any significant new land use plan or policy impacts not already addressed in the 1994 MEIR; therefore, no new impacts would result. The impact would be less than significant.

3.3.12 Mineral Resources

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

3.3.12.1 Affected Environment

The San Joaquin County General Plan identifies mineral deposits in the county, pursuant to the California Surface Mining and Reclamation Act of 1975. The General Plan (Figure VI-4, "Significant Sand and Gravel Aggregate Resource Sectors," and Figure IV-5, "Generalized Aggregate Extraction Sites") does not identify any mineral resources in the project area (San Joaquin County 2016).

3.3.12.2 Discussion

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

The 1994 MEIR did not identify any mineral resources impacts for the Master Plan. The proposed amendments to the Master Plan and Specific Plan II would include land use changes to Neighborhoods H, I, J, L, and the Town Center as described in Chapter 2, *Project Description*. No known mineral resources are located within the project site. The County General Plan (Figure VI-4, "Significant Sand and Gravel Aggregate Resource Sectors," and Figure IV-5, "Generalized Aggregate Extraction Sites") does not identify any mineral resources in the project area. The project would not have any significant new mineral resources impacts not already addressed in the 1994 MEIR; therefore, no new impacts would result. This impact would be less than significant.

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

The 1994 MEIR did not identify any mineral resources impacts for the Master Plan. See the discussion under Item a. above.

3.3.13 Noise

		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
Would the project:					
a.	Generate a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in a local general plan or noise ordinance or applicable standards of other agencies?	☐	☐	☒	☐
b.	Generate excessive groundborne vibration or groundborne noise levels?	☐	☐	☒	☐
c.	Be located within the vicinity of a private airstrip or an airport land use plan, or, where such a plan has not been adopted, within two miles of a public airport or public use airport and expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒

3.3.13.1 Affected Environment

Environmental Setting

The project site is located in San Joaquin County northwest of the City of Tracy. As described in Chapter 2, the project includes amendments which would somewhat alter the planned uses in Neighborhoods H, I, J, L, and the Town Center of the Mountain House Master Plan. The Town Center, and Neighborhood H are located south of Byron Road and Neighborhoods I, J and L are located north of Byron Road and south of Old River Road (Figure 2-2-Project Location).

The nearest sensitive land uses to the portions of the project site north of Byron Road are single-family residences located north of the Neighborhood I border, north of Kelso Road. The nearest homes are located between 75 and 100 feet from the project perimeter in this area. The nearest noise-sensitive land uses to the proposed development south of Byron Road (e.g., the Town Center area) are single-family homes located over 500 feet south of the Town Center area, south of West Arnaudo Boulevard. Additional residential land uses are located west of the Town Center. The closest schools to the project site are Sebastian Questa Elementary School located at 685 North Montebello Street, Bethany Elementary School located at 570 South Escuela Drive, and Wicklund Elementary School located at 300 East Legacy Drive. Each of these schools are located in the Mountain House community south of Byron Road. Sebastian Questa Elementary School is located in Neighborhood H. None of these schools are located within 1,000 feet of Neighborhoods H, I, J, L, and the Town Center.

With the elimination of the age restriction for Neighborhood I, the project would include the addition of a new 16-acre K-8 school in Neighborhood I, consistent with the requirements of the Elementary School Mitigation Agreement. LUSD would prepare its own CEQA documentation for the new K-8 school in Neighborhood I. Per the terms of the High School Mitigation Agreement, the

applicant is required to, and will, pay mitigation payments as defined therein. LUSD would prepare its own CEQA documentation for any new high school facilities.

Regulatory Setting

San Joaquin County General Plan

The Public Health and Safety Element of the County's General Plan includes a noise section that includes noise goals and policies. Table PHS-1 from the County General Plan, Non-Transportation Noise Level Performance Standards for Noise-Sensitive Uses at Outdoor Activity Areas, states that the daytime (7:00 a.m. to 10:00 p.m.) and nighttime (10:00 p.m. to 7:00 a.m.) standards for non-transportation source noise are 50 dBA L_{eq} and 70 dBA L_{max} during daytime hours, and 45 dBA L_{eq} and 65 dBA L_{max} during nighttime hours.

Noise from transportation sources is addressed in Table PHS-2. According to this table, the maximum allowable noise level for outdoor residential spaces is 65 dBA L_{dn} and the maximum allowable noise level for interior residential spaces is 45 dBA L_{dn}. These standards are applicable to new or existing residential areas affected by new or existing sources but provide reasonable guidelines for the analysis of noise effects to existing land uses. Refer to Tables 3.3.13-1 and 3.3.13-2 below for the non-transportation-related and transportation-related noise guidelines in the County.

Table 3.3.13-1. San Joaquin County Non-Transportation Noise Level Performance Standards for Outdoor Activity Areas (General Plan Table PHS-1)

Noise Level Descriptor	Daytime[3] (7:00 am – 10:00 pm)	Nighttime[3] (10:00 pm – 7:00 am)
Hourly Leq dB	50	45
Maximum Level, dB	70	65

Notes: These standards apply to new or existing residential areas affected by new or existing non-transportation sources.

[1] Where the location of outdoor activity areas is unknown or is not applicable, the noise standard shall be applied at the property line of the receiving land use. When determining the effectiveness of noise mitigation measures, the standards shall be applied on the receiving side of noise barriers or other property line noise mitigation measures.

[2] Refer to Mountain House Master Plan, Table 11.2, Exterior Noise Standards for Noise-Sensitive Uses Affected by Non-Transportation Noise Sources, Page 11.12, for Mountain House Noise Standards.

[3] Each of the noise level standards specified shall be reduced by 5 dB for impulsive noise, single tone noise, or noise consisting primarily of speech or music.

Table 3.3.13-2. San Joaquin Maximum Allowable Noise Exposure from Transportation Noise Sources (General Plan Table PHS-2)

Noise Sensitive Land Use Types	Outdoor Activity Areas[2] (dB Ldn)	Interior Spaces (dB Ldn)
Residential	65	45
Administrative Office	-	45
Child Care Services–Child Care Centers	-	45
Community Assembly	65	45
Cultural & Library Services	-	45
Educational Services: General	-	45
Funeral & Interment Services – Undertaking	65	45
Lodging Services	65	45
Medical Services	65	45
Professional Services	-	45
Public Services (excluding hospitals)	-	45
Public Services (hospitals only)	65	45
Recreation – Indoor Spectator	-	45
Religious Assembly	65	45

Notes: These standards apply to new or existing residential areas affected by new or existing non-transportation sources.

[1] Refer to Mountain House Master Plan, Chapter 11, Noise, for Mountain House Noise Standards.

[2] Where the location of outdoor activity areas is unknown or is not applicable, the noise standard shall be applied at the property line of the receiving land use. When determining the effectiveness of noise mitigation measures, the standards shall be applied on the receiving side of noise barriers or other property line noise mitigation measures.

In addition, the Public Health and Safety Element of the General Plan includes the following policies pertaining to Noise:

PHS-9.1: *Noise Standards and New Land Uses.* The County shall require new development to comply with the noise standards shown in Tables 9-1 and 9-2 through proper site and building design, such as building orientation, setbacks, barriers, and building construction practices.

PHS-9.2: *Airport Noise Compatibility Criteria.* The County shall require new development within airport areas of influence be consistent with the Airport Noise Compatibility Criteria in the Airport Land Use Compatibility Plan.

PHS-9.3: *Screening Distances.* The County shall require new development proposed to be located adjacent to major freeways or railroad tracks to be consistent with the Federal Transit Administration (FTA) noise screening distance criteria.

PHS-9.4: *Acceptable Vibration Levels.* The County shall require construction projects anticipated to generate a significant amount of vibration to ensure acceptable interior vibration levels at nearby vibration-sensitive uses based FTA criteria.

PHS-9.5: *Alleviate Existing Noise Problems.* The County shall seek to alleviate existing community noise problems.

PHS-9.6: *Enforcement of State and Federal Noise Regulations.* The County shall continue to enforce State and Federal noise laws regarding vehicle operation, equipment, and building insulation.

PHS-9.7: *Require Acoustical Study.* The County shall require a project applicant to prepare an acoustical study for any proposed new residential or other noise-sensitive development when the County determines the proposed development may expose people to noise levels exceeding acceptable General Plan noise levels.

PHS-9.8: *Require Avigation Easements and Soundproofing Near Airports.* The County shall require avigation easements and soundproofing for new residential structures in the 65 dB Ldn contours around a public access airport.

PHS-9.9: *Noise Exemptions.* The County shall support the exemption of the following noise sources from the standards in this section:

- Emergency warning devices and equipment operated in conjunction with emergency situations, such as sirens and generators which are activated during power outages. The routine testing of such warning devices and equipment shall also be exempt provided such testing occurs during the hours of 7:00 am to 10:00 pm.
- Activities at schools, parks, or playgrounds, provided such activities occur during daytime hours.
- Activities associated with County-permitted temporary events and festivals.

Mountain House Master Plan

In the Mountain House Master Plan area, Stationary sources of noise (including loading docks, air handling systems, or public address systems) are limited to 55 dBA L_{eq} during daytime hours (7:00 a.m. to 10:00 p.m.) and 50 dBA L_{eq} during nighttime hours (10:00 p.m. to 7:00 a.m.), as shown in Table 3.3.13-3 below.

Table 3.3.13-3. Mountain House Exterior Noise Standards for Non-Transportation Noise Sources

Noise Level Descriptor	Daytime (7 a.m. to 10 p.m.)	Nighttime (10 p.m. to 7 a.m.)
Hourly Leg	55 dB	50 dB

San Joaquin County Development Code

Title 9, Chapter 9-1025.9 of the County of San Joaquin Development Code includes noise performance standards and guidelines for various land uses that are consistent with the County's General Plan guidance. The table from the County Development Code that includes maximum allowable noise exposure for Transportation Noise Sources matches table 3.3.13-2 above. The table which includes maximum allowable noise levels for stationary noise sources matches table 3.3.13-1 above. For new development, "Proposed projects that will create new stationary noise sources or expand existing stationary noise sources shall be required to mitigate the noise levels from these stationary noise sources so as not to exceed the noise level standards specified in [Table 3.3.13-1, above]." For "development projects that include the development of new transportation facilities or the expansion of existing transportation facilities, [projects] shall be required to mitigate the noise levels from these transportation facilities so that the resulting noise levels on noise sensitive land uses within and adjacent to said development projects do not exceed the standards specified in [Table 3.3.13-2 above]."

In addition, note that Title 9, Chapter 9-1025.9 of the County Development Code also specifies exemptions to the various standards, including for noise from construction activities, provided that such activities do not take place before 6 a.m. or after 9 p.m. on any day.

Finally, note that Title 9, Chapter 9-1025.9M of the County of San Joaquin Development Code contains noise performance standards applicable to the Mountain House Master Plan area. The table from the County Development Code that includes maximum allowable noise exposure for Non-Transportation Noise Sources matches table 3.3.13-3 above, originally from the Mountain House Master Plan. The noise criteria for the Master Plan area are generally approximately 5 dB higher than the noise criteria for the overall County, with allowable noise levels during daytime hours of 55 dBA L_{eq} and allowable noise levels during nighttime hours of 50 dBA L_{eq}.

Additional Relevant Regulations

Federal Transit Administration Vibration Guidelines

FTA has developed guidelines for the assessment of vibration effects pertaining to human annoyance. Although the project does not have any federal components, the County General Plan includes policy PHS-9.4: *Acceptable Vibration Levels,* which states that the County shall require construction projects anticipated to generate a significant amount of vibration to ensure acceptable interior vibration levels at nearby vibration-sensitive uses, based on FTA criteria. In addition, the FTA vibration-related damage and annoyance guidelines/criteria are routinely used for projects proposed by local jurisdictions throughout the state of California. The FTA Vibration criteria are included below in Table 3.3.13-4, which parses annoyance related to interference with interior operations, sleep, and institutional daytime use as a function of the frequency of the vibration event according to three land use categories.

Table 3.3.13-4. Federal Transit Administration Ground-borne Vibration Annoyance Impact Criteria

	GVB Impact Levels (VdB re 1 micro-inch/sec)		
Land Use Category	**Frequent Events[a]**	**Occasional Events[b]**	**Infrequent Events[c]**
Category 1: Buildings where vibration would interfere with interior operations	65 VdB[d]	65 VdB	65 VdB
Category 2: Residences and buildings where people normally sleep	72 VdB	75 VdB	80 VdB
Category 3: Institutional land uses with primarily daytime use	75 VdB	78 VdB	80 VdB

Source: Federal Transit Administration 2018.

GVB = ground-borne vibration; VdB = vibration decibels.

a. "Frequent events" are defined as more than 70 vibration events from the same source per day. Most rapid transit projects fall into this category.

b. "Occasional events" are defined as between 30 and 70 vibration events from the same source per day. Most commuter trunk lines have operations in this range.

c. "Infrequent events" are defined as fewer than 30 vibration events of the same kind per day. This category includes most commuter rail branch lines.

d. This criterion limit is based on levels that are acceptable for most moderately sensitive equipment, such as optical microscopes. For equipment that is more sensitive, a detailed vibration analysis must be performed.

Except for long-term occupational exposure, vibration levels rarely affect human health. Instead, most people consider vibration to be an annoyance that can affect concentration or disturb sleep. People may tolerate infrequent, short-duration vibration levels, but human annoyance to vibration becomes more pronounced if the vibration is continuous or occurs frequently.

California Department of Transportation Vibration Guidelines

With respect to ground-borne vibration from construction activities, Caltrans has adopted vibration-related damage and annoyance guidelines/criteria that are routinely used for projects proposed by local jurisdictions throughout California. Table 3.3.13-5 provides Caltrans' vibration guidelines for potential damage to different types of structures. For the purposes of this analysis, the Caltrans guidelines are used to assess damage with the significance of potential vibration-related impacts associated with the project.

Table 3.33.13-5. Caltrans Vibration Guidelines for Potential Damage to Structures

	Maximum Peak Particle Velocity (PPV, in/sec)	
Structure Type and Condition	**Transient Sources**	**Continuous/Frequent Intermittent Sources**
Extremely fragile historic buildings	0.12	0.08
Fragile buildings	0.2	0.1
Historic and some old buildings	0.5	0.25
Older residential structures	0.5	0.3
New residential structures	1.0	0.5
Modern industrial/commercial buildings	2.0	0.5

Source: California Department of Transportation, 2020.

Note: Transient sources create a single, isolated vibration event (e.g., blasting or the use of drop balls). Continuous/frequent intermittent sources include impact pile drivers, pogo-stick compactors, crack-and-seat equipment, vibratory pile drivers, and vibratory compaction equipment.

3.3.13.2 Discussion

a. Generate a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in a local general plan or noise ordinance or applicable standards of other agencies?

Construction

Construction of future development under the project would generate noise and have the potential to temporarily increase noise levels at nearby land uses. The noise levels generated during construction would depend on the construction equipment used, the timing and duration of noise-generating activities, and the distance between construction noise sources and noise-sensitive receptors. Construction noise from development for the project was analyzed in the environmental documents for the Master Plan and Specific Plan II. Although the amendments proposed result in changes to planned land uses in certain areas, the general footprint of proposed construction areas remains the same. In addition, the general equipment proposed for use remains the same as assumed in the previous environmental analysis. Table 3.3.13-6 provides a list of equipment that is typically used for construction, such as the construction associated with future development under

the project. The L_{max} and L_{eq} sound levels at 50 feet are shown, along with the typical acoustical use factors (used to calculate the L_{eq} value from the L_{max} value).

Table 3.3.13-6. Project Construction Equipment Noise Levels

Construction Equipment	L_{max} at 50 feet (dBA)[a]	Acoustical Usage/Utilization Factor (percent usage)	L_{eq} at 50 feet
Air compressor	78	40	74
Backhoe/loader	78	40	74
Concrete mixer truck	79	40	75
Concrete pump truck	81	20	74
Concrete saw	90	20	83
Crane	81	16	73
Dozer	82	40	78
Excavator	81	40	77
Forklift[b]	84	40	80
Generator	81	50	78
Impact Pile driver	101	20	94
Paver	77	50	74
Rollers	80	20	73
Tractor	84	40	80
Water truck[c]	76	40	72
Welders	74	40	70

Source: Federal Highway Administration, 2006.

Notes:

a. These values represent the loudest noise levels generated by each equipment type at a distance of 50 feet.

b. Represented by "tractor" from the FHWA User's Guide.

c. Represented by "dump truck" from the FHWA User's Guide.

L_{eq} value, or the equivalent sound level value, is calculated from L_{max} values using estimated utilization factors (the percentage of time each piece of construction equipment is typically operating at full power over the specified time period).

Although the specific equipment proposed for use is not known at this time, construction projects generally involve similar phases and the use of similar equipment. For example, construction generally involves grading, building construction, paving, and architectural coating phases (noting that other or additional phases may also be included). If existing land uses are located on a site proposed for construction, a demolition phase is also typical. Reasonable worst-case construction noise levels can be estimated for typical construction phases and can help approximate overall construction noise levels that may result from a given project.

Some of the loudest construction activities associated with construction projects include the excavation and/or grading subphases, along with the building construction subphase. During excavation and grading, typical equipment used includes graders, excavators, and dozers. As shown in Table 3.3.13-7, combined noise levels from the simultaneous operation of a grader, excavator and a dozer would be in the range of 76 dBA L_{eq} at 100 feet. Should this equipment be used for the project and be operating near one another, at the property perimeter nearest off-site land uses (e.g., 75 feet south of the nearest residences along Kelso Road, north of Neighborhood I), combined noise

levels from the grading and excavation subphase could be up to 78 dBA L_{eq} at the nearest off-site home.

Table 3.33-7. Estimated Combined Construction Noise from Grading and Excavation

Source Data:	Maximum Sound Level (dBA)	Utilization Factor	L_{eq} Sound Level (dBA)
Grading and Excavation Subphase			
Source 1: Excavator – Sound level (dBA) at 50 feet =	81	40%	77.0
Source 2: Grader – Sound level (dBA) at 50 feet =	85	40%	81.0
Source 3: Dozer – Sound level (dBA) at 50 feet =	82	40%	78.0
Calculated Data:			
All Sources Combined – L_{max} sound level (dBA) at 50 feet = **88 L_{max}**			
All Sources Combined – L_{eq} sound level (dBA) at 50 feet = **84 L_{eq}**			
Distance Between Source and Receiver (feet)	**Geometric Attenuation (dB)**	**Calculated L_{max} Sound Level (dBA)**	**Calculated L_{eq} Sound Level (dBA)**
50	0	88	84
75	-4	84	80
100	-6	82	78
200	-12	76	72
400	-18	70	66
500	-20	68	64
750	-24	64	60
1,000	-26	62	58
1,500	-30	58	54

Note: Geometric attenuation is based on 6 dB per doubling of distance. This calculation does not include the effects, if any, of local shielding from walls, topography, or other barriers, which may reduce sound levels further.

During building construction, equipment used could include auger drills or pile drivers, generator sets, cranes, tractors, and welders, among other equipment. As shown in Table 3.3.13-8, combined noise levels from the simultaneous operation of a pile driver, tractor, excavator, and generator set (three of the loudest pieces of equipment expected for use during building construction) would be in the range of 88 dBA L_{eq} at 100 feet. Should this equipment be operating near one another, and at the property perimeter nearest off-site land uses (e.g., 75 feet south of the nearest residences along Kelso Road, north of Neighborhood I), combined noise levels from a building construction subphase could be up to 91 dBA L_{eq} at the nearest off-site home. Note that if an auger drill was used instead of a pile driver, combined noise levels from an example building construction phase would instead be 77 dBA L_{eq} at 100 feet and 79 dBA L_{eq} at 75 feet.

Table 3.3.13-8. Estimated Combined Construction Noise from Building Construction with Pile Driver

Source Data:	Maximum Sound Level (dBA)	Utilization Factor	L_{eq} Sound Level (dBA)
Grading and Excavation Subphase			
Source 1: Generator – Sound level (dBA) at 50 feet =	81	50%	78.0
Source 2: Tractor – Sound level (dBA) at 50 feet =	83	40%	79.0
Source 3: Impact Pile Driver– Sound level (dBA) at 50 feet =	101	20%	94.0
Calculated Data:			
All Sources Combined – L_{max} sound level (dBA) at 50 feet = **101 L_{max}**			
All Sources Combined – L_{eq} sound level (dBA) at 50 feet **= 94 L_{eq}**			

Distance Between Source and Receiver (feet)	Geometric Attenuation (dB)	Calculated L_{max} Sound Level (dBA)	Calculated L_{eq} Sound Level (dBA)
50	0	101	94
75	-4	98	91
100	-6	95	88
200	-12	89	82
400	-18	83	76
500	-20	81	74
750	-24	78	71
1,000	-26	75	68
1,500	-30	72	65

Note: Geometric attenuation is based on 6 dB per doubling of distance. This calculation does not include the effects, if any, of local shielding from walls, topography, or other barriers, which may reduce sound levels further.

Therefore, and as described previously and as shown in Table 3.3.13-7 and 3.3.13-8 above, ambient noise levels would temporarily increase during project construction. Similarly, the analysis contained in the Specific Plan II environmental document concluded that project construction would result in temporary increases in ambient noise levels in the project vicinity. However, and as stated in the analysis for the Specific Plan II, increased noise levels would be short-term, and only last for the duration of the construction activities in a given area.

In addition, note that construction for future development under the Master Plan (including within neighborhoods H, I, J, L, and the Town Center), would be required to comply with Development Standard Title Section 9-1025.9 (c) (3), which limits construction activity to certain daytime hours. According to the Development Standard Title Section 9-1025.9 (c) (3), construction noise is considered exempt from the provisions of the noise ordinance provided such activities do not take place before 6:00 a.m. or after 9:00 p.m. any day. Construction for future development under the Master Plan and Specific Plan II are expected to comply with the hourly restrictions of the County Code. In addition, the specific proposed hours for construction of the project are Monday through Friday from 8:00 a.m. to 6:00 p.m. with occasional work proposed for Saturdays during daytime hours. Therefore, because the project would not have any new significant impacts related to construction noise not already addressed in the 1994 MEIR and the 2004 *Mountain House Specific*

Plan II Initial Study, no new impacts related to construction noise would result. Impacts related to construction noise would be less than significant.

Operations – Traffic

Potential traffic noise impacts from Master Plan development were analyzed in the 1994 MEIR. The project, including amendments to Neighborhoods H, I, J, L, and the Town Center, would result in very minor changes to Average Daily Traffic (ADT) for off-site roadway segments in the project vicinity. Specifically, most roadway segments would experience no increase in ADT with the proposed project as compared to the previously approved Master Plan and Specific Plan II, especially segments north of Byron Road. For roadway segments south of Byron Road, many segments would also experience no increase in ADT, and some would experience decreases in ADT. However, few segments (e.g., Central Parkway, south of Bryon) may experience minor increases in traffic. It is expected that any increases in ADT along analyzed roadway segments in the project vicinity would be limited to a no more than 10 percent increase from the previously approved scenario (pers. comm. Kinzel, October 2021).

When assessing traffic noise impacts, a 3-dB increase in traffic noise resulting from project implementation, considered "barely perceptible" (California Department of Transportation 2013), would generally constitute a potentially significant project-related traffic noise increase. Based on the logarithmic math that governs noise increases, a 10 percent increase in traffic equates to an approximately 0.4 dB increase in noise (based on the equation 10 times the logarithm of existing plus project traffic divided by existing traffic).[3] A 3-dB change in noise is generally considered to be barely noticeable, and a change in sound level of 1 dB is not typically perceived by the human (California Department of Transportation 2013). Therefore, a less than 1-dB increase in noise would not constitute a significant increase in traffic noise.

Because no roadway segments in the project vicinity would experience a 10 percent or more increase in traffic with project implementation, a substantial increase in noise would not be expected to occur on any roadway segment as a result of project implementation. The project would not have any new significant impacts related to traffic noise not already addressed in the 1994 MEIR and the 2004 *Mountain House Specific Plan II Initial Study*. Traffic noise impacts are considered less than significant and no additional mitigation measures are required.

Operations – Other Operational Noise Sources

Future development within the Master Plan area would be expected include the installation and operation of stationary sources of noise, such as heating, ventilation, and air-conditioning (HVAC) equipment and emergency generators. Existing adjacent land uses could be exposed to noise from project mechanical equipment. However, the amendments to the project would not result in the citing of noise generating uses not previously proposed and would not change the general footprint of proposed development within the Mountain House Master Plan area.

The nearest residential land uses are located approximately 75 to 100 feet from areas of proposed development. Specifically, residential land uses may be as close as 75 feet from proposed development in the northern portion of Neighborhood I. For other neighborhoods within the project area, the distances between proposed development and off-site existing receptors would be greater.

[3] Equation is 10 x log (traffic including increase/traffic prior to increase), e.g., 10 x log (110/100) = 0.4 dB increase in traffic noise.

The types of future mechanical equipment, and the exact sizes and locations of future mechanical equipment, are unknown at this time. Noise from HVAC equipment can vary, depending on the type and size of the equipment. A typical air-handling/HVAC unit with condensing units and fans can generate sound levels in the range of 70 to 75 dBA at 50 feet (Hoover and Keith 2000). Such equipment would likely be installed for new residential and non-residential development associated with the project. Locating equipment behind screens would reduce noise from these sources and enclosing the equipment would reduce noise more substantially. However, because the specific equipment has not yet been selected and potential screen or enclosure designs are unknown, project HVAC equipment may result in noise levels in excess of applicable thresholds.

In addition, other stationary source mechanical equipment could be installed for certain land uses under the project (e.g., school, or other non-residential land uses). For example, emergency generators, boilers, chillers, kitchen or lab exhaust fans, or other unknown equipment may be included in the designs of future development within the Master Plan area. As an example, a large exhaust or ventilation fan can generate a noise level of 79 dBA at 50 feet (FHWA 2006). Depending on cooling capacity, without accounting for attenuation, a chiller can generate a sound power level of 97 to 103 dBA, which equates to a noise level of 65 to 71 dBA at 50 feet (Hoover and Keith 2000). Without accounting for attenuation, a typical boiler generates a sound power level in the range of 96 to 99 dBA. This equates to a noise level of 64 to 67 dBA at 50 feet (Hoover and Keith 2000). An emergency generator in the range of 500 of 750 kW, with only the most basic weather enclosure offered, can generate a noise level of 87 dBA at a distance of 23 feet (Cummins 2017). Note that the inclusion of, and the potential locations of, mechanical equipment such as these is not known at this time. However, based on the noise levels cited above and depending on the distance to the nearest noise sensitive land uses, noise from mechanical equipment could exceed applicable thresholds in the Master Plan area.

Note that the Mountain House Master Plan includes a requirement that noise from stationary sources within the Plan area be reduced to an hourly L_{eq} of 55 dBA in the daytime (7:00 a.m. to 10:00 p.m.) and 50 dBA during the nighttime at the nearest sensitive uses, in line with the Mountain House-specific noise thresholds included in the original Master Plan. Although unattenuated noise levels from potential mechanical equipment could exceed applicable thresholds, stationary sources of noise were assumed to be included in the previous environmental documentation for the Mountain House Master Plan and Specific Plan II and would be required to comply with the applicable local criteria (through the implementation of noise attenuation measures, such as screening or selecting quieter equipment, as appropriate). Therefore, the project would not have any new significant impacts related to stationary sources of noise not already addressed in the 1994 MEIR and the 2004 IS/MND. With implementation of the requirement for mechanical equipment noise to comply with the local applicable standards, impacts from project-related stationary sources of noise would be less than significant.

b. Generate excessive groundborne vibration or groundborne noise levels?

The project would not include the development of uses that generate high vibration levels during operation, such as manufacturing uses, mines, or railroad tracks. Therefore, the analysis of potential project-related vibration effects is limited to construction activities associated with the project. Construction of the project would involve the use of equipment that could generate ground-borne vibration. Potential vibration-related damage and annoyance impacts resulting from project implementation are analyzed below.

Vibration-Related Damage Effects

As described in the regulatory setting section, Caltrans has adopted vibration-related damage guidelines/criteria that are routinely used for projects proposed by local jurisdictions throughout California. Typical PPV vibration levels associated with heavy-duty construction equipment at a reference distance of 25 feet and other distances are shown in Table 3.3.13-9 below. Since specific construction equipment proposed for project construction is not known at this time, this analysis is based on typical construction equipment which may be used for the project.

Table 3.3.13-9. PPV Vibration Source Levels for Typical Construction Equipment

Equipment	PPV at 25 Feet	PPV at 75 Feet	PPV at 100 Feet	PPV at 300 Feet
Pile Driver (Impact)	1.518	0.292	0.190	0.037
Pile Driver (Vibratory)	0.734	0.141	0.092	0.018
Vibratory roller	0.210	0.040	0.026	0.005
Large bulldozer [a]	0.089	0.017	0.011	0.002
Auger drill	0.089	0.017	0.011	0.002
Loaded trucks	0.076	0.015	0.010	0.001
Small bulldozer [b]	0.003	0.001	0.000	0.000

Source: Federal Transit Administration, 2018; Caltrans 2020.

[a] Representative of an excavator or other similarly sized earth-moving equipment

[b] Representative of a front-end loader, small backhoe, or other similarly sized small earth-moving equipment.

The nearest sensitive uses to project development areas are residential homes located near the project perimeter. Based on the proximity of the project footprint to the nearest off-site residential structures, all project construction would be expected to occur more than 75 feet from the nearest homes (e.g., residential homes north of Neighborhood I). It is conservatively assumed that all off-site residential structures near the project site could conservatively be categorized as "older residential structures" according to the Caltrans Vibration Guidelines for Potential Damage to Structures included in Table 3.3-1. It is possible some may fall into the less sensitive category of "new residential structures," but the more conservative criterion is conservatively used for this analysis. The damage criterion for structures in the "older residential structure" category is a PPV of 0.3 in/sec for continuous or frequent intermittent sources of vibration, such as construction activity.

Although the precise equipment proposed for use in each neighborhood is not known at this time, this analysis conservatively assumes that all equipment could be operating in all portions of the project site at the same time. Note that it is unlikely that a pile driver would be required for use in many portions of the Master Plan area, based on the type of development proposed (e.g., single family homes). However, as shown in Table 3.3.13-9 above, should a pile driver be required for use 75 feet from nearby homes, it could result in vibration levels of up to 0.292 PPV in/sec at these residences. Other equipment would result in lower vibration levels at this distance as shown in Table 3.3.13-9. For example, at a distance of 75 feet, a vibratory roller would result in a vibration level of 0.21 PPV in/sec. Based on these estimated worst-case vibration levels, vibration from project construction equipment would be below the applicable damage criterion for older residential structures of 0.3 PPV in/sec. Because the expected worst-case vibration levels would be below the applicable damage criterion for nearby older residential structures, and because the development footprint and types of uses proposed in the 1994 MEIR and in the 2004 IS/MND would be generally the same as that proposed for the project; no new impacts

would result related to vibration. Damage-related vibration impacts to existing land uses near the project site would be less than significant**.**

Vibration-Related Annoyance Effects

As described in the regulatory setting section, FTA has developed guidelines for the assessment of vibration effects pertaining to human annoyance. Although the project does not have any federal components, the County General Plan includes policy PHS-9.4: *Acceptable Vibration Levels,* which states that the County shall require construction projects anticipated to generate a significant amount of vibration to ensure acceptable interior vibration levels at nearby vibration-sensitive uses, based FTA criteria.

Typical VdB vibration levels associated with heavy-duty construction equipment at a reference distance of 25 feet and other distances are shown in Table 3.3.13-10 below. Since specific construction equipment proposed for project construction is not known at this time, this analysis is based on typical construction equipment which may be used for the project.

Table 3.3.13-10. VdB Vibration Source Levels for Typical Construction Equipment

Equipment	VdB at 25 Feet	VdB at 75 Feet	VdB at 100 Feet	VdB at 300 Feet
Pile Driver (Impact)	112	98	94	80
Pile Driver (Vibratory)	105	91	87	73
Vibratory roller	94	80	76	62
Large bulldozer [a]	87	73	69	55
Auger drill	87	73	69	55
Loaded trucks	86	72	68	54
Small bulldozer [b]	58	44	40	26

Source: Federal Transit Administration, 2018.

[a] Representative of an excavator or other similarly sized earth-moving equipment

[b] Representative of a front-end loader, small backhoe, or other similarly sized small earth-moving equipment.

Regarding annoyance-related vibration impacts, humans are typically considered more sensitive to vibration that occurs during nighttime hours, when people generally sleep. Should vibration levels exceed the Category 2 vibration criterion (per the FTA Guidelines for Vibration shown in Table 3.3.13-3) during nighttime hours, sleep disturbance could occur.

Although vibration levels could exceed 72 VdB for short periods of time when construction occurs at very close distances to off-site land uses (e.g., within 75 feet of existing residences north of Neighborhood I), no construction is proposed for nighttime hours. All construction activity would be limited to daytime hours as allowed in the County. Specifically, the proposed hours for construction of the project are Monday through Friday from 8:00 a.m. to 6:00 p.m. with occasional work proposed for Saturdays during daytime hours. Therefore, excessive vibration during nighttime hours when people typically sleep would not occur as a result of the project. The project would not have any significant vibration impacts not already addressed in the 1994 MEIR. Construction-related vibration impacts related to sleep disturbance and annoyance would be less than significant.

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

There are no private airstrips located near the project site. The nearest airport to the project site is the Byron Airport, which is located approximately 5 miles northwest of the project site. According to the Contra Costa County Airport Land Use Compatibility Plan, the project site is located well outside of all community noise equivalent level (CNEL) Noise contours for this airport (e.g., 55, 60, 65 and 70 dBA CNEL noise contours). Because the project site is located more than 2 miles from the nearest public airport, and because the project site is many miles from all estimated noise contours for this this airport in the Contra Costa County Airport Land Use Compatibility Plan, the project would not result in people working or residing in the area to be exposed to excessive aircraft noise. There would be no impact related to aircraft noise.

3.3.14 Population and Housing

		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
Would the project:					
a.	Induce substantial unplanned population growth in an area, either directly (e.g., by proposing new homes and businesses) or indirectly (e.g., through extension of roads or other infrastructure)?	☐	☐	☐	☒
b.	Displace a substantial number of existing people or housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

3.3.14.1 Affected Environment

The U.S. Census designates the Mountain House community as a Census Designated Place and estimated that Mountain House's population in 2010 was 9,675, with 4,732 households (U.S. Census Bureau 2019). The 2015 population of Mountain House was estimated at approximately 15,000 (MHCSD 2016). The 2020 population of Mountain House was estimated at approximately 23,726, and the 2021 population was estimated at approximately 25,673, which represented an annual growth rate of 8.2% (Department of Finance 2021). The population is projected to increase to approximately 44,000 (buildout) by the year 2040 based on the current projected growth pattern (MHCSD 2016).

3.3.14.2 Discussion

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

The 1994 MEIR concluded that the potential jobs/housing balance during the initial phases of development, and potential insufficient supply of housing that is affordable to Very-Low and Low-Income workers would be impacts related to population, housing, and employment and "not normally considered significant under CEQA." As discussed in the 1994 MEIR, the Mountain House community was planned with a mix of land uses to be a "self-contained community" and, thus, to minimize growth-inducing impacts. However, over time, development in this agricultural area could expand beyond the boundaries of the site due to both economic and environmental factors. The 1994 MEIR concluded that Interstate 205 and Old River would provide an adequate buffer to minimize growth-inducing impacts to the south and north of the project site, respectively. The costs of extending infrastructure across these two barriers would deter new development. The Findings for the 1994 MEIR concluded that a buffer consisting of Great Valley Parkway combined with residential setbacks was adequate to minimize growth-inducing impacts to the west of the site. Mountain House Parkway forms a buffer along the eastern edge of Mountain House.

The project would not have any substantial unplanned population/housing impacts not already addressed in the 1994 MEIR and would not induce substantial unplanned population growth in the project area. Therefore, this impact would be less than significant.

b. Displace a substantial number of existing people or housing, necessitating the construction of replacement housing elsewhere?

Under the proposed project, the approximately 10 dwelling units along Old River and the few existing dwelling units in the industrial designated portion of Neighborhood L would remain. The proposed amendments to the Master Plan and Specific Plan II as described in Chapter 2, *Project Description*, would have no impact on these existing dwelling units, nor necessitate the construction of replacement housing or reduce the amount of available second unit or accessory dwelling units as permitted in the Mountain House community. There would be no impact.

3.3.15 Public Services

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

3.3.15.1 Affected Environment

Fire Protection

The French Camp McKinley Fire District (FCMFD) under contract with the MHCSD provides fire protection and emergency medical response to the Mountain House community. As part of the MHCSD Fire and emergency medical services (EMS) contract, the FCMFD operates out of Mountain House Fire Station 98. The station staffs 4 personnel, 24 hours a day, 7 days a week, with an available chief officer. FCMFD has a three-platoon system that works a 48 hours on, and 96 hours off schedule. The shift staffing includes one company officer, one fire apparatus engineer or certified apparatus operator, one firefighter, and one day shift coverage firefighter who works a 10-hour schedule. When the day shift firefighter is off for the PM shift or is off for the day, a trained reserve firefighter comes in and fills the shift. This allows for two, 2-person engine companies to be available at all times (MHCSD 2016).

Law Enforcement

Law enforcement for the Mountain House community is contracted through the San Joaquin County Sheriff's Office (SJCOSO) by the MHCSD. The SJCOSO command staff and deputies operate out of two facilities: (1) A satellite office located at the MHCSD office building, 230 S. Sterling Drive, Mountain House, California; and (2) the SJCOSO headquarters located at 7000 Michael Canlis Boulevard, French Camp, California. The recently completed Mountain House Town Hall building is now the central office location for MHCSD and includes larger law enforcement facilities. The SJCOSO presently assigns six patrol officers full time to Mountain House. Additional law enforcement service is provided by the deputies assigned to Beat 8, a beat area that includes Mountain House and the

adjacent unincorporated county area. Investigative and all other law enforcement support services are provided through the SJCOSO (MHCSD 2016).

Schools

The Mountain House community is located within the boundaries of the LUSD. According to the Specific Plan II, the K-8 student generation rate for very low, low, and medium density residential is 0.676, and the K-8 student generation rate for medium high and high residential and mixed use is 0.338. The high school student generation rate for very low, low, and medium density residential is 0.179, and the high school student generation rate for medium high and high residential and mixed use is 0.0432.

The closest schools to the project site are Sebastian Questa Elementary School, located at 685 North Montebello Street; Bethany Elementary School, located at 570 South Escuela Drive; and Wicklund Elementary School, located at 300 East Legacy Drive. Sebastian Questa Elementary School is located in Neighborhood H. The Mountain House High School is located in Mountain House at 1090 S. Central Parkway. Each of these schools are in the Mountain House community south of Byron Road.

The approved Master Plan and Specific Plan II shows one K-8 school to be located in the central portion of Neighborhood L (Figure 2-4). The proposed project would add a K-8 school in the eastern portion of Neighborhood I and relocate the K-8 school in Neighborhood L approximately 1,000 feet to the south.

Libraries

The Mountain House Branch Library is located in the Town Hall at 201 East Main Street in Mountain House. The library offers a circulating collection of library materials in English and other languages, computer workstations, printing, free Wi-Fi service, reference collection, scanner, photocopier, and typewriter (Stockton-San Joaquin County Public Library 2021). Other services available are exam proctoring and outgoing fax service.

3.3.15.2 Discussion

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

Fire Protection

The 1994 MEIR concluded that the project would temporarily increase the demand for local fire protection services until onsite services would be provided and that the impact would be insignificant with implementation of Mitigation Measure M4.3.3-1. The amendments to the Master Plan and Specific Plan II, as described in Chapter 2, *Project Description*, would not result in an increased need for fire protection services as the number of new homes would not substantially increase and would remain well under what was planned for in the approved Master Plan and Specific Plan II. The project would not have any significant new fire protection impacts not already addressed in the 1994 MEIR; therefore, no new impacts would result, and no additional mitigation measures are necessary. The impact would be less than significant.

Law Enforcement

The 1994 MEIR concluded that the project would have insignificant impacts on the temporary increase in demand for police services and marine patrols on Old River with implementation of Mitigation Measures M4.3.4-1 and M4.3.4-2, which are still applicable to the project. The amendments to the Master Plan and Specific Plan II, as described in Chapter 2, *Project Description*, would not result in an increased need for law enforcement services as the number of new homes would not substantially increase and would remain well under what was planned for in the approved Master Plan and Specific Plan II. The project would not have any significant new law enforcement impacts not already addressed in the 1994 MEIR; therefore, no new impacts would result, and no new mitigation measures are necessary. The impact would be less than significant.

Schools

The 1994 MEIR concluded that the project would have insignificant impacts with regard to the capacity of schools being able to accommodate the community's students, school proximity to transmission and gas lines, and schools not conforming to siting criteria, with implementation of Mitigation Measures M4.3.2-1, M4.3.2-2, and M4.3.2-3.

To implement 1994 MEIR Mitigation Measures M4.3.2-1, M4.3.2-2, and M4.3.2-3 regarding school impacts, two school mitigation agreements were entered into between LUSD and the applicant's predecessor in interest, by which the applicant is bound: 1) a K-8 School Facilities Impact Mitigation Agreement dated November 19, 1998, as amended, regarding elementary school facilities (the Elementary School Mitigation Agreement); and 2) a School Facilities Impact Mitigation Agreement dated October 27, 1998, as amended, regarding high school facilities (the High School Mitigation Agreement).

The Master Plan when approved on November 10, 1994, did not include any age restricted units within Neighborhood I. School impacts for the Neighborhood I units were to be mitigated by compliance with the Elementary School Mitigation Agreement and the High School Mitigation Agreement, as applicable. Age restrictions for Neighborhood I were introduced with the adoption of Specific Plan II on February 8, 2005. The Elementary School Agreement and the High School Agreement each include a provision exempting age-restricted units from school mitigation. If the proposed amendment is approved, and the age restrictions eliminated from Neighborhood I, the exemptions from compliance with the Elementary School Agreement and the High School Agreement would no longer apply. Therefore, any school impacts resulting from the removal of the Neighborhood I age restrictions by the currently proposed amendment will be mitigated by compliance with the Elementary School Mitigation Agreement and the High School Mitigation Agreement, as applicable.

With the elimination of the age restriction for Neighborhood I, the project would include the addition of a new 16-acre K-8 school in Neighborhood I, consistent with the requirements of the Elementary School Mitigation Agreement. LUSD would prepare its own CEQA documentation for the new K-8 school in Neighborhood I.

Per the terms of the High School Mitigation Agreement, the applicant is required to, and will, pay mitigation payments as defined therein. LUSD would prepare its own CEQA documentation for any new high school facilities.

The project would not have any significant new school impacts not already addressed in the 1994 MEIR; therefore, no new impacts would result, and no additional mitigation measures are necessary. The impact would be less than significant.

Parks

Refer to Section 3.3.16, *Recreation*, regarding existing and proposed park facilities.

Other Public Facilities

The San Joaquin County General Plan requires new communities exceeding a population of 10,000 to have a branch library, and the Master Plan contains an implementation measure to provide a 5,000-square-foot library when the population of the Mountain House community reaches 10,000. The Mountain House Branch Library was recently completed in the Town Hall located at 201 East Main Street in Mountain House. The project does not include any land use changes that would impact library facilities. The project would not have any new significant library impacts not already addressed in the 1994 MEIR; therefore, no new impacts would result.

3.3.16 Recreation

		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
Would the project:					
a.	Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☒	☐
b.	Include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?	☐	☐	☒	☐

3.3.16.1 Affected Environment

Recreation facilities exist in Neighborhood H (a neighborhood park, mini park, green space, and facilities at the school) but there are no existing recreational facilities north of Byron Road. All of the neighborhoods to the south of the project site within Mountain House include recreational facilities such as neighborhood and community parks, pocket parks, open space, trails, and recreational amenities at schools.

Neighborhood parks are constructed and opened for public use prior to completion of each neighborhood. Five villages, or neighborhood parks, have been completed. A sixth Village, Cordes Village, is under construction, and includes a village park and a mini park that will be added to the local maintenance CFD to meet operations and maintenance needs. Phase I of the Central Community Park is also completed, with design soon to be underway for Phase II expansion of the community park.

The Master Plan requires 5 acres of local parks (neighborhood and community combined) for every 1,000 people. With a projected population of approximately 24,400 people for Specific Plan II, 122 acres of neighborhood and community parks are required for Specific Plan II. The Master Plan, as revised in September 2000, provides 242 acres of neighborhood and community parks for Specific Plan II, excluding wetlands high school and college athletic fields. Additionally, MHCSD updated the Parks, Recreation and Leisure Plan in May 2021 to strengthen guidance for recreation program provision, staffing and business practices (MHCSD 2021).

3.3.16.2 Discussion

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

The 1994 MEIR evaluated impacts on parks and concluded that a less-than-significant impact with mitigation incorporated would occur. Aside from Neighborhood H, there are no other existing park or recreational facilities located on the project site. All land is in agricultural and farm residential uses. The closest local parks are in the Mountain House neighborhoods to the south. County parks

closest to the project site include Larch Clover, Mossdale Crossing, and Dos Reis county parks, located approximately 5.5 miles to the east, 13 miles to the east, and 13 miles to the northeast, respectively. The closest regional park is Durham Ferry State Recreation Area, located approximately 16.5 miles to the southeast. The closest state park is Bethany Reservoir Park, located approximately 3.5 miles to the southwest.

Recreation facilities have already been built in Neighborhood H and include a neighborhood park, mini park, green space, and facilities at the Sebastian Questa Elementary School. Several park and recreational facilities are planned in Neighborhoods I, J, L, and the Town Center as described in the Master Plan and Specific Plan II. The project would include the following changes to parks/recreational facilities in the project site.

- Redesignate 4.1 acres of MX land uses to Community Park and eliminate a segment of Vivaldi Street (from Raphael Street to Providence) and integrate that segment into Community Park in the Town Center.
- Redesignate 5.0 acres from Commercial Recreation OS to Neighborhood Park in Neighborhood I.
- Redesignate approximately 20 acres from Commercial Recreation OS to PF (Public Facilities-Community Park) in Neighborhood J. This is the relocation of North Community Park from its current location east of Central Parkway and north of Byron Road.
- Redesignate 22 acres from Community Park to PF (Public Facilities-Private), and relocate Neighborhood Park approximately 1,300 feet south of its existing proposed location in Neighborhood L.

These land use changes would result in an increase in parkland by approximately 4.1 acres compared to what is currently approved. Therefore, the project would not have any significant new park/recreation impacts not already addressed in the 1994 MEIR; no new impacts would result. The impact would be less than significant.

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

See the discussion under Item a. The impact would be less than significant.

3.3.17 Transportation

		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
Would the project:					
a.	Conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities?	☐	☐	☐	☒
b.	Conflict or be inconsistent with State CEQA Guidelines section 15064.3, subdivision (b)?	☐	☐	☒	☐
c.	Substantially increase hazards because of a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☐	☒
d.	Result in inadequate emergency access?	☐	☐	☐	☒

3.3.17.1 Affected Environment

Transit Services

The San Joaquin Regional Transit District (SJRTD) provides public transit services in the Stockton Metropolitan Area, Intercity, Commuter, and Rural Transit Services. The SJRTD provides bus services between the San Joaquin County region and other Bay Area cities and Sacramento. SJRTD has historically operated 20 bus trips per day between San Joaquin County (Stockton, Tracy, Lodi, Escalon, Ripon, and Manteca) and the South Bay, East Bay, Sacramento, and Napa regions.

Roadways

Freeways

The Mountain House community is served by the following freeways.

- **Interstate 580 (I-580)** is a major east–west freeway extending from Interstate 5 (I-5) in San Joaquin County to State Route 101 (SR 101) in Marin County. Near the project area, I-580 is a four-lane divided freeway. This freeway serves as a connector between I-5 (a principal north–south freeway for both auto and truck traffic) and the Bay Area.
- **Interstate 205 (I-205)** is located just to the south of the project area. I-205 provides access to Tracy and to the greater San Francisco Bay Area and Silicon Valley job attraction centers to the west. It has six lanes in the vicinity of the project area.

Local Roads

The following roads provide local access to the freeway and immediate areas.

- **Grant Line Road** is a two-lane, east–west road that runs parallel to and north of I-205. It provides access to Tracy and also connects to the I-580 freeway to the west of I-205 via

Altamont Pass Road. In the vicinity of the project area, it is generally a rural road with posted speeds limits of 45 miles per hour.

- **Mountain House Parkway** is a six-lane, north–south roadway that provides a connection between I-205 and Byron Road. It is located at the eastern boundary of the Mountain House community. South of I-205, Mountain House Parkway extends to I-580 and has two to four lanes.
- **Byron Road** is a two-lane rural road that runs parallel to the Union Pacific Railroad and transects the northern portion of the Mountain House community. It provides access to downtown Tracy to the east and Contra Costa County to the west.
- **Von Sosten Road** is a two-lane rural road that runs parallel to Grant Line Road located just to the north of I-205. The existing alignment connects Mountain House Parkway in the west to Byron Road in the east.

Bicycle Facilities

The developed portion of Neighborhood H and along Mountain House Creek include a Class I multi-use bike path along De Anza Boulevard and Class III bike routes on the internal streets within the neighborhood. No other bicycle facilities have been developed yet in Neighborhoods I, J, L, and the Town Center. The Specific Plan II describes and identifies the proposed bicycle facilities for the Specific Plan II area (Section 9.9.1, *Bicycle Facilities*, and Figure 9.2, SPII Bicycle and Pedestrian System).

Pedestrian Facilities

The developed portion of Neighborhood H I and along Mountain House Creek include a Class I multi-use bike path along De Anza Boulevard and sidewalks on all internal streets within the neighborhood. No other pedestrian facilities have been developed yet in Neighborhoods I, J, L, and the Town Center. The Specific Plan II describes and identifies the proposed pedestrian facilities for the Specific Plan II area (Section 9.9.2, *Pedestrian Facilities*, and Figure 9.2, SPII Bicycle and Pedestrian System).

3.3.17.2 Discussion

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

The 1994 MEIR concluded that the project would have insignificant impacts on transit service and bicycle facilities with implementation of Mitigation Measures M4.12-1 and M4.12-7.

Transit Service

The SJRTD provides public transit services in the Stockton Metropolitan Area, Intercity, Commuter, and Rural Transit Services. The SJRTD provides bus services between the San Joaquin County regions and other Bay Area cities and Sacramento. SJRTD has historically operated 20 bus trips per day between San Joaquin County (Stockton, Tracy, Lodi, Escalon, Ripon, and Manteca) and the South Bay, East Bay, Sacramento, and Napa regions. The proposed Master Plan and Specific Plan II amendments as described in Chapter 2, *Project Description*, would not substantially change transit service or conflict with what has been planned for in the Master Plan and Specific Plan II.

Local service would still be provided between each residential neighborhood and employment area within the project area at a service frequency that provides a viable alternative to the automobile for local peak and off-peak travel. The Town Center would still include a transit center for the transit system, and the 12 neighborhoods in Mountain House would serve as the local focal points for passenger collection and distribution. Bus service would still comply with the provisions of the Master Plan and the Mountain House TDM Program and Transit Plan, for inter-regional, intercity, and local service within the community. The project would still be consistent with the Master Plan and Specific Plan II for transit service and would not have any significant new transit impacts not already addressed in the 1994 MEIR; therefore, no new impacts would result, and no additional mitigation measures are necessary. This impact would be less than significant.

Roadways

Roadways in the Mountain House community have been designed to provide for a safe, efficient, and easily understood onsite circulation system. The Master Plan and Specific Plan II address internal street circulation and design for all community roads including sound walls and landscaping for county arterials that pass through or are immediately adjacent to the community. The project would not result in any substantive changes to the roadways within each neighborhood and the Town Center. Traffic studies have been prepared for each neighborhood and the Town Center, and the guidelines in each would be adhered to. The project would also adhere to the roadway improvements phasing requirements, funding requirements, design and construction requirements, and roadway classification requirements as set forth in the Master Plan, Specific Plan II, MHCSD, and County requirements. The project would still be consistent with the Master Plan and Specific Plan II for roadways and would not have any significant new roadways impacts not already addressed in the 1994 MEIR; therefore, no new impacts would result, and no additional mitigation measures are necessary. This impact would be less than significant.

Bicycle Facilities

The project still supports the integrated land use and circulation plan concept in the Master Plan. As originally envisioned in the Master Plan, Class I, Class II, and Class II bike routes and trails are proposed throughout Specific Plan II, as shown in Specific Plan II Figure 9.2. The proposed bike routes provide direct connectivity within Mountain House and externally to offsite locations. The proposed project would still be consistent with the Master Plan and Specific Plan II for bicycle facilities and would not have any significant new bicycle facilities impacts not already addressed in the 1994 MEIR; therefore, no new impacts would result, and no additional mitigation measures are necessary. This impact would be less than significant.

Pedestrian Facilities

Sidewalks are proposed on all residential streets. In addition, direct pedestrian access connections would be provided at strategic locations. These pedestrian access points would promote a walkable environment by providing a more direct connection to major streets and collectors. No aspect of the project would result in fewer sidewalks or less walkable neighborhoods; therefore, the project would still be consistent with the Master Plan and Specific Plan II for pedestrian facilities and would not have any significant new pedestrian facilities impacts not already addressed in the 1994 MEIR; no new impacts would result, and no additional mitigation measures are necessary. This impact would be less than significant.

b. Conflict or be inconsistent with State CEQA Guidelines section 15064.3, subdivision (b)?

The 1994 MEIR concluded that the project would have significant and unavoidable impacts, even with implementation of mitigation, with regard to traffic volumes and LOS. As of July 1, 2020, agencies analyzing the transportation impacts of new projects must now look at VMT instead of LOS. VMT measures how much actual auto travel (additional miles driven) a proposed project would create on California roads. If the project adds excessive car travel onto roads, the project may cause a significant transportation impact.

A traffic memorandum was prepared in June 2021 by TJKM to evaluate the changes proposed to Neighborhoods H, I, J, L, and the Town Center, and to examine if the changes are still in compliance with the Master Plan, Specific Plan II, County, and MHCSD (TJKM 2021). A VMT analysis is also included in the traffic memorandum. Reference Appendix B for the full traffic memorandum.

The project would result in a reduction of VMT compared to the original Master Plan and Specific Plan II land uses. The traffic memorandum states that the existing base year per capita VMT is 12.96 for Neighborhoods H, I, J, and L. Adding in the project land use increases the projected per capita VMT up to 16.09, an increase of 3.13. While there is an increase in residential VMT per capita once the various neighborhood residential developments are added into the TAZs, 16.09 is still lower than the 15 percent threshold of the county average, which is 22.61. Therefore, VMT impacts for the residential portion of the project as amended are found to be insignificant for the base year.

For the Town Center portion of the project, there are a total of 308 retail employees covering 315,486 square feet of retail space. For regional retail projects, San Joaquin County guidelines looks at the net change in total VMT with and without a project in the region. The Town Center is located in unincorporated San Joaquin County. An additional model run was performed with only the Town Center's retail employment coded into the model (TAZ #2711). Table 5 in Appendix B shows the net change in VMT between the no project and with project (Town Center only) model runs for unincorporated San Joaquin County. Adding in the Town Center retail results in a net decrease of 3,226 VMT for the project area of unincorporated San Joaquin County. Thus, VMT impacts for the commercial portion of the project (Town Center) are found to be insignificant for the base year.

The changes proposed to Mountain House Neighborhoods H, I, J, L, and the Town Center would have a less-than-significant impact with regard to VMT.

c. Substantially increase hazards because of a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

The Master Plan for the Mountain House community sets forth a comprehensive set of design standards, development standards, cross-sections for roadways, and an extensive network of pedestrian and bicycle facilities, designed to avoid traffic safety hazards associated with project design features. The traffic memorandum (Appendix B) did not identify any project changes for Neighborhoods H, I, J, L, and the Town Center that would increase hazards due to a design feature or incompatible use, and no expected increases in traffic. There would be no impact.

d. Result in inadequate emergency access?

The traffic in Neighborhoods H, I, J, L, the Town Center, and the remainder of Specific Plan II would have access to multiple paths in the event of an emergency. Based on the approved Tentative Subdivision Maps, all neighborhoods would be connected to several major arterial and collector streets. Consequently, adequate emergency access would be available. The project would still be

consistent with the Master Plan and Specific Plan II for emergency access and would not have any significant new emergency access impacts not already addressed in the 1994 MEIR; therefore, no new impacts would result, and no additional mitigation measures are necessary. There would be no impact.

3.3.18 Tribal Cultural Resources

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:				
a. Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or	☐	☒	☐	☐
b. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	☐	☒	☐	☐

3.3.18.1 Affected Environment

The project area was originally inhabited by the Northern Valley Yokuts, whose territory is defined roughly by the crest of the Diablo Range on the west and the foothills of the Sierra Nevada on the east. The southern boundary is approximately where the San Joaquin River bends northward, and the northern boundary is roughly halfway between the Calaveras and Mokelumne Rivers. Further detail on the Northern Valley Yokuts can be found in 3.3.5 Cultural Resources.

On October 15, 2021, the County sent letters to tribes and organizations that asked to be notified of any upcoming projects pursuant to 21080.3.1(d) of the Public Resources Code. The County sent letters inviting the following entities to consult:

- California Tribal TANF Partnership
- California Valley Miwok Tribe
- North Valley Yokuts Tribe
- United Auburn Indian Community
- Buena Vista Rancheria of Me-Wuk Indians

Each recipient was provided a description of the project and its location, the lead agency contact information, and a notification that the tribe has 30 days to request consultation. The 30-day response period concluded on November 17, 2021.

As a result of the initial notification letters, the County received one response. The United Auburn Indian Community of the Auburn Rancheria responded on October 26, 2021 to decline consultation. None of the other tribes that were contacted under AB 52 responded with a request to consult.

Therefore, in the absence of tribal consultation, information about potential impacts to TCRs was drawn from: 1) the results of a search of the Sacred Lands File of the Native American Heritage Commission (NAHC); 2) results of outreach to tribes under Senate Bill 18; 3) existing ethnographic information about pre-contact lifeways and settlement patterns; and 4) information on archaeological site records obtained from surveys of the project area and the California Historical Recourse Information System.

Sacred Lands File Search. A search of the NAHC Sacred Lands File was requested for the Project Area on October 15, 2021. The NAHC responded on November 18, 2021 with a list of tribal contacts for separate consultation under Senate Bill 18 but did not provide information on Sacred Lands in the Project Area.

Senate Bill 18 Consultation. On November 29, 2021, the County mailed notification letters to the Buena Vista Rancheria of Me-Wuk Indians, California Valley Miwok Tribe, Sheep Rancheria of Me-Wuk Indians of California, Chicken Ranch Rancheria of Me-Wuk Indians, Guidiville Indian Rancheria, Ione Band of Miwok Indians, Muwekma Ohlone Indian Tribe of the San Francisco Bay Area, Nashville Enterprise Miwok-Maidu-Nishinam Tribe, North Valley Yokuts Tribe, the Confederated Villages of Lisjan, Tule River Indian Tribe, United Auburn Indian Community of the Auburn Rancheria, Wilton Rancheria, and the Wuksache Indian Tribe/Eshom Valley Band. The notification letters were sent pursuant to Senate Bill 18, which is not a CEQA matter. The purposes of consultation under SB 18 are to consult on the preservation of, or the mitigation of impacts to, Native American Cultural Places, as defined in Public Resources Code 5097.993, and to protect the confidentiality of information concerning the same. The response period for tribes under SB 18 closed on February 27, 2022.

On December 16, 2021, Wilton Rancheria responded to request consultation under SB 18. The County scheduled a consultation meeting with tribal representatives on February 17, 2022. Despite several email exchanges to confirm the tribe's attendance, no tribal representatives attended the scheduled meeting. After receiving no further communications from the tribe, on February 23, 2022, the County formally concluded consultation with Wilton Rancheria. No other tribes responded to request consultation under SB 18 during the 90-day response window.

Ethnographic Information. Ethnographic information was reviewed for the project, including ethnographic maps. The Handbook of North American Indians (Wallace 1978) does not provide any information on ethnographic village sites associated with the Northern Valley Yokuts and none are mapped in the vicinity of the project. This could be because this territory was historically very marshy and not suitable for habitation (Wallace 1978:462). Ethnographic literature indicates that most settlements sat atop low mounds on or near the banks of major watercourses (Wallace 1978:4660 like the San Joaquin, Stanislaus, Tuolomne, Merced, and Old rivers. Of these, the Old River is closest to the project area; however, the property up to the river was previously farmed extensively before grading and any mounds, if present, would have been leveled in the past and visible to archaeological surveyors.

Archaeological Site Records. The entire project area was subjected to an archaeological survey and records search review for the current study; however, all known sites had been previously

documented and evaluated, and the property has already been graded. There are no known resources remaining on the property.

3.3.18.2 Discussion

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

a. Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k)?

No tribes requested consultation under AB 52 for this project, one tribe requested consultation under SB 18 but subsequently failed to engage with the county or provide any information, and no previously recorded Native American resources were identified as a result of ethnographic information, or the archaeological study and records search. However, the potential exists for the project to unearth unanticipated TCRs during construction. The approved Specific Plan and Tentative Subdivision maps include conditions requiring that all activities stop in the event cultural resources are discovered during ground-disturbing activities. If the resource if determined (in consultation with culturally affiliated tribes) to be a tribal cultural resource, appropriate treatment will be implemented. This condition will continue to apply to the project. Therefore, this impact is considered less than significant.

b. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1?

No significant tribal cultural resources have been identified in the project area during mass grading and infrastructure installation authorized by prior County approvals. However, there is always potential for previously unknown resources to be unearthed during ground disturbing activities. The approved Specific Plan and Tentative Subdivision maps include conditions requiring that all activities stop in the event cultural resources are discovered during ground-disturbing activities. If the resource is determined (in consultation with culturally affiliated tribes) to be a tribal cultural resource, appropriate treatment will be implemented. This condition will continue to apply to the project. Therefore, this impact is considered less than significant.

3.3.19 Utilities and Service Systems

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

3.3.19.1 Affected Environment

Water

MHCSD provides water service to all of the Mountain House community. The Mountain House community is comprised of three separate Specific Plans: Specific Plan I, Specific Plan II, and Specific Plan III. Individual water supply assessments (WSA) were done for Specific Plans II & III in compliance with SB 610 and SB 221 (statutes adopted by the California State Legislature in 2001) that demonstrate an adequate, reliable water supply (MHCSD 2016).

Approximately 4,400 billable water meter connections are currently served, with an average daily usage of 1.97 million gallons, or about 2,400 acre-feet per year. All water supply infrastructure, including the diversion point, conveyance facilities, treatment plant, storage, and pump stations is designed for ultimate buildout of the community. (MHCSD 2016)

Raw water is pumped to the WTP by BBID through a 30-inch diameter pipeline with sizing of the facilities designed for ultimate capacity of 20 mgd. At the WTP site, the raw water enters a 4-million-gallon (MG) water storage tank. Water is then pumped by the filter pump station into a compact

water treatment facility containing an absorption clarifier, filter, and filter well. The treated water is pumped by the low-lift pump station through an ultraviolet system. The water is chlorinated and then stored in a 4.5 MG water storage tank. From the storage tank, the treated water is pumped by the on-site pump station into the water distribution system. Total water production in 2015 was 780 MG or 2,394 acre-feet representing a decrease of approximately 11 percent from the previous year (MHCSD 2016).

The Mountain House water distribution system consists of approximately 49 miles of pipelines ranging from 6 to 30 inches in diameter. Generally, pipelines less than 24 inches in diameter are polyvinyl chloride, and those 24 inches or larger are ductile iron. The existing water system has one raw water storage tank and three treated water storage tanks. These tanks provide water to meet hourly demand fluctuations, supply demands during emergency and power outage conditions, and a fire flow reserve (MHCSD 2016).

A Water Supply Evaluation was prepared for the project by West Yost in December 2021 (Appendix D). West Yost previously evaluated Specific Plan II potable water demand in 2007 in accordance with Senate Bill 221 (SB 221) and prepared a Water Supply Verification (WSV). The WSV built upon an approved WSA to verify that sufficient water supply was available for Specific Plan II. The purpose of the Water Supply Evaluation is to determine if a new WSA per SB 610 and WSV per SB 221 are required by evaluating the water demand for the proposed land uses in comparison with the water demand previously documented in the 2006 Specific Plan II WSV.

Wastewater

MHCSD provides wastewater collection and treatment infrastructure for the Mountain House community. The wastewater system serving the Mountain House community includes a wastewater collection, treatment, and disposal system. Approximately 80 percent of the service area drains by gravity through a backbone collection system to the treatment plant. The remaining 20 percent is and would be pumped as development occurs to the treatment plant through lift stations and force mains. The wastewater treatment and disposal system were designed and built to serve buildout of the community with phasing for expansion of equipment within the treatment plant to be added as necessary to meet development needs (MHCSD 2016).

The wastewater treatment plant will be sized at total buildout to provide 5.4 mgd average dry weather flow (ADWF) of treatment capacity. This system includes head works (influent pump station, screening system, and grit removal system); an anoxic reactor for flow/load equalization; and a carbon source for denitrification, sequencing batch reactors for biological treatment, including nitrification and denitrification, tertiary filtration, automated chemical feed, ultraviolet disinfection, and aerobic sludge digestion. Lined aeration lagoons exist as emergency storage lagoons. All new treatment plant facilities have extensive instrumentation and control systems, such as Supervisory Control and Data Acquisition, and an integrated state-of-the-art security system (MHCSD 2016).

Storm Drainage

MHCSD provides stormwater drainage infrastructure for the Mountain House community. The stormwater drainage system is managed by the MHCSD's Public Works Department. The existing stormwater collection system collects, filters, conveys, and treats runoff from within the master planned sphere of influence area and from within the watersheds to Old River through a gravity flow system (MHCSD 2016).

The Mountain House stormwater collection system is a gravity system consisting of street inlets, carbon filters located at the inlets, water quality storage ponds and treatment basins, an engineered Mountain House Creek (for further treatment), culverts, inlets, and approximately 57 miles of lines (MHCSD 2016). All facilities have been placed in operational use over the past 12 years and presently serve Neighborhoods A (Delta College), C, D (High School, Fire Station), E, F, G, and H. The stormwater drainage system would be expanded into Neighborhoods I, J, L, and the Town Center as development occurs. Additional lines and infrastructure would be constructed by the developers as neighborhoods are ready for development (MHCSD 2016).

The charcoal filters located at each existing inlet within the developed area provides initial treatment of runoff collected from rooftops and streets. The primary treated stormwater flows from the street level inlets to water quality detention and treatment ponds where secondary treatment occurs allowing sediments, debris, and chemicals to settle before runoff is allowed to enter the primary channel of Mountain House Creek and ultimately Old River. Further filtration of water quality occurs in Mountain House Creek as flow meanders through vegetated areas. In addition to treatment, the ponds serve as temporary storage regulating stormwater flow to the system downstream. Additional water quality detention basins currently exist north of Byron Road, adjacent to the railroad and Mountain House Creek, and south of Grant Line Road at Central Parkway (MHCSD 2016).

Solid Waste

Very little solid waste was generated prior to the development of the Specific Plan II neighborhoods, which were formerly agricultural lands. There was no urban solid waste (garbage) collection and disposal service for these lands prior to development of the Mountain House community.

MHCSD contracts refuse collection services from West Valley Disposal. A three-cart system is used for efficient and organized collection of refuse. Solid waste is placed in color-coded, curbside containers: green for non-recyclable garbage, brown for yard and garden clippings, and blue for recyclable materials such as newspapers, cardboard, glass bottles, plastic bottles and containers, and metal cans. This curbside program satisfies Master Plan Implementation Measure 6.7.f. The non-recyclable garbage is transferred by truck to the Foothill Landfill, a Class III landfill permitted to receive non-hazardous waste, located in eastern San Joaquin County about 50 miles from the Mountain House community.

3.3.19.2 Discussion

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

The 1994 MEIR concluded that project impacts would be insignificant with implementation of several mitigation measures (M4.4.1-1, M4.4.1-2, M4.4.1-3, M4.4.1-4, M4.4.1-5, M4.4.1-6, M4.4.1-7, M4.4.2-1, M4.4.2-2, M4.4.2-3, M4.4.3-1, M4.4.4-1, and M4.4.4-2) for water, wastewater, stormwater, gas and electricity, which are still applicable to the project. The project would not require substantial new or expanded water, wastewater, stormwater, electric power, natural gas, or telecommunications facilities compared to what is currently approved and planned. A memorandum was prepared by CARLSON, BARBEE & GIBSON, INC. Engineering Carlson, Barbee & Gibson, Inc. in

July 2021 to identify the impacts that the project would have on the sewer, domestic water, and water storage systems (Carlson, Barbee & Gibson, Inc. 2021).

