

AIR QUALITY REPORT

Hueneme Road Widening Project



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County of Ventura, CA
07-VEN-Hueneme Road
VEN011202

September 2025



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07 – VEN–Hueneme Road
VEN011202

September 2025

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Acronyms and Abbreviations

Term	Definition
°F	Degrees Fahrenheit
µg/m ³	Micrograms per Meter Cubed
AADT	Average Annual Daily Traffic
AB	Assembly Bill
ACM	Asbestos-Containing Material
ADT	Average Daily Traffic
ARB	California Air Resources Board
CAAA	Clean Air Act Amendments
CAAQS	California Ambient Air Quality Standards
CAFE	Corporate Average Fuel Economy
Caltrans	California Department of Transportation
CCAA	California Clean Air Act
CEQ	Council on Environmental Quality
CEQA	California Environmental Quality Act
CFR	Code of Federal Regulations
CH ₄	Methane
CO	Carbon Monoxide
CO Protocol	Transportation Project-Level Carbon Monoxide Protocol
CO ₂	Carbon Dioxide
CO ₂ e	Carbon Dioxide Equivalent
County	Ventura County
DPM	Diesel Particulate Matter
EO	Executive Order
FCAA	Federal Clean Air Act
FHWA	Federal Highway Administration
FTA	Federal Transit Administration
FTIP	Federal Transportation Improvement Program
GHG	Greenhouse Gas
GWP	Global Warming Potential
H ₂ S	Hydrogen Sulfide
HEI	Health Effects Institute
HEPE	Office of Project Development and Environmental Review
HEPN	Office of Natural Environment
LOS	Level of Service
MMTCO ₂ e	Million Metric Tons Carbon Dioxide Equivalent
MOVES	Motor Vehicle Emission Simulator
mph	Miles per Hour
MPO	Metropolitan Planning Organization
MSAT	Mobile Source Air Toxics
MTCO ₂ e	Metric Tons Carbon Dioxide Equivalent

N ₂ O	Nitrous Oxide
NAAQS	National Ambient Air Quality Standards
NEPA	National Environmental Policy Act
NHTSA	National Highway Traffic Safety Administration
NO ₂	Nitrogen Dioxide
NOA	Naturally-Occurring Asbestos
NO _x	Nitrogen Oxide
O ₃	Ozone
Pb	Lead
PM	Particulate Matter
PM ₁₀	Particulate Matter less than 10 Microns in Diameter
PM _{2.5}	Particulate Matter less than 2.5 Microns in Diameter
POAQC	Project of Air Quality Concern
ppb	Parts per billion
ppm	Parts per million
project	Hueneme Road Widening Project
ROGs	Reactive Organic Gases
ROW	Right-of-way
RTP	Regional Transportation Plan
SCAG	Southern California Associated Governments
SCCAB	South Central Coast Air Basin
SCE	Southern California Edison
SCS	Sustainable Communities Strategy
SIP	State Implementation Plan
SMAQMD	Sacramento Metropolitan Air Quality Management District
SO ₂	Sulfur dioxide
TACs	Toxic Air Contaminants
TCE	Temporary Construction Easements
TIS	Traffic Impact Study
U.S. EPA	United States Environmental Protection Agency
USC	United States Code
USDOT	United States Department of Transportation
v/l/h	vehicles per lane per hour
VCAPCD	Ventura County Air Pollution Control District
VMT	Vehicle Miles Traveled
VOCs	Volatile Organic Compounds

1. Project Description

1.1 Introduction

The County of Ventura (County) proposes to widen an approximate 1.93-mile portion of Hueneme Road, between Edison Drive and Rice Avenue, from a two-lane roadway to a four-lane roadway with buffered bike lanes, a paved median, and turn lanes. The purpose of the project is to improve vehicle and bicycle travel and safety between the Cities of Oxnard and Camarillo. The project is listed in the Southern California Association of Governments (SCAG) 2025 Federal Transportation Improvement Program (FTIP) Amendment #25-09 for the fiscal years 2027/2028.

The California Department of Transportation (Caltrans) is the lead agency under the National Environmental Policy Act (NEPA). The County is the lead agency under the California Environmental Quality Act (CEQA).

1.1.1. Proposed Project

The Hueneme Road Widening Project (project) would include four 12-foot through lanes (two in the eastbound direction and two westbound direction), a 14-foot paved median, two 6-foot bike lanes on either side of the roadway with a 2-foot buffer between the bicycle lanes and the traffic lanes, and two 4-foot shoulders on either side of Hueneme Road between Edison Drive and Rice Avenue. All existing left-turn lanes would be retained as part of the project. The total width of the new roadway would vary between 63 to 72 feet. The widened roadway would taper to the existing configuration of one travel lane in each direction approximately 1,200 feet east of Rice Avenue.

The existing centerline of the road would be shifted as part of the roadway widening. Construction of the widened roadway would require a maximum ground disturbance of approximately 12-14 inches to install the new roadbed. Widening of the roadway would result in approximately 339,000 square feet of increased impervious surface area. It is anticipated that the existing drainage ditch on the north side of the roadway would be shifted north to accommodate the widening of the road. The limits of the relocated ditch would not extend beyond the new County right-of-way (ROW) line.

The project would require three traffic signal modifications, drainage pipe and drainage inlet relocations, culvert extensions and relocations, 41 power pole relocations, and 10 irrigation and water facility relocations. The power poles along Hueneme Road are located within County ROW; however, coordination and preplanning would be needed with Southern California Edison (SCE) to relocate the poles prior to widening the roadway. It is anticipated that SCE would install the poles using auger drilling. Additionally, Frontier Communications (Telecommunications) are located on the SCE overhead poles and have underground lines along Hueneme Road. Sempra Utilities (Gas Company) has gas transmission mains along Hueneme Road near Edison Drive; the existing gas main may be impacted where drainage and/or water facilities are relocated. Signal pole relocations would

require ground disturbance at a maximum depth of 16 feet. The project would not include the relocation of any water lines, recycled water lines, or sewer mains.

The project may include minor work related to 23 driveways located within the project area; this work would be limited to conforming the driveway to the new roadway configuration. Construction would be staged to provide continuous access to each private parcel at all times. In addition, at least one lane would be open to provide continuous access for vehicles through the project area and no detours to adjacent roadways would be required. Due to traffic volumes in the area, night work is anticipated to avoid traffic impacts during construction.

The proposed improvements would require ROW and temporary construction easements (TCE). The project would require permanent ROW of approximately 9.3 acres from 30 properties. This would include approximately 4.7 acres of Farmland of Statewide Importance, 4.5 acres of Prime Farmland, and 0.13 acres of Urban and Built-Up Land and Other Land. Additionally, the project would require TCE from 3.73 Acres of Farmland of Statewide Importance, 3.53 acres of Prime Farmland, and 0.14 acres of Urban and Built-Up Land and Other Land. The total area of disturbance would be approximately 7.8 acres.

Permanent ROW acquisition required to complete the project would include sliver takes from parcels adjacent to the project area; no full acquisitions are anticipated. The roadway widening would require removal of four buildings, including one fruit stand, one auxiliary building, one residence, and one garage. Vegetation removal would be required to accommodate the widening, and approximately 329 eucalyptus trees would also need to be removed. Tree removal would result in a vertical ground disturbance of approximately two feet below existing grade; a stump grinder would be used to remove the trunk and roots.

1.2 Location and Background

The project is located within the County of Ventura, which is within the SCAG planning area and the Ventura County Air Pollution Control District (VCAPCD). According to the County's General Plan, Hueneme Road is identified as an Other Principal Arterial and Major Collector and a City of Port Hueneme and City of Oxnard Commercial Vehicle Route within the project area (County of Ventura, 2020). Between Edison Drive and Rice Avenue, Hueneme Road includes two vehicle travel lanes, one in the eastbound direction and one in the westbound direction. At the western terminus of the project, Hueneme Road intersects with Edison Drive; the current configuration includes four vehicle travel lanes on Hueneme Road west of Edison Drive, two vehicle travel lanes on Hueneme Road east of Edison Drive, and two vehicle travel lanes on Edison Drive to the north and south of Hueneme Road. There are dedicated left-turn lanes in each direction at the intersection of Hueneme Road and Edison Drive. At the eastern terminus of the project, Hueneme Road intersects with Rice Avenue, creating a "T" intersection, where Rice Avenue dead-ends at Hueneme Road and the existing through lanes turn into a left- and right-turn lane. The current configuration includes four vehicle travel lanes on Rice Avenue, north of the "T" intersection, two vehicle travel lanes on Hueneme Road west of Rice Avenue, and two vehicle travel lanes of Hueneme Road east of Rice Avenue. Figure 1-1 presents the regional location, Figure 1-2 presents the project location, and Figure 1-3 presents the project nearby land uses.

The project is included in the regional emissions analysis conducted by SCAG for the conforming 2024-2050 Regional Transportation Plan and Sustainable Communities Strategy (RTP/SCS) also referred to as the Connect SoCal 2024 RTP/SCS. The project is also included in the 2024-2050 RTP/SCS, Amendment #1, and the 2025 FTIP Amendment #25-09. The project is identified in the 2024-2050 RTP/SCS Amendment #1 and the 2025 FTIP Amendment #25-09 as ID #VEN011202. Federal regional conformity determination approval was issued for the 2024-2050 RTP/SCS Amendment #1 on December 16, 2024 and the 2025 FTIP Amendment #25-09 on June 9, 2025. The most recent amendment to the 2025 FTIP is the 2025 FTIP Amendment #25-12, which received federal regional conformity determination approval on August 19, 2025. However, the project is not listed in 2025 FTIP Amendment #25-12 because the project has not changed since the 2025 FTIP Amendment #25-09 was approved on June 9, 2025.

1.3 Purpose and Need

Roadways in the County facilitate the movement of goods throughout the region and state. Hueneme Road serves as the primary freight route to and from Port of Hueneme. Goal one of the Circulation, Transportation, and Mobility Element in the County's General Plan states "To ensure the design, construction, and maintenance of a safe and efficient roadway system for the movement of persons and goods." The project is intended to serve existing transportation demand, improve freight movement corridor, and improve vehicle and bicycle travel and safety. The Project will provide new Class II buffered bicycle lanes along Hueneme Road between Edison Drive and Rice Avenue. In addition, the project is included in the County's General Plan as a segment of the proposed multi-modal coastal trail. Proposed improvements, such as the addition of buffered bike lanes, would support the County's goal to "To provide a continuous trail route along coastal areas of the County that forms a part of the statewide California Coastal Trail system and provides access to other trails, the shoreline, public recreational opportunities, and coastal points of interest" (County of Ventura 2021, Kimley Horn 2023)."

Figure 1-1. Project Regional Location



Figure 1-2. Project Location

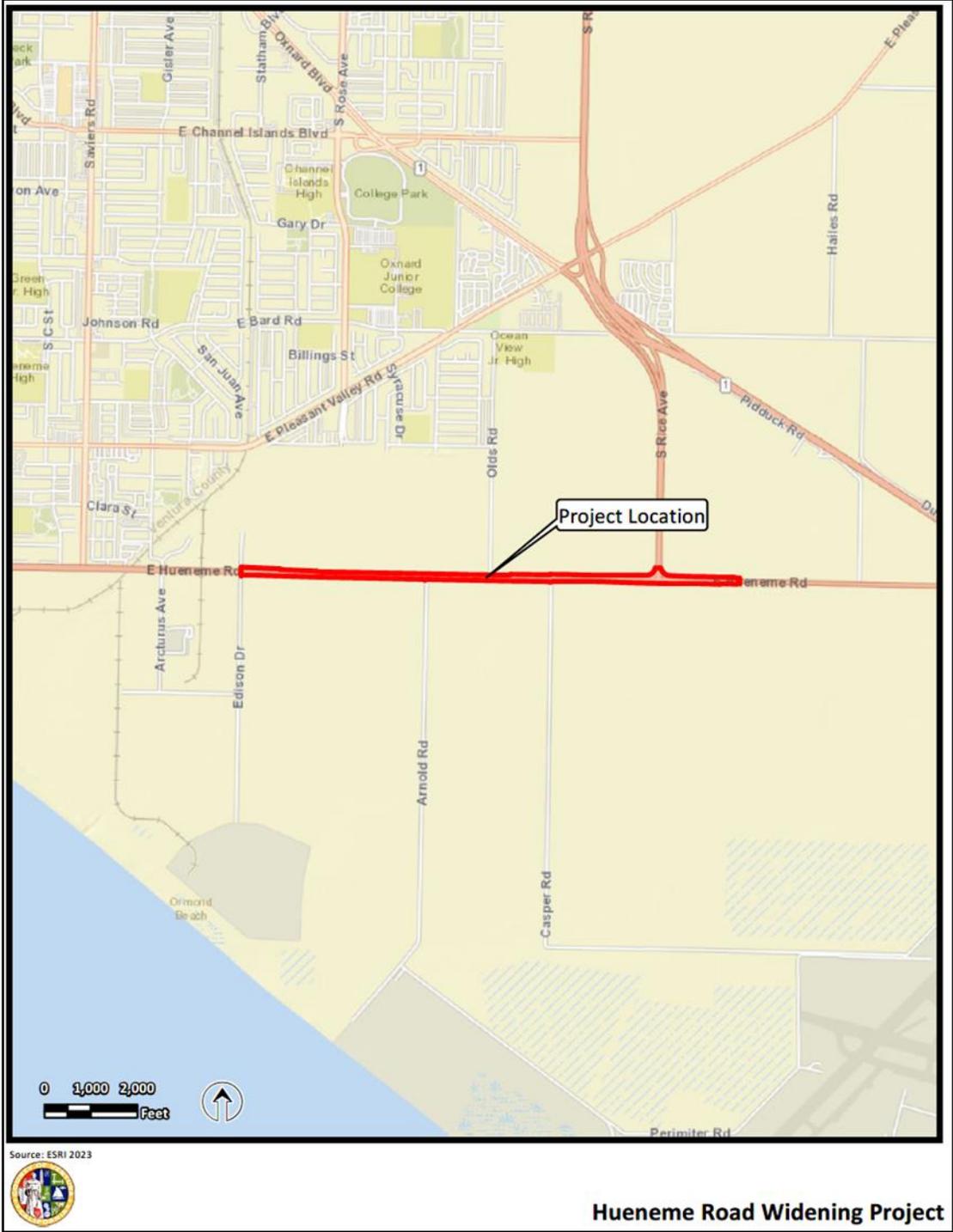
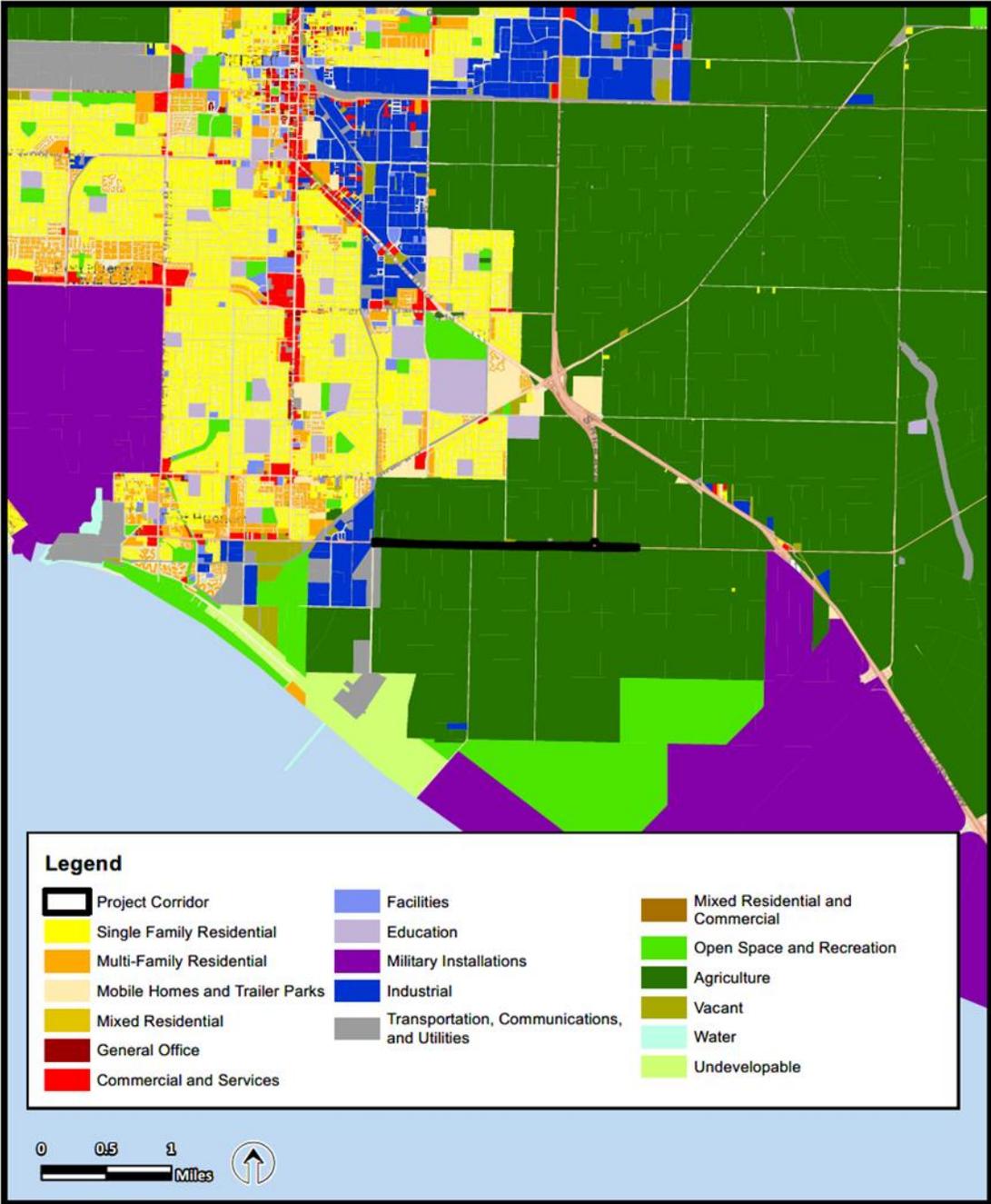


Figure 1-3. Project & Nearby Land Uses



Sources: SCAG 2019; ESRI 2022.



Hueneme Road Widening Project

1.4 Baseline and Forecasted Traffic Conditions

1.4.1 Existing Year 2023/Baseline

Existing (Year 2023) traffic conditions for primarily affected roadway segments are summarized in Table 1-1, while area intersections are summarized in Table 1-2. As noted in Table 1-1, average daily traffic (ADT) volumes on primarily affected roadways range from 1,720 ADT along Edison Drive, south of Hueneme Road, to 15,180 ADT on Hueneme Road, west of Edison Drive. Within the project area, truck percentages are 7.2 percent along Hueneme Road and 6.6 percent along Rice Avenue, north of Hueneme Road. As noted in Table 1-2, existing peak hour level of service (LOS) at signalized area intersections operate at level of service LOS C, or better, and unsignalized area intersections operate at LOS D, or better.

Table 1-1. Summary of Roadway Conditions – Existing Year 2023

Segment	ADT		Truck %	VMT
	Total	Truck		
Edison Drive (South of Hueneme Road)	1,720	124	7.2 %	172
Hueneme Road (Between Edison Drive and Rice Avenue)	15,100	1087	7.2%	25,670
Hueneme Road (East of Rice Avenue)	12,160	876	7.2%	4,864
Hueneme Road (West of Edison Drive)	15,180	1093	7.2%	1,518
Rice Avenue (North of Hueneme Road)	5,430	358	6.6%	543

ADT = average daily traffic VMT = vehicle miles traveled

Source: Kimley Horn 2025

Table 1-2. Intersection LOS Analysis – Existing Year 2023

Intersection	A.M. Peak Hour		P.M. Peak Hour	
	V/C Ratio	LOS	V/C Ratio	LOS
Signalized				
Hueneme Road and Edison Drive	0.50	A	0.67	B
Hueneme Road and Olds Road	0.50	A	0.66	B
Hueneme Road and Rice Avenue	0.46	A	0.71	C
Unsignalized	Delay	LOS	Delay	LOS
Hueneme Road and Arnold Road	23.4	C	33.1	D
Hueneme Road and Casper Road	19.3	C	30.9	D

V/C = volume to capacity ratio LOS = Level of Service Delay = Average Vehicle Delay (seconds/vehicle)

Source: Kimley Horn 2025

1.4.2 No-Build Alternative

Opening Year 2030 and Design Year 2050 No-Build Alternative roadway traffic volumes are summarized in Table 1-3 for 2030 conditions and Table 1-5 for 2050 conditions. LOS for primarily affected intersections are summarized in Tables 1-4 and 1-6. As indicated in Table 1-3 and Table 1-5, respectively, traffic volumes on area roadways would range from 1,740 to 16,300 ADT under Opening Year 2030 conditions with Design Year 2050 conditions ranging from 1,780 to 16,300 ADT. Under Opening Year 2030 and Design Year 2050 conditions, truck percentages would be 7.2 percent along Hueneme Road and 6.6 percent along Rice Avenue, north of Hueneme Road. Signalized area

intersections would operate at LOS C, or better, and unsignalized intersections would operate at LOS D, or better, for Opening Year 2030 (refer to Table 1-4). Under Design Year 2050 conditions, signalized area intersections would operate at LOS C, or better. Unsignalized intersections would operate at LOS D during the A.M. and P.M. peak hours, with the exception of the Hueneme Road and Casper Road intersection, which is predicted to operate at LOS F during the P.M. peak hour (refer to Table 1-6).

Table 1-3. No-Build Summary of Roadway Conditions – Opening Year 2030

Segment	ADT		Truck %	VMT
	Total	Truck		
Edison Drive (South of Hueneme Road)	1,740	125	7.2%	174
Hueneme Road (Between Edison Drive and Rice Avenue)	15,580	1122	7.2%	26,486
Hueneme Road (East of Rice Avenue)	13,030	938	7.2%	5,212
Hueneme Road (West of Edison Drive)	15,630	1125	7.2%	1,563
Rice Avenue (North of Hueneme Road)	6,600	436	6.6%	660

ADT = average daily traffic VMT = vehicle miles traveled

Note: Opening Year 2030 traffic is considered to be a conservative estimation of year 2027 traffic data (Kimley Horn 2024)

Source: Kimley Horn 2025

Table 1-4. No-Build Intersection LOS Analysis – Opening Year 2030

Intersection	A.M. Peak Hour		P.M. Peak Hour	
	V/C Ratio	LOS	V/C Ratio	LOS
Signalized				
Hueneme Road and Edison Drive	0.51	A	0.67	B
Hueneme Road and Olds Road	0.51	A	0.67	B
Hueneme Road and Rice Avenue	0.46	A	0.73	C
Unsignalized	Delay	LOS	Delay	LOS
Hueneme Road and Arnold Road	23.8	C	33.1	D
Hueneme Road and Casper Road	20.4	C	34.4	D

V/C = volume to capacity ratio LOS = Level of Service Delay = Average Vehicle Delay (seconds/vehicle)

Note: Opening Year 2030 traffic is considered to be a conservative estimation of year 2027 traffic data (Kimley Horn 2024)

Source: Kimley Horn 2025

Table 1-5. No-Build Summary of Roadway Conditions – Design Year 2050

Segment	ADT		Truck %	VMT
	Total	Truck		
Edison Drive (South of Hueneme Road)	1,780	128	7.2%	178
Hueneme Road (Between Edison Drive and Rice Avenue)	16,290	1173	7.2%	27,693
Hueneme Road (East of Rice Avenue)	14,380	1035	7.2%	5,752
Hueneme Road (West of Edison Drive)	16,300	1174	7.2%	1,630
Rice Avenue (North of Hueneme Road)	8,730	576	6.6%	873

ADT = average daily traffic VMT = vehicle miles traveled

Source: Kimley Horn 2025

Table 1-6. No-Build Intersection LOS Analysis – Design Year 2050

Intersection	A.M. Peak Hour		P.M. Peak Hour	
	V/C Ratio	LOS	V/C Ratio	LOS
Signalized				
Hueneme Road and Edison Drive	0.53	A	0.67	B
Hueneme Road and Olds Road	0.53	A	0.69	B
Hueneme Road and Rice Avenue	0.48	A	0.78	C
Unsignalized				
	Delay	LOS	Delay	LOS
Hueneme Road and Arnold Road	25.1	D	33.3	D
Hueneme Road and Casper Road	23.7	D	54.3	F

V/C = volume to capacity ratio LOS = Level of Service Delay = Average Vehicle Delay (seconds/vehicle)
Source: Kimley Horn 2025

1.4.3 Build Alternative

Opening Year 2030 and Design Year 2050 Build Alternative roadway traffic volumes and LOS for primarily affected intersections are summarized in Tables 1-7, 1-8, 1-9 and 1-10. As indicated in Table 1-7 and Table 1-9, traffic volumes on area roadways would range from 1,740 to 16,050 ADT under Opening Year 2030 conditions and from 1,780 to 16,760 ADT under Design Year 2050 conditions. Truck percentages would be 7.2 percent along Hueneme Road and 6.6 percent along Rice Avenue, north of Hueneme Road. Under Opening Year 2030 conditions, signalized area intersections would operate at LOS C, or better and unsignalized intersections would operate at LOS C (refer to Table 1-8). Under Design Year 2050 conditions, signalized area intersections would operate at LOS C, or better, and unsignalized intersections would operate at LOS D, or better (refer to Table 1-10). The long-term operational impacts on existing traffic conditions relative to the No-Build Alternative and the Build Alternative are summarized in Table 1-11 and Table 1-12, respectively.

Table 1-7. Build Summary of Local Roadway Conditions – Opening Year 2030

Segment	ADT		Truck %	VMT
	Total	Truck		
Edison Drive (South of Hueneme Road)	1,740	125	7.2%	174
Hueneme Road (Between Edison Drive and Rice Avenue)	16,010	1153	7.2%	27,217
Hueneme Road (East of Rice Avenue)	13,250	954	7.2%	5,300
Hueneme Road (West of Edison Drive)	16,050	1156	7.2%	1,605
Rice Avenue (North of Hueneme Road)	6,540	432	6.6%	654

ADT = average daily traffic VMT = vehicle miles traveled

Note: Opening Year 2030 traffic is considered to be a conservative estimation of year 2027 traffic data (Kimley Horn 2024)

Source: Kimley Horn 2025

Table 1-8. Build Intersection LOS Analysis – Opening Year 2030

Intersection	A.M. Peak Hour		P.M. Peak Hour	
	V/C Ratio	LOS	V/C Ratio	LOS
Signalized				
Hueneme Road and Edison Drive	0.28	A	0.38	A
Hueneme Road and Olds Road	0.30	A	0.71	C
Hueneme Road and Rice Avenue	0.28	A	0.48	A
Unsignalized	Delay	LOS	Delay	LOS
Hueneme Road and Arnold Road	19.9	C	21.4	C
Hueneme Road and Casper Road	17.2	C	20.7	C

V/C = volume to capacity ratio LOS = Level of Service Delay = Average Vehicle Delay (seconds/vehicle)

Note: Opening Year 2030 traffic is considered to be a conservative estimation of year 2027 traffic data (Kimley Horn 2024)

Source: Kimley Horn 2025

Table 1-9. Build Summary of Roadway Conditions – Design Year 2050

Segment	ADT		Truck %	VMT
	Total	Truck		
Edison Drive (South of Hueneme Road)	1,780	128	7.2%	178
Hueneme Road (Between Edison Drive and Rice Avenue)	16,760	1207	7.2%	28,492
Hueneme Road (East of Rice Avenue)	14,620	1053	7.2%	5,848
Hueneme Road (West of Edison Drive)	16,760	1207	7.2%	1,676
Rice Avenue (North of Hueneme Road)	8,680	573	6.6%	868

ADT = average daily traffic VMT = vehicle miles traveled

Source: Kimley Horn 2025

Table 1-10. Build Intersection LOS Analysis – Design Year 2050

Intersection	A.M. Peak Hour		P.M. Peak Hour	
	V/C Ratio	LOS	V/C Ratio	LOS
Signalized				
Hueneme Road and Edison Drive	0.29	A	0.38	A
Hueneme Road and Olds Road	0.31	A	0.73	C
Hueneme Road and Rice Avenue	0.30	A	0.52	A
Unsignalized	Delay	LOS	Delay	LOS
Hueneme Road and Arnold Road	21.0	C	21.5	C
Hueneme Road and Casper Road	19.7	C	26.9	D

V/C = volume to capacity ratio LOS = Level of Service Delay = Average Vehicle Delay (seconds/vehicle)

Source: Kimley Horn 2025

Table 1-11. Summary of Long-Term Operational Impacts on Traffic Conditions for Existing and Future No-Build Alternatives

Segment	Existing Volumes			Change in Volumes No-Build 2030 Compared to Existing			Change in Volumes No-Build 2050 Compared to Existing		
	ADT		Truck %	ADT		Truck %	ADT		Truck %
	Total	Truck		Total	Truck		Total	Truck	
Edison Drive (South of Hueneme Road)	1,720	124	7.2%	20	1	0%	60	4	0%
Hueneme Road (Between Edison Drive and Rice Avenue)	15,100	1,087	7.2%	480	35	0%	1,190	86	0%
Hueneme Road (East of Rice Avenue)	12,160	876	7.2%	870	62	0%	2,220	159	0%
Hueneme Road (West of Edison Drive)	15,180	1,093	7.2%	450	32	0%	1,120	81	0%
Rice Avenue (North of Hueneme Road)	5,430	358	6.6%	1,170	78	0%	3,300	218	0%

ADT = average daily traffic VMT = vehicle miles traveled

Note: Opening Year 2030 traffic is considered to be a conservative estimation of year 2027 traffic data (Kimley Horn 2024)

Source: Kimley Horn 2025

Table 1-12. Summary of Long-Term Operational Impacts on Traffic Conditions for Existing and Future Build Alternatives

Segment	Existing Volumes			Change in Volumes Build 2030 Compared to Existing			Change in Volumes Build 2050 Compared to Existing		
	ADT		Truck %	ADT		Truck %	ADT		Truck %
	Total	Truck		Total	Truck		Total	Truck	
Edison Drive (South of Hueneme Road)	1,720	124	7.2%	20	1	0%	60	4	0%
Hueneme Road (Between Edison Drive and Rice Avenue)	15,100	1,087	7.2%	910	66	0%	1,660	120	0%
Hueneme Road (East of Rice Avenue)	12,160	876	7.2%	1,090	78	0%	2,460	177	0%
Hueneme Road (West of Edison Drive)	15,180	1,093	7.2%	870	63	0%	1,580	114	0%
Rice Avenue (North of Hueneme Road)	5,430	358	6.6%	1,110	74	0%	3,250	215	0%

ADT = average daily traffic VMT = vehicle miles traveled

Note: Opening Year 2030 traffic is considered to be a conservative estimation of year 2027 traffic data (Kimley Horn 2024)

Source: Kimley Horn 2025

1.4.4 Comparison of Existing Year 2023/Baseline and Alternatives

In comparison to Existing Year 2023/baseline conditions, No-Build Alternative Opening Year 2030 A.M. peak hour signalized intersections would remain at LOS A and unsignalized intersections would remain at LOS C. P.M. peak hour signalized intersections would remain at LOS C, or better, and unsignalized intersections would remain at LOS D (refer to Table 1-13).

In comparison to the No-Build Alternative, the Build Alternative Opening Year 2030 A.M. peak hour signalized intersections would remain at LOS A and unsignalized intersections would remain at LOS C. Under P.M. peak hour conditions, relative to the No-Build Alternative, the signalized intersections of Hueneme Road and Edison Drive and Hueneme Road and Rice Avenue would improve from LOS B to LOS A, and the intersection of Hueneme Road and Olds Road would change from LOS B to LOS C under future Build Alternative conditions. In comparison to the No-Build Alternative, unsignalized intersections would improve from LOS D to LOS C (refer to Table 1-13).

As demonstrated in Table 1-14, Relative to the No-Build Alternative Opening Year 2030, the Build Alternative Opening Year 2030 roadway ADT volumes on Edison Drive would remain unchanged, ADT volumes on Hueneme Road (between Edison Drive and Rice Avenue) are predicted to increase by approximately 430 vehicles, ADT volumes on Hueneme Road (east of Rice Avenue) are predicted to increase by approximately 220 vehicles, ADT volumes Hueneme Road (west of Edison Drive) are predicted to increase by approximately 420 vehicles, and ADT volumes of Rice Avenue are predicted to decrease by approximately 60 vehicles (refer to Table 1-14).

In comparison to Existing Year 2023/baseline conditions, No-Build Alternative Design Year 2050 A.M. peak hour signalized intersections would remain at LOS A and the unsignalized intersection of Hueneme Road and Arnold Road would deteriorate from LOS C to LOS D. P.M. peak hour signalized intersection would remain at LOS C, or better, the unsignalized intersection of Hueneme Road and Arnold Road would remain at LOS D, and the unsignalized intersection of Hueneme Road and Casper Road would deteriorate from LOS D to LOS F (refer to Table 1-15).

In comparison to the No-Build Alternative, the Build Alternative Design Year 2050 A.M. peak hour signalized intersections would remain at LOS A, the unsignalized intersection of Hueneme Road and Arnold Road would improve to LOS C, and the unsignalized intersection of Hueneme Road and Casper Road would improve to LOS D. Under P.M. peak hour conditions, the signalized intersection of Hueneme Road and Edison Drive would improve from LOS B to LOS A, the intersection of Hueneme Road and Rice Avenue would improve from LOS C to LOS A, and the intersection of Hueneme Road and Olds Road would degrade from LOS B to LOS C under future Build Alternative conditions. Under these same conditions, the unsignalized intersection of Hueneme Road and Arnold Road would improve from LOS D to LOS C, and the unsignalized intersection of Hueneme Road and Casper Road would improve from LOS F to LOS D (refer to Table 1-15).

As demonstrated in Table 1-16, Relative to the No-Build Alternative Design Year 2050, the Build Alternative Design Year 2050 roadway ADT volumes on Edison Drive would remain unchanged, ADT volumes on Hueneme Road (between Edison Drive and Rice Avenue) are predicted to increase by approximately 470 vehicles, ADT volumes on Hueneme Road (east of Rice Avenue) are predicted to

increase by approximately 240 vehicles, ADT volumes Hueneme Road (west of Edison Drive) are predicted to increase by approximately 460 vehicles, and ADT volumes of Rice Avenue are predicted to decrease by approximately 50 vehicles (refer to Table 1-14). A summary for each scenario is presented in Table 1-17.

Table 1-13. Comparison of Intersection Levels of Service – Opening Year 2030

Intersection	A.M. Peak Hour			P.M. Peak Hour		
	Existing	No-Build	Build	Existing	No-Build	Build
Signalized	V/C Ratio / LOS					
Hueneme Road and Edison Drive	0.50 / A	0.51 / A	0.28 / A	0.67 / B	0.67 / B	0.38 / A
Hueneme Road and Olds Road	0.50 / A	0.51 / A	0.30 / A	0.66 / B	0.67 / B	0.71 / C
Hueneme Road and Rice Avenue	0.46 / A	0.46 / A	0.28 / A	0.71 / C	0.73 / C	0.48 / A
Unsignalized	Delay / LOS					
Hueneme Road and Arnold Road	23.4 / C	23.8 / C	19.9 / C	33.1 / D	33.1 / D	21.4 / C
Hueneme Road and Casper Road	19.3 / C	20.4 / C	17.2 / C	30.9 / D	34.4 / D	20.7 / C

V/C = volume to capacity ratio Delay expressed in (seconds/vehicle) LOS = Level of Service

Note: Opening Year 2030 traffic is considered to be a conservative estimation of year 2027 traffic data (Kimley Horn 2024)

Source: Kimley Horn 2025

Table 1-14. Comparison of Segment Traffic Average Daily Traffic Volumes – Opening Year 2030

Segment	Average Daily Traffic Volumes (Total Vehicle / Truck / Truck %)		Change in Conditions Build 2030 Compared to (Total Vehicle / Truck / Truck %)	
	No-Build	Build	Existing	No-Build
Edison Drive (South of Hueneme Road)	1,740 / 125 / 7.2%	1,740 / 125 / 7.2%	20 / 1 / 0%	0 / 0 / 0%
Hueneme Road (Between Edison Drive and Rice Avenue)	15,580 / 1122 / 7.2%	16,010 / 1153 / 7.2%	910 / 66 / 0%	430 / 31 / 0%
Hueneme Road (East of Rice Avenue)	13,030 / 938 / 7.2%	13,250 / 954 / 7.2%	1090 / 78 / 0%	220 / 16 / 0%
Hueneme Road (West of Edison Drive)	15,630 / 1125 / 7.2%	16,050 / 1156 / 7.2%	870 / 63 / 0%	420 / 31 / 0%
Rice Avenue (North of Hueneme Road)	6,600 / 436 / 6.6%	6,540 / 432 / 6.6%	1110 / 74 / 0%	-60 / -4 / 0%

Note: Opening Year 2030 traffic is considered to be a conservative estimation of year 2027 traffic data (Kimley Horn 2024)

Source: Kimley Horn 2025

Table 1-15. Comparison of Intersection Levels of Service – Design Year 2050

Intersection	A.M. Peak Hour			P.M. Peak Hour		
	Existing	No-Build	Build	Existing	No-Build	Build
Signalized	V/C Ratio / LOS					
Hueneme Road and Edison Drive	0.50 / A	0.53 / A	0.29 / A	0.67 / B	0.67 / B	0.38 / A
Hueneme Road and Olds Road	0.50 / A	0.53 / A	0.31 / A	0.66 / B	0.69 / B	0.73 / C
Hueneme Road and Rice Avenue	0.46 / A	0.48 / A	0.30 / A	0.71 / C	0.78 / C	0.52 / A
Unsignalized	Delay / LOS					
Hueneme Road and Arnold Road	23.4 / C	25.1 / D	21.0 / C	33.1 / D	33.3 / D	21.5 / C
Hueneme Road and Casper Road	19.3 / C	23.7 / C	19.7 / C	30.9 / D	54.3 / F	26.9 / D

V/C = volume to capacity ratio Delay expressed in (seconds/vehicle) LOS = Level of Service

Source: Kimley Horn 2025

Table 1-16. Comparison of Segment Traffic Average Daily Traffic Volumes – Design Year 2050

Segment	Average Daily Traffic Volumes (Total Vehicle/Truck/Truck %)		Change in Conditions Build 2050 Compared to (Total Vehicle/Truck/Truck %)	
	No-Build	Build	Existing	No-Build
Edison Drive (South of Hueneme Road)	1,780 / 128 / 7.2%	1,780 / 128 / 7.2%	60 / 4 / 0%	0 / 0 / 0%
Hueneme Road (Between Edison Drive and Rice Avenue)	16,290 / 1173 / 7.2%	16,760 / 1207 / 7.2%	1,660 / 120 / 0%	470 / 34 / 0%
Hueneme Road (East of Rice Avenue)	14,380 / 1035 / 7.2%	14,620 / 1053 / 7.2%	2,460 / 177 / 0%	240 / 18 / 0%
Hueneme Road (West of Edison Drive)	16,300 / 1174 / 7.2%	16,760 / 1207 / 7.2%	1,580 / 114 / 0%	460 / 33 / 0%
Rice Avenue (North of Hueneme Road)	8,730 / 576 / 6.6%	8,680 / 573 / 6.6%	3,250 / 215 / 0%	-50 / -3 / 0%

Source: Kimley Horn 2025

Table 1-17. Summary of Existing, No-Build Alternative, and Build Alternative Traffic Conditions

Scenario/ Analysis Year	Design Features and Operational Impacts on Traffic Conditions
Existing Year 2023/Baseline	Traffic volumes on area roadways range from 1,720 to 15,180 ADT. Truck percentages are 7.2 percent of the total volume along Hueneme Road and 6.6 percent on Rice Avenue, north of Hueneme Road. Existing signalized intersection operations are LOS A to C for all peak hours. Existing unsignalized intersections operate at LOS D, or better, for all peak hours.
No-Build Alternative Opening Year 2030	Traffic volumes on area roadways would range from 1,740 to 15,630 ADT. Truck percentages would be 7.2 percent of the total volume along Hueneme Road and 6.6 percent on Rice Avenue, north of Hueneme Road. Signalized area intersections would operate at LOS C, or better, during peak hours. Unsignalized area intersections would operate at LOS D, or better, for all peak hours.
Build Alternative Opening Year 2030	Traffic volumes on area roadways would range from 1,740 to 16,050 ADT. Truck percentages would be 7.2 percent of the total volume along Hueneme Road and 6.6 percent on Rice Avenue, north of Hueneme Road. Signalized area intersections would operate at LOS C, or better, during peak hours. Unsignalized area intersections would operate at LOS C, or better, during peak hours.
No-Build Alternative Design Year 2050	Traffic volumes on area roadways would range from 1,780 to 16,300 ADT. Truck percentages would be 7.2 percent of the total volume along Hueneme Road and 6.6 percent on Rice Avenue, north of Hueneme Road. Signalized area intersections would operate at LOS C, or better, during peak hours. Unsignalized area intersections would operate at LOS D, or better, during peak hours except the Hueneme Road and Casper Road intersection which would operate at LOS F during the P.M. peak hour.
Build Alternative Design Year 2050	Traffic volumes on area roadways would range from 1,780 to 16,760 ADT. Truck percentages would be 7.2 percent of the total volumes along Hueneme Road and 6.6 percent on Rice Avenue, north of Hueneme Road. Signalized area intersections would operate at LOS C, or better, during peak hours. Unsignalized area intersections would operate at LOS C, or better, during peak hours except the Hueneme Road and Casper Road intersection which would operate at LOS D during the P.M. peak hour.

1.5 Construction Activities and Schedule

The project engineer estimates the length of project construction to be approximately 12 months. Table 1-18 presents the estimated construction schedule. No construction activities are anticipated to last more than five years at any individual site. Emissions from construction-related activities are thus considered temporary as defined in 40 Code of Federal Regulations (CFR) 93.123 C (5) and are not required to be included in PM hot-spot analyses to meet conformity requirements.