Water

Domestic water demand is based upon land use and demand factors established by the MHCSD. Demand factors used for the analysis are consistent with the 2020 Potable Water System Master Plan Update. In accordance with existing entitlement documents, a 14 percent water conservation reduction in demand was used. The overall increase to domestic water demand associated with the project (Maximum Daily Water Demand – MDWD) is 115,223 gpd or 0.115 mgd. The 2020 Potable Water System Master Plan Update identifies a buildout projection to require a WTP expansion to a total of 18.2 mgd. However, as identified in Section 12.6 of Specific Plan II, the WTP will ultimately be expanded to 20 mgd; therefore, there would be sufficient capacity at buildout for the proposed project changes.

The overall increase to water storage with the project is 120,984 gallons or 0.121 mg. The 2020 Potable Water System Master Plan Update identifies a buildout water storage projection of 19.6 mg. However, as identified in Section 12.3.7 of the Master Plan, the total required water storage at buildout is 24.4 mg; therefore, there would be sufficient capacity at buildout for the proposed changes. The impact would be less than significant.

Wastewater

Wastewater generation is based upon land use and generation rates established by the MHCSD. While existing rates are currently published within the MHCSD Standards and Specifications, it should be noted that the MHCSD is currently working to update the Sanitary Sewer Master Plan and generation rates. As a result, the analysis uses rates established by West-Yost during the design of the WTP expansion. Wastewater generation does not account for a 14 percent water conservation reduction identified in the entitlement documents. The overall increase to the wastewater generation (ADWF) is 46,950 gpd or 0.047 mgd. This increase is relatively small and would not have an impact on the currently designed 5.4 mgd wtp. The impact would be less than significant.

Stormwater

The project would not have any substantial changes to the stormwater drainage facilities. The storm drain system would still consist of gravity-flow pipelines, constructed under neighborhood streets and easements, with lateral pipes to catch basins installed along the curbs and gutters. These storm drains would still collect surface runoff and ultimately convey it to either Mountain House Creek or Dry Creek. Local storm drains along most side streets would convey storm runoff to large storm drains (trunks) along major arterial streets. The project would still have to be in compliance with the NPDES, SWPPPs would still be required, and BMPs would still be implemented to reduce pollution of Mountain House waterways due to storm runoff. The impact would be less than significant.

Electricity, Gas, and Telecommunications

As under the current approved Master Plan and Specific Plan II, electricity would still be provided by MID, gas service provided by PG&E, and telecommunications service by local providers. These entities would be responsible for constructing any necessary extension of their infrastructure to serve the project. A MID substation was constructed outside Mountain House, on the south side of

Kelso Road in Alameda County and would serve the project. Construction of this substation was the subject of a separate environmental review document. The project would not result in any substantive changes to electricity, gas, and telecommunications service.

The project would not have any significant new water, wastewater, stormwater, electric power, natural gas, or telecommunications facilities impacts not already addressed in the 1994 MEIR; therefore, no new impacts would result, and no new mitigation measures are necessary. The impact would be less than significant.

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

See the discussion under Item a. with regard to water demand and storage. According to MHCSD's *2015 Urban Water Management Plan*, prepared by West Yost Associates, MHCSD's normal, dry, and multiple dry year supplies are adequate to meet the project's demand (MHCSD 2015). According to the utilities analysis memorandum prepared for the project (Appendix C), the overall increase to domestic water demand associated with the project is 115,223 gpd or 0.115 mgd. The 2020 Potable Water System Master Plan Update identifies a buildout projection to require a WTP expansion to a total of 18.2 mgd. However, as identified in Section 12.6 of Specific Plan II, the WTP will ultimately be expanded to 20 mgd; therefore, there would be sufficient capacity at buildout for the proposed project changes.

As described above, a Water Supply Evaluation was prepared for the project by West Yost in December 2021 (Appendix D). The Water Supply Evaluation concluded that the project would have no adverse impact on the total annual water demand at buildout of the project. The results of the T Water Supply Evaluation indicate that the proposed amendments would slightly reduce overall water demands for Specific Plan II. Updates to the previously prepared and approved SB 610 WSA and SB 221 WSV are not required. Further, the Specific Plan II water demands are included in the Administrative Draft MHCSD 2020 Urban Water Management Plan (UWMP) and the water supply reliability assessment conducted for the 2020 UWMP shows that sufficient water supply is available under all hydrologic conditions.

The project would not have any significant new water supply impacts not already addressed in the 1994 MEIR; therefore, no new impacts would result, and no new mitigation measures are necessary. Additionally, the proposed K-8 school would conduct its own separate CEQA analysis. The impact would be less than significant.

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

See the discussion under Item a. with regard to wastewater. The project would not have any significant new wastewater impacts not already addressed in the 1994 MEIR; therefore, no new impacts would result, and no new mitigation measures are necessary. The impact would be less than significant.

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

The 1994 MEIR concluded that solid waste generation associated with the project would be insignificant with implementation of Mitigation Measure M4.3.5-1. The project would generate a

similar amount of solid waste, or potentially less solid waste, during construction and at buildout as what was considered in the approved Master Plan and Specific Plan II. Therefore, the project would not have any significant new solid waste impacts not already addressed in the 1994 MEIR; no new impacts would result, and no new mitigation measures are necessary. The impact would be less than significant.

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

Non-hazardous solid waste from the Mountain House community would be collected and transported to the Foothill Landfill for disposal. Hazardous wastes would be transported to Class I or II landfills for disposal. These landfills are licensed and operated in compliance with applicable federal, state, and local statutes and regulations, and project impacts would not substantially change from the currently approved project. There would be no impact.

3.3.20 Wildfire

		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:					
a.	Substantially impair an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☒
b.	Due to slope, prevailing winds, and other factors, exacerbate wildfire risks of, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	☐	☐	☐	☒
c.	Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines, or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts on the environment?	☐	☐	☐	☒
d.	Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	☐	☐	☐	☒

3.3.20.1 Affected Environment

According to CAL FIRE's Fire Hazard Severity Zone Viewer, the project site is not within a moderate, high or very high fire hazard severity zone (California Department of Forestry and Fire Protection 2021). Therefore, the risk of wildfire at the project site is very low. Lands to the west in Alameda and Contra Costa counties are designated moderate and high fire hazard severity zones.

Th FCMFD provides fire protection and emergency medical response to the Mountain House community. As part of the MHCSD Fire and EMS contract, the FCMFD operates out of Mountain House Fire Station 98. The station staffs 4 personnel, 24 hours a day, 7 days a week, with an available chief officer. MHFD has a three-platoon system that works a 48 hours on, and 96 hours off schedule. The shift staffing includes one company officer, one fire apparatus engineer or certified apparatus operator, one firefighter, and one day shift coverage firefighter who works a 10-hour schedule. When the day shift firefighter is off for the PM shift or is off for the day, a trained reserve firefighter comes in and fills the shift. This allows for two, 2-person engine companies to be available at all times (MHCSD 2016).

3.3.20.2 Discussion

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

The project would not interfere with an emergency response plan or emergency evacuation plan. There would be no impact.

b. Due to slope, prevailing winds, and other factors, exacerbate wildfire risks of, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?

No aspect of the project would expose occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire. The project site is flat and not within a moderate, high, or very high fire hazard severity zone (California Department of Forestry and Fire Protection 2021). There would be no impact.

c. Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines, or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts on the environment?

See discussion under Items a. and b. The project would not require the installation or maintenance of roads, fuel breaks, emergency water sources, power lines, or other utilities that would exacerbate fire risk. There would be no impact.

d. Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?

See discussion under Items a through c. There would be no impact.

3.3.21 Mandatory Findings of Significance

		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
a.	Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory?	☐	☐	☐	☒
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 that will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	☐	☒

3.3.21.1 Discussion

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

The project does have the potential to substantially reduce the habitat of a fish or wildlife species. As discussed in the Biological Resources section, habitat for Swainson's hawk and other species of concern would be affected by new development. However, mitigation measures have been recommended in the original 1994 MEIR and are being implemented through the SJMSCP to reduce this impact to less than significant. This impact is also adequately minimized by implementation measures included in the Specific Plan II IS/MND.

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.)

The cumulative impacts of the project have been addressed in the 1994 MEIR. The MEIR addressed full buildout of Mountain House. Cumulative development in the general area and the overall region

was also addressed in the 1994 MEIR. Other topics related to cumulative growth are adequately covered in the 1994 MEIR and 2004 Specific Plan II IS/MND.

Based on the results of the new cumulative analysis related to transportation, no new impacts have been identified. The 1994 MEIR did identify significant unavoidable impacts along freeway segments. The required findings and a Statement of Overriding Considerations were made for the 1994 MEIR and the adoption of the Master Plan related to this issue and other impacts that were found to be significant and unavoidable. The project would not result in an increase in this impact.

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

The project would not create substantial adverse effects on human beings either directly or indirectly for the reasons discussed in more detail in Chapter 3 of this IS/MND. There would be no impact.

Chapter 4
References Cited

4.1 Introduction/Project Description

Amy Skewes-Cox. 2004. *Mountain House Specific Plan II Initial Study*. Prepared for San Joaquin County Community Development Department. December.

Baseline Environmental Consulting. 1994. *Final Environmental Impact Report, SCH #90020776, Mountain House Master Plan and Specific Plan I Volume I*. September.

Carlson, Barbee & Gibson, Inc. 2021. *Memorandum Utility Analysis of Proposed Land Use Changes Mountain House Developers Mountain House, California*. July 16.

ENGEO. 2007a. *Preliminary Geotechnical Exploration Town Center-Proposed Multi-Use Development, Mountain House, California*. December 20.

ENGEO. 2007b. *Geotechnical Exploration Mountain House Neighborhoods I and J, Mountain House, California.* February 9.

ENGEO. 2019. *Neighborhoods I and J Mountain House, California, Geotechnical Report Update*. September 17.

Modesto Irrigation District. 2018. Public Review Draft Supplemental Environmental Impact Report for the Modesto Irrigation District Electrical System Improvement Program 2018-2025. Prepared by Basecamp Environmental. Inc. Available: https://www.mid.org/about/newsroom/notices/documents/PublicReviewDraftSPEIR2018-2025June.pdf. Accessed: October 25, 2021.

4.2 Aesthetics

Caltrans. 2018. California State Scenic Highway System Map. Available: https://www.arcgis.com/apps/webappviewer/index.html. Accessed: August 16, 2021.

Mountain House Community Services District (MHCSD). 2013. *Mountain House Community Services District Design Manual*. Prepared by SWA Group. October 15.

4.3 Agricultural and Forestry Resources

California Department of Conservation. 2018. *California Important Farmland Finder*. Available: https://maps.conservation.ca.gov/DLRP/CIFF/. Accessed: July 29, 2021.

San Joaquin County. 2015. *SJV Gateway, San Joaquin County Williamson Act Parcels, 08/2015*. Available: https://sjvp.databasin.org/maps/new/#datasets=a32f8f44b4524b07b1861e779a0857c0. Accessed: July 29, 2021.

4.4 Air Quality

California Air Resources Board. 2000. *Risk Reduction Plan to Reduce Particulate Matter Emissions from Diesel-Fueled Engines and Vehicles*. Available: https://ww2.arb.ca.gov/sites/default/files/classic//diesel/documents/rrpfinal.pdf. Accessed: September 2021.

California Air Resources Board. 2017. *Proposed 2017 Amendments to Area Designations for State Ambient Air Quality Standards: Appendix C – Maps and Tables of Area Designations for State and National Ambient Air Quality Standards*. Available: <https://www.arb.ca.gov/regact/2018/area18/appc.pdf>. Accessed: September 2021.

California Air Resources Board. 2020. *Ambient Air Quality Standards*. Available: https://ww2.arb.ca.gov/sites/default/files/2020-07/aaqs2.pdf. Accessed: September 2021.

California Air Resources Board. 2021. *Overview: Diesel Exhaust and Health*. Available: https://ww2.arb.ca.gov/resources/overview-diesel-exhaust-and-health. Accessed: September 2021.

California Department of Conservation. 2000. *A General Location Guide for Ultramafic Rocks in California - Areas More Likely To Contain Naturally Occurring Asbestos*. Available: <ftp://ftp.consrv.ca.gov/pub/dmg/pubs/ofr/ofr_2000-019.pdf>. Accessed: September 2021.

San Joaquin Valley Air Pollution Control District. 2015. *Guidance for Assessing and Mitigation Air Quality Impacts*. Available: http://www.valleyair.org/transportation/GAMAQI.pdf. Accessed: September 2021.

Supreme Court of California. 2015. *Application For Leave To File Amicus Curiae Brief Of San Joaquin Valley Unified Air Pollution Control District In Support Of Defendant And Respondent, County Of Fresno And Real Party In Interest And Respondent, Friant Ranch, L.P.* April 13. Available: <http://www.courts.ca.gov/documents/7-s219783-ac-san-joaquin-valley-unified-air-pollution-control-dist-041315.pdf>. Accessed: September 2021.

Supreme Court of California. 2015. *California Building Industry association v. Bay Area Air Quality Management District. S213478*. Available: < https://www.courts.ca.gov/opinions/archive/S213478.DOC>. Accessed: September 2021.

United States Environmental Protection Agency. 2021. *Greenbook*. Available: https://www.epa.gov/green-book. Accessed: September 2021.

4.5 Biological Resources

Amy Skewes-Cox. 2004. *Mountain House Specific Plan II Initial Study*. Prepared for San Joaquin County Community Development Department. December.

BASELINE Environmental Consulting. 1994. *Mountain House Master Plan and Specific Plan I Volume I*. September.

California Department of Fish and Wildlife. 2021a. *California Natural Diversity Database*. RareFind 5, Version 5.2.14, August 1, 2021. Records search of the Clifton Court Forebay, Union Island, Holt,

Woodward Island, Brentwood, Byron Hot Springs, Altamont, Midway, and Tracy USGS 7.5-minute quadrangles. Sacramento, CA. Accessed: August 26, 2021.

California Department of Fish and Wildlife. 2021b. *Special Animals List*. July. Available: http://www.wildlife.ca.gov/Conservation/SSC.

California Native Plant Society. 2021. *Inventory of Rare and Endangered Plant*s (online edition, v-9-01 0.0). Records search of the Clifton Court Forebay, Union Island, Holt, Woodward Island, Brentwood, Byron Hot Springs, Altamont, Midway, and Tracy USGS 7.5-minute quadrangles. Available: http://www.rareplants.cnps.org. Accessed: August 26, 2021.

Dunk, J. R. (2020). White-tailed Kite (*Elanus leucurus*), version 1.0. In Birds of the World (A. F. Poole and F. B. Gill, Editors). Cornell Lab of Ornithology, Ithaca, NY, USA. https://doi.org/10.2173/bow.whtkit.01

Environmental Laboratory. 1987:12. *Corps of Engineers Wetlands Delineation Manual*. January.

San Joaquin Council of Governments. 2000. *San Joaquin County Multi-Species Habitat Conservation and Open Space Plan (SJMSCP)*. November 14.

Sawyer and Keeler-Wolf. 1995. *A Manual of California Vegetation*.

Spencer, W.D., P. Beier, K. Penrod, K. Winters, C. Paulman, H. Rustigian-Romsos, J. Strittholt, M. Parisi, and A. Pettler. 2010. *California Essential Habitat Connectivity Project: A Strategy for Conserving a Connected California*. Prepared for California Department of Transportation, California Department of Fish and Game, and Federal Highways Administration.

State Water Resources Control Board. 2019. *State Water Resources Control Board Resolution No. 2019-0015*. Available: https://www.waterboards.ca.gov/water_issues/programs/cwa401/docs/rs2019_0015.pdf. Accessed: September 2, 2021.

4.6 Cultural Resources

Peak & Associates, Inc. 2004. *Cultural Resource Studies for the Proposed Mountain House Specific Plan II Area, San Joaquin County, California*. Prepared for TriMark Communities, L.L. C.March 22.

Olsen, W. and L. Payen. 1969. *Archaeology of the Grayson Site, Merced County, California*. On file at the Central California Information Center. Turlock, CA.

Mikkelsen, P and W. Hildebrandt. 1990. *Archaeological Inventory and Evaluation for the proposed Los Banos Grandes Reservoir, Merced County, California*. Bureau of Reclamation, Sacramento, CA.

Moratto, M. 1984. California Archaeology. Academic Press, San Francisco, CA.

Rensch, H., D. Kyle, M. Hoover, E. Rensch, and W. Abeloe. 1990. Historic Spots in California. Stanford University Press, Redwood City, CA.

Shipley, W. 1978. Native Languages of California Pages 80-90 in R.F. Heizer (ed.), *Handbook of North American Indians, Volume 8: California*. Smithsonian Institution, Washington D.C.

Wallace, W. 1978. Northern Valley Yokuts Pages 462-470 in R.F. Heizer (ed.), *Handbook of North American Indians, Volume 8: California*. Smithsonian Institution, Washington D.C.

4.7 Energy

N/A

4.8 Geology, Soils, and Paleontological Resources

ENGEO. 2007a. *Preliminary Geotechnical Exploration Town Center-Proposed Multi-Use Development, Mountain House, California*. December 20.

ENGEO. 2007b. *Geotechnical Exploration Mountain House Neighborhoods I and J, Mountain House, California.* February 9.

ENGEO. 2019. *Neighborhoods I and J Mountain House, California, Geotechnical Report Update*. September 17.

4.9 Greenhouse Gas Emissions

California Air Resources Board. 2017a. *Short-Lived Climate Pollutant Reduction Strategy*. Available: https://ww2.arb.ca.gov/ sites/default/files/2018-12/final_slcp_report%20Final%202017.pdf. Accessed: September 2021.

California Air Resources Board. 2017b. *The 2017 Climate Change Scoping Plan Update: The Strategy for Achieving California's 2030 GHG Target.* November. Available: https://ww2.arb.ca.gov/sites/default/files/classic/cc/scopingplan/scoping_plan_2017.pdf. Accessed: September 2021.

California Air Resources Board. 2020a. *GHG Global Warming Potentials*. Available: https://ww2.arb.ca.gov/ghg-gwps. Accessed: September 2021.

Intergovernmental Panel on Climate Change (IPCC). 2007. Climate Change 2007: The Physical Science Basis. Contribution of Working Group I to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change. Available: https://www.ipcc.ch/site/assets/uploads/2018/05/ar4_wg1_full_report-1.pdf. Accessed: September 2021.

Intergovernmental Panel on Climate Change (IPCC). 2018. *Global Warming of 1.5°C. Contribution of Working Group I, II, and III* (Summary for Policy Makers). Available: https://www.ipcc.ch/site/assets/uploads/ sites/2/2019/05/SR15_SPM_version_report_LR.pdf. Accessed: September 2021.

San Joaquin Council of Governments. 2018. *2018 Regional Transportation Plan/Sustainable Communities Strategy.* June. Available: https://www.sjcog.org/DocumentCenter/View/4156/Final-Compiled-RTPSCS-2018. Accessed: September 2021.

San Joaquin Valley Air Pollution Control District. 2015. *Guidance for Assessing and Mitigation Air Quality Impacts*. Available: http://www.valleyair.org/transportation/GAMAQI.pdf. Accessed: September 2021.

San Joaquin Valley Air Pollution Control District. 2009. *Guidance for Valley Land-use Agencies in Addressing GHG Emission Impacts for New Project under CEQA*. Available: http://www.valleyair.org/Programs/CCAP/12-17-09/3%20CCAP%20-%20FINAL%20LU%20Guidance%20-%20Dec%2017%202009.pdf. Accessed: September 2021.

TJKM. 2021. *Technical Memorandum, Traffic Analysis of Proposed MHD Land Use Changes and Vehicle Miles Traveled*. Prepared for the Resmark Companies. June 29.

United Nations. 2015 (December 13). Historic Paris Agreement on Climate Change: 195 Nations Set Path to Keep Temperature Rise Well Below 2 Degrees Celsius. Available: https://unfccc.int/news/finale-cop21. Accessed: September 2021.

4.10 Hazards and Hazardous Materials

California Department of Forestry and Fire Protection. 2021. *FHSZ Viewer*. Available: https://egis.fire.ca.gov/FHSZ/. Accessed: August 6, 2021.

California Department of Toxic Substances Control. 2021. *EnviroStor, Hazardous Waste and Substances Site List (Cortese)*. Available: https://www.envirostor.dtsc.ca.gov/public/. Accessed: August 6, 2021.

California Environmental Protection Agency. 2021. *Cortese List: Section 65962.5(a)*. Available: https://calepa.ca.gov/sitecleanup/corteselist/section-65962-5a/. Accessed: August 6, 2021.

Condor Earth Technologies, Inc. 2004. *Neighborhood H Phase I Environmental Site Assessment Report and Partial Response to Mountain House Master Plan Chapter Six, Mountain House, San Joaquin County, California*. Draft. April.

Condor Earth Technologies, Inc. 2008. *Phase I Environmental Site Assessment Update Report for Neighborhood I and Neighborhood J, Mountain House, California*. April 25.

Condor Earth Technologies, Inc. 2011. *Phase I Environmental Site Assessment Update Report for Neighborhood K and Neighborhood L, Mountain House, California*. November 11.

CONDOR EARTH. 2018. *Phase I Environmental Site Assessment Update Report for Town Center, Mountain House, California*. September 26.

State Water Resources Control Board. 2021a. *GeoTracker, Project Search Results*. Available: https://geotracker.waterboards.ca.gov/map/?myaddress=California&from=header&cqid=2327939689. Accessed: August 6, 2021.

State Water Resources Control Board. 2021b. *Sites Identified with Waste Constituents Above Hazardous Waste Levels Outside the Waste Management Unit*. Available: https://calepa.ca.gov/sitecleanup/corteselist/. Accessed: August 6, 2021.

State Water Resources Control Board. 2021c. *List of "active" CDO and CAO from Water Board*. Available: https://calepa.ca.gov/sitecleanup/corteselist/. Accessed: August 6, 2021.

4.11 Hydrology and Water Quality

Carlson, Barbee, and Gibson (CBG), Inc. 2004. *Preliminary Grading Exhibit, Proposed Land Use, Mountain House Specific Plan II*. March.

Department of Water Resources. 2006. *San Joaquin Valley Groundwater Basin Tracy Subbasin, California's Groundwater Bulletin 118*. Available: https://water.ca.gov/-/media/DWR-Website/Web-Pages/Programs/Groundwater-Management/Bulletin-118/Files/2003-Basin-Descriptions/5_022_15_TracySubbasin.pdf. Accessed: August 9, 2021.

ENGEO. 2007. *Geotechnical Exploration Mountain House Neighborhoods I and J, Mountain House, California.* February 9.

Federal Emergency Management Agency. 2009. *Flood Insurance Rate Map, San Joaquin County, California and Incorporated Areas, Map Number 06077C0570F*. Effective date October 16, 2009.

Mountain House Community Services District (MHCSD). 2015. *2015 Urban Water Management Plan*. Prepared by West Yost Associates. Available: https://onedrive.live.com/?authkey=%21AMIJ6HpeJW4Fnj8&cid=63E3953233EAB349&id=63E3953233EAB349%211007&parId=63E3953233EAB349%21106&o=OneUp. Accessed: August 9, 2021.

Pacific Advanced Civil Engineering (PACE), Inc. 2003. *Storm Water Master Plan Update*, May.

Pacific Advanced Civil Engineering (PACE). 2004. *Storm Water Master Plan Update*, *Addendum I*. May.

Peterson Brustad Inc. and R&F Engineering. 2022. Mountain House 200-Year Climate Change Floodplain Mapping. March 9.

San Joaquin County Community Development Department (SJCCDD). 1994. *Mountain House Master Plan and Specific Plan I Final Environmental Impact Report*.

4.12 Land Use and Planning

Amy Skewes-Cox. 2004. *Mountain House Specific Plan II Initial Study*. Prepared for San Joaquin County Community Development Department. December.

BASELINE Environmental Consulting. 1994. *Mountain House Master Plan and Specific Plan I Volume I*.

4.13 Mineral Resources

San Joaquin County. 2016. *San Joaquin County General Plan Policy Document*. Available: https://www.sjgov.org/commdev/cgi-bin/cdyn.exe/file/Planning/General%20Plan%202035/GENERAL%20PLAN%202035.pdf. Accessed: October 25, 2021.

4.14 Noise

California Department of Transportation (Caltrans). 2013. *Technical Noise Supplement to the Traffic Noise Analysis Protocol*. Available: https://dot.ca.gov/-/media/dot-media/programs/environmental-analysis/documents/env/traffic-noise-protocol-april-2020-a11y.pdf. September 2020. Sacramento. CA. Accessed: August 30, 2021.

California Department of Transportation. 2020. *Transportation and Construction Vibration Guidance Manual*. April. Available: https://dot.ca.gov/-/media/dot-media/programs/environmental-analysis/documents/env/tcvgm-apr2020-a11y.pdf. Accessed: August 30, 2021.

Cummins, Inc. 2017. Cummins Power Generation. Sound Data, 750DQCB. September. Available: https://powersuite.cummins.com/en. Accessed: August 2, 2021.

Federal Highway Administration. 2006. Roadway Construction Noise Model User's Guide. Washington, D.C. January. Available: http://www.fhwa.dot.gov/environment/noise/construction_noise/rcnm/rcnm.pdf.

Federal Transit Administration. 2018. *Transit Noise and Vibration Impact Assessment, FTA Report No. 0123*. Available: https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/research-innovation/118131/transit-noise-and-vibration-impact-assessment-manual-fta-report-no-0123_0.pdf. Accessed August 10, 2021.

Hoover and Keith. 2000. Noise Control for Buildings, Manufacturing Plants, Equipment, and Products. Houston, TX.

Kinzel, Chris. Pers. Comm. Vice President TJKM. August 26, 2021 email message to ICF staff regarding traffic assumptions for the Mountain House Master Plan updates.

4.15 Population and Housing

Department of Finance. 2021. *Special Population Estimate, Mountain House Community Services District*. September 7.

Mountain House Community Services District (MHCSD). 2016. *Municipal Service Review and Sphere of Influence Plan 2016*. Prepared for San Joaquin LAFCO.

4.16 Public Services

Mountain House Community Services District (MHCSD). 2016. *Municipal Service Review and Sphere of Influence Plan 2016*. Prepared for San Joaquin LAFCO.

Stockton-San Joaquin County Public Library. 2021. *Mountain House Branch Library*. Available: http://www.ssjcpl.org/locations/county/mhouse.html. Accessed: August 11, 2021.

4.17 Recreation

MHCSD. 2021. *Mountain House Parks, Recreation and Leisure Plan*. Available: https://www.mountainhousecsd.org/home/showpublisheddocument/1540/637572005505230000. Accessed: November 30, 2021.

4.18 Transportation

TJKM. 2021. *Technical Memorandum, Traffic Analysis of Proposed MHD Land Use Changes and Vehicle Miles Traveled*. Prepared for the Resmark Companies. June 29.

4.19 Tribal Cultural Resources

N/A

4.20 Utilities and Service Systems

Carlson, Barbee & Gibson, Inc. 2021. *Utility Analysis of Proposed Land Use Changes Mountain House Developers Mountain House, California*. July 16.

Mountain House Community Services District (MHCSD). 2015. *2015 Urban Water Management Plan*. Prepared by West Yost Associates. Available: https://onedrive.live.com/?authkey=%21AMIJ6HpeJW4Fnj8&cid=63E3953233EAB349&id=63E3953233EAB349%211007&parId=63E3953233EAB349%21106&o=OneUp. Accessed: August 9, 2021.

Mountain House Community Services District (MHCSD). 2016. *Municipal Service Review and Sphere of Influence Plan 2016*. Prepared for San Joaquin LAFCO.

4.21 Wildfire

California Department of Forestry and Fire Protection. 2021. *FHSZ Viewer*. Available: https://egis.fire.ca.gov/FHSZ/. Accessed: August 6, 2021.

Mountain House Community Services District (MHCSD). 2016. *Municipal Service Review and Sphere of Influence Plan 2016*. Prepared for San Joaquin LAFCO.

4.22 Mandatory Findings of Significance

N/A

Appendix A: Air Quality and Greenhouse Gas Emissions

Appendix A: Existing Approved Master Plan/Specific Plan II: Construction CalEEMod Runs

Mountain House Project: Existing Neighborhood H (Construction Only) - San Joaquin County, Annual

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

Mountain House Project: Existing Neighborhood H (Construction Only)

San Joaquin County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	144.00	1000sqft	3.31	144,000.00	0
Apartments Low Rise	230.00	Dwelling Unit	8.19	230,000.00	730

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.7	**Precipitation Freq (Days)**	51
Climate Zone	2			**Operational Year**	2026
Utility Company	Modesto Irrigation District				
CO2 Intensity (lb/MWhr)	452.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Construction Only.

Land Use - Existing proposed High Density Residential (Senior)

Construction Phase - No demolition or Site Prep anticipated. Construction from Spring 2024 to Spring 2026.

Grading - Soil import and export is unknown at this time.

Architectural Coating - 2019 CalGreen Code

Vehicle Trips - Construction Only.

Vehicle Emission Factors - Construction Only.

Vehicle Emission Factors -

Vehicle Emission Factors -

Woodstoves - Construction Only.

Mountain House Project: Existing Neighborhood H (Construction Only) - San Joaquin County, Annual

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

Consumer Products - Construction Only.

Area Coating - Construction Only.

Landscape Equipment - Construction Only.

Energy Use - Construction Only.

Water And Wastewater - Construction Only.

Solid Waste - Construction Only.

Construction Off-road Equipment Mitigation - SJVAPCD Regulation VIII.

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	150.00	100.00
tblArchitecturalCoating	EF_Nonresidential_Interior	150.00	100.00
tblArchitecturalCoating	EF_Parking	150.00	100.00
tblArchitecturalCoating	EF_Residential_Exterior	150.00	100.00
tblArchitecturalCoating	EF_Residential_Interior	150.00	100.00
tblAreaCoating	Area_Parking	8640	0
tblAreaCoating	Area_Residential_Exterior	155250	0
tblAreaCoating	Area_Residential_Interior	465750	0
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	20.00	60.00
tblConstructionPhase	NumDays	300.00	360.00
tblConstructionPhase	NumDays	30.00	60.00
tblConstructionPhase	NumDays	20.00	60.00
tblConstructionPhase	PhaseEndDate	8/29/2025	4/24/2026
tblConstructionPhase	PhaseEndDate	7/4/2025	11/7/2025
tblConstructionPhase	PhaseEndDate	5/10/2024	6/21/2024
tblConstructionPhase	PhaseEndDate	8/1/2025	1/30/2026
tblConstructionPhase	PhaseStartDate	8/2/2025	2/1/2026
tblConstructionPhase	PhaseStartDate	5/11/2024	6/22/2024
tblConstructionPhase	PhaseStartDate	7/5/2025	11/8/2025

Mountain House Project: Existing Neighborhood H (Construction Only) - San Joaquin County, Annual

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

tblConsumerProducts	ROG_EF	2.14E-05	0
tblConsumerProducts	ROG_EF_Degreaser	3.542E-07	0
tblConsumerProducts	ROG_EF_PesticidesFertilizers	5.152E-08	0
tblEnergyUse	LightingElect	810.36	0.00
tblEnergyUse	LightingElect	0.35	0.00
tblEnergyUse	NT24E	3,172.76	0.00
tblEnergyUse	NT24NG	2,687.00	0.00
tblEnergyUse	T24E	108.87	0.00
tblEnergyUse	T24NG	8,969.37	0.00
tblFireplaces	FireplaceDayYear	82.00	0.00
tblFireplaces	FireplaceHourDay	3.00	0.00
tblFireplaces	FireplaceWoodMass	3,078.40	0.00
tblFireplaces	NumberGas	126.50	0.00
tblFireplaces	NumberNoFireplace	103.50	0.00
tblLandscapeEquipment	NumberSummerDays	180	0
tblLandUse	LotAcreage	14.38	8.19
tblSolidWaste	SolidWasteGenerationRate	105.80	0.00
tblVehicleTrips	ST_TR	8.14	0.00
tblVehicleTrips	SU_TR	6.28	0.00
tblVehicleTrips	WD_TR	7.32	0.00
tblWater	IndoorWaterUseRate	14,985,425.89	0.00
tblWater	OutdoorWaterUseRate	9,447,333.72	0.00
tblWoodstoves	NumberCatalytic	8.19	0.00
tblWoodstoves	NumberNoncatalytic	8.19	0.00
tblWoodstoves	WoodstoveDayYear	82.00	0.00
tblWoodstoves	WoodstoveWoodMass	3,019.20	0.00

2.0 Emissions Summary

Mountain House Project: Existing Neighborhood H (Construction Only) - San Joaquin County, Annual

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

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2024	0.2438	2.0649	2.3193	5.4200e-003	0.4259	0.0836	0.5095	0.1500	0.0778	0.2278	0.0000	481.9041	481.9041	0.0935	0.0121	487.8428
2025	0.2413	1.8277	2.6353	6.1000e-003	0.2384	0.0692	0.3076	0.0642	0.0649	0.1291	0.0000	545.1007	545.1007	0.0775	0.0190	552.6900
2026	1.4795	0.1308	0.2426	4.3000e-004	0.0121	6.2000e-003	0.0183	3.2100e-003	5.8300e-003	9.0400e-003	0.0000	38.2432	38.2432	7.7500e-003	2.2000e-004	38.5024
Maximum	**1.4795**	**2.0649**	**2.6353**	**6.1000e-003**	**0.4259**	**0.0836**	**0.5095**	**0.1500**	**0.0778**	**0.2278**	**0.0000**	**545.1007**	**545.1007**	**0.0935**	**0.0190**	**552.6900**

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					
2024	0.2438	2.0649	2.3193	5.4200e-003	0.2741	0.0836	0.3577	0.0897	0.0778	0.1675	0.0000	481.9037	481.9037	0.0935	0.0121	487.8425
2025	0.2413	1.8277	2.6353	6.1000e-003	0.2384	0.0692	0.3076	0.0642	0.0649	0.1291	0.0000	545.1004	545.1004	0.0775	0.0190	552.6896
2026	1.4795	0.1308	0.2426	4.3000e-004	0.0121	6.2000e-003	0.0183	3.2100e-003	5.8300e-003	9.0400e-003	0.0000	38.2432	38.2432	7.7500e-003	2.2000e-004	38.5024
Maximum	**1.4795**	**2.0649**	**2.6353**	**6.1000e-003**	**0.2741**	**0.0836**	**0.3577**	**0.0897**	**0.0778**	**0.1675**	**0.0000**	**545.1004**	**545.1004**	**0.0935**	**0.0190**	**552.6896**

Mountain House Project: Existing Neighborhood H (Construction Only) - San Joaquin County, Annual

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	22.45	0.00	18.18	27.74	0.00	16.48	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	4-1-2024	6-30-2024	1.1030	1.1030
2	7-1-2024	9-30-2024	0.5922	0.5922
3	10-1-2024	12-31-2024	0.5979	0.5979
4	1-1-2025	3-31-2025	0.5470	0.5470
5	4-1-2025	6-30-2025	0.5476	0.5476
6	7-1-2025	9-30-2025	0.5536	0.5536
7	10-1-2025	12-31-2025	0.4181	0.4181
8	1-1-2026	3-31-2026	1.1603	1.1603
9	4-1-2026	6-30-2026	0.4297	0.4297
		Highest	1.1603	1.1603

2.2 Overall Operational

Unmitigated Operational

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

Mountain House Project: Existing Neighborhood H (Construction Only) - San Joaquin County, Annual

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

Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Operational

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Mountain House Project: Existing Neighborhood H (Construction Only) - San Joaquin County, Annual

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

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Grading	Grading	4/1/2024	6/21/2024	5	60	
2	Building Construction	Building Construction	6/22/2024	11/7/2025	5	360	
3	Paving	Paving	11/8/2025	1/30/2026	5	60	
4	Architectural Coating	Architectural Coating	2/1/2026	4/24/2026	5	60	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 180

Acres of Paving: 3.31

Residential Indoor: 465,750; Residential Outdoor: 155,250; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 8,640

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38

Mountain House Project: Existing Neighborhood H (Construction Only) - San Joaquin County, Annual

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

Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Grading	8	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	226.00	48.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	45.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Grading - 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					
Fugitive Dust					0.2761	0.0000	0.2761	0.1096	0.0000	0.1096	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0965	0.9713	0.8317	1.8600e-003		0.0401	0.0401		0.0369	0.0369	0.0000	163.5586	163.5586	0.0529	0.0000	164.8810
Total	**0.0965**	**0.9713**	**0.8317**	**1.8600e-003**	**0.2761**	**0.0401**	**0.3162**	**0.1096**	**0.0369**	**0.1465**	**0.0000**	**163.5586**	**163.5586**	**0.0529**	**0.0000**	**164.8810**

Mountain House Project: Existing Neighborhood H (Construction Only) - San Joaquin County, Annual

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

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.6100e-003	1.0100e-003	0.0126	4.0000e-005	4.7800e-003	2.0000e-005	4.8000e-003	1.2700e-003	2.0000e-005	1.2900e-003	0.0000	3.6253	3.6253	1.0000e-004	1.0000e-004	3.6575
Total	**1.6100e-003**	**1.0100e-003**	**0.0126**	**4.0000e-005**	**4.7800e-003**	**2.0000e-005**	**4.8000e-003**	**1.2700e-003**	**2.0000e-005**	**1.2900e-003**	**0.0000**	**3.6253**	**3.6253**	**1.0000e-004**	**1.0000e-004**	**3.6575**

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					0.1243	0.0000	0.1243	0.0493	0.0000	0.0493	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0965	0.9713	0.8317	1.8600e-003		0.0401	0.0401		0.0369	0.0369	0.0000	163.5584	163.5584	0.0529	0.0000	164.8808
Total	**0.0965**	**0.9713**	**0.8317**	**1.8600e-003**	**0.1243**	**0.0401**	**0.1643**	**0.0493**	**0.0369**	**0.0862**	**0.0000**	**163.5584**	**163.5584**	**0.0529**	**0.0000**	**164.8808**

Mountain House Project: Existing Neighborhood H (Construction Only) - San Joaquin County, Annual

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

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.6100e-003	1.0100e-003	0.0126	4.0000e-005	4.7800e-003	2.0000e-005	4.8000e-003	1.2700e-003	2.0000e-005	1.2900e-003	0.0000	3.6253	3.6253	1.0000e-004	1.0000e-004	3.6575
Total	**1.6100e-003**	**1.0100e-003**	**0.0126**	**4.0000e-005**	**4.7800e-003**	**2.0000e-005**	**4.8000e-003**	**1.2700e-003**	**2.0000e-005**	**1.2900e-003**	**0.0000**	**3.6253**	**3.6253**	**1.0000e-004**	**1.0000e-004**	**3.6575**

3.3 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	0.1008	0.9209	1.1074	1.8500e-003		0.0420	0.0420		0.0395	0.0395	0.0000	158.8166	158.8166	0.0376	0.0000	159.7555
Total	**0.1008**	**0.9209**	**1.1074**	**1.8500e-003**		**0.0420**	**0.0420**		**0.0395**	**0.0395**	**0.0000**	**158.8166**	**158.8166**	**0.0376**	**0.0000**	**159.7555**

Unmitigated Construction Off-Site

Date: 9/3/2021 10:58 AM

Mountain House Project: Existing Neighborhood H (Construction Only) - San Joaquin County, Annual

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.3900e-003	0.1456	0.0420	6.5000e-004	0.0217	9.4000e-004	0.0227	6.2800e-003	9.0000e-004	7.1800e-003	0.0000	62.3656	62.3656	3.0000e-004	9.4200e-003	65.1796
Worker	0.0415	0.0261	0.3256	1.0200e-003	0.1233	5.7000e-004	0.1239	0.0328	5.3000e-004	0.0333	0.0000	93.5380	93.5380	2.6500e-003	2.5700e-003	94.3693
Total	**0.0449**	**0.1717**	**0.3676**	**1.6700e-003**	**0.1450**	**1.5100e-003**	**0.1466**	**0.0391**	**1.4300e-003**	**0.0405**	**0.0000**	**155.9036**	**155.9036**	**2.9500e-003**	**0.0120**	**159.5488**

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	0.1008	0.9209	1.1074	1.8500e-003		0.0420	0.0420		0.0395	0.0395	0.0000	158.8165	158.8165	0.0376	0.0000	159.7553
Total	**0.1008**	**0.9209**	**1.1074**	**1.8500e-003**		**0.0420**	**0.0420**		**0.0395**	**0.0395**	**0.0000**	**158.8165**	**158.8165**	**0.0376**	**0.0000**	**159.7553**

Mitigated Construction Off-Site

Mountain House Project: Existing Neighborhood H (Construction Only) - San Joaquin County, Annual

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.3900e-003	0.1456	0.0420	6.5000e-004	0.0217	9.4000e-004	0.0227	6.2800e-003	9.0000e-004	7.1800e-003	0.0000	62.3656	62.3656	3.0000e-004	9.4200e-003	65.1796
Worker	0.0415	0.0261	0.3256	1.0200e-003	0.1233	5.7000e-004	0.1239	0.0328	5.3000e-004	0.0333	0.0000	93.5380	93.5380	2.6500e-003	2.5700e-003	94.3693
Total	**0.0449**	**0.1717**	**0.3676**	**1.6700e-003**	**0.1450**	**1.5100e-003**	**0.1466**	**0.0391**	**1.4300e-003**	**0.0405**	**0.0000**	**155.9036**	**155.9036**	**2.9500e-003**	**0.0120**	**159.5488**

3.3 Building Construction - 2025

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	0.1525	1.3904	1.7934	3.0100e-003		0.0588	0.0588		0.0553	0.0553	0.0000	258.5902	258.5902	0.0608	0.0000	260.1099
Total	**0.1525**	**1.3904**	**1.7934**	**3.0100e-003**		**0.0588**	**0.0588**		**0.0553**	**0.0553**	**0.0000**	**258.5902**	**258.5902**	**0.0608**	**0.0000**	**260.1099**

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

Mountain House Project: Existing Neighborhood H (Construction Only) - San Joaquin County, Annual

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

Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	5.4000e-003	0.2361	0.0672	1.0400e-003	0.0354	1.5300e-003	0.0369	0.0102	1.4600e-003	0.0117	0.0000	99.7097	99.7097	4.7000e-004	0.0150	104.2022
Worker	0.0626	0.0377	0.4921	1.6000e-003	0.2007	8.9000e-004	0.2016	0.0534	8.2000e-004	0.0542	0.0000	147.1006	147.1006	3.8800e-003	3.8900e-003	148.3559
Total	**0.0680**	**0.2739**	**0.5593**	**2.6400e-003**	**0.2361**	**2.4200e-003**	**0.2385**	**0.0636**	**2.2800e-003**	**0.0659**	**0.0000**	**246.8103**	**246.8103**	**4.3500e-003**	**0.0189**	**252.5581**

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	0.1525	1.3904	1.7934	3.0100e-003		0.0588	0.0588		0.0553	0.0553	0.0000	258.5899	258.5899	0.0608	0.0000	260.1096
Total	**0.1525**	**1.3904**	**1.7934**	**3.0100e-003**		**0.0588**	**0.0588**		**0.0553**	**0.0553**	**0.0000**	**258.5899**	**258.5899**	**0.0608**	**0.0000**	**260.1096**

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					

Mountain House Project: Existing Neighborhood H (Construction Only) - San Joaquin County, Annual

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

Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	5.4000e-003	0.2361	0.0672	1.0400e-003	0.0354	1.5300e-003	0.0369	0.0102	1.4600e-003	0.0117	0.0000	99.7097	99.7097	4.7000e-004	0.0150	104.2022
Worker	0.0626	0.0377	0.4921	1.6000e-003	0.2007	8.9000e-004	0.2016	0.0534	8.2000e-004	0.0542	0.0000	147.1006	147.1006	3.8800e-003	3.8900e-003	148.3559
Total	**0.0680**	**0.2739**	**0.5593**	**2.6400e-003**	**0.2361**	**2.4200e-003**	**0.2385**	**0.0636**	**2.2800e-003**	**0.0659**	**0.0000**	**246.8103**	**246.8103**	**4.3500e-003**	**0.0189**	**252.5581**

3.4 Paving - 2025

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	0.0174	0.1631	0.2770	4.3000e-004		7.9500e-003	7.9500e-003		7.3200e-003	7.3200e-003	0.0000	38.0366	38.0366	0.0123	0.0000	38.3441
Paving	2.7500e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0201**	**0.1631**	**0.2770**	**4.3000e-004**		**7.9500e-003**	**7.9500e-003**		**7.3200e-003**	**7.3200e-003**	**0.0000**	**38.0366**	**38.0366**	**0.0123**	**0.0000**	**38.3441**

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					

Mountain House Project: Existing Neighborhood H (Construction Only) - San Joaquin County, Annual

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

Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.1000e-004	4.3000e-004	5.5700e-003	2.0000e-005	2.2700e-003	1.0000e-005	2.2800e-003	6.0000e-004	1.0000e-005	6.1000e-004	0.0000	1.6637	1.6637	4.0000e-005	4.0000e-005	1.6779
Total	**7.1000e-004**	**4.3000e-004**	**5.5700e-003**	**2.0000e-005**	**2.2700e-003**	**1.0000e-005**	**2.2800e-003**	**6.0000e-004**	**1.0000e-005**	**6.1000e-004**	**0.0000**	**1.6637**	**1.6637**	**4.0000e-005**	**4.0000e-005**	**1.6779**

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	0.0174	0.1631	0.2770	4.3000e-004		7.9500e-003	7.9500e-003		7.3200e-003	7.3200e-003	0.0000	38.0365	38.0365	0.0123	0.0000	38.3441
Paving	2.7500e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0201**	**0.1631**	**0.2770**	**4.3000e-004**		**7.9500e-003**	**7.9500e-003**		**7.3200e-003**	**7.3200e-003**	**0.0000**	**38.0365**	**38.0365**	**0.0123**	**0.0000**	**38.3441**

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					

Mountain House Project: Existing Neighborhood H (Construction Only) - San Joaquin County, Annual

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

Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.1000e-004	4.3000e-004	5.5700e-003	2.0000e-005	2.2700e-003	1.0000e-005	2.2800e-003	6.0000e-004	1.0000e-005	6.1000e-004	0.0000	1.6637	1.6637	4.0000e-005	4.0000e-005	1.6779
Total	**7.1000e-004**	**4.3000e-004**	**5.5700e-003**	**2.0000e-005**	**2.2700e-003**	**1.0000e-005**	**2.2800e-003**	**6.0000e-004**	**1.0000e-005**	**6.1000e-004**	**0.0000**	**1.6637**	**1.6637**	**4.0000e-005**	**4.0000e-005**	**1.6779**

3.4 Paving - 2026

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	0.0101	0.0944	0.1604	2.5000e-004		4.6000e-003	4.6000e-003		4.2400e-003	4.2400e-003	0.0000	22.0212	22.0212	7.1200e-003	0.0000	22.1992
Paving	1.5900e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0117**	**0.0944**	**0.1604**	**2.5000e-004**		**4.6000e-003**	**4.6000e-003**		**4.2400e-003**	**4.2400e-003**	**0.0000**	**22.0212**	**22.0212**	**7.1200e-003**	**0.0000**	**22.1992**

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					

Mountain House Project: Existing Neighborhood H (Construction Only) - San Joaquin County, Annual

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

Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	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	3.8000e-004	2.2000e-004	3.0400e-003	1.0000e-005	1.3100e-003	1.0000e-005	1.3200e-003	3.5000e-004	1.0000e-005	3.5000e-004	0.0000	0.9325	0.9325	2.0000e-005	2.0000e-005	0.9402
Total	**3.8000e-004**	**2.2000e-004**	**3.0400e-003**	**1.0000e-005**	**1.3100e-003**	**1.0000e-005**	**1.3200e-003**	**3.5000e-004**	**1.0000e-005**	**3.5000e-004**	**0.0000**	**0.9325**	**0.9325**	**2.0000e-005**	**2.0000e-005**	**0.9402**

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	0.0101	0.0944	0.1604	2.5000e-004		4.6000e-003	4.6000e-003		4.2400e-003	4.2400e-003	0.0000	22.0212	22.0212	7.1200e-003	0.0000	22.1992
Paving	1.5900e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0117**	**0.0944**	**0.1604**	**2.5000e-004**		**4.6000e-003**	**4.6000e-003**		**4.2400e-003**	**4.2400e-003**	**0.0000**	**22.0212**	**22.0212**	**7.1200e-003**	**0.0000**	**22.1992**

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					

Mountain House Project: Existing Neighborhood H (Construction Only) - San Joaquin County, Annual

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

Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	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	3.8000e-004	2.2000e-004	3.0400e-003	1.0000e-005	1.3100e-003	1.0000e-005	1.3200e-003	3.5000e-004	1.0000e-005	3.5000e-004	0.0000	0.9325	0.9325	2.0000e-005	2.0000e-005	0.9402
Total	**3.8000e-004**	**2.2000e-004**	**3.0400e-003**	**1.0000e-005**	**1.3100e-003**	**1.0000e-005**	**1.3200e-003**	**3.5000e-004**	**1.0000e-005**	**3.5000e-004**	**0.0000**	**0.9325**	**0.9325**	**2.0000e-005**	**2.0000e-005**	**0.9402**

3.5 Architectural Coating - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.4592					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.1300e-003	0.0344	0.0543	9.0000e-005		1.5500e-003	1.5500e-003		1.5500e-003	1.5500e-003	0.0000	7.6598	7.6598	4.2000e-004	0.0000	7.6702
Total	**1.4643**	**0.0344**	**0.0543**	**9.0000e-005**		**1.5500e-003**	**1.5500e-003**		**1.5500e-003**	**1.5500e-003**	**0.0000**	**7.6598**	**7.6598**	**4.2000e-004**	**0.0000**	**7.6702**

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					

Mountain House Project: Existing Neighborhood H (Construction Only) - San Joaquin County, Annual

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

Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	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	3.1300e-003	1.8200e-003	0.0249	8.0000e-005	0.0108	5.0000e-005	0.0108	2.8600e-003	4.0000e-005	2.9000e-003	0.0000	7.6298	7.6298	1.9000e-004	2.0000e-004	7.6928
Total	**3.1300e-003**	**1.8200e-003**	**0.0249**	**8.0000e-005**	**0.0108**	**5.0000e-005**	**0.0108**	**2.8600e-003**	**4.0000e-005**	**2.9000e-003**	**0.0000**	**7.6298**	**7.6298**	**1.9000e-004**	**2.0000e-004**	**7.6928**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.4592					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.1300e-003	0.0344	0.0543	9.0000e-005		1.5500e-003	1.5500e-003		1.5500e-003	1.5500e-003	0.0000	7.6598	7.6598	4.2000e-004	0.0000	7.6702
Total	**1.4643**	**0.0344**	**0.0543**	**9.0000e-005**		**1.5500e-003**	**1.5500e-003**		**1.5500e-003**	**1.5500e-003**	**0.0000**	**7.6598**	**7.6598**	**4.2000e-004**	**0.0000**	**7.6702**

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					

Mountain House Project: Existing Neighborhood H (Construction Only) - San Joaquin County, Annual

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

Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	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	3.1300e-003	1.8200e-003	0.0249	8.0000e-005	0.0108	5.0000e-005	0.0108	2.8600e-003	4.0000e-005	2.9000e-003	0.0000	7.6298	7.6298	1.9000e-004	2.0000e-004	7.6928
Total	**3.1300e-003**	**1.8200e-003**	**0.0249**	**8.0000e-005**	**0.0108**	**5.0000e-005**	**0.0108**	**2.8600e-003**	**4.0000e-005**	**2.9000e-003**	**0.0000**	**7.6298**	**7.6298**	**1.9000e-004**	**2.0000e-004**	**7.6928**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

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

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		

Mountain House Project: Existing Neighborhood H (Construction Only) - San Joaquin County, Annual

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

Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Low Rise	10.80	7.30	7.50	45.60	19.00	35.40	86	11	3
Parking Lot	9.50	7.30	7.30	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 Low Rise	0.546418	0.052852	0.170546	0.142778	0.024223	0.005960	0.012686	0.016941	0.000462	0.000320	0.022535	0.001087	0.003
Parking Lot	0.546418	0.052852	0.170546	0.142778	0.024223	0.005960	0.012686	0.016941	0.000462	0.000320	0.022535	0.001087	0.003

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

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

Mountain House Project: Existing Neighborhood H (Construction Only) - San Joaquin County, Annual

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

NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Low Rise	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
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		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Low Rise	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
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		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mountain House Project: Existing Neighborhood H (Construction Only) - San Joaquin County, Annual

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

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Low Rise	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Low Rise	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mountain House Project: Existing Neighborhood H (Construction Only) - San Joaquin County, Annual

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

6.0 Area Detail

6.1 Mitigation Measures Area

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

6.2 Area by SubCategory

Unmitigated

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

Mountain House Project: Existing Neighborhood H (Construction Only) - San Joaquin County, Annual

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

Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

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

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e

Mountain House Project: Existing Neighborhood H (Construction Only) - San Joaquin County, Annual

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

Category	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Low Rise	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Low Rise	0 / 0	0.0000	0.0000	0.0000	0.0000

Mountain House Project: Existing Neighborhood H (Construction Only) - San Joaquin County, Annual

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

Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

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

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Low Rise	0	0.0000	0.0000	0.0000	0.0000

Mountain House Project: Existing Neighborhood H (Construction Only) - San Joaquin County, Annual

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

Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Low Rise	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

Mountain House Project: Existing Neighborhood H (Construction Only) - San Joaquin County, Annual

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

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Mountain House Project: Existing Neighborhood I (Construction Only) - San Joaquin County, Annual

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

Mountain House Project: Existing Neighborhood I (Construction Only)

San Joaquin County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Golf Course	16.00	Acre	16.00	696,960.00	0
Racquet Club	21.78	1000sqft	5.00	21,780.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.7	**Precipitation Freq (Days)**	51
Climate Zone	2			**Operational Year**	2023
Utility Company	Modesto Irrigation District				
CO2 Intensity (lb/MWhr)	452.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Construction only.

Land Use - 21 acres of Commercial Recreation OS.

Construction Phase - No demolition anticipated. Construction would occur from Spring 2030 to Spring 2032.

Grading - Soil movement is unknown at this time. Assumed default total acres graded.

Architectural Coating - 2019 CalGreen requirement.

Vehicle Trips - Construction Only.

Woodstoves - Construction Only

Consumer Products - Construction Only

Area Coating - Construction Only

Landscape Equipment - Construction Only

Mountain House Project: Existing Neighborhood I (Construction Only) - San Joaquin County, Annual

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

Energy Use - Construction Only

Water And Wastewater - Construction Only.

Solid Waste - Construction Only

Construction Off-road Equipment Mitigation - SJVAPCD Regulation VIII

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	150.00	100.00
tblArchitecturalCoating	EF_Nonresidential_Interior	150.00	100.00
tblArchitecturalCoating	EF_Parking	150.00	100.00
tblArchitecturalCoating	EF_Residential_Exterior	150.00	100.00
tblArchitecturalCoating	EF_Residential_Interior	150.00	100.00
tblAreaCoating	Area_Nonresidential_Exterior	45740	0
tblAreaCoating	Area_Nonresidential_Interior	137220	0
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	20.00	40.00
tblConstructionPhase	NumDays	370.00	320.00
tblConstructionPhase	NumDays	35.00	60.00
tblConstructionPhase	NumDays	20.00	40.00
tblConstructionPhase	NumDays	10.00	60.00
tblConsumerProducts	ROG_EF	2.14E-05	0
tblConsumerProducts	ROG_EF_Degreaser	3.542E-07	0
tblConsumerProducts	ROG_EF_PesticidesFertilizers	5.152E-08	0
tblEnergyUse	LightingElect	2.60	0.00
tblEnergyUse	NT24E	4.20	0.00
tblEnergyUse	NT24NG	0.06	0.00
tblEnergyUse	T24E	1.48	0.00
tblEnergyUse	T24NG	18.39	0.00
tblLandscapeEquipment	NumberSummerDays	180	0
tblLandUse	LotAcreage	0.50	5.00

Mountain House Project: Existing Neighborhood I (Construction Only) - San Joaquin County, Annual

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

tblSolidWaste	SolidWasteGenerationRate	14.88	0.00
tblSolidWaste	SolidWasteGenerationRate	124.15	0.00
tblVehicleTrips	ST_TR	3.74	0.00
tblVehicleTrips	ST_TR	21.35	0.00
tblVehicleTrips	SU_TR	3.74	0.00
tblVehicleTrips	SU_TR	17.40	0.00
tblVehicleTrips	WD_TR	3.74	0.00
tblVehicleTrips	WD_TR	14.03	0.00
tblWater	IndoorWaterUseRate	1,288,137.68	0.00
tblWater	OutdoorWaterUseRate	19,063,701.59	0.00
tblWater	OutdoorWaterUseRate	789,503.74	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2030	0.2494	1.3380	2.0491	6.2000e-003	0.6044	0.0350	0.6394	0.2464	0.0350	0.2813	0.0000	559.3165	559.3165	0.0195	0.0131	563.6965
2031	0.2474	1.6741	2.8140	8.5000e-003	0.3881	0.0258	0.4139	0.1054	0.0256	0.1310	0.0000	763.1312	763.1312	0.0183	0.0400	775.5189
2032	0.4440	0.0966	0.2296	4.4000e-004	0.0109	4.0700e-003	0.0150	2.8900e-003	4.0700e-003	6.9600e-003	0.0000	38.2919	38.2919	1.5700e-003	1.6000e-004	38.3776
Maximum	**0.4440**	**1.6741**	**2.8140**	**8.5000e-003**	**0.6044**	**0.0350**	**0.6394**	**0.2464**	**0.0350**	**0.2813**	**0.0000**	**763.1312**	**763.1312**	**0.0195**	**0.0400**	**775.5189**

Mountain House Project: Existing Neighborhood I (Construction Only) - San Joaquin County, Annual

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

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2030	0.2494	1.3380	2.0491	6.2000e-003	0.3444	0.0350	0.3795	0.1305	0.0350	0.1655	0.0000	559.3160	559.3160	0.0195	0.0131	563.6960
2031	0.2474	1.6741	2.8140	8.5000e-003	0.3881	0.0258	0.4139	0.1054	0.0256	0.1310	0.0000	763.1308	763.1308	0.0183	0.0400	775.5185
2032	0.4440	0.0966	0.2296	4.4000e-004	0.0109	4.0700e-003	0.0150	2.8900e-003	4.0700e-003	6.9600e-003	0.0000	38.2919	38.2919	1.5700e-003	1.6000e-004	38.3776
Maximum	**0.4440**	**1.6741**	**2.8140**	**8.5000e-003**	**0.3881**	**0.0350**	**0.4139**	**0.1305**	**0.0350**	**0.1655**	**0.0000**	**763.1308**	**763.1308**	**0.0195**	**0.0400**	**775.5185**

	ROG	NOx	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**	**25.91**	**0.00**	**24.34**	**32.67**	**0.00**	**27.64**	**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	**4-1-2030**	**6-30-2030**	0.5285	0.5285
2	**7-1-2030**	**9-30-2030**	0.5518	0.5518
3	**10-1-2030**	**12-31-2030**	0.5070	0.5070
4	**1-1-2031**	**3-31-2031**	0.4936	0.4936
5	**4-1-2031**	**6-30-2031**	0.4876	0.4876
6	**7-1-2031**	**9-30-2031**	0.4930	0.4930
7	**10-1-2031**	**12-31-2031**	0.4414	0.4414
8	**1-1-2032**	**3-31-2032**	0.5385	0.5385
		Highest	0.5518	0.5518

Mountain House Project: Existing Neighborhood I (Construction Only) - San Joaquin County, Annual

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

2.2 Overall Operational

Unmitigated Operational

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

Mitigated Operational

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

Mountain House Project: Existing Neighborhood I (Construction Only) - San Joaquin County, Annual

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

Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	4/1/2030	6/21/2030	5	60	
2	Grading	Grading	6/22/2030	9/13/2030	5	60	
3	Building Construction	Building Construction	9/14/2030	12/5/2031	5	320	
4	Paving	Paving	12/6/2031	1/30/2032	5	40	
5	Architectural Coating	Architectural Coating	1/31/2032	3/26/2032	5	40	

Acres of Grading (Site Preparation Phase): 30

Acres of Grading (Grading Phase): 180

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 137,220; Non-Residential Outdoor: 45,740; Striped Parking Area: 0 (Architectural

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40

Mountain House Project: Existing Neighborhood I (Construction Only) - San Joaquin County, Annual

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

Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	302.00	118.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	60.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

Mountain House Project: Existing Neighborhood I (Construction Only) - San Joaquin County, Annual

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

3.2 Site Preparation - 2030

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					0.1966	0.0000	0.1966	0.1010	0.0000	0.1010	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0732	0.4100	0.4888	1.4000e-003		0.0131	0.0131		0.0131	0.0131	0.0000	120.0138	120.0138	5.9200e-003	0.0000	120.1619
Total	**0.0732**	**0.4100**	**0.4888**	**1.4000e-003**	**0.1966**	**0.0131**	**0.2097**	**0.1010**	**0.0131**	**0.1141**	**0.0000**	**120.0138**	**120.0138**	**5.9200e-003**	**0.0000**	**120.1619**

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	9.8000e-004	5.2000e-004	8.1800e-003	3.0000e-005	4.3000e-003	1.0000e-005	4.3200e-003	1.1400e-003	1.0000e-005	1.1600e-003	0.0000	2.7470	2.7470	5.0000e-005	7.0000e-005	2.7678
Total	**9.8000e-004**	**5.2000e-004**	**8.1800e-003**	**3.0000e-005**	**4.3000e-003**	**1.0000e-005**	**4.3200e-003**	**1.1400e-003**	**1.0000e-005**	**1.1600e-003**	**0.0000**	**2.7470**	**2.7470**	**5.0000e-005**	**7.0000e-005**	**2.7678**

Mountain House Project: Existing Neighborhood I (Construction Only) - San Joaquin County, Annual

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

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0885	0.0000	0.0885	0.0455	0.0000	0.0455	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0732	0.4100	0.4888	1.4000e-003		0.0131	0.0131		0.0131	0.0131	0.0000	120.0137	120.0137	5.9200e-003	0.0000	120.1617
Total	**0.0732**	**0.4100**	**0.4888**	**1.4000e-003**	**0.0885**	**0.0131**	**0.1016**	**0.0455**	**0.0131**	**0.0586**	**0.0000**	**120.0137**	**120.0137**	**5.9200e-003**	**0.0000**	**120.1617**

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	9.8000e-004	5.2000e-004	8.1800e-003	3.0000e-005	4.3000e-003	1.0000e-005	4.3200e-003	1.1400e-003	1.0000e-005	1.1600e-003	0.0000	2.7470	2.7470	5.0000e-005	7.0000e-005	2.7678
Total	**9.8000e-004**	**5.2000e-004**	**8.1800e-003**	**3.0000e-005**	**4.3000e-003**	**1.0000e-005**	**4.3200e-003**	**1.1400e-003**	**1.0000e-005**	**1.1600e-003**	**0.0000**	**2.7470**	**2.7470**	**5.0000e-005**	**7.0000e-005**	**2.7678**

Mountain House Project: Existing Neighborhood I (Construction Only) - San Joaquin County, Annual

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

3.3 Grading - 2030

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					0.2761	0.0000	0.2761	0.1096	0.0000	0.1096	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0984	0.4154	0.6907	2.1000e-003		0.0146	0.0146		0.0146	0.0146	0.0000	196.3087	196.3087	7.9300e-003	0.0000	196.5070
Total	**0.0984**	**0.4154**	**0.6907**	**2.1000e-003**	**0.2761**	**0.0146**	**0.2908**	**0.1096**	**0.0146**	**0.1243**	**0.0000**	**196.3087**	**196.3087**	**7.9300e-003**	**0.0000**	**196.5070**

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	1.0800e-003	5.8000e-004	9.0900e-003	3.0000e-005	4.7800e-003	2.0000e-005	4.7900e-003	1.2700e-003	1.0000e-005	1.2900e-003	0.0000	3.0523	3.0523	6.0000e-005	7.0000e-005	3.0754
Total	**1.0800e-003**	**5.8000e-004**	**9.0900e-003**	**3.0000e-005**	**4.7800e-003**	**2.0000e-005**	**4.7900e-003**	**1.2700e-003**	**1.0000e-005**	**1.2900e-003**	**0.0000**	**3.0523**	**3.0523**	**6.0000e-005**	**7.0000e-005**	**3.0754**

Mountain House Project: Existing Neighborhood I (Construction Only) - San Joaquin County, Annual

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

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1243	0.0000	0.1243	0.0493	0.0000	0.0493	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0984	0.4154	0.6907	2.1000e-003		0.0146	0.0146		0.0146	0.0146	0.0000	196.3084	196.3084	7.9300e-003	0.0000	196.5068
Total	**0.0984**	**0.4154**	**0.6907**	**2.1000e-003**	**0.1243**	**0.0146**	**0.1389**	**0.0493**	**0.0146**	**0.0640**	**0.0000**	**196.3084**	**196.3084**	**7.9300e-003**	**0.0000**	**196.5068**

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	1.0800e-003	5.8000e-004	9.0900e-003	3.0000e-005	4.7800e-003	2.0000e-005	4.7900e-003	1.2700e-003	1.0000e-005	1.2900e-003	0.0000	3.0523	3.0523	6.0000e-005	7.0000e-005	3.0754
Total	**1.0800e-003**	**5.8000e-004**	**9.0900e-003**	**3.0000e-005**	**4.7800e-003**	**2.0000e-005**	**4.7900e-003**	**1.2700e-003**	**1.0000e-005**	**1.2900e-003**	**0.0000**	**3.0523**	**3.0523**	**6.0000e-005**	**7.0000e-005**	**3.0754**

Mountain House Project: Existing Neighborhood I (Construction Only) - San Joaquin County, Annual

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

3.4 Building Construction - 2030

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	0.0504	0.3055	0.6220	1.1900e-003		5.7000e-003	5.7000e-003		5.7000e-003	5.7000e-003	0.0000	101.2015	101.2015	4.0600e-003	0.0000	101.3030
Total	**0.0504**	**0.3055**	**0.6220**	**1.1900e-003**		**5.7000e-003**	**5.7000e-003**		**5.7000e-003**	**5.7000e-003**	**0.0000**	**101.2015**	**101.2015**	**4.0600e-003**	**0.0000**	**101.3030**

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	4.2600e-003	0.1949	0.0541	8.0000e-004	0.0300	1.2600e-003	0.0313	8.6800e-003	1.2000e-003	9.8800e-003	0.0000	76.8455	76.8455	3.4000e-004	0.0115	80.2857
Worker	0.0210	0.0112	0.1762	6.5000e-004	0.0926	3.0000e-004	0.0929	0.0246	2.8000e-004	0.0249	0.0000	59.1477	59.1477	1.1600e-003	1.4100e-003	59.5958
Total	**0.0253**	**0.2060**	**0.2303**	**1.4500e-003**	**0.1226**	**1.5600e-003**	**0.1242**	**0.0333**	**1.4800e-003**	**0.0348**	**0.0000**	**135.9932**	**135.9932**	**1.5000e-003**	**0.0129**	**139.8814**

Mitigated Construction On-Site

Mountain House Project: Existing Neighborhood I (Construction Only) - San Joaquin County, Annual

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0504	0.3055	0.6220	1.1900e-003		5.7000e-003	5.7000e-003		5.7000e-003	5.7000e-003	0.0000	101.2014	101.2014	4.0600e-003	0.0000	101.3029
Total	**0.0504**	**0.3055**	**0.6220**	**1.1900e-003**		**5.7000e-003**	**5.7000e-003**		**5.7000e-003**	**5.7000e-003**	**0.0000**	**101.2014**	**101.2014**	**4.0600e-003**	**0.0000**	**101.3029**

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	4.2600e-003	0.1949	0.0541	8.0000e-004	0.0300	1.2600e-003	0.0313	8.6800e-003	1.2000e-003	9.8800e-003	0.0000	76.8455	76.8455	3.4000e-004	0.0115	80.2857
Worker	0.0210	0.0112	0.1762	6.5000e-004	0.0926	3.0000e-004	0.0929	0.0246	2.8000e-004	0.0249	0.0000	59.1477	59.1477	1.1600e-003	1.4100e-003	59.5958
Total	**0.0253**	**0.2060**	**0.2303**	**1.4500e-003**	**0.1226**	**1.5600e-003**	**0.1242**	**0.0333**	**1.4800e-003**	**0.0348**	**0.0000**	**135.9932**	**135.9932**	**1.5000e-003**	**0.0129**	**139.8814**

3.4 Building Construction - 2031

Unmitigated Construction On-Site

Mountain House Project: Existing Neighborhood I (Construction Only) - San Joaquin County, Annual

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1591	0.9641	1.9631	3.7600e-003		0.0180	0.0180		0.0180	0.0180	0.0000	319.3761	319.3761	0.0128	0.0000	319.6965
Total	**0.1591**	**0.9641**	**1.9631**	**3.7600e-003**		**0.0180**	**0.0180**		**0.0180**	**0.0180**	**0.0000**	**319.3761**	**319.3761**	**0.0128**	**0.0000**	**319.6965**

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	0.0133	0.6129	0.1702	2.4900e-003	0.0948	3.9500e-003	0.0987	0.0274	3.7800e-003	0.0312	0.0000	238.5593	238.5593	1.0500e-003	0.0357	249.2289
Worker	0.0623	0.0330	0.5361	1.9900e-003	0.2923	9.0000e-004	0.2932	0.0777	8.2000e-004	0.0785	0.0000	182.8336	182.8336	3.4000e-003	4.3000e-003	184.2008
Total	**0.0756**	**0.6459**	**0.7063**	**4.4800e-003**	**0.3870**	**4.8500e-003**	**0.3919**	**0.1051**	**4.6000e-003**	**0.1097**	**0.0000**	**421.3929**	**421.3929**	**4.4500e-003**	**0.0400**	**433.4298**

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

Mountain House Project: Existing Neighborhood I (Construction Only) - San Joaquin County, Annual

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

Category	tons/yr										MT/yr					
Off-Road	0.1591	0.9641	1.9631	3.7600e-003		0.0180	0.0180		0.0180	0.0180	0.0000	319.3758	319.3758	0.0128	0.0000	319.6961
Total	**0.1591**	**0.9641**	**1.9631**	**3.7600e-003**		**0.0180**	**0.0180**		**0.0180**	**0.0180**	**0.0000**	**319.3758**	**319.3758**	**0.0128**	**0.0000**	**319.6961**

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	0.0133	0.6129	0.1702	2.4900e-003	0.0948	3.9500e-003	0.0987	0.0274	3.7800e-003	0.0312	0.0000	238.5593	238.5593	1.0500e-003	0.0357	249.2289
Worker	0.0623	0.0330	0.5361	1.9900e-003	0.2923	9.0000e-004	0.2932	0.0777	8.2000e-004	0.0785	0.0000	182.8336	182.8336	3.4000e-003	4.3000e-003	184.2008
Total	**0.0756**	**0.6459**	**0.7063**	**4.4800e-003**	**0.3870**	**4.8500e-003**	**0.3919**	**0.1051**	**4.6000e-003**	**0.1097**	**0.0000**	**421.3929**	**421.3929**	**4.4500e-003**	**0.0400**	**433.4298**

3.5 Paving - 2031

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					

Mountain House Project: Existing Neighborhood I (Construction Only) - San Joaquin County, Annual

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

Off-Road	0.0125	0.0641	0.1427	2.5000e-004		2.9800e-003	2.9800e-003		2.9800e-003	2.9800e-003	0.0000	21.6896	21.6896	1.0200e-003	0.0000	21.7150
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0125**	**0.0641**	**0.1427**	**2.5000e-004**		**2.9800e-003**	**2.9800e-003**		**2.9800e-003**	**2.9800e-003**	**0.0000**	**21.6896**	**21.6896**	**1.0200e-003**	**0.0000**	**21.7150**

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	2.3000e-004	1.2000e-004	1.9700e-003	1.0000e-005	1.0800e-003	0.0000	1.0800e-003	2.9000e-004	0.0000	2.9000e-004	0.0000	0.6727	0.6727	1.0000e-005	2.0000e-005	0.6777
Total	**2.3000e-004**	**1.2000e-004**	**1.9700e-003**	**1.0000e-005**	**1.0800e-003**	**0.0000**	**1.0800e-003**	**2.9000e-004**	**0.0000**	**2.9000e-004**	**0.0000**	**0.6727**	**0.6727**	**1.0000e-005**	**2.0000e-005**	**0.6777**

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					

Mountain House Project: Existing Neighborhood I (Construction Only) - San Joaquin County, Annual

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

Off-Road	0.0125	0.0641	0.1427	2.5000e-004		2.9800e-003	2.9800e-003		2.9800e-003	2.9800e-003	0.0000	21.6895	21.6895	1.0200e-003	0.0000	21.7150
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0125**	**0.0641**	**0.1427**	**2.5000e-004**		**2.9800e-003**	**2.9800e-003**		**2.9800e-003**	**2.9800e-003**	**0.0000**	**21.6895**	**21.6895**	**1.0200e-003**	**0.0000**	**21.7150**

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	2.3000e-004	1.2000e-004	1.9700e-003	1.0000e-005	1.0800e-003	0.0000	1.0800e-003	2.9000e-004	0.0000	2.9000e-004	0.0000	0.6727	0.6727	1.0000e-005	2.0000e-005	0.6777
Total	**2.3000e-004**	**1.2000e-004**	**1.9700e-003**	**1.0000e-005**	**1.0800e-003**	**0.0000**	**1.0800e-003**	**2.9000e-004**	**0.0000**	**2.9000e-004**	**0.0000**	**0.6727**	**0.6727**	**1.0000e-005**	**2.0000e-005**	**0.6777**

3.5 Paving - 2032

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					

Mountain House Project: Existing Neighborhood I (Construction Only) - San Joaquin County, Annual

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

Off-Road	0.0152	0.0783	0.1743	3.1000e-004		3.6400e-003	3.6400e-003		3.6400e-003	3.6400e-003	0.0000	26.5095	26.5095	1.2400e-003	0.0000	26.5405
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0152**	**0.0783**	**0.1743**	**3.1000e-004**		**3.6400e-003**	**3.6400e-003**		**3.6400e-003**	**3.6400e-003**	**0.0000**	**26.5095**	**26.5095**	**1.2400e-003**	**0.0000**	**26.5405**

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	2.6000e-004	1.4000e-004	2.3400e-003	1.0000e-005	1.3100e-003	0.0000	1.3200e-003	3.5000e-004	0.0000	3.5000e-004	0.0000	0.8070	0.8070	1.0000e-005	2.0000e-005	0.8130
Total	**2.6000e-004**	**1.4000e-004**	**2.3400e-003**	**1.0000e-005**	**1.3100e-003**	**0.0000**	**1.3200e-003**	**3.5000e-004**	**0.0000**	**3.5000e-004**	**0.0000**	**0.8070**	**0.8070**	**1.0000e-005**	**2.0000e-005**	**0.8130**

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					

Mountain House Project: Existing Neighborhood I (Construction Only) - San Joaquin County, Annual

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

Off-Road	0.0152	0.0783	0.1743	3.1000e-004		3.6400e-003	3.6400e-003		3.6400e-003	3.6400e-003	0.0000	26.5094	26.5094	1.2400e-003	0.0000	26.5405
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0152**	**0.0783**	**0.1743**	**3.1000e-004**		**3.6400e-003**	**3.6400e-003**		**3.6400e-003**	**3.6400e-003**	**0.0000**	**26.5094**	**26.5094**	**1.2400e-003**	**0.0000**	**26.5405**

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	2.6000e-004	1.4000e-004	2.3400e-003	1.0000e-005	1.3100e-003	0.0000	1.3200e-003	3.5000e-004	0.0000	3.5000e-004	0.0000	0.8070	0.8070	1.0000e-005	2.0000e-005	0.8130
Total	**2.6000e-004**	**1.4000e-004**	**2.3400e-003**	**1.0000e-005**	**1.3100e-003**	**0.0000**	**1.3200e-003**	**3.5000e-004**	**0.0000**	**3.5000e-004**	**0.0000**	**0.8070**	**0.8070**	**1.0000e-005**	**2.0000e-005**	**0.8130**

3.6 Architectural Coating - 2032

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					

Mountain House Project: Existing Neighborhood I (Construction Only) - San Joaquin County, Annual

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

Archit. Coating	0.4240					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.6100e-003	0.0171	0.0360	6.0000e-005		4.1000e-004	4.1000e-004		4.1000e-004	4.1000e-004	0.0000	5.1065	5.1065	2.1000e-004	0.0000	5.1117
Total	**0.4266**	**0.0171**	**0.0360**	**6.0000e-005**		**4.1000e-004**	**4.1000e-004**		**4.1000e-004**	**4.1000e-004**	**0.0000**	**5.1065**	**5.1065**	**2.1000e-004**	**0.0000**	**5.1117**

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	1.9200e-003	1.0200e-003	0.0170	6.0000e-005	9.5600e-003	3.0000e-005	9.5900e-003	2.5400e-003	3.0000e-005	2.5700e-003	0.0000	5.8689	5.8689	1.0000e-004	1.4000e-004	5.9124
Total	**1.9200e-003**	**1.0200e-003**	**0.0170**	**6.0000e-005**	**9.5600e-003**	**3.0000e-005**	**9.5900e-003**	**2.5400e-003**	**3.0000e-005**	**2.5700e-003**	**0.0000**	**5.8689**	**5.8689**	**1.0000e-004**	**1.4000e-004**	**5.9124**

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					

Mountain House Project: Existing Neighborhood I (Construction Only) - San Joaquin County, Annual

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

Archit. Coating	0.4240					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.6100e-003	0.0171	0.0360	6.0000e-005		4.1000e-004	4.1000e-004		4.1000e-004	4.1000e-004	0.0000	5.1065	5.1065	2.1000e-004	0.0000	5.1117
Total	**0.4266**	**0.0171**	**0.0360**	**6.0000e-005**		**4.1000e-004**	**4.1000e-004**		**4.1000e-004**	**4.1000e-004**	**0.0000**	**5.1065**	**5.1065**	**2.1000e-004**	**0.0000**	**5.1117**

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	1.9200e-003	1.0200e-003	0.0170	6.0000e-005	9.5600e-003	3.0000e-005	9.5900e-003	2.5400e-003	3.0000e-005	2.5700e-003	0.0000	5.8689	5.8689	1.0000e-004	1.4000e-004	5.9124
Total	**1.9200e-003**	**1.0200e-003**	**0.0170**	**6.0000e-005**	**9.5600e-003**	**3.0000e-005**	**9.5900e-003**	**2.5400e-003**	**3.0000e-005**	**2.5700e-003**	**0.0000**	**5.8689**	**5.8689**	**1.0000e-004**	**1.4000e-004**	**5.9124**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Mountain House Project: Existing Neighborhood I (Construction Only) - San Joaquin County, Annual

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

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

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Golf Course	0.00	0.00	0.00		
Racquet Club	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Golf Course	9.50	7.30	7.30	33.00	48.00	19.00	52	39	9
Racquet Club	9.50	7.30	7.30	11.50	69.50	19.00	52	39	9

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Golf Course	0.531667	0.052263	0.168651	0.155495	0.027235	0.006385	0.012362	0.016685	0.000479	0.000329	0.023608	0.001135	0.003
Racquet Club	0.531667	0.052263	0.168651	0.155495	0.027235	0.006385	0.012362	0.016685	0.000479	0.000329	0.023608	0.001135	0.003

Mountain House Project: Existing Neighborhood I (Construction Only) - San Joaquin County, Annual

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

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

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

5.2 Energy by Land Use - NaturalGas

Unmitigated

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

Mountain House Project: Existing Neighborhood I (Construction Only) - San Joaquin County, Annual

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

Racquet Club	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Golf Course	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
Racquet Club	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Golf Course	0	0.0000	0.0000	0.0000	0.0000
Racquet Club	0	0.0000	0.0000	0.0000	0.0000

Mountain House Project: Existing Neighborhood I (Construction Only) - San Joaquin County, Annual

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

Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Golf Course	0	0.0000	0.0000	0.0000	0.0000
Racquet Club	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

6.1 Mitigation Measures Area

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

Mountain House Project: Existing Neighborhood I (Construction Only) - San Joaquin County, Annual

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

Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

6.2 Area by SubCategory

Unmitigated

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

Mitigated

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

Mountain House Project: Existing Neighborhood I (Construction Only) - San Joaquin County, Annual

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

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

7.0 Water Detail

7.1 Mitigation Measures Water

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

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			

Mountain House Project: Existing Neighborhood I (Construction Only) - San Joaquin County, Annual

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

Golf Course	0 / 0	0.0000	0.0000	0.0000	0.0000
Racquet Club	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Golf Course	0 / 0	0.0000	0.0000	0.0000	0.0000
Racquet Club	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e

Mountain House Project: Existing Neighborhood I (Construction Only) - San Joaquin County, Annual

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

	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Golf Course	0	0.0000	0.0000	0.0000	0.0000
Racquet Club	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Golf Course	0	0.0000	0.0000	0.0000	0.0000

Mountain House Project: Existing Neighborhood I (Construction Only) - San Joaquin County, Annual

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

Racquet Club	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

9.0 Operational Offroad

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

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

Mountain House Project: Existing Neighborhood J (Construction Only) - San Joaquin County, Annual

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

Mountain House Project: Existing Neighborhood J (Construction Only)

San Joaquin County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Golf Course	22.00	Acre	22.00	958,320.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.7	**Precipitation Freq (Days)**	51
Climate Zone	2			**Operational Year**	2030
Utility Company	Modesto Irrigation District				
CO2 Intensity (lb/MWhr)	452.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Construction Only.

Land Use - Commercial Recreation OS: 22 acres.

Construction Phase - Anticipated schedule: Spring 2030 to Spring 2033.

Grading - Soil import/export is unknown at this time. CalEEMod defaults assumed.

Demolition - No demolition.

Architectural Coating - 2019 CalGreen Code.

Vehicle Trips - Construction Only.

Consumer Products - Construction Only.

Area Coating - Construction Only.

Landscape Equipment - Construction Only.

Water And Wastewater - Construction Only.

Mountain House Project: Existing Neighborhood J (Construction Only) - San Joaquin County, Annual

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

Solid Waste - Construction Only.

Construction Off-road Equipment Mitigation - SJVAPCD Regulation VIII

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	150.00	100.00
tblArchitecturalCoating	EF_Nonresidential_Interior	150.00	100.00
tblArchitecturalCoating	EF_Parking	150.00	100.00
tblArchitecturalCoating	EF_Residential_Exterior	150.00	100.00
tblArchitecturalCoating	EF_Residential_Interior	150.00	100.00
tblAreaCoating	Area_Nonresidential_Exterior	47916	0
tblAreaCoating	Area_Nonresidential_Interior	143748	0
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	20.00	50.00
tblConstructionPhase	NumDays	370.00	600.00
tblConstructionPhase	NumDays	35.00	60.00
tblConstructionPhase	NumDays	20.00	60.00
tblConstructionPhase	NumDays	10.00	30.00
tblConstructionPhase	PhaseEndDate	6/29/2023	4/22/2033
tblConstructionPhase	PhaseEndDate	5/4/2023	11/19/2032
tblConstructionPhase	PhaseEndDate	12/2/2021	8/2/2030
tblConstructionPhase	PhaseEndDate	6/1/2023	2/11/2033
tblConstructionPhase	PhaseEndDate	10/14/2021	5/10/2030
tblConstructionPhase	PhaseStartDate	6/2/2023	2/12/2033
tblConstructionPhase	PhaseStartDate	12/3/2021	8/3/2030
tblConstructionPhase	PhaseStartDate	10/15/2021	5/11/2030
tblConstructionPhase	PhaseStartDate	5/5/2023	11/20/2032
tblConstructionPhase	PhaseStartDate	10/1/2021	4/1/2030
tblConsumerProducts	ROG_EF	2.14E-05	0
tblConsumerProducts	ROG_EF_Degreaser	3.542E-07	0

Mountain House Project: Existing Neighborhood J (Construction Only) - San Joaquin County, Annual

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

tblConsumerProducts	ROG_EF_PesticidesFertilizers	5.152E-08	0
tblLandscapeEquipment	NumberSummerDays	180	0
tblSolidWaste	SolidWasteGenerationRate	20.46	0.00
tblVehicleTrips	ST_TR	3.74	0.00
tblVehicleTrips	SU_TR	3.74	0.00
tblVehicleTrips	WD_TR	3.74	0.00
tblWater	OutdoorWaterUseRate	26,212,589.69	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2030	0.2536	1.4268	2.2439	7.1800e-003	0.8047	0.0320	0.8367	0.3246	0.0319	0.3565	0.0000	660.8010	660.8010	0.0194	0.0240	668.4372
2031	0.2795	1.9588	3.1314	0.0105	0.5533	0.0263	0.5796	0.1502	0.0259	0.1762	0.0000	965.3541	965.3541	0.0201	0.0572	982.9006
2032	0.2651	1.8435	3.0036	9.6200e-003	0.4936	0.0282	0.5218	0.1340	0.0279	0.1619	0.0000	887.8185	887.8185	0.0193	0.0500	903.2087
2033	0.4716	0.1300	0.3139	6.1000e-004	0.0177	5.5200e-003	0.0232	4.7100e-003	5.5100e-003	0.0102	0.0000	54.1834	54.1834	2.1300e-003	2.5000e-004	54.3110
Maximum	**0.4716**	**1.9588**	**3.1314**	**0.0105**	**0.8047**	**0.0320**	**0.8367**	**0.3246**	**0.0319**	**0.3565**	**0.0000**	**965.3541**	**965.3541**	**0.0201**	**0.0572**	**982.9006**

Mitigated Construction

Date: 9/3/2021 10:12 AM

Mountain House Project: Existing Neighborhood J (Construction Only) - San Joaquin County, Annual

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2030	0.2536	1.4268	2.2439	7.1800e-003	0.4907	0.0320	0.5227	0.1810	0.0319	0.2128	0.0000	660.8005	660.8005	0.0194	0.0240	668.4367
2031	0.2795	1.9588	3.1314	0.0105	0.5533	0.0263	0.5796	0.1502	0.0259	0.1762	0.0000	965.3537	965.3537	0.0201	0.0572	982.9002
2032	0.2651	1.8435	3.0036	9.6200e-003	0.4936	0.0282	0.5218	0.1340	0.0279	0.1619	0.0000	887.8181	887.8181	0.0193	0.0500	903.2083
2033	0.4716	0.1300	0.3139	6.1000e-004	0.0177	5.5200e-003	0.0232	4.7100e-003	5.5100e-003	0.0102	0.0000	54.1834	54.1834	2.1300e-003	2.5000e-004	54.3110
Maximum	**0.4716**	**1.9588**	**3.1314**	**0.0105**	**0.5533**	**0.0320**	**0.5796**	**0.1810**	**0.0319**	**0.2128**	**0.0000**	**965.3537**	**965.3537**	**0.0201**	**0.0572**	**982.9002**

	ROG	NOx	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**	**16.80**	**0.00**	**16.01**	**23.41**	**0.00**	**20.38**	**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)
35	**3-3-2030**	**6-2-2030**	0.3720	0.3720
36	**6-3-2030**	**9-2-2030**	0.5627	0.5627
37	**9-3-2030**	**12-2-2030**	0.5634	0.5634
38	**12-3-2030**	**3-2-2031**	0.5598	0.5598
39	**3-3-2031**	**6-2-2031**	0.5606	0.5606
40	**6-3-2031**	**9-2-2031**	0.5557	0.5557
41	**9-3-2031**	**12-2-2031**	0.5603	0.5603
42	**12-3-2031**	**3-2-2032**	0.5632	0.5632
43	**3-3-2032**	**6-2-2032**	0.5580	0.5580
44	**6-3-2032**	**9-2-2032**	0.5531	0.5531

Mountain House Project: Existing Neighborhood J (Construction Only) - San Joaquin County, Annual

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

45	**9-3-2032**	**12-2-2032**	0.5170	0.5170
46	**12-3-2032**	**3-2-2033**	0.3453	0.3453
47	**3-3-2033**	**6-2-2033**	0.3452	0.3452
		Highest	0.5634	0.5634

2.2 Overall Operational

Unmitigated Operational

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

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

Mountain House Project: Existing Neighborhood J (Construction Only) - San Joaquin County, Annual

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

Category	tons/yr										MT/yr					
Area	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	4/1/2030	5/10/2030	5	30	
2	Grading	Grading	5/11/2030	8/2/2030	5	60	
3	Building Construction	Building Construction	8/3/2030	11/19/2032	5	600	
4	Paving	Paving	11/20/2032	2/11/2033	5	60	
5	Architectural Coating	Architectural Coating	2/12/2033	4/22/2033	5	50	

Acres of Grading (Site Preparation Phase): 45

Acres of Grading (Grading Phase): 180

Mountain House Project: Existing Neighborhood J (Construction Only) - San Joaquin County, Annual

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

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 143,748; Non-Residential Outdoor: 47,916; Striped Parking Area: 0 (Architectural

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Building Construction	Cranes	1	7.00	231	0.29
Grading	Excavators	2	8.00	158	0.38
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Grading	Graders	1	8.00	187	0.41
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
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
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	402.00	157.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

Mountain House Project: Existing Neighborhood J (Construction Only) - San Joaquin County, Annual

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

Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	80.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Site Preparation - 2030

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.2949	0.0000	0.2949	0.1515	0.0000	0.1515	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0366	0.2050	0.2444	7.0000e-004		6.5500e-003	6.5500e-003		6.5500e-003	6.5500e-003	0.0000	60.0069	60.0069	2.9600e-003	0.0000	60.0809
Total	**0.0366**	**0.2050**	**0.2444**	**7.0000e-004**	**0.2949**	**6.5500e-003**	**0.3014**	**0.1515**	**6.5500e-003**	**0.1581**	**0.0000**	**60.0069**	**60.0069**	**2.9600e-003**	**0.0000**	**60.0809**

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

Mountain House Project: Existing Neighborhood J (Construction Only) - San Joaquin County, Annual

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

Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.9000e-004	2.6000e-004	4.1600e-003	1.0000e-005	2.1500e-003	1.0000e-005	2.1600e-003	5.7000e-004	1.0000e-005	5.8000e-004	0.0000	1.4693	1.4693	3.0000e-005	3.0000e-005	1.4798
Total	**4.9000e-004**	**2.6000e-004**	**4.1600e-003**	**1.0000e-005**	**2.1500e-003**	**1.0000e-005**	**2.1600e-003**	**5.7000e-004**	**1.0000e-005**	**5.8000e-004**	**0.0000**	**1.4693**	**1.4693**	**3.0000e-005**	**3.0000e-005**	**1.4798**

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					0.1327	0.0000	0.1327	0.0682	0.0000	0.0682	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0366	0.2050	0.2444	7.0000e-004		6.5500e-003	6.5500e-003		6.5500e-003	6.5500e-003	0.0000	60.0069	60.0069	2.9600e-003	0.0000	60.0809
Total	**0.0366**	**0.2050**	**0.2444**	**7.0000e-004**	**0.1327**	**6.5500e-003**	**0.1392**	**0.0682**	**6.5500e-003**	**0.0747**	**0.0000**	**60.0069**	**60.0069**	**2.9600e-003**	**0.0000**	**60.0809**

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

Mountain House Project: Existing Neighborhood J (Construction Only) - San Joaquin County, Annual

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

Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.9000e-004	2.6000e-004	4.1600e-003	1.0000e-005	2.1500e-003	1.0000e-005	2.1600e-003	5.7000e-004	1.0000e-005	5.8000e-004	0.0000	1.4693	1.4693	3.0000e-005	3.0000e-005	1.4798
Total	**4.9000e-004**	**2.6000e-004**	**4.1600e-003**	**1.0000e-005**	**2.1500e-003**	**1.0000e-005**	**2.1600e-003**	**5.7000e-004**	**1.0000e-005**	**5.8000e-004**	**0.0000**	**1.4693**	**1.4693**	**3.0000e-005**	**3.0000e-005**	**1.4798**

3.3 Grading - 2030

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					0.2761	0.0000	0.2761	0.1096	0.0000	0.1096	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0984	0.4154	0.6907	2.1000e-003		0.0146	0.0146		0.0146	0.0146	0.0000	196.3087	196.3087	7.9300e-003	0.0000	196.5070
Total	**0.0984**	**0.4154**	**0.6907**	**2.1000e-003**	**0.2761**	**0.0146**	**0.2908**	**0.1096**	**0.0146**	**0.1243**	**0.0000**	**196.3087**	**196.3087**	**7.9300e-003**	**0.0000**	**196.5070**

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

Mountain House Project: Existing Neighborhood J (Construction Only) - San Joaquin County, Annual

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

Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0900e-003	5.8000e-004	9.2300e-003	3.0000e-005	4.7800e-003	2.0000e-005	4.8000e-003	1.2700e-003	1.0000e-005	1.2900e-003	0.0000	3.2652	3.2652	6.0000e-005	7.0000e-005	3.2883
Total	**1.0900e-003**	**5.8000e-004**	**9.2300e-003**	**3.0000e-005**	**4.7800e-003**	**2.0000e-005**	**4.8000e-003**	**1.2700e-003**	**1.0000e-005**	**1.2900e-003**	**0.0000**	**3.2652**	**3.2652**	**6.0000e-005**	**7.0000e-005**	**3.2883**

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					0.1243	0.0000	0.1243	0.0493	0.0000	0.0493	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0984	0.4154	0.6907	2.1000e-003		0.0146	0.0146		0.0146	0.0146	0.0000	196.3084	196.3084	7.9300e-003	0.0000	196.5068
Total	**0.0984**	**0.4154**	**0.6907**	**2.1000e-003**	**0.1243**	**0.0146**	**0.1389**	**0.0493**	**0.0146**	**0.0640**	**0.0000**	**196.3084**	**196.3084**	**7.9300e-003**	**0.0000**	**196.5068**

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

Mountain House Project: Existing Neighborhood J (Construction Only) - San Joaquin County, Annual

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

Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0900e-003	5.8000e-004	9.2300e-003	3.0000e-005	4.7800e-003	2.0000e-005	4.8000e-003	1.2700e-003	1.0000e-005	1.2900e-003	0.0000	3.2652	3.2652	6.0000e-005	7.0000e-005	3.2883
Total	**1.0900e-003**	**5.8000e-004**	**9.2300e-003**	**3.0000e-005**	**4.7800e-003**	**2.0000e-005**	**4.8000e-003**	**1.2700e-003**	**1.0000e-005**	**1.2900e-003**	**0.0000**	**3.2652**	**3.2652**	**6.0000e-005**	**7.0000e-005**	**3.2883**

3.4 Building Construction - 2030

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	0.0700	0.4245	0.8644	1.6600e-003		7.9300e-003	7.9300e-003		7.9300e-003	7.9300e-003	0.0000	140.6307	140.6307	5.6400e-003	0.0000	140.7717
Total	**0.0700**	**0.4245**	**0.8644**	**1.6600e-003**		**7.9300e-003**	**7.9300e-003**		**7.9300e-003**	**7.9300e-003**	**0.0000**	**140.6307**	**140.6307**	**5.6400e-003**	**0.0000**	**140.7717**

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	7.8700e-003	0.3603	0.1001	1.4800e-003	0.0555	2.3200e-003	0.0578	0.0160	2.2200e-003	0.0183	0.0000	142.0787	142.0787	6.3000e-004	0.0213	148.4392

Mountain House Project: Existing Neighborhood J (Construction Only) - San Joaquin County, Annual

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

Worker	0.0391	0.0208	0.3310	1.1900e-003	0.1713	5.7000e-004	0.1719	0.0456	5.2000e-004	0.0461	0.0000	117.0415	117.0415	2.1500e-003	2.6000e-003	117.8703
Total	**0.0469**	**0.3810**	**0.4311**	**2.6700e-003**	**0.2268**	**2.8900e-003**	**0.2297**	**0.0616**	**2.7400e-003**	**0.0643**	**0.0000**	**259.1202**	**259.1202**	**2.7800e-003**	**0.0239**	**266.3095**

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	0.0700	0.4245	0.8644	1.6600e-003		7.9300e-003	7.9300e-003		7.9300e-003	7.9300e-003	0.0000	140.6305	140.6305	5.6400e-003	0.0000	140.7715
Total	**0.0700**	**0.4245**	**0.8644**	**1.6600e-003**		**7.9300e-003**	**7.9300e-003**		**7.9300e-003**	**7.9300e-003**	**0.0000**	**140.6305**	**140.6305**	**5.6400e-003**	**0.0000**	**140.7715**

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	7.8700e-003	0.3603	0.1001	1.4800e-003	0.0555	2.3200e-003	0.0578	0.0160	2.2200e-003	0.0183	0.0000	142.0787	142.0787	6.3000e-004	0.0213	148.4392
Worker	0.0391	0.0208	0.3310	1.1900e-003	0.1713	5.7000e-004	0.1719	0.0456	5.2000e-004	0.0461	0.0000	117.0415	117.0415	2.1500e-003	2.6000e-003	117.8703

Mountain House Project: Existing Neighborhood J (Construction Only) - San Joaquin County, Annual

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

Total	**0.0469**	**0.3810**	**0.4311**	**2.6700e-003**	**0.2268**	**2.8900e-003**	**0.2297**	**0.0616**	**2.7400e-003**	**0.0643**	**0.0000**	**259.1202**	**259.1202**	**2.7800e-003**	**0.0239**	**266.3095**

3.4 Building Construction - 2031

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	0.1708	1.0355	2.1085	4.0400e-003		0.0193	0.0193		0.0193	0.0193	0.0000	343.0336	343.0336	0.0138	0.0000	343.3777
Total	**0.1708**	**1.0355**	**2.1085**	**4.0400e-003**		**0.0193**	**0.0193**		**0.0193**	**0.0193**	**0.0000**	**343.0336**	**343.0336**	**0.0138**	**0.0000**	**343.3777**

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	0.0191	0.8758	0.2432	3.5500e-003	0.1354	5.6400e-003	0.1410	0.0391	5.4000e-003	0.0445	0.0000	340.9166	340.9166	1.5100e-003	0.0510	356.1642
Worker	0.0896	0.0474	0.7797	2.8500e-003	0.4179	1.3000e-003	0.4192	0.1111	1.2000e-003	0.1123	0.0000	281.4039	281.4039	4.8600e-003	6.1500e-003	283.3587
Total	**0.1086**	**0.9233**	**1.0229**	**6.4000e-003**	**0.5533**	**6.9400e-003**	**0.5602**	**0.1502**	**6.6000e-003**	**0.1568**	**0.0000**	**622.3205**	**622.3205**	**6.3700e-003**	**0.0572**	**639.5229**

Mountain House Project: Existing Neighborhood J (Construction Only) - San Joaquin County, Annual

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

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1708	1.0355	2.1085	4.0400e-003		0.0193	0.0193		0.0193	0.0193	0.0000	343.0332	343.0332	0.0138	0.0000	343.3773
Total	**0.1708**	**1.0355**	**2.1085**	**4.0400e-003**		**0.0193**	**0.0193**		**0.0193**	**0.0193**	**0.0000**	**343.0332**	**343.0332**	**0.0138**	**0.0000**	**343.3773**

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	0.0191	0.8758	0.2432	3.5500e-003	0.1354	5.6400e-003	0.1410	0.0391	5.4000e-003	0.0445	0.0000	340.9166	340.9166	1.5100e-003	0.0510	356.1642
Worker	0.0896	0.0474	0.7797	2.8500e-003	0.4179	1.3000e-003	0.4192	0.1111	1.2000e-003	0.1123	0.0000	281.4039	281.4039	4.8600e-003	6.1500e-003	283.3587
Total	**0.1086**	**0.9233**	**1.0229**	**6.4000e-003**	**0.5533**	**6.9400e-003**	**0.5602**	**0.1502**	**6.6000e-003**	**0.1568**	**0.0000**	**622.3205**	**622.3205**	**6.3700e-003**	**0.0572**	**639.5229**

Mountain House Project: Existing Neighborhood J (Construction Only) - San Joaquin County, Annual

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

3.4 Building Construction - 2032

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	0.1519	0.9204	1.8742	3.5900e-003		0.0172	0.0172		0.0172	0.0172	0.0000	304.9188	304.9188	0.0122	0.0000	305.2246
Total	**0.1519**	**0.9204**	**1.8742**	**3.5900e-003**		**0.0172**	**0.0172**		**0.0172**	**0.0172**	**0.0000**	**304.9188**	**304.9188**	**0.0122**	**0.0000**	**305.2246**

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	0.0169	0.7762	0.2160	3.1100e-003	0.1204	4.9900e-003	0.1254	0.0348	4.7700e-003	0.0396	0.0000	298.5929	298.5929	1.3200e-003	0.0447	311.9369
Worker	0.0753	0.0399	0.6725	2.4900e-003	0.3714	1.0900e-003	0.3725	0.0988	1.0000e-003	0.0998	0.0000	246.9660	246.9660	4.0400e-003	5.3300e-003	248.6558
Total	**0.0921**	**0.8161**	**0.8884**	**5.6000e-003**	**0.4918**	**6.0800e-003**	**0.4979**	**0.1335**	**5.7700e-003**	**0.1393**	**0.0000**	**545.5589**	**545.5589**	**5.3600e-003**	**0.0500**	**560.5927**

Mitigated Construction On-Site

Mountain House Project: Existing Neighborhood J (Construction Only) - San Joaquin County, Annual

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1519	0.9204	1.8742	3.5900e-003		0.0172	0.0172		0.0172	0.0172	0.0000	304.9184	304.9184	0.0122	0.0000	305.2242
Total	**0.1519**	**0.9204**	**1.8742**	**3.5900e-003**		**0.0172**	**0.0172**		**0.0172**	**0.0172**	**0.0000**	**304.9184**	**304.9184**	**0.0122**	**0.0000**	**305.2242**

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	0.0169	0.7762	0.2160	3.1100e-003	0.1204	4.9900e-003	0.1254	0.0348	4.7700e-003	0.0396	0.0000	298.5929	298.5929	1.3200e-003	0.0447	311.9369
Worker	0.0753	0.0399	0.6725	2.4900e-003	0.3714	1.0900e-003	0.3725	0.0988	1.0000e-003	0.0998	0.0000	246.9660	246.9660	4.0400e-003	5.3300e-003	248.6558
Total	**0.0921**	**0.8161**	**0.8884**	**5.6000e-003**	**0.4918**	**6.0800e-003**	**0.4979**	**0.1335**	**5.7700e-003**	**0.1393**	**0.0000**	**545.5589**	**545.5589**	**5.3600e-003**	**0.0500**	**560.5927**

3.5 Paving - 2032

Unmitigated Construction On-Site

Mountain House Project: Existing Neighborhood J (Construction Only) - San Joaquin County, Annual

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0208	0.1068	0.2377	4.2000e-004		4.9600e-003	4.9600e-003		4.9600e-003	4.9600e-003	0.0000	36.1493	36.1493	1.6900e-003	0.0000	36.1916
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0208**	**0.1068**	**0.2377**	**4.2000e-004**		**4.9600e-003**	**4.9600e-003**		**4.9600e-003**	**4.9600e-003**	**0.0000**	**36.1493**	**36.1493**	**1.6900e-003**	**0.0000**	**36.1916**

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	3.6000e-004	1.9000e-004	3.2400e-003	1.0000e-005	1.7900e-003	1.0000e-005	1.8000e-003	4.8000e-004	0.0000	4.8000e-004	0.0000	1.1916	1.1916	2.0000e-005	3.0000e-005	1.1998
Total	**3.6000e-004**	**1.9000e-004**	**3.2400e-003**	**1.0000e-005**	**1.7900e-003**	**1.0000e-005**	**1.8000e-003**	**4.8000e-004**	**0.0000**	**4.8000e-004**	**0.0000**	**1.1916**	**1.1916**	**2.0000e-005**	**3.0000e-005**	**1.1998**

Mitigated Construction On-Site

Mountain House Project: Existing Neighborhood J (Construction Only) - San Joaquin County, Annual

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0208	0.1068	0.2377	4.2000e-004		4.9600e-003	4.9600e-003		4.9600e-003	4.9600e-003	0.0000	36.1492	36.1492	1.6900e-003	0.0000	36.1916
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0208**	**0.1068**	**0.2377**	**4.2000e-004**		**4.9600e-003**	**4.9600e-003**		**4.9600e-003**	**4.9600e-003**	**0.0000**	**36.1492**	**36.1492**	**1.6900e-003**	**0.0000**	**36.1916**

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	3.6000e-004	1.9000e-004	3.2400e-003	1.0000e-005	1.7900e-003	1.0000e-005	1.8000e-003	4.8000e-004	0.0000	4.8000e-004	0.0000	1.1916	1.1916	2.0000e-005	3.0000e-005	1.1998
Total	**3.6000e-004**	**1.9000e-004**	**3.2400e-003**	**1.0000e-005**	**1.7900e-003**	**1.0000e-005**	**1.8000e-003**	**4.8000e-004**	**0.0000**	**4.8000e-004**	**0.0000**	**1.1916**	**1.1916**	**2.0000e-005**	**3.0000e-005**	**1.1998**

3.5 Paving - 2033

Unmitigated Construction On-Site

Mountain House Project: Existing Neighborhood J (Construction Only) - San Joaquin County, Annual

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0208	0.1068	0.2377	4.2000e-004		4.9600e-003	4.9600e-003		4.9600e-003	4.9600e-003	0.0000	36.1493	36.1493	1.6900e-003	0.0000	36.1916
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0208**	**0.1068**	**0.2377**	**4.2000e-004**		**4.9600e-003**	**4.9600e-003**		**4.9600e-003**	**4.9600e-003**	**0.0000**	**36.1493**	**36.1493**	**1.6900e-003**	**0.0000**	**36.1916**

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	3.4000e-004	1.8000e-004	3.1600e-003	1.0000e-005	1.7900e-003	0.0000	1.8000e-003	4.8000e-004	0.0000	4.8000e-004	0.0000	1.1782	1.1782	2.0000e-005	3.0000e-005	1.1862
Total	**3.4000e-004**	**1.8000e-004**	**3.1600e-003**	**1.0000e-005**	**1.7900e-003**	**0.0000**	**1.8000e-003**	**4.8000e-004**	**0.0000**	**4.8000e-004**	**0.0000**	**1.1782**	**1.1782**	**2.0000e-005**	**3.0000e-005**	**1.1862**

Mitigated Construction On-Site

Mountain House Project: Existing Neighborhood J (Construction Only) - San Joaquin County, Annual

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0208	0.1068	0.2377	4.2000e-004		4.9600e-003	4.9600e-003		4.9600e-003	4.9600e-003	0.0000	36.1492	36.1492	1.6900e-003	0.0000	36.1916
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0208**	**0.1068**	**0.2377**	**4.2000e-004**		**4.9600e-003**	**4.9600e-003**		**4.9600e-003**	**4.9600e-003**	**0.0000**	**36.1492**	**36.1492**	**1.6900e-003**	**0.0000**	**36.1916**

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	3.4000e-004	1.8000e-004	3.1600e-003	1.0000e-005	1.7900e-003	0.0000	1.8000e-003	4.8000e-004	0.0000	4.8000e-004	0.0000	1.1782	1.1782	2.0000e-005	3.0000e-005	1.1862
Total	**3.4000e-004**	**1.8000e-004**	**3.1600e-003**	**1.0000e-005**	**1.7900e-003**	**0.0000**	**1.8000e-003**	**4.8000e-004**	**0.0000**	**4.8000e-004**	**0.0000**	**1.1782**	**1.1782**	**2.0000e-005**	**3.0000e-005**	**1.1862**

3.6 Architectural Coating - 2033

Unmitigated Construction On-Site

Mountain House Project: Existing Neighborhood J (Construction Only) - San Joaquin County, Annual

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.4442					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.2700e-003	0.0214	0.0449	7.0000e-005		5.1000e-004	5.1000e-004		5.1000e-004	5.1000e-004	0.0000	6.3831	6.3831	2.6000e-004	0.0000	6.3896
Total	**0.4475**	**0.0214**	**0.0449**	**7.0000e-005**		**5.1000e-004**	**5.1000e-004**		**5.1000e-004**	**5.1000e-004**	**0.0000**	**6.3831**	**6.3831**	**2.6000e-004**	**0.0000**	**6.3896**

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	3.0600e-003	1.6400e-003	0.0281	1.0000e-004	0.0159	4.0000e-005	0.0160	4.2400e-003	4.0000e-005	4.2800e-003	0.0000	10.4728	10.4728	1.6000e-004	2.2000e-004	10.5436
Total	**3.0600e-003**	**1.6400e-003**	**0.0281**	**1.0000e-004**	**0.0159**	**4.0000e-005**	**0.0160**	**4.2400e-003**	**4.0000e-005**	**4.2800e-003**	**0.0000**	**10.4728**	**10.4728**	**1.6000e-004**	**2.2000e-004**	**10.5436**

Mitigated Construction On-Site

Mountain House Project: Existing Neighborhood J (Construction Only) - San Joaquin County, Annual

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.4442					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.2700e-003	0.0214	0.0449	7.0000e-005		5.1000e-004	5.1000e-004		5.1000e-004	5.1000e-004	0.0000	6.3831	6.3831	2.6000e-004	0.0000	6.3896
Total	**0.4475**	**0.0214**	**0.0449**	**7.0000e-005**		**5.1000e-004**	**5.1000e-004**		**5.1000e-004**	**5.1000e-004**	**0.0000**	**6.3831**	**6.3831**	**2.6000e-004**	**0.0000**	**6.3896**

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	3.0600e-003	1.6400e-003	0.0281	1.0000e-004	0.0159	4.0000e-005	0.0160	4.2400e-003	4.0000e-005	4.2800e-003	0.0000	10.4728	10.4728	1.6000e-004	2.2000e-004	10.5436
Total	**3.0600e-003**	**1.6400e-003**	**0.0281**	**1.0000e-004**	**0.0159**	**4.0000e-005**	**0.0160**	**4.2400e-003**	**4.0000e-005**	**4.2800e-003**	**0.0000**	**10.4728**	**10.4728**	**1.6000e-004**	**2.2000e-004**	**10.5436**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Mountain House Project: Existing Neighborhood J (Construction Only) - San Joaquin County, Annual

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

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

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Golf Course	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Golf Course	9.50	7.30	7.30	33.00	48.00	19.00	52	39	9

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Golf Course	0.560100	0.053949	0.173371	0.131047	0.021297	0.005494	0.012620	0.016451	0.000441	0.000312	0.021225	0.001008	0.0026

5.0 Energy Detail

Historical Energy Use: N

Mountain House Project: Existing Neighborhood J (Construction Only) - San Joaquin County, Annual

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

5.1 Mitigation Measures Energy

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

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Golf Course	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mountain House Project: Existing Neighborhood J (Construction Only) - San Joaquin County, Annual

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

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Golf Course	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Golf Course	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

Mountain House Project: Existing Neighborhood J (Construction Only) - San Joaquin County, Annual

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

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Golf Course	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

6.1 Mitigation Measures Area

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

6.2 Area by SubCategory

Unmitigated

Mountain House Project: Existing Neighborhood J (Construction Only) - San Joaquin County, Annual

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

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

Mitigated

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

7.0 Water Detail

7.1 Mitigation Measures Water

Mountain House Project: Existing Neighborhood J (Construction Only) - San Joaquin County, Annual

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

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

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Golf Course	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

Mountain House Project: Existing Neighborhood J (Construction Only) - San Joaquin County, Annual

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

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Golf Course	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

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

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e

Mountain House Project: Existing Neighborhood J (Construction Only) - San Joaquin County, Annual

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

Land Use	tons	MT/yr			
Golf Course	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Golf Course	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

Mountain House Project: Existing Neighborhood J (Construction Only) - San Joaquin County, Annual

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

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Mountain House Project: Existing Neighborhood L (Construction Only) - San Joaquin County, Annual

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

Mountain House Project: Existing Neighborhood L (Construction Only)

San Joaquin County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
City Park	22.00	Acre	22.00	958,320.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.7	**Precipitation Freq (Days)**	51
Climate Zone	2			**Operational Year**	2031
Utility Company	Modesto Irrigation District				
CO2 Intensity (lb/MWhr)	452.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Construction Only

Land Use -

Construction Phase - Default schedule.

Grading - Soil import/export unknown at this time.

Architectural Coating - 2019 CalGreen Code.

Vehicle Trips - Construction only.

Consumer Products - Construction only.

Area Coating - Construction only.

Landscape Equipment - Construction only.

Water And Wastewater - Construction only.

Solid Waste - Construction only.

Date: 9/3/2021 10:31 AM

Mountain House Project: Existing Neighborhood L (Construction Only) - San Joaquin County, Annual

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

Construction Off-road Equipment Mitigation - SJVAPCD Regulation VIII.

Area Mitigation - 2019 CalGreen Code

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	150.00	100.00
tblArchitecturalCoating	EF_Nonresidential_Interior	150.00	100.00
tblArchitecturalCoating	EF_Parking	150.00	100.00
tblArchitecturalCoating	EF_Residential_Exterior	150.00	100.00
tblArchitecturalCoating	EF_Residential_Interior	150.00	100.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	150	100
tblAreaCoating	Area_EF_Nonresidential_Interior	150	100
tblAreaCoating	Area_EF_Parking	150	100
tblAreaCoating	Area_EF_Residential_Exterior	150	100
tblAreaCoating	Area_EF_Residential_Interior	150	100
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	PhaseEndDate	3/31/2030	12/26/2031
tblConstructionPhase	PhaseEndDate	3/31/2030	10/31/2031
tblConstructionPhase	PhaseEndDate	3/31/2030	5/31/2030
tblConstructionPhase	PhaseEndDate	3/31/2030	11/28/2031
tblConstructionPhase	PhaseEndDate	3/31/2030	4/12/2030
tblConstructionPhase	PhaseStartDate	4/1/2030	11/29/2031
tblConstructionPhase	PhaseStartDate	4/1/2030	6/1/2030
tblConstructionPhase	PhaseStartDate	4/1/2030	4/13/2030
tblConstructionPhase	PhaseStartDate	4/1/2030	11/1/2031
tblConsumerProducts	ROG_EF	2.14E-05	0
tblConsumerProducts	ROG_EF_Degreaser	3.542E-07	0
tblConsumerProducts	ROG_EF_PesticidesFertilizers	5.152E-08	0
tblLandscapeEquipment	NumberSummerDays	180	0
tblSolidWaste	SolidWasteGenerationRate	1.89	0.00

Mountain House Project: Existing Neighborhood L (Construction Only) - San Joaquin County, Annual

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

tblVehicleTrips	ST_TR	1.96	0.00
tblVehicleTrips	SU_TR	2.19	0.00
tblVehicleTrips	WD_TR	0.78	0.00
tblWater	OutdoorWaterUseRate	26,212,589.69	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2030	0.2366	1.4554	2.3314	7.6300e-003	0.5851	0.0261	0.6112	0.2029	0.0259	0.2288	0.0000	704.7805	704.7805	0.0176	0.0340	715.3510
2031	0.2502	1.7167	2.8061	9.0900e-003	0.4697	0.0255	0.4952	0.1275	0.0252	0.1527	0.0000	838.0598	838.0598	0.0181	0.0479	852.7816
Maximum	**0.2502**	**1.7167**	**2.8061**	**9.0900e-003**	**0.5851**	**0.0261**	**0.6112**	**0.2029**	**0.0259**	**0.2288**	**0.0000**	**838.0598**	**838.0598**	**0.0181**	**0.0479**	**852.7816**

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					
2030	0.2366	1.4554	2.3314	7.6300e-003	0.4424	0.0261	0.4685	0.1399	0.0259	0.1658	0.0000	704.7801	704.7801	0.0176	0.0340	715.3506

Mountain House Project: Existing Neighborhood L (Construction Only) - San Joaquin County, Annual

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

2031	0.2502	1.7167	2.8061	9.0900e-003	0.4697	0.0255	0.4952	0.1275	0.0252	0.1527	0.0000	838.0594	838.0594	0.0181	0.0479	852.7813
Maximum	**0.2502**	**1.7167**	**2.8061**	**9.0900e-003**	**0.4697**	**0.0261**	**0.4952**	**0.1399**	**0.0259**	**0.1658**	**0.0000**	**838.0594**	**838.0594**	**0.0181**	**0.0479**	**852.7813**

	ROG	NOx	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**	**13.52**	**0.00**	**12.89**	**19.05**	**0.00**	**16.50**	**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	4-1-2030	6-30-2030	0.5522	0.5522
2	7-1-2030	9-30-2030	0.5588	0.5588
3	10-1-2030	12-31-2030	0.5744	0.5744
4	1-1-2031	3-31-2031	0.5588	0.5588
5	4-1-2031	6-30-2031	0.5497	0.5497
6	7-1-2031	9-30-2031	0.5557	0.5557
		Highest	0.5744	0.5744

2.2 Overall Operational

Unmitigated Operational

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

Mountain House Project: Existing Neighborhood L (Construction Only) - San Joaquin County, Annual

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

Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Operational

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Mountain House Project: Existing Neighborhood L (Construction Only) - San Joaquin County, Annual

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

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	4/1/2030	4/12/2030	5	10	
2	Grading	Grading	4/13/2030	5/31/2030	5	35	
3	Building Construction	Building Construction	6/1/2030	10/31/2031	5	370	
4	Paving	Paving	11/1/2031	11/28/2031	5	20	
5	Architectural Coating	Architectural Coating	11/29/2031	12/26/2031	5	20	

Acres of Grading (Site Preparation Phase): 15

Acres of Grading (Grading Phase): 105

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Building Construction	Cranes	1	7.00	231	0.29
Grading	Excavators	2	8.00	158	0.38
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Grading	Graders	1	8.00	187	0.41
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48

Mountain House Project: Existing Neighborhood L (Construction Only) - San Joaquin County, Annual

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

Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Grading	Tractors/Loaders/Backhoes	2	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
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	402.00	157.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	80.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Site Preparation - 2030

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0983	0.0000	0.0983	0.0505	0.0000	0.0505	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0122	0.0683	0.0815	2.3000e-004		2.1800e-003	2.1800e-003		2.1800e-003	2.1800e-003	0.0000	20.0023	20.0023	9.9000e-004	0.0000	20.0270

Mountain House Project: Existing Neighborhood L (Construction Only) - San Joaquin County, Annual

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

Total	**0.0122**	**0.0683**	**0.0815**	**2.3000e-004**	**0.0983**	**2.1800e-003**	**0.1005**	**0.0505**	**2.1800e-003**	**0.0527**	**0.0000**	**20.0023**	**20.0023**	**9.9000e-004**	**0.0000**	**20.0270**

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	1.6000e-004	9.0000e-005	1.3900e-003	0.0000	7.2000e-004	0.0000	7.2000e-004	1.9000e-004	0.0000	1.9000e-004	0.0000	0.4898	0.4898	1.0000e-005	1.0000e-005	0.4933
Total	**1.6000e-004**	**9.0000e-005**	**1.3900e-003**	**0.0000**	**7.2000e-004**	**0.0000**	**7.2000e-004**	**1.9000e-004**	**0.0000**	**1.9000e-004**	**0.0000**	**0.4898**	**0.4898**	**1.0000e-005**	**1.0000e-005**	**0.4933**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0442	0.0000	0.0442	0.0227	0.0000	0.0227	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0122	0.0683	0.0815	2.3000e-004		2.1800e-003	2.1800e-003		2.1800e-003	2.1800e-003	0.0000	20.0023	20.0023	9.9000e-004	0.0000	20.0270

Mountain House Project: Existing Neighborhood L (Construction Only) - San Joaquin County, Annual

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

Total	**0.0122**	**0.0683**	**0.0815**	**2.3000e-004**	**0.0442**	**2.1800e-003**	**0.0464**	**0.0227**	**2.1800e-003**	**0.0249**	**0.0000**	**20.0023**	**20.0023**	**9.9000e-004**	**0.0000**	**20.0270**

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	1.6000e-004	9.0000e-005	1.3900e-003	0.0000	7.2000e-004	0.0000	7.2000e-004	1.9000e-004	0.0000	1.9000e-004	0.0000	0.4898	0.4898	1.0000e-005	1.0000e-005	0.4933
Total	**1.6000e-004**	**9.0000e-005**	**1.3900e-003**	**0.0000**	**7.2000e-004**	**0.0000**	**7.2000e-004**	**1.9000e-004**	**0.0000**	**1.9000e-004**	**0.0000**	**0.4898**	**0.4898**	**1.0000e-005**	**1.0000e-005**	**0.4933**

3.3 Grading - 2030

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					0.1611	0.0000	0.1611	0.0639	0.0000	0.0639	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0574	0.2423	0.4029	1.2200e-003		8.5400e-003	8.5400e-003		8.5400e-003	8.5400e-003	0.0000	114.5134	114.5134	4.6300e-003	0.0000	114.6291

Mountain House Project: Existing Neighborhood L (Construction Only) - San Joaquin County, Annual

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

Total	**0.0574**	**0.2423**	**0.4029**	**1.2200e-003**	**0.1611**	**8.5400e-003**	**0.1696**	**0.0639**	**8.5400e-003**	**0.0725**	**0.0000**	**114.5134**	**114.5134**	**4.6300e-003**	**0.0000**	**114.6291**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.4000e-004	3.4000e-004	5.3900e-003	2.0000e-005	2.7900e-003	1.0000e-005	2.8000e-003	7.4000e-004	1.0000e-005	7.5000e-004	0.0000	1.9047	1.9047	3.0000e-005	4.0000e-005	1.9182
Total	**6.4000e-004**	**3.4000e-004**	**5.3900e-003**	**2.0000e-005**	**2.7900e-003**	**1.0000e-005**	**2.8000e-003**	**7.4000e-004**	**1.0000e-005**	**7.5000e-004**	**0.0000**	**1.9047**	**1.9047**	**3.0000e-005**	**4.0000e-005**	**1.9182**

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					0.0725	0.0000	0.0725	0.0288	0.0000	0.0288	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0574	0.2423	0.4029	1.2200e-003		8.5400e-003	8.5400e-003		8.5400e-003	8.5400e-003	0.0000	114.5133	114.5133	4.6300e-003	0.0000	114.6290

Mountain House Project: Existing Neighborhood L (Construction Only) - San Joaquin County, Annual

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

Total	**0.0574**	**0.2423**	**0.4029**	**1.2200e-003**	**0.0725**	**8.5400e-003**	**0.0810**	**0.0288**	**8.5400e-003**	**0.0373**	**0.0000**	**114.5133**	**114.5133**	**4.6300e-003**	**0.0000**	**114.6290**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.4000e-004	3.4000e-004	5.3900e-003	2.0000e-005	2.7900e-003	1.0000e-005	2.8000e-003	7.4000e-004	1.0000e-005	7.5000e-004	0.0000	1.9047	1.9047	3.0000e-005	4.0000e-005	1.9182
Total	**6.4000e-004**	**3.4000e-004**	**5.3900e-003**	**2.0000e-005**	**2.7900e-003**	**1.0000e-005**	**2.8000e-003**	**7.4000e-004**	**1.0000e-005**	**7.5000e-004**	**0.0000**	**1.9047**	**1.9047**	**3.0000e-005**	**4.0000e-005**	**1.9182**

3.4 Building Construction - 2030

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	0.0995	0.6030	1.2279	2.3500e-003		0.0113	0.0113		0.0113	0.0113	0.0000	199.7744	199.7744	8.0100e-003	0.0000	199.9747
Total	**0.0995**	**0.6030**	**1.2279**	**2.3500e-003**		**0.0113**	**0.0113**		**0.0113**	**0.0113**	**0.0000**	**199.7744**	**199.7744**	**8.0100e-003**	**0.0000**	**199.9747**

Mountain House Project: Existing Neighborhood L (Construction Only) - San Joaquin County, Annual

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

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0112	0.5118	0.1422	2.1000e-003	0.0789	3.3000e-003	0.0822	0.0228	3.1600e-003	0.0260	0.0000	201.8314	201.8314	9.0000e-004	0.0303	210.8669
Worker	0.0555	0.0295	0.4702	1.6900e-003	0.2434	8.1000e-004	0.2442	0.0647	7.4000e-004	0.0654	0.0000	166.2646	166.2646	3.0500e-003	3.6900e-003	167.4419
Total	**0.0667**	**0.5412**	**0.6124**	**3.7900e-003**	**0.3222**	**4.1100e-003**	**0.3263**	**0.0875**	**3.9000e-003**	**0.0914**	**0.0000**	**368.0960**	**368.0960**	**3.9500e-003**	**0.0339**	**378.3088**

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	0.0995	0.6030	1.2279	2.3500e-003		0.0113	0.0113		0.0113	0.0113	0.0000	199.7741	199.7741	8.0100e-003	0.0000	199.9745
Total	**0.0995**	**0.6030**	**1.2279**	**2.3500e-003**		**0.0113**	**0.0113**		**0.0113**	**0.0113**	**0.0000**	**199.7741**	**199.7741**	**8.0100e-003**	**0.0000**	**199.9745**

Mountain House Project: Existing Neighborhood L (Construction Only) - San Joaquin County, Annual

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

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0112	0.5118	0.1422	2.1000e-003	0.0789	3.3000e-003	0.0822	0.0228	3.1600e-003	0.0260	0.0000	201.8314	201.8314	9.0000e-004	0.0303	210.8669
Worker	0.0555	0.0295	0.4702	1.6900e-003	0.2434	8.1000e-004	0.2442	0.0647	7.4000e-004	0.0654	0.0000	166.2646	166.2646	3.0500e-003	3.6900e-003	167.4419
Total	**0.0667**	**0.5412**	**0.6124**	**3.7900e-003**	**0.3222**	**4.1100e-003**	**0.3263**	**0.0875**	**3.9000e-003**	**0.0914**	**0.0000**	**368.0960**	**368.0960**	**3.9500e-003**	**0.0339**	**378.3088**

3.4 Building Construction - 2031

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	0.1427	0.8649	1.7611	3.3700e-003		0.0162	0.0162		0.0162	0.0162	0.0000	286.5185	286.5185	0.0115	0.0000	286.8059
Total	**0.1427**	**0.8649**	**1.7611**	**3.3700e-003**		**0.0162**	**0.0162**		**0.0162**	**0.0162**	**0.0000**	**286.5185**	**286.5185**	**0.0115**	**0.0000**	**286.8059**

Unmitigated Construction Off-Site

Mountain House Project: Existing Neighborhood L (Construction Only) - San Joaquin County, Annual

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0159	0.7316	0.2032	2.9700e-003	0.1131	4.7100e-003	0.1178	0.0327	4.5100e-003	0.0372	0.0000	284.7503	284.7503	1.2600e-003	0.0426	297.4858
Worker	0.0748	0.0396	0.6512	2.3800e-003	0.3490	1.0900e-003	0.3501	0.0928	1.0000e-003	0.0938	0.0000	235.0424	235.0424	4.0600e-003	5.1400e-003	236.6751
Total	**0.0907**	**0.7712**	**0.8544**	**5.3500e-003**	**0.4621**	**5.8000e-003**	**0.4679**	**0.1255**	**5.5100e-003**	**0.1310**	**0.0000**	**519.7926**	**519.7926**	**5.3200e-003**	**0.0478**	**534.1609**

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	0.1427	0.8649	1.7611	3.3700e-003		0.0162	0.0162		0.0162	0.0162	0.0000	286.5182	286.5182	0.0115	0.0000	286.8055
Total	**0.1427**	**0.8649**	**1.7611**	**3.3700e-003**		**0.0162**	**0.0162**		**0.0162**	**0.0162**	**0.0000**	**286.5182**	**286.5182**	**0.0115**	**0.0000**	**286.8055**

Mitigated Construction Off-Site

Mountain House Project: Existing Neighborhood L (Construction Only) - San Joaquin County, Annual

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0159	0.7316	0.2032	2.9700e-003	0.1131	4.7100e-003	0.1178	0.0327	4.5100e-003	0.0372	0.0000	284.7503	284.7503	1.2600e-003	0.0426	297.4858
Worker	0.0748	0.0396	0.6512	2.3800e-003	0.3490	1.0900e-003	0.3501	0.0928	1.0000e-003	0.0938	0.0000	235.0424	235.0424	4.0600e-003	5.1400e-003	236.6751
Total	**0.0907**	**0.7712**	**0.8544**	**5.3500e-003**	**0.4621**	**5.8000e-003**	**0.4679**	**0.1255**	**5.5100e-003**	**0.1310**	**0.0000**	**519.7926**	**519.7926**	**5.3200e-003**	**0.0478**	**534.1609**

3.5 Paving - 2031

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	0.0139	0.0712	0.1585	2.8000e-004		3.3100e-003	3.3100e-003		3.3100e-003	3.3100e-003	0.0000	24.0995	24.0995	1.1300e-003	0.0000	24.1278
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0139**	**0.0712**	**0.1585**	**2.8000e-004**		**3.3100e-003**	**3.3100e-003**		**3.3100e-003**	**3.3100e-003**	**0.0000**	**24.0995**	**24.0995**	**1.1300e-003**	**0.0000**	**24.1278**

Unmitigated Construction Off-Site

Mountain House Project: Existing Neighborhood L (Construction Only) - San Joaquin County, Annual

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	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	2.6000e-004	1.4000e-004	2.2300e-003	1.0000e-005	1.1900e-003	0.0000	1.2000e-003	3.2000e-004	0.0000	3.2000e-004	0.0000	0.8046	0.8046	1.0000e-005	2.0000e-005	0.8102
Total	**2.6000e-004**	**1.4000e-004**	**2.2300e-003**	**1.0000e-005**	**1.1900e-003**	**0.0000**	**1.2000e-003**	**3.2000e-004**	**0.0000**	**3.2000e-004**	**0.0000**	**0.8046**	**0.8046**	**1.0000e-005**	**2.0000e-005**	**0.8102**

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	0.0139	0.0712	0.1585	2.8000e-004		3.3100e-003	3.3100e-003		3.3100e-003	3.3100e-003	0.0000	24.0995	24.0995	1.1300e-003	0.0000	24.1277
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0139**	**0.0712**	**0.1585**	**2.8000e-004**		**3.3100e-003**	**3.3100e-003**		**3.3100e-003**	**3.3100e-003**	**0.0000**	**24.0995**	**24.0995**	**1.1300e-003**	**0.0000**	**24.1277**

Mitigated Construction Off-Site

Mountain House Project: Existing Neighborhood L (Construction Only) - San Joaquin County, Annual

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	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	2.6000e-004	1.4000e-004	2.2300e-003	1.0000e-005	1.1900e-003	0.0000	1.2000e-003	3.2000e-004	0.0000	3.2000e-004	0.0000	0.8046	0.8046	1.0000e-005	2.0000e-005	0.8102
Total	**2.6000e-004**	**1.4000e-004**	**2.2300e-003**	**1.0000e-005**	**1.1900e-003**	**0.0000**	**1.2000e-003**	**3.2000e-004**	**0.0000**	**3.2000e-004**	**0.0000**	**0.8046**	**0.8046**	**1.0000e-005**	**2.0000e-005**	**0.8102**

3.6 Architectural Coating - 2031

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.3100e-003	8.5600e-003	0.0180	3.0000e-005		2.0000e-004	2.0000e-004		2.0000e-004	2.0000e-004	0.0000	2.5533	2.5533	1.0000e-004	0.0000	2.5558
Total	**1.3100e-003**	**8.5600e-003**	**0.0180**	**3.0000e-005**		**2.0000e-004**	**2.0000e-004**		**2.0000e-004**	**2.0000e-004**	**0.0000**	**2.5533**	**2.5533**	**1.0000e-004**	**0.0000**	**2.5558**

Unmitigated Construction Off-Site

Mountain House Project: Existing Neighborhood L (Construction Only) - San Joaquin County, Annual

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	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	1.3700e-003	7.2000e-004	0.0119	4.0000e-005	6.3700e-003	2.0000e-005	6.3900e-003	1.6900e-003	2.0000e-005	1.7100e-003	0.0000	4.2913	4.2913	7.0000e-005	9.0000e-005	4.3211
Total	**1.3700e-003**	**7.2000e-004**	**0.0119**	**4.0000e-005**	**6.3700e-003**	**2.0000e-005**	**6.3900e-003**	**1.6900e-003**	**2.0000e-005**	**1.7100e-003**	**0.0000**	**4.2913**	**4.2913**	**7.0000e-005**	**9.0000e-005**	**4.3211**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.3100e-003	8.5600e-003	0.0180	3.0000e-005		2.0000e-004	2.0000e-004		2.0000e-004	2.0000e-004	0.0000	2.5533	2.5533	1.0000e-004	0.0000	2.5558
Total	**1.3100e-003**	**8.5600e-003**	**0.0180**	**3.0000e-005**		**2.0000e-004**	**2.0000e-004**		**2.0000e-004**	**2.0000e-004**	**0.0000**	**2.5533**	**2.5533**	**1.0000e-004**	**0.0000**	**2.5558**

Mitigated Construction Off-Site

Mountain House Project: Existing Neighborhood L (Construction Only) - San Joaquin County, Annual

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	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	1.3700e-003	7.2000e-004	0.0119	4.0000e-005	6.3700e-003	2.0000e-005	6.3900e-003	1.6900e-003	2.0000e-005	1.7100e-003	0.0000	4.2913	4.2913	7.0000e-005	9.0000e-005	4.3211
Total	**1.3700e-003**	**7.2000e-004**	**0.0119**	**4.0000e-005**	**6.3700e-003**	**2.0000e-005**	**6.3900e-003**	**1.6900e-003**	**2.0000e-005**	**1.7100e-003**	**0.0000**	**4.2913**	**4.2913**	**7.0000e-005**	**9.0000e-005**	**4.3211**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

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

4.2 Trip Summary Information

Mountain House Project: Existing Neighborhood L (Construction Only) - San Joaquin County, Annual

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

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
City Park	9.50	7.30	7.30	33.00	48.00	19.00	66	28	6

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
City Park	0.562575	0.054211	0.173956	0.129021	0.020762	0.005403	0.012551	0.016264	0.000437	0.000310	0.020936	0.000984	0.0025

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

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

Mountain House Project: Existing Neighborhood L (Construction Only) - San Joaquin County, Annual

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

NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

5.3 Energy by Land Use - Electricity

Mountain House Project: Existing Neighborhood L (Construction Only) - San Joaquin County, Annual

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

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
City Park	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
City Park	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

6.1 Mitigation Measures Area

Mountain House Project: Existing Neighborhood L (Construction Only) - San Joaquin County, Annual

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

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

6.2 Area by SubCategory

Unmitigated

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

Mitigated

Mountain House Project: Existing Neighborhood L (Construction Only) - San Joaquin County, Annual

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

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

7.0 Water Detail

7.1 Mitigation Measures Water

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

7.2 Water by Land Use

Mountain House Project: Existing Neighborhood L (Construction Only) - San Joaquin County, Annual

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

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
City Park	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
City Park	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

Mountain House Project: Existing Neighborhood L (Construction Only) - San Joaquin County, Annual

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

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

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e

Mountain House Project: Existing Neighborhood L (Construction Only) - San Joaquin County, Annual

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

Land Use	tons	MT/yr			
City Park	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

9.0 Operational Offroad

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

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

Mountain House Project: Town Center Existing Uses (Construction) - San Joaquin County, Annual

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

Mountain House Project: Town Center Existing Uses (Construction)

San Joaquin County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Office Park	68.00	1000sqft	4.42	68,000.00	0
Other Asphalt Surfaces	34.00	1000sqft	0.78	34,000.00	0
Apartments Low Rise	200.00	Dwelling Unit	4.10	178,596.00	634
Other Asphalt Surfaces	28.46	1000sqft	0.65	28,460.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.7	**Precipitation Freq (Days)**	51
Climate Zone	2			**Operational Year**	2030
Utility Company	Modesto Irrigation District				
CO2 Intensity (lb/MWhr)	452.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Office Park + Paving = Originally proposed 5.2 acres PF-Private

Apartments Low rise + Paving = Originally Proposed 4.1 acres Mixed Use

Construction Phase - Construction of the Public Facility would occur from Spring 2024 to Fall 2025. Construction of the Mixed-Uses would be from Spring 2028 to Summer 2030.

Grading - Soil import/export unknown at this time. Assumed default graded area.

Demolition - No demolition anticipated at this time.

Architectural Coating - 2019 CalGreen Code requirement.

Vehicle Trips - Construction Only.

Woodstoves - Construction Only.

Mountain House Project: Town Center Existing Uses (Construction) - San Joaquin County, Annual

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

Consumer Products - Construction Only.

Area Coating - Construction Only.

Landscape Equipment - Construction Only.

Energy Use - Construction Only.

Water And Wastewater - Construction Only.

Solid Waste - Construction Only.