Table 1-18. Construction Phases and Schedule

Phase	Phase Duration (months)	Phase Start Date
Grubbing/Land Clearing	1.8	6/4/2030
Grading/Excavation	7.2	7/10/2030
Drainage/Utilities/Sub-Grade	6.3	1/10/2031
Paving	2.7	4/12/2031

Note: Construction phases and durations are approximate.

2. Regulatory Setting

Many statutes, regulations, plans, and policies have been adopted at the federal, state, and local levels to address air quality issues related to transportation and other sources. The proposed project is subject to air quality regulations at each of these levels. This section introduces the pollutants governed by these regulations and describes the regulations and policies that are relevant to the project.

2.1 Pollutant-Specific Overview

Air pollutants are governed by multiple federal and state standards to regulate and mitigate health impacts. At the federal level, there are six criteria pollutants for which National Ambient Air Quality Standards (NAAQS) have been established: carbon monoxide (CO), lead (Pb), nitrogen dioxide (NO₂), ozone (O₃), particulate matter (PM), and sulfur dioxide (SO₂). The United States Environmental Protection Agency (U.S. EPA) has also identified nine priority mobile source air toxics (MSATs): 1,3-butadiene, acetaldehyde, acrolein, benzene, diesel particulate matter (DPM), ethylbenzene, formaldehyde, naphthalene, and polycyclic organic matter (https://www.fhwa.dot.gov/environment/air_quality/air_toxics/policy_and_guidance/msat/). In California, sulfates, visibility reducing particles, hydrogen sulfide (H₂S), and vinyl chloride are also regulated.

2.1.1 Criteria Pollutants

The FCAA requires the U.S. EPA to set NAAQS for six criteria air contaminants: O₃, PM, CO, NO₂, Pb, and SO₂. It also permits states to adopt additional or more protective air quality standards if needed. California has set standards for certain pollutants. Table 2-1 documents the current state and federal air quality standards while Table 2-2 summarizes the sources and health effects of the six criteria pollutants and pollutants regulated in the state of California.

Table 2-1. Table of State and Federal Ambient Air Quality Standards

Ambient Air Quality Standards						
Pollutant	Averaging Time	California Standards ¹		National Standards ²		
		Concentration ³	Method ⁴	Primary ^{3,5}	Secondary ^{3,6}	Method ⁷
Ozone (O ₃) ⁸	1 Hour	0.09 ppm (180 µg/m ³)	Ultraviolet Photometry	—	Same as Primary Standard	Ultraviolet Photometry
	8 Hour	0.070 ppm (137 µg/m ³)		0.070 ppm (137 µg/m ³)		
Respirable Particulate Matter (PM ₁₀) ⁹	24 Hour	50 µg/m ³	Gravimetric or Beta Attenuation	150 µg/m ³	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	20 µg/m ³		—		
Fine Particulate Matter (PM _{2.5}) ⁹	24 Hour	—	—	35 µg/m ³	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	12 µg/m ³	Gravimetric or Beta Attenuation	9.0 µg/m ³		
Carbon Monoxide (CO)	1 Hour	20 ppm (23 mg/m ³)	Non-Dispersive Infrared Photometry (NDIR)	35 ppm (40 mg/m ³)	—	Non-Dispersive Infrared Photometry (NDIR)
	8 Hour	9.0 ppm (10 mg/m ³)		9 ppm (10 mg/m ³)	—	
	8 Hour (Lake Tahoe)	6 ppm (7 mg/m ³)		—	—	
Nitrogen Dioxide (NO ₂) ¹⁰	1 Hour	0.18 ppm (339 µg/m ³)	Gas Phase Chemiluminescence	100 ppb (188 µg/m ³)	—	Gas Phase Chemiluminescence
	Annual Arithmetic Mean	0.030 ppm (57 µg/m ³)		53 ppb (100 µg/m ³)	Same as Primary Standard	
Sulfur Dioxide (SO ₂) ¹¹	1 Hour	0.25 ppm (655 µg/m ³)	Ultraviolet Fluorescence	75 ppb (196 µg/m ³)	—	Ultraviolet Fluorescence; Spectrophotometry (Pararosaniline Method)
	3 Hour	—		—	0.5 ppm (1300 µg/m ³)	
	24 Hour	0.04 ppm (105 µg/m ³)		0.14 ppm (for certain areas) ¹¹	—	
	Annual Arithmetic Mean	—		0.030 ppm (for certain areas) ¹¹	—	
Lead ^{12,13}	30 Day Average	1.5 µg/m ³	Atomic Absorption	—	—	High Volume Sampler and Atomic Absorption
	Calendar Quarter	—		1.5 µg/m ³ (for certain areas) ¹²	Same as Primary Standard	
	Rolling 3-Month Average	—		0.15 µg/m ³		
Visibility Reducing Particles ¹⁴	8 Hour	See footnote 14	Beta Attenuation and Transmittance through Filter Tape	No National Standards		
Sulfates	24 Hour	25 µg/m ³	Ion Chromatography			
Hydrogen Sulfide	1 Hour	0.03 ppm (42 µg/m ³)	Ultraviolet Fluorescence			
Vinyl Chloride ¹²	24 Hour	0.01 ppm (26 µg/m ³)	Gas Chromatography			

See footnotes on next page ...

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California Air Resources Board (7/16/24)

1. California standards for ozone, carbon monoxide (except 8-hour Lake Tahoe), sulfur dioxide (1 and 24 hour), nitrogen dioxide, and particulate matter (PM10, PM2.5, and visibility reducing particles), are values that are not to be exceeded. All others are not to be equaled or exceeded. California ambient air quality standards are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations.
2. National standards (other than ozone, particulate matter, and those based on annual arithmetic mean) are not to be exceeded more than once a year. The ozone standard is attained when the fourth highest 8-hour concentration measured at each site in a year, averaged over three years, is equal to or less than the standard. For PM10, the 24 hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 $\mu\text{g}/\text{m}^3$ is equal to or less than one. For PM2.5, the 24 hour standard is attained when 98 percent of the daily concentrations, averaged over three years, are equal to or less than the standard. Contact the U.S. EPA for further clarification and current national policies.
3. Concentration expressed first in units in which it was promulgated. Equivalent units given in parentheses are based upon a reference temperature of 25°C and a reference pressure of 760 torr. Most measurements of air quality are to be corrected to a reference temperature of 25°C and a reference pressure of 760 torr; ppm in this table refers to ppm by volume, or micromoles of pollutant per mole of gas.
4. Any equivalent measurement method which can be shown to the satisfaction of the ARB to give equivalent results at or near the level of the air quality standard may be used.
5. National Primary Standards: The levels of air quality necessary, with an adequate margin of safety to protect the public health.
6. National Secondary Standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.
7. Reference method as described by the U.S. EPA. An "equivalent method" of measurement may be used but must have a "consistent relationship to the reference method" and must be approved by the U.S. EPA.
8. On October 1, 2015, the national 8-hour ozone primary and secondary standards were lowered from 0.075 to 0.070 ppm.
9. On February 7, 2024, the national annual PM2.5 primary standard was lowered from 12.0 $\mu\text{g}/\text{m}^3$ to 9.0 $\mu\text{g}/\text{m}^3$. The existing national 24-hour PM2.5 standards (primary and secondary) were retained at 35 $\mu\text{g}/\text{m}^3$, as was the annual secondary standard of 15.0 $\mu\text{g}/\text{m}^3$. The existing 24-hour PM10 standards (primary and secondary) of 150 $\mu\text{g}/\text{m}^3$ also were retained. The form of the annual primary and secondary standards is the annual mean, averaged over 3 years.
10. To attain the 1-hour national standard, the 3-year average of the annual 98th percentile of the 1-hour daily maximum concentrations at each site must not exceed 100 ppb. Note that the national 1-hour standard is in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the national 1-hour standard to the California standards the units can be converted from ppb to ppm. In this case, the national standard of 100 ppb is identical to 0.100 ppm.
11. On June 2, 2010, a new 1-hour SO₂ standard was established and the existing 24-hour and annual primary standards were revoked. To attain the 1-hour national standard, the 3-year average of the annual 99th percentile of the 1-hour daily maximum concentrations at each site must not exceed 75 ppb. The 1971 SO₂ national standards (24-hour and annual) remain in effect until one year after an area is designated for the 2010 standard, except that in areas designated nonattainment for the 1971 standards, the 1971 standards remain in effect until implementation plans to attain or maintain the 2010 standards are approved. Note that the 1-hour national standard is in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the 1-hour national standard to the California standard the units can be converted to ppm. In this case, the national standard of 75 ppb is identical to 0.075 ppm.
12. The ARB has identified lead and vinyl chloride as 'toxic air contaminants' with no threshold level of exposure for adverse health effects determined. These actions allow for the implementation of control measures at levels below the ambient concentrations specified for these pollutants.
13. The national standard for lead was revised on October 15, 2008 to a rolling 3-month average. The 1978 lead standard (1.5 $\mu\text{g}/\text{m}^3$ as a quarterly average) remains in effect until one year after an area is designated for the 2008 standard, except that in areas designated nonattainment for the 1978 standard, the 1978 standard remains in effect until implementation plans to attain or maintain the 2008 standard are approved.
14. In 1989, the ARB converted both the general statewide 10-mile visibility standard and the Lake Tahoe 30-mile visibility standard to instrumental equivalents, which are "extinction of 0.23 per kilometer" and "extinction of 0.07 per kilometer" for the statewide and Lake Tahoe Air Basin standards, respectively.

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Table 2-2. State and Federal Criteria Air Pollutant Effects and Sources

Pollutant	Principal Health and Atmospheric Effects	Typical Sources
Ozone (O ₃)	High concentrations irritate lungs. Long-term exposure may cause lung tissue damage and cancer. Long-term exposure damages plant materials and reduces crop productivity. Precursor organic compounds include many known toxic air contaminants. Biogenic VOC may also contribute.	Low-altitude ozone is almost entirely formed from reactive organic gases/volatile organic compounds (ROG or VOC) and nitrogen oxides (NO _x) in the presence of sunlight and heat. Common precursor emitters include motor vehicles and other internal combustion engines, solvent evaporation, boilers, furnaces, and industrial processes.
Respirable Particulate Matter (PM ₁₀)	Irritates eyes and respiratory tract. Decreases lung capacity. Associated with increased cancer and mortality. Contributes to haze and reduced visibility. Includes some toxic air contaminants. Many toxic and other aerosol and solid compounds are part of PM ₁₀ .	Dust- and fume-producing industrial and agricultural operations; combustion smoke & vehicle exhaust; atmospheric chemical reactions; construction and other dust-producing activities; unpaved road dust and re-entrained paved road dust; natural sources.
Fine Particulate Matter (PM _{2.5})	Increases respiratory disease, lung damage, cancer, and premature death. Reduces visibility and produces surface soiling. Most diesel exhaust particulate matter – a toxic air contaminant – is in the PM _{2.5} size range. Many toxic and other aerosol and solid compounds are part of PM _{2.5} .	Combustion including motor vehicles, other mobile sources, and industrial activities; residential and agricultural burning; also formed through atmospheric chemical and photochemical reactions involving other pollutants including NO _x , sulfur oxides (SO _x), ammonia, and ROG.
Carbon Monoxide (CO)	CO interferes with the transfer of oxygen to the blood and deprives sensitive tissues of oxygen. CO also is a minor precursor for photochemical ozone. Colorless, odorless.	Combustion sources, especially gasoline-powered engines and motor vehicles. CO is the traditional signature pollutant for on-road mobile sources at the local and neighborhood scale.
Nitrogen Dioxide (NO ₂)	Irritating to eyes and respiratory tract. Colors atmosphere reddish-brown. Contributes to acid rain & nitrate contamination of stormwater. Part of the "NO _x " group of ozone precursors.	Motor vehicles and other mobile or portable engines, especially diesel; refineries; industrial operations.
Sulfur Dioxide (SO ₂)	Irritates respiratory tract; injures lung tissue. Can yellow plant leaves. Destructive to marble, iron, steel. Contributes to acid rain. Limits visibility.	Fuel combustion (especially coal and high-sulfur oil), chemical plants, sulfur recovery plants, metal processing; some natural sources like active volcanoes. Limited contribution possible from heavy-duty diesel vehicles if ultra-low sulfur fuel not used.
Lead (Pb)	Disturbs the gastrointestinal system. Causes anemia, kidney disease, and neuromuscular and neurological dysfunction. Also, a toxic air contaminant and water pollutant.	Lead-based industrial processes like battery production and smelters. Lead paint, leaded gasoline. Aerially deposited lead from older gasoline use may exist in soils along major roads.
Visibility-Reducing Particles (VRP)	Reduces visibility. Produces haze. NOTE: not directly related to the Regional Haze program under the Federal Clean Air Act (FCAA), which is oriented primarily toward visibility issues in National Parks and other "Class I" areas. However, some issues and measurement methods are similar.	See particulate matter above. May be related more to aerosols than to solid particles.
Sulfate	Premature mortality and respiratory effects. Contributes to acid rain. Some toxic air contaminants attach to sulfate aerosol particles.	Industrial processes, refineries and oil fields, mines, natural sources like volcanic areas, salt-covered dry lakes, and large sulfide rock areas.
Hydrogen Sulfide (H ₂ S)	Colorless, flammable, poisonous. Respiratory irritant. Neurological damage and premature death. Headache, nausea. Strong odor.	Industrial processes such as refineries and oil fields, asphalt plants, livestock operations, sewage treatment plants, and mines. Some natural sources like volcanic areas and hot springs.
Vinyl Chloride	Neurological effects, liver damage, cancer. Also considered a toxic air contaminant.	Industrial processes.

2.1.2 Mobile Source Air Toxics

Controlling air toxic emissions became a national priority with the passage of the Clean Air Act Amendments (CAAA) of 1990, whereby Congress mandated that the U.S. EPA regulate 188 air toxics, also known as hazardous air pollutants. The U.S. EPA has assessed this expansive list in its rule on the Control of Hazardous Air Pollutants from Mobile Sources (Federal Register, Vol. 72, No. 37, page 8430, February 26, 2007), and identified a group of 93 compounds emitted from mobile sources that are part of U.S. EPA's Integrated Risk Information System (IRIS) (<https://www.epa.gov/iris>). In addition, the U.S. EPA identified nine compounds with significant contributions from mobile sources that are among the national and regional-scale cancer risk drivers or contributors and non-hazard contributors from the 2011 National Air Toxics Assessment (<https://www.epa.gov/national-air-toxics-assessment>). These are 1,3-butadiene, acetaldehyde, acrolein, benzene, DPM, ethylbenzene, formaldehyde, naphthalene, and polycyclic organic matter. While the Federal Highway Administration (FHWA) considers these the priority mobile source air toxics, the list is subject to change and may be adjusted in consideration of future U.S. EPA rules.

The 2007 U.S. EPA rule mentioned above requires controls that will dramatically decrease MSAT emissions through cleaner fuels and cleaner engines. According to an FHWA analysis using U.S. EPA's MOVES2014a model, even if vehicle activity (vehicle-miles traveled, VMT) increases by 31 percent from 2020 to 2060 as forecast, a combined reduction of 76 percent in the total annual emission rate for the priority MSATs is projected for the same time period, as shown in Figure 2-1 (FHWA 2023).

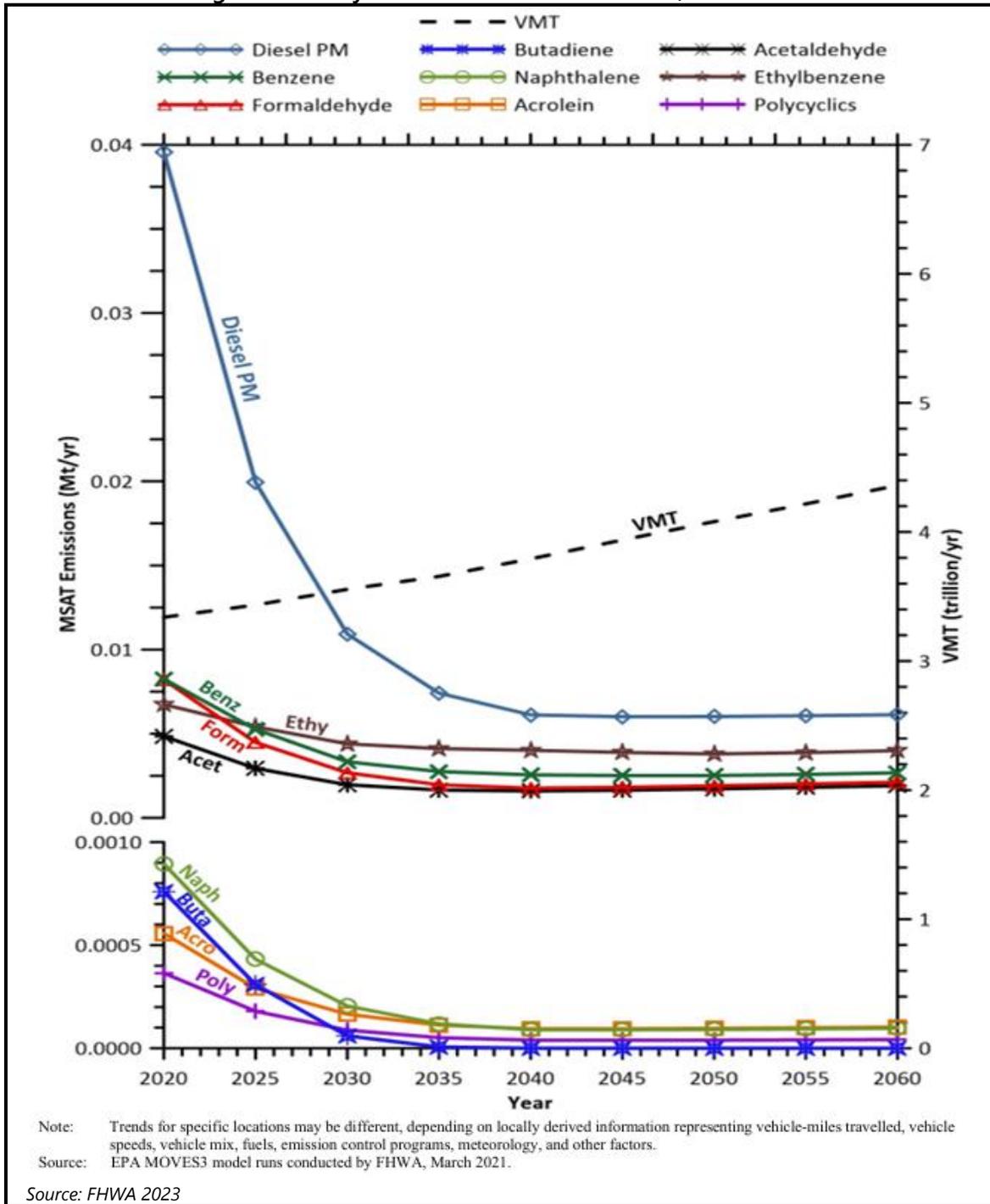
2.1.3 Greenhouse Gases and Climate Change

The term greenhouse gas (GHG) is used to describe atmospheric gases that absorb solar radiation and subsequently emit radiation in the thermal infrared region of the energy spectrum, trapping heat in the Earth's atmosphere. These gases include carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), and water vapor, among others. A growing body of research attributes long-term changes in temperature, precipitation, and other elements of Earth's climate to large increases in GHG emissions since the mid-nineteenth century, particularly from human activity related to fossil fuel combustion. Anthropogenic GHG emissions of particular interest include CO₂, CH₄, N₂O, and fluorinated gases.

GHGs differ in how much heat each gas traps in the atmosphere (global warming potential, GWP). CO₂ is the most important GHG, so amounts of other gases are expressed relative to CO₂, using a metric called "carbon dioxide equivalent" (CO₂e). The GWP of CO₂ is assigned a value of 1, and the warming potential of other gases is assessed as multiples of CO₂. For example, the 2007 Intergovernmental Panel on Climate Change *Fourth Assessment Report* calculates the GWP of CH₄ as 25 and the GWP of N₂O as 298, over a 100-year time horizon.¹ Generally, estimates of all GHGs are

¹ See Table 2.14 in IPCC Fourth Assessment Report: Climate Change 2007 (AR4): The Physical Science Basis. Contribution of Working Group I to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change [Solomon, S., D. Qin, M. Manning, Z. Chen, M. Marquis, K.B. Averyt, M. Tignor and H.L. Miller (eds.)]. Cambridge University Press, Cambridge, United Kingdom, and New York, NY, USA. <http://www.ipcc.ch/pdf/assessment-report/ar4/wg1/ar4-wg1-chapter2.pdf>.

Figure 2-1. Projected National MSAT Trends, 2020-2060



summed to obtain total emissions for a project or given time period, usually expressed in metric tons carbon dioxide equivalent (MTCO_{2e}), or million metric tons carbon dioxide equivalent (MMTCO_{2e}).²

² See <http://www.airquality.org/Businesses/CEQA-Land-Use-Planning/CEQA-Guidance-Tools>.

As evidence has mounted for the relationship of climate changes to rising GHGs, federal and state governments have established numerous policies and goals targeted to improving energy efficiency and fuel economy and reducing GHG emissions. Nationally, electricity generation is the largest source of GHG emissions, followed by transportation. In California, however, transportation is the largest contributor to GHGs.^{3 4}

California has enacted aggressive GHG reduction targets, starting with Assembly Bill (AB) 32, the California Global Warming Solutions Act of 2006. AB 32 is California's signature climate change legislation. It set the goal of reducing statewide GHG emissions to 1990 levels by 2020 and required the California Air Resources Board (ARB) to develop a Scoping Plan that describes the approach California will take to achieve that goal and to update it every five years. In 2015, Governor Jerry Brown enhanced the overall adaptation planning effort with Executive Order (EO) B-30-15, establishing an interim GHG reduction goal of 40 percent below 1990 levels by 2030, and requiring state agencies to factor climate change into all planning and investment decisions.

Senate Bill (SB) 375, the Sustainable Communities and Climate Protection Act of 2008, furthered state climate action goals by mandating coordinated transportation and land use planning through preparation of SCS. The ARB sets GHG emissions reduction targets for passenger vehicles for each region. Each regional metropolitan planning organization (MPO) must include in its RTP and SCS proposing actions toward achieving the regional emissions reduction targets.⁵

With these and other State Senate and ABs and EOs, California advances an innovative and proactive approach to dealing with GHG emissions and climate change.

2.1.4 Asbestos

Asbestos is a term used for several types of naturally occurring fibrous minerals that are a human health hazard when airborne. The most common type of asbestos is chrysotile, but other types such as tremolite and actinolite are also found in California. Asbestos is classified as a known human carcinogen by state, federal, and international agencies and was identified as a toxic air contaminant (TAC) by the ARB in 1986. All types of asbestos are hazardous and may cause lung disease and cancer.

Asbestos can be released from serpentine and ultramafic rocks when the rock is broken or crushed. At the point of release, the asbestos fibers may become airborne, causing air quality and human health hazards. These rocks have been commonly used for unpaved gravel roads, landscaping, fill projects, and other improvement projects in some localities. Asbestos may be released into the atmosphere due to vehicular traffic on unpaved roads, during grading for development projects, and

³ <https://www.epa.gov/ghgemissions/sources-greenhouse-gas-emissions#:~:text=The%20largest%20source%20of%20greenhouse,electricity%2C%20heat%2C%20and%20transportation>

⁴ <https://calepa.ca.gov/climate-dashboard/#:~:text=What%20is%20driving%20climate%20change,trends%20in%20greenhouse%20gas%20emissions.&text=This%20pie%20chart%20shows%20California's,tens%20of%20carbon%20dioxide%20equivalent>

⁵ <https://www.arb.ca.gov/cc/sb375/sb375.htm>

at quarry operations. All these activities may have the effect of releasing potentially harmful asbestos into the air. Natural weathering and erosion processes can act on asbestos-bearing rocks and make it easier for asbestos fibers to become airborne if such rocks are disturbed.

Serpentine may contain chrysotile asbestos, especially near fault zones. Ultramafic rock, a rock closely related to serpentinite, may also contain asbestos minerals. Asbestos can also be associated with other rock types in California, though much less frequently than serpentinite and/or ultramafic rock. Serpentinite and/or ultramafic rock are known to be present in 44 of California's 58 counties. These rocks are particularly abundant in counties of the Sierra Nevada foothills, the Klamath Mountains, and Coast Ranges. The California Department of Conservation, Division of Mines and Geology has developed a map showing the general location of ultramafic rock in the state (https://ww2.arb.ca.gov/sites/default/files/classic/toxics/asbestos/ofr_2000-019.pdf).

2.2 Regulations

2.2.1 Federal and California Clean Air Act

The Federal Clean Air Act (FCAA), as amended, is the primary federal law that governs air quality while the California Clean Air Act (CCAA) is its companion state law. These laws and related regulations by the U.S. EPA and the ARB set standards for the concentration of pollutants in the air. At the federal level, these standards are called NAAQS. NAAQS and state ambient air quality standards have been established for six transportation-related criteria pollutants that have been linked to potential health concerns: CO, NO₂, O₃, PM, which is broken down for regulatory purposes into particles of 10 micrometers or smaller (PM₁₀) and particles of 2.5 micrometers and smaller (PM_{2.5}), and SO₂. In addition, national and state standards exist for Pb, and state standards exist for visibility reducing particles, sulfates, H₂S, and vinyl chloride. The NAAQS and state standards are set at levels that protect public health with a margin of safety and are subject to periodic review and revision. Both state and federal regulatory schemes also cover toxic air contaminants (air toxics); some criteria pollutants are also air toxics or may include certain air toxics in their general definition.

2.2.2 Transportation Conformity

The conformity requirement is based on FCAA section 176(c), which prohibits the U.S. Department of Transportation (USDOT) and other federal agencies from funding, authorizing, or approving plans, programs, or projects that do not conform to State Implementation Plan (SIP) for attaining the NAAQS. "Transportation Conformity" applies to highway and transit projects and takes place on two levels: the regional or, planning and programming level and the project level. The project must conform to both levels to be approved.

Conformity requirements apply only in nonattainment and "maintenance" (former nonattainment) areas for the NAAQS, and only for the specific NAAQS that are or were violated. The U.S. EPA regulations at 40 CFR 93 govern the conformity process. Conformity requirements do not apply in

unclassifiable/attainment areas for NAAQS and do not apply at all for state standards regardless of the status of the area.

Regional conformity is concerned with how well the regional transportation system supports plans for attaining the NAAQS for CO, NO₂, O₃, PM₁₀, and PM_{2.5}, and in some areas (although not in California), SO₂. California has attainment or maintenance areas for all these transportation-related "criteria pollutants" except SO₂, and has a nonattainment area for Pb; however, lead is not currently required by the FCAA to be covered in transportation conformity analysis. Regional conformity is based on emission analysis of RTPs and FTIPs that include all transportation projects planned for a region over a period of at least 20 years (for the RTP), and four years (for the FTIP). RTP and FTIP conformity use travel demand and emission models to determine whether the implementation of those projects would conform to emission budgets or other tests at various analysis years showing that requirements of the FCAA and the SIP are met. If the conformity analysis is successful, the MPO, FHWA, and Federal Transit Administration (FTA) make the determinations that the RTP and FTIP are in conformity with the SIP for achieving the goals of the FCAA. Otherwise, the projects in the RTP and/or FTIP must be modified until conformity is attained. If the design concept, scope, and "open-to-traffic" schedule of a proposed transportation project is the same as described in the RTP and the TIP, then the project meets regional conformity requirements for purposes of project-level analysis.

Project-level conformity is achieved by demonstrating that the project comes from a conforming RTP and TIP and the project has a design concept and scope⁶ that has not changed significantly from those in the RTP and TIP. If the design concept and scope have changed substantially from that used in the RTP Conformity analysis, RTP and TIP amendments may be needed. Project-level conformity also needs to demonstrate that project analyses have used the latest planning assumptions and U.S. EPA-approved emissions models; the project complies with any control measures in the SIP in PM areas. Furthermore, additional analyses (known as hot-spot analyses) may be required for projects located in CO and PM nonattainment or maintenance areas to examine localized air quality impacts.

2.2.3 National Environmental Policy Act

NEPA requires that policies and regulations administered by the federal government are consistent with its environmental protection goals. NEPA also requires that federal agencies use an interdisciplinary approach to planning and decision-making for any actions that could impact the environment. It requires an environmental review of federal actions including the creation of Environmental Documents that describe the environmental effects of a project and its alternatives (including a section on air quality impacts).

⁶ "Design concept" means the type of facility that is proposed, such as a freeway or arterial highway. "Design scope" refers to those aspects of the project that would clearly affect capacity and thus any regional emissions analysis, such as the number of lanes and the length of the project.

2.2.4 California Environmental Quality Act

CEQA⁷ is a statute that requires state and local agencies to identify the significant environmental impacts of their actions and to avoid or mitigate those impacts, if feasible. CEQA documents address CCAA requirements for transportation projects. While state standards are often more strict than federal standards, the state has no conformity process.

2.2.5 Local

The U.S. EPA has delegated responsibility to air districts to establish local rules to protect air quality. The project would comply with all applicable VCAPCD rules and regulations including, but not limited to, Rule 55 for the control of fugitive dust, Rule 62.7 for the control of asbestos-containing material (ACM), and Rule 74.4, which prohibits the use of cutback asphalt.

⁷ For general information about CEQA, see: <http://resources.ca.gov/ceqa/more/faq.html>.

3. Affected Environment

The topography of a region can substantially impact airflow and the resulting pollutant concentrations. California is divided into 15 air basins with similar topography and meteorology to better manage air quality throughout the state. Each air basin has a local air district that is responsible for identifying and implementing air quality strategies to comply with ambient air quality standards.

The project site is located in the County, which is within the South Central Coast Air Basin (SCCAB) and in the jurisdiction of VCAPCD. The SCCAB consists of an approximately 9,613-square mile area bound by the Pacific Ocean to the west and the Topatopa, Sierra Madre, Santa Ynez, and Santa Lucia Mountains to the north and east. The Basin includes all of the County as well as Santa Barbara, and San Luis Obispo Counties. The Basin's terrain and geographical location (i.e., a coastal plain with connecting broad valleys and low hills) contribute to its distinctive climate. Primary factors known to influence air quality within the SCCAB include topography and meteorology, which can affect pollutant transport and dispersion from sources located within and outside of the SCCAB. These air quality-related issues are discussed in more detail, as follows:

3.1 Regional Meteorology & Climate

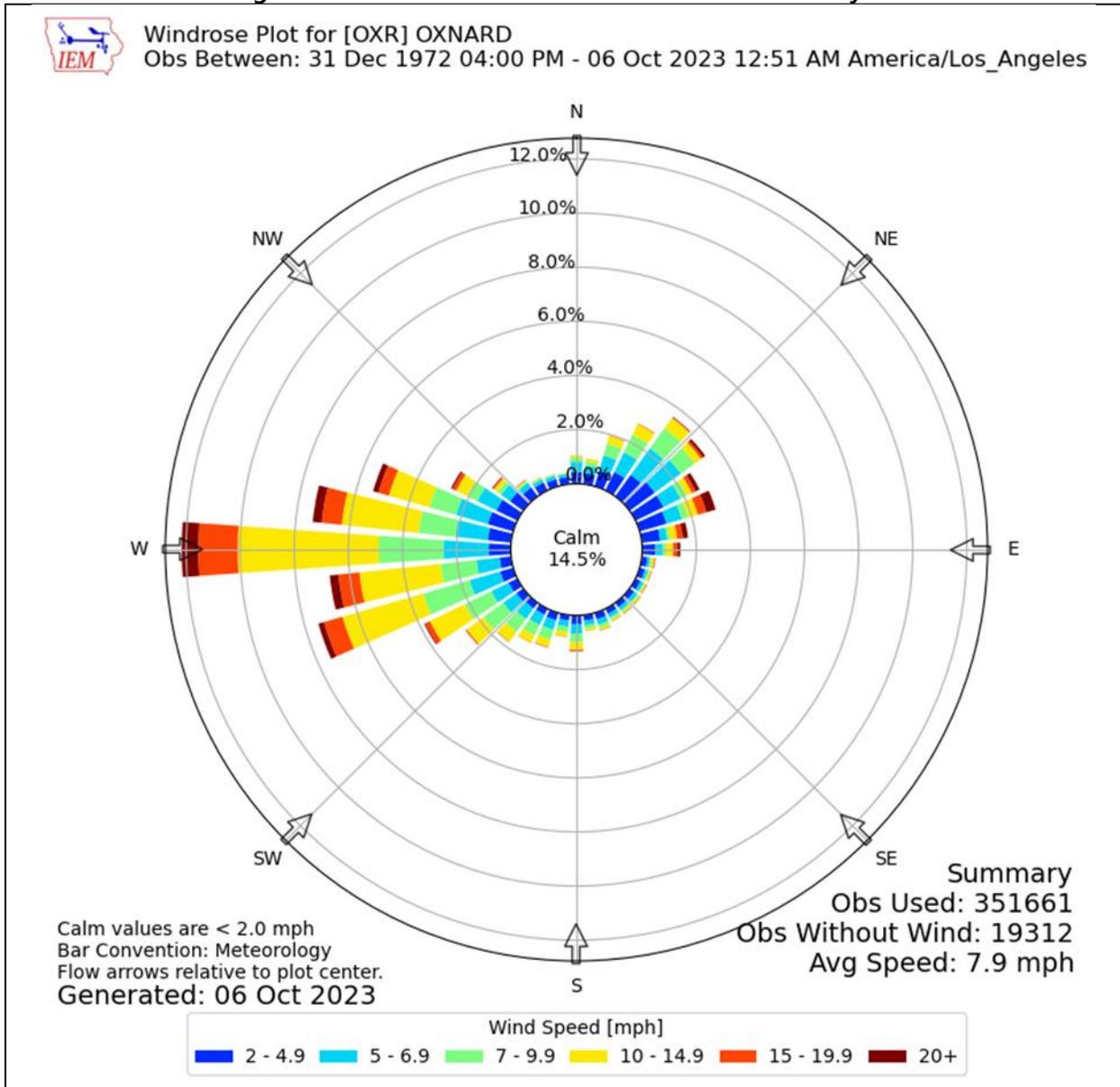
Average wind speeds in the Basin are light and primarily from the west. Mild sea breezes slowly carry pollutants inland. In the general vicinity of the project site, historical wind flow is predominantly from the west with an average annual wind speed of approximately eight miles per hour (mph). A wind rose depicting historical wind flows from December 1972 to October 2023 is depicted in Figure 3-1.

The annual average temperature varies little throughout the SCCAB averaging approximately 62 degrees Fahrenheit (°F). Based on historical data collected from the Oxnard (COOP 046569) meteorology station, average temperatures range from a January low of approximately 43.5 °F to a September high of approximately 74.7 °F (WRCC 2024).

3.1.1 Temperature Inversions

Under normal meteorological conditions, the temperature of the atmosphere decreases with increased altitude. However, when the temperature of the atmosphere increases with altitude, the phenomenon is termed an inversion. These inversions can restrict the vertical mixing of air and pollutants, which can contribute to increased ground-level pollutant concentrations.

Figure 3-1. Predominant Wind Patterns Near the Project



Source: ISU 2024

The air above the County often exhibits weak vertical and horizontal dispersion characteristics, which limit the dispersion of emissions and cause increased ambient air pollutant levels. Persistent temperature inversions prevent vertical dispersion. The inversions act as a “ceiling” that prevents pollutants from rising and dispersing. Mountain ranges act as “walls” that inhibit horizontal dispersion of air pollutants (VCAPCD 2003).

The diurnal land/sea breeze pattern common in the County recirculates air contaminants. Air pollutants are pushed toward the ocean during the early morning by the land breeze, and toward the east during the afternoon, by the sea breeze. This creates a “sloshing” effect, causing pollutants to remain in the area for several days. Residual emissions from previous days accumulate and

chemically react with new emissions in the presence of sunlight, thereby increasing ambient air pollutant levels (VCAPCD 2003).

This pollutant “sloshing” effect happens most predominantly from May through October (“smog” season). Air temperatures are usually higher and sunlight more intense during the “smog” season. This explains why the County experiences the most exceedances of the state and federal ozone standards during this six-month period (VCAPCD 2003).

3.1.2 Topography

The project is within the SCCAB, which covers San Luis Obispo, Santa Barbara, and Ventura counties. The SCCAB is bordered by the Pacific Ocean to the west, the South Coast Air Basin to the south, the Southeast Desert Air Basin and San Joaquin Valley Air Basin to the east, and the North Central Coast Air Basin to the north.

3.2 Existing Air Quality

This section summarizes existing air quality conditions near the project area. It includes attainment statuses for criteria pollutants, describes local ambient concentrations of criteria pollutants for the past five years, and discusses MSAT and GHG emissions.

3.2.1 Ambient Air Quality Monitoring

The VCAPCD maintains and operates a network of ambient air monitoring stations throughout the County. The purpose of the monitoring stations is to measure ambient concentrations of the pollutants and determine whether the ambient air quality meets the California Ambient Air Quality Standards (CAAQS) and NAAQS. The ambient monitoring station closest to the project is the El Rio-Rio Mesa School #2 station, approximately nine miles to the east of the project site. This site provided measurements for O₃, PM_{2.5}, PM₁₀, and NO₂. Additionally, the Reseda station was used as the closest ambient monitoring station for CO (Refer to Appendix B).

The locations of the two ambient air quality monitoring stations noted above are depicted in Figure 3-2. Ambient air quality monitoring data for these stations were obtained for the last five years of available data (i.e., 2019 through 2023) and are summarized in Table 3-1. As depicted, state and federal O₃ standards were exceeded on several occasions during the past five years. The federal standards for suspended particulates (i.e., PM₁₀ and PM_{2.5}) have also been exceeded on various occasions during the past five years. State and federal standards for other pollutants have not been exceeded in recent years.

Table 3-1. Air Quality Concentrations for the Past Five Years Measured at El Rio-Rio Mesa School #2 and Reseda Ambient Air Quality Monitoring Stations

Pollutant	Standard	2020	2021	2022	2023	2024
Ozone¹						
Max 1-hr concentration		0.104	0.073	0.077	0.071	0.073
No. days exceeded: State	0.09 ppm	2	0	0	0	0
Max 8-hr concentration		0.086	0.059	0.063	0.058	0.060
No. days exceeded: State	0.070 ppm	3	0	0	0	0
Federal	0.070 ppm	3	0	0	0	0
PM₁₀¹						
Max 24-hr concentration		200.7	377.8	57.9	102.8	272.9
No. days exceeded: State	50 µg/m ³	21	12	3	7	3
Federal	150 µg/m ³	2	1	0	0	1
Annual concentration average		25.2	26.4	22.7	NA	NA
No. days exceeded: State	20 µg/m ³	NA	NA	NA	NA	NA
PM_{2.5}¹						
Max 24-hr concentration		58.7	31.7	18.5	24.5	90.5
No. days exceeded: Federal	35 µg/m ³	3	0	0	0	2
Annual concentration average		7.5	6.8	6.5	6.1	5.1
No. days exceeded: State	12 µg/m ³	NA	NA	NA	NA	NA
Federal	9.0 µg/m ³	NA	NA	NA	NA	NA
Nitrogen Dioxide¹						
Max 1-hr concentration		31.0	33.0	32.0	27.0	29.0
No. days exceeded: State	0.18 ppm	0	0	0	0	0
Federal	100 ppb	0	0	0	0	0
Annual concentration average		5	4	4	3	4
No. days exceeded: State	0.030 ppm	NA	NA	NA	NA	NA
Federal	53 ppb	NA	NA	NA	NA	NA
Carbon Monoxide^{2,3}						
Max 1-hr concentration		2.6	2.0	2.6	2.2	2.3
No. days exceeded: State	20 ppm	0	0	0	0	0
Federal	35 ppm	0	0	0	0	0
Max 8-hr concentration		2.2	1.7	1.9	1.8	1.7
No. days exceeded: State	9 ppm	0	0	0	0	0
Federal	9 ppm	0	0	0	0	0

1. Data from El Rio-Rio Mesa School #2 Monitoring Station

2. Data from Reseda Monitoring Station

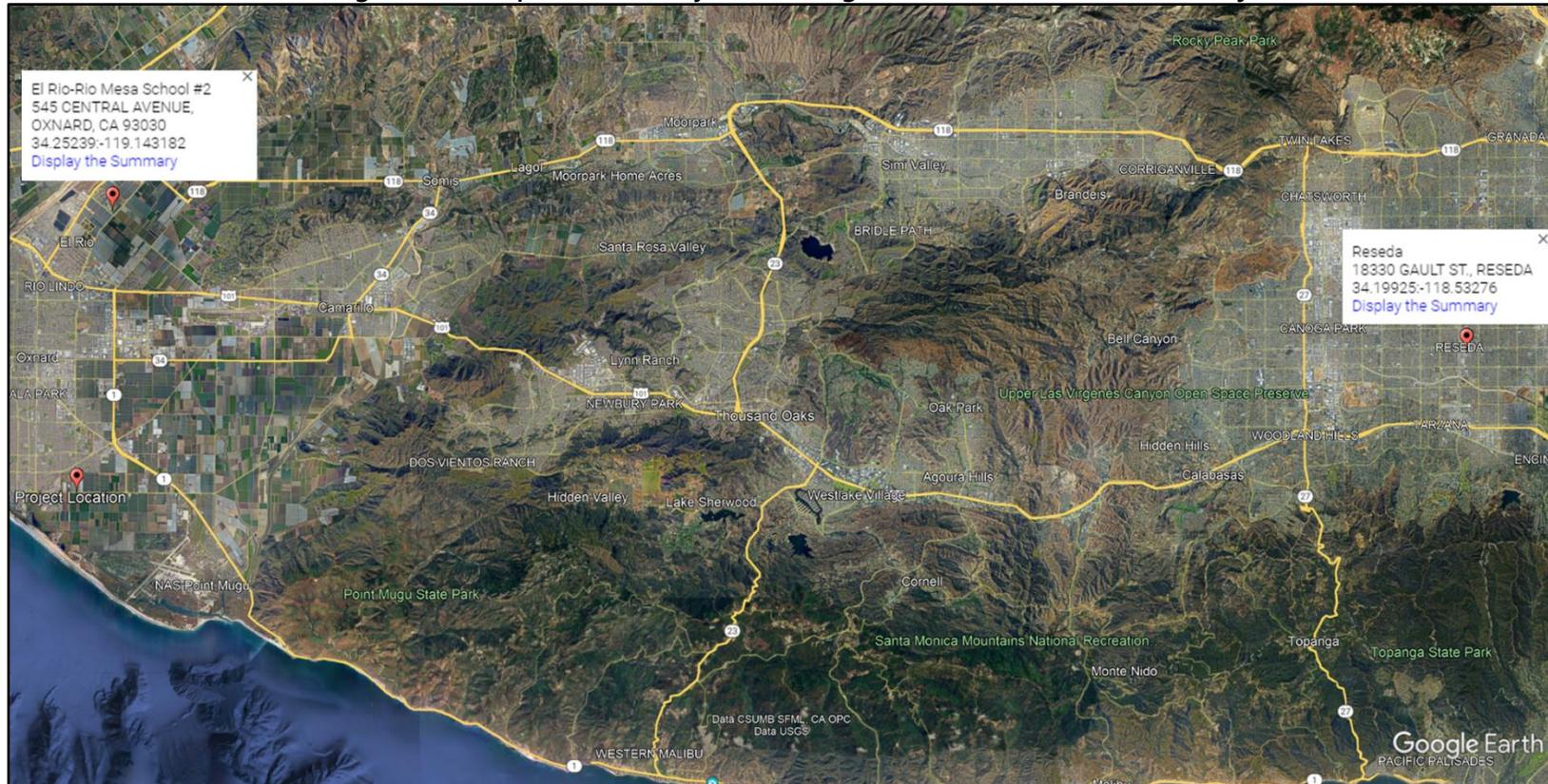
3. Data obtained from U.S. EPA Air Data – Monitor Values Report

ppb = parts per billion ppm = parts per million µg/m³ = micrograms per cubed meter NA = not available

Refer to Appendix B for ambient air quality monitoring data.