Construction Off-road Equipment Mitigation - SJVAPCD Regulation VIII - Fugitive PM10 Prohibitions

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	150.00	100.00
tblArchitecturalCoating	EF_Nonresidential_Exterior	150.00	100.00
tblArchitecturalCoating	EF_Nonresidential_Interior	150.00	100.00
tblArchitecturalCoating	EF_Nonresidential_Interior	150.00	100.00
tblArchitecturalCoating	EF_Parking	150.00	100.00
tblArchitecturalCoating	EF_Parking	150.00	100.00
tblArchitecturalCoating	EF_Residential_Exterior	150.00	100.00
tblArchitecturalCoating	EF_Residential_Exterior	150.00	100.00
tblArchitecturalCoating	EF_Residential_Interior	150.00	100.00
tblArchitecturalCoating	EF_Residential_Interior	150.00	100.00
tblAreaCoating	Area_Nonresidential_Exterior	34000	0
tblAreaCoating	Area_Nonresidential_Interior	102000	0
tblAreaCoating	Area_Parking	3748	0
tblAreaCoating	Area_Residential_Exterior	120552	0
tblAreaCoating	Area_Residential_Interior	361657	0
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	20.00	50.00
tblConstructionPhase	NumDays	230.00	250.00
tblConstructionPhase	NumDays	20.00	60.00
tblConstructionPhase	NumDays	20.00	40.00

Mountain House Project: Town Center Existing Uses (Construction) - San Joaquin County, Annual

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

tblConstructionPhase	NumDays	20.00	60.00
tblConstructionPhase	NumDays	230.00	450.00
tblConstructionPhase	NumDays	20.00	40.00
tblConstructionPhase	NumDays	20.00	50.00
tblConstructionPhase	PhaseEndDate	11/23/2022	10/10/2025
tblConstructionPhase	PhaseEndDate	9/28/2022	6/6/2025
tblConstructionPhase	PhaseEndDate	11/10/2021	6/21/2024
tblConstructionPhase	PhaseEndDate	10/26/2022	8/1/2025
tblConstructionPhase	PhaseStartDate	10/27/2022	8/2/2025
tblConstructionPhase	PhaseStartDate	11/11/2021	6/22/2024
tblConstructionPhase	PhaseStartDate	10/14/2021	4/1/2024
tblConstructionPhase	PhaseStartDate	9/29/2022	6/7/2025
tblConsumerProducts	ROG_EF	2.14E-05	0
tblConsumerProducts	ROG_EF_Degreaser	3.542E-07	0
tblConsumerProducts	ROG_EF_PesticidesFertilizers	5.152E-08	0
tblEnergyUse	LightingElect	810.36	0.00
tblEnergyUse	LightingElect	3.19	0.00
tblEnergyUse	NT24E	3,172.76	0.00
tblEnergyUse	NT24E	4.35	0.00
tblEnergyUse	NT24NG	2,687.00	0.00
tblEnergyUse	T24E	108.87	0.00
tblEnergyUse	T24E	2.68	0.00
tblEnergyUse	T24NG	8,969.37	0.00
tblEnergyUse	T24NG	10.80	0.00
tblFireplaces	FireplaceDayYear	82.00	0.00
tblFireplaces	FireplaceHourDay	3.00	0.00
tblFireplaces	FireplaceWoodMass	3,078.40	0.00
tblFireplaces	NumberGas	110.00	0.00

Mountain House Project: Town Center Existing Uses (Construction) - San Joaquin County, Annual

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

tblFireplaces	NumberNoFireplace	90.00	0.00
tblLandscapeEquipment	NumberSummerDays	180	0
tblLandUse	LandUseSquareFeet	200,000.00	178,596.00
tblLandUse	LotAcreage	1.56	4.42
tblLandUse	LotAcreage	12.50	4.10
tblSolidWaste	SolidWasteGenerationRate	92.00	0.00
tblSolidWaste	SolidWasteGenerationRate	63.24	0.00
tblVehicleTrips	ST_TR	8.14	0.00
tblVehicleTrips	ST_TR	1.64	0.00
tblVehicleTrips	SU_TR	6.28	0.00
tblVehicleTrips	SU_TR	0.76	0.00
tblVehicleTrips	WD_TR	7.32	0.00
tblVehicleTrips	WD_TR	11.07	0.00
tblWater	IndoorWaterUseRate	13,030,805.12	0.00
tblWater	IndoorWaterUseRate	12,085,894.86	0.00
tblWater	OutdoorWaterUseRate	8,215,072.80	0.00
tblWater	OutdoorWaterUseRate	7,407,483.95	0.00
tblWoodstoves	NumberCatalytic	4.10	0.00
tblWoodstoves	NumberNoncatalytic	4.10	0.00
tblWoodstoves	WoodstoveDayYear	82.00	0.00
tblWoodstoves	WoodstoveWoodMass	3,019.20	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

Mountain House Project: Town Center Existing Uses (Construction) - San Joaquin County, Annual

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2024	0.1902	1.5852	1.8752	4.2100e-003	0.3403	0.0651	0.4054	0.1372	0.0608	0.1980	0.0000	376.7551	376.7551	0.0654	0.0107	381.5774
2025	1.5757	1.0301	1.5139	3.3000e-003	0.1124	0.0406	0.1530	0.0303	0.0381	0.0684	0.0000	295.5121	295.5121	0.0462	8.6900e-003	299.2566
2028	0.1682	1.4419	1.7812	4.0200e-003	0.3385	0.0555	0.3940	0.1367	0.0519	0.1885	0.0000	361.2459	361.2459	0.0639	9.4100e-003	365.6471
2029	0.2321	1.8950	2.5671	5.9500e-003	0.2367	0.0711	0.3078	0.0638	0.0669	0.1307	0.0000	537.8686	537.8686	0.0743	0.0176	544.9822
2030	1.5223	0.4341	0.9110	2.0300e-003	0.0589	0.0116	0.0705	0.0158	0.0116	0.0274	0.0000	180.2071	180.2071	6.0900e-003	3.7200e-003	181.4683
Maximum	**1.5757**	**1.8950**	**2.5671**	**5.9500e-003**	**0.3403**	**0.0711**	**0.4054**	**0.1372**	**0.0669**	**0.1980**	**0.0000**	**537.8686**	**537.8686**	**0.0743**	**0.0176**	**544.9822**

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					
2024	0.1902	1.5852	1.8752	4.2100e-003	0.2234	0.0651	0.2885	0.0807	0.0608	0.1415	0.0000	376.7548	376.7548	0.0654	0.0107	381.5771
2025	1.5757	1.0301	1.5139	3.3000e-003	0.1124	0.0406	0.1530	0.0303	0.0381	0.0684	0.0000	295.5119	295.5119	0.0462	8.6900e-003	299.2564
2028	0.1682	1.4419	1.7812	4.0200e-003	0.2216	0.0555	0.2772	0.0802	0.0519	0.1320	0.0000	361.2456	361.2456	0.0639	9.4100e-003	365.6468
2029	0.2321	1.8950	2.5671	5.9500e-003	0.2367	0.0711	0.3078	0.0638	0.0669	0.1307	0.0000	537.8682	537.8682	0.0743	0.0176	544.9819
2030	1.5223	0.4341	0.9110	2.0300e-003	0.0589	0.0116	0.0705	0.0158	0.0116	0.0274	0.0000	180.2069	180.2069	6.0900e-003	3.7200e-003	181.4681
Maximum	**1.5757**	**1.8950**	**2.5671**	**5.9500e-003**	**0.2367**	**0.0711**	**0.3078**	**0.0807**	**0.0669**	**0.1415**	**0.0000**	**537.8682**	**537.8682**	**0.0743**	**0.0176**	**544.9819**

Date: 9/2/2021 10:24 AM

Mountain House Project: Town Center Existing Uses (Construction) - San Joaquin County, Annual

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	21.51	0.00	17.56	29.45	0.00	18.44	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)
11	3-2-2024	6-1-2024	0.4154	0.4154
12	6-2-2024	9-1-2024	0.5880	0.5880
13	9-2-2024	12-1-2024	0.5771	0.5771
14	12-2-2024	3-1-2025	0.5474	0.5474
15	3-2-2025	6-1-2025	0.5435	0.5435
16	6-2-2025	9-1-2025	0.8772	0.8772
17	9-2-2025	12-1-2025	0.8236	0.8236
27	3-2-2028	6-1-2028	0.3739	0.3739
28	6-2-2028	9-1-2028	0.5401	0.5401
29	9-2-2028	12-1-2028	0.5328	0.5328
30	12-2-2028	3-1-2029	0.5272	0.5272
31	3-2-2029	6-1-2029	0.5353	0.5353
32	6-2-2029	9-1-2029	0.5338	0.5338
33	9-2-2029	12-1-2029	0.5310	0.5310
34	12-2-2029	3-1-2030	0.4272	0.4272
35	3-2-2030	6-1-2030	0.6932	0.6932
36	6-2-2030	9-1-2030	1.0072	1.0072
		Highest	1.0072	1.0072

2.2 Overall Operational

Unmitigated Operational

Mountain House Project: Town Center Existing Uses (Construction) - San Joaquin County, Annual

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

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

Mitigated Operational

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

Mountain House Project: Town Center Existing Uses (Construction) - San Joaquin County, Annual

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

Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Grading - PF	Grading	4/1/2024	6/21/2024	5	60	
2	Building Construction - PF	Building Construction	6/22/2024	6/6/2025	5	250	
3	Paving - PF	Paving	6/7/2025	8/1/2025	5	40	
4	Architectural Coating - PF	Architectural Coating	8/2/2025	10/10/2025	5	50	
5	Grading - MX	Grading	4/1/2028	6/23/2028	5	60	
6	Building Construction - MX	Building Construction	6/24/2028	3/15/2030	5	450	
7	Paving - MX	Paving	3/16/2030	5/10/2030	5	40	
8	Architectural Coating - MX	Architectural Coating	5/11/2030	7/19/2030	5	50	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 60

Acres of Paving: 1.43

Residential Indoor: 361,657; Residential Outdoor: 120,552; Non-Residential Indoor: 102,000; Non-Residential Outdoor: 34,000; Striped Parking Area: 3,748

OffRoad Equipment

Mountain House Project: Town Center Existing Uses (Construction) - San Joaquin County, Annual

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

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

Trips and VMT

Mountain House Project: Town Center Existing Uses (Construction) - San Joaquin County, Annual

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

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Grading - MX	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction - MX	9	192.00	43.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading - PF	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction - PF	9	192.00	43.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving - PF	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating - PF	1	38.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving - MX	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating - MX	1	38.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Grading - PF - 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					
Fugitive Dust					0.2125	0.0000	0.2125	0.1027	0.0000	0.1027	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0499	0.5109	0.4428	8.9000e-004		0.0217	0.0217		0.0200	0.0200	0.0000	78.1917	78.1917	0.0253	0.0000	78.8239
Total	**0.0499**	**0.5109**	**0.4428**	**8.9000e-004**	**0.2125**	**0.0217**	**0.2342**	**0.1027**	**0.0200**	**0.1227**	**0.0000**	**78.1917**	**78.1917**	**0.0253**	**0.0000**	**78.8239**

Mountain House Project: Town Center Existing Uses (Construction) - San Joaquin County, Annual

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

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.2100e-003	7.6000e-004	9.5100e-003	3.0000e-005	3.5800e-003	2.0000e-005	3.6000e-003	9.5000e-004	2.0000e-005	9.7000e-004	0.0000	2.7750	2.7750	8.0000e-005	7.0000e-005	2.7991
Total	**1.2100e-003**	**7.6000e-004**	**9.5100e-003**	**3.0000e-005**	**3.5800e-003**	**2.0000e-005**	**3.6000e-003**	**9.5000e-004**	**2.0000e-005**	**9.7000e-004**	**0.0000**	**2.7750**	**2.7750**	**8.0000e-005**	**7.0000e-005**	**2.7991**

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					0.0956	0.0000	0.0956	0.0462	0.0000	0.0462	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0499	0.5109	0.4428	8.9000e-004		0.0217	0.0217		0.0200	0.0200	0.0000	78.1916	78.1916	0.0253	0.0000	78.8239
Total	**0.0499**	**0.5109**	**0.4428**	**8.9000e-004**	**0.0956**	**0.0217**	**0.1173**	**0.0462**	**0.0200**	**0.0662**	**0.0000**	**78.1916**	**78.1916**	**0.0253**	**0.0000**	**78.8239**

Mountain House Project: Town Center Existing Uses (Construction) - San Joaquin County, Annual

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

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.2100e-003	7.6000e-004	9.5100e-003	3.0000e-005	3.5800e-003	2.0000e-005	3.6000e-003	9.5000e-004	2.0000e-005	9.7000e-004	0.0000	2.7750	2.7750	8.0000e-005	7.0000e-005	2.7991
Total	**1.2100e-003**	**7.6000e-004**	**9.5100e-003**	**3.0000e-005**	**3.5800e-003**	**2.0000e-005**	**3.6000e-003**	**9.5000e-004**	**2.0000e-005**	**9.7000e-004**	**0.0000**	**2.7750**	**2.7750**	**8.0000e-005**	**7.0000e-005**	**2.7991**

3.3 Building Construction - PF - 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	0.1008	0.9209	1.1074	1.8500e-003		0.0420	0.0420		0.0395	0.0395	0.0000	158.8166	158.8166	0.0376	0.0000	159.7555
Total	**0.1008**	**0.9209**	**1.1074**	**1.8500e-003**		**0.0420**	**0.0420**		**0.0395**	**0.0395**	**0.0000**	**158.8166**	**158.8166**	**0.0376**	**0.0000**	**159.7555**

Unmitigated Construction Off-Site

Mountain House Project: Town Center Existing Uses (Construction) - San Joaquin County, Annual

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.0300e-003	0.1304	0.0376	5.8000e-004	0.0195	8.4000e-004	0.0203	5.6300e-003	8.0000e-004	6.4300e-003	0.0000	55.8692	55.8692	2.7000e-004	8.4400e-003	58.3900
Worker	0.0353	0.0222	0.2778	8.7000e-004	0.1048	4.9000e-004	0.1053	0.0279	4.5000e-004	0.0283	0.0000	81.1026	81.1026	2.2500e-003	2.1800e-003	81.8087
Total	**0.0383**	**0.1526**	**0.3155**	**1.4500e-003**	**0.1242**	**1.3300e-003**	**0.1256**	**0.0335**	**1.2500e-003**	**0.0347**	**0.0000**	**136.9718**	**136.9718**	**2.5200e-003**	**0.0106**	**140.1988**

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	0.1008	0.9209	1.1074	1.8500e-003		0.0420	0.0420		0.0395	0.0395	0.0000	158.8165	158.8165	0.0376	0.0000	159.7553
Total	**0.1008**	**0.9209**	**1.1074**	**1.8500e-003**		**0.0420**	**0.0420**		**0.0395**	**0.0395**	**0.0000**	**158.8165**	**158.8165**	**0.0376**	**0.0000**	**159.7553**

Mitigated Construction Off-Site

Mountain House Project: Town Center Existing Uses (Construction) - San Joaquin County, Annual

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.0300e-003	0.1304	0.0376	5.8000e-004	0.0195	8.4000e-004	0.0203	5.6300e-003	8.0000e-004	6.4300e-003	0.0000	55.8692	55.8692	2.7000e-004	8.4400e-003	58.3900
Worker	0.0353	0.0222	0.2778	8.7000e-004	0.1048	4.9000e-004	0.1053	0.0279	4.5000e-004	0.0283	0.0000	81.1026	81.1026	2.2500e-003	2.1800e-003	81.8087
Total	**0.0383**	**0.1526**	**0.3155**	**1.4500e-003**	**0.1242**	**1.3300e-003**	**0.1256**	**0.0335**	**1.2500e-003**	**0.0347**	**0.0000**	**136.9718**	**136.9718**	**2.5200e-003**	**0.0106**	**140.1988**

3.3 Building Construction - PF - 2025

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	0.0773	0.7045	0.9088	1.5200e-003		0.0298	0.0298		0.0280	0.0280	0.0000	131.0345	131.0345	0.0308	0.0000	131.8046
Total	**0.0773**	**0.7045**	**0.9088**	**1.5200e-003**		**0.0298**	**0.0298**		**0.0280**	**0.0280**	**0.0000**	**131.0345**	**131.0345**	**0.0308**	**0.0000**	**131.8046**

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

Mountain House Project: Town Center Existing Uses (Construction) - San Joaquin County, Annual

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

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	2.4500e-003	0.1072	0.0305	4.7000e-004	0.0161	6.9000e-004	0.0168	4.6400e-003	6.6000e-004	5.3000e-003	0.0000	45.2624	45.2624	2.1000e-004	6.8300e-003	47.3018
Worker	0.0270	0.0163	0.2132	6.9000e-004	0.0864	3.8000e-004	0.0868	0.0230	3.5000e-004	0.0233	0.0000	65.2723	65.2723	1.6700e-003	1.6700e-003	65.8127
Total	**0.0295**	**0.1235**	**0.2437**	**1.1600e-003**	**0.1025**	**1.0700e-003**	**0.1035**	**0.0276**	**1.0100e-003**	**0.0286**	**0.0000**	**110.5347**	**110.5347**	**1.8800e-003**	**8.5000e-003**	**113.1145**

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	0.0773	0.7045	0.9088	1.5200e-003		0.0298	0.0298		0.0280	0.0280	0.0000	131.0343	131.0343	0.0308	0.0000	131.8044
Total	**0.0773**	**0.7045**	**0.9088**	**1.5200e-003**		**0.0298**	**0.0298**		**0.0280**	**0.0280**	**0.0000**	**131.0343**	**131.0343**	**0.0308**	**0.0000**	**131.8044**

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					

Mountain House Project: Town Center Existing Uses (Construction) - San Joaquin County, Annual

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

Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.4500e-003	0.1072	0.0305	4.7000e-004	0.0161	6.9000e-004	0.0168	4.6400e-003	6.6000e-004	5.3000e-003	0.0000	45.2624	45.2624	2.1000e-004	6.8300e-003	47.3018
Worker	0.0270	0.0163	0.2132	6.9000e-004	0.0864	3.8000e-004	0.0868	0.0230	3.5000e-004	0.0233	0.0000	65.2723	65.2723	1.6700e-003	1.6700e-003	65.8127
Total	**0.0295**	**0.1235**	**0.2437**	**1.1600e-003**	**0.1025**	**1.0700e-003**	**0.1035**	**0.0276**	**1.0100e-003**	**0.0286**	**0.0000**	**110.5347**	**110.5347**	**1.8800e-003**	**8.5000e-003**	**113.1145**

3.4 Paving - PF - 2025

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	0.0183	0.1716	0.2916	4.6000e-004		8.3700e-003	8.3700e-003		7.7000e-003	7.7000e-003	0.0000	40.0385	40.0385	0.0130	0.0000	40.3622
Paving	1.8700e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0202**	**0.1716**	**0.2916**	**4.6000e-004**		**8.3700e-003**	**8.3700e-003**		**7.7000e-003**	**7.7000e-003**	**0.0000**	**40.0385**	**40.0385**	**0.0130**	**0.0000**	**40.3622**

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					

Mountain House Project: Town Center Existing Uses (Construction) - San Joaquin County, Annual

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

Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.5000e-004	4.5000e-004	5.9000e-003	2.0000e-005	2.3900e-003	1.0000e-005	2.4000e-003	6.4000e-004	1.0000e-005	6.5000e-004	0.0000	1.8051	1.8051	5.0000e-005	5.0000e-005	1.8200
Total	**7.5000e-004**	**4.5000e-004**	**5.9000e-003**	**2.0000e-005**	**2.3900e-003**	**1.0000e-005**	**2.4000e-003**	**6.4000e-004**	**1.0000e-005**	**6.5000e-004**	**0.0000**	**1.8051**	**1.8051**	**5.0000e-005**	**5.0000e-005**	**1.8200**

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	0.0183	0.1716	0.2916	4.6000e-004		8.3700e-003	8.3700e-003		7.7000e-003	7.7000e-003	0.0000	40.0385	40.0385	0.0130	0.0000	40.3622
Paving	1.8700e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0202**	**0.1716**	**0.2916**	**4.6000e-004**		**8.3700e-003**	**8.3700e-003**		**7.7000e-003**	**7.7000e-003**	**0.0000**	**40.0385**	**40.0385**	**0.0130**	**0.0000**	**40.3622**

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					

Mountain House Project: Town Center Existing Uses (Construction) - San Joaquin County, Annual

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

Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.5000e-004	4.5000e-004	5.9000e-003	2.0000e-005	2.3900e-003	1.0000e-005	2.4000e-003	6.4000e-004	1.0000e-005	6.5000e-004	0.0000	1.8051	1.8051	5.0000e-005	5.0000e-005	1.8200
Total	**7.5000e-004**	**4.5000e-004**	**5.9000e-003**	**2.0000e-005**	**2.3900e-003**	**1.0000e-005**	**2.4000e-003**	**6.4000e-004**	**1.0000e-005**	**6.5000e-004**	**0.0000**	**1.8051**	**1.8051**	**5.0000e-005**	**5.0000e-005**	**1.8200**

3.5 Architectural Coating - PF - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.4414					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.2700e-003	0.0286	0.0452	7.0000e-005		1.2900e-003	1.2900e-003		1.2900e-003	1.2900e-003	0.0000	6.3831	6.3831	3.5000e-004	0.0000	6.3918
Total	**1.4457**	**0.0286**	**0.0452**	**7.0000e-005**		**1.2900e-003**	**1.2900e-003**		**1.2900e-003**	**1.2900e-003**	**0.0000**	**6.3831**	**6.3831**	**3.5000e-004**	**0.0000**	**6.3918**

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					

Mountain House Project: Town Center Existing Uses (Construction) - San Joaquin County, Annual

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

Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	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	2.3700e-003	1.4300e-003	0.0187	6.0000e-005	7.5700e-003	3.0000e-005	7.6000e-003	2.0100e-003	3.0000e-005	2.0400e-003	0.0000	5.7161	5.7161	1.5000e-004	1.5000e-004	5.7635
Total	**2.3700e-003**	**1.4300e-003**	**0.0187**	**6.0000e-005**	**7.5700e-003**	**3.0000e-005**	**7.6000e-003**	**2.0100e-003**	**3.0000e-005**	**2.0400e-003**	**0.0000**	**5.7161**	**5.7161**	**1.5000e-004**	**1.5000e-004**	**5.7635**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.4414					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.2700e-003	0.0286	0.0452	7.0000e-005		1.2900e-003	1.2900e-003		1.2900e-003	1.2900e-003	0.0000	6.3831	6.3831	3.5000e-004	0.0000	6.3918
Total	**1.4457**	**0.0286**	**0.0452**	**7.0000e-005**		**1.2900e-003**	**1.2900e-003**		**1.2900e-003**	**1.2900e-003**	**0.0000**	**6.3831**	**6.3831**	**3.5000e-004**	**0.0000**	**6.3918**

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					

Mountain House Project: Town Center Existing Uses (Construction) - San Joaquin County, Annual

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

Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	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	2.3700e-003	1.4300e-003	0.0187	6.0000e-005	7.5700e-003	3.0000e-005	7.6000e-003	2.0100e-003	3.0000e-005	2.0400e-003	0.0000	5.7161	5.7161	1.5000e-004	1.5000e-004	5.7635
Total	**2.3700e-003**	**1.4300e-003**	**0.0187**	**6.0000e-005**	**7.5700e-003**	**3.0000e-005**	**7.6000e-003**	**2.0100e-003**	**3.0000e-005**	**2.0400e-003**	**0.0000**	**5.7161**	**5.7161**	**1.5000e-004**	**1.5000e-004**	**5.7635**

3.6 Grading - MX - 2028

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					0.2125	0.0000	0.2125	0.1027	0.0000	0.1027	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0457	0.4594	0.4362	8.9000e-004		0.0187	0.0187		0.0172	0.0172	0.0000	78.2094	78.2094	0.0253	0.0000	78.8418
Total	**0.0457**	**0.4594**	**0.4362**	**8.9000e-004**	**0.2125**	**0.0187**	**0.2312**	**0.1027**	**0.0172**	**0.1200**	**0.0000**	**78.2094**	**78.2094**	**0.0253**	**0.0000**	**78.8418**

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					

Mountain House Project: Town Center Existing Uses (Construction) - San Joaquin County, Annual

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

Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	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	9.2000e-004	5.0000e-004	7.5200e-003	3.0000e-005	3.5800e-003	1.0000e-005	3.6000e-003	9.5000e-004	1.0000e-005	9.7000e-004	0.0000	2.5339	2.5339	5.0000e-005	6.0000e-005	2.5527
Total	**9.2000e-004**	**5.0000e-004**	**7.5200e-003**	**3.0000e-005**	**3.5800e-003**	**1.0000e-005**	**3.6000e-003**	**9.5000e-004**	**1.0000e-005**	**9.7000e-004**	**0.0000**	**2.5339**	**2.5339**	**5.0000e-005**	**6.0000e-005**	**2.5527**

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					0.0956	0.0000	0.0956	0.0462	0.0000	0.0462	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0457	0.4594	0.4362	8.9000e-004		0.0187	0.0187		0.0172	0.0172	0.0000	78.2094	78.2094	0.0253	0.0000	78.8417
Total	**0.0457**	**0.4594**	**0.4362**	**8.9000e-004**	**0.0956**	**0.0187**	**0.1143**	**0.0462**	**0.0172**	**0.0634**	**0.0000**	**78.2094**	**78.2094**	**0.0253**	**0.0000**	**78.8417**

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					

Mountain House Project: Town Center Existing Uses (Construction) - San Joaquin County, Annual

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

Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	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	9.2000e-004	5.0000e-004	7.5200e-003	3.0000e-005	3.5800e-003	1.0000e-005	3.6000e-003	9.5000e-004	1.0000e-005	9.7000e-004	0.0000	2.5339	2.5339	5.0000e-005	6.0000e-005	2.5527
Total	**9.2000e-004**	**5.0000e-004**	**7.5200e-003**	**3.0000e-005**	**3.5800e-003**	**1.0000e-005**	**3.6000e-003**	**9.5000e-004**	**1.0000e-005**	**9.7000e-004**	**0.0000**	**2.5339**	**2.5339**	**5.0000e-005**	**6.0000e-005**	**2.5527**

3.7 Building Construction - MX - 2028

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	0.0923	0.8417	1.0857	1.8200e-003		0.0356	0.0356		0.0335	0.0335	0.0000	156.5456	156.5456	0.0368	0.0000	157.4656
Total	**0.0923**	**0.8417**	**1.0857**	**1.8200e-003**		**0.0356**	**0.0356**		**0.0335**	**0.0335**	**0.0000**	**156.5456**	**156.5456**	**0.0368**	**0.0000**	**157.4656**

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

Mountain House Project: Town Center Existing Uses (Construction) - San Joaquin County, Annual

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

Vendor	2.7800e-003	0.1258	0.0351	5.3000e-004	0.0192	8.1000e-004	0.0200	5.5400e-003	7.8000e-004	6.3200e-003	0.0000	50.9807	50.9807	2.3000e-004	7.6600e-003	53.2685
Worker	0.0266	0.0145	0.2166	7.5000e-004	0.1032	3.9000e-004	0.1036	0.0275	3.6000e-004	0.0278	0.0000	72.9763	72.9763	1.5100e-003	1.6900e-003	73.5185
Total	**0.0293**	**0.1403**	**0.2517**	**1.2800e-003**	**0.1224**	**1.2000e-003**	**0.1236**	**0.0330**	**1.1400e-003**	**0.0341**	**0.0000**	**123.9570**	**123.9570**	**1.7400e-003**	**9.3500e-003**	**126.7869**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0923	0.8417	1.0857	1.8200e-003		0.0356	0.0356		0.0335	0.0335	0.0000	156.5454	156.5454	0.0368	0.0000	157.4654
Total	**0.0923**	**0.8417**	**1.0857**	**1.8200e-003**		**0.0356**	**0.0356**		**0.0335**	**0.0335**	**0.0000**	**156.5454**	**156.5454**	**0.0368**	**0.0000**	**157.4654**

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	2.7800e-003	0.1258	0.0351	5.3000e-004	0.0192	8.1000e-004	0.0200	5.5400e-003	7.8000e-004	6.3200e-003	0.0000	50.9807	50.9807	2.3000e-004	7.6600e-003	53.2685

Mountain House Project: Town Center Existing Uses (Construction) - San Joaquin County, Annual

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

Worker	0.0266	0.0145	0.2166	7.5000e-004	0.1032	3.9000e-004	0.1036	0.0275	3.6000e-004	0.0278	0.0000	72.9763	72.9763	1.5100e-003	1.6900e-003	73.5185
Total	**0.0293**	**0.1403**	**0.2517**	**1.2800e-003**	**0.1224**	**1.2000e-003**	**0.1236**	**0.0330**	**1.1400e-003**	**0.0341**	**0.0000**	**123.9570**	**123.9570**	**1.7400e-003**	**9.3500e-003**	**126.7869**

3.7 Building Construction - MX - 2029

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	0.1785	1.6273	2.0991	3.5200e-003		0.0689	0.0689		0.0648	0.0648	0.0000	302.6549	302.6549	0.0711	0.0000	304.4335
Total	**0.1785**	**1.6273**	**2.0991**	**3.5200e-003**		**0.0689**	**0.0689**		**0.0648**	**0.0648**	**0.0000**	**302.6549**	**302.6549**	**0.0711**	**0.0000**	**304.4335**

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	5.3100e-003	0.2417	0.0673	1.0100e-003	0.0371	1.5600e-003	0.0387	0.0107	1.4900e-003	0.0122	0.0000	96.6529	96.6529	4.3000e-004	0.0145	100.9849
Worker	0.0483	0.0259	0.4007	1.4200e-003	0.1996	7.1000e-004	0.2003	0.0531	6.5000e-004	0.0537	0.0000	138.5608	138.5608	2.7000e-003	3.1400e-003	139.5638

Mountain House Project: Town Center Existing Uses (Construction) - San Joaquin County, Annual

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

Total	**0.0536**	**0.2677**	**0.4680**	**2.4300e-003**	**0.2367**	**2.2700e-003**	**0.2389**	**0.0638**	**2.1400e-003**	**0.0659**	**0.0000**	**235.2137**	**235.2137**	**3.1300e-003**	**0.0176**	**240.5487**

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	0.1784	1.6273	2.0991	3.5200e-003		0.0689	0.0689		0.0648	0.0648	0.0000	302.6545	302.6545	0.0711	0.0000	304.4331
Total	**0.1784**	**1.6273**	**2.0991**	**3.5200e-003**		**0.0689**	**0.0689**		**0.0648**	**0.0648**	**0.0000**	**302.6545**	**302.6545**	**0.0711**	**0.0000**	**304.4331**

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	5.3100e-003	0.2417	0.0673	1.0100e-003	0.0371	1.5600e-003	0.0387	0.0107	1.4900e-003	0.0122	0.0000	96.6529	96.6529	4.3000e-004	0.0145	100.9849
Worker	0.0483	0.0259	0.4007	1.4200e-003	0.1996	7.1000e-004	0.2003	0.0531	6.5000e-004	0.0537	0.0000	138.5608	138.5608	2.7000e-003	3.1400e-003	139.5638
Total	**0.0536**	**0.2677**	**0.4680**	**2.4300e-003**	**0.2367**	**2.2700e-003**	**0.2389**	**0.0638**	**2.1400e-003**	**0.0659**	**0.0000**	**235.2137**	**235.2137**	**3.1300e-003**	**0.0176**	**240.5487**

Mountain House Project: Town Center Existing Uses (Construction) - San Joaquin County, Annual

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

3.7 Building Construction - MX - 2030

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	0.0354	0.2142	0.4362	8.4000e-004		4.0000e-003	4.0000e-003		4.0000e-003	4.0000e-003	0.0000	70.9725	70.9725	2.8500e-003	0.0000	71.0437
Total	**0.0354**	**0.2142**	**0.4362**	**8.4000e-004**		**4.0000e-003**	**4.0000e-003**		**4.0000e-003**	**4.0000e-003**	**0.0000**	**70.9725**	**70.9725**	**2.8500e-003**	**0.0000**	**71.0437**

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	1.0900e-003	0.0498	0.0138	2.0000e-004	7.6700e-003	3.2000e-004	7.9900e-003	2.2200e-003	3.1000e-004	2.5200e-003	0.0000	19.6385	19.6385	9.0000e-005	2.9400e-003	20.5176
Worker	9.4200e-003	5.0000e-003	0.0798	2.9000e-004	0.0413	1.4000e-004	0.0414	0.0110	1.3000e-004	0.0111	0.0000	28.2114	28.2114	5.2000e-004	6.3000e-004	28.4112
Total	**0.0105**	**0.0548**	**0.0936**	**4.9000e-004**	**0.0490**	**4.6000e-004**	**0.0494**	**0.0132**	**4.4000e-004**	**0.0136**	**0.0000**	**47.8499**	**47.8499**	**6.1000e-004**	**3.5700e-003**	**48.9288**

Mountain House Project: Town Center Existing Uses (Construction) - San Joaquin County, Annual

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

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0354	0.2142	0.4362	8.4000e-004		4.0000e-003	4.0000e-003		4.0000e-003	4.0000e-003	0.0000	70.9724	70.9724	2.8500e-003	0.0000	71.0436
Total	**0.0354**	**0.2142**	**0.4362**	**8.4000e-004**		**4.0000e-003**	**4.0000e-003**		**4.0000e-003**	**4.0000e-003**	**0.0000**	**70.9724**	**70.9724**	**2.8500e-003**	**0.0000**	**71.0436**

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	1.0900e-003	0.0498	0.0138	2.0000e-004	7.6700e-003	3.2000e-004	7.9900e-003	2.2200e-003	3.1000e-004	2.5200e-003	0.0000	19.6385	19.6385	9.0000e-005	2.9400e-003	20.5176
Worker	9.4200e-003	5.0000e-003	0.0798	2.9000e-004	0.0413	1.4000e-004	0.0414	0.0110	1.3000e-004	0.0111	0.0000	28.2114	28.2114	5.2000e-004	6.3000e-004	28.4112
Total	**0.0105**	**0.0548**	**0.0936**	**4.9000e-004**	**0.0490**	**4.6000e-004**	**0.0494**	**0.0132**	**4.4000e-004**	**0.0136**	**0.0000**	**47.8499**	**47.8499**	**6.1000e-004**	**3.5700e-003**	**48.9288**

3.8 Paving - MX - 2030

Unmitigated Construction On-Site

Date: 9/2/2021 10:24 AM

Mountain House Project: Town Center Existing Uses (Construction) - San Joaquin County, Annual

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0277	0.1424	0.3170	5.6000e-004		6.6100e-003	6.6100e-003		6.6100e-003	6.6100e-003	0.0000	48.1990	48.1990	2.2600e-003	0.0000	48.2555
Paving	1.8700e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0296**	**0.1424**	**0.3170**	**5.6000e-004**		**6.6100e-003**	**6.6100e-003**		**6.6100e-003**	**6.6100e-003**	**0.0000**	**48.1990**	**48.1990**	**2.2600e-003**	**0.0000**	**48.2555**

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	5.4000e-004	2.9000e-004	4.6200e-003	2.0000e-005	2.3900e-003	1.0000e-005	2.4000e-003	6.4000e-004	1.0000e-005	6.4000e-004	0.0000	1.6326	1.6326	3.0000e-005	4.0000e-005	1.6442
Total	**5.4000e-004**	**2.9000e-004**	**4.6200e-003**	**2.0000e-005**	**2.3900e-003**	**1.0000e-005**	**2.4000e-003**	**6.4000e-004**	**1.0000e-005**	**6.4000e-004**	**0.0000**	**1.6326**	**1.6326**	**3.0000e-005**	**4.0000e-005**	**1.6442**

Mitigated Construction On-Site

Mountain House Project: Town Center Existing Uses (Construction) - San Joaquin County, Annual

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0277	0.1424	0.3170	5.6000e-004		6.6100e-003	6.6100e-003		6.6100e-003	6.6100e-003	0.0000	48.1990	48.1990	2.2600e-003	0.0000	48.2555
Paving	1.8700e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0296**	**0.1424**	**0.3170**	**5.6000e-004**		**6.6100e-003**	**6.6100e-003**		**6.6100e-003**	**6.6100e-003**	**0.0000**	**48.1990**	**48.1990**	**2.2600e-003**	**0.0000**	**48.2555**

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	5.4000e-004	2.9000e-004	4.6200e-003	2.0000e-005	2.3900e-003	1.0000e-005	2.4000e-003	6.4000e-004	1.0000e-005	6.4000e-004	0.0000	1.6326	1.6326	3.0000e-005	4.0000e-005	1.6442
Total	**5.4000e-004**	**2.9000e-004**	**4.6200e-003**	**2.0000e-005**	**2.3900e-003**	**1.0000e-005**	**2.4000e-003**	**6.4000e-004**	**1.0000e-005**	**6.4000e-004**	**0.0000**	**1.6326**	**1.6326**	**3.0000e-005**	**4.0000e-005**	**1.6442**

3.9 Architectural Coating - MX - 2030

Unmitigated Construction On-Site

Date: 9/2/2021 10:24 AM

Mountain House Project: Town Center Existing Uses (Construction) - San Joaquin County, Annual

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.4414					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.2700e-003	0.0214	0.0449	7.0000e-005		5.1000e-004	5.1000e-004		5.1000e-004	5.1000e-004	0.0000	6.3831	6.3831	2.6000e-004	0.0000	6.3896
Total	**1.4447**	**0.0214**	**0.0449**	**7.0000e-005**		**5.1000e-004**	**5.1000e-004**		**5.1000e-004**	**5.1000e-004**	**0.0000**	**6.3831**	**6.3831**	**2.6000e-004**	**0.0000**	**6.3896**

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	1.7300e-003	9.2000e-004	0.0146	5.0000e-005	7.5700e-003	3.0000e-005	7.5900e-003	2.0100e-003	2.0000e-005	2.0300e-003	0.0000	5.1699	5.1699	9.0000e-005	1.1000e-004	5.2065
Total	**1.7300e-003**	**9.2000e-004**	**0.0146**	**5.0000e-005**	**7.5700e-003**	**3.0000e-005**	**7.5900e-003**	**2.0100e-003**	**2.0000e-005**	**2.0300e-003**	**0.0000**	**5.1699**	**5.1699**	**9.0000e-005**	**1.1000e-004**	**5.2065**

Mitigated Construction On-Site

Mountain House Project: Town Center Existing Uses (Construction) - San Joaquin County, Annual

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.4414					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.2700e-003	0.0214	0.0449	7.0000e-005		5.1000e-004	5.1000e-004		5.1000e-004	5.1000e-004	0.0000	6.3831	6.3831	2.6000e-004	0.0000	6.3896
Total	**1.4447**	**0.0214**	**0.0449**	**7.0000e-005**		**5.1000e-004**	**5.1000e-004**		**5.1000e-004**	**5.1000e-004**	**0.0000**	**6.3831**	**6.3831**	**2.6000e-004**	**0.0000**	**6.3896**

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	1.7300e-003	9.2000e-004	0.0146	5.0000e-005	7.5700e-003	3.0000e-005	7.5900e-003	2.0100e-003	2.0000e-005	2.0300e-003	0.0000	5.1699	5.1699	9.0000e-005	1.1000e-004	5.2065
Total	**1.7300e-003**	**9.2000e-004**	**0.0146**	**5.0000e-005**	**7.5700e-003**	**3.0000e-005**	**7.5900e-003**	**2.0100e-003**	**2.0000e-005**	**2.0300e-003**	**0.0000**	**5.1699**	**5.1699**	**9.0000e-005**	**1.1000e-004**	**5.2065**

4.0 Operational Detail - Mobile

Mountain House Project: Town Center Existing Uses (Construction) - San Joaquin County, Annual

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

4.1 Mitigation Measures Mobile

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

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	0.00	0.00	0.00		
Office Park	0.00	0.00	0.00		
Other Asphalt Surfaces	0.00	0.00	0.00		
Other Asphalt Surfaces	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Low Rise	10.80	7.30	7.50	45.60	19.00	35.40	86	11	3
Office Park	9.50	7.30	7.30	33.00	48.00	19.00	82	15	3
Other Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Other Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

Mountain House Project: Town Center Existing Uses (Construction) - San Joaquin County, Annual

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

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Low Rise	0.560100	0.053949	0.173371	0.131047	0.021297	0.005494	0.012620	0.016451	0.000441	0.000312	0.021225	0.001008	0.0026
Office Park	0.560100	0.053949	0.173371	0.131047	0.021297	0.005494	0.012620	0.016451	0.000441	0.000312	0.021225	0.001008	0.0026
Other Asphalt Surfaces	0.560100	0.053949	0.173371	0.131047	0.021297	0.005494	0.012620	0.016451	0.000441	0.000312	0.021225	0.001008	0.0026

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

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

5.2 Energy by Land Use - NaturalGas

Unmitigated

Mountain House Project: Town Center Existing Uses (Construction) - San Joaquin County, Annual

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

	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 Low Rise	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Office Park	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
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Low Rise	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Office Park	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
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

5.3 Energy by Land Use - Electricity

Date: 9/2/2021 10:24 AM

Mountain House Project: Town Center Existing Uses (Construction) - San Joaquin County, Annual

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

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Low Rise	0	0.0000	0.0000	0.0000	0.0000
Office Park	0	0.0000	0.0000	0.0000	0.0000
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Low Rise	0	0.0000	0.0000	0.0000	0.0000
Office Park	0	0.0000	0.0000	0.0000	0.0000
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mountain House Project: Town Center Existing Uses (Construction) - San Joaquin County, Annual

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

6.0 Area Detail

6.1 Mitigation Measures Area

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

6.2 Area by SubCategory

Unmitigated

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

Mountain House Project: Town Center Existing Uses (Construction) - San Joaquin County, Annual

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

Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

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

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e

Mountain House Project: Town Center Existing Uses (Construction) - San Joaquin County, Annual

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

Category	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Low Rise	0 / 0	0.0000	0.0000	0.0000	0.0000
Office Park	0 / 0	0.0000	0.0000	0.0000	0.0000
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			

Mountain House Project: Town Center Existing Uses (Construction) - San Joaquin County, Annual

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

Apartments Low Rise	0 / 0	0.0000	0.0000	0.0000	0.0000
Office Park	0 / 0	0.0000	0.0000	0.0000	0.0000
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

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

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e

Mountain House Project: Town Center Existing Uses (Construction) - San Joaquin County, Annual

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

Land Use	tons	MT/yr			
Apartments Low Rise	0	0.0000	0.0000	0.0000	0.0000
Office Park	0	0.0000	0.0000	0.0000	0.0000
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Low Rise	0	0.0000	0.0000	0.0000	0.0000
Office Park	0	0.0000	0.0000	0.0000	0.0000
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

9.0 Operational Offroad

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

Mountain House Project: Town Center Existing Uses (Construction) - San Joaquin County, Annual

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Appendix A: Proposed Project Amendment: Construction CalEEMod Runs

Mountain House Project: Proposed Neighborhood H (Construction Only) - San Joaquin County, Annual

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

Mountain House Project: Proposed Neighborhood H (Construction Only)

San Joaquin County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Apartments Low Rise	161.00	Dwelling Unit	8.19	161,000.00	511
Parking Lot	144.00	1000sqft	3.31	144,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.7	**Precipitation Freq (Days)**	51
Climate Zone	2			**Operational Year**	2026
Utility Company	Modesto Irrigation District				
CO2 Intensity (lb/MWhr)	452.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Construction Only.

Land Use - 11.5 acre lot. 161 DU RMH + parking.

Construction Phase - No Demo or Site prep needed.

Grading - Soil will be balanced on-site. Current import/export is unknown. Default acres graded.

Architectural Coating - 2019 CalGreen Code.

Vehicle Trips - Construction only.

Woodstoves - Construction only.

Consumer Products - Construction only.

Area Coating - Construction only.

Landscape Equipment - Construction only.

Date: 9/21/2021 11:12 AM

Mountain House Project: Proposed Neighborhood H (Construction Only) - San Joaquin County, Annual

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

Energy Use - Construction only.

Water And Wastewater - Construction only.

Solid Waste - Construction only.

Construction Off-road Equipment Mitigation - SVAPCD Regulation VIII

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	150.00	100.00
tblArchitecturalCoating	EF_Nonresidential_Interior	150.00	100.00
tblArchitecturalCoating	EF_Parking	150.00	100.00
tblArchitecturalCoating	EF_Residential_Exterior	150.00	100.00
tblArchitecturalCoating	EF_Residential_Interior	150.00	100.00
tblAreaCoating	Area_Parking	8640	0
tblAreaCoating	Area_Residential_Exterior	108675	0
tblAreaCoating	Area_Residential_Interior	326025	0
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	20.00	60.00
tblConstructionPhase	NumDays	300.00	360.00
tblConstructionPhase	NumDays	30.00	60.00
tblConstructionPhase	NumDays	20.00	60.00
tblConstructionPhase	PhaseEndDate	10/10/2025	4/24/2026
tblConstructionPhase	PhaseEndDate	8/15/2025	11/7/2025
tblConstructionPhase	PhaseEndDate	9/12/2025	1/30/2026
tblConstructionPhase	PhaseStartDate	9/13/2025	2/1/2026
tblConstructionPhase	PhaseStartDate	5/11/2024	4/1/2024
tblConstructionPhase	PhaseStartDate	8/16/2025	11/8/2025
tblConsumerProducts	ROG_EF	2.14E-05	0
tblConsumerProducts	ROG_EF_Degreaser	3.542E-07	0
tblConsumerProducts	ROG_EF_PesticidesFertilizers	5.152E-08	0
tblEnergyUse	LightingElect	810.36	0.00

Mountain House Project: Proposed Neighborhood H (Construction Only) - San Joaquin County, Annual

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

tblEnergyUse	LightingElect	0.35	0.00
tblEnergyUse	NT24E	3,172.76	0.00
tblEnergyUse	NT24NG	2,687.00	0.00
tblEnergyUse	T24E	108.87	0.00
tblEnergyUse	T24NG	8,969.37	0.00
tblFireplaces	FireplaceDayYear	82.00	0.00
tblFireplaces	FireplaceHourDay	3.00	0.00
tblFireplaces	FireplaceWoodMass	3,078.40	0.00
tblFireplaces	NumberGas	88.55	0.00
tblFireplaces	NumberNoFireplace	72.45	0.00
tblLandscapeEquipment	NumberSummerDays	180	0
tblLandUse	LotAcreage	10.06	8.19
tblSolidWaste	SolidWasteGenerationRate	74.06	0.00
tblVehicleTrips	ST_TR	8.14	0.00
tblVehicleTrips	SU_TR	6.28	0.00
tblVehicleTrips	WD_TR	7.32	0.00
tblWater	ElectricityIntensityFactorForWastewaterTreatment	1,911.00	0.00
tblWater	ElectricityIntensityFactorForWastewaterTreatment	1,911.00	0.00
tblWater	ElectricityIntensityFactorToDistribute	1,272.00	0.00
tblWater	ElectricityIntensityFactorToDistribute	1,272.00	0.00
tblWater	ElectricityIntensityFactorToSupply	2,117.00	0.00
tblWater	ElectricityIntensityFactorToSupply	2,117.00	0.00
tblWater	ElectricityIntensityFactorToTreat	111.00	0.00
tblWater	ElectricityIntensityFactorToTreat	111.00	0.00
tblWater	IndoorWaterUseRate	10,489,798.13	0.00
tblWater	OutdoorWaterUseRate	6,613,133.60	0.00
tblWoodstoves	NumberCatalytic	8.19	0.00
tblWoodstoves	NumberNoncatalytic	8.19	0.00

Mountain House Project: Proposed Neighborhood H (Construction Only) - San Joaquin County, Annual

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

tblWoodstoves	WoodstoveDayYear	82.00	0.00
tblWoodstoves	WoodstoveWoodMass	3,019.20	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive 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					
2024	0.2342	2.0379	2.2423	5.1000e-003	0.3955	0.0834	0.4788	0.1418	0.0776	0.2194	0.0000	453.6898	453.6898	0.0929	0.0101	459.0343
2025	0.2268	1.7850	2.5191	5.5900e-003	0.1888	0.0688	0.2576	0.0509	0.0646	0.1154	0.0000	501.5876	501.5876	0.0766	0.0159	508.2440
2026	1.0471	0.1304	0.2372	4.1000e-004	9.6800e-003	6.1900e-003	0.0159	2.5700e-003	5.8200e-003	8.3900e-003	0.0000	36.8168	36.8168	7.7100e-003	1.8000e-004	37.0620
Maximum	**1.0471**	**2.0379**	**2.5191**	**5.5900e-003**	**0.3955**	**0.0834**	**0.4788**	**0.1418**	**0.0776**	**0.2194**	**0.0000**	**501.5876**	**501.5876**	**0.0929**	**0.0159**	**508.2440**

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					
2024	0.2342	2.0379	2.2423	5.1000e-003	0.2436	0.0834	0.3270	0.0815	0.0776	0.1591	0.0000	453.6894	453.6894	0.0929	0.0101	459.0339

Mountain House Project: Proposed Neighborhood H (Construction Only) - San Joaquin County, Annual

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

2025	0.2268	1.7850	2.5191	5.5900e-003	0.1888	0.0688	0.2576	0.0509	0.0646	0.1154	0.0000	501.5872	501.5872	0.0766	0.0159	508.2436
2026	1.0471	0.1304	0.2372	4.1000e-004	9.6800e-003	6.1900e-003	0.0159	2.5700e-003	5.8200e-003	8.3900e-003	0.0000	36.8168	36.8168	7.7100e-003	1.8000e-004	37.0620
Maximum	**1.0471**	**2.0379**	**2.5191**	**5.5900e-003**	**0.2436**	**0.0834**	**0.3270**	**0.0815**	**0.0776**	**0.1591**	**0.0000**	**501.5872**	**501.5872**	**0.0929**	**0.0159**	**508.2436**

	ROG	NOx	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**	**25.57**	**0.00**	**20.19**	**30.88**	**0.00**	**17.57**	**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	4-1-2024	6-30-2024	1.1013	1.1013
2	7-1-2024	9-30-2024	0.5748	0.5748
3	10-1-2024	12-31-2024	0.5795	0.5795
4	1-1-2025	3-31-2025	0.5298	0.5298
5	4-1-2025	6-30-2025	0.5311	0.5311
6	7-1-2025	9-30-2025	0.5369	0.5369
7	10-1-2025	12-31-2025	0.4109	0.4109
8	1-1-2026	3-31-2026	0.8562	0.8562
9	4-1-2026	6-30-2026	0.3060	0.3060
		Highest	1.1013	1.1013

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					

Mountain House Project: Proposed Neighborhood H (Construction Only) - San Joaquin County, Annual

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

Area	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Operational

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e

Mountain House Project: Proposed Neighborhood H (Construction Only) - San Joaquin County, Annual

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

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**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Grading	Grading	4/1/2024	6/21/2024	5	60	
2	Building Construction	Building Construction	6/22/2024	11/7/2025	5	360	
3	Paving	Paving	11/8/2025	1/30/2026	5	60	
4	Architectural Coating	Architectural Coating	2/1/2026	4/24/2026	5	60	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 180

Acres of Paving: 3.31

Residential Indoor: 326,025; Residential Outdoor: 108,675; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 8,640

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Building Construction	Cranes	1	7.00	231	0.29
Grading	Excavators	2	8.00	158	0.38
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Grading	Graders	1	8.00	187	0.41
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Grading	Rubber Tired Dozers	1	8.00	247	0.40

Mountain House Project: Proposed Neighborhood H (Construction Only) - San Joaquin County, Annual

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

Grading	Scrapers	2	8.00	367	0.48
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Grading	8	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	176.00	41.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	35.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Grading - 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					
Fugitive Dust					0.2761	0.0000	0.2761	0.1096	0.0000	0.1096	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0965	0.9713	0.8317	1.8600e-003		0.0401	0.0401		0.0369	0.0369	0.0000	163.5586	163.5586	0.0529	0.0000	164.8810
Total	**0.0965**	**0.9713**	**0.8317**	**1.8600e-003**	**0.2761**	**0.0401**	**0.3162**	**0.1096**	**0.0369**	**0.1465**	**0.0000**	**163.5586**	**163.5586**	**0.0529**	**0.0000**	**164.8810**

Mountain House Project: Proposed Neighborhood H (Construction Only) - San Joaquin County, Annual

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

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.6100e-003	1.0100e-003	0.0127	4.0000e-005	4.7800e-003	2.0000e-005	4.8000e-003	1.2700e-003	2.0000e-005	1.2900e-003	0.0000	3.6999	3.6999	1.0000e-004	1.0000e-004	3.7322
Total	**1.6100e-003**	**1.0100e-003**	**0.0127**	**4.0000e-005**	**4.7800e-003**	**2.0000e-005**	**4.8000e-003**	**1.2700e-003**	**2.0000e-005**	**1.2900e-003**	**0.0000**	**3.6999**	**3.6999**	**1.0000e-004**	**1.0000e-004**	**3.7322**

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					0.1243	0.0000	0.1243	0.0493	0.0000	0.0493	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0965	0.9713	0.8317	1.8600e-003		0.0401	0.0401		0.0369	0.0369	0.0000	163.5584	163.5584	0.0529	0.0000	164.8808
Total	**0.0965**	**0.9713**	**0.8317**	**1.8600e-003**	**0.1243**	**0.0401**	**0.1643**	**0.0493**	**0.0369**	**0.0862**	**0.0000**	**163.5584**	**163.5584**	**0.0529**	**0.0000**	**164.8808**

Mountain House Project: Proposed Neighborhood H (Construction Only) - San Joaquin County, Annual

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

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.6100e-003	1.0100e-003	0.0127	4.0000e-005	4.7800e-003	2.0000e-005	4.8000e-003	1.2700e-003	2.0000e-005	1.2900e-003	0.0000	3.6999	3.6999	1.0000e-004	1.0000e-004	3.7322
Total	**1.6100e-003**	**1.0100e-003**	**0.0127**	**4.0000e-005**	**4.7800e-003**	**2.0000e-005**	**4.8000e-003**	**1.2700e-003**	**2.0000e-005**	**1.2900e-003**	**0.0000**	**3.6999**	**3.6999**	**1.0000e-004**	**1.0000e-004**	**3.7322**

3.3 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	0.1008	0.9209	1.1074	1.8500e-003		0.0420	0.0420		0.0395	0.0395	0.0000	158.8166	158.8166	0.0376	0.0000	159.7555
Total	**0.1008**	**0.9209**	**1.1074**	**1.8500e-003**		**0.0420**	**0.0420**		**0.0395**	**0.0395**	**0.0000**	**158.8166**	**158.8166**	**0.0376**	**0.0000**	**159.7555**

Mountain House Project: Proposed Neighborhood H (Construction Only) - San Joaquin County, Annual

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

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.8900e-003	0.1243	0.0359	5.6000e-004	0.0186	8.0000e-004	0.0194	5.3600e-003	7.7000e-004	6.1300e-003	0.0000	53.2706	53.2706	2.5000e-004	8.0400e-003	55.6742
Worker	0.0323	0.0204	0.2547	7.9000e-004	0.0960	4.5000e-004	0.0965	0.0255	4.1000e-004	0.0259	0.0000	74.3440	74.3440	2.0600e-003	2.0000e-003	74.9914
Total	**0.0352**	**0.1447**	**0.2906**	**1.3500e-003**	**0.1146**	**1.2500e-003**	**0.1158**	**0.0309**	**1.1800e-003**	**0.0321**	**0.0000**	**127.6146**	**127.6146**	**2.3100e-003**	**0.0100**	**130.6656**

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	0.1008	0.9209	1.1074	1.8500e-003		0.0420	0.0420		0.0395	0.0395	0.0000	158.8165	158.8165	0.0376	0.0000	159.7553
Total	**0.1008**	**0.9209**	**1.1074**	**1.8500e-003**		**0.0420**	**0.0420**		**0.0395**	**0.0395**	**0.0000**	**158.8165**	**158.8165**	**0.0376**	**0.0000**	**159.7553**

Mitigated Construction Off-Site

Mountain House Project: Proposed Neighborhood H (Construction Only) - San Joaquin County, Annual

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.8900e-003	0.1243	0.0359	5.6000e-004	0.0186	8.0000e-004	0.0194	5.3600e-003	7.7000e-004	6.1300e-003	0.0000	53.2706	53.2706	2.5000e-004	8.0400e-003	55.6742
Worker	0.0323	0.0204	0.2547	7.9000e-004	0.0960	4.5000e-004	0.0965	0.0255	4.1000e-004	0.0259	0.0000	74.3440	74.3440	2.0600e-003	2.0000e-003	74.9914
Total	**0.0352**	**0.1447**	**0.2906**	**1.3500e-003**	**0.1146**	**1.2500e-003**	**0.1158**	**0.0309**	**1.1800e-003**	**0.0321**	**0.0000**	**127.6146**	**127.6146**	**2.3100e-003**	**0.0100**	**130.6656**

3.3 Building Construction - 2025

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	0.1525	1.3904	1.7934	3.0100e-003		0.0588	0.0588		0.0553	0.0553	0.0000	258.5902	258.5902	0.0608	0.0000	260.1099
Total	**0.1525**	**1.3904**	**1.7934**	**3.0100e-003**		**0.0588**	**0.0588**		**0.0553**	**0.0553**	**0.0000**	**258.5902**	**258.5902**	**0.0608**	**0.0000**	**260.1099**

Unmitigated Construction Off-Site

Mountain House Project: Proposed Neighborhood H (Construction Only) - San Joaquin County, Annual

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	4.6100e-003	0.2017	0.0574	8.9000e-004	0.0302	1.3000e-003	0.0315	8.7300e-003	1.2500e-003	9.9800e-003	0.0000	85.1687	85.1687	4.0000e-004	0.0128	89.0060
Worker	0.0489	0.0294	0.3857	1.2500e-003	0.1563	7.0000e-004	0.1570	0.0416	6.4000e-004	0.0422	0.0000	118.0773	118.0773	3.0200e-003	3.0300e-003	119.0549
Total	**0.0535**	**0.2311**	**0.4431**	**2.1400e-003**	**0.1865**	**2.0000e-003**	**0.1885**	**0.0503**	**1.8900e-003**	**0.0522**	**0.0000**	**203.2460**	**203.2460**	**3.4200e-003**	**0.0159**	**208.0609**

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	0.1525	1.3904	1.7934	3.0100e-003		0.0588	0.0588		0.0553	0.0553	0.0000	258.5899	258.5899	0.0608	0.0000	260.1096
Total	**0.1525**	**1.3904**	**1.7934**	**3.0100e-003**		**0.0588**	**0.0588**		**0.0553**	**0.0553**	**0.0000**	**258.5899**	**258.5899**	**0.0608**	**0.0000**	**260.1096**

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

Mountain House Project: Proposed Neighborhood H (Construction Only) - San Joaquin County, Annual

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

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	4.6100e-003	0.2017	0.0574	8.9000e-004	0.0302	1.3000e-003	0.0315	8.7300e-003	1.2500e-003	9.9800e-003	0.0000	85.1687	85.1687	4.0000e-004	0.0128	89.0060
Worker	0.0489	0.0294	0.3857	1.2500e-003	0.1563	7.0000e-004	0.1570	0.0416	6.4000e-004	0.0422	0.0000	118.0773	118.0773	3.0200e-003	3.0300e-003	119.0549
Total	**0.0535**	**0.2311**	**0.4431**	**2.1400e-003**	**0.1865**	**2.0000e-003**	**0.1885**	**0.0503**	**1.8900e-003**	**0.0522**	**0.0000**	**203.2460**	**203.2460**	**3.4200e-003**	**0.0159**	**208.0609**

3.4 Paving - 2025

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	0.0174	0.1631	0.2770	4.3000e-004		7.9500e-003	7.9500e-003		7.3200e-003	7.3200e-003	0.0000	38.0366	38.0366	0.0123	0.0000	38.3441
Paving	2.7500e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0201**	**0.1631**	**0.2770**	**4.3000e-004**		**7.9500e-003**	**7.9500e-003**		**7.3200e-003**	**7.3200e-003**	**0.0000**	**38.0366**	**38.0366**	**0.0123**	**0.0000**	**38.3441**

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

Mountain House Project: Proposed Neighborhood H (Construction Only) - San Joaquin County, Annual

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

Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.1000e-004	4.3000e-004	5.6000e-003	2.0000e-005	2.2700e-003	1.0000e-005	2.2800e-003	6.0000e-004	1.0000e-005	6.1000e-004	0.0000	1.7148	1.7148	4.0000e-005	4.0000e-005	1.7290
Total	**7.1000e-004**	**4.3000e-004**	**5.6000e-003**	**2.0000e-005**	**2.2700e-003**	**1.0000e-005**	**2.2800e-003**	**6.0000e-004**	**1.0000e-005**	**6.1000e-004**	**0.0000**	**1.7148**	**1.7148**	**4.0000e-005**	**4.0000e-005**	**1.7290**

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	0.0174	0.1631	0.2770	4.3000e-004		7.9500e-003	7.9500e-003		7.3200e-003	7.3200e-003	0.0000	38.0365	38.0365	0.0123	0.0000	38.3441
Paving	2.7500e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0201**	**0.1631**	**0.2770**	**4.3000e-004**		**7.9500e-003**	**7.9500e-003**		**7.3200e-003**	**7.3200e-003**	**0.0000**	**38.0365**	**38.0365**	**0.0123**	**0.0000**	**38.3441**

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

Mountain House Project: Proposed Neighborhood H (Construction Only) - San Joaquin County, Annual

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

Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.1000e-004	4.3000e-004	5.6000e-003	2.0000e-005	2.2700e-003	1.0000e-005	2.2800e-003	6.0000e-004	1.0000e-005	6.1000e-004	0.0000	1.7148	1.7148	4.0000e-005	4.0000e-005	1.7290
Total	**7.1000e-004**	**4.3000e-004**	**5.6000e-003**	**2.0000e-005**	**2.2700e-003**	**1.0000e-005**	**2.2800e-003**	**6.0000e-004**	**1.0000e-005**	**6.1000e-004**	**0.0000**	**1.7148**	**1.7148**	**4.0000e-005**	**4.0000e-005**	**1.7290**

3.4 Paving - 2026

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	0.0101	0.0944	0.1604	2.5000e-004		4.6000e-003	4.6000e-003		4.2400e-003	4.2400e-003	0.0000	22.0212	22.0212	7.1200e-003	0.0000	22.1992
Paving	1.5900e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0117**	**0.0944**	**0.1604**	**2.5000e-004**		**4.6000e-003**	**4.6000e-003**		**4.2400e-003**	**4.2400e-003**	**0.0000**	**22.0212**	**22.0212**	**7.1200e-003**	**0.0000**	**22.1992**

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

Mountain House Project: Proposed Neighborhood H (Construction Only) - San Joaquin County, Annual

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

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	3.8000e-004	2.2000e-004	3.0700e-003	1.0000e-005	1.3100e-003	1.0000e-005	1.3200e-003	3.5000e-004	1.0000e-005	3.5000e-004	0.0000	0.9691	0.9691	2.0000e-005	2.0000e-005	0.9768
Total	**3.8000e-004**	**2.2000e-004**	**3.0700e-003**	**1.0000e-005**	**1.3100e-003**	**1.0000e-005**	**1.3200e-003**	**3.5000e-004**	**1.0000e-005**	**3.5000e-004**	**0.0000**	**0.9691**	**0.9691**	**2.0000e-005**	**2.0000e-005**	**0.9768**

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	0.0101	0.0944	0.1604	2.5000e-004		4.6000e-003	4.6000e-003		4.2400e-003	4.2400e-003	0.0000	22.0212	22.0212	7.1200e-003	0.0000	22.1992
Paving	1.5900e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0117**	**0.0944**	**0.1604**	**2.5000e-004**		**4.6000e-003**	**4.6000e-003**		**4.2400e-003**	**4.2400e-003**	**0.0000**	**22.0212**	**22.0212**	**7.1200e-003**	**0.0000**	**22.1992**

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

Mountain House Project: Proposed Neighborhood H (Construction Only) - San Joaquin County, Annual

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

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	3.8000e-004	2.2000e-004	3.0700e-003	1.0000e-005	1.3100e-003	1.0000e-005	1.3200e-003	3.5000e-004	1.0000e-005	3.5000e-004	0.0000	0.9691	0.9691	2.0000e-005	2.0000e-005	0.9768
Total	**3.8000e-004**	**2.2000e-004**	**3.0700e-003**	**1.0000e-005**	**1.3100e-003**	**1.0000e-005**	**1.3200e-003**	**3.5000e-004**	**1.0000e-005**	**3.5000e-004**	**0.0000**	**0.9691**	**0.9691**	**2.0000e-005**	**2.0000e-005**	**0.9768**

3.5 Architectural Coating - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.0274					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.1300e-003	0.0344	0.0543	9.0000e-005		1.5500e-003	1.5500e-003		1.5500e-003	1.5500e-003	0.0000	7.6598	7.6598	4.2000e-004	0.0000	7.6702
Total	**1.0326**	**0.0344**	**0.0543**	**9.0000e-005**		**1.5500e-003**	**1.5500e-003**		**1.5500e-003**	**1.5500e-003**	**0.0000**	**7.6598**	**7.6598**	**4.2000e-004**	**0.0000**	**7.6702**

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

Mountain House Project: Proposed Neighborhood H (Construction Only) - San Joaquin County, Annual

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

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	2.4400e-003	1.4200e-003	0.0195	6.0000e-005	8.3600e-003	4.0000e-005	8.4000e-003	2.2200e-003	3.0000e-005	2.2600e-003	0.0000	6.1668	6.1668	1.5000e-004	1.5000e-004	6.2158
Total	**2.4400e-003**	**1.4200e-003**	**0.0195**	**6.0000e-005**	**8.3600e-003**	**4.0000e-005**	**8.4000e-003**	**2.2200e-003**	**3.0000e-005**	**2.2600e-003**	**0.0000**	**6.1668**	**6.1668**	**1.5000e-004**	**1.5000e-004**	**6.2158**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.0274					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.1300e-003	0.0344	0.0543	9.0000e-005		1.5500e-003	1.5500e-003		1.5500e-003	1.5500e-003	0.0000	7.6598	7.6598	4.2000e-004	0.0000	7.6702
Total	**1.0326**	**0.0344**	**0.0543**	**9.0000e-005**		**1.5500e-003**	**1.5500e-003**		**1.5500e-003**	**1.5500e-003**	**0.0000**	**7.6598**	**7.6598**	**4.2000e-004**	**0.0000**	**7.6702**

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

Mountain House Project: Proposed Neighborhood H (Construction Only) - San Joaquin County, Annual

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

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	2.4400e-003	1.4200e-003	0.0195	6.0000e-005	8.3600e-003	4.0000e-005	8.4000e-003	2.2200e-003	3.0000e-005	2.2600e-003	0.0000	6.1668	6.1668	1.5000e-004	1.5000e-004	6.2158
Total	**2.4400e-003**	**1.4200e-003**	**0.0195**	**6.0000e-005**	**8.3600e-003**	**4.0000e-005**	**8.4000e-003**	**2.2200e-003**	**3.0000e-005**	**2.2600e-003**	**0.0000**	**6.1668**	**6.1668**	**1.5000e-004**	**1.5000e-004**	**6.2158**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

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

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT

Mountain House Project: Proposed Neighborhood H (Construction Only) - San Joaquin County, Annual

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

Apartments Low Rise	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Low Rise	10.80	7.30	7.50	45.60	19.00	35.40	86	11	3
Parking Lot	9.50	7.30	7.30	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 Low Rise	0.546418	0.052852	0.170546	0.142778	0.024223	0.005960	0.012686	0.016941	0.000462	0.000320	0.022535	0.001087	0.003
Parking Lot	0.546418	0.052852	0.170546	0.142778	0.024223	0.005960	0.012686	0.016941	0.000462	0.000320	0.022535	0.001087	0.003

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

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

Mountain House Project: Proposed Neighborhood H (Construction Only) - San Joaquin County, Annual

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

NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Low Rise	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
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		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Low Rise	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
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

Mountain House Project: Proposed Neighborhood H (Construction Only) - San Joaquin County, Annual

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

Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Low Rise	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Low Rise	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mountain House Project: Proposed Neighborhood H (Construction Only) - San Joaquin County, Annual

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

6.0 Area Detail

6.1 Mitigation Measures Area

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

6.2 Area by SubCategory

Unmitigated

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

Mountain House Project: Proposed Neighborhood H (Construction Only) - San Joaquin County, Annual

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

Landscaping	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

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

7.0 Water Detail

7.1 Mitigation Measures Water

Mountain House Project: Proposed Neighborhood H (Construction Only) - San Joaquin County, Annual

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

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

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Low Rise	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			

Mountain House Project: Proposed Neighborhood H (Construction Only) - San Joaquin County, Annual

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

Apartments Low Rise	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

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

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			

Mountain House Project: Proposed Neighborhood H (Construction Only) - San Joaquin County, Annual

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

Apartments Low Rise	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Low Rise	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Mountain House Project: Proposed Neighborhood H (Construction Only) - San Joaquin County, Annual

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Mountain House Project: Proposed Neighborhood I (Construction Only) - San Joaquin County, Annual

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

Mountain House Project: Proposed Neighborhood I (Construction Only)

San Joaquin County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Elementary School	200.00	1000sqft	4.59	200,000.00	0
City Park	5.00	Acre	5.00	217,800.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.7	**Precipitation Freq (Days)**	51
Climate Zone	2			**Operational Year**	2032
Utility Company	Modesto Irrigation District				
CO2 Intensity (lb/MWhr)	452.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Construction Only.