Source: ARB 2025

Figure 3-2. Map of Air Quality Monitoring Stations Located Near the Project



Source: ARB 2025

3.2.2 Criteria Pollutants and Attainment Status

Under the CCAA, the ARB is required to designate areas of the state as “attainment”, “nonattainment”, or “unclassified” with respect to applicable standards. An “attainment” designation for an area signifies that pollutant concentrations did not violate the applicable standard in that area. A “nonattainment” designation indicates that a pollutant concentration violated the applicable standard at least once, excluding those occasions when a violation was caused by an exceptional event, as defined in the criteria. Depending on the frequency and severity of pollutants exceeding applicable standards, the nonattainment designation can be further classified as serious nonattainment, severe nonattainment, or extreme nonattainment, with extreme nonattainment being the most severe of the classifications. An “unclassified” designation signifies that the data does not support either attainment or nonattainment status. The CCAA divides districts into moderate, serious, and severe air pollution categories, with increasingly stringent control requirements mandated for each category.

The U.S. EPA designates areas for O₃, CO, and NO₂ as “does not meet the primary standards,” “cannot be classified,” or “better than national standards.” For SO₂, areas are designated as “does not meet the primary standards,” “does not meet the secondary standards,” “cannot be classified,” or “better than national standards.” However, the ARB terminology of attainment, nonattainment, and unclassified is more frequently used. The U.S. EPA uses the same sub-categories for nonattainment status: serious, severe, and extreme. In 1991, U.S. EPA assigned new nonattainment designations to areas that had previously been classified as Group I, II, or III for PM₁₀ based on the likelihood that they would violate national PM₁₀ standards. All other areas are designated “unclassified.”

The state and national attainment status designations pertaining to the SCCAB are summarized in Table 3-2. The SCCAB is currently designated as a nonattainment area with respect to the state and federal O₃ standards and state PM₁₀ standards. The Basin is designated attainment or unclassified for the remaining state and federal standards.

3.2.3 Mobile Source Air Toxics

The primary source of MSAT in the project area is mobile source emissions from major roadways including but not limited to State Route 1, Hueneme Road, and East Pleasant Valley Road. Ambient MSAT data measured at nearby ambient air quality monitoring stations are available from ARB’s website (<https://www.arb.ca.gov/adam/index.html>).

3.2.4 Greenhouse Gas and Climate Change

CO₂, as part of the carbon cycle, is an important compound for plant and animal life, but also accounted for 84 percent of California’s total GHG emissions in 2015. Transportation, primarily on-road travel, is the single largest source of CO₂ emissions in the state.

Table 3-2. State and Federal Attainment Status

Pollutant	State Status	Federal Status (classification)
2015 8-Hour Ozone (O ₃)	Non-Attainment	Non-Attainment (Serious)
2008 8-Hour Ozone (O ₃)	Non-Attainment	Non-Attainment (Serious)
1997 8-Hour Ozone (O ₃)	Non-Attainment	Non-Attainment (Serious)
Respirable Particulate Matter (PM ₁₀)	Non-Attainment	Attainment
2012 Fine Particulate Matter (PM _{2.5})	Attainment	Attainment
2006 Fine Particulate Matter (PM _{2.5})	Attainment	Attainment
1997 Fine Particulate Matter (PM _{2.5})	Attainment	Attainment
Carbon Monoxide (CO)	Attainment	Attainment
Nitrogen Dioxide (NO ₂)	Attainment	Attainment
Sulfur Dioxide (SO ₂)	Attainment	Attainment
Lead (Pb)	Attainment	Attainment
Visibility-Reducing Particles	Attainment/Unclassified	NA
Sulfates	Attainment/Unclassified	NA
Hydrogen Sulfide (H ₂ S)	Attainment/Unclassified	NA
Vinyl Chloride	Attainment/Unclassified	NA

Source: U.S. EPA 2024, VCAPCD 2022

The project is located within the SCCAB region of the County and is included in the SCAG 2024-2050 RTP/SCS (ID # VEN011202). The 2024-2050 RTP/SCS is a long-range plan that balances future mobility and housing needs with economic, environmental, and public health goals through the year 2050.

SCAG is required by federal law to prepare and update a long-range (minimum of 20 years) RTP. The RTP is required to meet federal transportation conformity requirements for transportation-related criteria pollutants for which the region is designated as either nonattainment or maintenance. Pursuant to the FCAA, SCAG's 2024-2050 RTP/SCS meets all federal transportation conformity requirements. In addition, California Senate Bill 375 requires that the RTP also includes an SCS, which outlines growth strategies that better integrate land use and transportation planning and help reduce the state's GHG emissions from cars and light trucks (California Government Code §65080 (b)(2)(B)). For the SCAG region, the ARB has set GHG reduction targets at 8 percent below 2005 per capita emissions levels by 2020, and 19 percent below 2005 per capita emissions levels by 2035. The 2024-2050 RTP/SCS will meet or exceed these targets, lowering GHG emissions (below 2005 levels) by 8 percent by 2020; 19 percent by 2035 (SCAG 2024).

3.3 Sensitive Receptors

Land uses within the project area consist predominantly agricultural uses. Nearby land uses are depicted in Figure 1-3.

3.4 Conformity Status

3.4.1 Regional Conformity

The project is included in the regional emissions analysis conducted by SCAG for the conforming 2024-2050 RTP/SCS Amendment #1. The project is identified in the 2024-2050 RTP/SCS Amendment #1 as ID # VEN011202 and described as "HUENEME RD FROM OXNARD CITY LIMITS TO RICE RD – WIDEN FROM TWO TO FOUR LANES (PHASE I)". The Connect SoCal 2024 RTP/SCS was found to conform by SCAG on April 4, 2024. FHWA and FTA made a regional conformity determination finding for the Connect SoCal 2024 RTP/SCS on May 10, 2024. The most recent amendment to the Connect SoCal 2024 RTP/SCS is Amendment #1, which was adopted by SCAG on September 5, 2024. The Connect SoCal 2024 RTP/SCS is Amendment #1 received federal regional conformity determination approval on December 16, 2024.

The most recent FTIP amendment within which the project is listed is the 2025 FTIP Amendment #25-09. The project is identified in the 2025 FTIP Amendment #25-09 as ID # VEN011202 and described as "HUENEME RD FROM OXNARD CITY LIMITS TO RICE RD – WIDEN FROM TWO TO FOUR LANES (PHASE I)". FHWA and FTA made a regional conformity determination finding for the 2025 FTIP Amendment #25-09 on June 9, 2025. The most recent amendment to the 2025 FTIP is Amendment #25-12. FHWA and FTA issued a regional conformity determination approval for the 2025 FTIP Amendment #25-12 on August 19, 2025. However, the project is not listed in the 2025 FTIP Amendment #25-12 because there has been no change to the project since the 2025 FTIP Amendment #25-09 was approved on June 9, 2025.

The project's design, concept, and scope have not changed significantly from what was analyzed in the regional emission analysis prepared for the federally approved SCAG 2024-2050 RTP/SCS Amendment #1 and the 2025 FTIP Amendment #25-12. The air quality conformity analysis prepared for these plans found that the plans, which consider regionally significant projects and financial constraints, would conform to the SIP(s) for attaining and maintaining the NAAQS as provided in Section 176(c) of the FCAA. FHWA determined that the 2024-2050 RTP/SCS Amendment #1 conformed to the SIP on December 16, 2024 and that the 2025 FTIP Amendment #25-12 conformed to the SIP on August 19, 2025. Additional documentation related to the regional emissions analysis is contained in Appendix A.

Table 3-3. Status of Plans Related to Regional Conformity

MPO	Plan/TIP	Date of Adoption by MPO	Date of Approval by FHWA	Last Amendment	Date of Approval by FHWA of Last Amendment
SCAG	Connect SoCal 2024-2050 RTP/SCS	April 4, 2024	May 10, 2024	1	December 16, 2024
SCAG	2025 FTIP	October 6, 2022	December 16, 2022	25-12	August 19, 2025
<p>1. The Connect SoCal 2024-2050 RTP/SCS received federal approval on May 10, 2024. The most recent Connect SoCal 2024 RTP/SCS amendment is Amendment #1. The Connect SoCal 2024 RTP/SCS Amendment #1 received federal regional conformity determination approval on December 16, 2024.</p> <p>2. The most recent federally-approved amendment to the 2025 FTIP within which the project is listed is Amendment #25-09, which received federal regional conformity determination approval on June 9, 2025. The most recent 2025 FTIP amendment is the 2025 FTIP Amendment #25-12. The federal regional conformity determination approval for the 2025 FTIP Amendment #25-12 was issued on August 19, 2025. However, the project is not listed in the 2025 FTIP Amendment #25-12 because there has been no change to the project since the 2025 FTIP Amendment #25-09 was approved on June 9, 2025.</p>					

3.4.2 Project-Level Conformity

The project is in Ventura County, which is designated nonattainment for the federal ozone standards. The County is designated attainment for the federal CO, PM_{2.5}, PM₁₀ standards (refer to Table 3-2). The project does not cause or contribute to any new localized CO, PM_{2.5}, and/or PM₁₀ violations, or delay the timely attainment of any NAAQS or any required interim emission reductions or other milestones during the timeframe of the transportation plan (or regional emissions analysis). No hot-spot analysis is required for conformity purposes, and project-level conformity analysis requirements are satisfied by the regional conformity analysis described in Section 3.4.1.

3.4.3 Interagency Consultation

The project is located in Ventura County, which is located within the SCCAB. The County is designated attainment for PM_{2.5} and PM₁₀ relative to federal standards (VCAPCD 2022). Therefore, a PM hot-spot analysis is not required.

4. Environmental Consequences

This section describes the methods, impact criteria, and results of air quality analyses of the project. Analyses in this report were conducted using methodology and assumptions that are consistent with the requirements of NEPA, CEQA, the CAAAs of 1990, and the CCAA of 1988. The analyses also use guidelines and procedures provided in applicable air quality analysis protocols, such as the *Transportation Project-Level Carbon Monoxide Protocol (CO Protocol)* (Garza et al., 1997), *Transportation Conformity Guidance for Quantitative Hot-Spot Analyses in PM₁₀ and PM_{2.5} Nonattainment and Maintenance Areas* (U.S. EPA, 2021), and the *FHWA Updated Interim Guidance on Air Toxics Analysis in NEPA Documents* (FHWA, 2023).

4.1 Impact Criteria

Project-related emissions will have an adverse environmental impact if they result in pollutant emissions levels that either create or worsen a violation of an ambient air quality standard (identified in Table 2-1) or contribute to an existing air quality violation.

4.2 Short-Term Effects (Construction Emissions)

4.2.1 Construction Equipment, Traffic Congestion, and Fugitive Dust

Site preparation and roadway construction will involve clearing, cut-and-fill activities, grading, removing or improving existing roadways, and paving roadway surfaces. During construction, short-term degradation of air quality is expected from the release of particulate emissions (airborne dust) generated by excavation, grading, hauling, and other activities related to construction. Emissions from construction equipment powered by gasoline and diesel engines are also anticipated and would include CO, nitrogen oxide (NO_x), volatile organic compounds (VOCs), directly emitted PM₁₀ and PM_{2.5}, and TACs such as DPM. Construction activities are expected to increase traffic congestion in the area, resulting in increases in emissions from traffic during the delays. These emissions would be temporary and limited to the immediate area surrounding the construction site.

Under the transportation conformity regulations (40 CFR 93.123(c)(5)), construction-related activities that cause temporary increases in emissions are not required in a hot-spot analysis. These temporary increases in emissions are those that occur only during the construction phase and last five years or less at any individual site. They typically fall into two main categories:

- *Fugitive dust*: A major emission from construction due to ground disturbance. All air districts and the California Health and Safety Code (Sections 41700-41701) prohibit “visible

emissions" exceeding three minutes in 1 hour – this applies not only to dust but also to engine exhaust. In general, this is interpreted as visible emissions crossing the ROW line.

Sources of fugitive dust include disturbed soil at the construction site and trucks carrying uncovered loads of soil. Unless properly controlled, vehicles leaving the site may deposit mud on local streets, which could be an additional source of airborne dust after it dries. PM₁₀ emissions may vary from day to day, depending on the nature and magnitude of construction activity and local weather conditions. PM₁₀ emissions depend on soil moisture, silt content of the soil, wind speed, and the amount of equipment operating. Larger dust particles would settle near the source, while fine particles would be dispersed over greater distances from the construction site.

- *Construction equipment emissions:* DPM is a California-identified toxic air contaminant, and localized issues may exist if diesel-powered construction equipment is operated near sensitive receptors.

Construction emissions were estimated using the California Emissions Estimator Model (CalEEMod), Version 2022.1.1.30. Emissions modeling was conducted based on off-road equipment requirements and estimated areas to be paved provided by the project engineer, as well as default assumptions contained in the model. The emissions presented are based on the best information available at the time of calculations. The emissions represent the peak daily construction emissions that would be generated by the Build Alternative. Refer to Section 4.3.6 of this report for a discussion of construction generated GHG emissions. Estimated construction-generated emissions are summarized in Table 4-1.

Table 4-1. Construction Emissions of Criteria Air Pollutants & Precursors

Construction Phase	Emissions (lbs/day)				
	ROG	CO	NO _x	PM ₁₀	PM _{2.5}
Land Clearing/Grubbing	0.4	4.5	3.5	5.8	0.7
Grading/Excavation (2030)	3.2	38.3	24.0	8.2	1.7
Grading/Excavation (2031)	2.9	35.9	22.4	1.9	0.9
Drainage/Utilities/Sub-Grade (2031)	1.7	21.0	13.0	7.0	1.1
Paving (2031)	0.8	13.0	7.1	6.2	0.9
<i>Maximum/Day:</i>	3.2	38.3	24.0	8.2	1.7
<i>2030 Project Total (tons/year):</i>	0.2	2.5	1.6	0.6	0.1
<i>2031 Project Total (tons/year):</i>	0.1	1.1	0.7	0.4	0.1
<i>2030-2031 Project Total (tons):</i>	0.3	3.6	2.3	1.0	0.2

Construction emissions were estimated using CalEEMod, Version 2022.1.1.30 based, in part, on project-specific information provided by the project engineer. Assumes compliance with VCAPCD Rule 55 for the control of fugitive dust. Refer to Appendix E for emissions modeling assumptions and results

As depicted in Table 4-1, construction of the proposed Build Alternative would generate maximum daily emissions of approximately 3.2 lbs/day of reactive organic gases (ROG), 38.3 lbs/day of CO, 24.0 lbs/day of NO_x, 8.2 lbs/day of PM₁₀, and 1.7 lbs/day of PM_{2.5}. Total emissions generated during construction would be approximately 0.3 tons of ROG, 3.6 tons of CO, 2.3 tons of NO_x, 1.0 tons of PM₁₀, and 0.2 tons of PM_{2.5}. As previously noted, construction of the project would occur over an approximately 12-month period.

Implementation of the following measures, some of which may also be required for other purposes such as stormwater pollution control, will reduce air quality impacts resulting from construction activities. Please note that although these measures are anticipated to reduce construction-related emissions, these reductions cannot be quantified at this time.

- The construction contractor would comply with the Caltrans' non-standard special provision Section 14-9.05 (2023). Section 14-9.05 requires identification of the local air quality jurisdiction and for the contract to comply with all applicable rules and best management practices. The project would comply with all applicable VCAPCD rules and regulations including, but not limited to, Rule 55 for the control of fugitive dust, Rule 62.7 for the control of asbestos-containing material (ACM), and Rule 74.4, which prohibits the use of cutback asphalt.
- Water or a dust palliative will be applied to the site and equipment as often as necessary to control fugitive dust emissions.
- Soil binder will be spread on any unpaved roads used for construction purposes, and on all project construction parking areas.
- Trucks will be washed as they leave the ROW as necessary to control fugitive dust emissions.
- Construction equipment and vehicles will be properly tuned and maintained. All construction equipment will use low sulfur fuel as required by the CA Code of Regulations Title 17, Section 93114.
- A dust control plan will be developed documenting sprinkling, temporary paving, speed limits, and timely re-vegetation of disturbed slopes as needed to minimize construction impacts to existing communities.
- Equipment and materials storage sites will be located as far away from residential and park uses as practicable. Construction areas will be kept clean and orderly.
- Environmentally sensitive areas will be established near sensitive air receptors. Within these areas, construction activities involving the extended idling of diesel equipment or vehicles will be prohibited, to the extent feasible.
- Track-out reduction measures, such as gravel pads at project access points to minimize dust and mud deposits on roads affected by construction traffic, will be used.
- All transported loads of soil and wet materials will be covered before transport, or adequate freeboard (space from the top of the material to the top of the truck) will be provided to minimize the emission of dust during transportation.

- Dust and mud that are deposited on paved, public roads due to construction activity and traffic will be promptly and regularly removed to reduce PM emissions.
- To the extent feasible, construction traffic will be scheduled and routed to reduce congestion and related air quality impacts caused by idling vehicles along local roads during peak travel times.
- Mulch will be installed, or vegetation planted as soon as practicable after grading to reduce windblown PM in the area.
- In addition, nonstandard special provision 14-9.05 would mandate contractors to be responsible for complying with all rules and regulations implemented by air districts.

4.2.2 VCAPCD Rules and Regulations

As noted above, the project would be required to comply with all applicable laws and regulations related to air quality, which would include applicable VCAPCD rules and regulations. Applicable rules and regulations may include, but are not limited to, the following:

- *Rule 55 – Fugitive Dust.* The purpose of this Rule is to reduce the amount of PM in the ambient air resulting from anthropogenic fugitive dust sources by requiring projects to prevent, reduce, or mitigate fugitive dust emissions. Accordingly, construction activity sources are required to implement the best available control measures for the control of fugitive dust.
- *Rule 62.7 – Asbestos-Demolition and Renovation.* This rule applies to the demolition and renovation activities associated with the disturbance of ACM.
- *Rule 74.4 – Cutback Asphalt.* This rule prohibits the use of rapid cure cutback asphalt for highway or street paving or maintenance, as well as, the sale of such products.

4.2.3 Asbestos

The project is located in the County, which is not depicted as containing naturally-occurring asbestos (NOA) (i.e., serpentine and ultramafic rock). Refer to Appendix C for the map depicting areas more likely to contain NOA. Therefore, the impact of NOA during project construction would be minimal to none.

Asbestos was used in many materials prior to 1978 and may have been used up until the early 1980s. ACMs include fireproofing, acoustic ceiling material, transit pipe, roofing materials, thermal insulation, support piers, expansion joint material in bridges, asphalt, concrete, and other building materials. It is of primary concern when it is friable (i.e., material that can be easily crumbled). ACM may be encountered with bridges, undercrossings, or underground utilities, as well as, during the demolition of existing structures constructed in the early 1980s and earlier. If not properly identified and mitigated, asbestos fibers could become airborne during the construction of the project, particularly during demolition and site preparation activities. The EPA established the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Asbestos to minimize the release of asbestos fibers during ACM handling activities, including demolition of existing structures containing

ACM. To minimize public exposure and ensure compliance with NESHAP requirements, VCAPCD regulates ACM through implementation of VCAPCD Rule 62.7, Asbestos-Demolition and Renovation (VCAPCD 2025). Compliance with VCAPCD Rule 62.7 would minimize exposure to ACM.

4.2.4 Lead

Lead is normally not an air quality issue for transportation projects unless the project involves disturbance of soils containing high levels of aerially deposited lead or painting or modification of structures with lead-based coatings. The project would require the demolition of major onsite structures or buildings that may contain lead-based coatings or materials. An initial study assessment prepared for the project recommended testing prior to demolition of onsite structures. Implementation of the proposed improvements may require the removal and disposal of yellow traffic striping and pavement marking materials (paint thermoplastic, permanent tape, and temporary tape). Yellow paints made prior to 1995 may exceed hazardous waste criteria under Title 22, California Code of Regulations, and require disposal in a Class I disposal site. In addition, the disturbance of lead paint must meet U.S. EPA and air district rules (Caltrans Standard Specifications 14-9.02 and Caltrans Standard Special Provision 14-11.07, 2023). Lead-based paint may be encountered with painted curbs and protective bollards. Furthermore, the project is not located near an industrial lead emissions source. Therefore, exposure to lead more than applicable standards during construction would be unlikely.

4.2.5 Odors

Minor sources of odors would be present during construction. The predominant source of power for construction equipment is diesel engines. Exhaust odors from diesel engines, as well as emissions associated with asphalt paving, may be considered offensive to some individuals. However, because odors would be temporary and would disperse rapidly with distance from the source, construction-generated odors would not be anticipated to result in the frequent exposure of receptors to objectionable odorous emissions.

4.2.6 Valley Fever

Valley fever is an illness caused by a fungus found in the soil in many parts of California, particularly in the Central Valley and Central Coast areas of the State. For some, Valley Fever can be serious and even fatal. Workers who work outdoors are especially at risk when performing activities associated with the disturbance of soil, particularly soils not previously disturbed. Compliance with VCAPCD Rule 55 for the control of fugitive dust would help to minimize exposure by reducing potential increases in fugitive dust and potential increases in entrained fungal spores.

4.3 Long-Term Effects (Operational Emissions)

Long-term operational emissions of criteria air pollutants associated with the preferred Build Alternative would be associated with the operation of motor vehicles. Long-term operational emissions were quantified using CT-EMFAC2021 version 1.0.2 computer program based on traffic information provided by the project engineer for vehicle travel within the project area. Estimated changes in operational emissions are summarized in Table 4-2. Operational emissions were quantified for Existing Year 2023 (baseline) conditions, No-Build Alternative and the Build Alternative conditions for Opening Year 2030 and Design Year 2050 conditions. In comparison to the No-Build Alternative for Opening Year 2030 and Design Year 2050 conditions, the proposed Build Alternative is predicted to increase emissions of PM_{2.5}, PM₁₀, NO_x, CO, and ROG by approximately 3 percent. It is important to note that estimated emissions are based on vehicle travel within the project area. However, on a regional basis, implementation of the proposed build alternative is not anticipated to result in a significant increase in long-term VMT and associated mobile-source emissions (Kimley Horn 2023).

Table 4-2. Summary of Comparative Operational Emissions Analysis

Scenario/Analysis Year	Emissions (Tons/Year) ¹				
	PM _{2.5}	PM ₁₀	NO _x ²	CO	ROG
Existing Year 2023	0.33	1.82	2.02	10.15	0.55
No-Build Alternative – Opening Year 2030	0.32	1.80	1.06	6.93	0.39
No-Build Alt. 2030 Compared to Existing:	-0.01	-0.01	-0.96	-3.22	-0.16
Percent Change:	-3%	-1%	-48%	-32%	-29%
Build Alternative – Opening Year 2030	0.33	1.85	1.09	7.11	0.40
Build Alt. 2030 Compared to Existing:	0.00	0.03	-0.94	-3.04	-0.15
Percent Change:	-0%	2%	-46%	-30%	-27%
Build Alt. 2030 Compared to No-Build Alt. 2030:	0.01	0.05	0.03	0.17	0.01
Percent Change:	3%	3%	3%	3%	3%
No-Build Alternative – Design Year 2050	0.34	1.96	0.46	5.06	0.26
No-Build Alt. 2050 Compared to Existing:	0.01	0.15	-1.56	-5.09	-0.29
Percent Change:	2%	8%	-77%	-50%	-53%
Build Alternative – Design Year 2050	0.35	2.01	0.47	5.19	0.27
Build Alt. 2050 Compared to Existing:	0.02	0.20	-1.55	-4.96	-0.28
Percent Change:	5%	11%	-77%	-49%	-52%
Build 2050 Alt. Compared to No-Build Alt. 2050:	0.01	0.05	0.01	0.13	0.01
Percent Change:	3%	3%	3%	3%	3%

1. Emissions were calculated using the CT-EMFAC2021 version 1.0.2 computer program based, in part, on traffic data provided for this project and vehicle travel distances within the project area (Kimley Horn 2023a, 2025). Includes exhaust emissions, brake, road, and tire dust. Refer to Appendix E for emissions modeling assumptions and results.

2. NO_x is a surrogate for NO₂.

Note: Values may not sum due to rounding

Note: Opening Year 2030 traffic is considered to be a conservative estimation of year 2027 traffic data (Kimley Horn 2024)

4.3.1 CO Analysis

In 1997, the U.S. EPA approved the CO Protocol⁸ for use as an alternative hot-spot analysis method in California. Statewide and regional interagency consultation groups also reviewed the CO Protocol and approved it for federal air quality conformity use. The CO Protocol provides a screening procedure for determining when a project may be of possible concern regarding potential exceedance of CO ambient air quality standards. For projects that do not pass the screening procedure, the CO Protocol provides additional guidance on conducting a more detailed analysis. An evaluation of each CO Protocol Decision Flow Chart, Appendix D, inquiry as they pertain to the project is discussed, as follows:

Section 3

3.1.1 Is this project exempt from all emission analyses?

No. The project is not exempt from all emission analyses as it does not meet the criteria for projects exempt from all emissions analyses listed in the CO Protocol. In addition, the air quality analyses of projects included in the RTP and FTIP do not include the analyses of local CO impacts, which therefore must be addressed on a project level. (Proceed to 3.1.2)

3.1.2. Is this project exempt from regional emissions analyses?

No. The project is not exempt from regional emission analyses as it does not meet the criteria for projects exempt from regional emission analyses listed in the CO Protocol. (Proceed to 3.1.3)

3.1.3. Is this project locally defined as regionally significant?

Yes. Regionally significant projects are defined in 40 CFR 93.101 as projects that would normally be included in the modeling of a metropolitan area's transportation network, which is the case for this project. (Proceed to 3.1.4)

3.1.4. Is this project in a federal attainment area?

No. The project is located within the County, which is within the SCCAB. The County is currently designated as an attainment area with respect to federal pollutants except for O₃. The County is designated nonattainment for both the 1-Hour and 8-Hour O₃ NAAQS (VCAPCD 2022). (Proceed to 3.1.5)

3.1.5. Is there a currently conforming RTP and TIP?

Yes. There is a conforming RTP (SCAG 2024-2050 RTP/SCS Amendment #1) and TIP (SCAG 2025 FTIP Amendment #25-12) 2024-2050 RTP/SCS Amendment #1 was approved by the FHWA on December 16, 2024 and the 2025 FTIP Amendment #25-12 was approved by FHWA on August 19, 2025. The project is identified as Project ID # VEN011202. (Proceed to 3.1.6)

3.1.6. Is the project included in the regional emissions analysis supporting the currently conforming RTP and TIP?

⁸ Transportation Project-Level Carbon Monoxide Protocol, UCD-ITS-97-21, University of California, Davis, December 1997

Yes. The project is identified as Project ID # VEN011202 and is included in the regional emissions analysis conducted by SCAG for the conforming 2024-2050 RTP/SCS Amendment #1 and the 2025 FTIP Amendment #25-12. *(Proceed to 3.1.7)*

3.1.7. Has the project design concept and/or scope changed significantly from that in regional analysis?

No. The project is identified in the 2024-2050 RTP/SCS Amendment #1 and the 2025 FTIP Amendment #25-12 as Project # VEN011202 and described as "HUENEME RD FROM OXNARD CITY LIMITS TO RICE RD – WIDEN FROM TWO TO FOUR LANES (PHASE I)". The project has not changed significantly from what was included in the regional emissions analysis conducted for the 2024-2050 RTP/SCS Amendment #1 and the 2025 FTIP Amendment #25-12. *(Proceed to 4.1.1)*

Level 1

4.1.1. Is the project in a CO non-attainment area?

No. The project site is in an area that has demonstrated attainment with the federal CO standards and is currently designated an attainment area. *(Proceed to 4.1.2)*

4.1.2 Was the area redesignated as "attainment" after the 1990 Clean Air Act?

No. The SCCAB was not redesignated to attainment status after the 1990 Clean Air Act. *(Proceed to 4.7.1)*

Level 7

4.7.1. Does the project worsen air quality?

The CO Protocol, Section 4.7.1, recommends the following criteria to be used to determine whether the project is likely to worsen air quality for the area substantially affected by the project.

1. The project significantly increases the percentage of vehicles operating in cold start mode. Increasing the number of vehicles operating in cold start mode by as little as 2 percent should be considered potentially significant.

No. Vehicles operating in "cold start" mode can be an important source of air pollutants, including emissions of CO. EMFAC2021 considers a vehicle to be in "cold start" if the vehicle's engine has been shut-off for 720 minutes (12 hours), or more (ARB 2021).

The Build Alternative would result in permanent ROW acquisition from 30 properties. The proposed Build Alternative would not result in the construction of new facilities that would result in increases in vehicle "cold starts", such as park-n-ride lots, nor would the proposed Build Alternative result in increases in vehicle delay that would result in increases in "cold start" vehicle operations. Therefore, the Build Alternative would not result in changes in vehicle operations that would result in increased "cold start" vehicle operations.

- 2. The project significantly increases traffic volumes. Increases in traffic volumes in excess of 5 percent should be considered potentially significant. Increasing the traffic volume by less than 5 percent may still be potentially significant if there is also a reduction in average speeds.**

Yes. A comparison of directional peak hour lane volumes for Opening Year 2030 and future Design Year 2050, with and without project implementation, are summarized in Table 4-3 and Table 4-4, respectively. As shown, the project is predicted to result in a significant increase in traffic volumes on Hueneme Road greater than 5 percent.

- 3. The project worsens traffic flow. For uninterrupted roadway segments, a reduction in average speeds (within a range of three to 50 mph) should be regarded as worsening traffic flow. For intersection segments, a reduction in average speed or an increase in average delay should be considered as worsening traffic flow.**

Yes. As depicted in Table 4-5, the project is predicted to deteriorate LOS at the signalized intersection of Hueneme Road and Olds Road from LOS B to LOS C under both Opening Year 2030 conditions and Design Year 2050 conditions. Increases in vehicle delay would be anticipated to result in a worsening of traffic flow at this intersection. (Proceed to 4.7.2)

Table 4-3. Change in Intersection LOS

Intersection	Opening Year 2030 Change in LOS (No-Build to → Build)		Design Year 2050 Change in LOS (No-Build to → Build)	
	A.M. Peak Hour	P.M. Peak Hour	A.M. Peak Hour	P.M. Peak Hour
Signalized				
Hueneme Road and Edison Drive	A → A	B → A	A → A	B → A
Hueneme Road and Olds Road	A → A	B → C	A → A	B → C
Hueneme Road and Rice Avenue	A → A	C → A	A → A	C → A
Unsignalized	A.M. Peak Hour	P.M. Peak Hour	A.M. Peak Hour	P.M. Peak Hour
Hueneme Road and Arnold Road	C → C	D → C	D → C	D → C
Hueneme Road and Casper Road	C → C	D → C	D → C	F → D

Source: Kimley Horn 2023a, 2025

Note: Opening Year 2030 traffic is considered to be a conservative estimation of year 2027 traffic data (Kimley Horn 2024)

Table 4-4. Peak Hour Lane Volumes – Opening Year 2030

Intersection/Lane	No-Build		Build		Change		% Change	
	A.M.	P.M.	A.M.	P.M.	A.M.	P.M.	A.M.	P.M.
Hueneme Road and Edison Drive Intersection								
Edison Drive Southbound Through	6	8	6	8	0	0	0 %	0 %
Edison Drive Southbound Left	3	1	3	1	0	0	0 %	0 %
Edison Drive Northbound Right	6	48	6	48	0	0	0 %	0 %
Edison Drive Northbound Through	4	7	4	7	0	0	0 %	0 %
Edison Drive Northbound Right + Through	10	55	10	55	0	0	0 %	0 %
Edison Drive Northbound Left	12	12	12	12	0	0	0 %	0 %
Hueneme Road Eastbound Right	49	12	49	12	0	0	0 %	0 %
Hueneme Road Eastbound Through	693	531	730	532	37	1	5 %	0 %
Hueneme Road Eastbound Left	4	3	4	3	0	0	0 %	0 %
Hueneme Road Westbound Right	4	0	4	0	0	0	0 %	0 %
Hueneme Road Westbound Through	459	902	460	961	1	59	0 %	7 %
Hueneme Road Westbound Right + Through	463	902	464	961	1	59	0 %	7 %
Hueneme Road Westbound Left	10	8	10	8	0	0	0 %	0 %
Hueneme Road and Arnold Road Intersection	A.M.	P.M.	A.M.	P.M.	A.M.	P.M.	A.M.	P.M.
Arnold Road Northbound Right	6	9	6	9	0	0	0 %	0 %
Arnold Road Northbound Left	9	14	9	14	0	0	0 %	0 %
Arnold Road Northbound Right + Left (No-Build)	15	23	15	23	0	0	0 %	0 %
Hueneme Road Eastbound Right	4	3	4	3	0	0	0 %	0 %
Hueneme Road Eastbound Through	695	588	732	589	37	1	5 %	0 %
Hueneme Road Eastbound Right + Through	699	591	736	592	37	1	5 %	0 %
Hueneme Road Westbound Through	485	909	486	969	1	60	0 %	7 %
Hueneme Road Westbound Left	10	4	10	4	0	0	0 %	0 %
Hueneme Road and Olds Road Intersection	A.M.	P.M.	A.M.	P.M.	A.M.	P.M.	A.M.	P.M.
Olds Road Southbound Right	39	43	39	43	0	0	0 %	0 %
Olds Road Southbound Left	41	14	41	14	0	0	0 %	0 %
Olds Road Southbound Right + Left	80	57	80	57	0	0	0 %	0 %
Hueneme Road Eastbound Through	648	571	686	573	38	2	6 %	0 %
Hueneme Road Eastbound Left	67	28	67	28	0	0	0 %	0 %
Hueneme Road Westbound Right	30	90	30	90	0	0	0 %	0 %
Hueneme Road Westbound Through	463	872	465	932	2	60	0 %	7 %
Hueneme Road Westbound Right + Through	493	962	495	1022	2	60	0 %	6 %
Hueneme Road and Casper Road Intersection	A.M.	P.M.	A.M.	P.M.	A.M.	P.M.	A.M.	P.M.
Casper Road Northbound Right	7	30	7	30	0	0	0 %	0 %
Casper Road Northbound Left	6	20	6	20	0	0	0 %	0 %
Casper Road Northbound Right + Left	13	50	13	50	0	0	0 %	0 %
Hueneme Road Eastbound Right	10	4	10	4	0	0	0 %	0 %
Hueneme Road Eastbound Through	690	588	729	590	39	2	6 %	0 %
Hueneme Road Eastbound Right + Through	700	592	739	594	39	2	6 %	0 %
Hueneme Road Westbound Through	485	931	486	987	1	56	0 %	6 %
Hueneme Road Westbound Left	13	17	13	17	0	0	0 %	0 %
Hueneme Road and Rice Avenue Intersection	A.M.	P.M.	A.M.	P.M.	A.M.	P.M.	A.M.	P.M.
Rice Avenue Southbound Right	115	212	115	216	0	4	0 %	2 %
Rice Avenue Southbound Left	41	10	41	10	0	0	0 %	0 %
Hueneme Road Eastbound Through	544	465	583	465	39	0	7 %	0 %
Hueneme Road Eastbound Left	167	149	167	149	0	0	0 %	0 %
Hueneme Road Westbound Right	37	75	37	75	0	0	0 %	0 %
Hueneme Road Westbound Through	415	758	421	780	6	22	1 %	3 %

Source: Kimley Horn 2023a,

Note: Opening Year 2030 traffic is considered to be a conservative estimation of year 2027 traffic data (Kimley Horn 2024)

Table 4-5. Peak Hour Lane Volumes – Design Year 2050

Intersection/Lane	No-Build		Build		Change		% Change	
	A.M.	P.M.	A.M.	P.M.	A.M.	P.M.	A.M.	P.M.
Hueneme Road and Edison Drive Intersection								
Edison Drive Southbound Through	6	8	6	8	0	0	0 %	0%
Edison Drive Southbound Left	3	1	3	1	0	0	0 %	0%
Edison Drive Northbound Right	6	48	6	48	0	0	0 %	0%
Edison Drive Northbound Through	4	7	4	7	0	0	0 %	0%
Edison Drive Northbound Right + Through	4	4	4	4	0	0	0 %	0%
Edison Drive Northbound Left	12	12	12	12	0	0	0 %	0%
Hueneme Road Eastbound Right	49	12	49	12	0	0	0 %	0%
Hueneme Road Eastbound Through	723	531	764	532	41	1	6 %	0%
Hueneme Road Eastbound Left	4	3	4	3	0	0	0 %	0%
Hueneme Road Westbound Right	4	0	4	0	0	0	0 %	0%
Hueneme Road Westbound Through	459	903	460	968	1	65	0 %	7%
Hueneme Road Westbound Right + Through	4	4	4	4	0	0	0 %	0%
Hueneme Road Westbound Left	10	9	10	9	0	0	0 %	0%
Hueneme Road and Arnold Road Intersection	A.M.	P.M.	A.M.	P.M.	A.M.	P.M.	A.M.	P.M.
Arnold Road Northbound Right	6	9	6	9	0	0	0 %	0%
Arnold Road Northbound Left	9	14	9	14	0	0	0 %	0%
Arnold Road Northbound Right + Left	4	4	4	4	0	0	0 %	0%
Hueneme Road Eastbound Right	5	3	5	3	0	0	0 %	0%
Hueneme Road Eastbound Through	727	588	768	589	41	1	6 %	0%
Hueneme Road Eastbound Right + Through	4	4	4	4	0	0	0 %	0%
Hueneme Road Westbound Through	486	914	487	980	1	66	0 %	7%
Hueneme Road Westbound Left	11	4	11	4	0	0	0 %	0%
Hueneme Road and Olds Road Intersection	A.M.	P.M.	A.M.	P.M.	A.M.	P.M.	A.M.	P.M.
Olds Road Southbound Right	39	46	39	46	0	0	0 %	0%
Olds Road Southbound Left	42	14	42	14	0	0	0 %	0%
Olds Road Southbound Right + Left	4	4	4	4	0	0	0 %	0%
Hueneme Road Eastbound Through	682	571	724	573	42	2	6 %	0%
Hueneme Road Eastbound Left	68	30	68	30	0	0	0 %	0%
Hueneme Road Westbound Right	30	103	30	103	0	0	0 %	0%
Hueneme Road Westbound Through	463	889	465	955	2	66	0 %	7%
Hueneme Road Westbound Right + Through	4	4	4	4	0	0	0 %	0%
Hueneme Road and Casper Road Intersection	A.M.	P.M.	A.M.	P.M.	A.M.	P.M.	A.M.	P.M.
Casper Road Northbound Right	12	45	12	45	0	0	0 %	0%
Casper Road Northbound Left	11	36	11	36	0	0	0 %	0%
Casper Road Northbound Right + Left	4	4	4	4	0	0	0 %	0%
Hueneme Road Eastbound Right	24	8	24	8	0	0	0 %	0%
Hueneme Road Eastbound Through	722	588	765	590	43	2	6 %	0%
Hueneme Road Eastbound Right + Through	4	4	4	4	0	0	0 %	0%
Hueneme Road Westbound Through	494	931	495	993	1	62	0 %	7%
Hueneme Road Westbound Left	29	30	29	30	0	0	0 %	0%
Hueneme Road and Rice Avenue Intersection	A.M.	P.M.	A.M.	P.M.	A.M.	P.M.	A.M.	P.M.
Rice Avenue Southbound Right	124	274	124	278	0	4	0 %	1%
Rice Avenue Southbound Left	57	18	57	18	0	0	0 %	0%
Hueneme Road Eastbound Through	558	465	601	465	43	0	8 %	0%
Hueneme Road Eastbound Left	235	149	235	149	0	0	0 %	0%
Hueneme Road Westbound Right	76	86	76	86	0	0	0 %	0%
Hueneme Road Westbound Through	484	758	491	782	7	24	1 %	3%

Source: Kimley Horn 2023a

Note: Opening Year 2030 traffic is considered to be a conservative estimation of year 2027 traffic data (Kimley Horn 2024)

4.7.2. Is the project suspected of resulting in higher CO concentrations than those existing within the region at the time of attainment demonstration?