Land Use -

Construction Phase - No Demo needed. Construction would occur from Spring 2030 to Spring 2032.

Grading - No Soil import/export anticipated or known at this time. Default total acres graded.

Architectural Coating - 2019 CalGreen Code

Vehicle Trips - Construction Only.

Road Dust -

Woodstoves -

Consumer Products - Construction Only.

Area Coating - Construction Only.

Mountain House Project: Proposed Neighborhood I (Construction Only) - San Joaquin County, Annual

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

Landscape Equipment - Construction Only.

Energy Use - Construction Only.

Water And Wastewater - Construction Only.

Solid Waste - Construction Only.

Construction Off-road Equipment Mitigation - SJVAPCD Regulation VIII

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	150.00	100.00
tblArchitecturalCoating	EF_Nonresidential_Interior	150.00	100.00
tblArchitecturalCoating	EF_Parking	150.00	100.00
tblArchitecturalCoating	EF_Residential_Exterior	150.00	100.00
tblArchitecturalCoating	EF_Residential_Interior	150.00	100.00
tblAreaCoating	Area_Nonresidential_Exterior	100000	0
tblAreaCoating	Area_Nonresidential_Interior	300000	0
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	20.00	40.00
tblConstructionPhase	NumDays	230.00	320.00
tblConstructionPhase	NumDays	20.00	60.00
tblConstructionPhase	NumDays	20.00	40.00
tblConstructionPhase	NumDays	10.00	60.00
tblConstructionPhase	PhaseEndDate	5/23/2031	3/26/2032
tblConstructionPhase	PhaseEndDate	3/28/2031	12/5/2031
tblConstructionPhase	PhaseEndDate	5/10/2030	9/13/2030
tblConstructionPhase	PhaseEndDate	4/25/2031	1/30/2032
tblConstructionPhase	PhaseEndDate	4/12/2030	6/21/2030
tblConstructionPhase	PhaseStartDate	4/26/2031	1/31/2032
tblConstructionPhase	PhaseStartDate	5/11/2030	9/14/2030
tblConstructionPhase	PhaseStartDate	4/13/2030	6/22/2030
tblConstructionPhase	PhaseStartDate	3/29/2031	12/6/2031

Mountain House Project: Proposed Neighborhood I (Construction Only) - San Joaquin County, Annual

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

tblConsumerProducts	ROG_EF	2.14E-05	0
tblConsumerProducts	ROG_EF_Degreaser	3.542E-07	0
tblConsumerProducts	ROG_EF_PesticidesFertilizers	5.152E-08	0
tblEnergyUse	LightingElect	2.34	0.00
tblEnergyUse	NT24E	1.42	0.00
tblEnergyUse	NT24NG	0.42	0.00
tblEnergyUse	T24E	1.68	0.00
tblEnergyUse	T24NG	8.96	0.00
tblLandscapeEquipment	NumberSummerDays	180	0
tblSolidWaste	SolidWasteGenerationRate	0.43	0.00
tblSolidWaste	SolidWasteGenerationRate	260.00	0.00
tblVehicleTrips	ST_TR	1.96	0.00
tblVehicleTrips	SU_TR	2.19	0.00
tblVehicleTrips	WD_TR	0.78	0.00
tblVehicleTrips	WD_TR	19.52	0.00
tblWater	ElectricityIntensityFactorForWastewaterTreatment	1,911.00	0.00
tblWater	ElectricityIntensityFactorForWastewaterTreatment	1,911.00	0.00
tblWater	ElectricityIntensityFactorToDistribute	1,272.00	0.00
tblWater	ElectricityIntensityFactorToDistribute	1,272.00	0.00
tblWater	ElectricityIntensityFactorToSupply	2,117.00	0.00
tblWater	ElectricityIntensityFactorToSupply	2,117.00	0.00
tblWater	ElectricityIntensityFactorToTreat	111.00	0.00
tblWater	ElectricityIntensityFactorToTreat	111.00	0.00
tblWater	IndoorWaterUseRate	5,799,383.44	0.00
tblWater	OutdoorWaterUseRate	5,957,406.75	0.00
tblWater	OutdoorWaterUseRate	14,912,700.28	0.00

2.0 Emissions Summary

Mountain House Project: Proposed Neighborhood I (Construction Only) - San Joaquin County, 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					
2030	0.1886	1.0678	1.6945	4.5700e-003	0.8810	0.0268	0.9078	0.4272	0.0267	0.4539	0.0000	401.1662	401.1662	0.0149	7.5700e-003	403.7938
2031	0.2157	1.4007	2.5218	6.6100e-003	0.2250	0.0238	0.2488	0.0611	0.0236	0.0847	0.0000	593.3180	593.3180	0.0164	0.0231	600.6096
2032	0.9462	0.0962	0.2228	4.1000e-004	6.8900e-003	4.0600e-003	0.0110	1.8300e-003	4.0600e-003	5.8900e-003	0.0000	36.1971	36.1971	1.5200e-003	1.0000e-004	36.2647
Maximum	**0.9462**	**1.4007**	**2.5218**	**6.6100e-003**	**0.8810**	**0.0268**	**0.9078**	**0.4272**	**0.0267**	**0.4539**	**0.0000**	**593.3180**	**593.3180**	**0.0164**	**0.0231**	**600.6096**

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					
2030	0.1886	1.0678	1.6945	4.5700e-003	0.4398	0.0268	0.4666	0.2040	0.0267	0.2307	0.0000	401.1658	401.1658	0.0149	7.5700e-003	403.7934
2031	0.2157	1.4007	2.5218	6.6100e-003	0.2250	0.0238	0.2488	0.0611	0.0236	0.0847	0.0000	593.3176	593.3176	0.0164	0.0231	600.6092
2032	0.9462	0.0962	0.2228	4.1000e-004	6.8900e-003	4.0600e-003	0.0110	1.8300e-003	4.0600e-003	5.8900e-003	0.0000	36.1970	36.1970	1.5200e-003	1.0000e-004	36.2646
Maximum	**0.9462**	**1.4007**	**2.5218**	**6.6100e-003**	**0.4398**	**0.0268**	**0.4666**	**0.2040**	**0.0267**	**0.2307**	**0.0000**	**593.3176**	**593.3176**	**0.0164**	**0.0231**	**600.6092**

Mountain House Project: Proposed Neighborhood I (Construction Only) - San Joaquin County, Annual

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	39.64	0.00	37.79	45.54	0.00	40.99	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	4-1-2030	6-30-2030	0.5035	0.5035
2	7-1-2030	9-30-2030	0.3286	0.3286
3	10-1-2030	12-31-2030	0.4210	0.4210
4	1-1-2031	3-31-2031	0.4105	0.4105
5	4-1-2031	6-30-2031	0.4085	0.4085
6	7-1-2031	9-30-2031	0.4129	0.4129
7	10-1-2031	12-31-2031	0.3804	0.3804
8	1-1-2032	3-31-2032	1.0402	1.0402
		Highest	1.0402	1.0402

2.2 Overall Operational

Unmitigated Operational

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

Mountain House Project: Proposed Neighborhood I (Construction Only) - San Joaquin County, Annual

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

Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Operational

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Mountain House Project: Proposed Neighborhood I (Construction Only) - San Joaquin County, Annual

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

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	4/1/2030	6/21/2030	5	60	
2	Grading	Grading	6/22/2030	9/13/2030	5	60	
3	Building Construction	Building Construction	9/14/2030	12/5/2031	5	320	
4	Paving	Paving	12/6/2031	1/30/2032	5	40	
5	Architectural Coating	Architectural Coating	1/31/2032	3/26/2032	5	40	

Acres of Grading (Site Preparation Phase): 90

Acres of Grading (Grading Phase): 60

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 300,000; Non-Residential Outdoor: 100,000; Striped Parking Area: 0 (Architectural

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Building Construction	Cranes	1	7.00	231	0.29
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	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
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

Mountain House Project: Proposed Neighborhood I (Construction Only) - San Joaquin County, Annual

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

Grading	Tractors/Loaders/Backhoes	3	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
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	175.00	68.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	35.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Site Preparation - 2030

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	0.0732	0.4100	0.4888	1.4000e-003		0.0131	0.0131		0.0131	0.0131	0.0000	120.0138	120.0138	5.9200e-003	0.0000	120.1619
Total	**0.0732**	**0.4100**	**0.4888**	**1.4000e-003**	**0.5897**	**0.0131**	**0.6028**	**0.3031**	**0.0131**	**0.3162**	**0.0000**	**120.0138**	**120.0138**	**5.9200e-003**	**0.0000**	**120.1619**

Mountain House Project: Proposed Neighborhood I (Construction Only) - San Joaquin County, Annual

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

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.8000e-004	5.2000e-004	8.3100e-003	3.0000e-005	4.3000e-003	1.0000e-005	4.3200e-003	1.1400e-003	1.0000e-005	1.1600e-003	0.0000	2.9387	2.9387	5.0000e-005	7.0000e-005	2.9595
Total	**9.8000e-004**	**5.2000e-004**	**8.3100e-003**	**3.0000e-005**	**4.3000e-003**	**1.0000e-005**	**4.3200e-003**	**1.1400e-003**	**1.0000e-005**	**1.1600e-003**	**0.0000**	**2.9387**	**2.9387**	**5.0000e-005**	**7.0000e-005**	**2.9595**

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					0.2654	0.0000	0.2654	0.1364	0.0000	0.1364	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0732	0.4100	0.4888	1.4000e-003		0.0131	0.0131		0.0131	0.0131	0.0000	120.0137	120.0137	5.9200e-003	0.0000	120.1617
Total	**0.0732**	**0.4100**	**0.4888**	**1.4000e-003**	**0.2654**	**0.0131**	**0.2785**	**0.1364**	**0.0131**	**0.1495**	**0.0000**	**120.0137**	**120.0137**	**5.9200e-003**	**0.0000**	**120.1617**

Mountain House Project: Proposed Neighborhood I (Construction Only) - San Joaquin County, Annual

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

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.8000e-004	5.2000e-004	8.3100e-003	3.0000e-005	4.3000e-003	1.0000e-005	4.3200e-003	1.1400e-003	1.0000e-005	1.1600e-003	0.0000	2.9387	2.9387	5.0000e-005	7.0000e-005	2.9595
Total	**9.8000e-004**	**5.2000e-004**	**8.3100e-003**	**3.0000e-005**	**4.3000e-003**	**1.0000e-005**	**4.3200e-003**	**1.1400e-003**	**1.0000e-005**	**1.1600e-003**	**0.0000**	**2.9387**	**2.9387**	**5.0000e-005**	**7.0000e-005**	**2.9595**

3.3 Grading - 2030

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					0.2125	0.0000	0.2125	0.1027	0.0000	0.1027	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0485	0.2325	0.4336	1.0900e-003		7.0200e-003	7.0200e-003		7.0200e-003	7.0200e-003	0.0000	93.6139	93.6139	3.9100e-003	0.0000	93.7116
Total	**0.0485**	**0.2325**	**0.4336**	**1.0900e-003**	**0.2125**	**7.0200e-003**	**0.2195**	**0.1027**	**7.0200e-003**	**0.1098**	**0.0000**	**93.6139**	**93.6139**	**3.9100e-003**	**0.0000**	**93.7116**

Mountain House Project: Proposed Neighborhood I (Construction Only) - San Joaquin County, Annual

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

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.2000e-004	4.3000e-004	6.9300e-003	2.0000e-005	3.5800e-003	1.0000e-005	3.6000e-003	9.5000e-004	1.0000e-005	9.6000e-004	0.0000	2.4489	2.4489	4.0000e-005	5.0000e-005	2.4663
Total	**8.2000e-004**	**4.3000e-004**	**6.9300e-003**	**2.0000e-005**	**3.5800e-003**	**1.0000e-005**	**3.6000e-003**	**9.5000e-004**	**1.0000e-005**	**9.6000e-004**	**0.0000**	**2.4489**	**2.4489**	**4.0000e-005**	**5.0000e-005**	**2.4663**

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					0.0956	0.0000	0.0956	0.0462	0.0000	0.0462	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0485	0.2325	0.4336	1.0900e-003		7.0200e-003	7.0200e-003		7.0200e-003	7.0200e-003	0.0000	93.6137	93.6137	3.9100e-003	0.0000	93.7115
Total	**0.0485**	**0.2325**	**0.4336**	**1.0900e-003**	**0.0956**	**7.0200e-003**	**0.1026**	**0.0462**	**7.0200e-003**	**0.0533**	**0.0000**	**93.6137**	**93.6137**	**3.9100e-003**	**0.0000**	**93.7115**

Mountain House Project: Proposed Neighborhood I (Construction Only) - San Joaquin County, Annual

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

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.2000e-004	4.3000e-004	6.9300e-003	2.0000e-005	3.5800e-003	1.0000e-005	3.6000e-003	9.5000e-004	1.0000e-005	9.6000e-004	0.0000	2.4489	2.4489	4.0000e-005	5.0000e-005	2.4663
Total	**8.2000e-004**	**4.3000e-004**	**6.9300e-003**	**2.0000e-005**	**3.5800e-003**	**1.0000e-005**	**3.6000e-003**	**9.5000e-004**	**1.0000e-005**	**9.6000e-004**	**0.0000**	**2.4489**	**2.4489**	**4.0000e-005**	**5.0000e-005**	**2.4663**

3.4 Building Construction - 2030

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	0.0504	0.3055	0.6220	1.1900e-003		5.7000e-003	5.7000e-003		5.7000e-003	5.7000e-003	0.0000	101.2015	101.2015	4.0600e-003	0.0000	101.3030
Total	**0.0504**	**0.3055**	**0.6220**	**1.1900e-003**		**5.7000e-003**	**5.7000e-003**		**5.7000e-003**	**5.7000e-003**	**0.0000**	**101.2015**	**101.2015**	**4.0600e-003**	**0.0000**	**101.3030**

Mountain House Project: Proposed Neighborhood I (Construction Only) - San Joaquin County, Annual

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

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.4500e-003	0.1123	0.0312	4.6000e-004	0.0173	7.2000e-004	0.0180	5.0000e-003	6.9000e-004	5.6900e-003	0.0000	44.2838	44.2838	2.0000e-004	6.6400e-003	46.2663
Worker	0.0122	6.5000e-003	0.1037	3.7000e-004	0.0537	1.8000e-004	0.0538	0.0143	1.6000e-004	0.0144	0.0000	36.6656	36.6656	6.7000e-004	8.1000e-004	36.9252
Total	**0.0147**	**0.1188**	**0.1349**	**8.3000e-004**	**0.0710**	**9.0000e-004**	**0.0719**	**0.0193**	**8.5000e-004**	**0.0201**	**0.0000**	**80.9494**	**80.9494**	**8.7000e-004**	**7.4500e-003**	**83.1915**

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	0.0504	0.3055	0.6220	1.1900e-003		5.7000e-003	5.7000e-003		5.7000e-003	5.7000e-003	0.0000	101.2014	101.2014	4.0600e-003	0.0000	101.3029
Total	**0.0504**	**0.3055**	**0.6220**	**1.1900e-003**		**5.7000e-003**	**5.7000e-003**		**5.7000e-003**	**5.7000e-003**	**0.0000**	**101.2014**	**101.2014**	**4.0600e-003**	**0.0000**	**101.3029**

Mitigated Construction Off-Site

Mountain House Project: Proposed Neighborhood I (Construction Only) - San Joaquin County, Annual

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.4500e-003	0.1123	0.0312	4.6000e-004	0.0173	7.2000e-004	0.0180	5.0000e-003	6.9000e-004	5.6900e-003	0.0000	44.2838	44.2838	2.0000e-004	6.6400e-003	46.2663
Worker	0.0122	6.5000e-003	0.1037	3.7000e-004	0.0537	1.8000e-004	0.0538	0.0143	1.6000e-004	0.0144	0.0000	36.6656	36.6656	6.7000e-004	8.1000e-004	36.9252
Total	**0.0147**	**0.1188**	**0.1349**	**8.3000e-004**	**0.0710**	**9.0000e-004**	**0.0719**	**0.0193**	**8.5000e-004**	**0.0201**	**0.0000**	**80.9494**	**80.9494**	**8.7000e-004**	**7.4500e-003**	**83.1915**

3.4 Building Construction - 2031

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	0.1591	0.9641	1.9631	3.7600e-003		0.0180	0.0180		0.0180	0.0180	0.0000	319.3761	319.3761	0.0128	0.0000	319.6965
Total	**0.1591**	**0.9641**	**1.9631**	**3.7600e-003**		**0.0180**	**0.0180**		**0.0180**	**0.0180**	**0.0000**	**319.3761**	**319.3761**	**0.0128**	**0.0000**	**319.6965**

Unmitigated Construction Off-Site

Mountain House Project: Proposed Neighborhood I (Construction Only) - San Joaquin County, Annual

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	7.6900e-003	0.3532	0.0981	1.4300e-003	0.0546	2.2700e-003	0.0569	0.0158	2.1800e-003	0.0180	0.0000	137.4748	137.4748	6.1000e-004	0.0206	143.6234
Worker	0.0363	0.0192	0.3160	1.1600e-003	0.1694	5.3000e-004	0.1699	0.0450	4.9000e-004	0.0455	0.0000	114.0533	114.0533	1.9700e-003	2.4900e-003	114.8456
Total	**0.0440**	**0.3724**	**0.4141**	**2.5900e-003**	**0.2240**	**2.8000e-003**	**0.2268**	**0.0608**	**2.6700e-003**	**0.0635**	**0.0000**	**251.5281**	**251.5281**	**2.5800e-003**	**0.0231**	**258.4690**

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	0.1591	0.9641	1.9631	3.7600e-003		0.0180	0.0180		0.0180	0.0180	0.0000	319.3758	319.3758	0.0128	0.0000	319.6961
Total	**0.1591**	**0.9641**	**1.9631**	**3.7600e-003**		**0.0180**	**0.0180**		**0.0180**	**0.0180**	**0.0000**	**319.3758**	**319.3758**	**0.0128**	**0.0000**	**319.6961**

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

Mountain House Project: Proposed Neighborhood I (Construction Only) - San Joaquin County, Annual

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

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	7.6900e-003	0.3532	0.0981	1.4300e-003	0.0546	2.2700e-003	0.0569	0.0158	2.1800e-003	0.0180	0.0000	137.4748	137.4748	6.1000e-004	0.0206	143.6234
Worker	0.0363	0.0192	0.3160	1.1600e-003	0.1694	5.3000e-004	0.1699	0.0450	4.9000e-004	0.0455	0.0000	114.0533	114.0533	1.9700e-003	2.4900e-003	114.8456
Total	**0.0440**	**0.3724**	**0.4141**	**2.5900e-003**	**0.2240**	**2.8000e-003**	**0.2268**	**0.0608**	**2.6700e-003**	**0.0635**	**0.0000**	**251.5281**	**251.5281**	**2.5800e-003**	**0.0231**	**258.4690**

3.5 Paving - 2031

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	0.0125	0.0641	0.1427	2.5000e-004		2.9800e-003	2.9800e-003		2.9800e-003	2.9800e-003	0.0000	21.6896	21.6896	1.0200e-003	0.0000	21.7150
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0125**	**0.0641**	**0.1427**	**2.5000e-004**		**2.9800e-003**	**2.9800e-003**		**2.9800e-003**	**2.9800e-003**	**0.0000**	**21.6896**	**21.6896**	**1.0200e-003**	**0.0000**	**21.7150**

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

Mountain House Project: Proposed Neighborhood I (Construction Only) - San Joaquin County, Annual

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

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	2.3000e-004	1.2000e-004	2.0100e-003	1.0000e-005	1.0800e-003	0.0000	1.0800e-003	2.9000e-004	0.0000	2.9000e-004	0.0000	0.7242	0.7242	1.0000e-005	2.0000e-005	0.7292
Total	**2.3000e-004**	**1.2000e-004**	**2.0100e-003**	**1.0000e-005**	**1.0800e-003**	**0.0000**	**1.0800e-003**	**2.9000e-004**	**0.0000**	**2.9000e-004**	**0.0000**	**0.7242**	**0.7242**	**1.0000e-005**	**2.0000e-005**	**0.7292**

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	0.0125	0.0641	0.1427	2.5000e-004		2.9800e-003	2.9800e-003		2.9800e-003	2.9800e-003	0.0000	21.6895	21.6895	1.0200e-003	0.0000	21.7150
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0125**	**0.0641**	**0.1427**	**2.5000e-004**		**2.9800e-003**	**2.9800e-003**		**2.9800e-003**	**2.9800e-003**	**0.0000**	**21.6895**	**21.6895**	**1.0200e-003**	**0.0000**	**21.7150**

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

Mountain House Project: Proposed Neighborhood I (Construction Only) - San Joaquin County, Annual

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

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	2.3000e-004	1.2000e-004	2.0100e-003	1.0000e-005	1.0800e-003	0.0000	1.0800e-003	2.9000e-004	0.0000	2.9000e-004	0.0000	0.7242	0.7242	1.0000e-005	2.0000e-005	0.7292
Total	**2.3000e-004**	**1.2000e-004**	**2.0100e-003**	**1.0000e-005**	**1.0800e-003**	**0.0000**	**1.0800e-003**	**2.9000e-004**	**0.0000**	**2.9000e-004**	**0.0000**	**0.7242**	**0.7242**	**1.0000e-005**	**2.0000e-005**	**0.7292**

3.5 Paving - 2032

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	0.0152	0.0783	0.1743	3.1000e-004		3.6400e-003	3.6400e-003		3.6400e-003	3.6400e-003	0.0000	26.5095	26.5095	1.2400e-003	0.0000	26.5405
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0152**	**0.0783**	**0.1743**	**3.1000e-004**		**3.6400e-003**	**3.6400e-003**		**3.6400e-003**	**3.6400e-003**	**0.0000**	**26.5095**	**26.5095**	**1.2400e-003**	**0.0000**	**26.5405**

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

Mountain House Project: Proposed Neighborhood I (Construction Only) - San Joaquin County, Annual

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

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	2.7000e-004	1.4000e-004	2.3800e-003	1.0000e-005	1.3100e-003	0.0000	1.3200e-003	3.5000e-004	0.0000	3.5000e-004	0.0000	0.8739	0.8739	1.0000e-005	2.0000e-005	0.8798
Total	**2.7000e-004**	**1.4000e-004**	**2.3800e-003**	**1.0000e-005**	**1.3100e-003**	**0.0000**	**1.3200e-003**	**3.5000e-004**	**0.0000**	**3.5000e-004**	**0.0000**	**0.8739**	**0.8739**	**1.0000e-005**	**2.0000e-005**	**0.8798**

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	0.0152	0.0783	0.1743	3.1000e-004		3.6400e-003	3.6400e-003		3.6400e-003	3.6400e-003	0.0000	26.5094	26.5094	1.2400e-003	0.0000	26.5405
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0152**	**0.0783**	**0.1743**	**3.1000e-004**		**3.6400e-003**	**3.6400e-003**		**3.6400e-003**	**3.6400e-003**	**0.0000**	**26.5094**	**26.5094**	**1.2400e-003**	**0.0000**	**26.5405**

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

Mountain House Project: Proposed Neighborhood I (Construction Only) - San Joaquin County, Annual

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

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	2.7000e-004	1.4000e-004	2.3800e-003	1.0000e-005	1.3100e-003	0.0000	1.3200e-003	3.5000e-004	0.0000	3.5000e-004	0.0000	0.8739	0.8739	1.0000e-005	2.0000e-005	0.8798
Total	**2.7000e-004**	**1.4000e-004**	**2.3800e-003**	**1.0000e-005**	**1.3100e-003**	**0.0000**	**1.3200e-003**	**3.5000e-004**	**0.0000**	**3.5000e-004**	**0.0000**	**0.8739**	**0.8739**	**1.0000e-005**	**2.0000e-005**	**0.8798**

3.6 Architectural Coating - 2032

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	0.9270					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.6100e-003	0.0171	0.0360	6.0000e-005		4.1000e-004	4.1000e-004		4.1000e-004	4.1000e-004	0.0000	5.1065	5.1065	2.1000e-004	0.0000	5.1117
Total	**0.9296**	**0.0171**	**0.0360**	**6.0000e-005**		**4.1000e-004**	**4.1000e-004**		**4.1000e-004**	**4.1000e-004**	**0.0000**	**5.1065**	**5.1065**	**2.1000e-004**	**0.0000**	**5.1117**

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

Mountain House Project: Proposed Neighborhood I (Construction Only) - San Joaquin County, Annual

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

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	1.1300e-003	6.0000e-004	0.0101	4.0000e-005	5.5800e-003	2.0000e-005	5.5900e-003	1.4800e-003	2.0000e-005	1.5000e-003	0.0000	3.7072	3.7072	6.0000e-005	8.0000e-005	3.7326
Total	**1.1300e-003**	**6.0000e-004**	**0.0101**	**4.0000e-005**	**5.5800e-003**	**2.0000e-005**	**5.5900e-003**	**1.4800e-003**	**2.0000e-005**	**1.5000e-003**	**0.0000**	**3.7072**	**3.7072**	**6.0000e-005**	**8.0000e-005**	**3.7326**

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	0.9270					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.6100e-003	0.0171	0.0360	6.0000e-005		4.1000e-004	4.1000e-004		4.1000e-004	4.1000e-004	0.0000	5.1065	5.1065	2.1000e-004	0.0000	5.1117
Total	**0.9296**	**0.0171**	**0.0360**	**6.0000e-005**		**4.1000e-004**	**4.1000e-004**		**4.1000e-004**	**4.1000e-004**	**0.0000**	**5.1065**	**5.1065**	**2.1000e-004**	**0.0000**	**5.1117**

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

Mountain House Project: Proposed Neighborhood I (Construction Only) - San Joaquin County, Annual

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

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	1.1300e-003	6.0000e-004	0.0101	4.0000e-005	5.5800e-003	2.0000e-005	5.5900e-003	1.4800e-003	2.0000e-005	1.5000e-003	0.0000	3.7072	3.7072	6.0000e-005	8.0000e-005	3.7326
Total	**1.1300e-003**	**6.0000e-004**	**0.0101**	**4.0000e-005**	**5.5800e-003**	**2.0000e-005**	**5.5900e-003**	**1.4800e-003**	**2.0000e-005**	**1.5000e-003**	**0.0000**	**3.7072**	**3.7072**	**6.0000e-005**	**8.0000e-005**	**3.7326**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

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

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT

Mountain House Project: Proposed Neighborhood I (Construction Only) - San Joaquin County, Annual

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

City Park	0.00	0.00	0.00		
Elementary School	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
City Park	9.50	7.30	7.30	33.00	48.00	19.00	66	28	6
Elementary School	9.50	7.30	7.30	65.00	30.00	5.00	63	25	12

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
City Park	0.564705	0.054508	0.174472	0.127296	0.020301	0.005318	0.012437	0.016043	0.000432	0.000308	0.020709	0.000960	0.0025
Elementary School	0.564705	0.054508	0.174472	0.127296	0.020301	0.005318	0.012437	0.016043	0.000432	0.000308	0.020709	0.000960	0.0025

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

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

Mountain House Project: Proposed Neighborhood I (Construction Only) - San Joaquin County, Annual

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

NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
City Park	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
Elementary School	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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					
City Park	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
Elementary School	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Mountain House Project: Proposed Neighborhood I (Construction Only) - San Joaquin County, Annual

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

Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
City Park	0	0.0000	0.0000	0.0000	0.0000
Elementary School	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
City Park	0	0.0000	0.0000	0.0000	0.0000
Elementary School	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mountain House Project: Proposed Neighborhood I (Construction Only) - San Joaquin County, Annual

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

6.0 Area Detail

6.1 Mitigation Measures Area

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

6.2 Area by SubCategory

Unmitigated

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

Mountain House Project: Proposed Neighborhood I (Construction Only) - San Joaquin County, Annual

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

Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

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

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			

Mountain House Project: Proposed Neighborhood I (Construction Only) - San Joaquin County, Annual

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

Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
City Park	0 / 0	0.0000	0.0000	0.0000	0.0000
Elementary School	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
City Park	0 / 0	0.0000	0.0000	0.0000	0.0000
Elementary School	0 / 0	0.0000	0.0000	0.0000	0.0000

Mountain House Project: Proposed Neighborhood I (Construction Only) - San Joaquin County, Annual

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

Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

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

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park	0	0.0000	0.0000	0.0000	0.0000
Elementary School	0	0.0000	0.0000	0.0000	0.0000

Mountain House Project: Proposed Neighborhood I (Construction Only) - San Joaquin County, Annual

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

Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park	0	0.0000	0.0000	0.0000	0.0000
Elementary School	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

9.0 Operational Offroad

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

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

Mountain House Project: Proposed Neighborhood I (Construction Only) - San Joaquin County, Annual

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Mountain House Project: Proposed Neighborhood J (Construction Only) - San Joaquin County, Annual

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

Mountain House Project: Proposed Neighborhood J (Construction Only)

San Joaquin County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
City Park	22.00	Acre	22.00	958,320.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.7	**Precipitation Freq (Days)**	51
Climate Zone	2			**Operational Year**	2033
Utility Company	Modesto Irrigation District				
CO2 Intensity (lb/MWhr)	452.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Construction Only.

Land Use - Community Park: Construction would start in Spring 2030 and End in Spring 2033.

Grading - Soil import/export unknown at this time.

Architectural Coating - 2019 CalGreen Code

Vehicle Trips - Construction Only.

Consumer Products - Construction Only.

Area Coating - Construction Only.

Landscape Equipment - Construction Only.

Water And Wastewater - Construction Only.

Solid Waste - Construction Only.

Construction Off-road Equipment Mitigation - SJVAPCD Regulation VIII

Date: 9/21/2021 11:56 AM

Mountain House Project: Proposed Neighborhood J (Construction Only) - San Joaquin County, Annual

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

Construction Phase - No demolition. Construction from Spring 2030 to Spring 2033.

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	150.00	100.00
tblArchitecturalCoating	EF_Nonresidential_Interior	150.00	100.00
tblArchitecturalCoating	EF_Parking	150.00	100.00
tblArchitecturalCoating	EF_Residential_Exterior	150.00	100.00
tblArchitecturalCoating	EF_Residential_Interior	150.00	100.00
tblAreaCoating	Area_Nonresidential_Exterior	143748	0
tblAreaCoating	Area_Nonresidential_Interior	431244	0
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	20.00	50.00
tblConstructionPhase	NumDays	370.00	600.00
tblConstructionPhase	NumDays	35.00	60.00
tblConstructionPhase	NumDays	20.00	60.00
tblConstructionPhase	NumDays	10.00	30.00
tblConstructionPhase	PhaseEndDate	1/23/2032	4/22/2033
tblConstructionPhase	PhaseEndDate	11/28/2031	11/19/2032
tblConstructionPhase	PhaseEndDate	6/28/2030	8/2/2030
tblConstructionPhase	PhaseEndDate	12/26/2031	2/11/2033
tblConstructionPhase	PhaseStartDate	12/27/2031	2/12/2033
tblConstructionPhase	PhaseStartDate	6/29/2030	8/3/2030
tblConstructionPhase	PhaseStartDate	11/29/2031	11/20/2032
tblConstructionPhase	PhaseStartDate	4/27/2030	4/1/2030
tblConsumerProducts	ROG_EF	2.14E-05	0
tblConsumerProducts	ROG_EF_Degreaser	3.542E-07	0
tblConsumerProducts	ROG_EF_PesticidesFertilizers	5.152E-08	0
tblLandscapeEquipment	NumberSummerDays	180	0
tblSolidWaste	SolidWasteGenerationRate	1.89	0.00

Mountain House Project: Proposed Neighborhood J (Construction Only) - San Joaquin County, Annual

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

tblVehicleTrips	ST_TR	1.96	0.00
tblVehicleTrips	SU_TR	2.19	0.00
tblVehicleTrips	WD_TR	0.78	0.00
tblWater	OutdoorWaterUseRate	26,212,589.69	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2030	0.2536	1.4268	2.2439	7.1800e-003	0.4931	0.0320	0.5251	0.1779	0.0319	0.2098	0.0000	660.8010	660.8010	0.0194	0.0240	668.4372
2031	0.2795	1.9588	3.1314	0.0105	0.5533	0.0263	0.5796	0.1502	0.0259	0.1762	0.0000	965.3541	965.3541	0.0201	0.0572	982.9006
2032	0.2651	1.8435	3.0036	9.6200e-003	0.4936	0.0282	0.5218	0.1340	0.0279	0.1619	0.0000	887.8185	887.8185	0.0193	0.0500	903.2087
2033	1.3600	0.1300	0.3139	6.1000e-004	0.0177	5.5200e-003	0.0232	4.7100e-003	5.5100e-003	0.0102	0.0000	54.1834	54.1834	2.1300e-003	2.5000e-004	54.3110
Maximum	**1.3600**	**1.9588**	**3.1314**	**0.0105**	**0.5533**	**0.0320**	**0.5796**	**0.1779**	**0.0319**	**0.2098**	**0.0000**	**965.3541**	**965.3541**	**0.0201**	**0.0572**	**982.9006**

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

Mountain House Project: Proposed Neighborhood J (Construction Only) - San Joaquin County, Annual

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

Year	tons/yr										MT/yr					
2030	0.2536	1.4268	2.2439	7.1800e-003	0.3505	0.0320	0.3825	0.1149	0.0319	0.1468	0.0000	660.8005	660.8005	0.0194	0.0240	668.4367
2031	0.2795	1.9588	3.1314	0.0105	0.5533	0.0263	0.5796	0.1502	0.0259	0.1762	0.0000	965.3537	965.3537	0.0201	0.0572	982.9002
2032	0.2651	1.8435	3.0036	9.6200e-003	0.4936	0.0282	0.5218	0.1340	0.0279	0.1619	0.0000	887.8181	887.8181	0.0193	0.0500	903.2083
2033	1.3600	0.1300	0.3139	6.1000e-004	0.0177	5.5200e-003	0.0232	4.7100e-003	5.5100e-003	0.0102	0.0000	54.1834	54.1834	2.1300e-003	2.5000e-004	54.3110
Maximum	**1.3600**	**1.9588**	**3.1314**	**0.0105**	**0.5533**	**0.0320**	**0.5796**	**0.1502**	**0.0319**	**0.1762**	**0.0000**	**965.3537**	**965.3537**	**0.0201**	**0.0572**	**982.9002**

	ROG	NOx	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**	**9.16**	**0.00**	**8.65**	**13.48**	**0.00**	**11.28**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	**4-1-2030**	**6-30-2030**	0.5439	0.5439
2	**7-1-2030**	**9-30-2030**	0.5609	0.5609
3	**10-1-2030**	**12-31-2030**	0.5744	0.5744
4	**1-1-2031**	**3-31-2031**	0.5588	0.5588
5	**4-1-2031**	**6-30-2031**	0.5497	0.5497
6	**7-1-2031**	**9-30-2031**	0.5557	0.5557
7	**10-1-2031**	**12-31-2031**	0.5712	0.5712
8	**1-1-2032**	**3-31-2032**	0.5624	0.5624
9	**4-1-2032**	**6-30-2032**	0.5471	0.5471
10	**7-1-2032**	**9-30-2032**	0.5531	0.5531
11	**10-1-2032**	**12-31-2032**	0.4372	0.4372
12	**1-1-2033**	**3-31-2033**	1.0623	1.0623
13	**4-1-2033**	**6-30-2033**	0.4281	0.4281
		Highest	1.0623	1.0623

Mountain House Project: Proposed Neighborhood J (Construction Only) - San Joaquin County, Annual

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

2.2 Overall Operational

Unmitigated Operational

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

Mitigated Operational

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

Mountain House Project: Proposed Neighborhood J (Construction Only) - San Joaquin County, Annual

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

Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Building Construction	Building Construction	8/3/2030	11/19/2032	5	600	
2	Site Preparation	Site Preparation	4/1/2030	5/10/2030	5	30	
3	Architectural Coating	Architectural Coating	2/12/2033	4/22/2033	5	50	
4	Paving	Paving	11/20/2032	2/11/2033	5	60	
5	Grading	Grading	5/11/2030	8/2/2030	5	60	

Acres of Grading (Site Preparation Phase): 15

Acres of Grading (Grading Phase): 105

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 431,244; Non-Residential Outdoor: 143,748; Striped Parking Area: 0 (Architectural

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor

Mountain House Project: Proposed Neighborhood J (Construction Only) - San Joaquin County, Annual

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

Architectural Coating	Air Compressors	1	6.00	78	0.48
Building Construction	Cranes	1	7.00	231	0.29
Grading	Excavators	2	8.00	158	0.38
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Grading	Graders	1	8.00	187	0.41
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
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
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	402.00	157.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	80.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Mountain House Project: Proposed Neighborhood J (Construction Only) - San Joaquin County, Annual

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

Reduce Vehicle Speed on Unpaved Roads

3.2 Building Construction - 2030

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	0.0700	0.4245	0.8644	1.6600e-003		7.9300e-003	7.9300e-003		7.9300e-003	7.9300e-003	0.0000	140.6307	140.6307	5.6400e-003	0.0000	140.7717
Total	**0.0700**	**0.4245**	**0.8644**	**1.6600e-003**		**7.9300e-003**	**7.9300e-003**		**7.9300e-003**	**7.9300e-003**	**0.0000**	**140.6307**	**140.6307**	**5.6400e-003**	**0.0000**	**140.7717**

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	7.8700e-003	0.3603	0.1001	1.4800e-003	0.0555	2.3200e-003	0.0578	0.0160	2.2200e-003	0.0183	0.0000	142.0787	142.0787	6.3000e-004	0.0213	148.4392
Worker	0.0391	0.0208	0.3310	1.1900e-003	0.1713	5.7000e-004	0.1719	0.0456	5.2000e-004	0.0461	0.0000	117.0415	117.0415	2.1500e-003	2.6000e-003	117.8703
Total	**0.0469**	**0.3810**	**0.4311**	**2.6700e-003**	**0.2268**	**2.8900e-003**	**0.2297**	**0.0616**	**2.7400e-003**	**0.0643**	**0.0000**	**259.1202**	**259.1202**	**2.7800e-003**	**0.0239**	**266.3095**

Mountain House Project: Proposed Neighborhood J (Construction Only) - San Joaquin County, Annual

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

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0700	0.4245	0.8644	1.6600e-003		7.9300e-003	7.9300e-003		7.9300e-003	7.9300e-003	0.0000	140.6305	140.6305	5.6400e-003	0.0000	140.7715
Total	**0.0700**	**0.4245**	**0.8644**	**1.6600e-003**		**7.9300e-003**	**7.9300e-003**		**7.9300e-003**	**7.9300e-003**	**0.0000**	**140.6305**	**140.6305**	**5.6400e-003**	**0.0000**	**140.7715**

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	7.8700e-003	0.3603	0.1001	1.4800e-003	0.0555	2.3200e-003	0.0578	0.0160	2.2200e-003	0.0183	0.0000	142.0787	142.0787	6.3000e-004	0.0213	148.4392
Worker	0.0391	0.0208	0.3310	1.1900e-003	0.1713	5.7000e-004	0.1719	0.0456	5.2000e-004	0.0461	0.0000	117.0415	117.0415	2.1500e-003	2.6000e-003	117.8703
Total	**0.0469**	**0.3810**	**0.4311**	**2.6700e-003**	**0.2268**	**2.8900e-003**	**0.2297**	**0.0616**	**2.7400e-003**	**0.0643**	**0.0000**	**259.1202**	**259.1202**	**2.7800e-003**	**0.0239**	**266.3095**

3.2 Building Construction - 2031

Unmitigated Construction On-Site

Mountain House Project: Proposed Neighborhood J (Construction Only) - San Joaquin County, Annual

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1708	1.0355	2.1085	4.0400e-003		0.0193	0.0193		0.0193	0.0193	0.0000	343.0336	343.0336	0.0138	0.0000	343.3777
Total	**0.1708**	**1.0355**	**2.1085**	**4.0400e-003**		**0.0193**	**0.0193**		**0.0193**	**0.0193**	**0.0000**	**343.0336**	**343.0336**	**0.0138**	**0.0000**	**343.3777**

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	0.0191	0.8758	0.2432	3.5500e-003	0.1354	5.6400e-003	0.1410	0.0391	5.4000e-003	0.0445	0.0000	340.9166	340.9166	1.5100e-003	0.0510	356.1642
Worker	0.0896	0.0474	0.7797	2.8500e-003	0.4179	1.3000e-003	0.4192	0.1111	1.2000e-003	0.1123	0.0000	281.4039	281.4039	4.8600e-003	6.1500e-003	283.3587
Total	**0.1086**	**0.9233**	**1.0229**	**6.4000e-003**	**0.5533**	**6.9400e-003**	**0.5602**	**0.1502**	**6.6000e-003**	**0.1568**	**0.0000**	**622.3205**	**622.3205**	**6.3700e-003**	**0.0572**	**639.5229**

Mitigated Construction On-Site

Mountain House Project: Proposed Neighborhood J (Construction Only) - San Joaquin County, Annual

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1708	1.0355	2.1085	4.0400e-003		0.0193	0.0193		0.0193	0.0193	0.0000	343.0332	343.0332	0.0138	0.0000	343.3773
Total	**0.1708**	**1.0355**	**2.1085**	**4.0400e-003**		**0.0193**	**0.0193**		**0.0193**	**0.0193**	**0.0000**	**343.0332**	**343.0332**	**0.0138**	**0.0000**	**343.3773**

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	0.0191	0.8758	0.2432	3.5500e-003	0.1354	5.6400e-003	0.1410	0.0391	5.4000e-003	0.0445	0.0000	340.9166	340.9166	1.5100e-003	0.0510	356.1642
Worker	0.0896	0.0474	0.7797	2.8500e-003	0.4179	1.3000e-003	0.4192	0.1111	1.2000e-003	0.1123	0.0000	281.4039	281.4039	4.8600e-003	6.1500e-003	283.3587
Total	**0.1086**	**0.9233**	**1.0229**	**6.4000e-003**	**0.5533**	**6.9400e-003**	**0.5602**	**0.1502**	**6.6000e-003**	**0.1568**	**0.0000**	**622.3205**	**622.3205**	**6.3700e-003**	**0.0572**	**639.5229**

3.2 Building Construction - 2032

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

Mountain House Project: Proposed Neighborhood J (Construction Only) - San Joaquin County, Annual

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

Category	tons/yr										MT/yr					
Off-Road	0.1519	0.9204	1.8742	3.5900e-003		0.0172	0.0172		0.0172	0.0172	0.0000	304.9188	304.9188	0.0122	0.0000	305.2246
Total	**0.1519**	**0.9204**	**1.8742**	**3.5900e-003**		**0.0172**	**0.0172**		**0.0172**	**0.0172**	**0.0000**	**304.9188**	**304.9188**	**0.0122**	**0.0000**	**305.2246**

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	0.0169	0.7762	0.2160	3.1100e-003	0.1204	4.9900e-003	0.1254	0.0348	4.7700e-003	0.0396	0.0000	298.5929	298.5929	1.3200e-003	0.0447	311.9369
Worker	0.0753	0.0399	0.6725	2.4900e-003	0.3714	1.0900e-003	0.3725	0.0988	1.0000e-003	0.0998	0.0000	246.9660	246.9660	4.0400e-003	5.3300e-003	248.6558
Total	**0.0921**	**0.8161**	**0.8884**	**5.6000e-003**	**0.4918**	**6.0800e-003**	**0.4979**	**0.1335**	**5.7700e-003**	**0.1393**	**0.0000**	**545.5589**	**545.5589**	**5.3600e-003**	**0.0500**	**560.5927**

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					

Mountain House Project: Proposed Neighborhood J (Construction Only) - San Joaquin County, Annual

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

Off-Road	0.1519	0.9204	1.8742	3.5900e-003		0.0172	0.0172		0.0172	0.0172	0.0000	304.9184	304.9184	0.0122	0.0000	305.2242
Total	**0.1519**	**0.9204**	**1.8742**	**3.5900e-003**		**0.0172**	**0.0172**		**0.0172**	**0.0172**	**0.0000**	**304.9184**	**304.9184**	**0.0122**	**0.0000**	**305.2242**

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	0.0169	0.7762	0.2160	3.1100e-003	0.1204	4.9900e-003	0.1254	0.0348	4.7700e-003	0.0396	0.0000	298.5929	298.5929	1.3200e-003	0.0447	311.9369
Worker	0.0753	0.0399	0.6725	2.4900e-003	0.3714	1.0900e-003	0.3725	0.0988	1.0000e-003	0.0998	0.0000	246.9660	246.9660	4.0400e-003	5.3300e-003	248.6558
Total	**0.0921**	**0.8161**	**0.8884**	**5.6000e-003**	**0.4918**	**6.0800e-003**	**0.4979**	**0.1335**	**5.7700e-003**	**0.1393**	**0.0000**	**545.5589**	**545.5589**	**5.3600e-003**	**0.0500**	**560.5927**

3.3 Site Preparation - 2030

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0983	0.0000	0.0983	0.0505	0.0000	0.0505	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Mountain House Project: Proposed Neighborhood J (Construction Only) - San Joaquin County, Annual

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

Off-Road	0.0366	0.2050	0.2444	7.0000e-004		6.5500e-003	6.5500e-003		6.5500e-003	6.5500e-003	0.0000	60.0069	60.0069	2.9600e-003	0.0000	60.0809
Total	**0.0366**	**0.2050**	**0.2444**	**7.0000e-004**	**0.0983**	**6.5500e-003**	**0.1048**	**0.0505**	**6.5500e-003**	**0.0571**	**0.0000**	**60.0069**	**60.0069**	**2.9600e-003**	**0.0000**	**60.0809**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.9000e-004	2.6000e-004	4.1600e-003	1.0000e-005	2.1500e-003	1.0000e-005	2.1600e-003	5.7000e-004	1.0000e-005	5.8000e-004	0.0000	1.4693	1.4693	3.0000e-005	3.0000e-005	1.4798
Total	**4.9000e-004**	**2.6000e-004**	**4.1600e-003**	**1.0000e-005**	**2.1500e-003**	**1.0000e-005**	**2.1600e-003**	**5.7000e-004**	**1.0000e-005**	**5.8000e-004**	**0.0000**	**1.4693**	**1.4693**	**3.0000e-005**	**3.0000e-005**	**1.4798**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0442	0.0000	0.0442	0.0227	0.0000	0.0227	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Mountain House Project: Proposed Neighborhood J (Construction Only) - San Joaquin County, Annual

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

Off-Road	0.0366	0.2050	0.2444	7.0000e-004		6.5500e-003	6.5500e-003		6.5500e-003	6.5500e-003	0.0000	60.0069	60.0069	2.9600e-003	0.0000	60.0809
Total	**0.0366**	**0.2050**	**0.2444**	**7.0000e-004**	**0.0442**	**6.5500e-003**	**0.0508**	**0.0227**	**6.5500e-003**	**0.0293**	**0.0000**	**60.0069**	**60.0069**	**2.9600e-003**	**0.0000**	**60.0809**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.9000e-004	2.6000e-004	4.1600e-003	1.0000e-005	2.1500e-003	1.0000e-005	2.1600e-003	5.7000e-004	1.0000e-005	5.8000e-004	0.0000	1.4693	1.4693	3.0000e-005	3.0000e-005	1.4798
Total	**4.9000e-004**	**2.6000e-004**	**4.1600e-003**	**1.0000e-005**	**2.1500e-003**	**1.0000e-005**	**2.1600e-003**	**5.7000e-004**	**1.0000e-005**	**5.8000e-004**	**0.0000**	**1.4693**	**1.4693**	**3.0000e-005**	**3.0000e-005**	**1.4798**

3.4 Architectural Coating - 2033

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.3325					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Mountain House Project: Proposed Neighborhood J (Construction Only) - San Joaquin County, Annual

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

Off-Road	3.2700e-003	0.0214	0.0449	7.0000e-005		5.1000e-004	5.1000e-004		5.1000e-004	5.1000e-004	0.0000	6.3831	6.3831	2.6000e-004	0.0000	6.3896
Total	**1.3358**	**0.0214**	**0.0449**	**7.0000e-005**		**5.1000e-004**	**5.1000e-004**		**5.1000e-004**	**5.1000e-004**	**0.0000**	**6.3831**	**6.3831**	**2.6000e-004**	**0.0000**	**6.3896**

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	3.0600e-003	1.6400e-003	0.0281	1.0000e-004	0.0159	4.0000e-005	0.0160	4.2400e-003	4.0000e-005	4.2800e-003	0.0000	10.4728	10.4728	1.6000e-004	2.2000e-004	10.5436
Total	**3.0600e-003**	**1.6400e-003**	**0.0281**	**1.0000e-004**	**0.0159**	**4.0000e-005**	**0.0160**	**4.2400e-003**	**4.0000e-005**	**4.2800e-003**	**0.0000**	**10.4728**	**10.4728**	**1.6000e-004**	**2.2000e-004**	**10.5436**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.3325					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Mountain House Project: Proposed Neighborhood J (Construction Only) - San Joaquin County, Annual

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

Off-Road	3.2700e-003	0.0214	0.0449	7.0000e-005		5.1000e-004	5.1000e-004		5.1000e-004	5.1000e-004	0.0000	6.3831	6.3831	2.6000e-004	0.0000	6.3896
Total	**1.3358**	**0.0214**	**0.0449**	**7.0000e-005**		**5.1000e-004**	**5.1000e-004**		**5.1000e-004**	**5.1000e-004**	**0.0000**	**6.3831**	**6.3831**	**2.6000e-004**	**0.0000**	**6.3896**

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	3.0600e-003	1.6400e-003	0.0281	1.0000e-004	0.0159	4.0000e-005	0.0160	4.2400e-003	4.0000e-005	4.2800e-003	0.0000	10.4728	10.4728	1.6000e-004	2.2000e-004	10.5436
Total	**3.0600e-003**	**1.6400e-003**	**0.0281**	**1.0000e-004**	**0.0159**	**4.0000e-005**	**0.0160**	**4.2400e-003**	**4.0000e-005**	**4.2800e-003**	**0.0000**	**10.4728**	**10.4728**	**1.6000e-004**	**2.2000e-004**	**10.5436**

3.5 Paving - 2032

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	0.0208	0.1068	0.2377	4.2000e-004		4.9600e-003	4.9600e-003		4.9600e-003	4.9600e-003	0.0000	36.1493	36.1493	1.6900e-003	0.0000	36.1916

Mountain House Project: Proposed Neighborhood J (Construction Only) - San Joaquin County, Annual

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

Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0208**	**0.1068**	**0.2377**	**4.2000e-004**		**4.9600e-003**	**4.9600e-003**		**4.9600e-003**	**4.9600e-003**	**0.0000**	**36.1493**	**36.1493**	**1.6900e-003**	**0.0000**	**36.1916**

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	3.6000e-004	1.9000e-004	3.2400e-003	1.0000e-005	1.7900e-003	1.0000e-005	1.8000e-003	4.8000e-004	0.0000	4.8000e-004	0.0000	1.1916	1.1916	2.0000e-005	3.0000e-005	1.1998
Total	**3.6000e-004**	**1.9000e-004**	**3.2400e-003**	**1.0000e-005**	**1.7900e-003**	**1.0000e-005**	**1.8000e-003**	**4.8000e-004**	**0.0000**	**4.8000e-004**	**0.0000**	**1.1916**	**1.1916**	**2.0000e-005**	**3.0000e-005**	**1.1998**

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	0.0208	0.1068	0.2377	4.2000e-004		4.9600e-003	4.9600e-003		4.9600e-003	4.9600e-003	0.0000	36.1492	36.1492	1.6900e-003	0.0000	36.1916

Mountain House Project: Proposed Neighborhood J (Construction Only) - San Joaquin County, Annual

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

Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0208**	**0.1068**	**0.2377**	**4.2000e-004**		**4.9600e-003**	**4.9600e-003**		**4.9600e-003**	**4.9600e-003**	**0.0000**	**36.1492**	**36.1492**	**1.6900e-003**	**0.0000**	**36.1916**

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	3.6000e-004	1.9000e-004	3.2400e-003	1.0000e-005	1.7900e-003	1.0000e-005	1.8000e-003	4.8000e-004	0.0000	4.8000e-004	0.0000	1.1916	1.1916	2.0000e-005	3.0000e-005	1.1998
Total	**3.6000e-004**	**1.9000e-004**	**3.2400e-003**	**1.0000e-005**	**1.7900e-003**	**1.0000e-005**	**1.8000e-003**	**4.8000e-004**	**0.0000**	**4.8000e-004**	**0.0000**	**1.1916**	**1.1916**	**2.0000e-005**	**3.0000e-005**	**1.1998**

3.5 Paving - 2033

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	0.0208	0.1068	0.2377	4.2000e-004		4.9600e-003	4.9600e-003		4.9600e-003	4.9600e-003	0.0000	36.1493	36.1493	1.6900e-003	0.0000	36.1916

Mountain House Project: Proposed Neighborhood J (Construction Only) - San Joaquin County, Annual

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

Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0208**	**0.1068**	**0.2377**	**4.2000e-004**		**4.9600e-003**	**4.9600e-003**		**4.9600e-003**	**4.9600e-003**	**0.0000**	**36.1493**	**36.1493**	**1.6900e-003**	**0.0000**	**36.1916**

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	3.4000e-004	1.8000e-004	3.1600e-003	1.0000e-005	1.7900e-003	0.0000	1.8000e-003	4.8000e-004	0.0000	4.8000e-004	0.0000	1.1782	1.1782	2.0000e-005	3.0000e-005	1.1862
Total	**3.4000e-004**	**1.8000e-004**	**3.1600e-003**	**1.0000e-005**	**1.7900e-003**	**0.0000**	**1.8000e-003**	**4.8000e-004**	**0.0000**	**4.8000e-004**	**0.0000**	**1.1782**	**1.1782**	**2.0000e-005**	**3.0000e-005**	**1.1862**

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	0.0208	0.1068	0.2377	4.2000e-004		4.9600e-003	4.9600e-003		4.9600e-003	4.9600e-003	0.0000	36.1492	36.1492	1.6900e-003	0.0000	36.1916

Mountain House Project: Proposed Neighborhood J (Construction Only) - San Joaquin County, Annual

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

Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0208**	**0.1068**	**0.2377**	**4.2000e-004**		**4.9600e-003**	**4.9600e-003**		**4.9600e-003**	**4.9600e-003**	**0.0000**	**36.1492**	**36.1492**	**1.6900e-003**	**0.0000**	**36.1916**

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	3.4000e-004	1.8000e-004	3.1600e-003	1.0000e-005	1.7900e-003	0.0000	1.8000e-003	4.8000e-004	0.0000	4.8000e-004	0.0000	1.1782	1.1782	2.0000e-005	3.0000e-005	1.1862
Total	**3.4000e-004**	**1.8000e-004**	**3.1600e-003**	**1.0000e-005**	**1.7900e-003**	**0.0000**	**1.8000e-003**	**4.8000e-004**	**0.0000**	**4.8000e-004**	**0.0000**	**1.1782**	**1.1782**	**2.0000e-005**	**3.0000e-005**	**1.1862**

3.6 Grading - 2030

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					0.1611	0.0000	0.1611	0.0639	0.0000	0.0639	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Mountain House Project: Proposed Neighborhood J (Construction Only) - San Joaquin County, Annual

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

Off-Road	0.0984	0.4154	0.6907	2.1000e-003		0.0146	0.0146		0.0146	0.0146	0.0000	196.3087	196.3087	7.9300e-003	0.0000	196.5070
Total	**0.0984**	**0.4154**	**0.6907**	**2.1000e-003**	**0.1611**	**0.0146**	**0.1757**	**0.0639**	**0.0146**	**0.0786**	**0.0000**	**196.3087**	**196.3087**	**7.9300e-003**	**0.0000**	**196.5070**

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	1.0900e-003	5.8000e-004	9.2300e-003	3.0000e-005	4.7800e-003	2.0000e-005	4.8000e-003	1.2700e-003	1.0000e-005	1.2900e-003	0.0000	3.2652	3.2652	6.0000e-005	7.0000e-005	3.2883
Total	**1.0900e-003**	**5.8000e-004**	**9.2300e-003**	**3.0000e-005**	**4.7800e-003**	**2.0000e-005**	**4.8000e-003**	**1.2700e-003**	**1.0000e-005**	**1.2900e-003**	**0.0000**	**3.2652**	**3.2652**	**6.0000e-005**	**7.0000e-005**	**3.2883**

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					0.0725	0.0000	0.0725	0.0288	0.0000	0.0288	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Mountain House Project: Proposed Neighborhood J (Construction Only) - San Joaquin County, Annual

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

Off-Road	0.0984	0.4154	0.6907	2.1000e-003		0.0146	0.0146		0.0146	0.0146	0.0000	196.3084	196.3084	7.9300e-003	0.0000	196.5068
Total	**0.0984**	**0.4154**	**0.6907**	**2.1000e-003**	**0.0725**	**0.0146**	**0.0871**	**0.0288**	**0.0146**	**0.0434**	**0.0000**	**196.3084**	**196.3084**	**7.9300e-003**	**0.0000**	**196.5068**

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	1.0900e-003	5.8000e-004	9.2300e-003	3.0000e-005	4.7800e-003	2.0000e-005	4.8000e-003	1.2700e-003	1.0000e-005	1.2900e-003	0.0000	3.2652	3.2652	6.0000e-005	7.0000e-005	3.2883
Total	**1.0900e-003**	**5.8000e-004**	**9.2300e-003**	**3.0000e-005**	**4.7800e-003**	**2.0000e-005**	**4.8000e-003**	**1.2700e-003**	**1.0000e-005**	**1.2900e-003**	**0.0000**	**3.2652**	**3.2652**	**6.0000e-005**	**7.0000e-005**	**3.2883**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Mountain House Project: Proposed Neighborhood J (Construction Only) - San Joaquin County, Annual

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

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

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
City Park	9.50	7.30	7.30	33.00	48.00	19.00	66	28	6

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
City Park	0.566569	0.054821	0.174890	0.125854	0.019894	0.005247	0.012290	0.015811	0.000427	0.000307	0.020518	0.000935	0.002

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Mountain House Project: Proposed Neighborhood J (Construction Only) - San Joaquin County, Annual

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

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

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

Mountain House Project: Proposed Neighborhood J (Construction Only) - San Joaquin County, Annual

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

	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					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
City Park	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e

Mountain House Project: Proposed Neighborhood J (Construction Only) - San Joaquin County, Annual

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

Land Use	kWh/yr	MT/yr			
City Park	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

6.1 Mitigation Measures Area

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

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

Mountain House Project: Proposed Neighborhood J (Construction Only) - San Joaquin County, Annual

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

SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

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

7.0 Water Detail

7.1 Mitigation Measures Water

Mountain House Project: Proposed Neighborhood J (Construction Only) - San Joaquin County, Annual

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

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

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
City Park	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

Mountain House Project: Proposed Neighborhood J (Construction Only) - San Joaquin County, Annual

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

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
City Park	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

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

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e

Mountain House Project: Proposed Neighborhood J (Construction Only) - San Joaquin County, Annual

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

Land Use	tons	MT/yr			
City Park	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

Mountain House Project: Proposed Neighborhood J (Construction Only) - San Joaquin County, Annual

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

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Mountain House Project: Proposed Neighorhood L (Construction Only) - San Joaquin County, Annual

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

Mountain House Project: Proposed Neighorhood L (Construction Only)

San Joaquin County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Government Office Building	200.00	1000sqft	4.59	200,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.7	**Precipitation Freq (Days)**	51
Climate Zone	2			**Operational Year**	2032
Utility Company	Modesto Irrigation District				
CO2 Intensity (lb/MWhr)	452.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Construction Only

Land Use - Proposed Public Facilities; 200k sqft.

Construction Phase - No demo anticipated. Construction from Spring 2030 to Spring 2032.

Grading - no soil movement anticipated or known at this time.

Architectural Coating - 2019 CalGreen Code

Vehicle Trips - construction only.

Consumer Products - construction only.

Area Coating - construction only.

Landscape Equipment - construction only.

Energy Use - construction only.

Water And Wastewater - construction only.

Mountain House Project: Proposed Neighorhood L (Construction Only) - San Joaquin County, Annual

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

Solid Waste - construction only.