The attainment demonstration included evaluation of CO concentrations at the Wilshire Boulevard/Veteran Avenue intersection, which is considered the most congested intersection in Los Angeles County, having an ADT volume of approximately 100,000 vehicles per day. The attainment demonstration modeling estimated CO concentrations at this intersection to be 4.6 parts per million (ppm) in the A.M. peak hour and 3.5 ppm in the P.M. peak hour for the year 2002. In accordance with the CO Protocol, peak hour operations for the intersections associated with project build conditions were compared to this modeled intersection to determine if the project would be suspected of resulting in higher CO concentrations. Section 4.7.2 of the CO Protocol recommends evaluation based on the following criteria for determining if the project would be suspected of resulting in higher CO concentrations in comparison to those existing within the region at the time of attainment demonstration.

1. The receptors at the location under study are at the same distance or farther from the traveled roadway than the receptors at the location where attainment has been demonstrated.

The receptors at the location under study are at the same distance or farther from the traveled roadway than the receptors at the location where attainment has been demonstrated. Predicted concentrations for the attainment demonstration modeling were three meters from the roadway edge. The nearest receptors in the vicinity of the intersections would be no closer than three meters.

2. The roadway geometry of the two locations is not significantly different. An example of a significant difference would be a larger number of lanes at the location under study compared to the location where attainment has been demonstrated.

The Wilshire Boulevard/Veteran Avenue intersection is a 10-lane facility in the east and west directions and a 9-lane facility in the north and south directions resulting in a 19-lane intersection. At the intersection, the east direction includes two left turn lanes and three through lanes. The west direction includes two left turn lanes and three through lanes. The north direction includes one left turn lane, two through lanes and one right turn lane. The south direction includes one left turn lane, two through lanes, and two right turn lanes. Under the Build Alternative, Hueneme Road and Rice Avenue would be an 8-lane intersection. Therefore, the roadway geometry of the two locations is not significantly different.

3. Expected worst-case meteorology at the location under study is the same or better than the worst-case meteorology at the location where attainment has been demonstrated. Relevant meteorological variables include wind speed, wind direction, temperature and stability class.

Expected worst-case meteorology at the project location is the same or better than the worst-case meteorology at the location where attainment has been demonstrated.

4. Traffic lane volumes at the location under study are the same or lower than those at the location where attainment has been demonstrated.

Traffic lane volumes in the project area are the same or lower than those at the location where attainment has been demonstrated. Traffic volumes at the intersections associated with the project would be lower than those identified for the Wilshire Boulevard/Veteran Avenue intersection. For example, the Wilshire Boulevard/Veteran Avenue intersection documented a worst-case 1,238 vehicles per lane per hour (v/l/h) from the east in the A.M. peak hour in 2000.

In comparison, the highest predicted peak hour lane volume for the Build Alternative would be an eastbound Hueneme Road through lane approaching the Hueneme Road and Edison Drive intersection under Opening Year 2030 and Design Year 2050 conditions. Under Build conditions, the volume is projected to be approximately 730 v/l/h, or less, for Opening Year 2030 conditions. The volume is projected to be 764 v/l/h, or less, for Design Year 2050 conditions. The predicted v/l/h are derived based on intersection turning movements provided in the traffic impact study (TIS) prepared by Kimley Horn (2023a, 2025). Calculations for v/l/h are presented in Appendix D.

Under both Opening Year 2030 and Design Year 2050 conditions, predicted worst-case lane volumes for the Build Alternative would be less than those identified for the Wilshire Boulevard/Veteran Avenue intersection.

5. Percentage of vehicles operating in cold start mode at the location under study are the same or lower than those at the location where attainment has been demonstrated.

Percentage of vehicles operating in cold start mode at the location under study are the same or lower than those at the location where attainment has been demonstrated. The proposed Build Alternative would not result in a significant increase in vehicles operating in cold start mode.

6. Percentage of heavy-duty gas trucks at the location under study is the same or lower than the percentage at the location where attainment has been demonstrated.

The percentage of heavy-duty gas trucks at the location under study is the same or lower than the percentage at the location where attainment has been demonstrated. The proposed Build Alternative would not result in a significant increase in truck volumes.

7. For projects involving intersections, the average delay and queue length for each approach is the same or smaller for the intersection under study compared to those found in the intersection where attainment has been demonstrated.

Given the extreme traffic volumes and congestion reported at the Wilshire Boulevard/Veteran Avenue intersection, the average vehicle delay and queue lengths would be significantly lower at the intersections associated with the proposed Build Alternative.

8. Background concentration at the location under study is the same or lower than the background concentration at the location where attainment has been demonstrated.

Background CO concentrations have declined in recent years and, as a result, background CO concentrations at the location of the study would be lower than the background concentrations used for the attainment demonstration modeling.

Based on the above screening criteria, the project area intersection would not be suspected of resulting in higher CO concentrations than those existing within the region at the time of attainment demonstration. No further analysis is necessary.

4.3.2 PM Analysis

Emissions Analysis

PM emissions within the project area were estimated for Baseline, No-Build Alternative, and the Build Alternative for Opening Year 2030 and Design Year 2050 conditions (refer to Table 4-2). Under the No-Build Alternative 2030 conditions, emissions of PM_{2.5} would decrease by approximately 3 percent and emissions of PM₁₀ would decrease by approximately 1 percent relative to existing conditions. Under the No-Build Alternative 2050 conditions, emissions of PM_{2.5} are projected to increase by approximately 2 percent and PM₁₀ emissions are projected to increase approximately 8 percent relative to existing conditions. In comparison to No-Build Alternative year 2030 conditions, the proposed Build Alternative is predicted to increase PM_{2.5} and PM₁₀ emissions by approximately 3 percent each. In comparison to No-Build Alternative year 2050 conditions, the proposed Build Alternative is predicted to increase emissions by approximately 3 percent for both PM_{2.5} and PM₁₀.

Hot-Spot Analysis

In October 2021, the U.S. EPA released an updated version of *Transportation Conformity Guidance for Quantitative Hot-Spot Analyses in PM_{2.5} and PM₁₀ Nonattainment and Maintenance Areas* (Guidance) for quantifying the local air quality impacts of transportation projects and comparing them to the PM NAAQS (75 FR 79370). The U.S. EPA originally released the quantitative guidance in December 2010 and released a revised version in October 2021 to reflect the approval of EMFAC2021 and U.S. EPA's 2012 PM NAAQS final rule.

The October 2021 version reflects MOVES3 and its subsequent minor revisions, to revise design value calculations to be more consistent with other U.S. EPA programs, and to reflect guidance implementation and experience in the field. Note that EMFAC, not MOVES, should be used for project hot-spot analysis in California. The Guidance requires a hot-spot analysis to be completed for a project of air quality concern (POAQC). The final rule in 40 CFR 93.123(b)(1) defines a POAQC as:

- (i) New or expanded highway projects that have a significant number of or a significant increase in diesel vehicles;

- (ii) Projects affecting intersections that are at LOS D, E, or F with a significant number of diesel vehicles, or those that will change to LOS D, E, or F because of increased traffic volumes from a significant number of diesel vehicles related to the project;
- (iii) New bus and rail terminals and transfer points that have a significant number of diesel vehicles congregating at a single location;
- (iv) Expanded bus and rail terminals and transfer points that significantly increase the number of diesel vehicles congregating at a single location; and
- (v) Projects in or affecting locations, areas, or categories of sites which are identified in the PM_{2.5} and PM₁₀ applicable implementation plan or implementation plan submission, as appropriate, as sites of violation or possible violation.

The project would not be considered a POAQC for PM₁₀ and/or PM_{2.5} because it does not meet the definition of a POAQC as defined in U.S. EPA's Guidance. The project is not a new or expanded highway that would result in a significant increase in diesel vehicles. As noted in Table 1-14 and Table 1-16, the project would result in significant increases in traffic volumes along Hueneme Road. However, the project would not result in a significant increase in the number of diesel vehicles operating along area roadways. The proposed Build Alternative is not a new or expanded bus or rail terminal, and would not affect locations, areas, or categories of sites identified in PM implementation plans as sites of a possible violation. The project is in an area designated as attainment for both PM_{2.5} and PM₁₀ standards, therefore a project-level PM hot spot analysis is not required.

4.3.3 NO₂ Analysis

The U.S. EPA modified the NO₂ NAAQS to include a 1-hour standard of 100 parts per billion (ppb) in 2010. Currently, there is no federal project-level NO₂ analysis requirement. However, NO₂ is among the near-road pollutants of concern, and project analysts will be expected to explain how transportation projects affect near-road NO₂.

NO_x emissions within the project area were estimated for Existing Year 2023 (baseline), No-Build Alternative, and the Build Alternative for Opening Year 2030 and Design Year 2050 conditions (refer to Table 4-2). In comparison to existing conditions, emissions of NO_x in the project area are projected to decrease by approximately eight tons/year, or more, by 2050 for both alternatives. As discussed earlier in this report and summarized in Tables 1-13, 1-14, 1-15, and 1-16, the proposed Build Alternative would result in changes in traffic volumes along roadway segments within the project area. The project would not affect vehicle mix or result in increased heavy-duty truck operations within the project area. No meaningful change in NO₂ concentrations along area roadways would be anticipated to occur with the implementation of the proposed Build Alternative. As a result, the Build Alternative would not be anticipated to cause or result in a worsening of violations of the ambient air quality standards for NO₂.

4.3.4 Mobile Source Air Toxics Analysis

FHWA released updated guidance in January 2023 (FHWA, 2023) for determining when and how to address MSAT impacts in the NEPA process for transportation projects. FHWA identified three levels of analysis:

- 1) No analysis for projects with no potential for meaningful MSAT effects;
- 2) Qualitative analysis for projects with low potential MSAT effects; or
- 3) Quantitative analysis to differentiate alternatives for projects with higher potential MSAT effects. For projects warranting MSAT analysis, all nine priority MSATs should be considered.

1) Projects with No Meaningful Potential MSAT Effects, or Exempt Projects

The types of projects included in this category are:

- Projects qualifying as a categorical exclusion under 23 CFR 771.117;
- Projects exempt under the FCAA conformity rule under 40 CFR 93.126; and
- Other projects with no meaningful impacts on traffic volumes or vehicle mix.

For projects that are categorically excluded under 23 CFR 771.117, or are exempt from conformity requirements under the FCAA pursuant to 40 CFR 93.126, no analysis or discussion of MSAT is necessary. Documentation sufficient to demonstrate that the project qualifies as a categorical exclusion and/or exempt project will suffice. For other projects with no or negligible traffic impacts, regardless of the class of NEPA environmental document, no MSAT analysis is recommended. However, the project record should document in the expenditure authorization or environmental impact statement the basis for the determination of no meaningful potential impacts with a brief description of the factors considered.

2) Projects with Low Potential MSAT Effects

The types of projects included in this category are those that serve to improve operations of highway, transit, or freight without adding substantial new capacity or without creating a facility that is likely to meaningfully increase MSAT emissions. This category covers a broad range of projects. We anticipate that most highway projects that need an MSAT assessment will fall into this category. Examples of these types of projects are minor widening projects; new interchanges; replacing a signalized intersection on a surface street; and projects where design year traffic is projected to be less than 140,000 to 150,000 annual average daily traffic (AADT). For these projects, a qualitative assessment of emissions projections should be conducted. This qualitative assessment should compare, in narrative form, the expected effect of the project on traffic volumes, vehicle mix, or routing of traffic and the associated changes in MSAT for the project alternatives, including no-build, based on VMT, vehicle mix, and speed. It should also discuss national trend data projecting substantial overall reductions in emissions due to stricter engine and fuel regulations issued by U.S. EPA. Because the emission effects of these projects typically are low, we expect there would be no appreciable difference in overall MSAT emissions among the various alternatives.

Examples of four types of projects: (1) a minor widening project; (2) a new interchange connecting an existing roadway with a new roadway; (3) a new interchange connecting new roadways; and (4) minor improvements or expansions to intermodal centers or other projects that affect truck traffic.

In addition to the qualitative assessment, a NEPA document for this category of projects must include a discussion of information that is incomplete or unavailable for a project specific assessment of MSAT impacts, in compliance with the Council on Environmental Quality (CEQ) regulations (40 CFR 1502.21(b)). This discussion should explain how current scientific techniques, tools, and data are not sufficient to accurately estimate human health impacts that could result from a transportation project in a way that would be useful to decision-makers. Also, in compliance with 40 CFR 1502.21(b), this discussion should contain information regarding the health impacts of MSAT.

3) Projects with Higher Potential MSAT Effects

This category includes projects that have the potential for meaningful differences in MSAT emissions among project alternatives. We expect a limited number of projects to meet this two-pronged test. To fall into this category, a project should:

- Create or significantly alter a major intermodal freight facility that has the potential to concentrate high levels of DPM in a single location, involving a significant number of diesel vehicles for new projects or accommodating a significant increase in the number of diesel vehicles for expansion projects; or
- Create new capacity or add significant capacity to urban highways such as interstates, urban arterials, or urban collector-distributor routes with traffic volumes where the AADT is projected to be in the range of 140,000 to 150,000 or greater by the design year;
- Be proposed to be located in proximity to populated areas.

Projects falling within this category should be more rigorously assessed for impacts. If a project falls within this category, you should contact the Office of Natural Environment (HEPN) and the Office of Project Development and Environmental Review (HEPE) in FHWA Headquarters for assistance in developing a specific approach for assessing impacts. This approach would include a quantitative analysis to forecast local-specific emission trends of the priority MSAT for each alternative, to use as a basis of comparison. This analysis also may address the potential for cumulative impacts, where appropriate, based on local conditions. How and when cumulative impacts should be considered would be addressed as part of the assistance outlined above. The NEPA document for this project should also include relevant language on unavailable information described below.

If the analysis for a project in this category indicates meaningful differences in levels of MSAT emissions among alternatives, mitigation options should be identified and considered.

For the Build Alternative, the amount of MSAT emitted would be proportional to the VMT, assuming that other variables such as fleet mix are the same for each alternative. The VMT estimated for the Build Alternative is slightly higher than that for the No-Build Alternative, because the roadways new development attracts trips that would not otherwise occur in the area. Refer to Table 4-6. This increase in VMT means MSAT under the Build Alternatives would probably be higher than the No Build Alternative in the study area. There could also be localized differences in MSAT from indirect

effects of the project such as associated access traffic, emissions of evaporative MSAT (e.g., benzene) from parked cars, and emissions of DPM from delivery trucks (modify depending on the type and extent of the associated development). Travel to other destinations would be reduced with subsequent decreases in emissions at those locations.

For all Alternatives, emissions are virtually certain to be lower than present levels in the design year as a result of the U.S. EPA national control programs that are projected to reduce annual MSAT emissions by over 76 percent from 2020 to 2060 (Updated Interim Guidance on MSAT Analysis in NEPA Documents, FHWA, January 18, 2023). Local conditions may differ from these national projections in terms of fleet mix and turnover, VMT growth rates, and local control measures. However, the magnitude of the EPA-projected reductions is so great (even after accounting for VMT growth) that MSAT emissions in the study area are likely to be lower in the future than they are today.

4.3.5 For Incomplete or Unavailable Information

In FHWA's view, information is incomplete or unavailable to credibly predict the project-specific health impacts due to changes in MSAT emissions associated with a proposed set of highway alternatives. The outcome of such an assessment, adverse or not, would be influenced more by the uncertainty introduced into the process through assumption and speculation rather than any genuine insight into the actual health impacts directly attributable to MSAT exposure associated with a proposed action.

The U.S. EPA is responsible for protecting the public health and welfare from any known or anticipated effect of an air pollutant. They are the lead authority for administering the FCAA and its amendments and have specific statutory obligations with respect to hazardous air pollutants and MSAT. The U.S. EPA is in the continual process of assessing human health effects, exposures, and risks posed by air pollutants. They maintain the IRIS, which is "a compilation of electronic reports on specific substances found in the environment and their potential to cause human health effects" (U.S. EPA, <https://www.epa.gov/iris/>). Each report contains assessments of non-cancerous and cancerous effects for individual compounds and quantitative estimates of risk levels from lifetime oral and inhalation exposures with uncertainty spanning perhaps an order of magnitude.

Other organizations are also active in the research and analyses of the human health effects of MSAT, including the Health Effects Institute (HEI). A number of HEI studies are summarized in Appendix D of FHWA's Updated Interim Guidance on MSAT Analysis in NEPA Documents. Among the adverse health effects linked to MSAT compounds at high exposures are: cancer in humans in occupational settings; cancer in animals; and irritation to the respiratory tract, including the exacerbation of asthma. Less obvious are the adverse human health effects of MSAT compounds at current environmental concentrations (HEI Special Report 16, <https://www.healtheffects.org/publication/mobile-source-air-toxics-critical-reviewliterature-exposure-and-health-effects>) or in the future as vehicle emissions substantially decrease.

The methodologies for forecasting health impacts include emissions modeling; dispersion modeling; exposure modeling; and then final determination of health impacts – each step in the process builds on the model predictions obtained in the previous step. All are encumbered by technical shortcomings or uncertain science that prevents a more complete differentiation of the MSAT health impacts among a set of project alternatives. These difficulties are magnified for lifetime (i.e., 70-year) assessments, particularly because unsupportable assumptions would have to be made regarding changes in travel patterns and vehicle technology (which affects emissions rates) over that time frame since such information is unavailable.

It is particularly difficult to reliably forecast 70-year lifetime MSAT concentrations and exposure near roadways; to determine the portion of time that people are actually exposed at a specific location; and to establish the extent attributable to a proposed action, especially given that some of the information needed is unavailable.

There are considerable uncertainties associated with the existing estimates of toxicity of the various MSATs, because of factors such as low-dose extrapolation and translation of occupational exposure data to the general population, a concern expressed by HEI (Special Report 16, <https://www.healtheffects.org/publication/mobile-source-air-toxicscritical-review-literature-exposure-and-health-effects>). As a result, there is no national consensus on air dose-response values assumed to protect the public health and welfare for MSAT compounds, and in particular for diesel PM. The U.S. EPA states that with respect to diesel engine exhaust, “[t]he absence of adequate data to develop a sufficiently confident dose-response relationship from the epidemiologic studies has prevented the estimation of inhalation carcinogenic risk.” (U.S. EPA IRIS database, Diesel Engine Exhaust, Section II.C. https://iris.epa.gov/static/pdfs/0642_summary.pdf).

There is also the lack of a national consensus on an acceptable level of risk. The current context is the process used by the U.S. EPA as provided by the FCAA to determine whether more stringent controls are required to provide an ample margin of safety to protect public health or to prevent an adverse environmental effect for industrial sources subject to the maximum achievable control technology standards (such as benzene emissions from refineries). The decision framework is a two-step process. The first step requires U.S. EPA to determine an “acceptable” level of risk due to emissions from a source, which is generally no greater than approximately 100 in a million. Additional factors are considered in the second step, the goal of which is to maximize the number of people with risks less than one in a million due to emissions from a source. The results of this statutory two-step process do not guarantee that cancer risks from exposure to air toxics are less than one in a million; in some cases, the residual risk determination could result in maximum individual cancer risks that are as high as approximately 100 in a million. In a June 2008 decision, the U.S. Court of Appeals for the District of Columbia Circuit upheld U.S. EPA’s approach to addressing risk in its two-step decision framework. Information is incomplete or unavailable to establish that even the largest of highway projects would result in levels of risk greater than deemed acceptable ([https://www.cadc.uscourts.gov/internet/opinions.nsf/284E23FFE079CD59852578000050C9DA/\\$file/07-1053-1120274.pdf](https://www.cadc.uscourts.gov/internet/opinions.nsf/284E23FFE079CD59852578000050C9DA/$file/07-1053-1120274.pdf)).

Because of the limitations in the methodologies for forecasting health impacts described, any predicted difference in health impacts between alternatives is likely to be much smaller than the uncertainties associated with predicting the impacts. Consequently, the results of such assessments

would not be useful to decision makers, who would need to weigh this information against project benefits, such as reducing traffic congestion, accident rates, and fatalities plus improved access for emergency response, that are better suited for quantitative analysis (FHWA 2023).

4.3.6 Greenhouse Gas Emissions Analysis

Long-term Operational GHG Emissions

Long-term operational GHG emissions associated with the project would be associated with the operation of motor vehicles along area roadways. Motor vehicle operational emissions were quantified for existing, Opening Year 2030 and Design Year 2050 conditions. Emissions were quantified using the CT-EMFAC2021 version 1.0.2 computer program based, in part, on traffic data provided for this project and vehicle travel distances within the project area (Kimley Horn 2023a, 2025). Estimated annual operational mobile-source GHG emissions and traffic conditions for the project study area are summarized in Table 4-6.

As depicted in Table 4-6, existing mobile-source GHG emissions within the project study area total approximately 4,077.94 MTCO_{2e}/year. Under No-Build Alternative year 2030 and 2050 conditions, mobile-source GHG emissions within the project study area are predicted to total approximately 3,416.91 MTCO_{2e}/year and 2,964.77 MTCO_{2e}/year, respectively. In comparison to existing conditions, the No-Build Alternative would result in an approximately 16 percent decrease in mobile-source GHG emissions under 2030 conditions and an approximate 27 percent decrease under 2050 conditions. In comparison to existing conditions, the Build Alternative would result in an approximately 14 percent decrease in mobile-source GHG emissions under 2030 conditions and an approximate 25 percent decrease under 2050 conditions. In comparison to No-Build Alternative conditions, the proposed Build Alternative is predicted to increase mobile-source GHGs of approximately 3 percent under both 2030 and 2050 conditions. It is important to note that estimated emissions are based on vehicle travel within the project area. However, on a regional basis, implementation of the proposed build alternative is not anticipated to result in a significant increase in long-term VMT and associated mobile-source emissions (Kimley Horn 2023b, 2025).

Table 4-6. Summary of Comparative GHG Emissions & Traffic Conditions

Scenario/Analysis Year	Annual VMT ²	Change in VMT (%)	MTCO _{2e} /Year ¹ (% Change)
Existing Year 2023	11,370,149	N/A	4,077.94
No-Build Alternative – Opening Year 2030	11,830,965	N/A	3,416.91
No-Build Alt. 2030 Compared to Existing:		460,816 (4 %)	-661.03 (-16 %)
Build Alternative – Opening Year 2030	12,127,650	N/A	3,502.97
Build Alt. Compared to Existing:		757,501 (7 %)	-574.98 (-14 %)
Build Alt. Compared to No-Build Alt. 2030:		296,685 (3 %)	86.06 (3 %)
No-Build Alternative – Design Year 2050	12,535,722	N/A	2,964.77
No-Build Alt. 2050 Compared to Existing:		1,165,573 (10 %)	-1,113.18 (-27 %)
Build Alternative – Design Year 2050	12,860,514	N/A	3,039.72
Build Alt. 2050 Compared to Existing:		1,490,365 (13 %)	-1,038.22 (-25 %)
Build Alt. 2050 Compared to No-Build Alt. 2050:		324,792 (3 %)	74.95 (3 %)

VMT = vehicle miles traveled MTCO_{2e} = metric tons of carbon dioxide equivalents N/A = not applicable

1. Emissions were quantified using EMFAC2021 emission factors and traffic data provided for this project and vehicle travel distances within the project area.

2. Annual VMT is derived from Daily VMT multiplied by 347. ARB methodology (ARB 2008)

Refer to Appendix E for emission modeling assumptions and results.

Note: Opening Year 2030 traffic is considered to be a conservative estimation of year 2027 traffic data (Kimley Horn 2024)

It is also important to note that predicted GHG emissions can vary depending on multiple factors, such as fuel mix (including additives like ethanol and the source of the fuel components), rate of acceleration, and the aerodynamics and efficiency of the vehicles. However, the estimated GHG emissions are useful for comparison purposes. It is also important to note that the project area is not located in an area that is considered directly vulnerable to projected future sea level rise.

Senate Bill 1 Section 2030(e) directs Caltrans "To the extent deemed cost effective, and where feasible, in the context of both the project scope and the risk level for the asset due to global climate change to better adapt the asset to withstand the negative effects of climate change and make the asset more resilient to impacts such as fires, floods, and sea level rise."

Construction GHG Emissions

Construction GHG emissions are predominantly associated with emissions generated by motorized off-road equipment and on-road vehicles, including material transport trips and employees traveling to and from the project area. The emissions generated would vary depending on multiple factors, such as the type and number of equipment required and hours of use. GHG emissions can be reduced by using cleaner, more efficient equipment and by implementing traffic management during construction phases to minimize associated vehicle delays on area roadways. The project would comply with applicable state, federal, and/or local rules and regulations developed as a result of implementing control and mitigation measures proposed as part of their respective SIPs.

Emissions modeling was conducted using CalEEMod based on off-road equipment requirements and estimated areas to be paved provided by the project engineer. All other construction activity assumptions, including on-road vehicle travel distances, were based on the default parameters contained in the model. The emissions presented are based on the best information available at the time of calculations. Construction-generated GHG emissions are summarized in Table 4-7. Emissions modeling assumptions and results are included in Appendix E.

Construction of the Build Alternative would occur over an approximately 12-month period. Construction would generate a total of approximately 505.5 MTCO_{2e} in 2030 and approximately 217.8 MTCO_{2e} in 2031. In total, construction of the project would generate approximately 723.3 MTCO_{2e}. The project would be required to comply with all applicable rules and regulations for the control of construction-generated emissions, including ARB's emission-reduction requirements and idling limitations for construction equipment and vehicles. These measures would result in reductions in construction-generated GHG emissions. In addition, with innovations such as longer pavement lives, improved traffic management plans, and changes in materials, the GHG emissions produced during construction can be further mitigated, to some degree, by longer intervals between

maintenance and rehabilitation events. These measures would reduce project-generated increases in GHGs.

Table 4-7. Construction-Generated GHG Emissions

Construction Phase	MTCO ₂ e
Land Clearing/ Grubbing (Year 2030)	14.9
Grading/Excavation (Year 2030)	490.6
Grading/Excavation (Year 2031)	25.2
Drainage/Utilities/Sub-Grade (Year 2031)	147.2
Paving (Year 2031)	45.4
Maximum/Phase:	490.6
Project Total – Year 2030:	505.5
Project Total – Year 2031:	217.8
Project Total – Years 2030 & 2031:	723.3

MTCO₂e = metric tons of carbon dioxide equivalents

Construction GHG emissions were estimated using CalEEMod, Version 2022.1.1.30. Refer to Appendix E for emissions modeling assumptions and results.

5. Minimization Measures

5.1 Construction

Construction of the project would be required to comply with all applicable laws and regulations related to air quality, including air pollution control district and air quality management district regulations and local ordinances. The project would comply with all applicable VCAPCD rules and regulations including, but not limited to, Rule 55 for the control of fugitive dust, Rule 62.7 for the control of asbestos-containing material (ACM), and Rule 74.4, which prohibits the use of cutback asphalt. The project would also be required to comply with ARB's *In-Use Off-Road Diesel-Fueled Fleets Regulation* and idling limitations for construction equipment and vehicles. In addition, all trucks that are to haul excavated or graded material on site would be required to comply with State Vehicle Code Section 23114 regarding the prevention of material spilling onto public streets and roads.

Compliance with applicable rules and regulations would reduce air quality impacts resulting from construction activities. As noted above, the project would be required to comply with all applicable laws and regulations related to air quality, which would include applicable local and state regulations, such as ARB's *In-Use Off-Road Diesel-Fueled Fleets Regulation* for the reduction of DPM. A significant portion of DPM is comprised of black carbon, which is considered a major short-lived contributor to climate change. Compliance with ARB's *In-Use Off-Road Diesel-Fueled Fleets Regulation* would reduce construction-generated GHGs and related impacts to climate change.

6. Conclusions

As previously noted, construction of the project would occur over an approximately 12-month period. Construction of the Build Alternative would be short-term occurring over an estimated 12-month period. Construction of the proposed Build Alternative would generate maximum daily emissions of approximately 3.2 lbs/day of ROG, 38.3 lbs/day of CO, 24.0 lbs/day of NO_x, 8.2 lbs/day of PM₁₀, and 1.7 lbs/day of PM_{2.5}. Total emissions generated during construction would be approximately 0.3 tons of ROG, 3.6 tons of CO, 2.3 tons of NO_x, 1.0 tons of PM₁₀, and 0.2 tons of PM_{2.5}. (refer to Table 4-1). Construction-generated GHG emissions for the proposed Build Alternative would total approximately 723.3 MTCO_{2e} (refer to Table 4-7). Other construction-related impacts, including exposure to lead, asbestos, and MSATs would be negligible. It is important to note that the construction of the project would be required to comply with Caltrans' Standard Specifications, as well as VCAPCD rules and regulations. Compliance with these requirements would reduce any air quality impacts resulting from construction activities.

In comparison to the No-Build Alternative, the Build Alternative is predicted to result in an approximately 3 percent increase in mobile-source emissions for PM_{2.5}, PM₁₀, NO_x, CO, and ROG relative to Opening Year 2030 and Design Year 2050 conditions (refer to Table 4-2). In comparison to existing conditions, the Build Alternative would result in an approximately 14 percent decrease in mobile-source GHG emissions under 2030 conditions and an approximate 25 percent decrease under 2050 conditions. In comparison to the No-Build Alternative, the Build Alternative is predicted to result in an approximately 3 percent increase of mobile-source GHG emissions for both Opening Year 2030 and Design Year 2050 conditions (refer to Table 4-6).

The project's design, concept, and scope have not changed significantly from what was analyzed in the regional emission analysis prepared for the federally approved SCAG 2024-2050 RTP/SCS Amendment #1 and the 2025 FTIP Amendment #25-12. The air quality conformity analysis prepared for these plans found that the plans, which consider regionally significant projects and financial constraints, would conform to the SIP(s) for attaining and maintaining the NAAQS as provided in Section 176(c) of the FCAA. FHWA determined that the SCAG 2024-2050 RTP/SCS Amendment #1 to conform to the SIP on December 16, 2024. and the 2025 FTIP Amendment #25-12 to conform to the SIP on August 19, 2025. In addition, the proposed Build Alternative would not contribute to existing or projected future mobile-source CO concentrations that would be projected to exceed federal or state CO standards.

7. References

- California Air Resource Board (ARB 2008) Climate Change Draft Scoping Plan: Measure Documentation Supplement. Accessed November 6, 2019. url: https://ww3.arb.ca.gov/cc/scopingplan/document/measure_documentation.pdf
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8. Appendices

Appendix A: RTP and TIP Listings for the Project and FHWA Conformity Determination



U.S. Department
of Transportation
**Federal Highway
Administration**

California Division

May 10, 2024

650 Capitol Mall, Suite 4-100
Sacramento, CA 95814
(916) 498-5001
(916) 498-5008 (FAX)

In Reply Refer To:
HDA-CA

Mr. Kome Ajise, Executive Director
Southern California Association of Governments
900 Wilshire Blvd., Ste. 1700
Los Angeles, CA 90017

**SUBJECT: Conformity Determination for SCAG's Connect SoCal 2024 (2024-2050 Regional
Transportation Plan/Sustainable Communities Strategy)**

Dear Mr. Ajise:

The Federal Highway Administration (FHWA) and the Federal Transit Administration (FTA) have completed our review of the conformity determination for the Southern California Association of Governments' (SCAG) SCAG's Connect SoCal 2024 (2024-2050 Regional Transportation Plan/Sustainable Communities Strategy). An FTA/FHWA air quality conformity determination is required for the new 2024 RTP/SCS pursuant to the Environmental Protection Agency's (EPA) *Transportation Conformity Rule*, 40 Code of Regulations (CFR) Parts 51 and 93, and the United States Department of Transportation's *Final Rule on Statewide and Metropolitan Planning*, 23 CFR Part 450.

On April 4, 2024, SCAG adopted Connect SoCal 2024 and the associated Consistency Amendment No. 23-26 to the 2023 FTIP via Resolution 24-664-2. The conformity analysis given by SCAG indicates all air quality conformity requirements have been met. Based on our review, and after consultation with the EPA Region 9 office, we find that Connect SoCal 2024 conforms to the applicable State Implementation Plan (SIP) in accordance with the provisions of 40 CFR Parts 51 and 93. This conformity determination will remain in effect for four (4) years from the date of this letter and replaces the previous determination. In accordance with the December 15, 2014, *Memorandum of Understanding (MOU) between the Federal Highway Administration, California Division, and the Federal Transit Administration, Region IX*, the FTA has agreed with this conformity determination, and a single signature constitutes FHWA and FTA's joint air quality conformity determination for SCAG's 2024 RTP/SCS. If you have questions on this conformity finding, please contact Michael Morris of the FHWA California Division's Cal-South office at (213) 894-4014, or by email at michael.morris@dot.gov.

Sincerely,

Antonio D. Johnson
Director of Planning, Environment,
& Right of Way
Federal Highway Administration

cc: (email)

Johnson, Antonio (FHWA) antonio.johnson@dot.gov

Tellis, Ray (FTA) Ray.Tellis@dot.gov

Acebo, Mervin (FTA) mervin.acebo@dot.gov

Morris, Michael (FHWA) Michael.Morris@dot.gov

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Le, Kien (Caltrans) kien.le@dot.ca.gov

Caruso, Brenda (Caltrans) Brenda.H.Caruso@dot.ca.gov

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Tavitas, Rodney (Caltrans) rodney.tavitas@dot.ca.gov

Table 1. FTIP Projects

COUNTY	SYSTEM	FTIP ID	ROUTE	LEAD AGENCY	PROJECT DESCRIPTION	PROJECT COST (\$1,000's)
VENTURA	LOCAL	VEN210606		VENTURA COUNTY	EL RIO PEDESTRIAN IMPROVEMENT AND SAFE ROUTE TO SCHOOL PROJECT: INSTALL SIDEWALKS, CURBS, GUTTERS, WATER-RETENTION AREAS, CURB EXTENSIONS, RRFBS, AND INTERSECTION IMPROVEMENTS, FOR SRFS AND DISADVANTAGED COMMUNITY.	\$6,960
VENTURA	LOCAL	VEN210603		VENTURA COUNTY	VENTURA AVENUE PEDESTRIAN AND BIKE LANE IMPROVEMENTS: CONSTRUCT 1,135 FEET OF SIDEWALK ON EAST SIDE OF VENTURA AVE; 1580 FEET OF CLASS II BIKE LANES ON WEST SIDE; 1580 FEET OF CLASS III BIKE LANES ON EAST SIDE; ACCESS RAMPS; TRAFFIC CALMING MEASURES.	\$957
VENTURA	LOCAL	VEN011202		VENTURA COUNTY	HUENEME RD FROM OXNARD CITY LIMITS TO RICE RD - WIDEN FROM 2 TO 4 LANES (PHASE I)	\$18,318
VENTURA	LOCAL	VEN230901		VENTURA COUNTY	IN VENTURA COUNTY, IN THE COMMUNITY OF PIRU, INSTALL SIDEWALKS, CURBS, GUTTERS, CURB EXTENSIONS, RRFB AND INTERSECTION IMPROVEMENTS FOR SAFE ROUTES TO SCHOOL AND A DISADVANTAGED COMMUNITY, AT LOCATIONS INCLUDING MAIN STREET, CENTER STREET, CHURCH STREET, CAMULOS STREET, MARKET STREET, AND VIA FUSTERO.	\$3,450
VENTURA	LOCAL	VEN230702		VENTURA COUNTY TRANS COMMISSION (VCTC)	IN VENTURA COUNTY, INSTALLATION OF TWO EV CHARGERS AT CAMARILLO, OXNARD, AND E. VENTURA RAIL STATION FOR A TOTAL OF 6 CHARGERS.	\$60
VENTURA	LOCAL	VEN93017		VENTURA COUNTY TRANS COMMISSION (VCTC)	REGIONAL RIDESHARE PROGRAM FOR 22/23, 23/24, 24/25 & 25/26. TOLL CREDITS IN THE AMOUNT OF \$51 PER YEAR FOR 22/23, & 25/26, AND \$102 FOR FY 23/24.	\$1,772
VENTURA	STATE	VEN991226	1	CALTRANS	THE ADAPTATION PLANNING STUDY WILL CONTRIBUTE TO ADVANCING A CLIMATE RESILIENT PLANNING APPROACH FOR THE STATE ROUTE 1 CORRIDOR ALONG RINCON PARKWAY IN VENTURA COUNTY. THE STUDY WILL INCLUDE A ROBUST TECHNICAL ANALYSIS OF EXISTING AND ANTICIPATED CLIMATE CHANGE IMPACTS IN THE LOCATION, ANALYZE VARIOUS CLIMATE CHANGE ADAPTATION OPTIONS FOR THE TRANSPORTATION SYSTEM, WITH A FOCUS ON SHORELINE MODELING AND WAVE RUNUP STUDIES (AND OTHER TECHNICAL AREAS AS REQUIRED BY THE COASTAL COMMISSION).	\$680
VENTURA	STATE	VENLS02		CALTRANS	GROUPED PROJECTS LISTING FOR PAVEMENT RESURFACING AND/OR REHABILITATION ON THE STATE HIGHWAY SYSTEM - ROADWAY PRESERVATION PROJECTS (PROJECTS CONSISTENT W/40CFR PART 93.126 EXEMPT TABLES 2 & 3 CATEGORIES - PAVEMENT RESURFACING AND/OR REHABILITATION)	\$195,650
VENTURA	STATE	VENLS10		CALTRANS	GROUPED PROJECTS FOR EMERGENCY REPAIR - SHOPP EMERGENCY RESPONSE PROGRAM SCOPE: PROJ CONSISTENT W/ 40 CFR PART 93.126 EXEMPT TABLES 2 CATEGORIES - REPAIR DAMAGE CAUSED BY NATURAL DISASTERS, CIVIL UNREST, OR TERRORIST ACTS. THIS APPLIES TO DAMAGES THAT DON'T QUALIFY FOR FED EMER RELIEF FUNDS OR TO DAMAGES THAT QUALIFY FOR FED EMER RELIEF FUNDS BUT EXTEND BEYOND THE FED-DECLARED DISASTER PERIOD.	\$58,273
VENTURA	STATE	VENLS08		CALTRANS	GROUPED PROJECTS FOR SAFETY IMPROVEMENTS - SHOPP MANDATES PROGRAM (SCOPE: PROJ CONSISTENT W/ 40 CFR PART 93.126 EXEMPT TABLES 2 & 3 CAT - RR/HWY XING, SAFER NON-FED-AID SYSTEM RDS, SHOULDER IMPR, TRAFFIC CONTROL DEVICES & OPER ASSISTANCE OTH THAN SIGNALIZATION PROJ, INTERSECTION SIGNALIZATION PROJ AT INDIVID INTERSECTIONS, PAVEMENT MARKING DEMO, TRUCK CLIMBING LANES OUTSIDE URBANIZED AREA, LIGHTIN	\$82,250
VENTURA	STATE	VENLS03		CALTRANS	GROUPED PROJECTS FOR BRIDGE REHABILITATION AND RECONSTRUCTION - SHOPP PROGRAM COPE: PROJECTS ARE CONSISTENT WITH 40 CFR PART 93.126 EXEMPT TABLES 2 CATEGORIES - WIDENING NARROW PAVEMENTS OR RECONSTRUCTING BRIDGES (NO ADDITIONAL TRAVEL LANES).	\$110,889

Table 2. Financially Constrained Projects

COUNTY	SYSTEM	LEAD AGENCY	RTP ID	ROUTE #	ROUTE NAME	FROM	TO	DESCRIPTION	COMPLETION YEAR	PROJECT COST (\$1,000'S)
VENTURA	LOCAL HIGHWAY	VENTURA COUNTY	5A0719		SANTA CLARA AVENUE WIDENING IMPROVEMENT	N/O OXNARD CITY LIMITS	SR 118	WIDEN FROM TWO TO FOUR LANES (FROM 1 TO 2 LANES EACH DIRECTION)	2034	\$130,000
VENTURA	LOCAL HIGHWAY	VENTURA COUNTY	5A0720					HARBOR BOULEVARD - WIDEN APPROXIMATELY 1.99 MILES OF ROADWAY FROM TWO TO FOUR LANES FROM OXNARD CL TO VENTURA CL (MILEAGE INCLUDES 545.6 FOOT BRIDGE OVER SANTA CLARA RIVER)	2034	\$130,000
VENTURA	LOCAL HIGHWAY	VENTURA COUNTY	5A0721		PLEASANT VALLEY ROAD WIDENING IMPROVEMENT	DODGE RD	LAS POSAS ROAD	WIDEN FROM TWO TO FOUR LANES (TOTAL OF BOTH DIRECTIONS)	2034	\$596,123
VENTURA	LOCAL HIGHWAY	VENTURA COUNTY	5A0722		VICTORIA AVENUE WIDENING IMPROVEMENT - A	GONZALES ROAD	VENTURA CITY LIMITS	WIDEN FROM FOUR LANES TO SIX LANES (TOTAL OF BOTH DIRECTIONS -INCLUDING BRIDGE)	2031	\$16,500
VENTURA	LOCAL HIGHWAY	VENTURA COUNTY	VEN011202		HUENEME RD.	OXNARD CL	RICE RD	HUENEME RD FROM OXNARD CITY LIMITS TO RICE RD - WIDEN FROM 2 TO 4 LANES (PHASE I)	2027	\$18,319
VENTURA	LOCAL HIGHWAY	VENTURA COUNTY	VEN170109					HUENEME ROAD FROM RICE ROAD TO LAS POSAS ROAD - WIDEN 3.66 ROAD MILES TO FOUR LANES (PE ONLY)	2035	\$3,400
VENTURA	LOCAL HIGHWAY	VENTURA COUNTY TRANS COMMISSION (VCTC)	VEN93017					REGIONAL RIDESHARE PROGRAM FOR 18/19, 19/20, 20/21 AND 21/22. TOLL CREDITS IN THE AMOUNT OF \$51 PER YEAR FOR 18/19, 19/20, 20/21, AND 21/22.	2027	\$1,772
VENTURA	LOCAL HIGHWAY	VENTURA COUNTY TRANSPORTATION COMMISSION (VCTC)	5AL04		MISC. ARTERIAL IMPROVEMENTS (NON-CAPACITY)	COUNTYWIDE	COUNTYWIDE	MISC. ARTERIAL IMPROVEMENTS (NON-CAPACITY)	2039	\$129,409
VENTURA	LOCAL HIGHWAY	VENTURA COUNTY TRANSPORTATION COMMISSION (VCTC)	5AL07		ARTERIAL IMPROVEMENTS	COUNTYWIDE	COUNTYWIDE	ARTERIAL IMPROVEMENTS LUMP SUM	2040	\$467,179
VENTURA	LOCAL HIGHWAY	VENTURA COUNTY TRANSPORTATION COMMISSION (VCTC)	5GL04		GRADE SEPARATION	COUNTYWIDE	COUNTYWIDE	GRADE SEPARATION IMPROVEMENTS	2031	\$147,271
VENTURA	LOCAL HIGHWAY	VENTURA COUNTY TRANSPORTATION COMMISSION (VCTC)	5N011		ALONG SP BRANCH RAIL LINE	MONTALVO	LOS ANGELES COUNTY LINE	SANTA PAULA BRANCH LINE MULTIUSE PATH (CLASS I BIKE PATH)	2030	\$48,618