Construction Off-road Equipment Mitigation - SJVAPCD Regulation VIII

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	150.00	100.00
tblArchitecturalCoating	EF_Nonresidential_Interior	150.00	100.00
tblArchitecturalCoating	EF_Parking	150.00	100.00
tblArchitecturalCoating	EF_Residential_Exterior	150.00	100.00
tblArchitecturalCoating	EF_Residential_Interior	150.00	100.00
tblAreaCoating	Area_Nonresidential_Exterior	100000	0
tblAreaCoating	Area_Nonresidential_Interior	300000	0
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	18.00	60.00
tblConstructionPhase	NumDays	230.00	300.00
tblConstructionPhase	NumDays	8.00	60.00
tblConstructionPhase	NumDays	18.00	60.00
tblConstructionPhase	NumDays	5.00	60.00
tblConstructionPhase	PhaseEndDate	4/24/2031	4/23/2032
tblConstructionPhase	PhaseEndDate	3/5/2031	11/7/2031
tblConstructionPhase	PhaseEndDate	4/17/2030	9/13/2030
tblConstructionPhase	PhaseEndDate	3/31/2031	1/30/2032
tblConstructionPhase	PhaseEndDate	4/5/2030	6/21/2030
tblConstructionPhase	PhaseStartDate	4/1/2031	2/1/2032
tblConstructionPhase	PhaseStartDate	4/18/2030	9/14/2030
tblConstructionPhase	PhaseStartDate	4/6/2030	6/22/2030
tblConstructionPhase	PhaseStartDate	3/6/2031	11/8/2031
tblConsumerProducts	ROG_EF	2.14E-05	0
tblConsumerProducts	ROG_EF_Degreaser	3.542E-07	0
tblConsumerProducts	ROG_EF_PesticidesFertilizers	5.152E-08	0

Mountain House Project: Proposed Neighorhood L (Construction Only) - San Joaquin County, Annual

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

tblEnergyUse	LightingElect	3.17	0.00
tblEnergyUse	NT24E	3.62	0.00
tblEnergyUse	NT24NG	0.47	0.00
tblEnergyUse	T24E	2.87	0.00
tblEnergyUse	T24NG	15.83	0.00
tblLandscapeEquipment	NumberSummerDays	180	0
tblSolidWaste	SolidWasteGenerationRate	186.00	0.00
tblVehicleTrips	WD_TR	22.59	0.00
tblWater	ElectricityIntensityFactorForWastewaterTreatment	1,911.00	0.00
tblWater	ElectricityIntensityFactorToDistribute	1,272.00	0.00
tblWater	ElectricityIntensityFactorToSupply	2,117.00	0.00
tblWater	ElectricityIntensityFactorToTreat	111.00	0.00
tblWater	IndoorWaterUseRate	39,731,937.17	0.00
tblWater	OutdoorWaterUseRate	24,351,832.46	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2030	0.1796	1.0058	1.6118	4.0900e-003	0.8381	0.0263	0.8644	0.4156	0.0262	0.4418	0.0000	353.8907	353.8907	0.0143	3.6400e-003	355.3332
2031	0.1841	1.1672	2.2038	4.9400e-003	0.0842	0.0225	0.1067	0.0229	0.0225	0.0454	0.0000	428.8974	428.8974	0.0145	0.0101	432.2543
2032	0.9446	0.0948	0.2066	3.7000e-004	4.8600e-003	3.4000e-003	8.2600e-003	1.2900e-003	3.4000e-003	4.6900e-003	0.0000	32.1406	32.1406	1.4000e-003	7.0000e-005	32.1962

Mountain House Project: Proposed Neighorhood L (Construction Only) - San Joaquin County, Annual

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

Maximum	**0.9446**	**1.1672**	**2.2038**	**4.9400e-003**	**0.8381**	**0.0263**	**0.8644**	**0.4156**	**0.0262**	**0.4418**	**0.0000**	**428.8974**	**428.8974**	**0.0145**	**0.0101**	**432.2543**

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					
2030	0.1796	1.0058	1.6118	4.0900e-003	0.3969	0.0263	0.4232	0.1924	0.0262	0.2186	0.0000	353.8903	353.8903	0.0143	3.6400e-003	355.3328
2031	0.1841	1.1672	2.2038	4.9400e-003	0.0842	0.0225	0.1067	0.0229	0.0225	0.0454	0.0000	428.8970	428.8970	0.0145	0.0101	432.2539
2032	0.9446	0.0948	0.2066	3.7000e-004	4.8600e-003	3.4000e-003	8.2600e-003	1.2900e-003	3.4000e-003	4.6900e-003	0.0000	32.1405	32.1405	1.4000e-003	7.0000e-005	32.1962
Maximum	**0.9446**	**1.1672**	**2.2038**	**4.9400e-003**	**0.3969**	**0.0263**	**0.4232**	**0.1924**	**0.0262**	**0.2186**	**0.0000**	**428.8970**	**428.8970**	**0.0145**	**0.0101**	**432.2539**

	ROG	NOx	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**	**47.59**	**0.00**	**45.05**	**50.75**	**0.00**	**45.38**	**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	**4-1-2030**	**6-30-2030**	0.5035	0.5035
2	**7-1-2030**	**9-30-2030**	0.3178	0.3178
3	**10-1-2030**	**12-31-2030**	0.3586	0.3586
4	**1-1-2031**	**3-31-2031**	0.3502	0.3502
5	**4-1-2031**	**6-30-2031**	0.3510	0.3510
6	**7-1-2031**	**9-30-2031**	0.3548	0.3548

Mountain House Project: Proposed Neighorhood L (Construction Only) - San Joaquin County, Annual

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

7	**10-1-2031**	**12-31-2031**	0.2915	0.2915
8	**1-1-2032**	**3-31-2032**	0.7638	0.7638
9	**4-1-2032**	**6-30-2032**	0.2622	0.2622
		Highest	0.7638	0.7638

2.2 Overall Operational

Unmitigated Operational

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

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

Mountain House Project: Proposed Neighorhood L (Construction Only) - San Joaquin County, Annual

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

Category	tons/yr										MT/yr					
Area	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	4/1/2030	6/21/2030	5	60	
2	Grading	Grading	6/22/2030	9/13/2030	5	60	
3	Building Construction	Building Construction	9/14/2030	11/7/2031	5	300	
4	Paving	Paving	11/8/2031	1/30/2032	5	60	
5	Architectural Coating	Architectural Coating	2/1/2032	4/23/2032	5	60	

Acres of Grading (Site Preparation Phase): 90

Acres of Grading (Grading Phase): 60

Mountain House Project: Proposed Neighorhood L (Construction Only) - San Joaquin County, Annual

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

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 300,000; Non-Residential Outdoor: 100,000; Striped Parking Area: 0 (Architectural

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	1	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Cement and Mortar Mixers	2	6.00	9	0.56
Paving	Pavers	1	8.00	130	0.42
Paving	Paving Equipment	2	6.00	132	0.36
Paving	Rollers	2	6.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

Mountain House Project: Proposed Neighorhood L (Construction Only) - San Joaquin County, Annual

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

Building Construction	9	64.00	33.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	8	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	13.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Site Preparation - 2030

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	0.0732	0.4100	0.4888	1.4000e-003		0.0131	0.0131		0.0131	0.0131	0.0000	120.0138	120.0138	5.9200e-003	0.0000	120.1619
Total	**0.0732**	**0.4100**	**0.4888**	**1.4000e-003**	**0.5897**	**0.0131**	**0.6028**	**0.3031**	**0.0131**	**0.3162**	**0.0000**	**120.0138**	**120.0138**	**5.9200e-003**	**0.0000**	**120.1619**

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					

Mountain House Project: Proposed Neighorhood L (Construction Only) - San Joaquin County, Annual

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

Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	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	9.8000e-004	5.2000e-004	8.1800e-003	3.0000e-005	4.3000e-003	1.0000e-005	4.3200e-003	1.1400e-003	1.0000e-005	1.1600e-003	0.0000	2.7470	2.7470	5.0000e-005	7.0000e-005	2.7678
Total	**9.8000e-004**	**5.2000e-004**	**8.1800e-003**	**3.0000e-005**	**4.3000e-003**	**1.0000e-005**	**4.3200e-003**	**1.1400e-003**	**1.0000e-005**	**1.1600e-003**	**0.0000**	**2.7470**	**2.7470**	**5.0000e-005**	**7.0000e-005**	**2.7678**

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					0.2654	0.0000	0.2654	0.1364	0.0000	0.1364	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0732	0.4100	0.4888	1.4000e-003		0.0131	0.0131		0.0131	0.0131	0.0000	120.0137	120.0137	5.9200e-003	0.0000	120.1617
Total	**0.0732**	**0.4100**	**0.4888**	**1.4000e-003**	**0.2654**	**0.0131**	**0.2785**	**0.1364**	**0.0131**	**0.1495**	**0.0000**	**120.0137**	**120.0137**	**5.9200e-003**	**0.0000**	**120.1617**

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					

Mountain House Project: Proposed Neighorhood L (Construction Only) - San Joaquin County, Annual

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

Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	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	9.8000e-004	5.2000e-004	8.1800e-003	3.0000e-005	4.3000e-003	1.0000e-005	4.3200e-003	1.1400e-003	1.0000e-005	1.1600e-003	0.0000	2.7470	2.7470	5.0000e-005	7.0000e-005	2.7678
Total	**9.8000e-004**	**5.2000e-004**	**8.1800e-003**	**3.0000e-005**	**4.3000e-003**	**1.0000e-005**	**4.3200e-003**	**1.1400e-003**	**1.0000e-005**	**1.1600e-003**	**0.0000**	**2.7470**	**2.7470**	**5.0000e-005**	**7.0000e-005**	**2.7678**

3.3 Grading - 2030

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					0.2125	0.0000	0.2125	0.1027	0.0000	0.1027	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0485	0.2325	0.4336	1.0900e-003		7.0200e-003	7.0200e-003		7.0200e-003	7.0200e-003	0.0000	93.6139	93.6139	3.9100e-003	0.0000	93.7116
Total	**0.0485**	**0.2325**	**0.4336**	**1.0900e-003**	**0.2125**	**7.0200e-003**	**0.2195**	**0.1027**	**7.0200e-003**	**0.1098**	**0.0000**	**93.6139**	**93.6139**	**3.9100e-003**	**0.0000**	**93.7116**

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					

Mountain House Project: Proposed Neighorhood L (Construction Only) - San Joaquin County, Annual

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

Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	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	8.1000e-004	4.3000e-004	6.8200e-003	2.0000e-005	3.5800e-003	1.0000e-005	3.6000e-003	9.5000e-004	1.0000e-005	9.6000e-004	0.0000	2.2892	2.2892	4.0000e-005	5.0000e-005	2.3065
Total	**8.1000e-004**	**4.3000e-004**	**6.8200e-003**	**2.0000e-005**	**3.5800e-003**	**1.0000e-005**	**3.6000e-003**	**9.5000e-004**	**1.0000e-005**	**9.6000e-004**	**0.0000**	**2.2892**	**2.2892**	**4.0000e-005**	**5.0000e-005**	**2.3065**

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					0.0956	0.0000	0.0956	0.0462	0.0000	0.0462	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0485	0.2325	0.4336	1.0900e-003		7.0200e-003	7.0200e-003		7.0200e-003	7.0200e-003	0.0000	93.6137	93.6137	3.9100e-003	0.0000	93.7115
Total	**0.0485**	**0.2325**	**0.4336**	**1.0900e-003**	**0.0956**	**7.0200e-003**	**0.1026**	**0.0462**	**7.0200e-003**	**0.0533**	**0.0000**	**93.6137**	**93.6137**	**3.9100e-003**	**0.0000**	**93.7115**

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					

Mountain House Project: Proposed Neighorhood L (Construction Only) - San Joaquin County, Annual

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

Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	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	8.1000e-004	4.3000e-004	6.8200e-003	2.0000e-005	3.5800e-003	1.0000e-005	3.6000e-003	9.5000e-004	1.0000e-005	9.6000e-004	0.0000	2.2892	2.2892	4.0000e-005	5.0000e-005	2.3065
Total	**8.1000e-004**	**4.3000e-004**	**6.8200e-003**	**2.0000e-005**	**3.5800e-003**	**1.0000e-005**	**3.6000e-003**	**9.5000e-004**	**1.0000e-005**	**9.6000e-004**	**0.0000**	**2.2892**	**2.2892**	**4.0000e-005**	**5.0000e-005**	**2.3065**

3.4 Building Construction - 2030

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	0.0504	0.3055	0.6220	1.1900e-003		5.7000e-003	5.7000e-003		5.7000e-003	5.7000e-003	0.0000	101.2015	101.2015	4.0600e-003	0.0000	101.3030
Total	**0.0504**	**0.3055**	**0.6220**	**1.1900e-003**		**5.7000e-003**	**5.7000e-003**		**5.7000e-003**	**5.7000e-003**	**0.0000**	**101.2015**	**101.2015**	**4.0600e-003**	**0.0000**	**101.3030**

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

Mountain House Project: Proposed Neighorhood L (Construction Only) - San Joaquin County, Annual

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

Vendor	1.1900e-003	0.0545	0.0151	2.2000e-004	8.4000e-003	3.5000e-004	8.7500e-003	2.4300e-003	3.4000e-004	2.7600e-003	0.0000	21.4907	21.4907	1.0000e-004	3.2200e-003	22.4528
Worker	4.4500e-003	2.3700e-003	0.0373	1.4000e-004	0.0196	6.0000e-005	0.0197	5.2200e-003	6.0000e-005	5.2800e-003	0.0000	12.5346	12.5346	2.5000e-004	3.0000e-004	12.6296
Total	**5.6400e-003**	**0.0569**	**0.0525**	**3.6000e-004**	**0.0280**	**4.1000e-004**	**0.0284**	**7.6500e-003**	**4.0000e-004**	**8.0400e-003**	**0.0000**	**34.0253**	**34.0253**	**3.5000e-004**	**3.5200e-003**	**35.0823**

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	0.0504	0.3055	0.6220	1.1900e-003		5.7000e-003	5.7000e-003		5.7000e-003	5.7000e-003	0.0000	101.2014	101.2014	4.0600e-003	0.0000	101.3029
Total	**0.0504**	**0.3055**	**0.6220**	**1.1900e-003**		**5.7000e-003**	**5.7000e-003**		**5.7000e-003**	**5.7000e-003**	**0.0000**	**101.2014**	**101.2014**	**4.0600e-003**	**0.0000**	**101.3029**

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	1.1900e-003	0.0545	0.0151	2.2000e-004	8.4000e-003	3.5000e-004	8.7500e-003	2.4300e-003	3.4000e-004	2.7600e-003	0.0000	21.4907	21.4907	1.0000e-004	3.2200e-003	22.4528

Mountain House Project: Proposed Neighorhood L (Construction Only) - San Joaquin County, Annual

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

Worker	4.4500e-003	2.3700e-003	0.0373	1.4000e-004	0.0196	6.0000e-005	0.0197	5.2200e-003	6.0000e-005	5.2800e-003	0.0000	12.5346	12.5346	2.5000e-004	3.0000e-004	12.6296
Total	**5.6400e-003**	**0.0569**	**0.0525**	**3.6000e-004**	**0.0280**	**4.1000e-004**	**0.0284**	**7.6500e-003**	**4.0000e-004**	**8.0400e-003**	**0.0000**	**34.0253**	**34.0253**	**3.5000e-004**	**3.5200e-003**	**35.0823**

3.4 Building Construction - 2031

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	0.1460	0.8847	1.8015	3.4500e-003		0.0165	0.0165		0.0165	0.0165	0.0000	293.0900	293.0900	0.0118	0.0000	293.3840
Total	**0.1460**	**0.8847**	**1.8015**	**3.4500e-003**		**0.0165**	**0.0165**		**0.0165**	**0.0165**	**0.0000**	**293.0900**	**293.0900**	**0.0118**	**0.0000**	**293.3840**

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	3.4200e-003	0.1573	0.0437	6.4000e-004	0.0243	1.0100e-003	0.0253	7.0300e-003	9.7000e-004	8.0000e-003	0.0000	61.2247	61.2247	2.7000e-004	9.1700e-003	63.9630
Worker	0.0121	6.4200e-003	0.1043	3.9000e-004	0.0568	1.7000e-004	0.0570	0.0151	1.6000e-004	0.0153	0.0000	35.5572	35.5572	6.6000e-004	8.4000e-004	35.8231

Mountain House Project: Proposed Neighorhood L (Construction Only) - San Joaquin County, Annual

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

Total	**0.0155**	**0.1637**	**0.1479**	**1.0300e-003**	**0.0812**	**1.1800e-003**	**0.0824**	**0.0221**	**1.1300e-003**	**0.0233**	**0.0000**	**96.7819**	**96.7819**	**9.3000e-004**	**0.0100**	**99.7861**

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	0.1460	0.8847	1.8015	3.4500e-003		0.0165	0.0165		0.0165	0.0165	0.0000	293.0897	293.0897	0.0118	0.0000	293.3836
Total	**0.1460**	**0.8847**	**1.8015**	**3.4500e-003**		**0.0165**	**0.0165**		**0.0165**	**0.0165**	**0.0000**	**293.0897**	**293.0897**	**0.0118**	**0.0000**	**293.3836**

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	3.4200e-003	0.1573	0.0437	6.4000e-004	0.0243	1.0100e-003	0.0253	7.0300e-003	9.7000e-004	8.0000e-003	0.0000	61.2247	61.2247	2.7000e-004	9.1700e-003	63.9630
Worker	0.0121	6.4200e-003	0.1043	3.9000e-004	0.0568	1.7000e-004	0.0570	0.0151	1.6000e-004	0.0153	0.0000	35.5572	35.5572	6.6000e-004	8.4000e-004	35.8231
Total	**0.0155**	**0.1637**	**0.1479**	**1.0300e-003**	**0.0812**	**1.1800e-003**	**0.0824**	**0.0221**	**1.1300e-003**	**0.0233**	**0.0000**	**96.7819**	**96.7819**	**9.3000e-004**	**0.0100**	**99.7861**

Mountain House Project: Proposed Neighorhood L (Construction Only) - San Joaquin County, Annual

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

3.5 Paving - 2031

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	0.0219	0.1185	0.2488	4.4000e-004		4.8000e-003	4.8000e-003		4.8000e-003	4.8000e-003	0.0000	37.1319	37.1319	1.7800e-003	0.0000	37.1765
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0219**	**0.1185**	**0.2488**	**4.4000e-004**		**4.8000e-003**	**4.8000e-003**		**4.8000e-003**	**4.8000e-003**	**0.0000**	**37.1319**	**37.1319**	**1.7800e-003**	**0.0000**	**37.1765**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.5000e-004	3.4000e-004	5.5500e-003	2.0000e-005	3.0300e-003	1.0000e-005	3.0400e-003	8.0000e-004	1.0000e-005	8.1000e-004	0.0000	1.8935	1.8935	4.0000e-005	4.0000e-005	1.9076
Total	**6.5000e-004**	**3.4000e-004**	**5.5500e-003**	**2.0000e-005**	**3.0300e-003**	**1.0000e-005**	**3.0400e-003**	**8.0000e-004**	**1.0000e-005**	**8.1000e-004**	**0.0000**	**1.8935**	**1.8935**	**4.0000e-005**	**4.0000e-005**	**1.9076**

Mountain House Project: Proposed Neighorhood L (Construction Only) - San Joaquin County, Annual

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

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0219	0.1185	0.2488	4.4000e-004		4.8000e-003	4.8000e-003		4.8000e-003	4.8000e-003	0.0000	37.1319	37.1319	1.7800e-003	0.0000	37.1765
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0219**	**0.1185**	**0.2488**	**4.4000e-004**		**4.8000e-003**	**4.8000e-003**		**4.8000e-003**	**4.8000e-003**	**0.0000**	**37.1319**	**37.1319**	**1.7800e-003**	**0.0000**	**37.1765**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.5000e-004	3.4000e-004	5.5500e-003	2.0000e-005	3.0300e-003	1.0000e-005	3.0400e-003	8.0000e-004	1.0000e-005	8.1000e-004	0.0000	1.8935	1.8935	4.0000e-005	4.0000e-005	1.9076
Total	**6.5000e-004**	**3.4000e-004**	**5.5500e-003**	**2.0000e-005**	**3.0300e-003**	**1.0000e-005**	**3.0400e-003**	**8.0000e-004**	**1.0000e-005**	**8.1000e-004**	**0.0000**	**1.8935**	**1.8935**	**4.0000e-005**	**4.0000e-005**	**1.9076**

Mountain House Project: Proposed Neighorhood L (Construction Only) - San Joaquin County, Annual

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

3.5 Paving - 2032

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	0.0127	0.0686	0.1440	2.5000e-004		2.7800e-003	2.7800e-003		2.7800e-003	2.7800e-003	0.0000	21.4974	21.4974	1.0300e-003	0.0000	21.5232
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0127**	**0.0686**	**0.1440**	**2.5000e-004**		**2.7800e-003**	**2.7800e-003**		**2.7800e-003**	**2.7800e-003**	**0.0000**	**21.4974**	**21.4974**	**1.0300e-003**	**0.0000**	**21.5232**

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	3.5000e-004	1.9000e-004	3.1100e-003	1.0000e-005	1.7500e-003	1.0000e-005	1.7600e-003	4.7000e-004	0.0000	4.7000e-004	0.0000	1.0760	1.0760	2.0000e-005	3.0000e-005	1.0839
Total	**3.5000e-004**	**1.9000e-004**	**3.1100e-003**	**1.0000e-005**	**1.7500e-003**	**1.0000e-005**	**1.7600e-003**	**4.7000e-004**	**0.0000**	**4.7000e-004**	**0.0000**	**1.0760**	**1.0760**	**2.0000e-005**	**3.0000e-005**	**1.0839**

Mountain House Project: Proposed Neighorhood L (Construction Only) - San Joaquin County, Annual

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

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0127	0.0686	0.1440	2.5000e-004		2.7800e-003	2.7800e-003		2.7800e-003	2.7800e-003	0.0000	21.4974	21.4974	1.0300e-003	0.0000	21.5232
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0127**	**0.0686**	**0.1440**	**2.5000e-004**		**2.7800e-003**	**2.7800e-003**		**2.7800e-003**	**2.7800e-003**	**0.0000**	**21.4974**	**21.4974**	**1.0300e-003**	**0.0000**	**21.5232**

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	3.5000e-004	1.9000e-004	3.1100e-003	1.0000e-005	1.7500e-003	1.0000e-005	1.7600e-003	4.7000e-004	0.0000	4.7000e-004	0.0000	1.0760	1.0760	2.0000e-005	3.0000e-005	1.0839
Total	**3.5000e-004**	**1.9000e-004**	**3.1100e-003**	**1.0000e-005**	**1.7500e-003**	**1.0000e-005**	**1.7600e-003**	**4.7000e-004**	**0.0000**	**4.7000e-004**	**0.0000**	**1.0760**	**1.0760**	**2.0000e-005**	**3.0000e-005**	**1.0839**

Mountain House Project: Proposed Neighorhood L (Construction Only) - San Joaquin County, Annual

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

3.6 Architectural Coating - 2032

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	0.9270					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.9200e-003	0.0257	0.0539	9.0000e-005		6.1000e-004	6.1000e-004		6.1000e-004	6.1000e-004	0.0000	7.6598	7.6598	3.1000e-004	0.0000	7.6675
Total	**0.9309**	**0.0257**	**0.0539**	**9.0000e-005**		**6.1000e-004**	**6.1000e-004**		**6.1000e-004**	**6.1000e-004**	**0.0000**	**7.6598**	**7.6598**	**3.1000e-004**	**0.0000**	**7.6675**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.3000e-004	3.3000e-004	5.5200e-003	2.0000e-005	3.1100e-003	1.0000e-005	3.1200e-003	8.3000e-004	1.0000e-005	8.3000e-004	0.0000	1.9074	1.9074	3.0000e-005	4.0000e-005	1.9215
Total	**6.3000e-004**	**3.3000e-004**	**5.5200e-003**	**2.0000e-005**	**3.1100e-003**	**1.0000e-005**	**3.1200e-003**	**8.3000e-004**	**1.0000e-005**	**8.3000e-004**	**0.0000**	**1.9074**	**1.9074**	**3.0000e-005**	**4.0000e-005**	**1.9215**

Mountain House Project: Proposed Neighorhood L (Construction Only) - San Joaquin County, Annual

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

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.9270					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.9200e-003	0.0257	0.0539	9.0000e-005		6.1000e-004	6.1000e-004		6.1000e-004	6.1000e-004	0.0000	7.6598	7.6598	3.1000e-004	0.0000	7.6675
Total	**0.9309**	**0.0257**	**0.0539**	**9.0000e-005**		**6.1000e-004**	**6.1000e-004**		**6.1000e-004**	**6.1000e-004**	**0.0000**	**7.6598**	**7.6598**	**3.1000e-004**	**0.0000**	**7.6675**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.3000e-004	3.3000e-004	5.5200e-003	2.0000e-005	3.1100e-003	1.0000e-005	3.1200e-003	8.3000e-004	1.0000e-005	8.3000e-004	0.0000	1.9074	1.9074	3.0000e-005	4.0000e-005	1.9215
Total	**6.3000e-004**	**3.3000e-004**	**5.5200e-003**	**2.0000e-005**	**3.1100e-003**	**1.0000e-005**	**3.1200e-003**	**8.3000e-004**	**1.0000e-005**	**8.3000e-004**	**0.0000**	**1.9074**	**1.9074**	**3.0000e-005**	**4.0000e-005**	**1.9215**

Mountain House Project: Proposed Neighorhood L (Construction Only) - San Joaquin County, Annual

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

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

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

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Government Office Building	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Government Office Building	9.50	7.30	7.30	33.00	62.00	5.00	50	34	16

4.4 Fleet Mix

Mountain House Project: Proposed Neighorhood L (Construction Only) - San Joaquin County, Annual

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

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Government Office Building	0.564705	0.054508	0.174472	0.127296	0.020301	0.005318	0.012437	0.016043	0.000432	0.000308	0.020709	0.000960	0.0025

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

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

5.2 Energy by Land Use - NaturalGas

Unmitigated

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

Mountain House Project: Proposed Neighorhood L (Construction Only) - San Joaquin County, Annual

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

Land Use	kBTU/yr	tons/yr										MT/yr					
Government Office Building	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

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

5.3 Energy by Land Use - Electricity

Unmitigated

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

Mountain House Project: Proposed Neighorhood L (Construction Only) - San Joaquin County, Annual

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

Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

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

6.0 Area Detail

6.1 Mitigation Measures Area

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

Mountain House Project: Proposed Neighorhood L (Construction Only) - San Joaquin County, Annual

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

Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

6.2 Area by SubCategory

Unmitigated

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

Mitigated

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

Mountain House Project: Proposed Neighorhood L (Construction Only) - San Joaquin County, Annual

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

Landscaping	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

7.0 Water Detail

7.1 Mitigation Measures Water

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

7.2 Water by Land Use

Unmitigated

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

Mountain House Project: Proposed Neighorhood L (Construction Only) - San Joaquin County, Annual

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

Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

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

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

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

Mountain House Project: Proposed Neighorhood L (Construction Only) - San Joaquin County, Annual

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

Unmitigated	0.0000	0.0000	0.0000	0.0000

8.2 Waste by Land Use

Unmitigated

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

Mitigated

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

Mountain House Project: Proposed Neighorhood L (Construction Only) - San Joaquin County, Annual

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

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

Mountain House Project: Proposed Town Center (Construction) - San Joaquin County, Annual

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

Mountain House Project: Proposed Town Center (Construction)

San Joaquin County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	34.00	1000sqft	0.78	34,000.00	0
Parking Lot	38.00	1000sqft	0.87	38,000.00	0
City Park	4.10	Acre	4.10	178,596.00	0
Apartments Mid Rise	73.00	Dwelling Unit	1.92	73,000.00	232

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.7	**Precipitation Freq (Days)**	51
Climate Zone	2			**Operational Year**	2026
Utility Company	Modesto Irrigation District				
CO2 Intensity (lb/MWhr)	452.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Construction Only

Land Use - Town Center Proposed 73 DU (RMH) and Community Park with 38k aquatic center and parking lot.

Construction Phase - No demo or Site Prep needed. Construction would occur from Spring 2024 to Fall 2025 (RMH) and Spring 2028 to Summer 2030 (Park).

Grading - Soil import/export is unknown at this time. It is assumed that the site would be balanced. Default acres graded.

Architectural Coating - 2019 CalGreen Code requirements.

Vehicle Trips - Construction Only.

Woodstoves - Construction Only.

Consumer Products - Construction Only.

Mountain House Project: Proposed Town Center (Construction) - San Joaquin County, Annual

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

Area Coating - Construction Only.

Landscape Equipment - Construction Only.

Energy Use - Construction Only.

Water And Wastewater - Construction Only.

Solid Waste - Construction Only.

Construction Off-road Equipment Mitigation - SJVAPCD Regulation VIII - Fugitive PM10 Prohibitions

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	150.00	100.00
tblArchitecturalCoating	EF_Nonresidential_Exterior	150.00	100.00
tblArchitecturalCoating	EF_Nonresidential_Interior	150.00	100.00
tblArchitecturalCoating	EF_Nonresidential_Interior	150.00	100.00
tblArchitecturalCoating	EF_Parking	150.00	100.00
tblArchitecturalCoating	EF_Parking	150.00	100.00
tblArchitecturalCoating	EF_Residential_Exterior	150.00	100.00
tblArchitecturalCoating	EF_Residential_Exterior	150.00	100.00
tblArchitecturalCoating	EF_Residential_Interior	150.00	100.00
tblArchitecturalCoating	EF_Residential_Interior	150.00	100.00
tblAreaCoating	Area_Nonresidential_Exterior	19000	0
tblAreaCoating	Area_Nonresidential_Interior	57000	0
tblAreaCoating	Area_Parking	4320	0
tblAreaCoating	Area_Residential_Exterior	49275	0
tblAreaCoating	Area_Residential_Interior	147825	0
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	20.00	50.00
tblConstructionPhase	NumDays	20.00	50.00
tblConstructionPhase	NumDays	230.00	250.00
tblConstructionPhase	NumDays	230.00	450.00
tblConstructionPhase	NumDays	20.00	60.00

Mountain House Project: Proposed Town Center (Construction) - San Joaquin County, Annual

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

tblConstructionPhase	NumDays	20.00	60.00
tblConstructionPhase	NumDays	20.00	40.00
tblConstructionPhase	NumDays	20.00	40.00
tblConsumerProducts	ROG_EF	2.14E-05	0
tblConsumerProducts	ROG_EF_Degreaser	3.542E-07	0
tblConsumerProducts	ROG_EF_PesticidesFertilizers	5.152E-08	0
tblEnergyUse	LightingElect	741.44	0.00
tblEnergyUse	LightingElect	0.35	0.00
tblEnergyUse	NT24E	3,054.10	0.00
tblEnergyUse	NT24NG	2,687.00	0.00
tblEnergyUse	T24E	98.18	0.00
tblEnergyUse	T24NG	6,729.23	0.00
tblFireplaces	FireplaceWoodMass	3,078.40	0.00
tblLandscapeEquipment	NumberSummerDays	180	0
tblSolidWaste	SolidWasteGenerationRate	33.58	0.00
tblSolidWaste	SolidWasteGenerationRate	0.35	0.00
tblVehicleTrips	ST_TR	4.91	0.00
tblVehicleTrips	ST_TR	1.96	0.00
tblVehicleTrips	SU_TR	4.09	0.00
tblVehicleTrips	SU_TR	2.19	0.00
tblVehicleTrips	WD_TR	5.44	0.00
tblVehicleTrips	WD_TR	0.78	0.00
tblWater	IndoorWaterUseRate	4,756,243.87	0.00
tblWater	OutdoorWaterUseRate	2,998,501.57	0.00
tblWater	OutdoorWaterUseRate	4,885,073.53	0.00
tblWoodstoves	NumberCatalytic	1.92	0.00
tblWoodstoves	NumberNoncatalytic	1.92	0.00
tblWoodstoves	WoodstoveWoodMass	3,019.20	0.00

Mountain House Project: Proposed Town Center (Construction) - San Joaquin County, Annual

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

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2024	0.1844	1.5995	1.8312	4.1400e-003	0.3245	0.0651	0.3896	0.1330	0.0608	0.1938	0.0000	370.1889	370.1889	0.0651	0.0115	375.2378
2025	0.7727	1.0420	1.4774	3.2300e-003	0.0982	0.0406	0.1388	0.0265	0.0381	0.0646	0.0000	289.3666	289.3666	0.0459	9.3200e-003	293.2925
2028	0.1639	1.4569	1.7477	3.9600e-003	0.3229	0.0556	0.3785	0.1326	0.0519	0.1845	0.0000	355.4366	355.4366	0.0637	0.0102	360.0610
2029	0.2243	1.9241	2.5055	5.8400e-003	0.2065	0.0712	0.2777	0.0559	0.0670	0.1229	0.0000	526.8183	526.8183	0.0739	0.0191	534.3587
2030	0.7224	0.4400	0.8965	2.0000e-003	0.0515	0.0116	0.0631	0.0139	0.0116	0.0255	0.0000	177.1352	177.1352	6.0000e-003	4.0000e-003	178.4780
Maximum	**0.7727**	**1.9241**	**2.5055**	**5.8400e-003**	**0.3245**	**0.0712**	**0.3896**	**0.1330**	**0.0670**	**0.1938**	**0.0000**	**526.8183**	**526.8183**	**0.0739**	**0.0191**	**534.3587**

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					
2024	0.1844	1.5995	1.8312	4.1400e-003	0.2076	0.0651	0.2727	0.0765	0.0608	0.1373	0.0000	370.1886	370.1886	0.0651	0.0115	375.2375

Mountain House Project: Proposed Town Center (Construction) - San Joaquin County, Annual

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

2025	0.7727	1.0420	1.4774	3.2300e-003	0.0982	0.0406	0.1388	0.0265	0.0381	0.0646	0.0000	289.3664	289.3664	0.0459	9.3200e-003	293.2923
2028	0.1639	1.4569	1.7477	3.9600e-003	0.2060	0.0556	0.2616	0.0761	0.0519	0.1280	0.0000	355.4363	355.4363	0.0637	0.0102	360.0607
2029	0.2243	1.9241	2.5055	5.8400e-003	0.2065	0.0712	0.2777	0.0559	0.0670	0.1229	0.0000	526.8179	526.8179	0.0739	0.0191	534.3583
2030	0.7224	0.4400	0.8965	2.0000e-003	0.0515	0.0116	0.0631	0.0139	0.0116	0.0255	0.0000	177.1351	177.1351	6.0000e-003	4.0000e-003	178.4778
Maximum	**0.7727**	**1.9241**	**2.5055**	**5.8400e-003**	**0.2076**	**0.0712**	**0.2777**	**0.0765**	**0.0670**	**0.1373**	**0.0000**	**526.8179**	**526.8179**	**0.0739**	**0.0191**	**534.3583**

	ROG	NOx	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**	**23.29**	**0.00**	**18.73**	**31.23**	**0.00**	**19.11**	**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	**4-1-2024**	**6-30-2024**	0.6065	0.6065
2	**7-1-2024**	**9-30-2024**	0.5836	0.5836
3	**10-1-2024**	**12-31-2024**	0.5890	0.5890
4	**1-1-2025**	**3-31-2025**	0.5391	0.5391
5	**4-1-2025**	**6-30-2025**	0.4804	0.4804
6	**7-1-2025**	**9-30-2025**	0.6926	0.6926
7	**10-1-2025**	**12-31-2025**	0.0970	0.0970
17	**4-1-2028**	**6-30-2028**	0.5477	0.5477
18	**7-1-2028**	**9-30-2028**	0.5402	0.5402
19	**10-1-2028**	**12-31-2028**	0.5452	0.5452
20	**1-1-2029**	**3-31-2029**	0.5318	0.5318
21	**4-1-2029**	**6-30-2029**	0.5328	0.5328
22	**7-1-2029**	**9-30-2029**	0.5387	0.5387
23	**10-1-2029**	**12-31-2029**	0.5437	0.5437
24	**1-1-2030**	**3-31-2030**	0.3643	0.3643

Mountain House Project: Proposed Town Center (Construction) - San Joaquin County, Annual

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

25	**4-1-2030**	**6-30-2030**	0.6117	0.6117
26	**7-1-2030**	**9-30-2030**	0.1818	0.1818
		Highest	0.6926	0.6926

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	3.2000e-003	0.0273	0.0116	1.7000e-004		2.2100e-003	2.2100e-003		2.2100e-003	2.2100e-003	0.0000	31.6241	31.6241	6.1000e-004	5.8000e-004	31.8121
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**3.2000e-003**	**0.0273**	**0.0116**	**1.7000e-004**	**0.0000**	**2.2100e-003**	**2.2100e-003**	**0.0000**	**2.2100e-003**	**2.2100e-003**	**0.0000**	**31.6241**	**31.6241**	**6.1000e-004**	**5.8000e-004**	**31.8121**

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					

Mountain House Project: Proposed Town Center (Construction) - San Joaquin County, Annual

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

Area	3.2000e-003	0.0273	0.0116	1.7000e-004		2.2100e-003	2.2100e-003		2.2100e-003	2.2100e-003	0.0000	31.6241	31.6241	6.1000e-004	5.8000e-004	31.8121
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**3.2000e-003**	**0.0273**	**0.0116**	**1.7000e-004**	**0.0000**	**2.2100e-003**	**2.2100e-003**	**0.0000**	**2.2100e-003**	**2.2100e-003**	**0.0000**	**31.6241**	**31.6241**	**6.1000e-004**	**5.8000e-004**	**31.8121**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Grading - RMH	Grading	4/1/2024	6/21/2024	5	60	
2	Building Construction - RMH	Building Construction	6/22/2024	6/6/2025	5	250	
3	Paving - RMH	Paving	6/7/2025	8/1/2025	5	40	
4	Architectural Coating - RMH	Architectural Coating	8/2/2025	10/10/2025	5	50	
5	Architectural Coating - Park	Architectural Coating	5/11/2030	7/19/2030	5	50	
6	Grading - Park	Grading	4/1/2028	6/23/2028	5	60	
7	Building Construction - Park	Building Construction	6/24/2028	3/15/2030	5	450	
8	Paving - Park	Paving	3/16/2030	5/10/2030	5	40	

Acres of Grading (Site Preparation Phase): 0

Mountain House Project: Proposed Town Center (Construction) - San Joaquin County, Annual

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

Acres of Grading (Grading Phase): 60

Acres of Paving: 1.65

Residential Indoor: 147,825; Residential Outdoor: 49,275; Non-Residential Indoor: 57,000; Non-Residential Outdoor: 19,000; Striped Parking Area: 4,320

OffRoad Equipment

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

Mountain House Project: Proposed Town Center (Construction) - San Joaquin County, Annual

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

Paving - Park	Pavers	2	8.00	130	0.42
Paving - Park	Paving Equipment	2	8.00	132	0.36
Paving - Park	Rollers	2	8.00	80	0.38
Architectural Coating - Park	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Grading - RMH	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading - Park	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction - RMH	9	158.00	49.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction - Park	9	158.00	49.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving - RMH	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating - RMH	1	32.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving - Park	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating - Park	1	32.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Grading - RMH - 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					

Mountain House Project: Proposed Town Center (Construction) - San Joaquin County, Annual

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

Fugitive Dust					0.2125	0.0000	0.2125	0.1027	0.0000	0.1027	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0499	0.5109	0.4428	8.9000e-004		0.0217	0.0217		0.0200	0.0200	0.0000	78.1917	78.1917	0.0253	0.0000	78.8239
Total	**0.0499**	**0.5109**	**0.4428**	**8.9000e-004**	**0.2125**	**0.0217**	**0.2342**	**0.1027**	**0.0200**	**0.1227**	**0.0000**	**78.1917**	**78.1917**	**0.0253**	**0.0000**	**78.8239**

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	1.2100e-003	7.6000e-004	9.5100e-003	3.0000e-005	3.5800e-003	2.0000e-005	3.6000e-003	9.5000e-004	2.0000e-005	9.7000e-004	0.0000	2.7750	2.7750	8.0000e-005	7.0000e-005	2.7991
Total	**1.2100e-003**	**7.6000e-004**	**9.5100e-003**	**3.0000e-005**	**3.5800e-003**	**2.0000e-005**	**3.6000e-003**	**9.5000e-004**	**2.0000e-005**	**9.7000e-004**	**0.0000**	**2.7750**	**2.7750**	**8.0000e-005**	**7.0000e-005**	**2.7991**

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					

Mountain House Project: Proposed Town Center (Construction) - San Joaquin County, Annual

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

Fugitive Dust					0.0956	0.0000	0.0956	0.0462	0.0000	0.0462	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0499	0.5109	0.4428	8.9000e-004		0.0217	0.0217		0.0200	0.0200	0.0000	78.1916	78.1916	0.0253	0.0000	78.8239
Total	**0.0499**	**0.5109**	**0.4428**	**8.9000e-004**	**0.0956**	**0.0217**	**0.1173**	**0.0462**	**0.0200**	**0.0662**	**0.0000**	**78.1916**	**78.1916**	**0.0253**	**0.0000**	**78.8239**

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	1.2100e-003	7.6000e-004	9.5100e-003	3.0000e-005	3.5800e-003	2.0000e-005	3.6000e-003	9.5000e-004	2.0000e-005	9.7000e-004	0.0000	2.7750	2.7750	8.0000e-005	7.0000e-005	2.7991
Total	**1.2100e-003**	**7.6000e-004**	**9.5100e-003**	**3.0000e-005**	**3.5800e-003**	**2.0000e-005**	**3.6000e-003**	**9.5000e-004**	**2.0000e-005**	**9.7000e-004**	**0.0000**	**2.7750**	**2.7750**	**8.0000e-005**	**7.0000e-005**	**2.7991**

3.3 Building Construction - RMH - 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					

Mountain House Project: Proposed Town Center (Construction) - San Joaquin County, Annual

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

Off-Road	0.1008	0.9209	1.1074	1.8500e-003		0.0420	0.0420		0.0395	0.0395	0.0000	158.8166	158.8166	0.0376	0.0000	159.7555
Total	**0.1008**	**0.9209**	**1.1074**	**1.8500e-003**		**0.0420**	**0.0420**		**0.0395**	**0.0395**	**0.0000**	**158.8166**	**158.8166**	**0.0376**	**0.0000**	**159.7555**

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	3.4600e-003	0.1486	0.0429	6.6000e-004	0.0222	9.6000e-004	0.0231	6.4100e-003	9.2000e-004	7.3300e-003	0.0000	63.6649	63.6649	3.0000e-004	9.6100e-003	66.5375
Worker	0.0290	0.0183	0.2286	7.1000e-004	0.0862	4.0000e-004	0.0866	0.0229	3.7000e-004	0.0233	0.0000	66.7406	66.7406	1.8500e-003	1.7900e-003	67.3218
Total	**0.0325**	**0.1669**	**0.2715**	**1.3700e-003**	**0.1084**	**1.3600e-003**	**0.1098**	**0.0293**	**1.2900e-003**	**0.0306**	**0.0000**	**130.4055**	**130.4055**	**2.1500e-003**	**0.0114**	**133.8593**

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	0.1008	0.9209	1.1074	1.8500e-003		0.0420	0.0420		0.0395	0.0395	0.0000	158.8165	158.8165	0.0376	0.0000	159.7553

Mountain House Project: Proposed Town Center (Construction) - San Joaquin County, Annual

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

Total	**0.1008**	**0.9209**	**1.1074**	**1.8500e-003**		**0.0420**	**0.0420**		**0.0395**	**0.0395**	**0.0000**	**158.8165**	**158.8165**	**0.0376**	**0.0000**	**159.7553**

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	3.4600e-003	0.1486	0.0429	6.6000e-004	0.0222	9.6000e-004	0.0231	6.4100e-003	9.2000e-004	7.3300e-003	0.0000	63.6649	63.6649	3.0000e-004	9.6100e-003	66.5375
Worker	0.0290	0.0183	0.2286	7.1000e-004	0.0862	4.0000e-004	0.0866	0.0229	3.7000e-004	0.0233	0.0000	66.7406	66.7406	1.8500e-003	1.7900e-003	67.3218
Total	**0.0325**	**0.1669**	**0.2715**	**1.3700e-003**	**0.1084**	**1.3600e-003**	**0.1098**	**0.0293**	**1.2900e-003**	**0.0306**	**0.0000**	**130.4055**	**130.4055**	**2.1500e-003**	**0.0114**	**133.8593**

3.3 Building Construction - RMH - 2025

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	0.0773	0.7045	0.9088	1.5200e-003		0.0298	0.0298		0.0280	0.0280	0.0000	131.0345	131.0345	0.0308	0.0000	131.8046
Total	**0.0773**	**0.7045**	**0.9088**	**1.5200e-003**		**0.0298**	**0.0298**		**0.0280**	**0.0280**	**0.0000**	**131.0345**	**131.0345**	**0.0308**	**0.0000**	**131.8046**

Mountain House Project: Proposed Town Center (Construction) - San Joaquin County, Annual

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

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.7900e-003	0.1221	0.0347	5.4000e-004	0.0183	7.9000e-004	0.0191	5.2900e-003	7.6000e-004	6.0400e-003	0.0000	51.5781	51.5781	2.4000e-004	7.7800e-003	53.9020
Worker	0.0222	0.0134	0.1755	5.7000e-004	0.0711	3.2000e-004	0.0714	0.0189	2.9000e-004	0.0192	0.0000	53.7136	53.7136	1.3700e-003	1.3800e-003	54.1583
Total	**0.0250**	**0.1355**	**0.2102**	**1.1100e-003**	**0.0894**	**1.1100e-003**	**0.0905**	**0.0242**	**1.0500e-003**	**0.0252**	**0.0000**	**105.2918**	**105.2918**	**1.6100e-003**	**9.1600e-003**	**108.0604**

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	0.0773	0.7045	0.9088	1.5200e-003		0.0298	0.0298		0.0280	0.0280	0.0000	131.0343	131.0343	0.0308	0.0000	131.8044
Total	**0.0773**	**0.7045**	**0.9088**	**1.5200e-003**		**0.0298**	**0.0298**		**0.0280**	**0.0280**	**0.0000**	**131.0343**	**131.0343**	**0.0308**	**0.0000**	**131.8044**

Mountain House Project: Proposed Town Center (Construction) - San Joaquin County, Annual

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

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.7900e-003	0.1221	0.0347	5.4000e-004	0.0183	7.9000e-004	0.0191	5.2900e-003	7.6000e-004	6.0400e-003	0.0000	51.5781	51.5781	2.4000e-004	7.7800e-003	53.9020
Worker	0.0222	0.0134	0.1755	5.7000e-004	0.0711	3.2000e-004	0.0714	0.0189	2.9000e-004	0.0192	0.0000	53.7136	53.7136	1.3700e-003	1.3800e-003	54.1583
Total	**0.0250**	**0.1355**	**0.2102**	**1.1100e-003**	**0.0894**	**1.1100e-003**	**0.0905**	**0.0242**	**1.0500e-003**	**0.0252**	**0.0000**	**105.2918**	**105.2918**	**1.6100e-003**	**9.1600e-003**	**108.0604**

3.4 Paving - RMH - 2025

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	0.0183	0.1716	0.2916	4.6000e-004		8.3700e-003	8.3700e-003		7.7000e-003	7.7000e-003	0.0000	40.0385	40.0385	0.0130	0.0000	40.3622
Paving	2.1600e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0205**	**0.1716**	**0.2916**	**4.6000e-004**		**8.3700e-003**	**8.3700e-003**		**7.7000e-003**	**7.7000e-003**	**0.0000**	**40.0385**	**40.0385**	**0.0130**	**0.0000**	**40.3622**

Mountain House Project: Proposed Town Center (Construction) - San Joaquin County, Annual

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

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.5000e-004	4.5000e-004	5.9000e-003	2.0000e-005	2.3900e-003	1.0000e-005	2.4000e-003	6.4000e-004	1.0000e-005	6.5000e-004	0.0000	1.8051	1.8051	5.0000e-005	5.0000e-005	1.8200
Total	**7.5000e-004**	**4.5000e-004**	**5.9000e-003**	**2.0000e-005**	**2.3900e-003**	**1.0000e-005**	**2.4000e-003**	**6.4000e-004**	**1.0000e-005**	**6.5000e-004**	**0.0000**	**1.8051**	**1.8051**	**5.0000e-005**	**5.0000e-005**	**1.8200**

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	0.0183	0.1716	0.2916	4.6000e-004		8.3700e-003	8.3700e-003		7.7000e-003	7.7000e-003	0.0000	40.0385	40.0385	0.0130	0.0000	40.3622
Paving	2.1600e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0205**	**0.1716**	**0.2916**	**4.6000e-004**		**8.3700e-003**	**8.3700e-003**		**7.7000e-003**	**7.7000e-003**	**0.0000**	**40.0385**	**40.0385**	**0.0130**	**0.0000**	**40.3622**

Mountain House Project: Proposed Town Center (Construction) - San Joaquin County, Annual

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

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.5000e-004	4.5000e-004	5.9000e-003	2.0000e-005	2.3900e-003	1.0000e-005	2.4000e-003	6.4000e-004	1.0000e-005	6.5000e-004	0.0000	1.8051	1.8051	5.0000e-005	5.0000e-005	1.8200
Total	**7.5000e-004**	**4.5000e-004**	**5.9000e-003**	**2.0000e-005**	**2.3900e-003**	**1.0000e-005**	**2.4000e-003**	**6.4000e-004**	**1.0000e-005**	**6.5000e-004**	**0.0000**	**1.8051**	**1.8051**	**5.0000e-005**	**5.0000e-005**	**1.8200**

3.5 Architectural Coating - RMH - 2025

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	0.6429					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.2700e-003	0.0286	0.0452	7.0000e-005		1.2900e-003	1.2900e-003		1.2900e-003	1.2900e-003	0.0000	6.3831	6.3831	3.5000e-004	0.0000	6.3918
Total	**0.6472**	**0.0286**	**0.0452**	**7.0000e-005**		**1.2900e-003**	**1.2900e-003**		**1.2900e-003**	**1.2900e-003**	**0.0000**	**6.3831**	**6.3831**	**3.5000e-004**	**0.0000**	**6.3918**

Mountain House Project: Proposed Town Center (Construction) - San Joaquin County, Annual

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

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.9900e-003	1.2000e-003	0.0157	5.0000e-005	6.3700e-003	3.0000e-005	6.4000e-003	1.6900e-003	3.0000e-005	1.7200e-003	0.0000	4.8136	4.8136	1.2000e-004	1.2000e-004	4.8534
Total	**1.9900e-003**	**1.2000e-003**	**0.0157**	**5.0000e-005**	**6.3700e-003**	**3.0000e-005**	**6.4000e-003**	**1.6900e-003**	**3.0000e-005**	**1.7200e-003**	**0.0000**	**4.8136**	**4.8136**	**1.2000e-004**	**1.2000e-004**	**4.8534**

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	0.6429					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.2700e-003	0.0286	0.0452	7.0000e-005		1.2900e-003	1.2900e-003		1.2900e-003	1.2900e-003	0.0000	6.3831	6.3831	3.5000e-004	0.0000	6.3918
Total	**0.6472**	**0.0286**	**0.0452**	**7.0000e-005**		**1.2900e-003**	**1.2900e-003**		**1.2900e-003**	**1.2900e-003**	**0.0000**	**6.3831**	**6.3831**	**3.5000e-004**	**0.0000**	**6.3918**

Mountain House Project: Proposed Town Center (Construction) - San Joaquin County, Annual

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

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.9900e-003	1.2000e-003	0.0157	5.0000e-005	6.3700e-003	3.0000e-005	6.4000e-003	1.6900e-003	3.0000e-005	1.7200e-003	0.0000	4.8136	4.8136	1.2000e-004	1.2000e-004	4.8534
Total	**1.9900e-003**	**1.2000e-003**	**0.0157**	**5.0000e-005**	**6.3700e-003**	**3.0000e-005**	**6.4000e-003**	**1.6900e-003**	**3.0000e-005**	**1.7200e-003**	**0.0000**	**4.8136**	**4.8136**	**1.2000e-004**	**1.2000e-004**	**4.8534**

3.6 Architectural Coating - Park - 2030

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	0.6429					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.2700e-003	0.0214	0.0449	7.0000e-005		5.1000e-004	5.1000e-004		5.1000e-004	5.1000e-004	0.0000	6.3831	6.3831	2.6000e-004	0.0000	6.3896
Total	**0.6462**	**0.0214**	**0.0449**	**7.0000e-005**		**5.1000e-004**	**5.1000e-004**		**5.1000e-004**	**5.1000e-004**	**0.0000**	**6.3831**	**6.3831**	**2.6000e-004**	**0.0000**	**6.3896**

Mountain House Project: Proposed Town Center (Construction) - San Joaquin County, Annual

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

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.4500e-003	7.7000e-004	0.0123	4.0000e-005	6.3700e-003	2.0000e-005	6.3900e-003	1.6900e-003	2.0000e-005	1.7100e-003	0.0000	4.3536	4.3536	8.0000e-005	1.0000e-004	4.3844
Total	**1.4500e-003**	**7.7000e-004**	**0.0123**	**4.0000e-005**	**6.3700e-003**	**2.0000e-005**	**6.3900e-003**	**1.6900e-003**	**2.0000e-005**	**1.7100e-003**	**0.0000**	**4.3536**	**4.3536**	**8.0000e-005**	**1.0000e-004**	**4.3844**

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	0.6429					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.2700e-003	0.0214	0.0449	7.0000e-005		5.1000e-004	5.1000e-004		5.1000e-004	5.1000e-004	0.0000	6.3831	6.3831	2.6000e-004	0.0000	6.3896
Total	**0.6462**	**0.0214**	**0.0449**	**7.0000e-005**		**5.1000e-004**	**5.1000e-004**		**5.1000e-004**	**5.1000e-004**	**0.0000**	**6.3831**	**6.3831**	**2.6000e-004**	**0.0000**	**6.3896**

Mountain House Project: Proposed Town Center (Construction) - San Joaquin County, Annual

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

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.4500e-003	7.7000e-004	0.0123	4.0000e-005	6.3700e-003	2.0000e-005	6.3900e-003	1.6900e-003	2.0000e-005	1.7100e-003	0.0000	4.3536	4.3536	8.0000e-005	1.0000e-004	4.3844
Total	**1.4500e-003**	**7.7000e-004**	**0.0123**	**4.0000e-005**	**6.3700e-003**	**2.0000e-005**	**6.3900e-003**	**1.6900e-003**	**2.0000e-005**	**1.7100e-003**	**0.0000**	**4.3536**	**4.3536**	**8.0000e-005**	**1.0000e-004**	**4.3844**

3.7 Grading - Park - 2028

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					0.2125	0.0000	0.2125	0.1027	0.0000	0.1027	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0457	0.4594	0.4362	8.9000e-004		0.0187	0.0187		0.0172	0.0172	0.0000	78.2094	78.2094	0.0253	0.0000	78.8418
Total	**0.0457**	**0.4594**	**0.4362**	**8.9000e-004**	**0.2125**	**0.0187**	**0.2312**	**0.1027**	**0.0172**	**0.1200**	**0.0000**	**78.2094**	**78.2094**	**0.0253**	**0.0000**	**78.8418**

Mountain House Project: Proposed Town Center (Construction) - San Joaquin County, Annual

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

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.2000e-004	5.0000e-004	7.5200e-003	3.0000e-005	3.5800e-003	1.0000e-005	3.6000e-003	9.5000e-004	1.0000e-005	9.7000e-004	0.0000	2.5339	2.5339	5.0000e-005	6.0000e-005	2.5527
Total	**9.2000e-004**	**5.0000e-004**	**7.5200e-003**	**3.0000e-005**	**3.5800e-003**	**1.0000e-005**	**3.6000e-003**	**9.5000e-004**	**1.0000e-005**	**9.7000e-004**	**0.0000**	**2.5339**	**2.5339**	**5.0000e-005**	**6.0000e-005**	**2.5527**

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					0.0956	0.0000	0.0956	0.0462	0.0000	0.0462	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0457	0.4594	0.4362	8.9000e-004		0.0187	0.0187		0.0172	0.0172	0.0000	78.2094	78.2094	0.0253	0.0000	78.8417
Total	**0.0457**	**0.4594**	**0.4362**	**8.9000e-004**	**0.0956**	**0.0187**	**0.1143**	**0.0462**	**0.0172**	**0.0634**	**0.0000**	**78.2094**	**78.2094**	**0.0253**	**0.0000**	**78.8417**

Mountain House Project: Proposed Town Center (Construction) - San Joaquin County, Annual

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

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.2000e-004	5.0000e-004	7.5200e-003	3.0000e-005	3.5800e-003	1.0000e-005	3.6000e-003	9.5000e-004	1.0000e-005	9.7000e-004	0.0000	2.5339	2.5339	5.0000e-005	6.0000e-005	2.5527
Total	**9.2000e-004**	**5.0000e-004**	**7.5200e-003**	**3.0000e-005**	**3.5800e-003**	**1.0000e-005**	**3.6000e-003**	**9.5000e-004**	**1.0000e-005**	**9.7000e-004**	**0.0000**	**2.5339**	**2.5339**	**5.0000e-005**	**6.0000e-005**	**2.5527**

3.8 Building Construction - Park - 2028

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	0.0923	0.8417	1.0857	1.8200e-003		0.0356	0.0356		0.0335	0.0335	0.0000	156.5456	156.5456	0.0368	0.0000	157.4656
Total	**0.0923**	**0.8417**	**1.0857**	**1.8200e-003**		**0.0356**	**0.0356**		**0.0335**	**0.0335**	**0.0000**	**156.5456**	**156.5456**	**0.0368**	**0.0000**	**157.4656**

Unmitigated Construction Off-Site

Mountain House Project: Proposed Town Center (Construction) - San Joaquin County, Annual

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.1700e-003	0.1433	0.0400	6.1000e-004	0.0219	9.3000e-004	0.0228	6.3200e-003	8.9000e-004	7.2000e-003	0.0000	58.0943	58.0943	2.6000e-004	8.7300e-003	60.7013
Worker	0.0219	0.0119	0.1783	6.2000e-004	0.0850	3.2000e-004	0.0853	0.0226	3.0000e-004	0.0229	0.0000	60.0534	60.0534	1.2500e-003	1.3900e-003	60.4996
Total	**0.0250**	**0.1553**	**0.2183**	**1.2300e-003**	**0.1068**	**1.2500e-003**	**0.1081**	**0.0289**	**1.1900e-003**	**0.0301**	**0.0000**	**118.1477**	**118.1477**	**1.5100e-003**	**0.0101**	**121.2009**

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	0.0923	0.8417	1.0857	1.8200e-003		0.0356	0.0356		0.0335	0.0335	0.0000	156.5454	156.5454	0.0368	0.0000	157.4654
Total	**0.0923**	**0.8417**	**1.0857**	**1.8200e-003**		**0.0356**	**0.0356**		**0.0335**	**0.0335**	**0.0000**	**156.5454**	**156.5454**	**0.0368**	**0.0000**	**157.4654**

Mitigated Construction Off-Site

Mountain House Project: Proposed Town Center (Construction) - San Joaquin County, Annual

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.1700e-003	0.1433	0.0400	6.1000e-004	0.0219	9.3000e-004	0.0228	6.3200e-003	8.9000e-004	7.2000e-003	0.0000	58.0943	58.0943	2.6000e-004	8.7300e-003	60.7013
Worker	0.0219	0.0119	0.1783	6.2000e-004	0.0850	3.2000e-004	0.0853	0.0226	3.0000e-004	0.0229	0.0000	60.0534	60.0534	1.2500e-003	1.3900e-003	60.4996
Total	**0.0250**	**0.1553**	**0.2183**	**1.2300e-003**	**0.1068**	**1.2500e-003**	**0.1081**	**0.0289**	**1.1900e-003**	**0.0301**	**0.0000**	**118.1477**	**118.1477**	**1.5100e-003**	**0.0101**	**121.2009**

3.8 Building Construction - Park - 2029

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	0.1785	1.6273	2.0991	3.5200e-003		0.0689	0.0689		0.0648	0.0648	0.0000	302.6549	302.6549	0.0711	0.0000	304.4335
Total	**0.1785**	**1.6273**	**2.0991**	**3.5200e-003**		**0.0689**	**0.0689**		**0.0648**	**0.0648**	**0.0000**	**302.6549**	**302.6549**	**0.0711**	**0.0000**	**304.4335**

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

Mountain House Project: Proposed Town Center (Construction) - San Joaquin County, Annual

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

Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	6.0600e-003	0.2755	0.0767	1.1500e-003	0.0423	1.7800e-003	0.0440	0.0122	1.7000e-003	0.0139	0.0000	110.1394	110.1394	4.9000e-004	0.0165	115.0758
Worker	0.0398	0.0214	0.3298	1.1700e-003	0.1642	5.8000e-004	0.1648	0.0437	5.4000e-004	0.0442	0.0000	114.0240	114.0240	2.2200e-003	2.5800e-003	114.8494
Total	**0.0458**	**0.2968**	**0.4065**	**2.3200e-003**	**0.2065**	**2.3600e-003**	**0.2089**	**0.0559**	**2.2400e-003**	**0.0581**	**0.0000**	**224.1634**	**224.1634**	**2.7100e-003**	**0.0191**	**229.9252**

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	0.1784	1.6273	2.0991	3.5200e-003		0.0689	0.0689		0.0648	0.0648	0.0000	302.6545	302.6545	0.0711	0.0000	304.4331
Total	**0.1784**	**1.6273**	**2.0991**	**3.5200e-003**		**0.0689**	**0.0689**		**0.0648**	**0.0648**	**0.0000**	**302.6545**	**302.6545**	**0.0711**	**0.0000**	**304.4331**

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					

Mountain House Project: Proposed Town Center (Construction) - San Joaquin County, Annual

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

Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	6.0600e-003	0.2755	0.0767	1.1500e-003	0.0423	1.7800e-003	0.0440	0.0122	1.7000e-003	0.0139	0.0000	110.1394	110.1394	4.9000e-004	0.0165	115.0758
Worker	0.0398	0.0214	0.3298	1.1700e-003	0.1642	5.8000e-004	0.1648	0.0437	5.4000e-004	0.0442	0.0000	114.0240	114.0240	2.2200e-003	2.5800e-003	114.8494
Total	**0.0458**	**0.2968**	**0.4065**	**2.3200e-003**	**0.2065**	**2.3600e-003**	**0.2089**	**0.0559**	**2.2400e-003**	**0.0581**	**0.0000**	**224.1634**	**224.1634**	**2.7100e-003**	**0.0191**	**229.9252**

3.8 Building Construction - Park - 2030

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	0.0354	0.2142	0.4362	8.4000e-004		4.0000e-003	4.0000e-003		4.0000e-003	4.0000e-003	0.0000	70.9725	70.9725	2.8500e-003	0.0000	71.0437
Total	**0.0354**	**0.2142**	**0.4362**	**8.4000e-004**		**4.0000e-003**	**4.0000e-003**		**4.0000e-003**	**4.0000e-003**	**0.0000**	**70.9725**	**70.9725**	**2.8500e-003**	**0.0000**	**71.0437**

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

Mountain House Project: Proposed Town Center (Construction) - San Joaquin County, Annual

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

Vendor	1.2400e-003	0.0567	0.0158	2.3000e-004	8.7400e-003	3.7000e-004	9.1100e-003	2.5300e-003	3.5000e-004	2.8800e-003	0.0000	22.3787	22.3787	1.0000e-004	3.3500e-003	23.3806
Worker	7.7500e-003	4.1200e-003	0.0657	2.4000e-004	0.0340	1.1000e-004	0.0341	9.0300e-003	1.0000e-004	9.1400e-003	0.0000	23.2157	23.2157	4.3000e-004	5.2000e-004	23.3800
Total	**8.9900e-003**	**0.0609**	**0.0814**	**4.7000e-004**	**0.0427**	**4.8000e-004**	**0.0432**	**0.0116**	**4.5000e-004**	**0.0120**	**0.0000**	**45.5944**	**45.5944**	**5.3000e-004**	**3.8700e-003**	**46.7606**

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	0.0354	0.2142	0.4362	8.4000e-004		4.0000e-003	4.0000e-003		4.0000e-003	4.0000e-003	0.0000	70.9724	70.9724	2.8500e-003	0.0000	71.0436
Total	**0.0354**	**0.2142**	**0.4362**	**8.4000e-004**		**4.0000e-003**	**4.0000e-003**		**4.0000e-003**	**4.0000e-003**	**0.0000**	**70.9724**	**70.9724**	**2.8500e-003**	**0.0000**	**71.0436**

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	1.2400e-003	0.0567	0.0158	2.3000e-004	8.7400e-003	3.7000e-004	9.1100e-003	2.5300e-003	3.5000e-004	2.8800e-003	0.0000	22.3787	22.3787	1.0000e-004	3.3500e-003	23.3806

Mountain House Project: Proposed Town Center (Construction) - San Joaquin County, Annual

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

Worker	7.7500e-003	4.1200e-003	0.0657	2.4000e-004	0.0340	1.1000e-004	0.0341	9.0300e-003	1.0000e-004	9.1400e-003	0.0000	23.2157	23.2157	4.3000e-004	5.2000e-004	23.3800
Total	**8.9900e-003**	**0.0609**	**0.0814**	**4.7000e-004**	**0.0427**	**4.8000e-004**	**0.0432**	**0.0116**	**4.5000e-004**	**0.0120**	**0.0000**	**45.5944**	**45.5944**	**5.3000e-004**	**3.8700e-003**	**46.7606**

3.9 Paving - Park - 2030

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	0.0277	0.1424	0.3170	5.6000e-004		6.6100e-003	6.6100e-003		6.6100e-003	6.6100e-003	0.0000	48.1990	48.1990	2.2600e-003	0.0000	48.2555
Paving	2.1600e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0299**	**0.1424**	**0.3170**	**5.6000e-004**		**6.6100e-003**	**6.6100e-003**		**6.6100e-003**	**6.6100e-003**	**0.0000**	**48.1990**	**48.1990**	**2.2600e-003**	**0.0000**	**48.2555**

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

Mountain House Project: Proposed Town Center (Construction) - San Joaquin County, Annual

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

Worker	5.4000e-004	2.9000e-004	4.6200e-003	2.0000e-005	2.3900e-003	1.0000e-005	2.4000e-003	6.4000e-004	1.0000e-005	6.4000e-004	0.0000	1.6326	1.6326	3.0000e-005	4.0000e-005	1.6442
Total	**5.4000e-004**	**2.9000e-004**	**4.6200e-003**	**2.0000e-005**	**2.3900e-003**	**1.0000e-005**	**2.4000e-003**	**6.4000e-004**	**1.0000e-005**	**6.4000e-004**	**0.0000**	**1.6326**	**1.6326**	**3.0000e-005**	**4.0000e-005**	**1.6442**

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	0.0277	0.1424	0.3170	5.6000e-004		6.6100e-003	6.6100e-003		6.6100e-003	6.6100e-003	0.0000	48.1990	48.1990	2.2600e-003	0.0000	48.2555
Paving	2.1600e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0299**	**0.1424**	**0.3170**	**5.6000e-004**		**6.6100e-003**	**6.6100e-003**		**6.6100e-003**	**6.6100e-003**	**0.0000**	**48.1990**	**48.1990**	**2.2600e-003**	**0.0000**	**48.2555**

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

Mountain House Project: Proposed Town Center (Construction) - San Joaquin County, Annual

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

Worker	5.4000e-004	2.9000e-004	4.6200e-003	2.0000e-005	2.3900e-003	1.0000e-005	2.4000e-003	6.4000e-004	1.0000e-005	6.4000e-004	0.0000	1.6326	1.6326	3.0000e-005	4.0000e-005	1.6442
Total	**5.4000e-004**	**2.9000e-004**	**4.6200e-003**	**2.0000e-005**	**2.3900e-003**	**1.0000e-005**	**2.4000e-003**	**6.4000e-004**	**1.0000e-005**	**6.4000e-004**	**0.0000**	**1.6326**	**1.6326**	**3.0000e-005**	**4.0000e-005**	**1.6442**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

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

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	0.00	0.00	0.00		
City Park	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

Mountain House Project: Proposed Town Center (Construction) - San Joaquin County, Annual

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

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Mid Rise	10.80	7.30	7.50	45.60	19.00	35.40	86	11	3
City Park	9.50	7.30	7.30	33.00	48.00	19.00	66	28	6
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Parking Lot	9.50	7.30	7.30	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	0.546418	0.052852	0.170546	0.142778	0.024223	0.005960	0.012686	0.016941	0.000462	0.000320	0.022535	0.001087	0.003
City Park	0.546418	0.052852	0.170546	0.142778	0.024223	0.005960	0.012686	0.016941	0.000462	0.000320	0.022535	0.001087	0.003
Parking Lot	0.546418	0.052852	0.170546	0.142778	0.024223	0.005960	0.012686	0.016941	0.000462	0.000320	0.022535	0.001087	0.003

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

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

Mountain House Project: Proposed Town Center (Construction) - San Joaquin County, Annual

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

NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Mid Rise	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
City Park	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
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		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Mid Rise	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Mountain House Project: Proposed Town Center (Construction) - San Joaquin County, Annual

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

City Park	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
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		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	0	0.0000	0.0000	0.0000	0.0000
City Park	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			

Mountain House Project: Proposed Town Center (Construction) - San Joaquin County, Annual

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

Apartments Mid Rise	0	0.0000	0.0000	0.0000	0.0000
City Park	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	3.2000e-003	0.0273	0.0116	1.7000e-004		2.2100e-003	2.2100e-003		2.2100e-003	2.2100e-003	0.0000	31.6241	31.6241	6.1000e-004	5.8000e-004	31.8121
Unmitigated	3.2000e-003	0.0273	0.0116	1.7000e-004		2.2100e-003	2.2100e-003		2.2100e-003	2.2100e-003	0.0000	31.6241	31.6241	6.1000e-004	5.8000e-004	31.8121

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

Mountain House Project: Proposed Town Center (Construction) - San Joaquin County, Annual

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

SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	3.2000e-003	0.0273	0.0116	1.7000e-004		2.2100e-003	2.2100e-003		2.2100e-003	2.2100e-003	0.0000	31.6241	31.6241	6.1000e-004	5.8000e-004	31.8121
Landscaping	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**3.2000e-003**	**0.0273**	**0.0116**	**1.7000e-004**		**2.2100e-003**	**2.2100e-003**		**2.2100e-003**	**2.2100e-003**	**0.0000**	**31.6241**	**31.6241**	**6.1000e-004**	**5.8000e-004**	**31.8121**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	3.2000e-003	0.0273	0.0116	1.7000e-004		2.2100e-003	2.2100e-003		2.2100e-003	2.2100e-003	0.0000	31.6241	31.6241	6.1000e-004	5.8000e-004	31.8121
Landscaping	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**3.2000e-003**	**0.0273**	**0.0116**	**1.7000e-004**		**2.2100e-003**	**2.2100e-003**		**2.2100e-003**	**2.2100e-003**	**0.0000**	**31.6241**	**31.6241**	**6.1000e-004**	**5.8000e-004**	**31.8121**

7.0 Water Detail

Mountain House Project: Proposed Town Center (Construction) - San Joaquin County, Annual

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

7.1 Mitigation Measures Water

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

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	0 / 0	0.0000	0.0000	0.0000	0.0000
City Park	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mountain House Project: Proposed Town Center (Construction) - San Joaquin County, Annual

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

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	0 / 0	0.0000	0.0000	0.0000	0.0000
City Park	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

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

Mountain House Project: Proposed Town Center (Construction) - San Joaquin County, Annual

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

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	0	0.0000	0.0000	0.0000	0.0000
City Park	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	0	0.0000	0.0000	0.0000	0.0000
City Park	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000

Mountain House Project: Proposed Town Center (Construction) - San Joaquin County, Annual

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

Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Appendix A: Operational CalEEMod runs

Mountain House Project: Existing Operational Emissions - San Joaquin County, Annual

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

Mountain House Project: Existing Operational Emissions

San Joaquin County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Office Park	68.00	1000sqft	4.42	68,000.00	0
Other Asphalt Surfaces	34.00	1000sqft	0.78	34,000.00	0
Apartments Low Rise	430.00	Dwelling Unit	12.29	430,000.00	1364
Other Asphalt Surfaces	28.46	1000sqft	0.65	28,460.00	0
Parking Lot	144.00	1000sqft	3.31	144,000.00	0
Golf Course	16.00	Acre	16.00	696,960.00	0
Racquet Club	21.78	1000sqft	5.00	21,780.00	0
Golf Course	22.00	Acre	22.00	958,320.00	0
City Park	22.00	Acre	22.00	958,320.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.7	**Precipitation Freq (Days)**	51
Climate Zone	2			**Operational Year**	2033
Utility Company	Modesto Irrigation District				
CO2 Intensity (lb/MWhr)	452.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Existing Operational emissions for the Existing SPII landuses for the build-out year of 2033. This only includes land uses that would change and were modeled in the construction run.

Land Use - SPII Existing Operational Uses for the buildout year of 2033. This includes uses changed under the Town Center and Neighborhoods H, I, J, L.

Construction Phase - Operations only.

Mountain House Project: Existing Operational Emissions - San Joaquin County, Annual

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

Off-road Equipment - Operations only.

Grading - Operations only.

Demolition - Operations only.

Trips and VMT - Operations only.

Architectural Coating - Operations only.

Vehicle Trips - Total existing VMT for Project Area: 1,732,999. All land uses have same fleet mix. All trips/VMT has been placed on the Apartments Low Rise Land Use. Assumed 100% primary trips.

Woodstoves - SJVAPCD Rule 4901 Restricts Woodstoves/ wood burning Fireplaces from being built in new units.

Area Coating - 2019 CalGreen Code

Area Mitigation - 2019 CalGreen Code.

Water Mitigation - 2019 CalGreen Code.