**2025 Federal Transportation Improvement Program
Ventura County
Local Highway - Project Listing
Including Amendments 1 - 9
(In \$000's)**

PHASE	FUND SOURCE	PRIOR	24/25	25/26	26/27	27/28	28/29	29/30	FUTURE	TOTAL
CON	AGENCY	\$118	\$174	\$339	\$0	\$0	\$6,905	\$0	\$0	\$7,536
CON	BRIDGE - LOCAL	\$841	\$924	\$2,620	\$0	\$0	\$43,437	\$0	\$0	\$47,822
TOTAL	TOTAL	\$959	\$1,098	\$2,959	\$0	\$0	\$50,342	\$0	\$0	\$55,358

FTIP ID	LEAD AGENCY	COUNTY	CONFORM CATEGORY	AIR BASIN	PROJECT COST	RTP ID	SYSTEM
VEN011202	VENTURA COUNTY	Ventura	NON-EXEMPT	SCCAB	\$18,318	VEN011202	Local

PRIMARY PROGRAM CODE	PROJECT LIMITS	MODELING	FTIP AMENDMENT
CAY63 - HIGHWAY/ROAD IMP - LANE ADD'S (NO HOV LANES); GM	From OXNARD CITY LIMIT to RICE ROAD	YES	25-00

SCAG APPROVED	STATE APPROVED	FEDERAL APPROVED
09/05/2024	11/15/2024	

DESCRIPTION

HUENEME RD FROM OXNARD CITY LIMITS TO RICE RD - WIDEN FROM 2 TO 4 LANES (PHASE I)

PHASE	FUND SOURCE	PRIOR	24/25	25/26	26/27	27/28	28/29	29/30	FUTURE	TOTAL
PE	COUNTY	\$1,055	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,055
PE	HIGHWAY INFRASTRUCTURE	\$1,172	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,172
PE	PRIVATE FUNDS	\$0	\$0	\$0	\$0	\$1,698	\$0	\$0	\$0	\$1,698
ROW	PRIVATE FUNDS	\$0	\$0	\$0	\$0	\$910	\$0	\$0	\$0	\$910
CON	PRIVATE FUNDS	\$0	\$0	\$0	\$0	\$13,483	\$0	\$0	\$0	\$13,483
TOTAL	TOTAL	\$2,227	\$0	\$0	\$0	\$16,091	\$0	\$0	\$0	\$18,318

SCAG. Accessed: August 20, 2025. 2025 FTIP, Amendments 1-9, Project Listing. https://scag.ca.gov/sites/default/files/2025-06/25FTIP_LocalAmend25-01-09VEN.pdf

Table 1. Modifications to FTIP Projects

#	COUNTY	LEAD AGENCY	FTIP ID	RTP ID	SYSTEM	ROUTE #	DESCRIPTION	COMPLETION YEAR	PROJECT COST (\$1,000's)	FISCAL IMPACT	REASON FOR AMENDMENT
301	SAN BERNARDINO	VICTOR VALLEY TRANSIT AUTHORITY	200086	200086	TRANSIT		BUS SYSTEM - PASSENGER FACILITIES. FY16 - 10 SHELTERS/BENCHES/AMENITIES; FY17 - 12 SHELTERS/BENCHES; FY19 - 9 SHELTERS/BENCHES AND AMENITIES	EXISTING: 2023 REVISED: 2025	\$1,622		SCHEDULE UPDATE
302	SAN BERNARDINO	CHINO	200202	200202	LOCAL HIGHWAY		IN CHINO - ON CHINO AVENUE FROM MONTE VISTA TO SIXTH STREET-WIDEN EXISTING 2 LANES TO 4 LANES AND INSTALL SIGNAL AT INTERSECTION OF CHINO AVE. AND MONTE VISTA	EXISTING: 2027 REVISED: 2032	\$584		SCHEDULE UPDATE
303	SAN BERNARDINO	REDLANDS	200419	200419	LOCAL HIGHWAY		EXISTING: ALABAMA STREET WIDENING - WIDEN FROM 2-4 LANES FROM NORTH CITY LIMITS TO PALMETTO REVISED: ALABAMA STREET WIDENING - WIDEN FROM 2-4 LANES FROM NORTH CITY LIMITS TO 3,000 FT. NORTH PALMETTO	EXISTING: 2025 REVISED: 2027	\$7,200		SCOPE AND SCHEDULE UPDATE
304	SAN BERNARDINO	ONTARIO	200602	200602	STATE HIGHWAY	60	SR 60 AND VINEYARD AVE. INTERCHANGE RECONSTRUCTION-LENGTHEN BRIDGE TO ACCOMMODATE VINEYARD AVE WIDENING AND RAMP WIDENING 4-6 LANES	EXISTING: 2025 REVISED: 2027	\$7,621		SCHEDULE UPDATE
305	VENTURA	CAMARILLO	VEN051211	5A0721	LOCAL HIGHWAY		IN CAMARILLO ON LAS POSAS ROAD FROM VENTURA BLVD TO PLEASANT VALLEY ROAD WIDEN FROM 4 TO 6 LANES.	EXISTING: 2030 REVISED: 2031	\$10,521		SCHEDULE UPDATE
306	VENTURA	VARIOUS AGENCIES	VEN54032	VEN54032	LOCAL HIGHWAY		GROUPED PROJECTS FOR PAVEMENT RESURFACING AND/OR REHABILITATION LOCAL STREETS & ROADS SCOPE: PROJECTS ARE CONSISTENT WITH 40 CFR PART 93.126 EXEMPT TABLES 2 CATEGORIES - PAVEMENT RESURFACING AND/OR REHABILITATION; EMERGENCY RELIEF (23 U.S.C. 125), WIDENING NARROW PAVEMENTS OR RECONSTRUCTING BRIDGES (NO ADD TRAVEL LANES). TOLL CREDITS WILL BE USED FOR STPL.	EXISTING: 2024 REVISED: 2028	EXISTING: \$14,328 REVISED: \$2,082	COST DECREASE	COST UPDATE
307	VENTURA	VENTURA COUNTY	VEN170105	5A0708	LOCAL HIGHWAY		HARBOR BOULEVARD AT GONZALES ROAD - ADD 2ND SOUTHBOUND THROUGH LANE AND 2ND NORTHBOUND THROUGH LANE.	2032	\$2,560	COST REMOVAL	DELETED PROJECT
308	VENTURA	VENTURA COUNTY	VEN170110	5A0720	LOCAL HIGHWAY		HARBOR BOULEVARD - WIDEN APPROXIMATELY 1.99 MILES OF ROADWAY FROM TWO TO FOUR LANES FROM OXNARD CL TO VENTURA CL (MILEAGE INCLUDES 545.6 FOOT BRIDGE OVER SANTA CLARA RIVER)	EXISTING: 2034 REVISED: 2037	EXISTING: \$130,000 REVISED: \$131,630	COST INCREASE	SCHEDULE AND COST UPDATE
309	VENTURA	VENTURA COUNTY	VEN011202	VEN011202	LOCAL HIGHWAY		HUENEME RD FROM OXNARD CITY LIMITS TO RICE RD - WIDEN FROM 2 TO 4 LANES (PHASE I)	EXISTING: 2027 REVISED: 2031	\$18,318		SCHEDULE UPDATE
310	VENTURA	VENTURA COUNTY	VEN170109	VEN170109	LOCAL HIGHWAY		HUENEME ROAD FROM RICE ROAD TO LAS POSAS ROAD - WIDEN 3.66 ROAD MILES TO FOUR LANES	EXISTING: 2035 REVISED: 2036	EXISTING: \$3,400 REVISED: \$19,518	COST INCREASE	SCHEDULE AND COST UPDATE
311	VENTURA	VENTURA COUNTY TRANS. COMMISSION (VTC)	VEN93017	VEN93017	LOCAL HIGHWAY		REGIONAL RIDESHARE PROGRAM FOR 18/19, 19/20, 20/21 AND 21/22. TOLL CREDITS IN THE AMOUNT OF \$51 PER YEAR FOR 18/19, 19/20, 20/21, AND 21/22.	2027	EXISTING: \$1,772 REVISED: \$1,329	COST DECREASE	COST UPDATE
312	VENTURA	CAMARILLO	VEN031226	VEN031226	STATE HIGHWAY	101	IN CAMARILLO ROUTE 101 AT PLEASANT VALLEY ROAD IMPROVE INTERSECTION WITH SOUTHBOUND RAMP - WIDEN ONRAMP ENTRANCE FROM 1 TO 2 LANES	EXISTING: 2032 REVISED: 2033	EXISTING: \$3,000 REVISED: \$4,308	COST INCREASE	SCHEDULE AND COST UPDATE
313	VENTURA	CAMARILLO	VEN051210	VEN051210	STATE HIGHWAY	101	IN CAMARILLO RECONFIGURE CENTRAL AVENUE / ROUTE 101 INTERCHANGE (INCLUDES CENTRAL AVE BRIDGE WIDENING FROM 1 TO 2 LANES EACH DIRECTION)	EXISTING: 2032 REVISED: 2031	\$50,000		SCHEDULE UPDATE

VEN011202	VEN011202	LOCAL HIGHWAY				HUENEME RD FROM OXNARD CITY LIMITS TO RICE RD - WIDEN FROM 2 TO 4 LANES (PHASE I)
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Appendix B: Ambient Air Quality Monitoring Data

Monitor Values Report

Geographic Area: Ventura County, CA

Pollutant: Ozone

Year: 2023

Exceptional Events: Included (if any)

First Max 8hr	Second Max 8hr	Third Max 8hr	Fourth Max 8hr	Days 8hr Max >STD	Required Days 8hr	Valid Days 8hr	Percent Days 8hr	First Max 1hr	Second Max 1hr	Days 1hr Max >STD	Est Days 1hr Max >STD	Required Days 1hr	Valid Days 1hr	Missing Days 1hr	Exc Events	Monitor Number	Site ID	Address	City	County	State	EPA Region
0.07	0.068	0.068	0.068	0	365	360	99	0.085	0.081	0	0	365	363	2	None	1	061110007	2323 Moorpark Road, Thousand Oaks, Ca 91360	Thousand Oaks	Ventura	CA	09
0.07	0.068	0.066	0.066	0	365	361	99	0.089	0.081	0	0	365	362	1	None	1	061110009	3301 Pacific Avenue, Piru, Ca 93040	Piru	Ventura	CA	09
0.068	0.067	0.066	0.065	0	365	363	99	0.076	0.074	0	0	365	365	0	None	1	061111004	1201 E. Ojai Avenue, Ojai, Ca 93023	Ojai	Ventura	CA	09
0.081	0.077	0.077	0.076	12	365	358	98	0.094	0.093	0	0	365	357	4	None	1	061112002	5400 Cochran Street, Simi Valley, Ca 93063	Simi Valley	Ventura	CA	09
0.058	0.055	0.054	0.054	0	365	362	99	0.071	0.069	0	0	365	364	1	None	1	061113001	545 Central Avenue, Oxnard, Ca 93030	Not in a City	Ventura	CA	09

Get detailed information about this report, including column descriptions, at <https://www.epa.gov/outdoor-air-quality-data/about-air-data-reports#mon>

AirData reports are produced from a direct query of the AQS Data Mart. The data represent the best and most recent information available to EPA from state agencies. However, some values may be absent due to incomplete reporting, and some values may change due to quality assurance activities. The AQS database is updated by state, local, and tribal organizations who own and submit the data.

Readers are cautioned not to rank order geographic areas based on AirData reports. Air pollution levels measured at a particular monitoring site are not necessarily representative of the air quality for an entire county or urban area.

This report is based on monitor-level summary statistics. Air quality standards for some pollutants (PM2.5 and Pb) allow for combining data from multiple monitors into a site-level summary statistic that can be compared to the standard. In those cases, the site-level statistics may differ from the monitor-level statistics upon which this report is based.

Source: U.S. EPA AirData <<https://www.epa.gov/air-data>>

Generated: April 22, 2024

Top 4 Summary: Highest 4 Daily Maximum 8-Hour Ozone Averages

at El Rio-Rio Mesa School #2



	2022		2023		2024	
	Date	8-Hr Average	Date	8-Hr Average	Date	8-Hr Average
National 2015 Std (0.070 ppm):						
First High:	Sep 4	0.063	Aug 7	0.058	Oct 24	0.060
Second High:	Jun 10	0.062	Nov 3	0.055	Oct 10	0.054
Third High:	Sep 3	0.062	Apr 20	0.054	Oct 20	0.054
Fourth High:	Sep 9	0.062	Aug 30	0.054	Apr 13	0.052
National 2008 Std (0.075 ppm):						
First High:	Sep 4	0.063	Aug 7	0.058	Oct 24	0.060
Second High:	Jun 10	0.062	Nov 3	0.055	Oct 10	0.054
Third High:	Sep 3	0.062	Apr 20	0.054	Oct 20	0.054
Fourth High:	Sep 9	0.062	Aug 30	0.054	Apr 13	0.052
National 1997 Std (0.08 ppm):						
First High:	Sep 4	0.063	Aug 7	0.058	Oct 24	0.060
Second High:	Jun 10	0.062	Nov 3	0.055	Oct 10	0.054
Third High:	Sep 3	0.062	Apr 20	0.054	Oct 20	0.054
Fourth High:	Sep 9	0.062	Aug 30	0.054	Apr 13	0.052
California Std (0.070 ppm):						
First High:	Jun 10	0.063	Aug 7	0.059	Oct 24	0.060
Second High:	Sep 4	0.063	Nov 3	0.056	Oct 20	0.055
Third High:	Sep 9	0.063	Aug 30	0.055	Oct 10	0.054
Fourth High:	Sep 3	0.062	Nov 4	0.055	Apr 13	0.053
National 2015 Std (0.070 ppm):						
# Days Above the Standard:	0		0		0	
Nat'l Standard Design Value:	0.062		0.057		0.056	
National Year Coverage:	100		100		100	
National 2008 Std (0.075 ppm):						
# Days Above the Standard:	0		0		0	
Nat'l Standard Design Value:	0.062		0.057		0.056	
National Year Coverage:	100		100		99	
National 1997 Std (0.08 ppm):						
# Days Above the Standard:	0		0		0	
Nat'l Standard Design Value:	0.062		0.057		0.056	
National Year Coverage:	100		100		99	
California Std (0.070 ppm):						
# Days Above the Standard:	0		0		0	
California Designation Value:	0.067		0.059		0.060	
Expected Peak Day Concentration:	0.067		0.061		0.061	
California Year Coverage:	100		98		99	

Notes:

Eight-hour ozone averages and related statistics are available at El Rio-Rio Mesa School #2 between 1980 and 2024. Some years in this range may not be represented.

All averages expressed in parts per million.

orange exceeds a national ambient air quality standard.

An exceedance of a standard is not necessarily related to a violation of the standard.

Daily maximum 8-hour averages associated with the National 0.070 ppm standard exclude those 8-hour averages that have first hours between midnight and 6:00 am, Pacific Standard Time.

Daily maximum 8-hour averages associated with the National 0.070 ppm standard include only those 8-hour averages from days that have sufficient data for the day to be considered valid.

Daily maximum 8-hour averages associated with the National 0.075 ppm and 0.08 ppm standards may come from days that don't have sufficient data for the day to be considered valid, provided the daily maximum 8-hour average itself includes sufficient data to be considered valid.

Year Coverage indicates the extent to which available monitoring data represent the time of the year when concentrations are expected to be highest. 0 means that data represent none of the high period; 100 means that data represent the entire high period. A high Year Coverage does not mean that there was sufficient data for annual statistics to be considered valid.

***** means there was insufficient data available to determine the value.

Top 4 Summary: Highest 4 Daily Maximum 8-Hour Ozone Averages



at El Rio-Rio Mesa School #2

	2020		2021		2022	
	Date	8-Hr Average	Date	8-Hr Average	Date	8-Hr Average
National 2015 Std (0.070 ppm):						
First High:	Oct 2	0.086	Oct 3	0.059	Sep 4	0.063
Second High:	Oct 3	0.081	Apr 1	0.058	Jun 10	0.062
Third High:	Oct 14	0.071	Apr 2	0.057	Sep 3	0.062
Fourth High:	Oct 1	0.069	Mar 31	0.055	Sep 9	0.062
National 2008 Std (0.075 ppm):						
First High:	Oct 2	0.086	Oct 4	0.067	Sep 4	0.063
Second High:	Oct 3	0.081	Oct 3	0.059	Jun 10	0.062
Third High:	Oct 14	0.071	Apr 1	0.058	Sep 3	0.062
Fourth High:	Oct 1	0.069	Apr 2	0.057	Sep 9	0.062
National 1997 Std (0.08 ppm):						
First High:	Oct 2	0.086	Oct 4	0.067	Sep 4	0.063
Second High:	Oct 3	0.081	Oct 3	0.059	Jun 10	0.062
Third High:	Oct 14	0.071	Apr 1	0.058	Sep 3	0.062
Fourth High:	Oct 1	0.069	Apr 2	0.057	Sep 9	0.062
California Std (0.070 ppm):						
First High:	Oct 2	0.087	Oct 4	0.067	Jun 10	0.063
Second High:	Oct 3	0.082	Apr 1	0.059	Sep 4	0.063
Third High:	Oct 14	0.071	Oct 3	0.059	Sep 9	0.063
Fourth High:	Oct 1	0.069	Apr 2	0.058	Sep 3	0.062
National 2015 Std (0.070 ppm):						
# Days Above the Standard:	3		0		0	
Nat'l Standard Design Value:	0.061		0.061		0.062	
National Year Coverage:	99		99		100	
National 2008 Std (0.075 ppm):						
# Days Above the Standard:	2		0		0	
Nat'l Standard Design Value:	0.061		0.062		0.062	
National Year Coverage:	99		99		100	
National 1997 Std (0.08 ppm):						
# Days Above the Standard:	1		0		0	
Nat'l Standard Design Value:	0.061		0.062		0.062	
National Year Coverage:	99		99		100	
California Std (0.070 ppm):						
# Days Above the Standard:	3		0		0	
California Designation Value:	0.068		0.067		0.067	
Expected Peak Day Concentration:	0.068		0.067		0.067	
California Year Coverage:	99		98		100	

Notes:

Eight-hour ozone averages and related statistics are available at El Rio-Rio Mesa School #2 between 1980 and 2024. Some years in this range may not be represented.

All averages expressed in parts per million.

orange exceeds a national ambient air quality standard.

An exceedance of a standard is not necessarily related to a violation of the standard.

Daily maximum 8-hour averages associated with the National 0.070 ppm standard exclude those 8-hour averages that have first hours between midnight and 6:00 am, Pacific Standard Time.

Daily maximum 8-hour averages associated with the National 0.070 ppm standard include only those 8-hour averages from days that have sufficient data for the day to be considered valid.

Daily maximum 8-hour averages associated with the National 0.075 ppm and 0.08 ppm standards may come from days that don't have sufficient data for the day to be considered valid, provided the daily maximum 8-hour average itself includes sufficient data to be considered valid.

Year Coverage indicates the extent to which available monitoring data represent the time of the year when concentrations are expected to be highest. 0 means that data represent none of the high period; 100 means that data represent the entire high period. A high Year Coverage does not mean that there was sufficient data for annual statistics to be considered valid.

***** means there was insufficient data available to determine the value.

Top 4 Summary: Highest 4 Daily Maximum Hourly Ozone Measurements

at El Rio-Rio Mesa School #2



	2022		2023		2024	
	Date	Measurement	Date	Measurement	Date	Measurement
First High:	Sep 9	0.077	Nov 3	0.071	Oct 24	0.073
Second High:	Sep 3	0.070	Aug 7	0.069	Aug 20	0.066
Third High:	Oct 20	0.067	Aug 30	0.066	Nov 10	0.064
Fourth High:	Jun 10	0.066	Nov 4	0.066	Apr 13	0.063
California:						
# Days Above the Standard:	0		0		0	
California Designation Value:	0.08		0.07		0.07	
Expected Peak Day Concentration:	0.075		0.068		0.068	
National:						
# Days Above the Standard:	0		0		0	
3-Year Estimated Expected Number of Exceedance Days:	0.0		0.0		0.0	
1-Year Estimated Expected Number of Exceedance Days:	0.0		0.0		0.0	
Nat'l Standard Design Value:	0.082		0.071		0.070	
Year Coverage:	100		100		100	

◀ Shift Backward 1 year ▼ Shift Forward ▶

Notes:

Hourly ozone measurements and related statistics are available at El Rio-Rio Mesa School #2 between 1980 and 2024. Some years in this range may not be represented.

All concentrations expressed in parts per million.

The national 1-hour ozone standard was revoked in June 2005. Statistics related to the national 1-hour ozone standard are shown in **italics** or **italics**.

yellow exceeds a California ambient air quality standard. **orange** exceeds the revoked 1-hour national ambient air quality standard.

An exceedance of a standard is not necessarily related to a violation of the standard.

Year Coverage indicates the extent to which available monitoring data represent the time of the year when concentrations are expected to be highest. 0 means that data represent none of the high period; 100 means that data represent the entire high period. A high Year Coverage does not mean that there was sufficient data for annual statistics to be considered valid.

***** means there was insufficient data available to determine the value.

Top 4 Summary: Highest 4 Daily Maximum Hourly Ozone Measurements

at El Rio-Rio Mesa School #2



	2020		2021		2022	
	Date	Measurement	Date	Measurement	Date	Measurement
First High:	Oct 3	0.104	Oct 3	0.073	Sep 9	0.077
Second High:	Oct 2	0.098	Oct 4	0.073	Sep 3	0.070
Third High:	Oct 14	0.084	Oct 1	0.068	Oct 20	0.067
Fourth High:	Oct 1	0.082	Mar 31	0.063	Jun 10	0.066
California:						
# Days Above the Standard:	2		0		0	
California Designation Value:	0.08		0.08		0.08	
Expected Peak Day Concentration:	0.078		0.077		0.075	
National:						
# Days Above the Standard:	0		0		0	
3-Year Estimated Expected Number of Exceedance Days:	0.0		0.0		0.0	
1-Year Estimated Expected Number of Exceedance Days:	0.0		0.0		0.0	
Nat'l Standard Design Value:	0.082		0.082		0.082	
Year Coverage:	99		99		100	

◀ Shift Backward 1 year ▼ Shift Forward ▶

Notes:

Hourly ozone measurements and related statistics are available at El Rio-Rio Mesa School #2 between 1980 and 2024. Some years in this range may not be represented.

All concentrations expressed in parts per million.

The national 1-hour ozone standard was revoked in June 2005. Statistics related to the national 1-hour ozone standard are shown in *italics* or *italics*.

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Year Coverage indicates the extent to which available monitoring data represent the time of the year when concentrations are expected to be highest. 0 means that data represent none of the high period; 100 means that data represent the entire high period. A high Year Coverage does not mean that there was sufficient data for annual statistics to be considered valid.

* means there was insufficient data available to determine the value.

Top 4 Summary: Highest 4 Daily 24-Hour PM2.5 Averages

at El Rio-Rio Mesa School #2



	2022		2023		2024	
	Date	24-Hr Average	Date	24-Hr Average	Date	24-Hr Average
National:						
First High:	Apr 9	18.5	Sep 22	24.5	Nov 6	90.5
Second High:	Jan 8	18.4	Sep 23	24.0	Nov 7	47.8
Third High:	Sep 2	15.8	Sep 21	23.2	Nov 9	18.2
Fourth High:	Sep 1	15.7	Sep 24	21.7	Dec 5	17.7
California:						
First High:	Apr 9	18.5	Sep 22	24.5	Nov 7	47.8
Second High:	Jan 8	18.4	Sep 23	24.0	Nov 9	18.2
Third High:	Sep 2	15.8	Sep 21	23.2	Dec 5	17.7
Fourth High:	Sep 1	15.7	Sep 24	21.7	Nov 8	17.0
National:						
'06 Estimated # Days > 24-Hr Std:		0.0		0.0		2.0
'06 Measured # Days > 24-Hr Std:		0		0		2
2006 24-Hr Std Design Value:		21		15		13
2006 24-Hr Std 98th Percentile:		14.1		14.0		11.2
2006 Annual Std Design Value:		7.0		6.5		5.9
2006 Annual Average:		6.4		6.1		5.1
2012 Annual Std Design Value:		7.0		6.5		5.9
2012 Annual Average:		6.4		6.1		5.1
2024 Annual Std Design Value:		7.0		6.5		5.9
2024 Annual Average:		6.4		6.1		5.1
California:						
Annual Std Designation Value:		8		6		6
Annual Average:		6.5		*		4.9
Year Coverage:		100		98		99

◀ Shift Backward 1 year ▼ Shift Forward ▶

Notes:

Daily PM2.5 averages and related statistics are available at El Rio-Rio Mesa School #2 between 1999 and 2024. Some years in this range may not be represented.

All averages expressed in micrograms per cubic meter.

yellow exceeds a California ambient air quality standard. orange exceeds a national ambient air quality standard.

An exceedance of a standard is not necessarily related to a violation of the standard.

State statistics are based on California approved samplers, whereas national statistics are based on samplers using federal reference or equivalent methods. State and national statistics may therefore be based on different samplers.

Year Coverage indicates the extent to which available monitoring data represent the time of the year when concentrations are expected to be highest. 0 means that data represent none of the high period; 100 means that data represent the entire high period. A high Year Coverage does not mean that there was sufficient data for annual statistics to be considered valid.

* means there was insufficient data available to determine the value.

Top 4 Summary: Highest 4 Daily 24-Hour PM2.5 Averages

at El Rio-Rio Mesa School #2



	2020		2021		2022	
	Date	24-Hr Average	Date	24-Hr Average	Date	24-Hr Average
National:						
First High:	Sep 15	58.7	Dec 7	31.7	Apr 9	18.5
Second High:	Sep 14	56.7	Dec 6	26.4	Jan 8	18.4
Third High:	Sep 13	44.0	Nov 8	21.3	Sep 2	15.8
Fourth High:	Aug 21	35.1	Sep 6	20.9	Sep 1	15.7
California:						
First High:	Sep 15	58.7	Dec 7	31.7	Apr 9	18.5
Second High:	Sep 14	56.7	Dec 6	26.4	Jan 8	18.4
Third High:	Sep 13	44.0	Nov 8	21.3	Sep 2	15.8
Fourth High:	Aug 21	35.1	Sep 6	20.9	Sep 1	15.7
National:						
'06 Estimated # Days > 24-Hr Std:	3.0		0.0		0.0	
'06 Measured # Days > 24-Hr Std:	3		0		0	
2006 24-Hr Std Design Value:	23		21		21	
2006 24-Hr Std 98th Percentile:	30.3		17.1		14.1	
2006 Annual Std Design Value:	7.5		7.0		7.0	
2006 Annual Average:	7.5		6.8		6.4	
2012 Annual Std Design Value:	7.5		7.0		7.0	
2012 Annual Average:	7.5		6.8		6.4	
2024 Annual Std Design Value:	7.5		7.0		7.0	
2024 Annual Average:	7.5		6.8		6.4	
California:						
Annual Std Designation Value:	8		8		8	
Annual Average:	7.6		*		6.5	
Year Coverage:	100		82		100	

◀ Shift Backward 1 year ▼ Shift Forward ▶

Notes:

Daily PM2.5 averages and related statistics are available at El Rio-Rio Mesa School #2 between 1999 and 2024. Some years in this range may not be represented.

All averages expressed in micrograms per cubic meter.

yellow exceeds a California ambient air quality standard. **orange** exceeds a national ambient air quality standard.

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State statistics are based on California approved samplers, whereas national statistics are based on samplers using federal reference or equivalent methods. State and national statistics may therefore be based on different samplers.

Year Coverage indicates the extent to which available monitoring data represent the time of the year when concentrations are expected to be highest. 0 means that data represent none of the high period; 100 means that data represent the entire high period. A high Year Coverage does not mean that there was sufficient data for annual statistics to be considered valid.

* means there was insufficient data available to determine the value.

Top 4 Summary: Highest 4 Daily 24-Hour PM10 Averages



at El Rio-Rio Mesa School #2

	2022		2023		2024	
	Date	24-Hr Average	Date	24-Hr Average	Date	24-Hr Average
National:						
First High:	Jul 18	57.9	Oct 29	102.8	Nov 6	272.9
Second High:	Sep 9	53.5	Nov 20	71.2	Nov 7	89.6
Third High:	Apr 9	52.1	Feb 21	69.9	Dec 10	69.1
Fourth High:	Sep 2	47.7	Dec 9	64.8	Mar 14	58.5
California:						
First High:	Jul 18	57.5	Oct 29	104.0	Nov 7	90.8
Second High:	Apr 9	52.5	Nov 20	72.1	Dec 10	70.6
Third High:	Sep 9	51.1	Feb 21	71.9	Mar 14	59.4
Fourth High:	Sep 2	47.1	Dec 9	66.5	Dec 9	45.8
National:						
Estimated # Days > 24-Hr Std:	0.0		0.0		1.0	
Measured # Days > 24-Hr Std:	0		0		1	
3-Yr Avg Est # Days > 24-Hr Std:	1.0		0.0		0.0	
Annual Average:	22.7		20.3		19.6	
3-Year Average:	25		23		21	
California:						
Estimated # Days > 24-Hr Std:	3.0		7.0		3.0	
Measured # Days > 24-Hr Std:	3		7		3	
Annual Average:	23.1		20.4		19.3	
3-Year Maximum Annual Average:	25		25		23	
Year Coverage:	0		0		0	

◀ Shift Backward 1 year ▼ Shift Forward ▶

Notes:

Daily PM10 averages and related statistics are available at El Rio-Rio Mesa School #2 between 1988 and 2024. Some years in this range may not be represented.

All averages expressed in micrograms per cubic meter.

The national annual average PM10 standard was revoked in December 2006 and is no longer in effect. Statistics related to the revoked standard are shown in *italics* or *italics*.

yellow exceeds a California ambient air quality standard. **orange** exceeds a national ambient air quality standard.

An exceedance of a standard is not necessarily related to a violation of the standard.

All values listed above represent midnight-to-midnight 24-hour averages and may be related to an exceptional event.

State and national statistics may differ for the following reasons:

State statistics are based on California approved samplers, whereas national statistics are based on samplers using federal reference or equivalent methods. State and national statistics may therefore be based on different samplers.

State statistics for 1998 and later are based on local conditions (except for sites in the South Coast Air Basin, where State statistics for 2002 and later are based on local conditions). National statistics are based on standard conditions.

State criteria for ensuring that data are sufficiently complete for calculating valid annual averages are more stringent than the national criteria.

Measurements are usually collected every six days. Measured days counts the days that a measurement was greater than the level of the standard; Estimated days mathematically estimates how many days concentrations would have been greater than the level of the standard had each day been monitored.

3-Year statistics represent the listed year and the 2 years before the listed year.

Year Coverage indicates the extent to which available monitoring data represent the time of the year when concentrations are expected to be highest. 0 means that data represent none of the high period; 100 means that data represent the entire high period. A high Year Coverage does not mean that there was sufficient data for annual statistics to be considered valid.

* means there was insufficient data available to determine the value.

Top 4 Summary: Highest 4 Daily 24-Hour PM10 Averages



at El Rio-Rio Mesa School #2

	2020		2021		2022	
	Date	24-Hr Average	Date	24-Hr Average	Date	24-Hr Average
National:						
First High:	Oct 26	200.7	Jan 19	377.8	Jul 18	57.9
Second High:	Dec 3	162.3	Sep 30	127.5	Sep 9	53.5
Third High:	Dec 23	110.0	Nov 21	125.0	Apr 9	52.1
Fourth High:	Dec 7	109.3	Feb 25	107.1	Sep 2	47.7
California:						
First High:	Oct 26	206.0	Nov 21	125.0	Jul 18	57.5
Second High:	Dec 3	166.4	Sep 30	125.0	Apr 9	52.5
Third High:	Dec 23	112.4	Feb 25	110.7	Sep 9	51.1
Fourth High:	Dec 7	110.0	Oct 11	91.9	Sep 2	47.1
National:						
Estimated # Days > 24-Hr Std:	2.0		1.1		0.0	
Measured # Days > 24-Hr Std:	2		1		0	
3-Yr Avg Est # Days > 24-Hr Std:	2.0		2.0		1.0	
Annual Average:	25.2		26.4		22.7	
3-Year Average:	26		25		25	
California:						
Estimated # Days > 24-Hr Std:	21.0		12.1		3.0	
Measured # Days > 24-Hr Std:	21		12		3	
Annual Average:	25.3		24.7		23.1	
3-Year Maximum Annual Average:	27		25		25	
Year Coverage:	0		0		0	

◀ Shift Backward 1 year ▼ Shift Forward ▶

Notes:

Daily PM10 averages and related statistics are available at El Rio-Rio Mesa School #2 between 1988 and 2024. Some years in this range may not be represented.

All averages expressed in micrograms per cubic meter.

The national annual average PM10 standard was revoked in December 2006 and is no longer in effect. Statistics related to the revoked standard are shown in *italics* or *italics*.

yellow exceeds a California ambient air quality standard. **orange** exceeds a national ambient air quality standard.

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Measurements are usually collected every six days. Measured days counts the days that a measurement was greater than the level of the standard; Estimated days mathematically estimates how many days concentrations would have been greater than the level of the standard had each day been monitored.

3-Year statistics represent the listed year and the 2 years before the listed year.

Year Coverage indicates the extent to which available monitoring data represent the time of the year when concentrations are expected to be highest. 0 means that data represent none of the high period; 100 means that data represent the entire high period. A high Year Coverage does not mean that there was sufficient data for annual statistics to be considered valid.

***** means there was insufficient data available to determine the value.

Top 4 Summary: Highest 4 Daily Maximum Hourly Nitrogen Dioxide Measurements

at El Rio-Rio Mesa School #2



	2022		2023		2024	
	Date	Measurement	Date	Measurement	Date	Measurement
National:						
First High:	Jan 13	32.0	Dec 5	27.0	Dec 18	29.0
Second High:	Feb 24	29.0	Dec 15	24.0	Jan 8	24.0
Third High:	Feb 26	29.0	Feb 1	23.0	Dec 11	22.0
Fourth High:	Nov 15	25.0	Nov 27	23.0	Feb 24	21.0
California:						
First High:	Jan 13	32	Dec 5	27	Dec 18	29
Second High:	Feb 24	29	Dec 15	24	Jan 8	24
Third High:	Feb 26	29	Feb 1	23	Dec 11	22
Fourth High:	Nov 15	25	Nov 27	23	Feb 24	21
National:						
1-Hour Standard Design Value:		23		21		21
1-Hour Standard 98th Percentile:		22.0		20.0		20.0
# Days Above the Standard:		0		0		0
Annual Standard Design Value:		4		3		4
California:						
1-Hour Std Designation Value:		30		30		30
Expected Peak Day Concentration:		29		28		27
# Days Above the Standard:		0		0		0
Annual Std Designation Value:		5		4		4
Annual Average:		4		3		4
Year Coverage:		99		100		99

◀ Shift Backward 1 year ▼ Shift Forward ▶

Notes:

Hourly nitrogen dioxide measurements and related statistics are available at El Rio-Rio Mesa School #2 between 1982 and 2024. Some years in this range may not be represented.

All concentrations expressed in parts per billion.

yellow exceeds a California ambient air quality standard; **orange** exceeds a national ambient air quality standard.

An exceedance of a standard is not necessarily related to a violation of the standard.

Year Coverage indicates the extent to which available monitoring data represent the time of the year when concentrations are expected to be highest. 0 means that data represent none of the high period; 100 means that data represent the entire high period. A high Year Coverage does not mean that there was sufficient data for annual statistics to be considered valid.

* means there was insufficient data available to determine the value.

Top 4 Summary: Highest 4 Daily Maximum Hourly Nitrogen Dioxide Measurements

at El Rio-Rio Mesa School #2



	2020		2021		2022	
	Date	Measurement	Date	Measurement	Date	Measurement
National:						
First High:	Feb 27	31.0	Oct 15	33.0	Jan 13	32.0
Second High:	Jan 3	29.0	Apr 1	28.0	Feb 24	29.0
Third High:	Nov 5	29.0	Mar 2	26.0	Feb 26	29.0
Fourth High:	Nov 16	29.0	Oct 14	25.0	Nov 15	25.0
California:						
First High:	Feb 27	31	Oct 15	33	Jan 13	32
Second High:	Jan 3	29	Apr 1	28	Feb 24	29
Third High:	Nov 5	29	Mar 2	26	Feb 26	29
Fourth High:	Nov 16	29	Oct 14	25	Nov 15	25
National:						
1-Hour Standard Design Value:	26		24		23	
1-Hour Standard 98th Percentile:	24.0		22.0		22.0	
# Days Above the Standard:	0		0		0	
Annual Standard Design Value:	5		4		4	
California:						
1-Hour Std Designation Value:	40		30		30	
Expected Peak Day Concentration:	35		31		29	
# Days Above the Standard:	0		0		0	
Annual Std Designation Value:	5		5		5	
Annual Average:	5		4		4	
Year Coverage:	100		98		99	

◀ Shift Backward Shift Forward ▶

Notes:

Hourly nitrogen dioxide measurements and related statistics are available at El Rio-Rio Mesa School #2 between 1982 and 2024. Some years in this range may not be represented.

All concentrations expressed in parts per billion.

 exceeds a California ambient air quality standard. exceeds a national ambient air quality standard.

An exceedance of a standard is not necessarily related to a violation of the standard.

Year Coverage indicates the extent to which available monitoring data represent the time of the year when concentrations are expected to be highest. 0 means that data represent none of the high period; 100 means that data represent the entire high period. A high Year Coverage does not mean that there was sufficient data for annual statistics to be considered valid.

 * means there was insufficient data available to determine the value.

Monitor Values Report

Geographic Area: Ventura County, CA

Pollutant: PM10

Year: 2023

Exceptional Events: Included (if any)

Required Days	Valid Days	First Max	Second Max	Days >STD	Est Days >STD	Exc Events	Monitor Number	Site ID	Address	City	County	State	EPA Region
365	359	85	62	0	0	None	3	061112002	5400 Cochran Street, Simi Valley, Ca 93063	Simi Valley	Ventura	CA	09
365	361	102	71	0	0	None	3	061113001	545 Central Avenue, Oxnard, Ca 93030	Not in a City	Ventura	CA	09

Get detailed information about this report, including column descriptions, at <https://www.epa.gov/outdoor-air-quality-data/about-air-data-reports#mon>

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Source: U.S. EPA AirData <<https://www.epa.gov/air-data>>

Generated: April 22, 2024

Monitor Values Report

Geographic Area: Ventura County, CA

Pollutant: PM2.5

Year: 2023

Exceptional Events: Included (if any)

Note: The * indicates the mean does not satisfy minimum data completeness criteria.

Obs	First Max	Second Max	Third Max	Fourth Max	98th Percentile	Weighted Annual Mean	Exc Events	Monitor Number	Site ID	Address	City	County	State	EPA Region
360	23	21	20.3	18.2	15	6.5	None	3	061110007	2323 Moorpark Road, Thousand Oaks, Ca 91360	Thousand Oaks	Ventura	CA	09
361	20	17	17	16.7	14	5.4	None	3	061110009	3301 Pacific Avenue, Piru, Ca 93040	Piru	Ventura	CA	09
361	20.4	18.5	16.2	16.1	11	4.2	None	3	061111004	1201 E. Ojai Avenue, Ojai, Ca 93023	Ojai	Ventura	CA	09
354	19.9	18.2	17.9	17.9	16	5.9	None	3	061112002	5400 Cochran Street, Simi Valley, Ca 93063	Simi Valley	Ventura	CA	09
358	19.8	19.6	19.3	18.9	17	6.7	None	4	061112002	5400 Cochran Street, Simi Valley, Ca 93063	Simi Valley	Ventura	CA	09
346	24.5	24	23.2	21.7	14	6.1	None	3	061113001	545 Central Avenue, Oxnard, Ca 93030	Not in a City	Ventura	CA	09

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Source: U.S. EPA AirData <<https://www.epa.gov/air-data>>

Generated: April 22, 2024

Monitor Values Report

Geographic Area: Ventura County, CA

Pollutant: NO2

Year: 2023

Exceptional Events: Included (if any)

Note: The * indicates the mean does not satisfy minimum data completeness criteria.

Obs	First Max 1hr	Second Max 1hr	98th Percentile	Annual Mean	Exc Events	Monitor Number	Site ID	Address	City	County	State	EPA Region
8287	32	32	29	5.1	None	1	061112002	5400 Cochran Street, Simi Valley, Ca 93063	Simi Valley	Ventura	CA	09
8355	27	24	20	3.44	None	1	061113001	545 Central Avenue, Oxnard, Ca 93030	Not in a City	Ventura	CA	09

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Source: U.S. EPA AirData <<https://www.epa.gov/air-data>>

Generated: April 22, 2024

Monitor Values Report

Geographic Area: Los Angeles County, CA

Pollutant: CO

Year: 2019

Exceptional Events: Included (if any)

Obs	First Max 8hr	Second Max 8hr	Days 8hr Max >STD	First Max 1hr	Second Max 1hr	Days 1hr Max >STD	Exc Events	Monitor Number	Site ID	Address	City	County	State	EPA Region
8588	1.1	1	0	1.6	1.6	0	None	1	060370002	803 N. Loren Ave., Azusa	Azusa	Los Angeles	CA	09
8514	0.8	0.7	0	1.2	1.1	0	None	2	060370016	840 Laurel, Glendora	Glendora	Los Angeles	CA	09
8657	1.2	1.1	0	1.9	1.8	0	None	1	060370113	Va Hospital, West Los Angeles	West Los Angeles	Los Angeles	CA	09
8624	1.6	1.5	0	2	1.9	0	None	1	060371103	1630 N Main St, Los Angeles	Los Angeles	Los Angeles	CA	09
3191	1.6	1.4	0	2	1.8	0	None	9	060371103	1630 N Main St, Los Angeles	Los Angeles	Los Angeles	CA	09
8599	2.2	1.8	0	2.6	2.5	0	None	1	060371201	18330 Gault St., Reseda	Reseda	Los Angeles	CA	09
8564	3.2	2.9	0	3.8	3.8	0	None	1	060371302	700 North Bullis Road	Compton	Los Angeles	CA	09
8672	1.5	1.4	0	1.9	1.8	0	None	1	060371602	4144 San Gabriel River Pkwy, Pico Rivera	Pico Rivera	Los Angeles	CA	09
8680	1.3	1.2	0	1.7	1.6	0	None	1	060371701	924 N. Garey Ave., Pomona	Pomona	Los Angeles	CA	09
8581	1.2	1.1	0	1.5	1.5	0	None	1	060372005	752 S. Wilson Ave., Pasadena	Pasadena	Los Angeles	CA	09
7999	2.1	1.8	0	3	2.4	0	None	1	060374006	2425 Webster St., Long Beach, Ca	Long Beach	Los Angeles	CA	09
8655	1.3	1.3	0	1.8	1.7	0	None	1	060375005	7201 W. Westchester Parkway	Los Angeles	Los Angeles	CA	09
8510	1.2	1	0	1.5	1.3	0	None	1	060376012	22224 Placerita Canyon Rd, Santa Clarita	Santa Clarita	Los Angeles	CA	09
8162	0.9	0.8	0	1.4	1.4	0	None	1	060379033	43301 Division St., Lancaster, Ca	Lancaster	Los Angeles	CA	09

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Source: U.S. EPA AirData <<https://www.epa.gov/air-data>>

Generated: April 23, 2024

Monitor Values Report

Geographic Area: Los Angeles County, CA

Pollutant: CO

Year: 2020

Exceptional Events: Included (if any)

Obs	First Max 8hr	Second Max 8hr	Days 8hr Max >STD	First Max 1hr	Second Max 1hr	Days 1hr Max >STD	Exc Events	Monitor Number	Site ID	Address	City	County	State	EPA Region
8423	2	1.9	0	2.4	2.3	0	None	1	060370002	803 N. Loren Ave., Azusa	Azusa	Los Angeles	CA	09
7538	1.9	1.6	0	2.3	2.2	0	None	2	060370016	840 Laurel, Glendora	Glendora	Los Angeles	CA	09
8701	1.2	1.2	0	2	1.8	0	None	1	060370113	Va Hospital, West Los Angeles	West Los Angeles	Los Angeles	CA	09
8511	1.6	1.6	0	2.1	1.9	0	None	1	060371103	1630 N Main St, Los Angeles	Los Angeles	Los Angeles	CA	09
4888	1.4	1.4	0	1.8	1.6	0	None	9	060371103	1630 N Main St, Los Angeles	Los Angeles	Los Angeles	CA	09
8376	1.7	1.7	0	2	2	0	None	1	060371201	18330 Gault St., Reseda	Reseda	Los Angeles	CA	09
8698	3.1	2.8	0	4.5	3.7	0	None	1	060371302	700 North Bullis Road	Compton	Los Angeles	CA	09
8656	1.7	1.6	0	3.1	2.3	0	None	1	060371602	4144 San Gabriel River Pkwy, Pico Rivera	Pico Rivera	Los Angeles	CA	09
8697	1.1	1.1	0	1.5	1.4	0	None	1	060371701	924 N. Garey Ave., Pomona	Pomona	Los Angeles	CA	09
8601	2.2	1.8	0	2.6	2.5	0	None	1	060372005	752 S. Wilson Ave., Pasadena	Pasadena	Los Angeles	CA	09
8692	1.3	1.2	0	1.6	1.5	0	None	1	060375005	7201 W. Westchester Parkway	Los Angeles	Los Angeles	CA	09
8678	0.8	0.8	0	1.2	1	0	None	1	060376012	22224 Placerita Canyon Rd, Santa Clarita	Santa Clarita	Los Angeles	CA	09
8033	1.1	1.1	0	1.6	1.5	0	None	1	060379033	43301 Division St., Lancaster, Ca	Lancaster	Los Angeles	CA	09

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Source: U.S. EPA AirData <<https://www.epa.gov/air-data>>

Generated: April 23, 2024

Monitor Values Report

Geographic Area: Los Angeles County, CA

Pollutant: CO

Year: 2021

Exceptional Events: Included (if any)

Obs	First Max 8hr	Second Max 8hr	Days 8hr Max >STD	First Max 1hr	Second Max 1hr	Days 1hr Max >STD	Exc Events	Monitor Number	Site ID	Address	City	County	State	EPA Region
8535	1.4	1.3	0	1.5	1.4	0	None	1	060370002	803 N. Loren Ave., Azusa	Azusa	Los Angeles	CA	09
8503	0.9	0.9	0	1.4	1.2	0	None	2	060370016	840 Laurel, Glendora	Glendora	Los Angeles	CA	09
4153	1	0.9	0	1.5	1.5	0	None	1	060370113	Va Hospital, West Los Angeles	West Los Angeles	Los Angeles	CA	09
8674	1.6	1.5	0	2	1.9	0	None	1	060371103	1630 N Main St, Los Angeles	Los Angeles	Los Angeles	CA	09
6255	1.5	1.5	0	1.9	1.8	0	None	9	060371103	1630 N Main St, Los Angeles	Los Angeles	Los Angeles	CA	09
8699	1.9	1.9	0	2.6	2.2	0	None	1	060371201	18330 Gault St., Reseda	Reseda	Los Angeles	CA	09
8661	3.7	3.4	0	4.3	4.3	0	None	1	060371302	700 North Bullis Road	Compton	Los Angeles	CA	09
8664	1.5	1.5	0	1.8	1.7	0	None	1	060371602	4144 San Gabriel River Pkwy, Pico Rivera	Pico Rivera	Los Angeles	CA	09
8447	1.3	1.3	0	1.7	1.6	0	None	1	060371701	924 N. Garey Ave., Pomona	Pomona	Los Angeles	CA	09
8695	1.6	1.5	0	1.9	1.8	0	None	1	060372005	752 S. Wilson Ave., Pasadena	Pasadena	Los Angeles	CA	09
5993	1.3	1.2	0	1.7	1.6	0	None	1	060375005	7201 W. Westchester Parkway	Los Angeles	Los Angeles	CA	09
8694	0.7	0.7	0	1	0.9	0	None	1	060376012	22224 Placerita Canyon Rd, Santa Clarita	Santa Clarita	Los Angeles	CA	09
8202	1.1	1	0	1.4	1.4	0	None	1	060379033	43301 Division St., Lancaster, Ca	Lancaster	Los Angeles	CA	09

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Source: U.S. EPA AirData <<https://www.epa.gov/air-data>>

Generated: April 23, 2024

Monitor Values Report

Geographic Area: Los Angeles County, CA

Pollutant: CO

Year: 2022

Exceptional Events: Included (if any)

Obs	First Max 8hr	Second Max 8hr	Days 8hr Max >STD	First Max 1hr	Second Max 1hr	Days 1hr Max >STD	Exc Events	Monitor Number	Site ID	Address	City	County	State	EPA Region
6245	0.9	0.8	0	1.3	1.2	0	None	1	060370002	803 N. Loren Ave., Azusa	Azusa	Los Angeles	CA	09
8644	0.6	0.6	0	0.9	0.8	0	None	2	060370016	840 Laurel, Glendora	Glendora	Los Angeles	CA	09
8700	1.5	1.4	0	1.7	1.6	0	None	1	060371103	1630 N Main St, Los Angeles	Los Angeles	Los Angeles	CA	09
8560	1.4	1.4	0	1.5	1.5	0	None	9	060371103	1630 N Main St, Los Angeles	Los Angeles	Los Angeles	CA	09
8701	1.8	1.8	0	2.2	2.2	0	None	1	060371201	18330 Gault St., Reseda	Reseda	Los Angeles	CA	09
8571	3	2.7	0	3.4	3.4	0	None	1	060371302	700 North Bullis Road	Compton	Los Angeles	CA	09
8515	1.5	1.4	0	1.6	1.5	0	None	1	060371602	4144 San Gabriel River Pkwy, Pico Rivera	Pico Rivera	Los Angeles	CA	09
8654	1.1	1.1	0	1.6	1.5	0	None	1	060371701	924 N. Garey Ave., Pomona	Pomona	Los Angeles	CA	09
8716	1.3	1.2	0	1.6	1.5	0	None	1	060372005	752 S. Wilson Ave., Pasadena	Pasadena	Los Angeles	CA	09
8699	0.6	0.6	0	1.5	1.1	0	None	1	060376012	22224 Placerita Canyon Rd, Santa Clarita	Santa Clarita	Los Angeles	CA	09

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Source: U.S. EPA AirData <<https://www.epa.gov/air-data>>

Generated: April 23, 2024

Monitor Values Report

Geographic Area: Los Angeles County, CA

Pollutant: CO

Year: 2023

Exceptional Events: Included (if any)

Obs	First Max 8hr	Second Max 8hr	Days 8hr Max >STD	First Max 1hr	Second Max 1hr	Days 1hr Max >STD	Exc Events	Monitor Number	Site ID	Address	City	County	State	EPA Region
8669	0.6	0.6	0	0.8	0.8	0	None	2	060370016	840 Laurel, Glendora	Glendora	Los Angeles	CA	09
6551	1.1	1.1	0	1.3	1.3	0	None	1	060371103	1630 N Main St, Los Angeles	Los Angeles	Los Angeles	CA	09
8634	1.2	1.2	0	1.4	1.4	0	None	9	060371103	1630 N Main St, Los Angeles	Los Angeles	Los Angeles	CA	09
8191	1.7	1.6	0	2.3	2.1	0	None	1	060371201	18330 Gault St., Reseda	Reseda	Los Angeles	CA	09
8606	2.6	2.6	0	3.2	3.1	0	None	1	060371302	700 North Bullis Road	Compton	Los Angeles	CA	09
8380	1.3	1.2	0	1.8	1.5	0	None	1	060371602	4144 San Gabriel River Pkwy, Pico Rivera	Pico Rivera	Los Angeles	CA	09
8458	1.3	1.1	0	1.5	1.4	0	None	1	060371701	924 N. Garey Ave., Pomona	Pomona	Los Angeles	CA	09
8681	1	0.9	0	1.3	1.2	0	None	1	060372005	752 S. Wilson Ave., Pasadena	Pasadena	Los Angeles	CA	09
8702	0.6	0.5	0	1.1	1	0	None	1	060376012	22224 Placerita Canyon Rd, Santa Clarita	Santa Clarita	Los Angeles	CA	09

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Source: U.S. EPA AirData <<https://www.epa.gov/air-data>>

Generated: April 23, 2024

Monitor Values Report

Geographic Area: Los Angeles County, CA

Pollutant: CO

Year: 2024

Exceptional Events: Included (if any)

Obs	First Max 8hr	Second Max 8hr	Days 8hr Max >STD	First Max 1hr	Second Max 1hr	Days 1hr Max >STD	Exc Events	Monitor Number	Site ID	Address	City	County	State	EPA Region
8035	1.1	0.9	0	1.4	1.2	0	None	2	060370016	840 Laurel, Glendora	Glendora	Los Angeles	CA	09
8509	1.6	1.6	0	1.8	1.7	0	None	9	060371103	1630 N Main St, Los Angeles	Los Angeles	Los Angeles	CA	09
8633	1.8	1.7	0	2.2	2.1	0	None	1	060371201	18330 Gault St., Reseda	Reseda	Los Angeles	CA	09
8321	3.1	2.6	0	3.5	3.5	0	None	1	060371302	700 North Bullis Road	Compton	Los Angeles	CA	09
8407	1.5	1.3	0	1.9	1.7	0	None	1	060371602	4144 San Gabriel River Pkwy, Pico Rivera	Pico Rivera	Los Angeles	CA	09
8716	1.2	1.2	0	1.7	1.7	0	None	1	060371701	924 N. Garey Ave., Pomona	Pomona	Los Angeles	CA	09
8619	1.1	1.1	0	1.4	1.4	0	None	1	060372005	752 S. Wilson Ave., Pasadena	Pasadena	Los Angeles	CA	09
8716	0.7	0.7	0	1.2	1.1	0	None	1	060376012	22224 Placerita Canyon Rd, Santa Clarita	Santa Clarita	Los Angeles	CA	09

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Source: U.S. EPA AirData <<https://www.epa.gov/air-data>>

Generated: August 28, 2025

Appendix C: Areas More Likely to Contain Naturally-Occurring Asbestos

A General Location Guide for Ultramafic Rocks in California - Areas More Likely to Contain Naturally Occurring Asbestos

Compiled By
Ronald K. Churchill and Robert L. Hill
August 2000

MAP PURPOSE

This map shows the areas more likely to contain natural occurrences of asbestos in California. Its purpose is to inform governmental agencies, private industry and the public of the areas in the State where natural occurrences of asbestos may be an issue. In these areas, consideration of the implications of the presence or absence of asbestos through examination of more detailed maps and site-specific investigations could be warranted as part of public or private decision making. Natural occurrences of asbestos are more likely to be encountered in, and immediately adjacent to, areas of ultramafic rocks. The general location of these rocks is noted on this map. While geologic conditions are more likely for asbestos formation in or near these areas, its presence is not certain. The only way to establish the presence or absence of asbestos at a specific location is through a detailed site examination by a qualified geologist.

EXPLANATION OF ULTRAMAFIC ROCK UNIT

Ultramafic rocks are omphacite, pyroxenite, pyroxenite, and less common in California, hornblende (IGUS classification of ultramafic rocks, in Phelps, 1997). These igneous rocks contain 50 percent or more of the dark colored iron-magnesium-silicate minerals olivine, augite, hypersthene, or less commonly hornblende. Ultramafic rocks form in high temperature environments well below the surface of the earth. By the time they are exposed at the surface by uplift and erosion, ultramafic rocks may be partially or completely altered to serpentine, a type of metamorphic rock. Sometimes the metamorphic conditions are right for the formation of chrysotile asbestos or tremolite-actinolite asbestos in bodies of ultramafic rock or along their boundaries. *Note*—occurrences of non-ultramafic rock types, such as gabbro or diorite, may be included within some of the ultramafic rock areas shown on this map. Asbestos is most likely to be associated with these non-ultramafic rock types.

INFORMATION SOURCES

The ultramafic rock areas shown on this map are adapted from Jennings, C.W., 1977, Geologic Map of California, California Department of Conservation, Division of Mines and Geology, Geologic Map No. 2, scale 1:750,000.
Phelps, A.T., 1997, Principles of igneous and metamorphic petrology, Figure C-5, IGUS (International Union of Geological Sciences) classification of ultramafic rocks: *Petrologic work*, Longwood College, New Jersey, page 66.
This map may be viewed on the California Department of Conservation website at: <http://www.conservation.ca.gov>, which includes links to other sites with asbestos information.

MAP USAGE AND LIMITATIONS

The small scale of this map (1:1,000,000) precludes showing detailed boundaries of ultramafic rock units and small occurrences of ultramafic rocks. It should be used only as a general guide to the presence of ultramafic rocks that may contain asbestos. This map is derived from the Geologic Map of California (1:750,000 scale—one inch equals about 12 miles), Jennings (1977). No ultramafic rocks are shown in Siskiyou and Mazama counties on this map, however, ultramafic rocks are shown as inliers in these counties on available more detailed maps at scales of 1:250,000 (one inch equals about 4 miles) and larger. In addition to association with ultramafic rock and serpentine, asbestos minerals are also known to occur in association with some faults in particular geologic settings, certain rock-transported debris, metamorphic rock types, and magmatic-rich carbonates rocks such as dolomite. These asbestos occurrences are much less common and their locations less well known than for ultramafic rocks. Consequently, such occurrences are not shown on this map.
This map should not be used to determine whether bedrock or soil on a particular parcel of land is or adjacent to areas identified as ultramafic rocks contains asbestos. A site-specific investigation would be required to make such a determination.

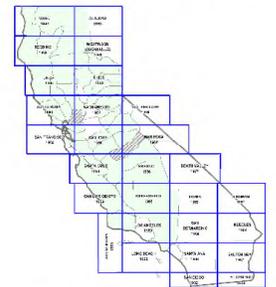
Definitions

Asbestos—Asbestos is the generic term for the naturally occurring fibrous (needle-like) varieties of six silicate minerals. These minerals are: chrysotile, tremolite (when fibrous), actinolite (when fibrous), anthophyllite (when fibrous), and amosite (when fibrous).

Serpentine—The serpentine group minerals are hydrous magnesium silicate minerals of which talc, antigorite and chrysotile are the most common. Chrysotile forms crystals that are naturally fibrous. These fibers occur in various sizes, from small fibers to long fibers. The fibers are oriented perpendicular to the vein walls (cross-section) or parallel to the vein walls (side-view). Chrysotile fibers are one type of asbestos. The other serpentine minerals usually are not fibrous or fibrous fibers are not well developed. Although the term serpentine is commonly used to refer to the rock serpentinite, it is actually the name of the group of minerals, but not the rock serpentinite.

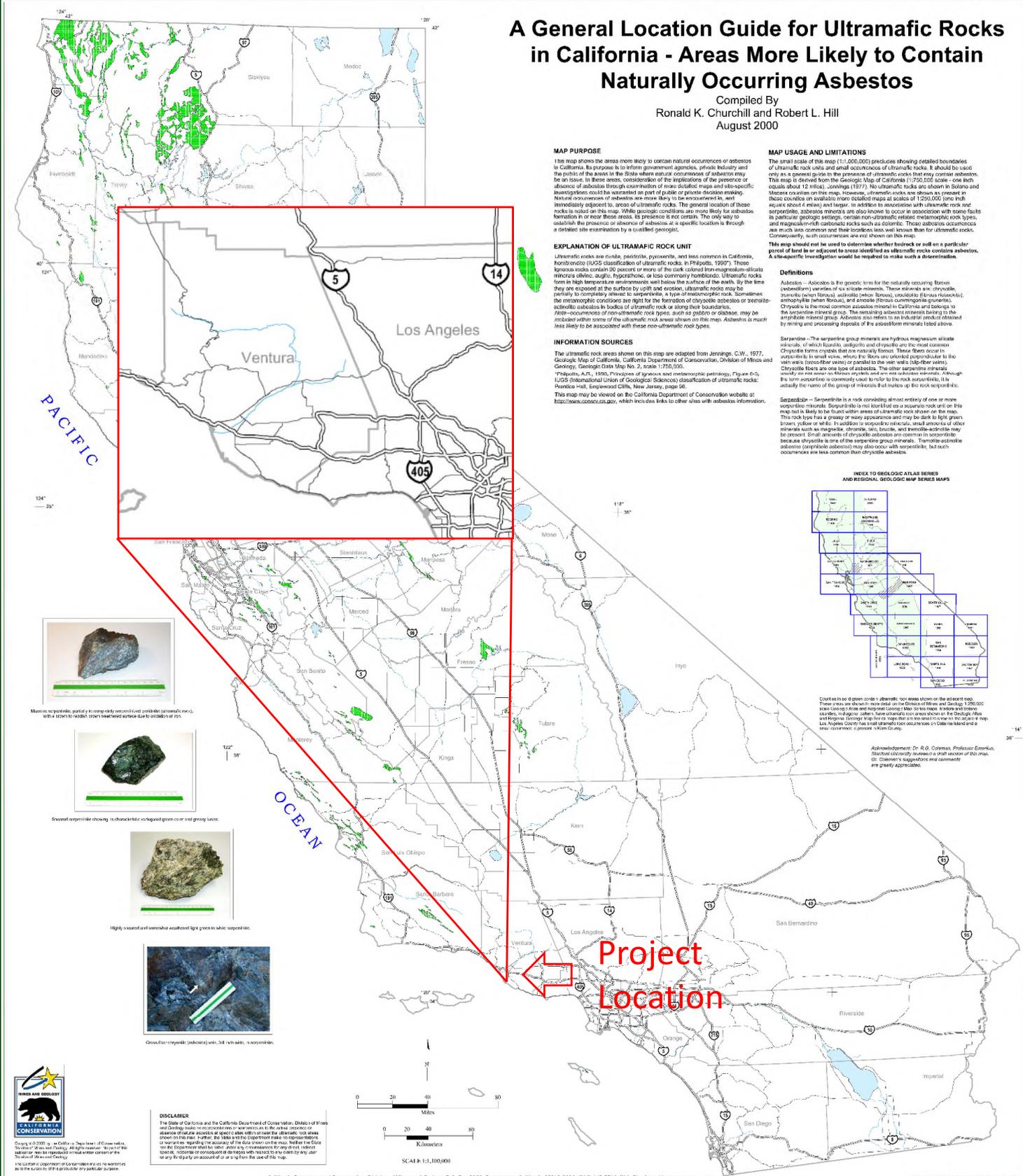
Serpentinite—Serpentinite is a rock consisting almost entirely of one or more serpentine minerals. Serpentinite is not found as a separate rock unit on the map but is likely to be found within areas of ultramafic rock shown on the map. This rock type has a greasy or waxy appearance and may be dark to light green, brown, yellow or white. In addition to serpentine minerals, small amounts of other minerals such as magnetite, chlorite, sill, biotite, and tremolite-actinolite may be present. Small amounts of chrysotile asbestos are common in serpentinite because chrysotile is one of the serpentine group minerals. Tremolite-actinolite asbestos (amphibole asbestos) may also occur with serpentinite, but such occurrences are less common than chrysotile asbestos.

INDEX TO GEOLOGIC ATLAS SERIES AND REGIONAL GEOLOGIC MAP SERIES MAPS



Consult the index to green circle 'a' ultramafic rock areas shown on the attached map. These areas are shown in more detail on the Division of Mines and Geology 1:750,000 scale Geologic Map of California and Regional Geologic Map Series maps. A more detailed outline, in geologic color, of the ultramafic rock areas shown on the Geologic Atlas and Regional Geologic Map Series maps is included in the attached map. The Los Angeles County has a detailed rock occurrence on California and a rock occurrence summary. Visit <http://www.conservation.ca.gov>.

Acknowledgment: Dr. R.B. Coleman, Professor Emeritus, has kindly provided a photograph of a sample of this area. Dr. Coleman's suggestions are gratefully appreciated.



Project Location



Massive, crystalline, part of a completely concentrated asbestos mineral specimen with a sharp to rounded, brown weathered surface due to oxidation of iron.



Several serpentine showing its characteristic color (light green to red green) color.



Highly vesicular and somewhat acicular light green to white serpentine.



Cross-section of fibrous (chrysotile) asbestos with 3M white tabs, is characteristic.



DISCLAIMER

The State of California and the California Department of Conservation, Division of Mines and Geology make no representation, warranty or guarantee as to the accuracy or completeness of the information shown on this map. Further, the State of California Department of Conservation makes no representation or warranty as to the accuracy or completeness of the data shown on the map. Neither the State nor the Department shall be liable, either singly or jointly, for any loss or damage resulting from the use of this map. The California Department of Conservation is not responsible for the accuracy or completeness of the information shown on this map or for any loss or damage resulting from the use of this map.

Appendix D: CO Flow Chart (Based on the CO Protocol)

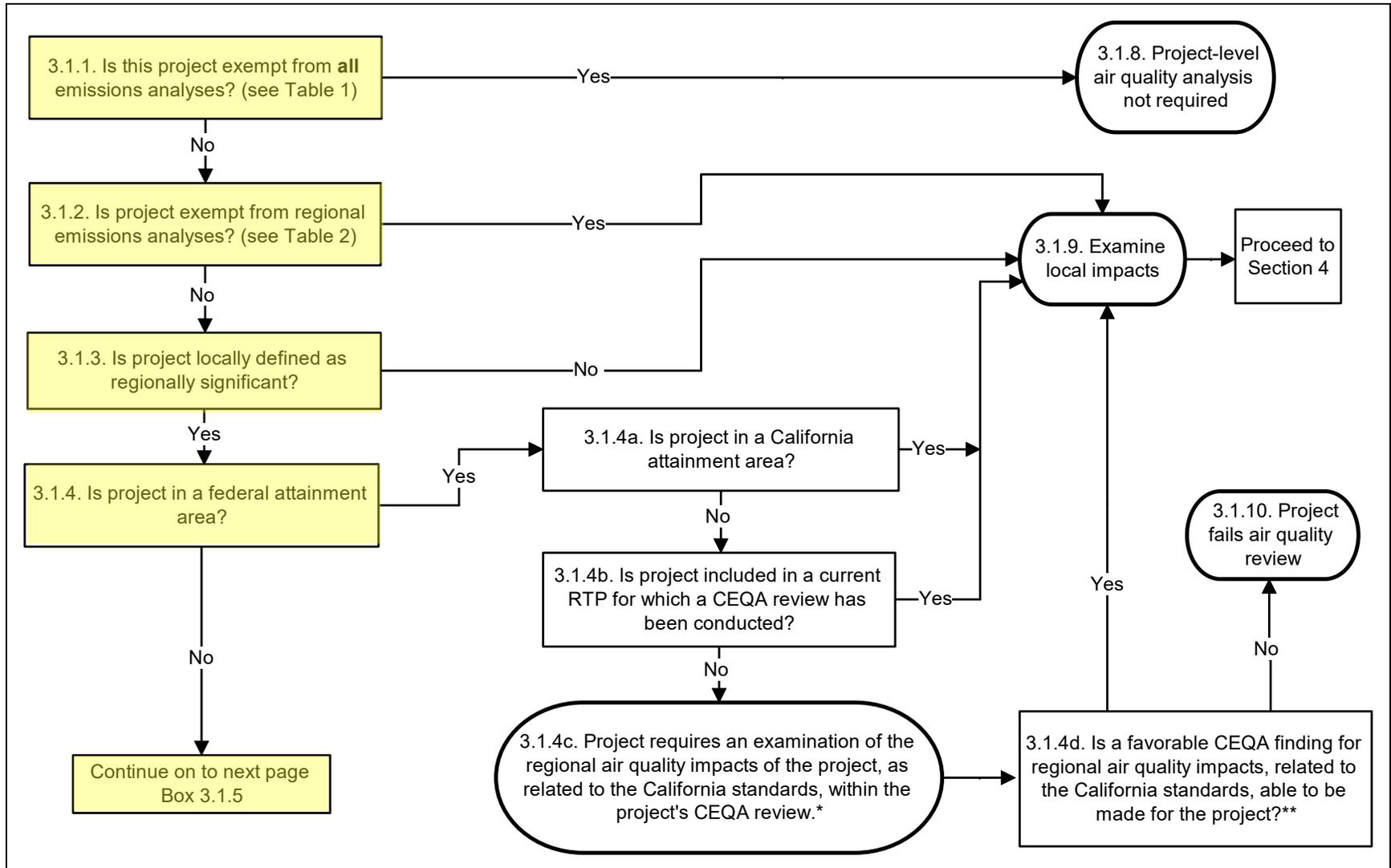


Figure 1. Requirements for New Projects

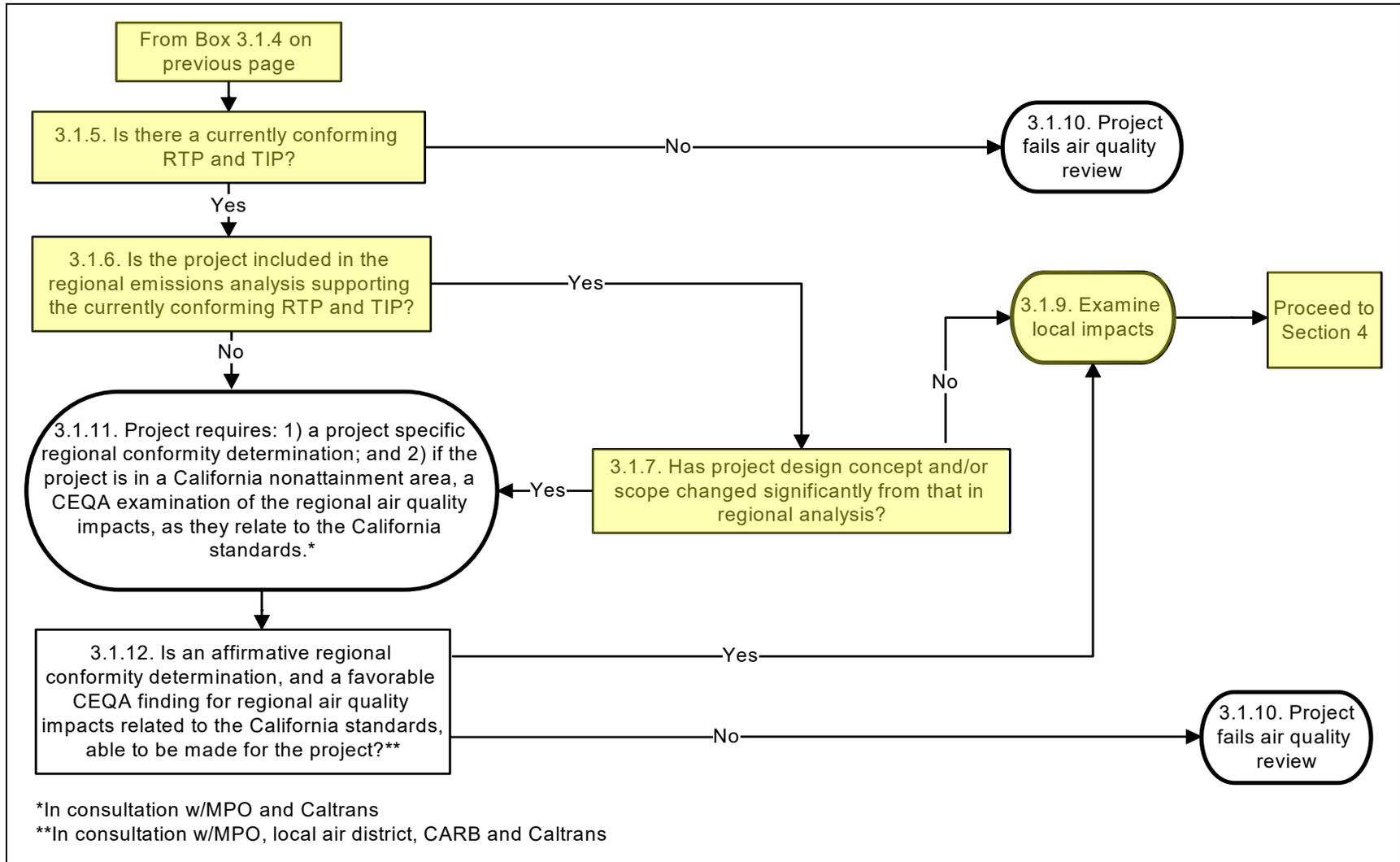


Figure 1 (cont.). Requirements for New Projects

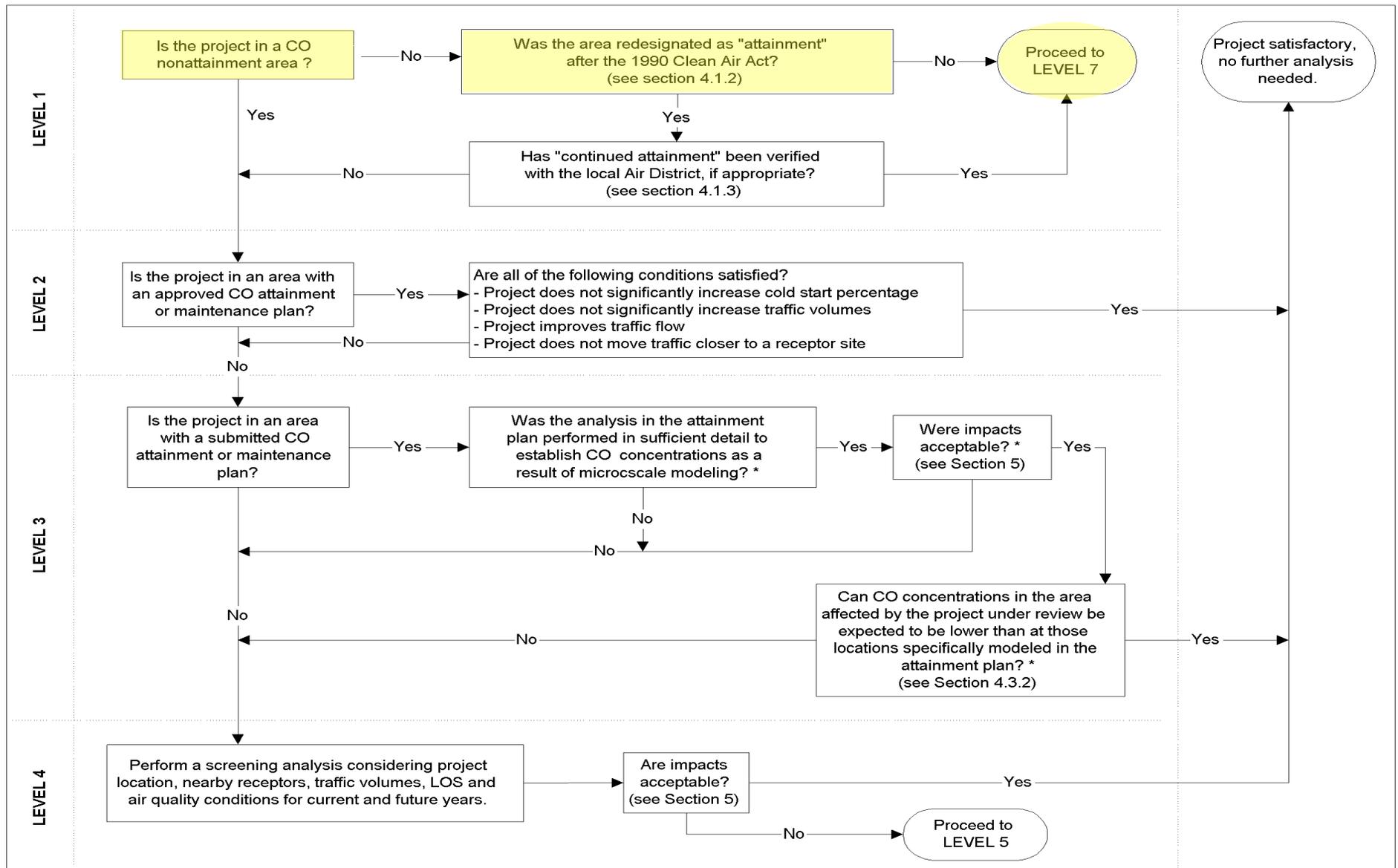


Figure 3. Local CO Analysis

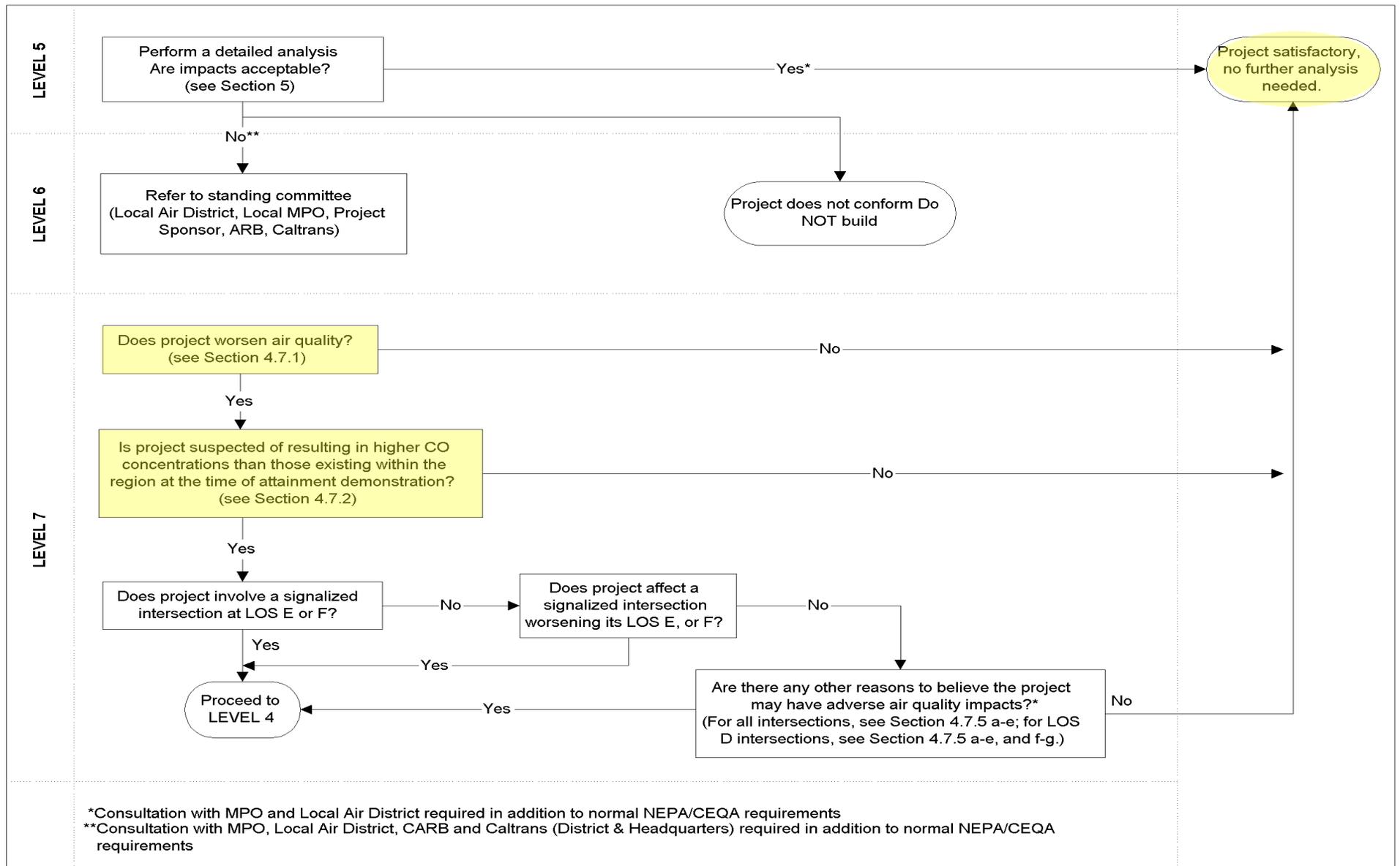


Figure 3 (cont.). Local CO Analysis

	No-Build 2030			Build 2030			Build 2030 v/l/h	
	# Lanes	AM	PM	# Lanes	AM	PM	AM	PM
Intersection of Hueneme Road and Edison Drive								
Edison Drive Southbound Through	1	6	8	1	6	8	6	8
Edison Drive Southbound Left	1	3	1	1	3	1	3	1
Edison Drive Northbound Right +Through	1	10	55	1	10	55	10	55
Edison Drive Northbound Left	1	12	12	1	12	12	12	12
Hueneme Road Eastbound Right	1	49	12	1	49	12	49	12
Hueneme Road Eastbound Through	1	693	531	1	730	532	730	532
Hueneme Road Eastbound Left	1	4	3	1	4	3	4	3
Hueneme Road Westbound Right + Through	1	463	902	2	464	961	232	481
Hueneme Road Westbound Left	1	10	8	1	10	8		
Intersection of Hueneme Road and Arnold Road								
Arnold Road Northbound Right + Left	1	15	23	1	15	23	15	23
Hueneme Road Eastbound Right + Through	1	699	591	2	736	592	368	296
Hueneme Road Westbound Through	1	485	909	2	486	969	243	485
Hueneme Road Westbound Left	1	10	4	1	10	4	10	4
Intersection of Hueneme Road and Olds Road								
Olds Road Southbound Right + Left	1	80	57	1	80	57	80	57
Hueneme Road Eastbound Through	1	648	571	2	686	573	343	287
Hueneme Road Eastbound Left	1	67	28	1	67	28	67	28
Hueneme Road Westbound Right + Through	1	493	962	2	495	1022	248	511
Intersection of Hueneme Road and Casper Road								
Casper Road Northbound Right + Left	1	13	50	1	13	50	13	50
Hueneme Road Eastbound Right + Through	1	700	592	2	739	594	370	297
Hueneme Road Westbound Through	1	485	931	2	486	987	243	494
Hueneme Road Westbound Left	1	13	17	1	13	17	13	17
Intersection of Hueneme Road and Rice Avenue								
Rice Avenue Southbound Right	1	115	212	1	115	216	115	216
Rice Avenue Southbound Left	1	41	10	1	41	10	41	10
Hueneme Road Eastbound Through	1	544	465	2	583	465	292	233
Hueneme Road Eastbound Left	2	167	149	2	167	149	84	75
Hueneme Road Westbound Right	1	37	75	1	37	75	37	75
Hueneme Road Westbound Through	1	415	758	2	421	780	211	390

	No-Build 2050			Build 2050			Build 2050 v/l/h	
	# Lanes	AM	PM	# Lanes	AM	PM	AM	PM
Intersection of Hueneme Road and Edison Drive								
Edison Drive Southbound Through	1	6	8	1	6	8	6	8
Edison Drive Southbound Left	1	3	1	1	3	1	3	1
Edison Drive Northbound Right +Through	1	4	4	1	4	4	7	55
Edison Drive Northbound Left	1	12	12	1	12	12	12	12
Hueneme Road Eastbound Right	1	49	12	1	49	12	49	12
Hueneme Road Eastbound Through	1	723	531	1	764	532	764	532
Hueneme Road Eastbound Left	1	4	3	1	4	3	4	3
Hueneme Road Westbound Right + Through	1	4	4	2	4	4	7	484
Hueneme Road Westbound Left	1	10	9	1	10	9		
Intersection of Hueneme Road and Arnold Road								
Arnold Road Northbound Right + Left	1	4	4	1	4	4	7	23
Hueneme Road Eastbound Right + Through	1	4	4	2	4	4	7	296
Hueneme Road Westbound Through	1	486	914	2	487	980	244	490
Hueneme Road Westbound Left	1	11	4	1	11	4	11	4
Intersection of Hueneme Road and Olds Road								
Olds Road Southbound Right + Left	1	4	4	1	4	4	7	60
Hueneme Road Eastbound Through	1	682	571	2	724	573	362	287
Hueneme Road Eastbound Left	1	68	30	1	68	30	68	30
Hueneme Road Westbound Right + Through	1	4	4	2	4	4	7	529
Intersection of Hueneme Road and Casper Road								
Casper Road Northbound Right + Left	1	4	4	1	4	4	7	81
Hueneme Road Eastbound Right + Through	1	4	4	2	4	4	7	299
Hueneme Road Westbound Through	1	494	931	2	495	993	248	497
Hueneme Road Westbound Left	1	29	30	1	29	30	29	30
Intersection of Hueneme Road and Rice Avenue								
Rice Avenue Southbound Right	1	124	274	1	124	278	124	278
Rice Avenue Southbound Left	1	57	18	1	57	18	57	18
Hueneme Road Eastbound Through	1	558	465	2	601	465	301	233
Hueneme Road Eastbound Left	2	235	149	2	235	149	118	75
Hueneme Road Westbound Right	1	76	86	1	76	86	76	86
Hueneme Road Westbound Through	1	484	758	2	491	782	246	391

Appendix E: Emission Calculations

Hueneme Rd Widening Summary Report

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7.3. Overall Health & Equity Scores

7.5. Evaluation Scorecard

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	Hueneme Rd Widening
Construction Start Date	1/1/2027
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	3.30
Precipitation (days)	12.0
Location	34.147714020200695, -119.15806449054145
County	Ventura
City	Unincorporated
Air District	Ventura County APCD
Air Basin	South Central Coast
TAZ	3422
EDFZ	8
Electric Utility	Southern California Edison
Gas Utility	Southern California Gas
App Version	2022.1.1.30

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
Road Widening	2.15	Mile	7.80	0.00	—	—	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

Sector	#	Measure Title
Construction	C-10-A	Water Exposed Surfaces
Construction	C-10-C	Water Unpaved Construction Roads
Construction	C-11	Limit Vehicle Speeds on Unpaved Roads
Construction	C-12	Sweep Paved Roads

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Unmit.	3.16	24.0	38.3	0.07	0.93	26.5	27.5	0.86	2.78	3.64	8,677
Mit.	3.16	24.0	38.3	0.07	0.93	7.26	8.19	0.86	0.84	1.69	8,677
% Reduced	—	—	—	—	—	73%	70%	—	70%	53%	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Unmit.	3.15	24.0	38.1	0.07	0.93	26.5	27.5	0.86	2.78	3.64	8,649
Mit.	3.15	24.0	38.1	0.07	0.93	7.26	8.19	0.86	0.84	1.69	8,649
% Reduced	—	—	—	—	—	73%	70%	—	70%	53%	—
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.11	8.52	13.4	0.03	0.33	10.4	10.7	0.30	1.09	1.39	3,054
Mit.	1.11	8.52	13.4	0.03	0.33	2.84	3.17	0.30	0.32	0.63	3,054
% Reduced	—	—	—	—	—	73%	71%	—	70%	55%	—
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—

Unmit.	0.20	1.55	2.45	< 0.005	0.06	1.90	1.96	0.06	0.20	0.25	506
Mit.	0.20	1.55	2.45	< 0.005	0.06	0.52	0.58	0.06	0.06	0.11	506
% Reduced	—	—	—	—	—	73%	71%	—	70%	55%	—

6. Climate Risk Detailed Report

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	1	0	0	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	1	0	0	N/A
Wildfire	1	0	0	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	0	0	0	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.