Waste Mitigation - AB 341 Solid Waste Diversion

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	127,656.00	0.00
tblArchitecturalCoating	ConstArea_Nonresidential_Interior	382,968.00	0.00
tblArchitecturalCoating	ConstArea_Parking	12,388.00	0.00
tblArchitecturalCoating	ConstArea_Residential_Exterior	275,802.00	0.00
tblArchitecturalCoating	ConstArea_Residential_Interior	827,407.00	0.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	150	100
tblAreaCoating	Area_EF_Nonresidential_Interior	150	100
tblAreaCoating	Area_EF_Parking	150	100
tblAreaCoating	Area_EF_Residential_Exterior	150	100
tblAreaCoating	Area_EF_Residential_Interior	150	100
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorValue	150	100
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	150	100
tblAreaMitigation	UseLowVOCPaintParkingValue	150	100
tblAreaMitigation	UseLowVOCPaintResidentialExteriorValue	150	100
tblAreaMitigation	UseLowVOCPaintResidentialInteriorValue	150	100
tblConstructionPhase	NumDays	110.00	0.00

Mountain House Project: Existing Operational Emissions - San Joaquin County, Annual

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

tblConstructionPhase	NumDays	1,550.00	0.00
tblConstructionPhase	NumDays	100.00	0.00
tblConstructionPhase	NumDays	155.00	0.00
tblConstructionPhase	NumDays	110.00	0.00
tblConstructionPhase	NumDays	60.00	0.00
tblConstructionPhase	PhaseEndDate	11/29/2040	6/28/2040
tblConstructionPhase	PhaseEndDate	1/26/2040	2/16/2034
tblConstructionPhase	PhaseEndDate	4/21/2033	12/2/2032
tblConstructionPhase	PhaseEndDate	2/16/2034	7/14/2033
tblConstructionPhase	PhaseEndDate	6/28/2040	1/26/2040
tblConstructionPhase	PhaseEndDate	7/14/2033	4/21/2033
tblFireplaces	FireplaceWoodMass	3,078.40	0.00
tblGrading	AcresOfGrading	0.00	465.00
tblGrading	AcresOfGrading	0.00	90.00
tblLandUse	LotAcreage	1.56	4.42
tblLandUse	LotAcreage	26.88	12.29
tblLandUse	LotAcreage	0.50	5.00
tblTripsAndVMT	VendorTripNumber	523.00	0.00
tblTripsAndVMT	WorkerTripNumber	15.00	0.00
tblTripsAndVMT	WorkerTripNumber	18.00	0.00
tblTripsAndVMT	WorkerTripNumber	20.00	0.00
tblTripsAndVMT	WorkerTripNumber	1,525.00	0.00
tblTripsAndVMT	WorkerTripNumber	15.00	0.00
tblTripsAndVMT	WorkerTripNumber	305.00	0.00
tblVehicleTrips	DV_TP	11.00	0.00
tblVehicleTrips	HO_TTP	35.40	0.00
tblVehicleTrips	HS_TTP	19.00	0.00
tblVehicleTrips	HW_TL	10.80	1.51

Mountain House Project: Existing Operational Emissions - San Joaquin County, Annual

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

tblVehicleTrips	HW_TTP	45.60	100.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	86.00	100.00
tblVehicleTrips	ST_TR	8.14	7.32
tblVehicleTrips	ST_TR	1.96	0.00
tblVehicleTrips	ST_TR	3.74	0.00
tblVehicleTrips	ST_TR	1.64	0.00
tblVehicleTrips	ST_TR	21.35	0.00
tblVehicleTrips	SU_TR	6.28	7.32
tblVehicleTrips	SU_TR	2.19	0.00
tblVehicleTrips	SU_TR	3.74	0.00
tblVehicleTrips	SU_TR	0.76	0.00
tblVehicleTrips	SU_TR	17.40	0.00
tblVehicleTrips	WD_TR	0.78	0.00
tblVehicleTrips	WD_TR	3.74	0.00
tblVehicleTrips	WD_TR	11.07	0.00
tblVehicleTrips	WD_TR	14.03	0.00
tblWoodstoves	WoodstoveDayYear	82.00	0.00
tblWoodstoves	WoodstoveWoodMass	3,019.20	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

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

Mountain House Project: Existing Operational Emissions - San Joaquin County, Annual

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

Year	tons/yr										MT/yr					
2032	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2033	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2034	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2040	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2032	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2033	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2034	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2040	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e

Mountain House Project: Existing Operational Emissions - San Joaquin County, Annual

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

Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

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

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	3.2041	0.1976	3.2561	1.2000e-003		0.0307	0.0307		0.0307	0.0307	0.0000	191.5009	191.5009	8.5600e-003	3.4200e-003	192.7325
Energy	0.0332	0.2867	0.1451	1.8100e-003		0.0229	0.0229		0.0229	0.0229	0.0000	879.8408	879.8408	0.0465	0.0109	884.2473
Mobile	0.6918	0.6542	4.3169	5.9600e-003	0.6443	5.3500e-003	0.6496	0.1722	4.9900e-003	0.1772	0.0000	580.5137	580.5137	0.0609	0.0464	595.8497
Waste						0.0000	0.0000		0.0000	0.0000	85.7474	0.0000	85.7474	5.0675	0.0000	212.4357
Water						0.0000	0.0000		0.0000	0.0000	13.1312	116.0242	129.1554	1.3572	0.0329	172.8796
Total	**3.9290**	**1.1384**	**7.7180**	**8.9700e-003**	**0.6443**	**0.0590**	**0.7033**	**0.1722**	**0.0586**	**0.2308**	**98.8787**	**1,767.8796**	**1,866.7583**	**6.5406**	**0.0935**	**2,058.1448**

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

Mountain House Project: Existing Operational Emissions - San Joaquin County, Annual

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

Category	tons/yr										MT/yr					
Area	3.1853	0.0367	3.1876	1.7000e-004		0.0177	0.0177		0.0177	0.0177	0.0000	5.2218	5.2218	4.9900e-003	0.0000	5.3464
Energy	0.0332	0.2867	0.1451	1.8100e-003		0.0229	0.0229		0.0229	0.0229	0.0000	879.8408	879.8408	0.0465	0.0109	884.2473
Mobile	0.6918	0.6542	4.3169	5.9600e-003	0.6443	5.3500e-003	0.6496	0.1722	4.9900e-003	0.1772	0.0000	580.5137	580.5137	0.0609	0.0464	595.8497
Waste						0.0000	0.0000		0.0000	0.0000	21.4369	0.0000	21.4369	1.2669	0.0000	53.1089
Water						0.0000	0.0000		0.0000	0.0000	10.5050	102.5503	113.0553	1.0864	0.0264	148.0780
Total	**3.9102**	**0.9776**	**7.6496**	**7.9400e-003**	**0.6443**	**0.0460**	**0.6903**	**0.1722**	**0.0456**	**0.2178**	**31.9418**	**1,568.1266**	**1,600.0684**	**2.4657**	**0.0836**	**1,686.6303**

	ROG	NOx	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	**0.48**	**14.13**	**0.89**	**11.48**	**0.00**	**22.04**	**1.85**	**0.00**	**22.18**	**5.63**	**67.70**	**11.30**	**14.29**	**62.30**	**10.60**	**18.05**

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	12/3/2032	12/2/2032	5	0	
2	Site Preparation	Site Preparation	4/22/2033	4/21/2033	5	0	
3	Grading	Grading	7/15/2033	7/14/2033	5	0	
4	Building Construction	Building Construction	2/17/2034	2/16/2034	5	0	
5	Paving	Paving	1/27/2040	1/26/2040	5	0	
6	Architectural Coating	Architectural Coating	6/29/2040	6/28/2040	5	0	

Acres of Grading (Site Preparation Phase): 90

Acres of Grading (Grading Phase): 465

Mountain House Project: Existing Operational Emissions - San Joaquin County, Annual

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

Acres of Paving: 4.74

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Building Construction	Cranes	1	7.00	231	0.29
Demolition	Excavators	3	8.00	158	0.38
Grading	Excavators	2	8.00	158	0.38
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Grading	Graders	1	8.00	187	0.41
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
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

Mountain House Project: Existing Operational Emissions - San Joaquin County, Annual

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

Demolition	6	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2032

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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					

Mountain House Project: Existing Operational Emissions - San Joaquin County, Annual

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

Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

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

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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

Mountain House Project: Existing Operational Emissions - San Joaquin County, Annual

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

Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.3 Site Preparation - 2033

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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

Mountain House Project: Existing Operational Emissions - San Joaquin County, Annual

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

Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

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

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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

Mountain House Project: Existing Operational Emissions - San Joaquin County, Annual

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

Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.4 Grading - 2033

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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

Mountain House Project: Existing Operational Emissions - San Joaquin County, Annual

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

Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

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

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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

Mountain House Project: Existing Operational Emissions - San Joaquin County, Annual

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

Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.5 Building Construction - 2034

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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

Mountain House Project: Existing Operational Emissions - San Joaquin County, Annual

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

Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

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

Mitigated Construction Off-Site

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

Mountain House Project: Existing Operational Emissions - San Joaquin County, Annual

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

Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.6 Paving - 2040

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Paving	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Unmitigated Construction Off-Site

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

Mountain House Project: Existing Operational Emissions - San Joaquin County, Annual

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

Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

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

Mitigated Construction Off-Site

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

Mountain House Project: Existing Operational Emissions - San Joaquin County, Annual

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

Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.7 Architectural Coating - 2040

Unmitigated Construction On-Site

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

Unmitigated Construction Off-Site

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

Mountain House Project: Existing Operational Emissions - San Joaquin County, Annual

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

Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

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

Mitigated Construction Off-Site

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

Mountain House Project: Existing Operational Emissions - San Joaquin County, Annual

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

Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.6918	0.6542	4.3169	5.9600e-003	0.6443	5.3500e-003	0.6496	0.1722	4.9900e-003	0.1772	0.0000	580.5137	580.5137	0.0609	0.0464	595.8497
Unmitigated	0.6918	0.6542	4.3169	5.9600e-003	0.6443	5.3500e-003	0.6496	0.1722	4.9900e-003	0.1772	0.0000	580.5137	580.5137	0.0609	0.0464	595.8497

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	3,147.60	3,147.60	3147.60	1,730,047	1,730,047
City Park	0.00	0.00	0.00		
Golf Course	0.00	0.00	0.00		
Golf Course	0.00	0.00	0.00		
Office Park	0.00	0.00	0.00		
Other Asphalt Surfaces	0.00	0.00	0.00		
Other Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		

Mountain House Project: Existing Operational Emissions - San Joaquin County, Annual

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

Racquet Club	0.00	0.00	0.00		
Total	3,147.60	3,147.60	3,147.60	1,730,047	1,730,047

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 Low Rise	1.51	7.30	7.50	100.00	0.00	0.00	100	0	0
City Park	9.50	7.30	7.30	33.00	48.00	19.00	66	28	6
Golf Course	9.50	7.30	7.30	33.00	48.00	19.00	52	39	9
Golf Course	9.50	7.30	7.30	33.00	48.00	19.00	52	39	9
Office Park	9.50	7.30	7.30	33.00	48.00	19.00	82	15	3
Other Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Other Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Racquet Club	9.50	7.30	7.30	11.50	69.50	19.00	52	39	9

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Low Rise	0.560100	0.053949	0.173371	0.131047	0.021297	0.005494	0.012620	0.016451	0.000441	0.000312	0.021225	0.001008	0.0026
City Park	0.560100	0.053949	0.173371	0.131047	0.021297	0.005494	0.012620	0.016451	0.000441	0.000312	0.021225	0.001008	0.0026
Golf Course	0.560100	0.053949	0.173371	0.131047	0.021297	0.005494	0.012620	0.016451	0.000441	0.000312	0.021225	0.001008	0.0026
Office Park	0.560100	0.053949	0.173371	0.131047	0.021297	0.005494	0.012620	0.016451	0.000441	0.000312	0.021225	0.001008	0.0026
Other Asphalt Surfaces	0.560100	0.053949	0.173371	0.131047	0.021297	0.005494	0.012620	0.016451	0.000441	0.000312	0.021225	0.001008	0.0026
Parking Lot	0.560100	0.053949	0.173371	0.131047	0.021297	0.005494	0.012620	0.016451	0.000441	0.000312	0.021225	0.001008	0.0026
Racquet Club	0.560100	0.053949	0.173371	0.131047	0.021297	0.005494	0.012620	0.016451	0.000441	0.000312	0.021225	0.001008	0.0026

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Mountain House Project: Existing Operational Emissions - San Joaquin County, Annual

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	551.7345	551.7345	0.0402	4.8700e-003	554.1913
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	551.7345	551.7345	0.0402	4.8700e-003	554.1913
NaturalGas Mitigated	0.0332	0.2867	0.1451	1.8100e-003		0.0229	0.0229		0.0229	0.0229	0.0000	328.1063	328.1063	6.2900e-003	6.0200e-003	330.0561
NaturalGas Unmitigated	0.0332	0.2867	0.1451	1.8100e-003		0.0229	0.0229		0.0229	0.0229	0.0000	328.1063	328.1063	6.2900e-003	6.0200e-003	330.0561

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 Low Rise	5.01224e+006	0.0270	0.2310	0.0983	1.4700e-003		0.0187	0.0187		0.0187	0.0187	0.0000	267.4722	267.4722	5.1300e-003	4.9000e-003	269.0616
City Park	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
Golf Course	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
Office Park	734400	3.9600e-003	0.0360	0.0302	2.2000e-004		2.7400e-003	2.7400e-003		2.7400e-003	2.7400e-003	0.0000	39.1904	39.1904	7.5000e-004	7.2000e-004	39.4233
Other Asphalt Surfaces	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

Mountain House Project: Existing Operational Emissions - San Joaquin County, Annual

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

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
Racquet Club	401841	2.1700e-003	0.0197	0.0166	1.2000e-004		1.5000e-003	1.5000e-003		1.5000e-003	1.5000e-003	0.0000	21.4438	21.4438	4.1000e-004	3.9000e-004	21.5712
Total		**0.0332**	**0.2867**	**0.1451**	**1.8100e-003**		**0.0229**	**0.0229**		**0.0229**	**0.0229**	**0.0000**	**328.1063**	**328.1063**	**6.2900e-003**	**6.0100e-003**	**330.0561**

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 Low Rise	5.01224e+006	0.0270	0.2310	0.0983	1.4700e-003		0.0187	0.0187		0.0187	0.0187	0.0000	267.4722	267.4722	5.1300e-003	4.9000e-003	269.0616
City Park	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
Golf Course	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
Office Park	734400	3.9600e-003	0.0360	0.0302	2.2000e-004		2.7400e-003	2.7400e-003		2.7400e-003	2.7400e-003	0.0000	39.1904	39.1904	7.5000e-004	7.2000e-004	39.4233
Other Asphalt Surfaces	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
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
Racquet Club	401841	2.1700e-003	0.0197	0.0166	1.2000e-004		1.5000e-003	1.5000e-003		1.5000e-003	1.5000e-003	0.0000	21.4438	21.4438	4.1000e-004	3.9000e-004	21.5712
Total		**0.0332**	**0.2867**	**0.1451**	**1.8100e-003**		**0.0229**	**0.0229**		**0.0229**	**0.0229**	**0.0000**	**328.1063**	**328.1063**	**6.2900e-003**	**6.0100e-003**	**330.0561**

5.3 Energy by Land Use - Electricity

Unmitigated

Mountain House Project: Existing Operational Emissions - San Joaquin County, Annual

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

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Low Rise	1.75956e+006	361.5329	0.0263	3.1900e-003	363.1427
City Park	0	0.0000	0.0000	0.0000	0.0000
Golf Course	0	0.0000	0.0000	0.0000	0.0000
Office Park	694960	142.7922	0.0104	1.2600e-003	143.4281
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	50400	10.3556	7.5000e-004	9.0000e-005	10.4017
Racquet Club	180338	37.0538	2.7000e-003	3.3000e-004	37.2188
Total		**551.7345**	**0.0402**	**4.8700e-003**	**554.1913**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Low Rise	1.75956e+006	361.5329	0.0263	3.1900e-003	363.1427
City Park	0	0.0000	0.0000	0.0000	0.0000

Mountain House Project: Existing Operational Emissions - San Joaquin County, Annual

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

Golf Course	0	0.0000	0.0000	0.0000	0.0000
Office Park	694960	142.7922	0.0104	1.2600e-003	143.4281
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	50400	10.3556	7.5000e-004	9.0000e-005	10.4017
Racquet Club	180338	37.0538	2.7000e-003	3.3000e-004	37.2188
Total		**551.7345**	**0.0402**	**4.8700e-003**	**554.1913**

6.0 Area Detail

6.1 Mitigation Measures Area

No Hearths Installed

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	3.1853	0.0367	3.1876	1.7000e-004		0.0177	0.0177		0.0177	0.0177	0.0000	5.2218	5.2218	4.9900e-003	0.0000	5.3464
Unmitigated	3.2041	0.1976	3.2561	1.2000e-003		0.0307	0.0307		0.0307	0.0307	0.0000	191.5009	191.5009	8.5600e-003	3.4200e-003	192.7325

6.2 Area by SubCategory

Unmitigated

Mountain House Project: Existing Operational Emissions - San Joaquin County, Annual

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.3769					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	2.7129					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0188	0.1609	0.0685	1.0300e-003		0.0130	0.0130		0.0130	0.0130	0.0000	186.2792	186.2792	3.5700e-003	3.4200e-003	187.3861
Landscaping	0.0955	0.0367	3.1876	1.7000e-004		0.0177	0.0177		0.0177	0.0177	0.0000	5.2218	5.2218	4.9900e-003	0.0000	5.3464
Total	**3.2041**	**0.1976**	**3.2561**	**1.2000e-003**		**0.0307**	**0.0307**		**0.0307**	**0.0307**	**0.0000**	**191.5009**	**191.5009**	**8.5600e-003**	**3.4200e-003**	**192.7325**

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	0.3769					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	2.7129					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	0.0955	0.0367	3.1876	1.7000e-004		0.0177	0.0177		0.0177	0.0177	0.0000	5.2218	5.2218	4.9900e-003	0.0000	5.3464
Total	**3.1853**	**0.0367**	**3.1876**	**1.7000e-004**		**0.0177**	**0.0177**		**0.0177**	**0.0177**	**0.0000**	**5.2218**	**5.2218**	**4.9900e-003**	**0.0000**	**5.3464**

Mountain House Project: Existing Operational Emissions - San Joaquin County, Annual

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

7.0 Water Detail

7.1 Mitigation Measures Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

Use Water Efficient Irrigation System

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	113.0553	1.0864	0.0264	148.0780
Unmitigated	129.1554	1.3572	0.0329	172.8796

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e

Mountain House Project: Existing Operational Emissions - San Joaquin County, Annual

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

Land Use	Mgal	MT/yr			
Apartments Low Rise	28.0162 / 17.6624	52.7381	0.9161	0.0219	82.1797
City Park	0 / 26.2126	18.8505	1.3700e-003	1.7000e-004	18.9344
Golf Course	0 / 45.2763	32.5599	2.3700e-003	2.9000e-004	32.7049
Office Park	12.0859 / 7.40748	22.5983	0.3952	9.4600e-003	35.2984
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Racquet Club	1.28814 / 0.789504	2.4086	0.0421	1.0100e-003	3.7622
Total		**129.1554**	**1.3572**	**0.0329**	**172.8796**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Low Rise	22.413 / 16.585	43.9560	0.7330	0.0176	67.5172
City Park	0 / 24.6136	17.7006	1.2900e-003	1.6000e-004	17.7794
Golf Course	0 / 42.5144	30.5738	2.2300e-003	2.7000e-004	30.7099
Office Park	9.66872 / 6.95563	18.8191	0.3162	7.5800e-003	28.9825
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000

Mountain House Project: Existing Operational Emissions - San Joaquin County, Annual

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

Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Racquet Club	1.03051 / 0.741344	2.0058	0.0337	8.1000e-004	3.0890
Total		**113.0553**	**1.0864**	**0.0264**	**148.0780**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	21.4369	1.2669	0.0000	53.1089
Unmitigated	85.7474	5.0675	0.0000	212.4357

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e

Mountain House Project: Existing Operational Emissions - San Joaquin County, Annual

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

Land Use	tons	MT/yr			
Apartments Low Rise	197.8	40.1516	2.3729	0.0000	99.4739
City Park	1.89	0.3837	0.0227	0.0000	0.9505
Golf Course	35.34	7.1737	0.4240	0.0000	17.7725
Office Park	63.24	12.8372	0.7587	0.0000	31.8035
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Racquet Club	124.15	25.2013	1.4894	0.0000	62.4352
Total		**85.7474**	**5.0675**	**0.0000**	**212.4357**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Low Rise	49.45	10.0379	0.5932	0.0000	24.8685
City Park	0.4725	0.0959	5.6700e-003	0.0000	0.2376
Golf Course	8.835	1.7934	0.1060	0.0000	4.4431
Office Park	15.81	3.2093	0.1897	0.0000	7.9509
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000

Mountain House Project: Existing Operational Emissions - San Joaquin County, Annual

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

Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Racquet Club	31.0375	6.3003	0.3723	0.0000	15.6088
Total		**21.4369**	**1.2669**	**0.0000**	**53.1089**

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

Mountain House Project: Proposed Project Operational emissions - San Joaquin County, Annual

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

Mountain House Project: Proposed Project Operational emissions

San Joaquin County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Apartments Mid Rise	73.00	Dwelling Unit	1.92	73,000.00	232
Parking Lot	72.00	1000sqft	1.65	72,000.00	0
City Park	4.10	Acre	4.10	178,596.00	0
Apartments Low Rise	161.00	Dwelling Unit	8.19	161,000.00	511
Parking Lot	144.00	1000sqft	3.31	144,000.00	0
Elementary School	200.00	1000sqft	4.59	200,000.00	0
City Park	5.00	Acre	5.00	217,800.00	0
City Park	22.00	Acre	22.00	958,320.00	0
Government Office Building	200.00	1000sqft	4.59	200,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.7	**Precipitation Freq (Days)**	51
Climate Zone	2			**Operational Year**	2033
Utility Company	Modesto Irrigation District				
CO2 Intensity (lb/MWhr)	452.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Operational Emissions Only. Proposed Project land uses changes compared to the Existing SPII uses. Refer to other CalEEMod runs for existing emissions and Construction.

Land Use - Newly proposed Land Uses with the Project. These uses fall within the SPII Town Center and Neighborhoods H, I, J, and L. Only land uses with changes were modeled.

Construction Phase - Operations Only.

Mountain House Project: Proposed Project Operational emissions - San Joaquin County, Annual

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

Grading -

Trips and VMT - Operations Only.

Architectural Coating - Operations Only.

Vehicle Trips - TJKM total VMT of 1,729,773 (reduction from existing). All VMT was placed on the Apartment Low rise land use. All Land uses have the same fleet mix. 100% Primary Trips

Woodstoves - SJVAPCD Rule 4901 - No wood urning stoves.

Area Coating - 2019 CalGreen Code.

Area Mitigation - 2019 CalGreen Code

Water Mitigation - 2019 CalGreen Code

Waste Mitigation - AB 341

Vehicle Emission Factors -

Vehicle Emission Factors -

Vehicle Emission Factors -

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	343,748.00	0.00
tblArchitecturalCoating	ConstArea_Nonresidential_Interior	1,031,244.00	0.00
tblArchitecturalCoating	ConstArea_Parking	12,960.00	0.00
tblArchitecturalCoating	ConstArea_Residential_Exterior	157,950.00	0.00
tblArchitecturalCoating	ConstArea_Residential_Interior	473,850.00	0.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	150	100
tblAreaCoating	Area_EF_Nonresidential_Interior	150	100
tblAreaCoating	Area_EF_Parking	150	100
tblAreaCoating	Area_EF_Residential_Exterior	150	100
tblAreaCoating	Area_EF_Residential_Interior	150	100
tblConstructionPhase	NumDays	75.00	0.00
tblConstructionPhase	NumDays	1,110.00	0.00
tblConstructionPhase	NumDays	70.00	0.00
tblConstructionPhase	NumDays	110.00	0.00
tblConstructionPhase	NumDays	75.00	0.00

Mountain House Project: Proposed Project Operational emissions - San Joaquin County, Annual

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

tblConstructionPhase	NumDays	40.00	0.00
tblConstructionPhase	PhaseEndDate	8/4/2038	4/21/2038
tblConstructionPhase	PhaseEndDate	1/6/2038	10/5/2033
tblConstructionPhase	PhaseEndDate	3/9/2033	12/1/2032
tblConstructionPhase	PhaseEndDate	10/5/2033	5/4/2033
tblConstructionPhase	PhaseEndDate	4/21/2038	1/6/2038
tblConstructionPhase	PhaseEndDate	5/4/2033	3/9/2033
tblFireplaces	FireplaceWoodMass	3,078.40	0.00
tblFireplaces	FireplaceWoodMass	3,078.40	0.00
tblFleetMix	HHD	0.02	0.02
tblFleetMix	HHD	0.02	0.02
tblFleetMix	HHD	0.02	0.02
tblFleetMix	HHD	0.02	0.02
tblFleetMix	HHD	0.02	0.02
tblFleetMix	HHD	0.02	0.02
tblFleetMix	LDA	0.57	0.53
tblFleetMix	LDA	0.57	0.53
tblFleetMix	LDA	0.57	0.53
tblFleetMix	LDA	0.57	0.53
tblFleetMix	LDA	0.57	0.53
tblFleetMix	LDA	0.57	0.53
tblFleetMix	LDT1	0.05	0.05
tblFleetMix	LDT1	0.05	0.05
tblFleetMix	LDT1	0.05	0.05
tblFleetMix	LDT1	0.05	0.05
tblFleetMix	LDT1	0.05	0.05
tblFleetMix	LDT1	0.05	0.05
tblFleetMix	LDT2	0.17	0.17

Mountain House Project: Proposed Project Operational emissions - San Joaquin County, Annual

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

tblFleetMix	LDT2	0.17	0.17
tblFleetMix	LDT2	0.17	0.17
tblFleetMix	LDT2	0.17	0.17
tblFleetMix	LDT2	0.17	0.17
tblFleetMix	LDT2	0.17	0.17
tblFleetMix	LHD1	0.02	0.03
tblFleetMix	LHD1	0.02	0.03
tblFleetMix	LHD1	0.02	0.03
tblFleetMix	LHD1	0.02	0.03
tblFleetMix	LHD1	0.02	0.03
tblFleetMix	LHD1	0.02	0.03
tblFleetMix	LHD2	5.2470e-003	6.3850e-003
tblFleetMix	LHD2	5.2470e-003	6.3850e-003
tblFleetMix	LHD2	5.2470e-003	6.3850e-003
tblFleetMix	LHD2	5.2470e-003	6.3850e-003
tblFleetMix	LHD2	5.2470e-003	6.3850e-003
tblFleetMix	LHD2	5.2470e-003	6.3850e-003
tblFleetMix	MCY	0.02	0.02
tblFleetMix	MCY	0.02	0.02
tblFleetMix	MCY	0.02	0.02
tblFleetMix	MCY	0.02	0.02
tblFleetMix	MCY	0.02	0.02
tblFleetMix	MCY	0.02	0.02
tblFleetMix	MDV	0.13	0.16
tblFleetMix	MDV	0.13	0.16
tblFleetMix	MDV	0.13	0.16
tblFleetMix	MDV	0.13	0.16
tblFleetMix	MDV	0.13	0.16

Mountain House Project: Proposed Project Operational emissions - San Joaquin County, Annual

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

tblFleetMix	MDV	0.13	0.16
tblFleetMix	MH	2.4370e-003	3.7070e-003
tblFleetMix	MH	2.4370e-003	3.7070e-003
tblFleetMix	MH	2.4370e-003	3.7070e-003
tblFleetMix	MH	2.4370e-003	3.7070e-003
tblFleetMix	MH	2.4370e-003	3.7070e-003
tblFleetMix	MH	2.4370e-003	3.7070e-003
tblFleetMix	MHD	0.01	0.01
tblFleetMix	MHD	0.01	0.01
tblFleetMix	MHD	0.01	0.01
tblFleetMix	MHD	0.01	0.01
tblFleetMix	MHD	0.01	0.01
tblFleetMix	MHD	0.01	0.01
tblFleetMix	OBUS	4.2700e-004	4.7900e-004
tblFleetMix	OBUS	4.2700e-004	4.7900e-004
tblFleetMix	OBUS	4.2700e-004	4.7900e-004
tblFleetMix	OBUS	4.2700e-004	4.7900e-004
tblFleetMix	OBUS	4.2700e-004	4.7900e-004
tblFleetMix	OBUS	4.2700e-004	4.7900e-004
tblFleetMix	SBUS	9.3500e-004	1.1350e-003
tblFleetMix	SBUS	9.3500e-004	1.1350e-003
tblFleetMix	SBUS	9.3500e-004	1.1350e-003
tblFleetMix	SBUS	9.3500e-004	1.1350e-003
tblFleetMix	SBUS	9.3500e-004	1.1350e-003
tblFleetMix	SBUS	9.3500e-004	1.1350e-003
tblFleetMix	UBUS	3.0700e-004	3.2900e-004
tblFleetMix	UBUS	3.0700e-004	3.2900e-004
tblFleetMix	UBUS	3.0700e-004	3.2900e-004

Mountain House Project: Proposed Project Operational emissions - San Joaquin County, Annual

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

tblFleetMix	UBUS	3.0700e-004	3.2900e-004
tblFleetMix	UBUS	3.0700e-004	3.2900e-004
tblFleetMix	UBUS	3.0700e-004	3.2900e-004
tblLandUse	LotAcreage	10.06	8.19
tblTripsAndVMT	VendorTripNumber	348.00	0.00
tblTripsAndVMT	WorkerTripNumber	15.00	0.00
tblTripsAndVMT	WorkerTripNumber	18.00	0.00
tblTripsAndVMT	WorkerTripNumber	20.00	0.00
tblTripsAndVMT	WorkerTripNumber	976.00	0.00
tblTripsAndVMT	WorkerTripNumber	15.00	0.00
tblTripsAndVMT	WorkerTripNumber	195.00	0.00
tblVehicleTrips	DV_TP	11.00	0.00
tblVehicleTrips	HO_TL	7.50	4.03
tblVehicleTrips	HS_TL	7.30	4.03
tblVehicleTrips	HW_TL	10.80	4.03
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	86.00	100.00
tblVehicleTrips	ST_TR	8.14	7.31
tblVehicleTrips	ST_TR	4.91	0.00
tblVehicleTrips	ST_TR	1.96	0.00
tblVehicleTrips	SU_TR	6.28	7.31
tblVehicleTrips	SU_TR	4.09	0.00
tblVehicleTrips	SU_TR	2.19	0.00
tblVehicleTrips	WD_TR	7.32	7.31
tblVehicleTrips	WD_TR	5.44	0.00
tblVehicleTrips	WD_TR	0.78	0.00
tblVehicleTrips	WD_TR	19.52	0.00
tblVehicleTrips	WD_TR	22.59	0.00

Mountain House Project: Proposed Project Operational emissions - San Joaquin County, Annual

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

tblWoodstoves	NumberCatalytic	8.19	0.00
tblWoodstoves	NumberCatalytic	1.92	0.00
tblWoodstoves	NumberNoncatalytic	8.19	0.00
tblWoodstoves	NumberNoncatalytic	1.92	0.00
tblWoodstoves	WoodstoveWoodMass	3,019.20	0.00
tblWoodstoves	WoodstoveWoodMass	3,019.20	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2032	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2033	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2038	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction

Mountain House Project: Proposed Project Operational emissions - San Joaquin County, Annual

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2032	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2033	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2038	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

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

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	4.1536	0.1076	1.7761	6.5000e-004		0.0167	0.0167		0.0167	0.0167	0.0000	104.2202	104.2202	4.6800e-003	1.8600e-003	104.8910
Energy	0.0415	0.3699	0.2618	2.2600e-003		0.0287	0.0287		0.0287	0.0287	0.0000	1,240.7194	1,240.7194	0.0683	0.0149	1,246.8561
Mobile	0.3095	0.3891	2.5758	5.2800e-003	0.6437	3.9100e-003	0.6476	0.1721	3.6600e-003	0.1758	0.0000	520.4645	520.4645	0.0317	0.0290	529.8837

Mountain House Project: Proposed Project Operational emissions - San Joaquin County, Annual

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

Waste						0.0000	0.0000		0.0000	0.0000	112.9259	0.0000	112.9259	6.6737	0.0000	279.7691
Water						0.0000	0.0000		0.0000	0.0000	19.2819	129.3681	148.6500	1.9899	0.0479	212.6719
Total	**4.5046**	**0.8666**	**4.6136**	**8.1900e-003**	**0.6437**	**0.0493**	**0.6930**	**0.1721**	**0.0491**	**0.2212**	**132.2078**	**1,994.7722**	**2,126.9799**	**8.7683**	**0.0936**	**2,374.0718**

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	4.1434	0.0200	1.7388	9.0000e-005		9.6600e-003	9.6600e-003		9.6600e-003	9.6600e-003	0.0000	2.8497	2.8497	2.7300e-003	0.0000	2.9181
Energy	0.0415	0.3699	0.2618	2.2600e-003		0.0287	0.0287		0.0287	0.0287	0.0000	1,240.7194	1,240.7194	0.0683	0.0149	1,246.8561
Mobile	0.3095	0.3891	2.5758	5.2800e-003	0.6437	3.9100e-003	0.6476	0.1721	3.6600e-003	0.1758	0.0000	520.4645	520.4645	0.0317	0.0290	529.8837
Waste						0.0000	0.0000		0.0000	0.0000	28.2315	0.0000	28.2315	1.6684	0.0000	69.9423
Water						0.0000	0.0000		0.0000	0.0000	15.4255	112.0842	127.5097	1.5925	0.0384	178.7655
Total	**4.4943**	**0.7791**	**4.5764**	**7.6300e-003**	**0.6437**	**0.0423**	**0.6860**	**0.1721**	**0.0420**	**0.2142**	**43.6570**	**1,876.1177**	**1,919.7747**	**3.3637**	**0.0822**	**2,028.3656**

	ROG	NOx	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	**0.23**	**10.10**	**0.81**	**6.84**	**0.00**	**14.33**	**1.02**	**0.00**	**14.41**	**3.20**	**66.98**	**5.95**	**9.74**	**61.64**	**12.14**	**14.56**

3.0 Construction Detail

Date: 9/21/2021 2:26 PM

Mountain House Project: Proposed Project Operational emissions - San Joaquin County, Annual

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

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	12/2/2032	12/1/2032	5	0	
2	Site Preparation	Site Preparation	3/10/2033	3/9/2033	5	0	
3	Grading	Grading	5/5/2033	5/4/2033	5	0	
4	Building Construction	Building Construction	10/6/2033	10/5/2033	5	0	
5	Paving	Paving	1/7/2038	1/6/2038	5	0	
6	Architectural Coating	Architectural Coating	4/22/2038	4/21/2038	5	0	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 4.96

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Building Construction	Cranes	1	7.00	231	0.29
Demolition	Excavators	3	8.00	158	0.38
Grading	Excavators	2	8.00	158	0.38
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Grading	Graders	1	8.00	187	0.41
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38

Mountain House Project: Proposed Project Operational emissions - San Joaquin County, Annual

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

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
Grading	Scrapers	2	8.00	367	0.48
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
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
Demolition	6	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2032

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					

Mountain House Project: Proposed Project Operational emissions - San Joaquin County, Annual

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

Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Unmitigated Construction Off-Site

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

Mitigated Construction On-Site

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

Mountain House Project: Proposed Project Operational emissions - San Joaquin County, Annual

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

Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction Off-Site

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

3.3 Site Preparation - 2033

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Mountain House Project: Proposed Project Operational emissions - San Joaquin County, Annual

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

Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Unmitigated Construction Off-Site

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

Mitigated Construction On-Site

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

Mountain House Project: Proposed Project Operational emissions - San Joaquin County, Annual

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

Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction Off-Site

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

3.4 Grading - 2033

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Mountain House Project: Proposed Project Operational emissions - San Joaquin County, Annual

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

Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Unmitigated Construction Off-Site

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

Mitigated Construction On-Site

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

Mountain House Project: Proposed Project Operational emissions - San Joaquin County, Annual

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

Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction Off-Site

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

3.5 Building Construction - 2033

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mountain House Project: Proposed Project Operational emissions - San Joaquin County, Annual

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

Unmitigated Construction Off-Site

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

Mitigated Construction On-Site

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

Mountain House Project: Proposed Project Operational emissions - San Joaquin County, Annual

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

Mitigated Construction Off-Site

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

3.6 Paving - 2038

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Paving	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mountain House Project: Proposed Project Operational emissions - San Joaquin County, Annual

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

Unmitigated Construction Off-Site

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

Mitigated Construction On-Site

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

Mountain House Project: Proposed Project Operational emissions - San Joaquin County, Annual

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

Mitigated Construction Off-Site

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

3.7 Architectural Coating - 2038

Unmitigated Construction On-Site

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

Mountain House Project: Proposed Project Operational emissions - San Joaquin County, Annual

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

Unmitigated Construction Off-Site

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

Mitigated Construction On-Site

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

Mountain House Project: Proposed Project Operational emissions - San Joaquin County, Annual

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

Mitigated Construction Off-Site

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

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.3095	0.3891	2.5758	5.2800e-003	0.6437	3.9100e-003	0.6476	0.1721	3.6600e-003	0.1758	0.0000	520.4645	520.4645	0.0317	0.0290	529.8837
Unmitigated	0.3095	0.3891	2.5758	5.2800e-003	0.6437	3.9100e-003	0.6476	0.1721	3.6600e-003	0.1758	0.0000	520.4645	520.4645	0.0317	0.0290	529.8837

Mountain House Project: Proposed Project Operational emissions - San Joaquin County, Annual

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

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	1,176.91	1,176.91	1176.91	1,726,433	1,726,433
Apartments Mid Rise	0.00	0.00	0.00		
City Park	0.00	0.00	0.00		
City Park	0.00	0.00	0.00		
City Park	0.00	0.00	0.00		
Elementary School	0.00	0.00	0.00		
Government Office Building	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Total	1,176.91	1,176.91	1,176.91	1,726,433	1,726,433

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 Low Rise	4.03	4.03	4.03	45.60	19.00	35.40	100	0	0
Apartments Mid Rise	10.80	7.30	7.50	45.60	19.00	35.40	86	11	3
City Park	9.50	7.30	7.30	33.00	48.00	19.00	66	28	6
City Park	9.50	7.30	7.30	33.00	48.00	19.00	66	28	6
City Park	9.50	7.30	7.30	33.00	48.00	19.00	66	28	6
Elementary School	9.50	7.30	7.30	65.00	30.00	5.00	63	25	12
Government Office Building	9.50	7.30	7.30	33.00	62.00	5.00	50	34	16
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Parking Lot	9.50	7.30	7.30	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 Low Rise	0.531667	0.052263	0.168651	0.155495	0.027235	0.006385	0.012362	0.016685	0.000479	0.000329	0.023608	0.001135	0.0037
Apartments Mid Rise	0.531667	0.052263	0.168651	0.155495	0.027235	0.006385	0.012362	0.016685	0.000479	0.000329	0.023608	0.001135	0.0037
City Park	0.531667	0.052263	0.168651	0.155495	0.027235	0.006385	0.012362	0.016685	0.000479	0.000329	0.023608	0.001135	0.0037

Mountain House Project: Proposed Project Operational emissions - San Joaquin County, Annual

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

Elementary School	0.531667	0.052263	0.168651	0.155495	0.027235	0.006385	0.012362	0.016685	0.000479	0.000329	0.023608	0.001135	0.0037
Government Office Building	0.531667	0.052263	0.168651	0.155495	0.027235	0.006385	0.012362	0.016685	0.000479	0.000329	0.023608	0.001135	0.0037
Parking Lot	0.531667	0.052263	0.168651	0.155495	0.027235	0.006385	0.012362	0.016685	0.000479	0.000329	0.023608	0.001135	0.0037

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	829.8148	829.8148	0.0605	7.3300e-003	833.5098
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	829.8148	829.8148	0.0605	7.3300e-003	833.5098
NaturalGas Mitigated	0.0415	0.3699	0.2618	2.2600e-003		0.0287	0.0287		0.0287	0.0287	0.0000	410.9045	410.9045	7.8800e-003	7.5300e-003	413.3463
NaturalGas Unmitigated	0.0415	0.3699	0.2618	2.2600e-003		0.0287	0.0287		0.0287	0.0287	0.0000	410.9045	410.9045	7.8800e-003	7.5300e-003	413.3463

5.2 Energy by Land Use - NaturalGas

Unmitigated

Mountain House Project: Proposed Project Operational emissions - San Joaquin County, Annual

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

	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 Low Rise	1.87668e+006	0.0101	0.0865	0.0368	5.5000e-004		6.9900e-003	6.9900e-003		6.9900e-003	6.9900e-003	0.0000	100.1466	100.1466	1.9200e-003	1.8400e-003	100.7417
Apartments Mid Rise	687385	3.7100e-003	0.0317	0.0135	2.0000e-004		2.5600e-003	2.5600e-003		2.5600e-003	2.5600e-003	0.0000	36.6815	36.6815	7.0000e-004	6.7000e-004	36.8995
City Park	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
Elementary School	1.876e+006	0.0101	0.0920	0.0773	5.5000e-004		6.9900e-003	6.9900e-003		6.9900e-003	6.9900e-003	0.0000	100.1105	100.1105	1.9200e-003	1.8400e-003	100.7054
Government Office Building	3.26e+006	0.0176	0.1598	0.1342	9.6000e-004		0.0122	0.0122		0.0122	0.0122	0.0000	173.9660	173.9660	3.3300e-003	3.1900e-003	174.9998
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		**0.0415**	**0.3699**	**0.2618**	**2.2600e-003**		**0.0287**	**0.0287**		**0.0287**	**0.0287**	**0.0000**	**410.9045**	**410.9045**	**7.8700e-003**	**7.5400e-003**	**413.3464**

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 Low Rise	1.87668e+006	0.0101	0.0865	0.0368	5.5000e-004		6.9900e-003	6.9900e-003		6.9900e-003	6.9900e-003	0.0000	100.1466	100.1466	1.9200e-003	1.8400e-003	100.7417
Apartments Mid Rise	687385	3.7100e-003	0.0317	0.0135	2.0000e-004		2.5600e-003	2.5600e-003		2.5600e-003	2.5600e-003	0.0000	36.6815	36.6815	7.0000e-004	6.7000e-004	36.8995
City Park	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
Elementary School	1.876e+006	0.0101	0.0920	0.0773	5.5000e-004		6.9900e-003	6.9900e-003		6.9900e-003	6.9900e-003	0.0000	100.1105	100.1105	1.9200e-003	1.8400e-003	100.7054
Government Office Building	3.26e+006	0.0176	0.1598	0.1342	9.6000e-004		0.0122	0.0122		0.0122	0.0122	0.0000	173.9660	173.9660	3.3300e-003	3.1900e-003	174.9998

Mountain House Project: Proposed Project Operational emissions - San Joaquin County, Annual

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

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		**0.0415**	**0.3699**	**0.2618**	**2.2600e-003**		**0.0287**	**0.0287**		**0.0287**	**0.0287**	**0.0000**	**410.9045**	**410.9045**	**7.8700e-003**	**7.5400e-003**	**413.3464**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Low Rise	658810	135.3646	9.8600e-003	1.2000e-003	135.9674
Apartments Mid Rise	284242	58.4026	4.2500e-003	5.2000e-004	58.6627
City Park	0	0.0000	0.0000	0.0000	0.0000
Elementary School	1.088e+006	223.5495	0.0163	1.9700e-003	224.5449
Government Office Building	1.932e+006	396.9647	0.0289	3.5100e-003	398.7323
Parking Lot	25200	5.1778	3.8000e-004	5.0000e-005	5.2009
Parking Lot	50400	10.3556	7.5000e-004	9.0000e-005	10.4017
Total		**829.8148**	**0.0605**	**7.3400e-003**	**833.5098**

Mitigated

Mountain House Project: Proposed Project Operational emissions - San Joaquin County, Annual

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

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Low Rise	658810	135.3646	9.8600e-003	1.2000e-003	135.9674
Apartments Mid Rise	284242	58.4026	4.2500e-003	5.2000e-004	58.6627
City Park	0	0.0000	0.0000	0.0000	0.0000
Elementary School	1.088e+006	223.5495	0.0163	1.9700e-003	224.5449
Government Office Building	1.932e+006	396.9647	0.0289	3.5100e-003	398.7323
Parking Lot	25200	5.1778	3.8000e-004	5.0000e-005	5.2009
Parking Lot	50400	10.3556	7.5000e-004	9.0000e-005	10.4017
Total		**829.8148**	**0.0605**	**7.3400e-003**	**833.5098**

6.0 Area Detail

6.1 Mitigation Measures Area

No Hearths Installed

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

Mountain House Project: Proposed Project Operational emissions - San Joaquin County, Annual

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

Category	tons/yr										MT/yr					
Mitigated	4.1434	0.0200	1.7388	9.0000e-005		9.6600e-003	9.6600e-003		9.6600e-003	9.6600e-003	0.0000	2.8497	2.8497	2.7300e-003	0.0000	2.9181
Unmitigated	4.1536	0.1076	1.7761	6.5000e-004		0.0167	0.0167		0.0167	0.0167	0.0000	104.2202	104.2202	4.6800e-003	1.8600e-003	104.8910

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	0.4681					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	3.6229					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0102	0.0875	0.0373	5.6000e-004		7.0800e-003	7.0800e-003		7.0800e-003	7.0800e-003	0.0000	101.3705	101.3705	1.9400e-003	1.8600e-003	101.9729
Landscaping	0.0524	0.0200	1.7388	9.0000e-005		9.6600e-003	9.6600e-003		9.6600e-003	9.6600e-003	0.0000	2.8497	2.8497	2.7300e-003	0.0000	2.9181
Total	**4.1536**	**0.1076**	**1.7761**	**6.5000e-004**		**0.0167**	**0.0167**		**0.0167**	**0.0167**	**0.0000**	**104.2202**	**104.2202**	**4.6700e-003**	**1.8600e-003**	**104.8910**

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

Mountain House Project: Proposed Project Operational emissions - San Joaquin County, Annual

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

SubCategory	tons/yr										MT/yr					
Architectural Coating	0.4681					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	3.6229					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	0.0524	0.0200	1.7388	9.0000e-005		9.6600e-003	9.6600e-003		9.6600e-003	9.6600e-003	0.0000	2.8497	2.8497	2.7300e-003	0.0000	2.9181
Total	**4.1434**	**0.0200**	**1.7388**	**9.0000e-005**		**9.6600e-003**	**9.6600e-003**		**9.6600e-003**	**9.6600e-003**	**0.0000**	**2.8497**	**2.8497**	**2.7300e-003**	**0.0000**	**2.9181**

7.0 Water Detail

7.1 Mitigation Measures Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

Use Water Efficient Irrigation System

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	127.5097	1.5925	0.0384	178.7655
Unmitigated	148.6500	1.9899	0.0479	212.6719

Mountain House Project: Proposed Project Operational emissions - San Joaquin County, Annual

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

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Low Rise	10.4898 / 6.61313	19.7461	0.3430	8.2200e-003	30.7696
Apartments Mid Rise	4.75624 / 2.9985	8.9532	0.1555	3.7300e-003	13.9514
City Park	0 / 37.0551	26.6477	1.9400e-003	2.4000e-004	26.7664
Elementary School	5.79938 / 14.9127	19.0119	0.1902	4.6100e-003	25.1424
Government Office Building	39.7319 / 24.3518	74.2910	1.2992	0.0311	116.0421
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**148.6499**	**1.9899**	**0.0479**	**212.6719**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			

Mountain House Project: Proposed Project Operational emissions - San Joaquin County, Annual

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

Apartments Low Rise	8.39184 / 6.20973	16.4580	0.2745	6.5800e-003	25.2797
Apartments Mid Rise	3.805 / 2.81559	7.4623	0.1244	2.9800e-003	11.4622
City Park	0 / 34.7947	25.0222	1.8200e-003	2.2000e-004	25.1337
Elementary School	4.63951 / 14.003	16.7002	0.1523	3.7000e-003	21.6112
Government Office Building	31.7855 / 22.8664	61.8670	1.0395	0.0249	95.2788
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**127.5097**	**1.5925**	**0.0384**	**178.7655**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	28.2315	1.6684	0.0000	69.9423
Unmitigated	112.9259	6.6737	0.0000	279.7691

8.2 Waste by Land Use

Mountain House Project: Proposed Project Operational emissions - San Joaquin County, Annual

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

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Low Rise	74.06	15.0335	0.8885	0.0000	37.2449
Apartments Mid Rise	33.58	6.8164	0.4028	0.0000	16.8874
City Park	2.67	0.5420	0.0320	0.0000	1.3428
Elementary School	260	52.7777	3.1191	0.0000	130.7544
Government Office Building	186	37.7563	2.2313	0.0000	93.5397
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**112.9259**	**6.6737**	**0.0000**	**279.7691**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Low Rise	18.515	3.7584	0.2221	0.0000	9.3112
Apartments Mid Rise	8.395	1.7041	0.1007	0.0000	4.2219
City Park	0.6675	0.1355	8.0100e-003	0.0000	0.3357

Mountain House Project: Proposed Project Operational emissions - San Joaquin County, Annual

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

Elementary School	65	13.1944	0.7798	0.0000	32.6886
Government Office Building	46.5	9.4391	0.5578	0.0000	23.3849
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**28.2315**	**1.6684**	**0.0000**	**69.9423**

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

Appendix B: Updated Traffic Report and Vehicle Miles Traveled Memorandum

TECHNICAL MEMORANDUM

June 29, 2021

To: Dave Sargent
The Resmark Companies
230 South Sterling Drive, Suite 246
Mountain House, CA 95391

From: Chris D. Kinzel

Subject: Traffic Analysis of Proposed MHD Land Use Changes and Vehicle Miles Traveled

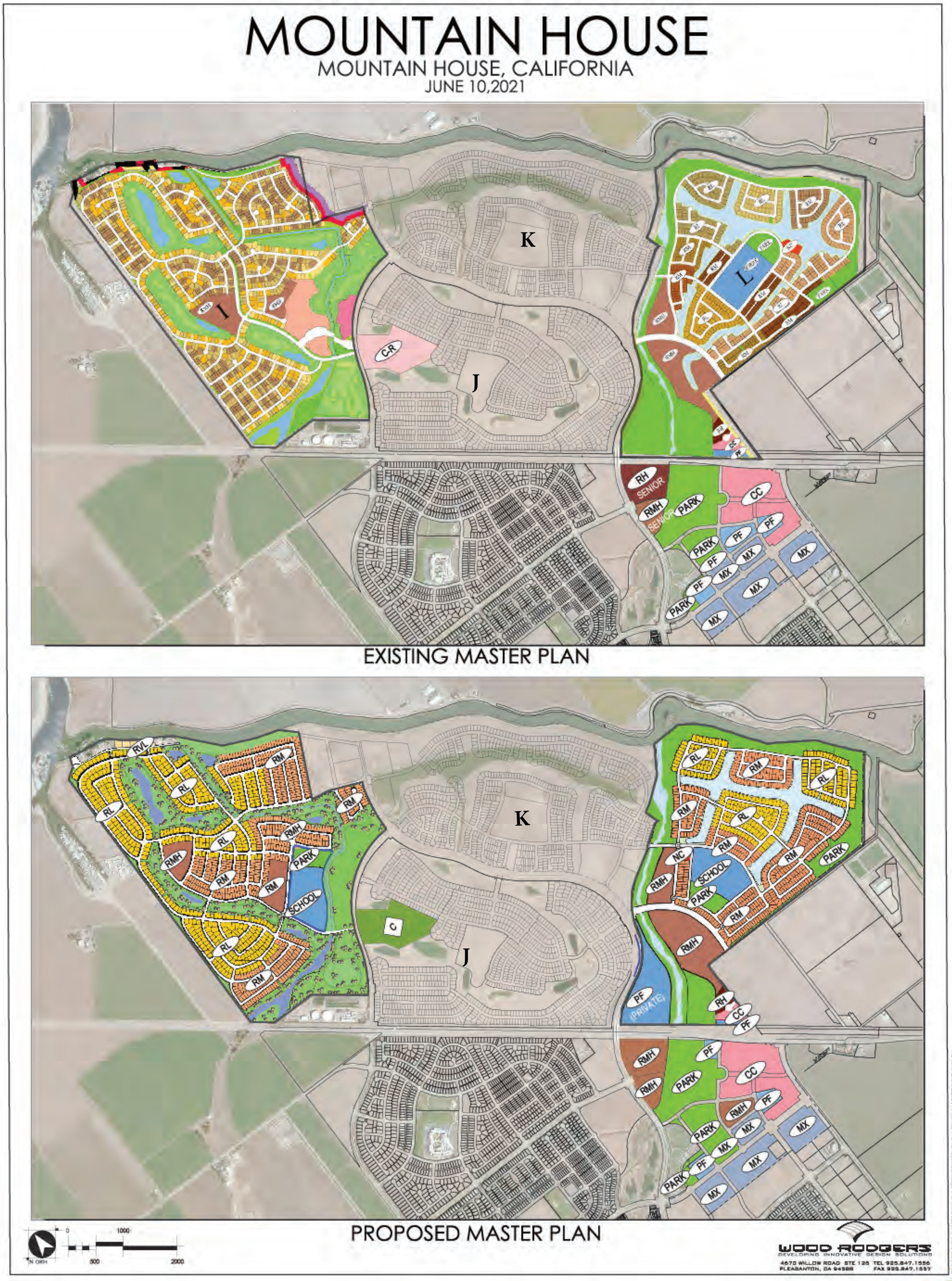
The purpose of this memorandum is to summarize the results of the traffic evaluation of changes proposed to Mountain House Neighborhoods H, I, J, L and the Town Center. This analysis also examines if these neighborhoods are still in compliance with Specific Plan II and the Master Plan of San Joaquin County and the Mountain House Community Services District. A VMT analysis is also included. Since the changes proposed are comparatively minor from a traffic standpoint this analysis focuses on the changes. The traffic evaluation is examined on a neighborhood basis in the following sections. The changes in each neighborhood are illustrated in **Figure 1**.

Neighborhood I

Neighborhood I is proposed to maintain a total of 1,127 single family dwelling units, unchanged from previously. However, since housing market conditions have changed, the original portion of the development that had been contemplated for active adult units now is proposed to revert to unrestricted age units. In the original traffic studies for the Master Plan, the units that had been contemplated for age restricted units were treated as standard single family units from a trip generation standpoint. Therefore, even though the age restricted active adult units have a lower trip rate, the current proposal is consistent with the original studies.

As seen in Figure 1, the basic street layout of Neighborhood I is relatively unchanged with the major access points and intersections occurring at the same locations. The biggest change of Neighborhood I is the addition of a K-8 school, since more children are expected as a result of the elimination of the age restricted units. Although the school attracts peak hour trips, these

Study Area Map



TJKM

are all from within the neighborhood, and do not cause any net addition of trips to the surrounding street system. As is the case with any new school, it will be important to design the school area street system to adequately accommodate the higher levels of traffic before and after school.

Neighborhood L
The proposed changes for Neighborhood L include adjusting the K-8 school location, modifying the overall street and neighborhood design and adding a trail corridor. The proposed 764 single family dwelling units and 586 multi-family dwelling units remain the same. The total unit count in Neighborhood L is 1,350 dwelling units. There are no traffic increases resulting from the proposed change in this neighborhood.

Neighborhood J
There are no housing changes proposed for Neighborhood J. A 22-acre site planned as a park is proposed to have its designation changed from Commercial Recreation OS to Public Facilities – Community Park, with no traffic implications. In a previous approval, the Master Plan was changed to allow one half of the planned active adult dwelling units planned for Neighborhood J to be reallocated to Neighborhood K. This resulted in no net changes to Neighborhoods J and K.

Neighborhood K
There are no changes to Neighborhood K requested at this time.

Neighborhood H
This is located on the south side of Byron Road. Changes are proposed to two adjacent parcels located east of Central Parkway. One 11.5 acre site planned for 161 units is proposed to be changed in designation from Residential High, Senior to Residential Medium High. There is a net reduction of 68 dwelling units. The adjacent five acre parcel is proposed to have the Senior designation removed from its RMH designation. This site remains at 70 dwelling units. There are no traffic changes resulting from these adjustments since the original studies considered these as non-senior units.

Town Center
There are two traffic-substantive changes planned for the Town Center. One is the change of designation on a 5.2 acre parcel from Public Facility to RMH, which would add 73 residential dwelling units. The other is changing a 4.1 acre site from mixed use to Community Park. That has the potential to remove 208 jobs. Using ITE land use category 820, this could remove about 330 p.m. peak hour trips, while the 73 residential units, using ITE land use category 220, could

add about 40 p.m. peak hour trips. It can be seen that this changed could reduce the Town Center p.m. peak hour trip generation from to 330 trips to 40 trips, a net reduction in traffic

Summary of Traffic Changes

Considering all of the proposed neighborhood changes, there are no expected increases in traffic generated by the proposed uses. To further evaluate the impacts of these changes, reference is made to a 2018 TJKM study which was conducted to analyze then-proposed changes in Neighborhoods J and K. (August 14, 2018, *Traffic Analysis for Neighborhoods J and K.)* To evaluate the effects of changes to J and K, it was also necessary to consider the land uses planned for Neighborhoods I and L. As a part of the 2018 analysis, eight key intersections shared among the four neighborhoods were evaluated from a level of service standpoint. Those intersections are identified in the attached **Figure 2**.

The 2018 study addressed the following items:

- The traffic control needed at the eight intersections – traffic signals, all way stops, or one-way stops at T-intersections. Peak hour signal warrants were evaluated to determine signal needs.
- Needed approach lanes at each intersection.
- Required length of left turn storage at all needed left turn lanes.
- In addition, the approximate average daily traffic on the three arterials as well as on collector streets that led to each of the study intersections was calculated.

In this current analysis the proposed land uses in the four neighborhoods have not changed substantially since 2018, meaning the intersection level of service results and other conclusions from the earlier study still are applicable. There were no problematic level of service results at any of the eight study intersections. In addition, the results of each of the bullet point items described above are still relevant when considering the changes evaluated in this current study.

TJKM concludes that there are no increased traffic impacts resulting from the current proposed adjustments to the various Mountain House neighborhoods.

2018 Study Area Map

LEGEND

X Study Intersection

N

TJKM

094-131

Figure 2

VEHICLE MILE TRAVELED (VMT) ANALYSIS

TJKM conducted a VMT (Vehicle Miles Traveled) analysis for the proposed Neighborhoods evaluated in this report. The project consists of the five neighborhoods and the Town Center and is a modification of the original Mountain House Specific Plan II.

For VMT forecasting, the San Joaquin County Transportation Analysis Guidelines (September 2020, page 14) recommends that the estimated VMT for a proposed project be obtained by inserting the proposed project into the San Joaquin COG 2018 RTP Model. Since the project is not screened out from the maps in the SJ County Transportation Analysis guidelines, a base year plus project model run was performed.

Table 1 below shows the Travel Analysis Zone (TAZ) equivalent for each neighborhood from the project within the San Joaquin COG 2018 RTP Model.

Table 1: TAZ Equivalency Table to Project Neighborhoods

Neighborhood	TAZ #
H	2710
I	2745
J	2726
K	2746
L	2743 and 2744
Town Center	2711

The project under consideration is spread out among seven TAZs in the model. **Table 2** shows the existing land uses coded for the base year travel demand model.

Table 2: Existing Land Uses from the Model

Neighborhood	TAZ #	Population	Households	Employment	K-8 School
H	2710	3,459	1,310	0	0
I	2745	32	12	0	0
J	2726	0	0	0	0
K	2746	0	0	0	0
L	2743	10	4	0	0
L	2744	0	0	0	0
Town Center	2711	0	0	0	0

Table 3 shows the new land uses coded into the model from the Project.

Table 3: Project Land Uses coded into Model

Neighborhood	TAZ #	Population	Households	Employment	K-8 School
H	2710	3,994	1,513	0	
I	2745	3,767	1,427	0	500
J	2726	3,041	1,152	0	
K	2746	3,150	1,193	0	
L	2743	924	350	0	
L	2744	2,640	1,000	0	
Town Center	2711	193	73	308*	

For the Town Center, 308 employees were derived from the Southern California Association of Governments Employment Density Study, which lists 1,023 employees per thousand square feet of regional retail land use.

Since there are two different land use types (residential and commercial retail) being analyzed, different thresholds for VMT significance will be used. For residential uses, vehicle miles traveled per capita is used as the metric. For retail, net change in total VMT for the project area is used as a threshold.

Table 4 shows the Home Based VMT Per Capita Comparison between the existing VMT and the existing plus project VMT. The VMT per capita values combine all of the project TAZs into a total average value.

Table 4: Home Based VMT Per Capita Comparison

TAZ	Base Year Average Daily VMT per Resident (per SJCOG Model)	Regional Average (per SJCOG Model)	15% Below Regional Average (per SJCOG Model)	Base Year Plus Project Average Daily VMT per Resident (per Model run)
Combined	12.96	26.60	22.61	16.09

The existing base year per capita VMT is 12.96 for Neighborhoods H, I, J, K, & L. Adding in the project land use bumps the per capita VMT up to 16.09, an increase of 3.13. While there is an increase in residential VMT per capita once the various neighborhood residential developments are added into the TAZs, 16.09 is still lower than the 15% threshold of the county average, which is 22.61.

Thus, VMT Impacts for the residential portion of the project are found to be insignificant for the base year.

For the Town Center portion of the project, there are a total of 308 retail employees covering 315,486 square feet of retail space. For regional retail projects, San Joaquin County guidelines (September 2020, Page 5) looks at the net change in total VMT with and without a project in the region. The Town Center is located in unincorporated San Joaquin County. An additional model run was performed with only the Town Center's retail employment coded into the model (TAZ #2711). **Table 5** shows the net change in VMT between the no project and with project (Town Center only) model runs for unincorporated San Joaquin County.

Table 5: Net Change in VMT for Study Area between No Project and Project Base Year

Study Area	Total VMT (No Project)	Total VMT (With Project)	Difference
Unincorporated San Joaquin	1,732,999	1,729,773	-3,226

Adding in the Town Center retail results in a net decrease of 3,226 VMT for the study area of Unincorporated San Joaquin County. Thus, VMT impacts for the commercial portion of the project (Town Center) is found to be insignificant for the base year.

Appendix C: Utilities Analysis Memorandums

CIVIL ENGINEERS ▪ SURVEYORS ▪ PLANNERS

July 16, 2021
Job No.: 0673-080

M E M O R A N D U M

TO: George Djan – Mountain House Developers

FROM: Terry R. Reeves, P.E., Principal

SUBJECT: Utility Analysis of Proposed Land Use Changes
Mountain House Developers
Mountain House, California

Mountain House Developers are proposing to adjust land uses in several areas in Mountain House. The purpose of this memo is to identify the impacts those changes will have on the Sewer, Domestic Water, and Water Storage systems.

EXECUTIVE SUMMARY

As construction and build-out of Mountain House continues, there are desires to readdress the undeveloped portions and ensure those areas are able to develop to their full potential. To achieve this goal, Mountain House Developers has an active application in with San Joaquin County to revise the Master and Specific Plans to optimize future development. A quick summary of the changes is below:

- Neighborhood H: Remove Age-Qualified designation from the Residential/Medium-High (R/MH) and Residential/High (R/H) areas east of Central Parkway and rezone the R/H to R/MH.

- Neighborhood I: Remove Age-Qualified designation from all residential areas and addition of a new K-8 School

- Neighborhood J: Rezoning of 20 acres of Commercial Recreation (C/R) to Community Park (C/P)

- Neighborhood L: Rezoning of 20 acres of Community Park (C/P) to Public Facilities (P/F)

- Town Center: Rezone 5.22 acres of Public Facilities (P/F) to Residential-Medium High (R/MH), Rezone approximately 4.5 acres of Mixed-Use (M/X) to Community Park (C/P)

While the changes do not increase the number of residential units previously approved and entitled, the changes do result in increases to wastewater generation, domestic water demand, and water storage capacity.

SANITARY SEWER

Wastewater generation is based upon Land-Use and generation rates established by the MHCSD. While existing rates are currently published within the MHCSD Standards and Specifications, it should be noted that the MHCSD is currently working to update the Sanitary Sewer Master Plan and generation rates. As a result, this analysis uses rates established by West-Yost during the design of the Wastewater Treatment Plant expansion. Wastewater generation does not account for a 14% water conservation reduction identified in the entitlement documents.

As identified in Table 1, the overall increase to the Wastewater Generation (Average Dry Weather Flow – ADWF) is 46,950 gpd or 0.047 MGD. This increase is relatively small and will not have an impact to the currently designed 5.4 MGD Wastewater Treatment Plant.

DOMESTIC WATER

Domestic Water demand is based upon Land-Use and demand factors established by the MHCSD. Demand factors used for this analysis are consistent with the updated and approved 2020 Potable Water System Master Plan Update, dated November 2020, and prepared by West-Yost. In accordance with existing entitlement documents, a 14% water conservation reduction in demand is used.

As identified in Table 1, the overall increase to Domestic Water Demand (Maximum Daily Water Demand – MDWD) is 115,223 gpd or 0.115 MGD. The 2020 Potable Water System Master Plan Update identifies a buildout projection to require a Water Treatment Plan expansion to a total of 18.2 MGD. However, as identified in Section 12.6 of Specific Plan II, the Water Treatment Plant will ultimately be expanded to 20 MGD. There will be sufficient capacity at buildout for the proposed changes.

WATER STORAGE

Water storage requirements are based upon three factors; Emergency Storage (75% of MDWD), Operational Storage (30% of MDWD), and Fire Flow Storage. Fire Flow Storage is based upon fire flow rates and duration for the most demanding land-use. In mountain House, the most demanding fire flow land-use is Industrial (I/L) and as a result, the proposed changes do not have an impact to Fire Flow Storage. The combined requirement of Emergency and Operational Storage, equates to 105% of the MDWD.

As Identified in Table 1, the overall increase to Water Storage is 120,984 gal or 0.121 MG. The 2020 Potable Water System Master Plan Update identifies a buildout Water Storage projection of 19.60 MG. However, as identified in Section 12.3.7 of Master Plan, the total required Water Storage at buildout is 24.4 MG. There will be sufficient capacity at buildout for the proposed changes.

July 16, 2021
Job No.: 0673-080

Mountain House Developers
Mountain House, California
Table 1 – Conceptual Land Plan Utility Calculations

	Wastewater			Domestic Water			Water Storage		
	Existing Generation (GPD)	Proposed Generation (GPD)	Delta (GPD)	Existing Demand (GPD)	Proposed Demand (GPD)	Delta (GPD)	Existing Demand (GAL)	Proposed Demand (GAL)	Delta (GAL)
Neighborhood H	39,992	30,915	(9,077)	119,874	110,381	(9,493)	125,868	115,900	(9,968)
Neighborhood I	408,125	469,485	61,360	1,686,248	1,701,760	15,512	1,770,561	1,786,848	16,287
Neighborhoog J	40,000	0	(40,000)	39,292	121,792	82,500	41,257	127,882	86,625
Neighborhood L	208,958	252,958	44,000	1,108,686	1,108,686	0	1,164,120	1,164,120	0
Town Center	160,900	151,566	(9,334)	545,019	571,723	26,705	572,270	600,309	28,040
Totals GPD/GAL	**857,975**	**904,924**	**46,950**	**3,499,119**	**3,614,342**	**115,223**	**3,674,075**	**3,795,059**	**120,984**
MGD/MG	**0.858**	**0.905**	**0.047**	**3.499**	**3.614**	**0.115**	**3.674**	**3.795**	**0.121**
			ADWF			***MDWD***			

Appendix D: Water Supply Evaluation

WEST YOST
Water. Engineered.

6800 Koll Center Parkway
Suite 150
Pleasanton CA 94566

925.426.2580 phone
530.756.5991 fax
westyost.com

TECHNICAL MEMORANDUM

DATE: December 17, 2021

Project No.: 1004-60-20-01
SENT VIA: EMAIL

TO: Dave Sargent, Construction Development Manager
The Resmark Companies
Mountain House Developers, LLC

FROM: Rhodora N. Biagtan, PE, RCE #59371
Nick Szigeti, Engineer I, EIT OR#96476EI

REVIEWED BY: Jim Connell, PE, RCE #63052

SUBJECT: Water Supply Evaluation – Proposed Amendments to Mountain House Specific Plan II

The Resmark Companies (Resmark), under the Mountain House Developers, LLC, is developing portions of Specific Plan II (SPII) of the Mountain House Community, 4,800-acre master planned community in San Joaquin County (County). The County approved the Mountain House SPII in 2006. West Yost previously evaluated SPII potable water demand in 2007 in accordance with Senate Bill 221 (SB 221) and prepared a Water Supply Verification (WSV). The WSV built upon an approved Water Supply Assessment (WSA) to verify that sufficient water supply was available for SPII.

Resmark is proposing amendments to SPII for Neighborhoods H, I, J, L, and Town Center to reflect more current market demands. The purpose of this Technical Memorandum (TM) is to determine if a new WSA per SB 610 and WSV per SB 221 are required by evaluating the water demand for the proposed SPII land uses in comparison with the water demand previously documented in the 2006 SPII WSV.

REGULATORY BACKGROUND

SB 610 requires that a proposed project that meets the definition of a "Project" must include a WSA prior to final approval. In addition, if the proposed project includes greater than 500 residential dwelling units then a written verification of water supply sufficiency must also be prepared. West Yost previously prepared both a WSA and WSV for SPII in accordance with SB 610 and SB 221, respectively. No further assessment is required by SB 610 unless changes to the proposed project result in a "substantial increase in water demand." If the proposed changes to SPII result in a net increase in annual water demand greater than the equivalent water demand of 500 residential dwelling units, then an updated WSA would be required.[1]

The Mountain House Community Services District (MHCSD) approved water use factors for residential dwelling units in its 2020 Potable Water System Master Plan Update (PWSMPU), prepared by West Yost.

[1] California Water Code Section 10910(h).

The average water use per residential dwelling unit is approximately 351 gallons per day (gpd) per dwelling unit (DU). Therefore, the equivalent water demand of 500 residential DUs is approximately 197 acre-feet per year (AF/yr).

PROPOSED CHANGES TO SPII LAND USE

Resmark has proposed land use changes which will require amendments to the SPII. Generally, the total acreage and number of dwelling units remains consistent with the approved SPII as land uses were mostly redesignated between neighborhoods, as shown on Figure 1. As the primary concern of this evaluation is the total SPII water demand, land use changes between neighborhoods are inconsequential. The changes in total land use and dwelling units between the 2006 WSV and the proposed SPII amendments are shown on Table 1. In comparison with the total land uses analyzed in the SPII WSV, the proposed SPII amendments reduce developed areas by less than 10 acres and increase projected dwelling units by 13. Specific changes to land use by neighborhood are included in Attachment A. For the purposes of this TM, the proposed land use changes are compared with the land uses identified in the 2006 WSV.

PROPOSED PROJECT WATER DEMAND

Water demands presented in this TM are estimated by multiplying a unit water demand factor by the acreage or number of dwelling units for each land use. This is the same methodology used in the 2006 WSV.

Unit Water Demand Factors

MHCSD refined and updated its unit water demand factors in its 2016 PWSMPU and used these updated water demand factors in its 2020 PWSMPU. These factors characterize water demand for every land use in the MHCSD service area based on current water demands. The unit water demand factors used in the 2006 WSV and the updated 2016 unit water demand factors are listed in Table 2. In general, water demands for residential uses and some commercial uses were refined for greater accuracy, using gallons per day per DU for residential and gallons per acre for certain commercial uses instead of a more general acre-foot per acre. For water demand estimates at a planning level, residential water demands are characterized by the density of dwelling units only and do not consider additional characteristics such as active adult or senior housing. This method provides a more conservative approach to long-range water demand forecasting.