The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.

The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	1	1	1	2
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	1	1	1	2
Wildfire	1	1	1	2

Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	1	1	1	2

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.

The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.

The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

7. Health and Equity Details

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	86.0
Healthy Places Index Score for Project Location (b)	40.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	Yes
Project Located in a Low-Income Community (Assembly Bill 1550)	Yes
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

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3.7. Linear, Drainage, Utilities, & Sub-Grade (2031) - Unmitigated

3.8. Linear, Drainage, Utilities, & Sub-Grade (2031) - Mitigated

3.9. Linear, Paving (2031) - Unmitigated

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4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

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4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

4.10.4. Soil Carbon Accumulation By Vegetation Type - Mitigated

4.10.5. Above and Belowground Carbon Accumulation by Land Use Type - Mitigated

4.10.6. Avoided and Sequestered Emissions by Species - Mitigated

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5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

5.6.2. Construction Earthmoving Control Strategies

5.7. Construction Paving

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6. Climate Risk Detailed Report

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7.2. Healthy Places Index Scores

7.3. Overall Health & Equity Scores

7.4. Health & Equity Measures

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7.6. Health & Equity Custom Measures

8. User Changes to Default Data

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	Hueneme Rd Widening
Construction Start Date	1/1/2027
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	3.30
Precipitation (days)	12.0
Location	34.147714020200695, -119.15806449054145
County	Ventura
City	Unincorporated
Air District	Ventura County APCD
Air Basin	South Central Coast
TAZ	3422
EDFZ	8
Electric Utility	Southern California Edison
Gas Utility	Southern California Gas
App Version	2022.1.1.30

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
Road Widening	2.15	Mile	7.80	0.00	—	—	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

Sector	#	Measure Title
Construction	C-10-A	Water Exposed Surfaces
Construction	C-10-C	Water Unpaved Construction Roads
Construction	C-11	Limit Vehicle Speeds on Unpaved Roads
Construction	C-12	Sweep Paved Roads

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Unmit.	3.16	24.0	38.3	0.07	0.93	26.5	27.5	0.86	2.78	3.64	8,677
Mit.	3.16	24.0	38.3	0.07	0.93	7.26	8.19	0.86	0.84	1.69	8,677
% Reduced	—	—	—	—	—	73%	70%	—	70%	53%	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Unmit.	3.15	24.0	38.1	0.07	0.93	26.5	27.5	0.86	2.78	3.64	8,649
Mit.	3.15	24.0	38.1	0.07	0.93	7.26	8.19	0.86	0.84	1.69	8,649
% Reduced	—	—	—	—	—	73%	70%	—	70%	53%	—
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.11	8.52	13.4	0.03	0.33	10.4	10.7	0.30	1.09	1.39	3,054
Mit.	1.11	8.52	13.4	0.03	0.33	2.84	3.17	0.30	0.32	0.63	3,054
% Reduced	—	—	—	—	—	73%	71%	—	70%	55%	—
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—

Unmit.	0.20	1.55	2.45	< 0.005	0.06	1.90	1.96	0.06	0.20	0.25	506
Mit.	0.20	1.55	2.45	< 0.005	0.06	0.52	0.58	0.06	0.06	0.11	506
% Reduced	—	—	—	—	—	73%	71%	—	70%	55%	—

2.2. Construction Emissions by Year, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
2030	3.16	24.0	38.3	0.07	0.93	26.5	27.5	0.86	2.78	3.64	8,677
2031	1.67	13.0	21.0	0.04	0.44	24.2	24.7	0.41	2.51	2.92	4,932
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
2030	3.15	24.0	38.1	0.07	0.93	26.5	27.5	0.86	2.78	3.64	8,649
2031	3.07	23.0	37.8	0.07	0.89	26.5	27.4	0.82	2.78	3.60	8,629
Average Daily	—	—	—	—	—	—	—	—	—	—	—
2030	1.11	8.52	13.4	0.03	0.33	10.4	10.7	0.30	1.09	1.39	3,054
2031	0.44	3.55	5.85	0.01	0.12	7.10	7.21	0.11	0.73	0.84	1,316
Annual	—	—	—	—	—	—	—	—	—	—	—
2030	0.20	1.55	2.45	< 0.005	0.06	1.90	1.96	0.06	0.20	0.25	506
2031	0.08	0.65	1.07	< 0.005	0.02	1.29	1.32	0.02	0.13	0.15	218

2.3. Construction Emissions by Year, Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—

2030	3.16	24.0	38.3	0.07	0.93	7.26	8.19	0.86	0.84	1.69	8,677
2031	1.67	13.0	21.0	0.04	0.44	6.54	6.99	0.41	0.74	1.15	4,932
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
2030	3.15	24.0	38.1	0.07	0.93	7.26	8.19	0.86	0.84	1.69	8,649
2031	3.07	23.0	37.8	0.07	0.89	7.26	8.15	0.82	0.84	1.66	8,629
Average Daily	—	—	—	—	—	—	—	—	—	—	—
2030	1.11	8.52	13.4	0.03	0.33	2.84	3.17	0.30	0.32	0.63	3,054
2031	0.44	3.55	5.85	0.01	0.12	1.91	2.03	0.11	0.22	0.32	1,316
Annual	—	—	—	—	—	—	—	—	—	—	—
2030	0.20	1.55	2.45	< 0.005	0.06	0.52	0.58	0.06	0.06	0.11	506
2031	0.08	0.65	1.07	< 0.005	0.02	0.35	0.37	0.02	0.04	0.06	218

3. Construction Emissions Details

3.1. Linear, Grubbing & Land Clearing (2030) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.36	3.45	4.43	0.01	0.13	—	0.13	0.12	—	0.12	635
Dust From Material Movement	—	—	—	—	—	0.53	0.53	—	0.06	0.06	—
Onsite truck	< 0.005	0.06	0.02	< 0.005	< 0.005	22.1	22.1	< 0.005	2.20	2.20	48.4
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.03	0.25	0.32	< 0.005	0.01	—	0.01	0.01	—	0.01	45.2
Dust From Material Movement	—	—	—	—	—	0.04	0.04	—	< 0.005	< 0.005	—
Onsite truck	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	1.52	1.52	< 0.005	0.15	0.15	3.44
Annual	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.04	0.06	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	7.49
Dust From Material Movement	—	—	—	—	—	0.01	0.01	—	< 0.005	< 0.005	—
Onsite truck	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.28	0.28	< 0.005	0.03	0.03	0.57
Offsite	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.05	0.80	0.00	0.00	0.23	0.23	0.00	0.05	0.05	217
Vendor	< 0.005	0.12	0.04	< 0.005	< 0.005	0.03	0.04	< 0.005	0.01	0.01	114
Hauling	< 0.005	0.30	0.08	< 0.005	< 0.005	0.07	0.08	< 0.005	0.02	0.02	256
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.05	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	14.9
Vendor	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	8.14
Hauling	< 0.005	0.02	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	18.2
Annual	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	2.46
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	1.35
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	3.02

3.2. Linear, Grubbing & Land Clearing (2030) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.36	3.45	4.43	0.01	0.13	—	0.13	0.12	—	0.12	635
Dust From Material Movement	—	—	—	—	—	0.14	0.14	—	0.01	0.01	—
Onsite truck	< 0.005	0.06	0.02	< 0.005	< 0.005	5.57	5.57	< 0.005	0.56	0.56	48.4
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.25	0.32	< 0.005	0.01	—	0.01	0.01	—	0.01	45.2
Dust From Material Movement	—	—	—	—	—	0.01	0.01	—	< 0.005	< 0.005	—
Onsite truck	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.38	0.38	< 0.005	0.04	0.04	3.44
Annual	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.04	0.06	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	7.49
Dust From Material Movement	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—
Onsite truck	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.07	0.07	< 0.005	0.01	0.01	0.57
Offsite	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.05	0.80	0.00	0.00	0.23	0.23	0.00	0.05	0.05	217
Vendor	< 0.005	0.12	0.04	< 0.005	< 0.005	0.03	0.04	< 0.005	0.01	0.01	114
Hauling	< 0.005	0.30	0.08	< 0.005	< 0.005	0.07	0.08	< 0.005	0.02	0.02	256

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.05	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	14.9
Vendor	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	8.14
Hauling	< 0.005	0.02	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	18.2
Annual	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	2.46
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	1.35
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	3.02

3.3. Linear, Grading & Excavation (2030) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	3.00	23.4	36.0	0.07	0.93	—	0.93	0.85	—	0.85	7,669
Dust From Material Movement	—	—	—	—	—	3.71	3.71	—	0.40	0.40	—
Onsite truck	< 0.005	0.06	0.02	< 0.005	< 0.005	22.1	22.1	< 0.005	2.20	2.20	48.4
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	3.00	23.4	36.0	0.07	0.93	—	0.93	0.85	—	0.85	7,669
Dust From Material Movement	—	—	—	—	—	3.71	3.71	—	0.40	0.40	—
Onsite truck	< 0.005	0.06	0.02	< 0.005	< 0.005	22.1	22.1	< 0.005	2.20	2.20	48.3

Average Daily	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.03	8.01	12.3	0.02	0.32	—	0.32	0.29	—	0.29	2,626
Dust From Material Movement	—	—	—	—	—	1.27	1.27	—	0.14	0.14	—
Onsite truck	< 0.005	0.02	0.01	< 0.005	< 0.005	7.31	7.31	< 0.005	0.73	0.73	16.6
Annual	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.19	1.46	2.25	< 0.005	0.06	—	0.06	0.05	—	0.05	435
Dust From Material Movement	—	—	—	—	—	0.23	0.23	—	0.03	0.03	—
Onsite truck	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	1.33	1.33	< 0.005	0.13	0.13	2.74
Offsite	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Worker	0.15	0.14	2.16	0.00	0.00	0.62	0.62	0.00	0.15	0.15	589
Vendor	< 0.005	0.12	0.04	< 0.005	< 0.005	0.03	0.04	< 0.005	0.01	0.01	114
Hauling	< 0.005	0.30	0.08	< 0.005	< 0.005	0.07	0.08	< 0.005	0.02	0.02	256
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Worker	0.15	0.17	1.94	0.00	0.00	0.62	0.62	0.00	0.15	0.15	562
Vendor	< 0.005	0.12	0.04	< 0.005	< 0.005	0.03	0.04	< 0.005	0.01	0.01	114
Hauling	< 0.005	0.31	0.08	< 0.005	< 0.005	0.07	0.08	< 0.005	0.02	0.02	256
Average Daily	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.06	0.67	0.00	0.00	0.21	0.21	0.00	0.05	0.05	194
Vendor	< 0.005	0.04	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	39.1
Hauling	< 0.005	0.11	0.03	< 0.005	< 0.005	0.02	0.03	< 0.005	0.01	0.01	87.6
Annual	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.12	0.00	0.00	0.04	0.04	0.00	0.01	0.01	32.1

Vendor	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	6.48
Hauling	< 0.005	0.02	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	14.5

3.4. Linear, Grading & Excavation (2030) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	3.00	23.4	36.0	0.07	0.93	—	0.93	0.85	—	0.85	7,669
Dust From Material Movement	—	—	—	—	—	0.97	0.97	—	0.10	0.10	—
Onsite truck	< 0.005	0.06	0.02	< 0.005	< 0.005	5.57	5.57	< 0.005	0.56	0.56	48.4
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	3.00	23.4	36.0	0.07	0.93	—	0.93	0.85	—	0.85	7,669
Dust From Material Movement	—	—	—	—	—	0.97	0.97	—	0.10	0.10	—
Onsite truck	< 0.005	0.06	0.02	< 0.005	< 0.005	5.57	5.57	< 0.005	0.56	0.56	48.3
Average Daily	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.03	8.01	12.3	0.02	0.32	—	0.32	0.29	—	0.29	2,626
Dust From Material Movement	—	—	—	—	—	0.33	0.33	—	0.04	0.04	—
Onsite truck	< 0.005	0.02	0.01	< 0.005	< 0.005	1.84	1.84	< 0.005	0.18	0.18	16.6
Annual	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.19	1.46	2.25	< 0.005	0.06	—	0.06	0.05	—	0.05	435
Dust From Material Movement	—	—	—	—	—	0.06	0.06	—	0.01	0.01	—
Onsite truck	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.34	0.34	< 0.005	0.03	0.03	2.74
Offsite	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Worker	0.15	0.14	2.16	0.00	0.00	0.62	0.62	0.00	0.15	0.15	589
Vendor	< 0.005	0.12	0.04	< 0.005	< 0.005	0.03	0.04	< 0.005	0.01	0.01	114
Hauling	< 0.005	0.30	0.08	< 0.005	< 0.005	0.07	0.08	< 0.005	0.02	0.02	256
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Worker	0.15	0.17	1.94	0.00	0.00	0.62	0.62	0.00	0.15	0.15	562
Vendor	< 0.005	0.12	0.04	< 0.005	< 0.005	0.03	0.04	< 0.005	0.01	0.01	114
Hauling	< 0.005	0.31	0.08	< 0.005	< 0.005	0.07	0.08	< 0.005	0.02	0.02	256
Average Daily	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.06	0.67	0.00	0.00	0.21	0.21	0.00	0.05	0.05	194
Vendor	< 0.005	0.04	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	39.1
Hauling	< 0.005	0.11	0.03	< 0.005	< 0.005	0.02	0.03	< 0.005	0.01	0.01	87.6
Annual	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.12	0.00	0.00	0.04	0.04	0.00	0.01	0.01	32.1
Vendor	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	6.48
Hauling	< 0.005	0.02	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	14.5

3.5. Linear, Grading & Excavation (2031) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.92	22.4	35.9	0.07	0.89	—	0.89	0.81	—	0.81	7,669
Dust From Material Movement	—	—	—	—	—	3.71	3.71	—	0.40	0.40	—
Onsite truck	< 0.005	0.06	0.02	< 0.005	< 0.005	22.1	22.1	< 0.005	2.20	2.20	47.0
Average Daily	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05	0.39	0.63	< 0.005	0.02	—	0.02	0.01	—	0.01	135
Dust From Material Movement	—	—	—	—	—	0.07	0.07	—	0.01	0.01	—
Onsite truck	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.38	0.38	< 0.005	0.04	0.04	0.83
Annual	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.07	0.12	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	22.4
Dust From Material Movement	—	—	—	—	—	0.01	0.01	—	< 0.005	< 0.005	—
Onsite truck	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.07	0.07	< 0.005	0.01	0.01	0.14
Offsite	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Worker	0.14	0.15	1.82	0.00	0.00	0.62	0.62	0.00	0.15	0.15	553
Vendor	< 0.005	0.12	0.04	< 0.005	< 0.005	0.03	0.04	< 0.005	0.01	0.01	111
Hauling	< 0.005	0.30	0.08	< 0.005	< 0.005	0.07	0.08	< 0.005	0.02	0.02	249
Average Daily	—	—	—	—	—	—	—	—	—	—	—

Worker	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	9.82
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	1.95
Hauling	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	4.38
Annual	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	1.63
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.32
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.73

3.6. Linear, Grading & Excavation (2031) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.92	22.4	35.9	0.07	0.89	—	0.89	0.81	—	0.81	7,669
Dust From Material Movement	—	—	—	—	—	0.97	0.97	—	0.10	0.10	—
Onsite truck	< 0.005	0.06	0.02	< 0.005	< 0.005	5.57	5.57	< 0.005	0.56	0.56	47.0
Average Daily	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05	0.39	0.63	< 0.005	0.02	—	0.02	0.01	—	0.01	135
Dust From Material Movement	—	—	—	—	—	0.02	0.02	—	< 0.005	< 0.005	—
Onsite truck	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.09	0.09	< 0.005	0.01	0.01	0.83
Annual	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.01	0.07	0.12	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	22.4
Dust From Material Movement	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—
Onsite truck	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	< 0.005	0.14
Offsite	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Worker	0.14	0.15	1.82	0.00	0.00	0.62	0.62	0.00	0.15	0.15	553
Vendor	< 0.005	0.12	0.04	< 0.005	< 0.005	0.03	0.04	< 0.005	0.01	0.01	111
Hauling	< 0.005	0.30	0.08	< 0.005	< 0.005	0.07	0.08	< 0.005	0.02	0.02	249
Average Daily	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	9.82
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	1.95
Hauling	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	4.38
Annual	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	1.63
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.32
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.73

3.7. Linear, Drainage, Utilities, & Sub-Grade (2031) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.56	12.5	19.4	0.04	0.44	—	0.44	0.40	—	0.40	4,101

Dust From Material Movement	—	—	—	—	—	1.59	1.59	—	0.17	0.17	—
Onsite truck	< 0.005	0.06	0.02	< 0.005	< 0.005	22.1	22.1	< 0.005	2.20	2.20	47.1
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.56	12.5	19.4	0.04	0.44	—	0.44	0.40	—	0.40	4,101
Dust From Material Movement	—	—	—	—	—	1.59	1.59	—	0.17	0.17	—
Onsite truck	< 0.005	0.06	0.02	< 0.005	< 0.005	22.1	22.1	< 0.005	2.20	2.20	47.0
Average Daily	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.28	2.26	3.50	0.01	0.08	—	0.08	0.07	—	0.07	742
Dust From Material Movement	—	—	—	—	—	0.29	0.29	—	0.03	0.03	—
Onsite truck	< 0.005	0.01	< 0.005	< 0.005	< 0.005	3.86	3.86	< 0.005	0.39	0.39	8.50
Annual	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05	0.41	0.64	< 0.005	0.01	—	0.01	0.01	—	0.01	123
Dust From Material Movement	—	—	—	—	—	0.05	0.05	—	0.01	0.01	—
Onsite truck	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.70	0.70	< 0.005	0.07	0.07	1.41
Offsite	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Worker	0.10	0.09	1.48	0.00	0.00	0.46	0.46	0.00	0.11	0.11	423
Vendor	< 0.005	0.11	0.04	< 0.005	< 0.005	0.03	0.04	< 0.005	0.01	0.01	111
Hauling	< 0.005	0.28	0.08	< 0.005	< 0.005	0.07	0.08	< 0.005	0.02	0.02	249
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—

Worker	0.10	0.11	1.34	0.00	0.00	0.46	0.46	0.00	0.11	0.11	407
Vendor	< 0.005	0.12	0.04	< 0.005	< 0.005	0.03	0.04	< 0.005	0.01	0.01	111
Hauling	< 0.005	0.30	0.08	< 0.005	< 0.005	0.07	0.08	< 0.005	0.02	0.02	249
Average Daily	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.24	0.00	0.00	0.08	0.08	0.00	0.02	0.02	74.3
Vendor	< 0.005	0.02	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	20.0
Hauling	< 0.005	0.05	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	45.0
Annual	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.04	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	12.3
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	3.31
Hauling	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	7.44

3.8. Linear, Drainage, Utilities, & Sub-Grade (2031) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.56	12.5	19.4	0.04	0.44	—	0.44	0.40	—	0.40	4,101
Dust From Material Movement	—	—	—	—	—	0.41	0.41	—	0.04	0.04	—
Onsite truck	< 0.005	0.06	0.02	< 0.005	< 0.005	5.57	5.57	< 0.005	0.56	0.56	47.1
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.56	12.5	19.4	0.04	0.44	—	0.44	0.40	—	0.40	4,101
Dust From Material Movement	—	—	—	—	—	0.41	0.41	—	0.04	0.04	—

Onsite truck	< 0.005	0.06	0.02	< 0.005	< 0.005	5.57	5.57	< 0.005	0.56	0.56	47.0
Average Daily	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.28	2.26	3.50	0.01	0.08	—	0.08	0.07	—	0.07	742
Dust From Material Movement	—	—	—	—	—	0.07	0.07	—	0.01	0.01	—
Onsite truck	< 0.005	0.01	< 0.005	< 0.005	< 0.005	0.97	0.97	< 0.005	0.10	0.10	8.50
Annual	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05	0.41	0.64	< 0.005	0.01	—	0.01	0.01	—	0.01	123
Dust From Material Movement	—	—	—	—	—	0.01	0.01	—	< 0.005	< 0.005	—
Onsite truck	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.18	0.18	< 0.005	0.02	0.02	1.41
Offsite	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Worker	0.10	0.09	1.48	0.00	0.00	0.46	0.46	0.00	0.11	0.11	423
Vendor	< 0.005	0.11	0.04	< 0.005	< 0.005	0.03	0.04	< 0.005	0.01	0.01	111
Hauling	< 0.005	0.28	0.08	< 0.005	< 0.005	0.07	0.08	< 0.005	0.02	0.02	249
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Worker	0.10	0.11	1.34	0.00	0.00	0.46	0.46	0.00	0.11	0.11	407
Vendor	< 0.005	0.12	0.04	< 0.005	< 0.005	0.03	0.04	< 0.005	0.01	0.01	111
Hauling	< 0.005	0.30	0.08	< 0.005	< 0.005	0.07	0.08	< 0.005	0.02	0.02	249
Average Daily	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.24	0.00	0.00	0.08	0.08	0.00	0.02	0.02	74.3
Vendor	< 0.005	0.02	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	20.0
Hauling	< 0.005	0.05	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	45.0
Annual	—	—	—	—	—	—	—	—	—	—	—

Worker	< 0.005	< 0.005	0.04	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	12.3
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	3.31
Hauling	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	7.44

3.9. Linear, Paving (2031) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.69	6.59	11.7	0.02	0.19	—	0.19	0.18	—	0.18	1,773
Onsite truck	< 0.005	0.06	0.02	< 0.005	< 0.005	22.1	22.1	< 0.005	2.20	2.20	47.1
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.08	0.72	1.28	< 0.005	0.02	—	0.02	0.02	—	0.02	194
Onsite truck	< 0.005	0.01	< 0.005	< 0.005	< 0.005	2.34	2.34	< 0.005	0.23	0.23	5.15
Annual	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.13	0.23	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	32.2
Onsite truck	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.43	0.43	< 0.005	0.04	0.04	0.85
Offsite	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.07	1.16	0.00	0.00	0.36	0.36	0.00	0.08	0.08	332
Vendor	< 0.005	0.11	0.04	< 0.005	< 0.005	0.03	0.04	< 0.005	0.01	0.01	111
Hauling	< 0.005	0.28	0.08	< 0.005	< 0.005	0.07	0.08	< 0.005	0.02	0.02	249
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—

Average Daily	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.12	0.00	0.00	0.04	0.04	0.00	0.01	0.01	35.4
Vendor	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	12.1
Hauling	< 0.005	0.03	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	27.3
Annual	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.02	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	5.85
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	2.01
Hauling	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	4.51

3.10. Linear, Paving (2031) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.69	6.59	11.7	0.02	0.19	—	0.19	0.18	—	0.18	1,773
Onsite truck	< 0.005	0.06	0.02	< 0.005	< 0.005	5.57	5.57	< 0.005	0.56	0.56	47.1
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.08	0.72	1.28	< 0.005	0.02	—	0.02	0.02	—	0.02	194
Onsite truck	< 0.005	0.01	< 0.005	< 0.005	< 0.005	0.59	0.59	< 0.005	0.06	0.06	5.15
Annual	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.13	0.23	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	32.2
Onsite truck	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.11	0.11	< 0.005	0.01	0.01	0.85
Offsite	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.07	1.16	0.00	0.00	0.36	0.36	0.00	0.08	0.08	332
Vendor	< 0.005	0.11	0.04	< 0.005	< 0.005	0.03	0.04	< 0.005	0.01	0.01	111
Hauling	< 0.005	0.28	0.08	< 0.005	< 0.005	0.07	0.08	< 0.005	0.02	0.02	249
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.12	0.00	0.00	0.04	0.04	0.00	0.01	0.01	35.4
Vendor	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	12.1
Hauling	< 0.005	0.03	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	27.3
Annual	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.02	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	5.85
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	2.01
Hauling	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	4.51

4. Operations Emissions Details

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—

Total	—	—	—	—	—	—	—	—	—	—	—
-------	---	---	---	---	---	---	---	---	---	---	---

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—

Subtotal	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—

4.10.4. Soil Carbon Accumulation By Vegetation Type - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—

4.10.5. Above and Belowground Carbon Accumulation by Land Use Type - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—

4.10.6. Avoided and Sequestered Emissions by Species - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—

—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Linear, Grubbing & Land Clearing	Linear, Grubbing & Land Clearing	6/4/2030	7/9/2030	5.00	26.0	—
Linear, Grading & Excavation	Linear, Grading & Excavation	7/10/2030	1/9/2031	5.00	132	—
Linear, Drainage, Utilities, & Sub-Grade	Linear, Drainage, Utilities, & Sub-Grade	1/10/2031	4/11/2031	5.00	66.0	—
Linear, Paving	Linear, Paving	4/12/2031	6/6/2031	5.00	40.0	—

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Linear, Grubbing & Land Clearing	Crawler Tractors	Diesel	Average	1.00	8.00	87.0	0.43
Linear, Grubbing & Land Clearing	Excavators	Diesel	Average	2.00	8.00	36.0	0.38

Linear, Grubbing & Land Clearing	Signal Boards	Electric	Average	4.00	8.00	6.00	0.82
Linear, Grading & Excavation	Crawler Tractors	Diesel	Average	1.00	8.00	87.0	0.43
Linear, Grading & Excavation	Excavators	Diesel	Average	3.00	8.00	36.0	0.38
Linear, Grading & Excavation	Graders	Diesel	Average	2.00	8.00	148	0.41
Linear, Grading & Excavation	Rollers	Diesel	Average	2.00	8.00	36.0	0.38
Linear, Grading & Excavation	Rubber Tired Loaders	Diesel	Average	1.00	8.00	150	0.36
Linear, Grading & Excavation	Scrapers	Diesel	Average	2.00	8.00	423	0.48
Linear, Grading & Excavation	Signal Boards	Electric	Average	4.00	8.00	6.00	0.82
Linear, Grading & Excavation	Tractors/Loaders/Back hoes	Diesel	Average	4.00	8.00	84.0	0.37
Linear, Drainage, Utilities, & Sub-Grade	Air Compressors	Diesel	Average	1.00	8.00	37.0	0.48
Linear, Drainage, Utilities, & Sub-Grade	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Linear, Drainage, Utilities, & Sub-Grade	Graders	Diesel	Average	1.00	8.00	148	0.41
Linear, Drainage, Utilities, & Sub-Grade	Plate Compactors	Diesel	Average	1.00	8.00	8.00	0.43
Linear, Drainage, Utilities, & Sub-Grade	Pumps	Diesel	Average	1.00	8.00	11.0	0.74
Linear, Drainage, Utilities, & Sub-Grade	Rough Terrain Forklifts	Diesel	Average	1.00	8.00	96.0	0.40
Linear, Drainage, Utilities, & Sub-Grade	Scrapers	Diesel	Average	1.00	8.00	423	0.48
Linear, Drainage, Utilities, & Sub-Grade	Signal Boards	Electric	Average	4.00	8.00	6.00	0.82

Linear, Drainage, Utilities, & Sub-Grade	Tractors/Loaders/Back hoes	Diesel	Average	3.00	8.00	84.0	0.37
Linear, Paving	Pavers	Diesel	Average	1.00	8.00	81.0	0.42
Linear, Paving	Paving Equipment	Diesel	Average	1.00	8.00	89.0	0.36
Linear, Paving	Rollers	Diesel	Average	2.00	8.00	36.0	0.38
Linear, Paving	Signal Boards	Electric	Average	4.00	8.00	6.00	0.82
Linear, Paving	Tractors/Loaders/Back hoes	Diesel	Average	3.00	8.00	84.0	0.37

5.2.2. Mitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Linear, Grubbing & Land Clearing	Crawler Tractors	Diesel	Average	1.00	8.00	87.0	0.43
Linear, Grubbing & Land Clearing	Excavators	Diesel	Average	2.00	8.00	36.0	0.38
Linear, Grubbing & Land Clearing	Signal Boards	Electric	Average	4.00	8.00	6.00	0.82
Linear, Grading & Excavation	Crawler Tractors	Diesel	Average	1.00	8.00	87.0	0.43
Linear, Grading & Excavation	Excavators	Diesel	Average	3.00	8.00	36.0	0.38
Linear, Grading & Excavation	Graders	Diesel	Average	2.00	8.00	148	0.41
Linear, Grading & Excavation	Rollers	Diesel	Average	2.00	8.00	36.0	0.38
Linear, Grading & Excavation	Rubber Tired Loaders	Diesel	Average	1.00	8.00	150	0.36
Linear, Grading & Excavation	Scrapers	Diesel	Average	2.00	8.00	423	0.48
Linear, Grading & Excavation	Signal Boards	Electric	Average	4.00	8.00	6.00	0.82
Linear, Grading & Excavation	Tractors/Loaders/Back hoes	Diesel	Average	4.00	8.00	84.0	0.37

Linear, Drainage, Utilities, & Sub-Grade	Air Compressors	Diesel	Average	1.00	8.00	37.0	0.48
Linear, Drainage, Utilities, & Sub-Grade	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Linear, Drainage, Utilities, & Sub-Grade	Graders	Diesel	Average	1.00	8.00	148	0.41
Linear, Drainage, Utilities, & Sub-Grade	Plate Compactors	Diesel	Average	1.00	8.00	8.00	0.43
Linear, Drainage, Utilities, & Sub-Grade	Pumps	Diesel	Average	1.00	8.00	11.0	0.74
Linear, Drainage, Utilities, & Sub-Grade	Rough Terrain Forklifts	Diesel	Average	1.00	8.00	96.0	0.40
Linear, Drainage, Utilities, & Sub-Grade	Scrapers	Diesel	Average	1.00	8.00	423	0.48
Linear, Drainage, Utilities, & Sub-Grade	Signal Boards	Electric	Average	4.00	8.00	6.00	0.82
Linear, Drainage, Utilities, & Sub-Grade	Tractors/Loaders/Back hoes	Diesel	Average	3.00	8.00	84.0	0.37
Linear, Paving	Pavers	Diesel	Average	1.00	8.00	81.0	0.42
Linear, Paving	Paving Equipment	Diesel	Average	1.00	8.00	89.0	0.36
Linear, Paving	Rollers	Diesel	Average	2.00	8.00	36.0	0.38
Linear, Paving	Signal Boards	Electric	Average	4.00	8.00	6.00	0.82
Linear, Paving	Tractors/Loaders/Back hoes	Diesel	Average	3.00	8.00	84.0	0.37

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Linear, Grubbing & Land Clearing	—	—	—	—
Linear, Grubbing & Land Clearing	Worker	17.5	18.5	LDA,LDT1,LDT2
Linear, Grubbing & Land Clearing	Vendor	4.00	10.2	HHDT,MHDT

Linear, Grubbing & Land Clearing	Hauling	4.00	20.0	HHDT
Linear, Grubbing & Land Clearing	Onsite truck	1.00	15.0	HHDT
Linear, Grading & Excavation	—	—	—	—
Linear, Grading & Excavation	Worker	47.5	18.5	LDA,LDT1,LDT2
Linear, Grading & Excavation	Vendor	4.00	10.2	HHDT,MHDT
Linear, Grading & Excavation	Hauling	4.00	20.0	HHDT
Linear, Grading & Excavation	Onsite truck	1.00	15.0	HHDT
Linear, Drainage, Utilities, & Sub-Grade	—	—	—	—
Linear, Drainage, Utilities, & Sub-Grade	Worker	35.0	18.5	LDA,LDT1,LDT2
Linear, Drainage, Utilities, & Sub-Grade	Vendor	4.00	10.2	HHDT,MHDT
Linear, Drainage, Utilities, & Sub-Grade	Hauling	4.00	20.0	HHDT
Linear, Drainage, Utilities, & Sub-Grade	Onsite truck	1.00	15.0	HHDT
Linear, Paving	—	—	—	—
Linear, Paving	Worker	27.5	18.5	LDA,LDT1,LDT2
Linear, Paving	Vendor	4.00	10.2	HHDT,MHDT
Linear, Paving	Hauling	4.00	20.0	HHDT
Linear, Paving	Onsite truck	1.00	15.0	HHDT

5.3.2. Mitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Linear, Grubbing & Land Clearing	—	—	—	—
Linear, Grubbing & Land Clearing	Worker	17.5	18.5	LDA,LDT1,LDT2
Linear, Grubbing & Land Clearing	Vendor	4.00	10.2	HHDT,MHDT
Linear, Grubbing & Land Clearing	Hauling	4.00	20.0	HHDT
Linear, Grubbing & Land Clearing	Onsite truck	1.00	15.0	HHDT

Linear, Grading & Excavation	—	—	—	—
Linear, Grading & Excavation	Worker	47.5	18.5	LDA,LDT1,LDT2
Linear, Grading & Excavation	Vendor	4.00	10.2	HHDT,MHDT
Linear, Grading & Excavation	Hauling	4.00	20.0	HHDT
Linear, Grading & Excavation	Onsite truck	1.00	15.0	HHDT
Linear, Drainage, Utilities, & Sub-Grade	—	—	—	—
Linear, Drainage, Utilities, & Sub-Grade	Worker	35.0	18.5	LDA,LDT1,LDT2
Linear, Drainage, Utilities, & Sub-Grade	Vendor	4.00	10.2	HHDT,MHDT
Linear, Drainage, Utilities, & Sub-Grade	Hauling	4.00	20.0	HHDT
Linear, Drainage, Utilities, & Sub-Grade	Onsite truck	1.00	15.0	HHDT
Linear, Paving	—	—	—	—
Linear, Paving	Worker	27.5	18.5	LDA,LDT1,LDT2
Linear, Paving	Vendor	4.00	10.2	HHDT,MHDT
Linear, Paving	Hauling	4.00	20.0	HHDT
Linear, Paving	Onsite truck	1.00	15.0	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Non-applicable. No control strategies activated by user.

5.5. Architectural Coatings

Phase Name	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
------------	--	--	--	--	-----------------------------

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (cy)	Material Exported (cy)	Acres Graded (acres)	Material Demolished (sq. ft.)	Acres Paved (acres)
Linear, Grubbing & Land Clearing	—	—	7.80	0.00	—
Linear, Grading & Excavation	—	—	7.80	0.00	—
Linear, Drainage, Utilities, & Sub-Grade	—	—	7.80	0.00	—

5.6.2. Construction Earthmoving Control Strategies

Non-applicable. No control strategies activated by user.

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
Road Widening	3.00	100%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2030	235	532	0.03	< 0.005
2031	352	532	0.03	< 0.005

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres
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5.18.1.2. Mitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres
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5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres
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5.18.1.2. Mitigated

Biomass Cover Type	Initial Acres	Final Acres
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5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)
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5.18.2.2. Mitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)
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6. Climate Risk Detailed Report

6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	9.95	annual days of extreme heat
Extreme Precipitation	4.45	annual days with precipitation above 20 mm

Sea Level Rise	—	meters of inundation depth
Wildfire	0.00	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (Radke et al., 2017, CEC-500-2017-008), and consider inundation location and depth for the San Francisco Bay, the Sacramento-San Joaquin River Delta and California coast resulting different increments of sea level rise coupled with extreme storm events. Users may select from four scenarios to view the range in potential inundation depth for the grid cell. The four scenarios are: No rise, 0.5 meter, 1.0 meter, 1.41 meters

Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	1	0	0	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	1	0	0	N/A
Wildfire	1	0	0	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	0	0	0	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.

The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.

The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	1	1	1	2

Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	1	1	1	2
Wildfire	1	1	1	2
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	1	1	1	2

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.

The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.

The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	26.7
AQ-PM	24.8
AQ-DPM	47.4
Drinking Water	72.3
Lead Risk Housing	59.3
Pesticides	99.6
Toxic Releases	94.3
Traffic	22.6
Effect Indicators	—

CleanUp Sites	87.7
Groundwater	90.3
Haz Waste Facilities/Generators	28.3
Impaired Water Bodies	97.5
Solid Waste	80.0
Sensitive Population	—
Asthma	48.3
Cardio-vascular	63.3
Low Birth Weights	42.8
Socioeconomic Factor Indicators	—
Education	74.7
Housing	53.6
Linguistic	78.0
Poverty	66.9
Unemployment	74.7

7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Economic	—
Above Poverty	29.05171308
Employed	59.69459772
Median HI	41.31913255
Education	—
Bachelor's or higher	15.47542666
High school enrollment	18.81175414
Preschool enrollment	83.10021814
Transportation	—

Auto Access	98.98626973
Active commuting	42.61516746
Social	—
2-parent households	48.81303734
Voting	48.7488772
Neighborhood	—
Alcohol availability	35.66020788
Park access	7.878865649
Retail density	14.47452842
Supermarket access	65.16104196
Tree canopy	9.534197357
Housing	—
Homeownership	59.66893366
Housing habitability	24.07288592
Low-inc homeowner severe housing cost burden	4.59386629
Low-inc renter severe housing cost burden	76.22225074
Uncrowded housing	7.35275247
Health Outcomes	—
Insured adults	16.16835622
Arthritis	68.4
Asthma ER Admissions	70.5
High Blood Pressure	45.3
Cancer (excluding skin)	71.8
Asthma	37.3
Coronary Heart Disease	54.4
Chronic Obstructive Pulmonary Disease	45.1
Diagnosed Diabetes	38.1
Life Expectancy at Birth	21.8

Cognitively Disabled	22.1
Physically Disabled	18.7
Heart Attack ER Admissions	73.9
Mental Health Not Good	33.4
Chronic Kidney Disease	35.4
Obesity	33.5
Pedestrian Injuries	19.6
Physical Health Not Good	34.4
Stroke	51.7
Health Risk Behaviors	—
Binge Drinking	40.3
Current Smoker	40.0
No Leisure Time for Physical Activity	26.3
Climate Change Exposures	—
Wildfire Risk	0.0
SLR Inundation Area	49.8
Children	15.5
Elderly	77.3
English Speaking	27.3
Foreign-born	84.7
Outdoor Workers	8.5
Climate Change Adaptive Capacity	—
Impervious Surface Cover	47.3
Traffic Density	16.8
Traffic Access	23.0
Other Indices	—
Hardship	76.8
Other Decision Support	—

2016 Voting	41.2
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7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	86.0
Healthy Places Index Score for Project Location (b)	40.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	Yes
Project Located in a Low-Income Community (Assembly Bill 1550)	Yes
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.
 b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
Construction: Construction Phases	Based on estimated construction start/end dates provided.
Construction: Paving	Based on estimated area to be paved.
Construction: Trips and VMT	Assumes 4 vendor and 4 HDT trips per day. One onsite water truck, 15 m/day assuming 3 passes/day the length of the project site. Worker trips based on model defaults.