Water Demand Comparison

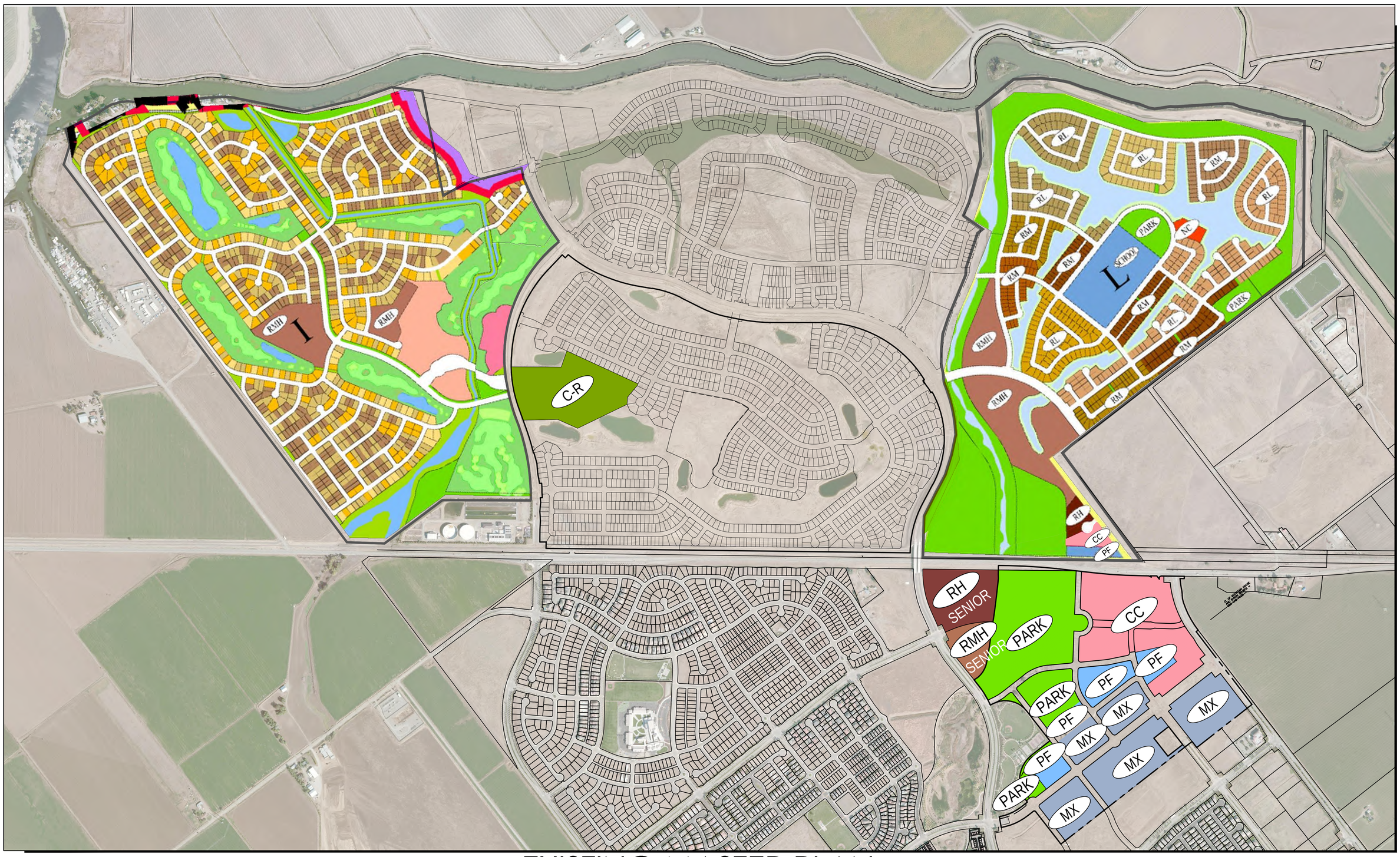
The water demands estimated for SPII using unit water demand factors from the 2006 WSV and from the MHCSD 2016 PWSMPU are compared in Table 3. Based on the updated water demand factors, the water demands for the land uses projected in the 2006 WSV are estimated to increase by approximately 14 AF/yr from 5,492 AF/yr to 5,506 AF/yr. The overall changes to SPII, which incorporates the proposed SPII amendment, represents an annual water demand of 5,434 AF/year based on the 2016 water demand factors. The updated SPII presents a water demand reduction of approximately 58 AF/yr compared to the originally projected water demands in the 2006 WSV, and when compared with the updated water demands for the land uses analyzed in the 2006 WSV, the updated SPII presents a water demand reduction of approximately 72 AF/yr.

Given the reduction on water demand presented by the updated SPII, which includes the proposed amendments, updates to the previously prepared and approved SB 610 WSA and SB 221 WSV are not required.

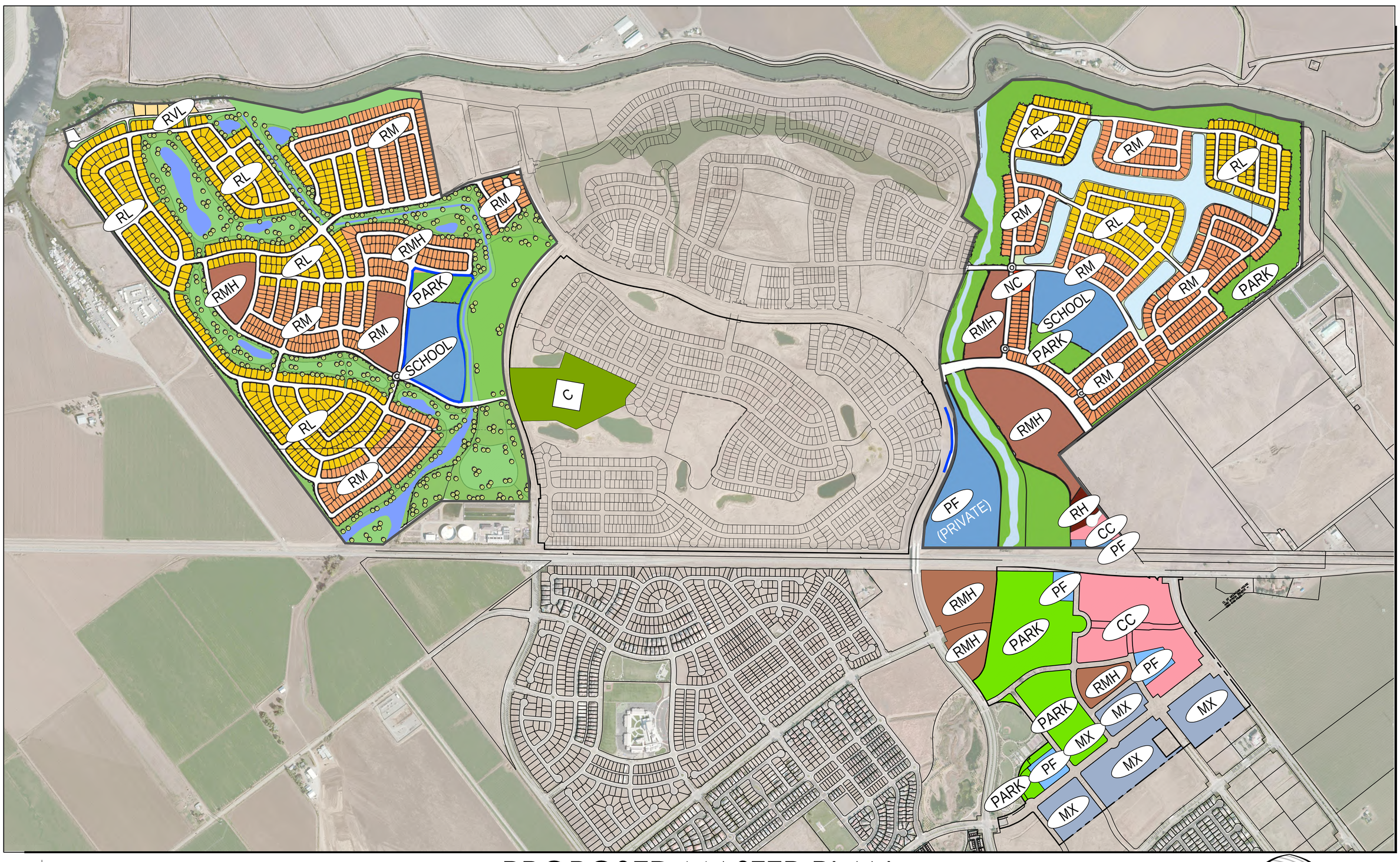
MOUNTAIN HOUSE

MOUNTAIN HOUSE, CALIFORNIA

JUNE 10, 2021



EXISTING MASTER PLAN



PROPOSED MASTER PLAN

0 1000

500 2000

N ORTH

WOOD RODGERS
DEVELOPING INNOVATIVE DESIGN SOLUTIONS
4670 WILLOW ROAD STE 125 TEL 925.847.1556
PLEASANTON, CA 94588 FAX 925.847.1557

P:\Jobs\1343_Mountain House\1343_Mountain House_DA\Planning\Exhibits\Mountain House Comparison.dwg 6/10/2021 2:43 PM Annalisa Spes

Table 1. Summary of Proposed Changes to SPII Land Use[a]

Land Use		2006 SPII WSV[b] vs. Proposed SPII Amendments[c]	
		Change in Land Use, acres	Change in Dwelling Units
Residential			
RVL	Residential/Very Low	6.3	12
RL	Residential/Low	64.6	290
RM	Residential/Medium	-124.0	-744
RMH	Residential/Medium High	41.7	583
RH	Residential/High	-6.4	-128
MX	Mixed Use (Dwelling Units Only)	--	0
Additional & Bonus Units			
	Additional Units (Town Center)	--	0
	Bonus Units	--	0
Commercial			
CN	Neighborhood	0.3	--
CC	Community	-1.9	--
CG	General	2.3	--
CO	Office	-0.2	--
CR	Golf Course	-7.3	--
CR	Recreation	20.7	--
MX	Mixed Use	-34.7	--
Industrial			
IL	Limited Industrial	-0.5	--
Open Space			
NP	Neighborhood Park	0.3	--
CP	MH Creek Community Park	1.1	--
CP	Community Parks	-5.2	--
RP	Regional Park	6.2	--
OS/O	Lakes	-4.4	--
OS/O	Water Quality Basin & Detention Basin	4.3	--
OS/O	Other Open Space	0.0	--
OS/RC	Wetland / Rescource Conservation	0.6	--
OS/RC	Dry Creek	-5.7	--
Schools			
	K-8, High School, Community College	16.0	--
Public			
P	Transit	0.0	--
P	Public Facilities (public)	-0.5	--
P	Public Facilities (private)	17.0	--
	Total	**-9.4**	**13**

(a) See Table 3 of this TM for a full schedule of land uses.
(b) Land use acreage from Table 5 of the 2006 SPII WSV.
(c) Land use acreage provided by MHD.

Table 2. Comparison of Unit Water Demand Factors

Land Use		2006 SPII WSV[a]		2020 PWSMPU[b]	
		Unit Demand Factors	Units	Unit Demand Factors (with conservation)	Units
Residential					
RVL	Residential/Very Low	1.30	af/acre	580	gpd/DU
RL	Residential/Low	2.00	af/acre	436	gpd/DU
RM	Residential/Medium	2.50	af/acre	387	gpd/DU
RMH	Residential/Medium High	3.00	af/acre	198	gpd/DU
RH	Residential/High	3.50	af/acre	156	gpd/DU
MX	Mixed Use (Dwelling Units Only)	--[c]	--	156	gpd/DU
Additional & Bonus Units					
	Additional Units (Town Center)	--[c]	--	156	gpd/DU
	Bonus Units	--[c]	--	156	gpd/DU
Commercial					
CN	Neighborhood	1.30	af/acre	1,750	gpd/acre
CC	Community	1.30	af/acre	1,750	gpd/acre
CG	General	1.30	af/acre	1,750	gpd/acre
CO	Office	1.30	af/acre	1,750	gpd/acre
CR	Golf Course	4.00	af/acre	1.55	af/acre
CR	Recreation	1.30	af/acre	1.55	af/acre
MX	Mixed Use	2.00	af/acre	1,750	gpd/acre
Industrial					
IL	Limited Industrial	1.30	af/acre	1,600	gpd/acre
Open Space					
NP	Neighborhood Park	4.00	af/acre	3.10	af/acre
CP	MH Creek Community Park	0.50	af/acre	1.50	af/acre
CP	Community Parks	4.00	af/acre	3.10	af/acre
RP	Regional Park	0.50	af/acre	1.50	af/acre
OS/O	Lakes	3.65	af/acre	3.86	af/acre
OS/O	Water Quality Basin & Detention Basin	0.00	af/acre	1.00	af/acre
OS/O	Other Open Space	n/a	af/acre	1.00	af/acre
OS/RC	Wetland / Rescource Conservation	0.00	af/acre	0.00	af/acre
OS/RC	Dry Creek	0.50	af/acre	0.00	af/acre
Schools					
	K-8, High School, Community College	1.80	af/acre	1.80	af/acre
Public					
P	Transit	0.50	af/acre	1.80	af/acre
P	Public Facilities (public)	0.50	af/acre	1.80	af/acre
P	Public Facilities (private)	0.50	af/acre	1.80	af/acre

(a) Table 5 of the 2006 WSV of SPII.

(b) Table 3-5 of the 2020 PWSMPU. Unit demand factors were updated in MHCSD's 2016 PWSMPU and used in MHCSD's 2020 PWSMPU.

(c) 2006 WSV accounted for mixed use, town center, and bonus unit dwelling units through the land based unit water demands.

Table 3. Comparison of Annual Water Demand

Land Use		2006 SPII WSV[a]				Proposed SPII Amendments[b]			Water Demand Comparison
		Gross Land Use, acre	Expected Dwelling Units	Annual Water Demand (2006 Factors), AF	Annual Water Demand (2016 Factors), AF[c]	Gross Land Use, acre	Expected Dwelling Units	Annual Water Demand (2016 Factors), AF	2006 WSV vs. Proposed SPII Amendments, AF
Residential									
RVL	Residential/Very Low	2.8	6	3.6	3.9	9.1	18	11.7	7.8
RL	Residential/Low	702.4	3,161	1,404.8	1,543.8	767.0	3,451	1,685.4	141.6
RM	Residential/Medium	616.5	3,699	1,541.3	1,603.5	492.5	2,955	1,281.0	-322.5
RMH	Residential/Medium High	96.6	1,353	289.8	300.1	138.3	1,936	429.4	129.3
RH	Residential/High	27.6	552	96.6	96.5	21.2	424	74.1	-22.4
MX	Mixed Use (Dwelling Units Only)	--	200	n/a[c]	34.9	--	200	34.9	0.0
Additional & Bonus Units									
	Additional Units (Town Center)	--	240	n/a[c]	41.9	--	240	41.9	0.0
	Bonus Units	--	90	n/a[c]	15.7	--	90	15.7	0.0
Commercial									
CN	Neighborhood	6.0	--	7.8	11.8	6.3	--	12.3	0.6
CC	Community	81.5	--	106.0	159.8	79.6	--	156.0	-3.7
CG	General	29.2	--	38.0	57.2	31.5	--	61.7	4.5
CO	Office	4.0	--	5.2	7.8	3.8	--	7.4	-0.4
CR	Golf Course	186.8	--	747.2	289.5	179.5	--	278.2	-11.3
CR	Recreation	15.0	--	19.5	23.3	35.7	--	55.3	32.1
MX	Mixed Use	53.1	--	106.2	104.1	18.4	--	36.1	-68.0
Industrial									
IL	Limited Industrial	6.4	--	8.3	11.5	5.9	--	10.6	-0.9
Open Space									
NP	Neighborhood Park	35.0	--	140.0	108.5	35.3	--	109.4	0.9
CP	MH Creek Community Park	31.7	--	15.9	47.6	32.8	--	49.2	1.7
CP	Community Parks	56.5	--	226.0	175.2	51.3	--	159.0	-16.1
RP	Regional Park	82.0	--	41.0	123.0	88.2	--	132.3	9.3
OS/O	Lakes	100.0	--	365.0	386.0	95.6	--	369.0	-17.0
OS/O	Water Quality Basin & Detention Basin	12.7	--	0.0	12.7	17.0	--	17.0	4.3
OS/O	Other Open Space[d]	165.4	--	165.4	165.4	165.4	--	165.4	0.0
OS/RC	Wetland / Rescource Conservation	16.6	--	0.0	0.0	17.2	--	0.0	0.0
OS/RC	Dry Creek	18.7	--	9.4	0.0	13.0	--	0.0	0.0
Schools									
	K-8, High School, Community College	80.0	--	144.0	144.0	96.0	--	172.8	28.8
Public									
P	Transit	5.0	--	2.5	9.0	5.0	--	9.0	0.0
P	Public Facilities (public)	6.5	--	3.3	11.7	6.0	--	10.8	-0.9
P	Public Facilities (private)	10.0	--	5.0	18.0	27.0	--	48.6	30.6
	Total:	**2,448.0**	**9,301**	**5,491.6**	**5,506.3**	**2,438.6**	**9,314**	**5,434.5**	**-71.7**

(a) Land Use Table 5 of the 2006 WSV of SPII.

(b) 2006 WSV accounted for mixed use, town center, and bonus unit dwelling units through the land based unit water demands.

(c) 2016 updated water demand factors were used for MHCSD's 2020 PWSMPU.

(d) Proposed SPII amendment acreage and dwelling units by land use provided by Resmark.

(d) Assumed the WSV Public land use "Arterial Street ROW" to apply to PWSMPU Land Use Category "Other Open Space". Acreage was calculated in 2006 from proposed maps, and is not specified in SPII or the proposed amendments. For the purpose of this analysis, other open space was assumed to remain constant in the proposed amendments.

Water Supply Reliability

This section compares the updated water demands for the updated SPII, which includes the proposed amendments, to MHCSD's projected supply at buildout. MHCSD's 2020 PWSMPU includes water demand projections for SPII, as currently approved by the County. These water demands are included in the Administrative Draft MHCSD 2020 Urban Water Management Plan (UWMP). SPII would be served by purchased water from the Byron Bethany Irrigation District (BBID), and Old River surface water obtained through riparian water rights.

CONCLUSION

The proposed land use amendments to SPII will have no adverse impact on the total annual water demand at buildout of SPII. The results of this TM indicate that the proposed amendments would slightly reduce overall water demands for SPII. Updates to the previously prepared and approved SB 610 WSA and SB 221 WSV are not required. Further, the SPII water demands are included in the Administrative Draft MHCSD 2020 UWMP and the water supply reliability assessment conducted for the 2020 UWMP shows that sufficient water supply is available under all hydrologic conditions.

Attachment A

SPII Project Description

Proposed MHD Land Use Changes

STEP 1: NEIGHBORHOODS I&L SUBSTANTIAL COMPLIANCE DESCRIPTION, ANALYSIS & FINDINGS

Background

Neighborhood I tentative subdivision map (Application # PA-0600327) was approved by the Board of Supervisors on September 11, 2007 and subsequently extended in 2019 for 1,127 single-family lots and the following land uses:

- 15.4 acres of RMH (residential medium high)
- 124-acre public golf course, subsequently amended to open space (commercial recreation)
- 4.9 acres neighborhood park
- 46.4 acres of regional park and open space

Neighborhood L tentative subdivision map (Application # PA-1000267) was approved by the Board of Supervisors on December 1, 2011 for 764 market rate single family lots and the following land uses:

- 33 acres RMH (residential medium high)
- 6.2 acres RH (residential high)
- 6 acres community commercial
- 1.5 acres neighborhood commercial
- 5.9 acres Limited Industrial
- 5 acres neighborhood park
- 16-acres K-8 School
- 100.2 acres regional and creek parks.
- 47.3 acres of lakes
- 2 acres Transit.

Subsequent to the original approval of the tentative maps, there has been significant changes in the housing market, especially for age-restricted and age-targeted housing product. The earlier community models which involved large, single amenity communities (such as Del Webb and their golf-oriented design), no longer meet the current market needs. MHD is thus seeking slight modifications to the approved tentative maps to better respond to current market demands.

Request

Mountain House Developers, LLC (MHD) hereby requests that San Joaquin County find the attached proposed Final Maps for Neighborhoods I and L in substantial compliance with the approved Tentative Subdivision Maps. The proposed Final Map total number of single-family lots for Neighborhood I (1,127 single-family dwelling units) is the same as the approved tentative subdivision maps. The proposed Final Map total number of single-family lots for Neighborhood L (764 single-family dwelling units) is the same as the approved tentative subdivision maps.

More specifically, the proposed final map for Neighborhood I varies from the approved Tentative Subdivision Map by:

a. Creating sub-neighborhoods with similar lot sizes as opposed to mixing lot sizes within each neighborhood.
b. Modifying the overall street and neighborhood design to be more efficient.

Figure 1 – Neighborhood I: Approved Tentative Map versus Proposed Final Map

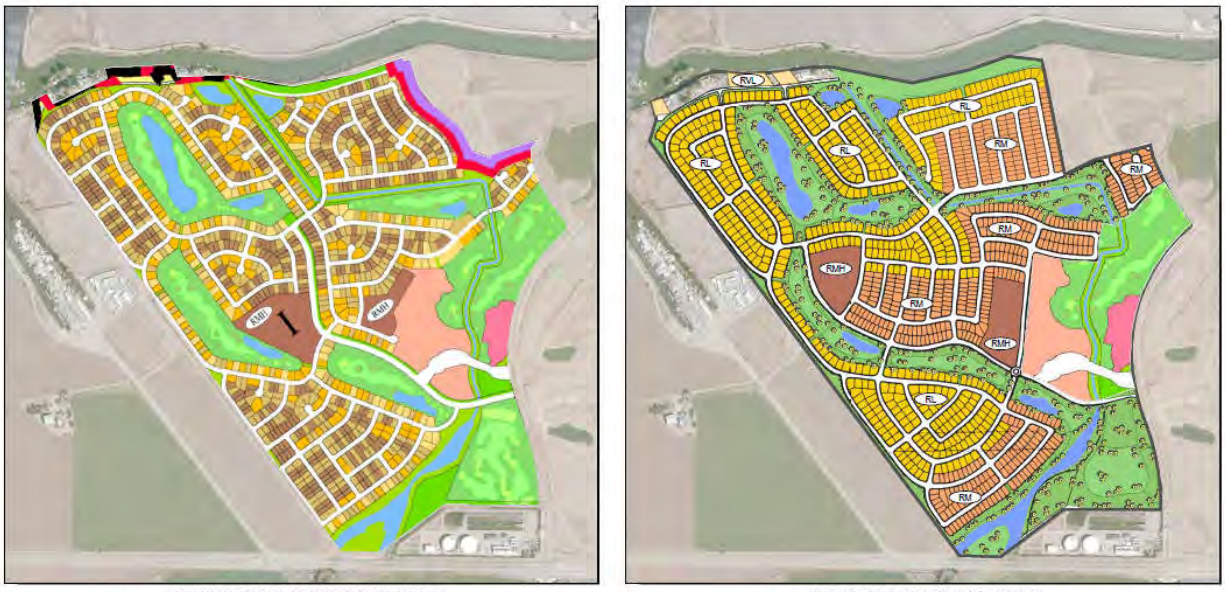


Table 1: Neighborhood I Lot Summary

	Approved Tentative Map		**Proposed Final Map**		**Difference**	
Land Use	**Acres**	**# of Units**	**Acres**	**# of Units**	**Acres**	**# of Units**
Single-Family	241.5	1,127	241.5	1,127	0	0
Subtotal	**241.5**	**1,127**	**241.5**	**1,127**	**0**	**0**
Multi-family						
Subtotal	**15.4**	**216**	**15.4**	**216**	**0**	**0**
Commercial Recreation	124		124		0	
Neighborhood Park	4.9		5		0.1	
School	0		0		16	
Regional Park	4.9		4.9		0	
Open Space	41.5		41.5		0	
Subtotal	**175.3**		**175.3**			
TOTAL	**432.2**	**1,343**	**432.1**	**1,343**	**0**	**0**

Modification for Neighborhood L Tentative Subdivision Map involves:

a. Modify land plan for Neighborhood L to move the school site to the center of Neighborhood L and improve lake performance by shortening and widening lake fingers.
b. Modifying the overall street and neighborhood design to be more efficient
c. Providing a trail corridor along the southern boundary to accommodate the proposed bicycle master plan as well as accommodate existing and future underground utility lines.

Figure 2 – Neighborhood L: Approved Tentative Map versus Proposed Final Map

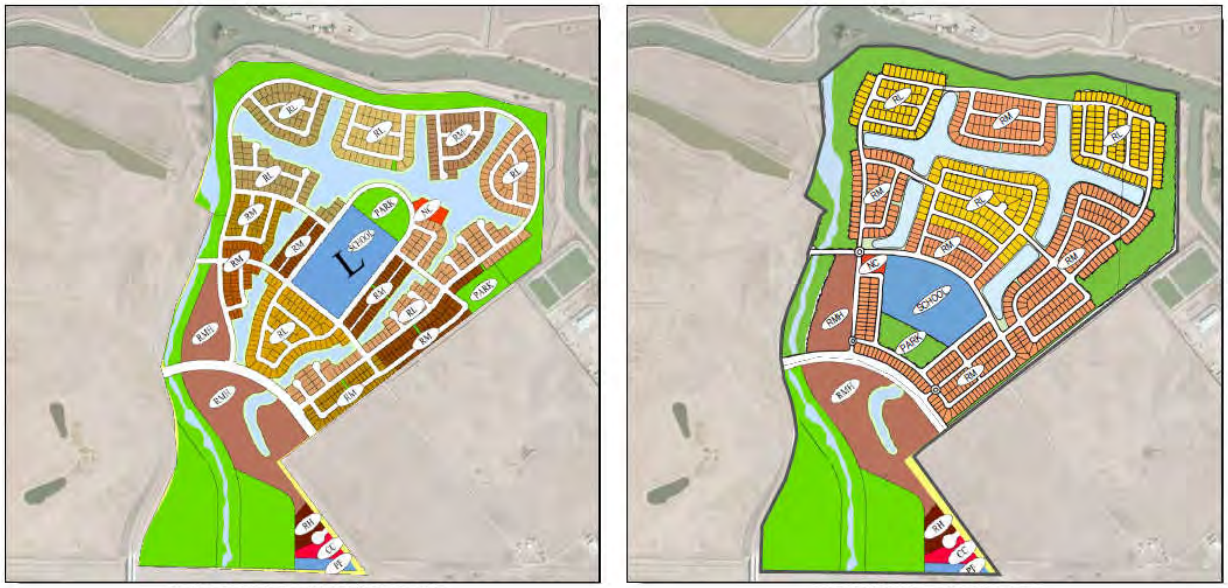


Table 2: Neighborhood L Lot Summary

	Approved Tentative Map		Proposed Final Map		Difference	
Land Use	**Acres**	**# Of Units**	**Acres**	**# Of Units**	**Acres**	**# Of Units**
Single-Family	153.1	764	153.1	764	0	0
Subtotal	**153.1**	**764**	**153.1**	**764**	**0**	**0**
RMH	33	462	33	462	0	0
RH	6.2	124	6.2	124	0	0
Subtotal	**39.2**	**586**	**39.2**	**586**	**0**	**0**
Neighborhood Commercial	1.5		1.2		-0.3	
Community Commercial	6		6		0	
Industrial	5.9		5.9		0	
Neighborhood Park	5		5.3		0.3	
K-8 School	16		16		0	
Other Parks	100.2		109.5		9.3	
Lakes	47.3		38		-9.3	
Transit	2					
Subtotal	**183.9**		**179.4**		**0**	
TOTAL	**376.2**	**1,350**	**376.2**	**1,350**	**0**	**0**

Analysis and Final Map Conformity Findings

The proposed Neighborhoods I and L Final Maps substantially conform to the approved Tentative Maps based on the following facts and findings:

- The overall acreage is the same for the proposed Final Maps as it is for the approved Tentative Maps.
- Total number of single-family lots is the same in the proposed Final Maps as the approved Tentative Maps.
- Total number of multifamily units is the same in the proposed Final Maps as the approved Tentative Maps.
- The location and acreages for land uses are substantially the same.
- The proposed final maps have the same land uses as the Tentative Maps.
- The proposed circulation of the Final Map substantially conforms to the Tentative Map. There are no changes to the main arterials of Great Valley Parkway, Central Parkway and Mountain House Parkway.
- No changes will occur in Agriculture and Forest Resources. Location and footprint of development will be the same as the original project.
- There will be no changes in Air Quality impacts. Land use intensity and location will not change; traffic will not change. Therefore, there will be no additional impacts and mitigation beyond those originally identified.
- There will be no changes to Biological Resources. Location and footprint of development will be the same as the original project.
- There will be no changes in Cultural Resources. Location and footprint of development will be the same as the original project.
- There will be no changes in Geology and Soils. Location and footprint of development will be the same as the original project.
- There will be no changes in Greenhouse Gas Emissions. Land use intensity and location will not change; traffic will not change. Therefore, there will be no additional impacts and mitigation beyond those originally identified.
- There will be no changes in Hazardous Materials. Location and footprint of development will be the same as the original project.

- There will be no changes in Hydrology and Water Quality. Location and footprint of development will be the same as the original project. Project will comply with all new applicable regulations.

- There will be no changes in Land Use & Planning impacts. Total dwelling units are the same and within the required Master Plan and Specific Plan II densities.

- There will be no changes in Mineral Resources. Location and footprint of development will be the same as the original project.

- There will be no changes in Noise impacts.

- There will be no changes in Population & Housing impacts. Dwelling units and projected populations the are the same and/or are within the required Master Plan and Specific Plan II densities.

- There will be no changes in Library impacts. Dwelling units and projected populations are the same and/or are within the required Master Plan and Specific Plan II densities. Public facilities were planned and sized per the Master Plan and Specific Plan II unit counts.

- There will be no changes in Fire impacts. Dwelling units and projected populations the are the same and/or are within the required Master Plan and Specific Plan II densities. Public facilities and services were planned and sized per the Master Plan and Specific Plan II unit counts. Additionally, new requirements for fire sprinklers provides additional mitigation.

- There will be no changes in Police impacts. Dwelling units and projected populations are the same and/or are within the required Master Plan and Specific Plan II densities. Public facilities and services were planned and sized per the Master Plan and Specific Plan II unit counts.

- There will be no changes in Parks & Recreation impacts. Dwelling units and projected populations are the same and/or are within the required Master Plan and Specific Plan II densities. Public facilities and services were planned and sized per the Master Plan and Specific Plan II unit counts.

- There will be no changes in Traffic impacts. Dwelling units and projected populations are the same and/or are within the required Master Plan and Specific Plan II densities.

- There will be no changes in Wastewater impacts. Dwelling units and projected populations are the same and/or are within the required Master Plan and Specific Plan II densities. Public

facilities and services were planned and sized per the Master Plan and Specific Plan II unit counts.

- There will be no changes in Water impacts. Dwelling units and projected populations are the same and/or are within the required Master Plan and Specific Plan II densities. Public facilities and services were planned and sized per the Master Plan and Specific Plan II unit counts.

- There will be no changes in Storm water impacts. Location and footprint of development will be the same as the original project.

- There will be no changes in Solid Waste impacts. Dwelling units and projected populations are the same and/or are within the required Master Plan and Specific Plan II densities.

- The jobs/housing balance in the proposed Final Map substantially conforms to the approved Tentative Maps.

In conclusion, the proposed Neighborhoods I and L Final Maps substantially conform to the approved Tentative Maps, and we hereby request the county to make said determination.

Attachments

Tables

1. Existing Master Plan Maximum Units versus current approved/proposed dwelling units

Figures

1. Neighborhood I Substantial Compliance Exhibits
2. Neighborhood L Substantial Compliance Exhibits

Master Plan/SP II Maximum Units versus current approved/proposed units

This table compares the proposed final maps to the Master Plan, Specific Plan II and approved Tentative Maps for Neighborhoods I and L.

MASTER PLAN V. SP II COMPARISON						
Neighborhood	Master Plan Maximum Units	SP II units	Difference	MP Population	SP II Population	Difference
I	1,554	1,554	-	4,040	4,040	-
L	1,456	1,456	-	3,786	3,786	-
Total	**3,010**	**3,010**	-	**7,826**	**7,826**	-
MASTER PLAN V. APPROVED TMAP COMPARISON						
Neighborhood	Master Plan Maximum Units	TMAP Units	Difference	MP Population	TMap Population	Difference
I	1,554	1,343	(211)	2,797	2,417	(380)
L	1,456	1,350	(106)	3,786	3,510	(276)
Total	**3,010**	**2,693**	**(317)**	**6,583**	**5,927**	**(655)**
Assumes 1.8 persons per household for active adults & 2.6 for family housing						
MASTER PLAN V. PROPOSED FINAL MAP COMPARISON						
Neighborhood	Master Plan Maximum Units	Final Map Units	Difference	MP Population	Final Map Pop	Difference
I	1,554	1,343	(211)	4,040	3,492	(549)
L	1,456	1,350	(106)	3,786	3,510	(276)
Total	**3,010**	**2,693**	**(317)**	**7,826**	**7,002**	**(824)**
SPECIFIC PLAN II V. PROPOSED FINAL MAP COMPARISON						
Neighborhood	Specific Plan Maximum units	Final Map Units	Difference	MP Population	Final Map Pop	Difference
I	1,554	1,343	(211)	4,040	3,492	(549)
L	1,456	1,350	(106)	3,786	3,510	(276)
Total	**3,010**	**2,693**	**(317)**	**7,826**	**7,002**	**(824)**
APPROVED TMAP V. PROPOSED FINAL MAP COMPARISON						
Neighborhood	Approved Tmap Units	Final Map Units	Difference	Approved Tmap Pop	Final Map Pop	Difference
I	1,343	1,343	-	2,417	3,492	1,074
L	1,350	1,350	-	3,510	3,510	-
Total	**2,693**	**2,693**	-	**5,927**	**7,002**	**1,074**

Figure 1: Neighborhood I Substantial Conformance Exhibit

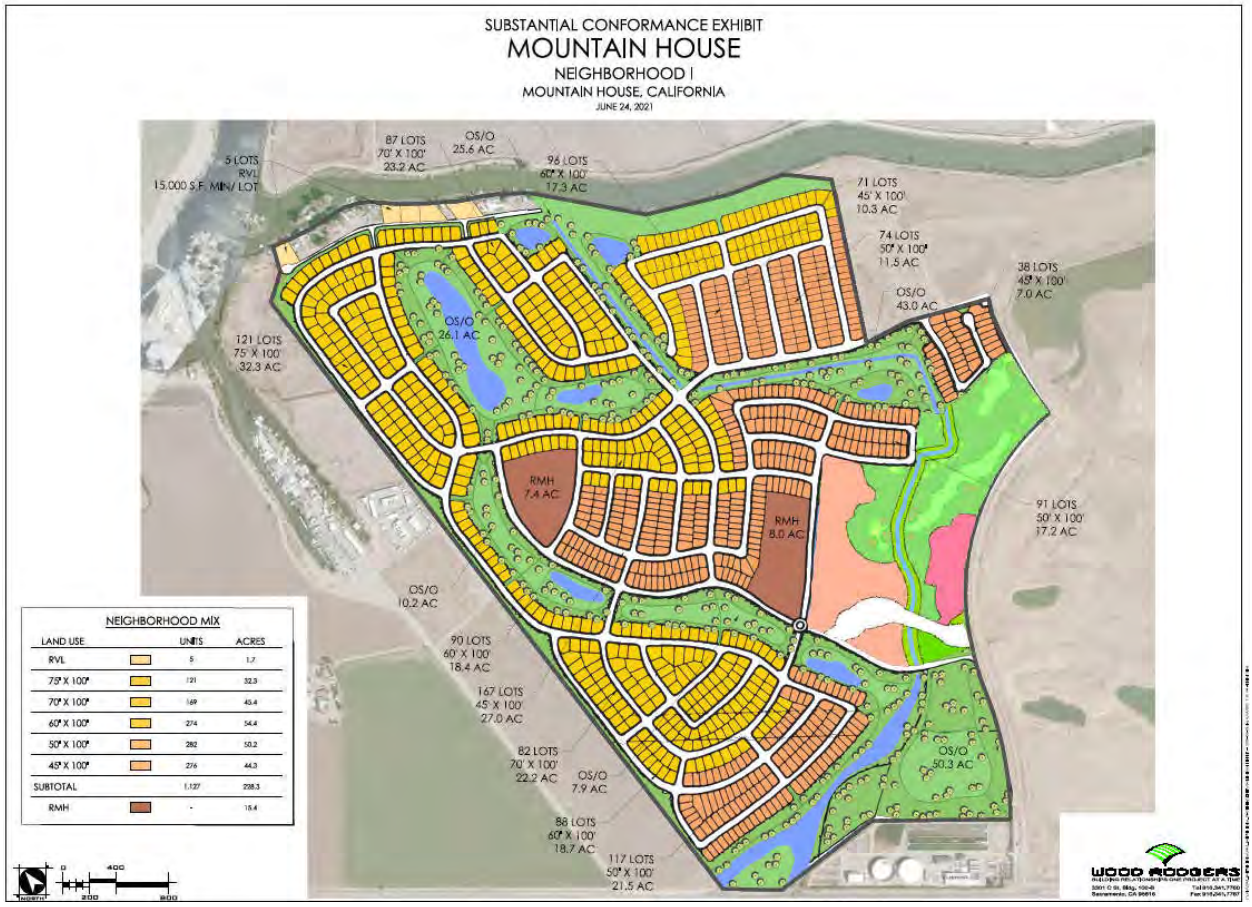
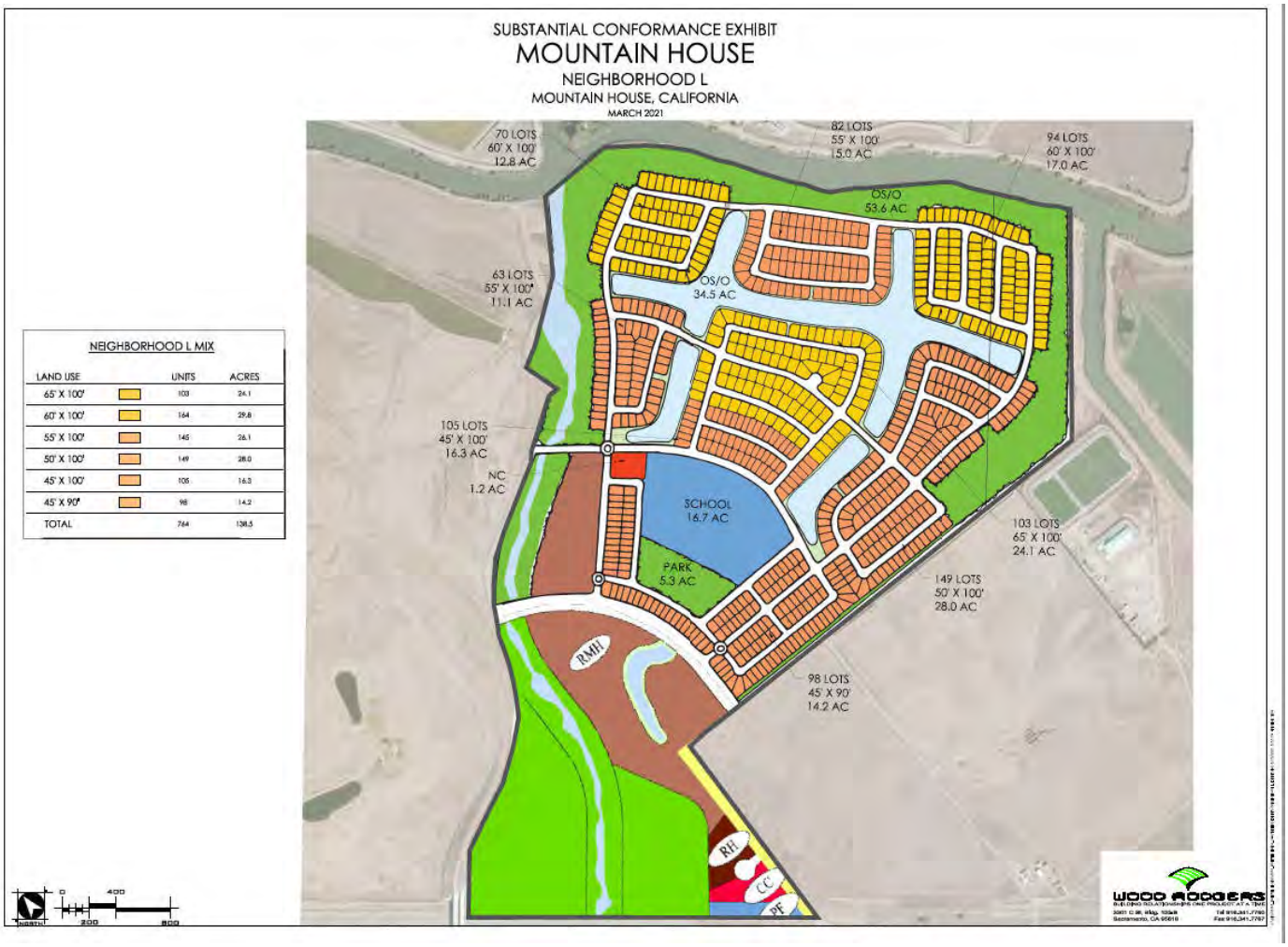


Figure 2: Neighborhood L Substantial Conformance Exhibit



STEP 2

2A. REVISIONS TO CONDITIONS OF APPROVAL FOR NEIGHBORHOOD I TENTATIVE SUBDIVISION MAPS

MHD is also requesting County staff to eliminate the requirement that Neighborhood I be restricted to "active-adult" residents and thereby prohibit school-age children from living within said area. This will require amendments to the Master Plan, Specific Plan II, and revisions to the conditions of approval for Neighborhood I.

MHD is proposing a 16-acre K-8 School site and working with the LUSD to accommodate students that will be generated because of this change.

2.B AMENDMENTS TO MASTER PLAN AND SPECIFIC PLAN II

In addition to the substantial conformance finding for Neighborhood I and L, MHD is requesting amendments to the Master Plan and Specific Plan II as described below and shown in Figures 1 through 7 below.

The Master Plan was approved for a maximum of 16,923 dwelling units. To date, the approved tentative and/or final maps plus units allocated to undeveloped parcels will yield a total of 15,319 dwelling units which is 1,604 dwelling units below the Master Plan maximum units envisioned (see Table 1, attached, for details).

Town Center

1. Redesignate 5.2 acres of Public Facility (PF-Private) to RMH with a potential yield of 73 residential dwelling units.
2. Relocate 1.8 acres of PF (Public Facility) earmarked for future police station from Vivaldi Street to the southwest corner of Raphael Street and Byron Road.
3. Redesignate 4.10 acres of MX (Mixed Use) land uses to Community Park.
4. Eliminate a segment of Vivaldi Street (from Raphael Street to Providence) and integrate that segment into Community Park. This may also require a right-of-way vacation by the MHCSD.

Neighborhood H

1. Redesignate 11.5 acres from RH (Residential High, Senior) to RMH (Residential Medium High) with a potential yield of 161 dwelling units.
2. Eliminate Senior designation for 5-acre RMH parcel with a yield of 70 dwelling units.

Neighborhood I

1. Eliminate Active-adult designation from entire neighborhood by amending the Master Plan, Specific Plan, and the approved Tentative Subdivision Map
2. Redesignate 16 acres from Commercial Recreation OS to K-8 School
3. Redesignate 5 acres from Commercial Recreation OS to Neighborhood Park

Table 3: Neighborhood I Land Use Summary

	Existing MP/SP II		Proposed MP/SP II		Difference	
Land Use	**Acres**	**# of Units**	**Acres**	**# of Units**	**Acres**	**# of Units**
Single-Family	241.5	1,211	241.5	1,211	0	0
Subtotal	**241.5**	**1,211**	**241.5**	**1,211**	**0**	**0**
RMH	15.4	216	15.4	216	0	0
Subtotal	**15.4**	**216**	**15.4**	**216**	**0**	**0**
Commercial Recreation	124		107.9		-16.1	
Neighborhood Park	4.9		5		0.1	
School	0		16		16	
Regional Park	4.9		4.9		0	
Open Space	41.5		41.5		0	
Subtotal	**175.3**		**175.4**			
TOTAL	**432.2**	**1,427**	**432.2**	**1,427**	**0**	**0**

Neighborhood J

Redesignate approximately 22 acres from Commercial Recreation OS to PF (Public Facilities - Community Park). This is the relocation of North Community Park from its current location east of Central Parkway and north of Byron Road.

Neighborhood L

1. Redesignate 22 acres from Community Park to PF (Public Facilities-Private).
2. Relocate K-8 School approximately 1,000 feet south of existing location.
3. Relocate Neighborhood Park approximately 1,300 feet south of existing location.
4. Relocate 1-acre Neighborhood Commercial site approximately 1,300 feet south-east of existing location.

Table 4: Neighborhood L Land Use

	Existing MP/SP II		Proposed MP/SP II		Difference	
Land Use	**Acres**	**# of Units**	**Acres**	**# of Units**	**Acres**	**# of Units**
Single-Family	153.1	762	153.1	762	0	0
Subtotal	**153.1**	**762**	**153.1**	**762**	**0**	**0**
RMH	33	462	33	462	0	0
RH	6.2	124	6.2	124	0	0
Subtotal	**39.2**	**586**	**39.2**	**586**	**0**	**0**
Neighborhood Commercial	1.5		1.5		0	
Community Commercial	6		6		0	
Industrial	5.9		5.9		0	
Community Park	22		0		-22	
Neighborhood Park	5		5		5	
K-8 School	16		16		0	
Other Parks	100.2		100.2		0	
Lakes	47.3		47.3		0	
Transit	2		2		0	
Public (Private)			22		22	
Subtotal	**183.9**		**183.9**		**0**	
TOTAL	**376.2**	**1,348**	**376.2**	**1,348**	**0**	**0**

Attachments:

1. Response to County/MHCSD Comments on preliminary submittal

Tables

1. Mountain House Dwelling Unit Tracking
2. Entitlement Application Summary
3. Jobs Summary
4. School Generation Summary Table

Figures

1. Neighborhood H Master Plan/Specific Plan Amendments
2. Town Center Master Plan/Specific Plan Amendments
3. Neighborhood I Existing versus Proposed Master Plan/Specific Plan
4. Neighborhood I Master Plan/Specific Plan Amendments
5. Neighborhood J Master Plan/Specific Plan Amendments
6. Neighborhood L Existing versus Proposed Master Plan/Specific Plan
7. Neighborhood L Master Plan/Specific Plan Amendments

NORTH OF BYRON & TOWN CENTER ENTITLEMENT UPDATE - RESPONSE TO COMMENTS FROM SAN JOAQUIN COUNTY

	Comments	Response
1	Increase in additional dwelling units warrants new Tentative Subdivision Maps, as opposed to a "Substantial Conformance finding" being requested by MHD	Substantial conformance exhibits for Tentative Maps for Neighborhoods I and L have been revised and scaled back significantly. Number of dwelling units no longer exceed the approved units for the Tentative subdivision maps. Additionally, the footprints and boundaries for the revised maps are consistent with the approved Tentative subdivision maps. Lastly, the backbone circulation (arterials and collectors) has been retained.
2	Jobs Housing balance issues – proposed MX to RMH will negatively affect employment projections and undermine job-housing balance objectives of the Master Plan	MX rezoning have been removed from the application, except for 4.10 acres rezoning to Park Rezoning of CUNHA property from Light Industrial to High-Density Residential have been dropped from the entitlement applications.
3	Transit Center is a mitigation for TDM	Transit Center rezoning has been dropped from the applications.
4	SB 610 and 221 water supply analysis will be required	MHD has reviewed the SB 221 verification for SP II and determined that there will be adequate water supply for the proposed amendments. This is because the total dwelling units proposed are less than the original dwelling units analyzed in the SB 221 verification
5	Is fire station location next to proposed single-family ok	MHD wants to retain fire station at existing location. Masonry wall will be installed between fire station and single-family residences. We do not anticipate land use conflicts. Sirens are generally activated away from the station.

6	Need to comply with Housing Accountability Act – no net loss of high-density housing	Application has been modified to ensure no net loss of high-density housing
7	If portions of MX designations are rezoned to RMH, where will the 440 RH bonus units go?	MX rezoning have been removed from the application, except for 4.10 acres rezoning to Park. The 440 RH bonus units will remain with the MX designations in the Town Center.
8	Examine interface of Neighborhood I with existing homes along Kelso Road	Second point of access has been provided. Empty lots north of Neighborhood I are owned by MHD
9	PLEP analysis will be required	Noted. PLEP calculations will be prepared and submitted as part of formal applications for Final Maps Substantial Conformance Determination
10	Verify acreage for Neighborhood Commercial in Neighborhood I	Verified. NC is 1 acre
11	Verify dwelling unit count for RMH/RH	Verified and confirmed
12	Add acreages to Tables	Done
13	County does not support amendments to CUNHA site due to job losses	Proposed amendments to CUNHA have been dropped from application.

Table 1: Mountain House Dwelling Unit Tracking

MH UNIT TRACKING
FINAL TENT MAP COMPARISON
WITH COMMUNITY APPROVALS

Neighborhood	Master Plan Max units	Approved TM and Final Map Units	Difference
A/B			
Single family (RL/RM)	1837	1627	-210
Multi-family (RMH/RH)	140	140	0
Total	**1977**	**1767**	**-210**
C			
Single family (RL/RM)	1122	1014	-108
Multi-family (RMH/RH)	267	228	-39
Total	**1389**	**1242**	**-147**
D			
Single family (RL/RM)	713	630	-83
Multi-family (RMH/RH)	190	188	-2
Total	**903**	**818**	**-85**
D-East			
Single family (RL/RM)	354	384	30
Multi-family (RMH/RH)	139	93	-46
Total	**493**	**477**	**-16**
E			
Single family (RL/RM)	1233	1040	-193
Multi-family (RMH/RH)	272	255	-17
Total	**1505**	**1295**	**-210**
F			
Single family (RL/RM)	1141	979	-162
Multi-family (RMH/RH)	480	480	0
Total	**1621**	**1459**	**-162**
G			
Single family (RL/RM)	1014	890	-124
Multi-family (RMH/RH)	312	312	0
Total	**1326**	**1202**	**-124**
H			
Single family (RL/RM)	1209	1078	-131
Multi-family (RMH/RH)	561	503	-58
Total	**1770**	**1581**	**-189**
I			
Single family (RL/RM)	1339	1127	-212
Multi-family (RMH/RH)	216	216	0
Total	**1555**	**1343**	**-212**
J			
Single family (RL/RM)	1017	956	-61
Multi-family (RMH/RH)	196	196	0
Total	**1213**	**1124**	**-89**
K			
Single family (RL/RM)	877	795	-82
Multi-family (RMH/RH)	398	398	0
Total	**1275**	**1193**	**-82**
L			
Single family (RL/RM)	838	764	-74
Multi-family (RMH/RH)	618	586	-32
Total	**1,456**	**1,350**	**-106**
Town Center			
Mixed Use	200	200	0
Additional Units	240	240	0
Total	**440**	**440**	**0**
Single family (RL/RM)	**12,694**	**11,284**	**(1,410)**
Multi-family (RMH/RH)	**4,229**	**4,035**	**(194)**
Grand Total	**16,923**	**15,319**	**-1604**

Table 2: Entitlement Application Summary

		TOWN CENTER	NH H	NH I	NH J	NH K	NH L	TOTAL	
								Version 2	*Version 1*
1	Single-Family (RL, RM) Units							**0**	963
2	Multi-Family (RMH, RH) Units	73	-68					**5**	-77
3	Mixed Use (MX) Acres	-4.1						**-4.1**	-14.2
4	Community Park Acres	3.88			22.3		-22.3	**3.88**	4.67
5	Neighborhood Park							**0**	0
6	Public Acres	-5.22					22.3	**17.08**	-5.03
7	Right-of-way Acres	-0.76						**-0.76**	-0.76
8	K-8 School Acres			16				**16**	16

Table 3: Jobs Summary

LAND USE ENTITLEMENT JOBS ANALYSIS

6/4/2021

	TOWN CENTER	NH H	NH I	NH J	NH K	NH L	TOTAL	Jobs/Ac	CHANGE	
									Version 2	*Version 1*
Single-Family (RL, RM) Units						143	**143**			
Multi-Family (RMH, RH) Units	73	-68				-256	**-251**			
Mixed Use (MX) Acres	-4.08						**-4.08**	51	-208	**-724**
Community Park Acres	3.88			22.3		-22.3	**3.88**	0.2	1	**1**
Public Acres	-5.22						**-5.22**	5	-26	**-25**
Right-of-way Acres	-0.76						**-0.76**	0	0	**0**
K-8 School Acres			16				**16**	5	80	**80**
TOTAL									-153	**-668**

Table 4: School Generation Summary

MHD Entitlements - Student Generation

SINGLE-FAMILY				K-8	G9-12	
	Generation Rates		Additional Units	Additional Students	Additional Students	Total
	K-8	G9-12				
I	0.676	0.179	1127	762	202	964
Total			**1127**	**762**	**202**	**964**
MULTI-FAMILY						
	Generation Rates		Additional Units	Additional Students	Additional Students	Total
	K-8	G9-12				
H	0.338	0.0432	-68	-23	-3	-26
I	0.338	0.0432	216	73	9	82
TC	0.338	0.0432	73	25	3	28
Total			**221**	**75**	**10**	**84**
COMBINED			K-8		G9-12	
	Generation Rates		Additional Units	Additional Students	Additional Students	Total
	K-8	G9-12				
H	0.338	0.0432	-68	-23	-3	-26
I	0.338	0.0432	1343	835	211	1046
TC	0.338	0.0432	73	25	3	28
Total			**1348**	**837**	**211**	**1048**

Figure 1: Neighborhood H Proposed Master Plan/Specific Plan II Amendments

EXISTING MASTER PLAN/ SP II

PROPOSED MASTER PLAN/ SP II

Figure 2: Town Center Proposed Master Plan/Specific Plan II Amendments

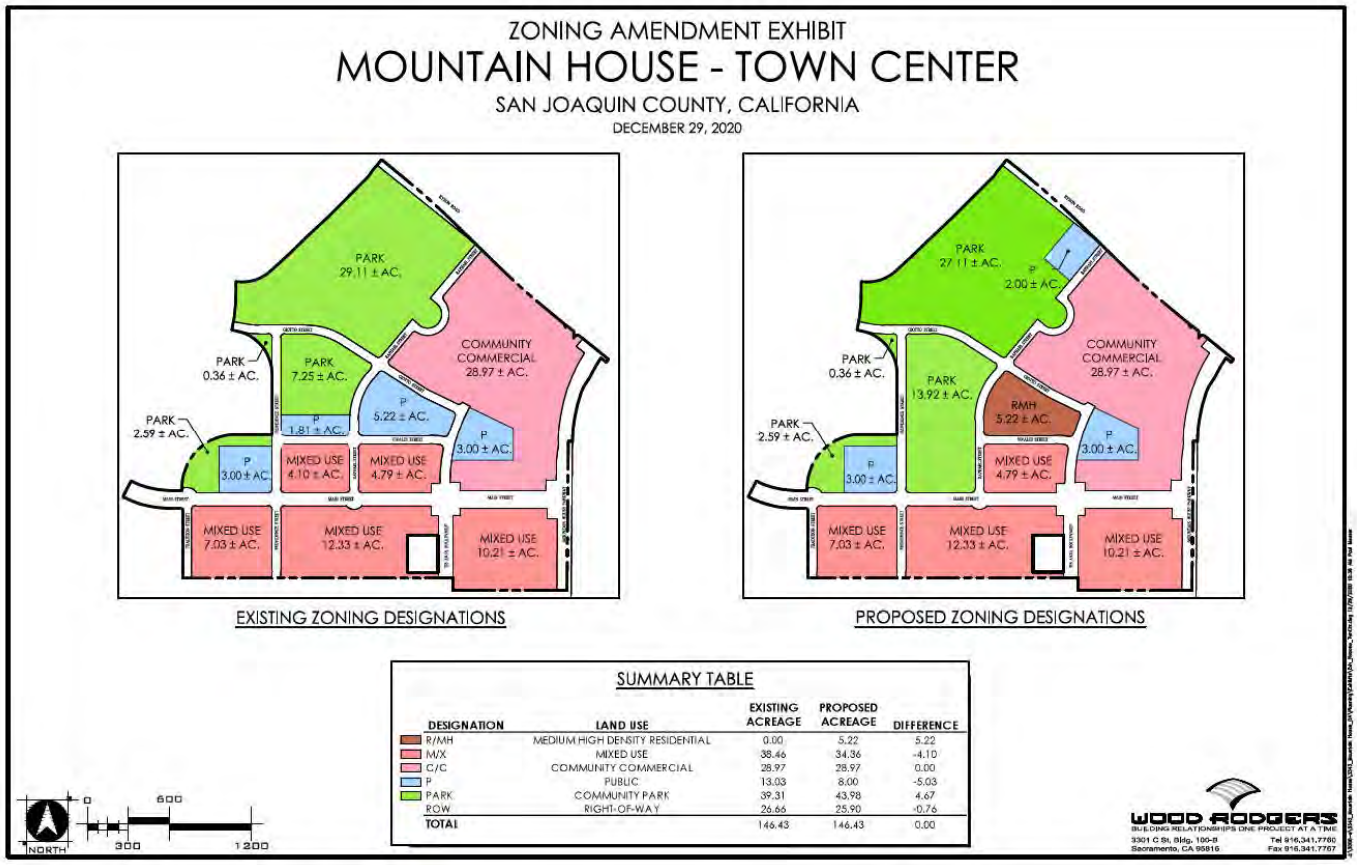
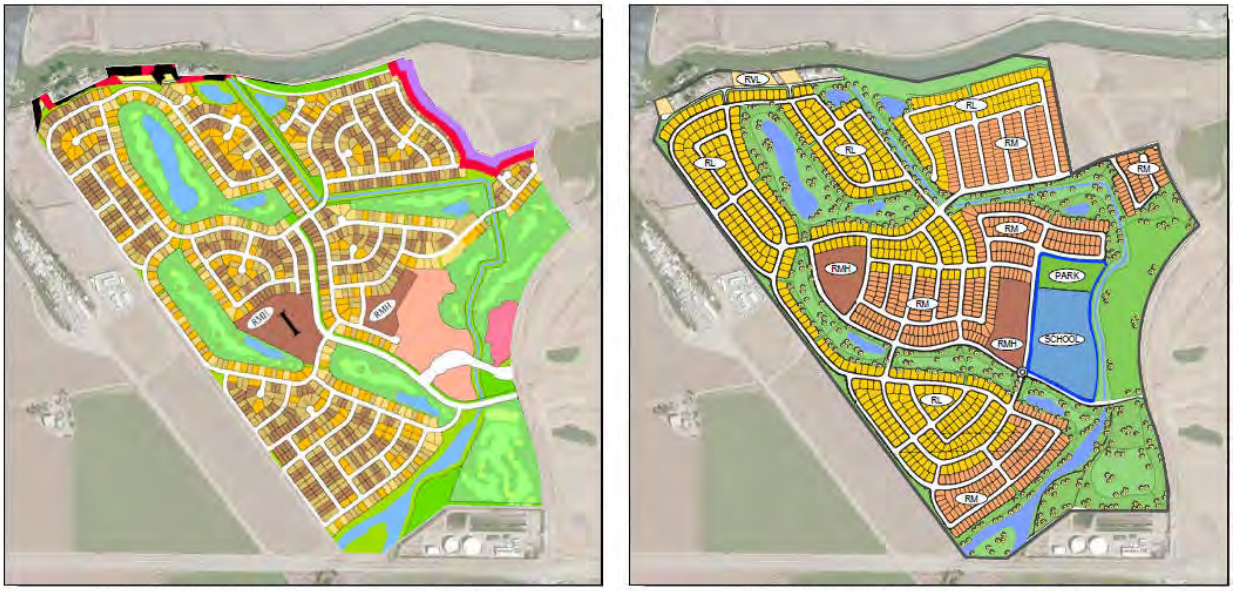


Figure 3: Neighborhood I Existing versus Proposed Master Plan/Specific Plan II



APPROVED SPECIFIC PLAN/MASTER PLAN

PROPOSED SPECIFIC PLAN/MASTER PLAN

Figure 4: Neighborhood I Proposed Master Plan/Specific Plan II Amendments

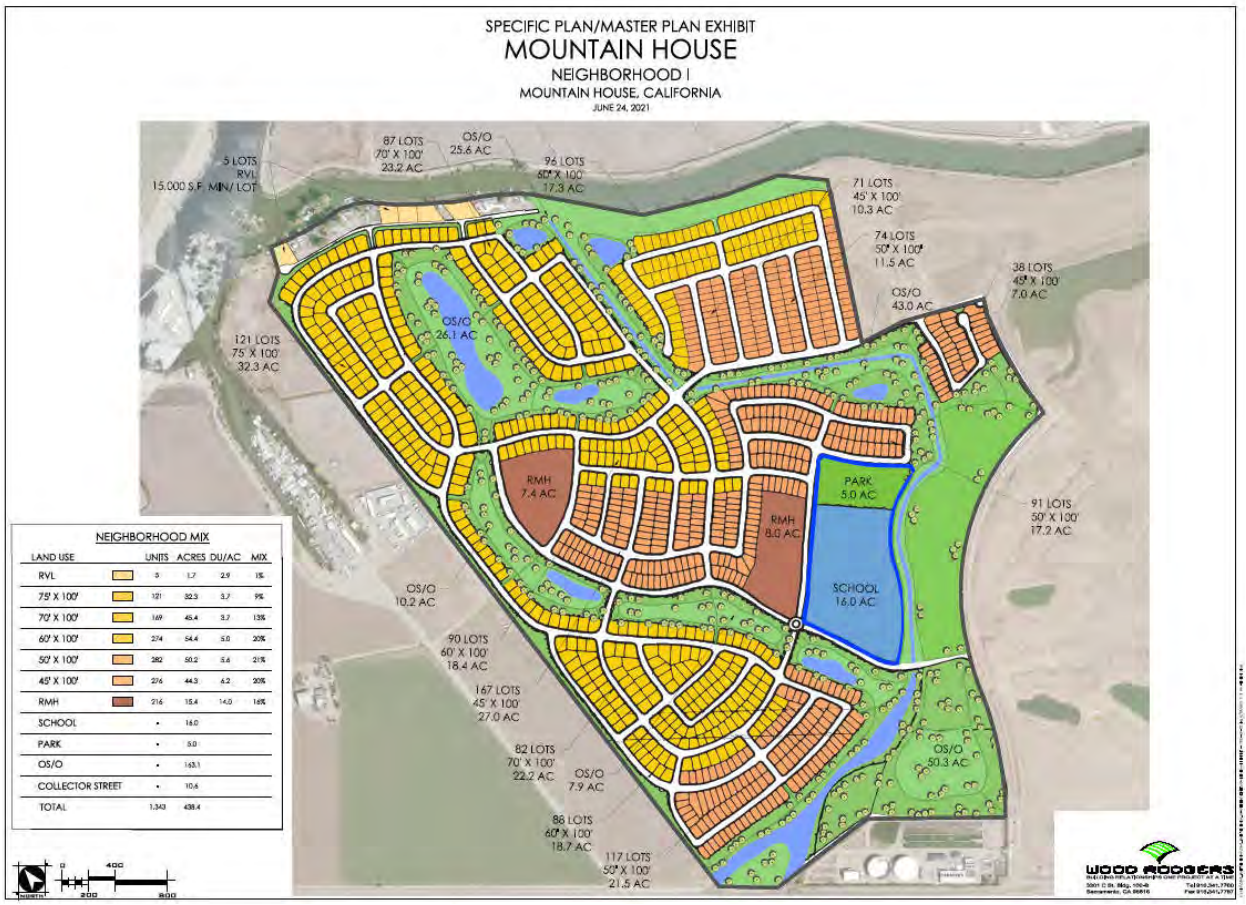


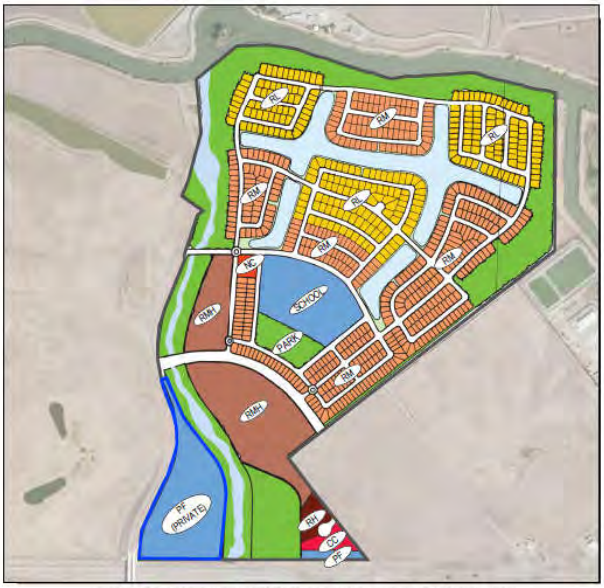
Figure 5: Neighborhood J Proposed Master Plan/Specific Plan II Amendments

EXISTING MASTER PLAN/ SP II

PROPOSED MASTER PLAN/ SP II

Figure 6: Neighborhood L Existing versus Proposed Master Plan/Specific Plan II

APPROVED SPECIFIC PLAN/ MASTER PLAN



PROPOSED SPECIFIC PLAN/ MASTER PLAN

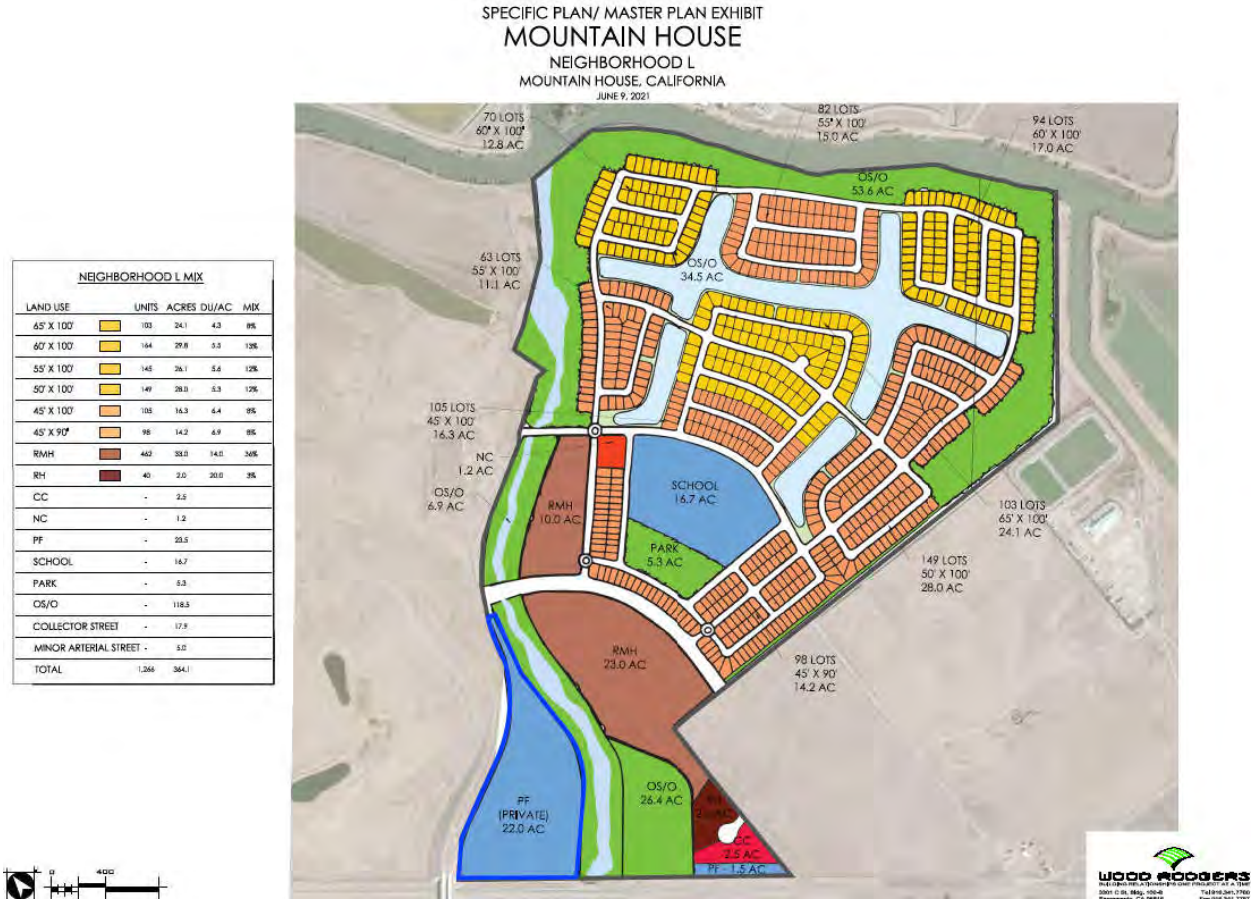



Figure 7: Neighborhood L Proposed Master Plan/Specific Plan II Amendments