File Name: Ventura (SCC) - 2023 - Annual.EM
 CT-EMFAC2021 Version: 1.0.2.0
 Run Date: 8/20/2025 10:25:37 AM
 Area: Ventura (SCC)
 Analysis Year: 2023
 Season: Annual

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Vehicle Category	VMT Fraction Across Category	Diesel VMT Fraction Within Category	Gas VMT Fraction Within Category
Truck 1	0.041	0.507	0.493
Truck 2	0.031	0.932	0.052
Non-Truck	0.928	0.008	0.955

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Road Type:	Major/Collector
Silt Loading Factor:	CARB 0.032 g/m2
Precipitation Correction:	None P = NA N = NA

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Road Length:	0.1 miles
Volume:	73 vehicles per hour
Number of Hours:	24 hours
VMT:	175.2 miles

VMT Distribution by Speed Bin (mph):

<= 5 mph	0.00%
10 mph	0.00%
15 mph	0.00%
20 mph	0.00%
25 mph	0.00%
30 mph	0.00%
35 mph	0.00%
40 mph	0.00%
45 mph	0.00%
50 mph	0.00%
55 mph	100.00%
60 mph	0.00%
65 mph	0.00%
70 mph	0.00%
75 mph	0.00%

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Summary of Emissions

Dust	Total	Running Exhaust Total	Running Loss Total	Tire Wear	Brake Wear	Road
(grams)	Pollutant Name (grams)	(grams) (pounds)	(grams) (US tons)	(grams)	(grams)	
3.1	PM2.5	0.4	-	0.4	0.6	
	4.4	0.010	< 0.001			
	PM10	0.4	-	1.5	1.6	
21.0	24.5	0.054	< 0.001			
	NOx	27.3	-	-	-	

-	27.3	0.060	< 0.001		
	CO	136.8	-	-	-
-	136.8	0.302	< 0.001		
	ROG	3.1	4.3	-	-
-	7.4	0.016	< 0.001		
	CO2	59,711.3	-	-	-
-	59,711.3	131.641	0.066		
	N2O	2.5	-	-	-
-	2.5	0.005	< 0.001		
	CH4	1.0	-	-	-
-	1.0	0.002	< 0.001		
	BC	< 0.1	-	-	-
-	< 0.1	< 0.001	< 0.001		
	HFC	-	< 0.1	-	-
-	< 0.1	< 0.001	< 0.001		

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Summary of GHG Emissions

Pollutant Name	Emissions (metric tons)	CO2e (metric tons)
CO2	0.060	0.060
N2O	< 0.001	< 0.001
CH4	< 0.001	< 0.001
BC	< 0.001	< 0.001
HFC	< 0.001	< 0.001
Total CO2e	-	0.061

=====

Summary of Consumptions

Gasoline	6.075	gallons
Diesel	0.871	gallons
Natural Gas	0.020	diesel-equivalent gallons
Electricity	1.956	kilowatt-hours

=====END=====

File Name: Ventura (SCC) - 2023 - Annual.EM
 CT-EMFAC2021 Version: 1.0.2.0
 Run Date: 8/20/2025 10:26:02 AM
 Area: Ventura (SCC)
 Analysis Year: 2023
 Season: Annual

```
=====
```

Vehicle Category	VMT Fraction Across Category	Diesel VMT Fraction Within Category	Gas VMT Fraction Within Category
Truck 1	0.041	0.507	0.493
Truck 2	0.031	0.932	0.052
Non-Truck	0.928	0.008	0.955

```
=====
```

```
=====
```

Road Type:	Major/Collector
Silt Loading Factor:	CARB 0.032 g/m2
Precipitation Correction:	None P = NA N = NA

```
=====
```

```
=====
```

Road Length:	1.7 miles
Volume:	649 vehicles per hour
Number of Hours:	24 hours
VMT:	26479.2 miles

VMT Distribution by Speed Bin (mph):

<= 5 mph	0.00%
10 mph	0.00%
15 mph	0.00%
20 mph	0.00%
25 mph	0.00%
30 mph	0.00%
35 mph	0.00%
40 mph	0.00%
45 mph	0.00%
50 mph	0.00%
55 mph	100.00%
60 mph	0.00%
65 mph	0.00%
70 mph	0.00%
75 mph	0.00%

```
=====
```

Summary of Emissions

Dust	Total	Running Exhaust Total	Running Loss Total	Tire Wear	Brake Wear	Road
(grams)	Pollutant Name (grams)	(grams) (pounds)	(grams) (US tons)	(grams)	(grams)	
475.9	PM2.5	53.7	-	57.0	85.1	
	671.7	1.481	< 0.001			
	PM10	57.1	-	228.1	243.1	
3,172.4	3,700.8	8.159	0.004			
	NOx	4,122.5	-	-	-	

-	4,122.5	9.089	0.005		
	CO	20,677.6	-	-	-
-	20,677.6	45.586	0.023		
	ROG	472.1	646.1	-	-
-	1,118.2	2.465	0.001		
	CO2	9,024,585.0	-	-	-
-	9,024,585.0	19,895.803	9.948		
	N2O	372.2	-	-	-
-	372.2	0.821	< 0.001		
	CH4	147.9	-	-	-
-	147.9	0.326	< 0.001		
	BC	10.2	-	-	-
-	10.2	0.023	< 0.001		
	HFC	-	12.0	-	-
-	12.0	0.026	< 0.001		

=====

Summary of GHG Emissions

Pollutant Name	Emissions (metric tons)	CO2e (metric tons)
CO2	9.025	9.025
N2O	< 0.001	0.111
CH4	< 0.001	0.004
BC	< 0.001	0.005
HFC	< 0.001	0.017
Total CO2e	-	9.161

=====

Summary of Consumptions

Gasoline	918.193	gallons
Diesel	131.681	gallons
Natural Gas	3.072	diesel-equivalent gallons
Electricity	295.667	kilowatt-hours

=====END=====

File Name: Ventura (SCC) - 2023 - Annual.EM
 CT-EMFAC2021 Version: 1.0.2.0
 Run Date: 8/20/2025 10:26:23 AM
 Area: Ventura (SCC)
 Analysis Year: 2023
 Season: Annual

```
=====
```

Vehicle Category	VMT Fraction Across Category	Diesel VMT Fraction Within Category	Gas VMT Fraction Within Category
Truck 1	0.041	0.507	0.493
Truck 2	0.031	0.932	0.052
Non-Truck	0.928	0.008	0.955

```
=====
```

```
=====
```

Road Type:	Major/Collector
Silt Loading Factor:	CARB 0.032 g/m2
Precipitation Correction:	None P = NA N = NA

```
=====
```

```
=====
```

Road Length:	0.4 miles
Volume:	543 vehicles per hour
Number of Hours:	24 hours
VMT:	5212.8 miles

VMT Distribution by Speed Bin (mph):

<= 5 mph	0.00%
10 mph	0.00%
15 mph	0.00%
20 mph	0.00%
25 mph	0.00%
30 mph	0.00%
35 mph	0.00%
40 mph	0.00%
45 mph	0.00%
50 mph	0.00%
55 mph	100.00%
60 mph	0.00%
65 mph	0.00%
70 mph	0.00%
75 mph	0.00%

```
=====
```

Summary of Emissions

Dust	Total	Running Exhaust Total	Running Loss Total	Tire Wear	Brake Wear	Road
(grams)	Pollutant Name (grams)	(grams) (pounds)	(grams) (US tons)	(grams)	(grams)	
93.7	PM2.5	10.6	-	11.2	16.8	
	132.2	0.292	< 0.001			
	PM10	11.2	-	44.9	47.9	
624.5	728.6	1.606	< 0.001			
	NOx	811.6	-	-	-	

-	811.6	1.789	< 0.001		
	CO	4,070.7	-	-	-
-	4,070.7	8.974	0.004		
	ROG	92.9	127.2	-	-
-	220.1	0.485	< 0.001		
	CO2	1,776,615.5	-	-	-
-	1,776,615.5	3,916.766	1.958		
	N2O	73.3	-	-	-
-	73.3	0.162	< 0.001		
	CH4	29.1	-	-	-
-	29.1	0.064	< 0.001		
	BC	2.0	-	-	-
-	2.0	0.004	< 0.001		
	HFC	-	2.4	-	-
-	2.4	0.005	< 0.001		

=====

Summary of GHG Emissions

Pollutant Name	Emissions (metric tons)	CO2e (metric tons)
CO2	1.777	1.777
N2O	< 0.001	0.022
CH4	< 0.001	< 0.001
BC	< 0.001	< 0.001
HFC	< 0.001	0.003
Total CO2e	-	1.803

=====

Summary of Consumptions

Gasoline	180.759	gallons
Diesel	25.923	gallons
Natural Gas	0.605	diesel-equivalent gallons
Electricity	58.206	kilowatt-hours

=====END=====

File Name: Ventura (SCC) - 2023 - Annual.EM
 CT-EMFAC2021 Version: 1.0.2.0
 Run Date: 8/20/2025 10:26:47 AM
 Area: Ventura (SCC)
 Analysis Year: 2023
 Season: Annual

```
=====
```

Vehicle Category	VMT Fraction Across Category	Diesel VMT Fraction Within Category	Gas VMT Fraction Within Category
Truck 1	0.041	0.507	0.493
Truck 2	0.031	0.932	0.052
Non-Truck	0.928	0.008	0.955

```
=====
```

```
=====
```

Road Type:	Major/Collector
Silt Loading Factor:	CARB 0.032 g/m2
Precipitation Correction:	None P = NA N = NA

```
=====
```

```
=====
```

Road Length:	0.1 miles
Volume:	651 vehicles per hour
Number of Hours:	24 hours
VMT:	1562.4 miles

VMT Distribution by Speed Bin (mph):

<= 5 mph	0.00%
10 mph	0.00%
15 mph	0.00%
20 mph	0.00%
25 mph	0.00%
30 mph	0.00%
35 mph	0.00%
40 mph	0.00%
45 mph	0.00%
50 mph	0.00%
55 mph	100.00%
60 mph	0.00%
65 mph	0.00%
70 mph	0.00%
75 mph	0.00%

```
=====
```

Summary of Emissions

Dust	Total	Running Exhaust Total	Running Loss Total	Tire Wear	Brake Wear	Road
(grams)	Pollutant Name (grams)	(grams) (pounds)	(grams) (US tons)	(grams)	(grams)	
28.1	PM2.5	3.2	-	3.4	5.0	
	39.6	0.087	< 0.001			
	PM10	3.4	-	13.5	14.3	
187.2	218.4	0.481	< 0.001			
	NOx	243.3	-	-	-	

-	243.3	0.536	< 0.001		
	CO	1,220.1	-	-	-
-	1,220.1	2.690	0.001		
	ROG	27.9	38.1	-	-
-	66.0	0.145	< 0.001		
	CO2	532,493.9	-	-	-
-	532,493.9	1,173.948	0.587		
	N2O	22.0	-	-	-
-	22.0	0.048	< 0.001		
	CH4	8.7	-	-	-
-	8.7	0.019	< 0.001		
	BC	0.6	-	-	-
-	0.6	0.001	< 0.001		
	HFC	-	0.7	-	-
-	0.7	0.002	< 0.001		

=====

Summary of GHG Emissions

Pollutant Name	Emissions (metric tons)	CO2e (metric tons)
CO2	0.532	0.532
N2O	< 0.001	0.007
CH4	< 0.001	< 0.001
BC	< 0.001	< 0.001
HFC	< 0.001	0.001
Total CO2e	-	0.541

=====

Summary of Consumptions

Gasoline	54.178	gallons
Diesel	7.770	gallons
Natural Gas	0.181	diesel-equivalent gallons
Electricity	17.446	kilowatt-hours

=====END=====

-	81.0	0.179	< 0.001		
	CO	424.8	-	-	-
-	424.8	0.937	< 0.001		
	ROG	9.6	13.3	-	-
-	22.9	0.050	< 0.001		
	CO2	182,942.7	-	-	-
-	182,942.7	403.320	0.202		
	N2O	7.3	-	-	-
-	7.3	0.016	< 0.001		
	CH4	3.0	-	-	-
-	3.0	0.007	< 0.001		
	BC	0.2	-	-	-
-	0.2	< 0.001	< 0.001		
	HFC	-	0.2	-	-
-	0.2	< 0.001	< 0.001		

=====

Summary of GHG Emissions

Pollutant Name	Emissions (metric tons)	CO2e (metric tons)
CO2	0.183	0.183
N2O	< 0.001	0.002
CH4	< 0.001	< 0.001
BC	< 0.001	< 0.001
HFC	< 0.001	< 0.001
Total CO2e	-	0.186

=====

Summary of Consumptions

Gasoline	18.853	gallons
Diesel	2.467	gallons
Natural Gas	0.060	diesel-equivalent gallons
Electricity	6.095	kilowatt-hours

=====END=====

File Name: Ventura (SCC) - 2030 - Annual.EM
 CT-EMFAC2021 Version: 1.0.2.0
 Run Date: 8/20/2025 10:37:06 AM
 Area: Ventura (SCC)
 Analysis Year: 2030
 Season: Annual

```

=====
Vehicle Category      VMT Fraction      Diesel VMT Fraction  Gas VMT Fraction
                    Across Category   Within Category      Within Category
Truck 1              0.040             0.471                0.451
Truck 2              0.032             0.869                0.046
Non-Truck            0.928             0.005                0.918
  
```

```

=====
Road Type:           Major/Collector
Silt Loading Factor: CARB  0.032 g/m2
Precipitation Correction: None  P = NA  N = NA
  
```

```

=====
Road Length:         0.1 miles
Volume:              73 vehicles per hour
Number of Hours:     24 hours
VMT:                 175.2 miles
  
```

VMT Distribution by Speed Bin (mph):

<= 5 mph	0.00%
10 mph	0.00%
15 mph	0.00%
20 mph	0.00%
25 mph	0.00%
30 mph	0.00%
35 mph	0.00%
40 mph	0.00%
45 mph	0.00%
50 mph	0.00%
55 mph	100.00%
60 mph	0.00%
65 mph	0.00%
70 mph	0.00%
75 mph	0.00%

Summary of Emissions

```

=====
Pollutant Name      Running Exhaust Total  Running Loss Total  Tire Wear  Brake Wear  Road
(grams)             (grams)             (pounds)             (US tons)  (grams)     (grams)
PM2.5              4.3                 0.2                  < 0.001    0.4         0.5
PM10                24.3                0.3                  < 0.001    1.5         1.6
NOx                 24.3                14.2                 -          -           -
  
```

-	14.2	0.031	< 0.001		
	CO	93.1	-	-	-
-	93.1	0.205	< 0.001		
	ROG	1.7	3.5	-	-
-	5.3	0.012	< 0.001		
	CO2	49,947.6	-	-	-
-	49,947.6	110.116	0.055		
	N2O	1.9	-	-	-
-	1.9	0.004	< 0.001		
	CH4	0.9	-	-	-
-	0.9	0.002	< 0.001		
	BC	< 0.1	-	-	-
-	< 0.1	< 0.001	< 0.001		
	HFC	-	< 0.1	-	-
-	< 0.1	< 0.001	< 0.001		

=====

Summary of GHG Emissions

Pollutant Name	Emissions (metric tons)	CO2e (metric tons)
CO2	0.050	0.050
N2O	< 0.001	< 0.001
CH4	< 0.001	< 0.001
BC	< 0.001	< 0.001
HFC	< 0.001	< 0.001
Total CO2e	-	0.051

=====

Summary of Consumptions

Gasoline	5.062	gallons
Diesel	0.761	gallons
Natural Gas	0.022	diesel-equivalent gallons
Electricity	5.051	kilowatt-hours

=====END=====

File Name: Ventura (SCC) - 2030 - Annual.EM
 CT-EMFAC2021 Version: 1.0.2.0
 Run Date: 8/20/2025 10:37:41 AM
 Area: Ventura (SCC)
 Analysis Year: 2030
 Season: Annual

```
=====
```

Vehicle Category	VMT Fraction Across Category	Diesel VMT Fraction Within Category	Gas VMT Fraction Within Category
Truck 1	0.040	0.471	0.451
Truck 2	0.032	0.869	0.046
Non-Truck	0.928	0.005	0.918

```
=====
```

Road Type: Major/Collector
 Silt Loading Factor: CARB 0.032 g/m2
 Precipitation Correction: None P = NA N = NA

```
=====
```

Road Length: 1.7 miles
 Volume: 667 vehicles per hour
 Number of Hours: 24 hours
 VMT: 27213.6 miles

VMT Distribution by Speed Bin (mph):

<= 5 mph	0.00%
10 mph	0.00%
15 mph	0.00%
20 mph	0.00%
25 mph	0.00%
30 mph	0.00%
35 mph	0.00%
40 mph	0.00%
45 mph	0.00%
50 mph	0.00%
55 mph	100.00%
60 mph	0.00%
65 mph	0.00%
70 mph	0.00%
75 mph	0.00%

```
=====
```

Summary of Emissions

Dust	Total	Running Exhaust Total	Running Loss Total	Tire Wear	Brake Wear	Road
(grams)	Pollutant Name (grams)	(grams) (pounds)	(grams) (US tons)	(grams)	(grams)	
487.6	PM2.5	38.2	-	58.7	84.8	
	669.3	1.475	< 0.001			
	PM10	40.7	-	234.8	242.2	
3,250.4	3,768.1	8.307	0.004			
	NOx	2,213.4	-	-	-	

-	2,213.4	4.880	0.002		
	CO	14,466.2	-	-	-
-	14,466.2	31.893	0.016		
	ROG	270.2	548.3	-	-
-	818.5	1.804	< 0.001		
	CO2	7,758,298.2	-	-	-
-	7,758,298.2	17,104.119	8.552		
	N2O	298.3	-	-	-
-	298.3	0.658	< 0.001		
	CH4	133.8	-	-	-
-	133.8	0.295	< 0.001		
	BC	7.0	-	-	-
-	7.0	0.015	< 0.001		
	HFC	-	5.8	-	-
-	5.8	0.013	< 0.001		

=====

Summary of GHG Emissions

Pollutant Name	Emissions (metric tons)	CO2e (metric tons)
CO2	7.758	7.758
N2O	< 0.001	0.089
CH4	< 0.001	0.003
BC	< 0.001	0.003
HFC	< 0.001	0.008
Total CO2e	-	7.862

=====

Summary of Consumptions

Gasoline	786.255	gallons
Diesel	118.270	gallons
Natural Gas	3.456	diesel-equivalent gallons
Electricity	784.623	kilowatt-hours

=====END=====

-	431.0	0.950	< 0.001		
	CO	2,817.0	-	-	-
-	2,817.0	6.210	0.003		
	ROG	52.6	106.8	-	-
-	159.4	0.351	< 0.001		
	CO2	1,510,743.6	-	-	-
-	1,510,743.6	3,330.619	1.665		
	N2O	58.1	-	-	-
-	58.1	0.128	< 0.001		
	CH4	26.1	-	-	-
-	26.1	0.057	< 0.001		
	BC	1.4	-	-	-
-	1.4	0.003	< 0.001		
	HFC	-	1.1	-	-
-	1.1	0.002	< 0.001		

=====

Summary of GHG Emissions

Pollutant Name	Emissions (metric tons)	CO2e (metric tons)
CO2	1.511	1.511
N2O	< 0.001	0.017
CH4	< 0.001	< 0.001
BC	< 0.001	< 0.001
HFC	< 0.001	0.002
Total CO2e	-	1.531

=====

Summary of Consumptions

Gasoline	153.104	gallons
Diesel	23.030	gallons
Natural Gas	0.673	diesel-equivalent gallons
Electricity	152.787	kilowatt-hours

=====END=====

File Name: Ventura (SCC) - 2030 - Annual.EM
 CT-EMFAC2021 Version: 1.0.2.0
 Run Date: 8/20/2025 10:38:43 AM
 Area: Ventura (SCC)
 Analysis Year: 2030
 Season: Annual

```
=====
```

Vehicle Category	VMT Fraction Across Category	Diesel VMT Fraction Within Category	Gas VMT Fraction Within Category
Truck 1	0.040	0.471	0.451
Truck 2	0.032	0.869	0.046
Non-Truck	0.928	0.005	0.918

```
=====
```

```
=====
```

Road Type:	Major/Collector
Silt Loading Factor:	CARB 0.032 g/m2
Precipitation Correction:	None P = NA N = NA

```
=====
```

```
=====
```

Road Length:	0.1 miles
Volume:	669 vehicles per hour
Number of Hours:	24 hours
VMT:	1605.6 miles

VMT Distribution by Speed Bin (mph):

<= 5 mph	0.00%
10 mph	0.00%
15 mph	0.00%
20 mph	0.00%
25 mph	0.00%
30 mph	0.00%
35 mph	0.00%
40 mph	0.00%
45 mph	0.00%
50 mph	0.00%
55 mph	100.00%
60 mph	0.00%
65 mph	0.00%
70 mph	0.00%
75 mph	0.00%

```
=====
```

Summary of Emissions

Dust	Total	Running Exhaust Total	Running Loss Total	Tire Wear	Brake Wear	Road
(grams)	Pollutant Name (grams)	(grams) (pounds)	(grams) (US tons)	(grams)	(grams)	
28.8	PM2.5	2.3	-	3.5	5.0	
	39.5	0.087	< 0.001			
	PM10	2.4	-	13.9	14.3	
191.8	222.3	0.490	< 0.001			
	NOx	130.6	-	-	-	

-	130.6	0.288	< 0.001		
	CO	853.5	-	-	-
-	853.5	1.882	< 0.001		
	ROG	15.9	32.3	-	-
-	48.3	0.106	< 0.001		
	CO2	457,738.9	-	-	-
-	457,738.9	1,009.141	0.505		
	N2O	17.6	-	-	-
-	17.6	0.039	< 0.001		
	CH4	7.9	-	-	-
-	7.9	0.017	< 0.001		
	BC	0.4	-	-	-
-	0.4	< 0.001	< 0.001		
	HFC	-	0.3	-	-
-	0.3	< 0.001	< 0.001		

=====

Summary of GHG Emissions

Pollutant Name	Emissions (metric tons)	CO2e (metric tons)
CO2	0.458	0.458
N2O	< 0.001	0.005
CH4	< 0.001	< 0.001
BC	< 0.001	< 0.001
HFC	< 0.001	< 0.001
Total CO2e	-	0.464

=====

Summary of Consumptions

Gasoline	46.389	gallons
Diesel	6.978	gallons
Natural Gas	0.204	diesel-equivalent gallons
Electricity	46.293	kilowatt-hours

=====END=====

File Name: Ventura (SCC) - 2030 - Annual.EM
 CT-EMFAC2021 Version: 1.0.2.0
 Run Date: 8/22/2025 8:38:38 AM
 Area: Ventura (SCC)
 Analysis Year: 2030
 Season: Annual

```
=====
```

Vehicle Category	VMT Fraction Across Category	Diesel VMT Fraction Within Category	Gas VMT Fraction Within Category
Truck 1	0.037	0.471	0.451
Truck 2	0.029	0.869	0.046
Non-Truck	0.934	0.005	0.918

```
=====
```

Road Type: Major/Collector
 Silt Loading Factor: CARB 0.032 g/m2
 Precipitation Correction: None P = NA N = NA

```
=====
```

Road Length: 0.1 miles
 Volume: 273 vehicles per hour
 Number of Hours: 24 hours
 VMT: 655.2 miles

VMT Distribution by Speed Bin (mph):

<= 5 mph	0.00%
10 mph	0.00%
15 mph	0.00%
20 mph	0.00%
25 mph	0.00%
30 mph	0.00%
35 mph	0.00%
40 mph	0.00%
45 mph	0.00%
50 mph	0.00%
55 mph	100.00%
60 mph	0.00%
65 mph	0.00%
70 mph	0.00%
75 mph	0.00%

```
=====
```

Summary of Emissions

Dust	Total	Running Exhaust Total	Running Loss Total	Tire Wear	Brake Wear	Road
(grams)	Pollutant Name (grams)	(grams) (pounds)	(grams) (US tons)	(grams)	(grams)	
11.5	PM2.5	0.9	-	1.4	2.0	
	15.7	0.035	< 0.001			
	PM10	0.9	-	5.6	5.6	
76.6	88.7	0.196	< 0.001			
	NOx	51.0	-	-	-	

-	51.0	0.112	< 0.001		
	CO	349.5	-	-	-
-	349.5	0.771	< 0.001		
	ROG	6.4	13.2	-	-
-	19.7	0.043	< 0.001		
	CO2	184,794.1	-	-	-
-	184,794.1	407.401	0.204		
	N2O	6.8	-	-	-
-	6.8	0.015	< 0.001		
	CH4	3.2	-	-	-
-	3.2	0.007	< 0.001		
	BC	0.2	-	-	-
-	0.2	< 0.001	< 0.001		
	HFC	-	0.1	-	-
-	0.1	< 0.001	< 0.001		

=====

Summary of GHG Emissions

Pollutant Name	Emissions (metric tons)	CO2e (metric tons)
CO2	0.185	0.185
N2O	< 0.001	0.002
CH4	< 0.001	< 0.001
BC	< 0.001	< 0.001
HFC	< 0.001	< 0.001
Total CO2e	-	0.187

=====

Summary of Consumptions

Gasoline	18.982	gallons
Diesel	2.606	gallons
Natural Gas	0.079	diesel-equivalent gallons
Electricity	18.724	kilowatt-hours

=====END=====

File Name: Ventura (SCC) - 2030 - Annual.EM
 CT-EMFAC2021 Version: 1.0.2.0
 Run Date: 8/20/2025 10:21:15 AM
 Area: Ventura (SCC)
 Analysis Year: 2030
 Season: Annual

```
=====
```

Vehicle Category	VMT Fraction Across Category	Diesel VMT Fraction Within Category	Gas VMT Fraction Within Category
Truck 1	0.040	0.471	0.451
Truck 2	0.032	0.869	0.046
Non-Truck	0.928	0.005	0.918

```
=====
```

```
=====
```

Road Type:	Major/Collector
Silt Loading Factor:	CARB 0.032 g/m2
Precipitation Correction:	None P = NA N = NA

```
=====
```

```
=====
```

Road Length:	0.1 miles
Volume:	73 vehicles per hour
Number of Hours:	24 hours
VMT:	175.2 miles

VMT Distribution by Speed Bin (mph):

<= 5 mph	0.00%
10 mph	0.00%
15 mph	0.00%
20 mph	0.00%
25 mph	0.00%
30 mph	0.00%
35 mph	0.00%
40 mph	0.00%
45 mph	0.00%
50 mph	0.00%
55 mph	100.00%
60 mph	0.00%
65 mph	0.00%
70 mph	0.00%
75 mph	0.00%

```
=====
```

Summary of Emissions

Dust	Total	Running Exhaust Total	Running Loss Total	Tire Wear	Brake Wear	Road
(grams)	Pollutant Name (grams)	(grams) (pounds)	(grams) (US tons)	(grams)	(grams)	
3.1	PM2.5	0.2	-	0.4	0.5	
	4.3	0.009	< 0.001			
	PM10	0.3	-	1.5	1.6	
20.9	24.3	0.053	< 0.001			
	NOx	14.2	-	-	-	

-	14.2	0.031	< 0.001		
	CO	93.1	-	-	-
-	93.1	0.205	< 0.001		
	ROG	1.7	3.5	-	-
-	5.3	0.012	< 0.001		
	CO2	49,947.6	-	-	-
-	49,947.6	110.116	0.055		
	N2O	1.9	-	-	-
-	1.9	0.004	< 0.001		
	CH4	0.9	-	-	-
-	0.9	0.002	< 0.001		
	BC	< 0.1	-	-	-
-	< 0.1	< 0.001	< 0.001		
	HFC	-	< 0.1	-	-
-	< 0.1	< 0.001	< 0.001		

=====

Summary of GHG Emissions

Pollutant Name	Emissions (metric tons)	CO2e (metric tons)
CO2	0.050	0.050
N2O	< 0.001	< 0.001
CH4	< 0.001	< 0.001
BC	< 0.001	< 0.001
HFC	< 0.001	< 0.001
Total CO2e	-	0.051

=====

Summary of Consumptions

Gasoline	5.062	gallons
Diesel	0.761	gallons
Natural Gas	0.022	diesel-equivalent gallons
Electricity	5.051	kilowatt-hours

=====END=====

File Name: Ventura (SCC) - 2030 - Annual.EM
 CT-EMFAC2021 Version: 1.0.2.0
 Run Date: 8/20/2025 10:21:47 AM
 Area: Ventura (SCC)
 Analysis Year: 2030
 Season: Annual

```
=====
```

Vehicle Category	VMT Fraction Across Category	Diesel VMT Fraction Within Category	Gas VMT Fraction Within Category
Truck 1	0.040	0.471	0.451
Truck 2	0.032	0.869	0.046
Non-Truck	0.928	0.005	0.918

```
=====
```

Road Type: Major/Collector
 Silt Loading Factor: CARB 0.032 g/m2
 Precipitation Correction: None P = NA N = NA

```
=====
```

Road Length: 1.7 miles
 Volume: 649 vehicles per hour
 Number of Hours: 24 hours
 VMT: 26479.2 miles

VMT Distribution by Speed Bin (mph):

<= 5 mph	0.00%
10 mph	0.00%
15 mph	0.00%
20 mph	0.00%
25 mph	0.00%
30 mph	0.00%
35 mph	0.00%
40 mph	0.00%
45 mph	0.00%
50 mph	0.00%
55 mph	100.00%
60 mph	0.00%
65 mph	0.00%
70 mph	0.00%
75 mph	0.00%

```
=====
```

Summary of Emissions

Dust	Total	Running Exhaust Total	Running Loss Total	Tire Wear	Brake Wear	Road
(grams)	Pollutant Name (grams)	(grams) (pounds)	(grams) (US tons)	(grams)	(grams)	
474.4	PM2.5	37.2	-	57.1	82.5	
	651.2	1.436	< 0.001			
	PM10	39.6	-	228.5	235.6	
3,162.7	3,666.4	8.083	0.004			
	NOx	2,153.6	-	-	-	

-	2,153.6	4.748	0.002		
	CO	14,075.8	-	-	-
-	14,075.8	31.032	0.016		
	ROG	262.9	533.5	-	-
-	796.4	1.756	< 0.001		
	CO2	7,548,928.7	-	-	-
-	7,548,928.7	16,642.538	8.321		
	N2O	290.2	-	-	-
-	290.2	0.640	< 0.001		
	CH4	130.2	-	-	-
-	130.2	0.287	< 0.001		
	BC	6.8	-	-	-
-	6.8	0.015	< 0.001		
	HFC	-	5.6	-	-
-	5.6	0.012	< 0.001		

=====

Summary of GHG Emissions

Pollutant Name	Emissions (metric tons)	CO2e (metric tons)
CO2	7.549	7.549
N2O	< 0.001	0.086
CH4	< 0.001	0.003
BC	< 0.001	0.003
HFC	< 0.001	0.008
Total CO2e	-	7.650

=====

Summary of Consumptions

Gasoline	765.037	gallons
Diesel	115.079	gallons
Natural Gas	3.363	diesel-equivalent gallons
Electricity	763.448	kilowatt-hours

=====END=====

File Name: Ventura (SCC) - 2030 - Annual.EM
 CT-EMFAC2021 Version: 1.0.2.0
 Run Date: 8/20/2025 10:22:21 AM
 Area: Ventura (SCC)
 Analysis Year: 2030
 Season: Annual

```

=====

```

Vehicle Category	VMT Fraction Across Category	Diesel VMT Fraction Within Category	Gas VMT Fraction Within Category
Truck 1	0.040	0.471	0.451
Truck 2	0.032	0.869	0.046
Non-Truck	0.928	0.005	0.918

```

=====

```

Road Type:	Major/Collector
Silt Loading Factor:	CARB 0.032 g/m2
Precipitation Correction:	None P = NA N = NA

```

=====

```

Road Length:	0.4 miles
Volume:	543 vehicles per hour
Number of Hours:	24 hours
VMT:	5212.8 miles

VMT Distribution by Speed Bin (mph):

<= 5 mph	0.00%
10 mph	0.00%
15 mph	0.00%
20 mph	0.00%
25 mph	0.00%
30 mph	0.00%
35 mph	0.00%
40 mph	0.00%
45 mph	0.00%
50 mph	0.00%
55 mph	100.00%
60 mph	0.00%
65 mph	0.00%
70 mph	0.00%
75 mph	0.00%

```

=====
=====

```

Summary of Emissions

Dust	Total	Running Exhaust Total	Running Loss Total	Tire Wear	Brake Wear	Road
(grams)	Pollutant Name (grams)	(grams) (pounds)	(grams) (US tons)	(grams)	(grams)	
93.4	PM2.5	7.3	-	11.2	16.2	
	128.2	0.283	< 0.001			
	PM10	7.8	-	45.0	46.4	
622.6	721.8	1.591	< 0.001			
	NOx	424.0	-	-	-	

-	424.0	0.935	< 0.001		
	CO	2,771.0	-	-	-
-	2,771.0	6.109	0.003		
	ROG	51.8	105.0	-	-
-	156.8	0.346	< 0.001		
	CO2	1,486,112.0	-	-	-
-	1,486,112.0	3,276.316	1.638		
	N2O	57.1	-	-	-
-	57.1	0.126	< 0.001		
	CH4	25.6	-	-	-
-	25.6	0.056	< 0.001		
	BC	1.3	-	-	-
-	1.3	0.003	< 0.001		
	HFC	-	1.1	-	-
-	1.1	0.002	< 0.001		

=====

Summary of GHG Emissions

Pollutant Name	Emissions (metric tons)	CO2e (metric tons)
CO2	1.486	1.486
N2O	< 0.001	0.017
CH4	< 0.001	< 0.001
BC	< 0.001	< 0.001
HFC	< 0.001	0.002
Total CO2e	-	1.506

=====

Summary of Consumptions

Gasoline	150.608	gallons
Diesel	22.655	gallons
Natural Gas	0.662	diesel-equivalent gallons
Electricity	150.295	kilowatt-hours

=====END=====

File Name: Ventura (SCC) - 2030 - Annual.EM
 CT-EMFAC2021 Version: 1.0.2.0
 Run Date: 8/20/2025 10:22:47 AM
 Area: Ventura (SCC)
 Analysis Year: 2030
 Season: Annual

```

=====
Vehicle Category      VMT Fraction      Diesel VMT Fraction  Gas VMT Fraction
                    Across Category   Within Category      Within Category
Truck 1              0.040             0.471                0.451
Truck 2              0.032             0.869                0.046
Non-Truck            0.928             0.005                0.918
  
```

```

=====
Road Type:           Major/Collector
Silt Loading Factor: CARB    0.032 g/m2
Precipitation Correction: None  P = NA  N = NA
  
```

```

=====
Road Length:         0.1 miles
Volume:              651 vehicles per hour
Number of Hours:     24 hours
VMT:                 1562.4 miles
  
```

VMT Distribution by Speed Bin (mph):

<= 5 mph	0.00%
10 mph	0.00%
15 mph	0.00%
20 mph	0.00%
25 mph	0.00%
30 mph	0.00%
35 mph	0.00%
40 mph	0.00%
45 mph	0.00%
50 mph	0.00%
55 mph	100.00%
60 mph	0.00%
65 mph	0.00%
70 mph	0.00%
75 mph	0.00%

```

=====
=====
  
```

Summary of Emissions

Dust	Pollutant Name	Running Exhaust Total (grams)	Running Loss Total (US tons)	Tire Wear (grams)	Brake Wear (grams)	Road
28.0	PM2.5	38.4	< 0.001	3.4	4.9	
186.6	PM10	216.3	< 0.001	13.5	13.9	
	NOx	127.1	-	-	-	

-	127.1	0.280	< 0.001		
	CO	830.5	-	-	-
-	830.5	1.831	< 0.001		
	ROG	15.5	31.5	-	-
-	47.0	0.104	< 0.001		
	CO2	445,423.0	-	-	-
-	445,423.0	981.990	0.491		
	N2O	17.1	-	-	-
-	17.1	0.038	< 0.001		
	CH4	7.7	-	-	-
-	7.7	0.017	< 0.001		
	BC	0.4	-	-	-
-	0.4	< 0.001	< 0.001		
	HFC	-	0.3	-	-
-	0.3	< 0.001	< 0.001		

=====

Summary of GHG Emissions

Pollutant Name	Emissions (metric tons)	CO2e (metric tons)
CO2	0.445	0.445
N2O	< 0.001	0.005
CH4	< 0.001	< 0.001
BC	< 0.001	< 0.001
HFC	< 0.001	< 0.001
Total CO2e	-	0.451

=====

Summary of Consumptions

Gasoline	45.141	gallons
Diesel	6.790	gallons
Natural Gas	0.198	diesel-equivalent gallons
Electricity	45.047	kilowatt-hours

=====END=====

File Name: Ventura (SCC) - 2030 - Annual.EM
 CT-EMFAC2021 Version: 1.0.2.0
 Run Date: 8/22/2025 8:37:13 AM
 Area: Ventura (SCC)
 Analysis Year: 2030
 Season: Annual

```

=====

```

Vehicle Category	VMT Fraction Across Category	Diesel VMT Fraction Within Category	Gas VMT Fraction Within Category
Truck 1	0.037	0.471	0.451
Truck 2	0.029	0.869	0.046
Non-Truck	0.934	0.005	0.918

```

=====

```

Road Type:	Major/Collector
Silt Loading Factor:	CARB 0.032 g/m2
Precipitation Correction:	None P = NA N = NA

```

=====

```

Road Length:	0.1 miles
Volume:	275 vehicles per hour
Number of Hours:	24 hours
VMT:	660 miles

VMT Distribution by Speed Bin (mph):

<= 5 mph	0.00%
10 mph	0.00%
15 mph	0.00%
20 mph	0.00%
25 mph	0.00%
30 mph	0.00%
35 mph	0.00%
40 mph	0.00%
45 mph	0.00%
50 mph	0.00%
55 mph	100.00%
60 mph	0.00%
65 mph	0.00%
70 mph	0.00%
75 mph	0.00%

```

=====

```

Summary of Emissions

Dust	Pollutant Name	Running Exhaust Total (grams) (pounds)	Running Loss Total (grams) (US tons)	Tire Wear (grams)	Brake Wear (grams)	Road
11.6	PM2.5	15.8	0.9	1.4	2.0	
	PM10	89.4	0.9	5.7	5.6	
77.1	NOx	89.4	0.197	-	-	

-	51.4	0.113	< 0.001		
	CO	352.1	-	-	-
-	352.1	0.776	< 0.001		
	ROG	6.5	13.3	-	-
-	19.8	0.044	< 0.001		
	CO2	186,147.9	-	-	-
-	186,147.9	410.386	0.205		
	N2O	6.8	-	-	-
-	6.8	0.015	< 0.001		
	CH4	3.2	-	-	-
-	3.2	0.007	< 0.001		
	BC	0.2	-	-	-
-	0.2	< 0.001	< 0.001		
	HFC	-	0.1	-	-
-	0.1	< 0.001	< 0.001		

=====

Summary of GHG Emissions

Pollutant Name	Emissions (metric tons)	CO2e (metric tons)
CO2	0.186	0.186
N2O	< 0.001	0.002
CH4	< 0.001	< 0.001
BC	< 0.001	< 0.001
HFC	< 0.001	< 0.001
Total CO2e	-	0.189

=====

Summary of Consumptions

Gasoline	19.121	gallons
Diesel	2.625	gallons
Natural Gas	0.080	diesel-equivalent gallons
Electricity	18.861	kilowatt-hours

=====END=====

File Name: Ventura (SCC) - 2050 - Annual.EM
 CT-EMFAC2021 Version: 1.0.2.0
 Run Date: 8/20/2025 10:33:12 AM
 Area: Ventura (SCC)
 Analysis Year: 2050
 Season: Annual

```
=====
```

Vehicle Category	VMT Fraction Across Category	Diesel VMT Fraction Within Category	Gas VMT Fraction Within Category
Truck 1	0.032	0.260	0.254
Truck 2	0.040	0.642	0.016
Non-Truck	0.928	0.004	0.890

```
=====
```

```
=====
```

Road Type:	Major/Collector
Silt Loading Factor:	CARB 0.032 g/m2
Precipitation Correction:	None P = NA N = NA

```
=====
```

```
=====
```

Road Length:	0.1 miles
Volume:	74 vehicles per hour
Number of Hours:	24 hours
VMT:	177.6 miles

VMT Distribution by Speed Bin (mph):

<= 5 mph	0.00%
10 mph	0.00%
15 mph	0.00%
20 mph	0.00%
25 mph	0.00%
30 mph	0.00%
35 mph	0.00%
40 mph	0.00%
45 mph	0.00%
50 mph	0.00%
55 mph	100.00%
60 mph	0.00%
65 mph	0.00%
70 mph	0.00%
75 mph	0.00%

```
=====
```

Summary of Emissions

Dust	Total	Running Exhaust Total	Running Loss Total	Tire Wear	Brake Wear	Road
(grams)	Pollutant Name (grams)	(grams) (pounds)	(grams) (US tons)	(grams)	(grams)	
3.3	PM2.5	0.1	-	0.4	0.5	
	4.3	0.010	< 0.001			
	PM10	0.1	-	1.6	1.4	
22.1	25.2	0.056	< 0.001			
	NOx	5.9	-	-	-	

-	5.9	0.013	< 0.001		
	CO	65.0	-	-	-
-	65.0	0.143	< 0.001		
	ROG	0.8	2.5	-	-
-	3.3	0.007	< 0.001		
	CO2	41,560.5	-	-	-
-	41,560.5	91.625	0.046		
	N2O	1.4	-	-	-
-	1.4	0.003	< 0.001		
	CH4	0.3	-	-	-
-	0.3	< 0.001	< 0.001		
	BC	< 0.1	-	-	-
-	< 0.1	< 0.001	< 0.001		
	HFC	-	< 0.1	-	-
-	< 0.1	< 0.001	< 0.001		

=====

Summary of GHG Emissions

Pollutant Name	Emissions (metric tons)	CO2e (metric tons)
CO2	0.042	0.042
N2O	< 0.001	< 0.001
CH4	< 0.001	< 0.001
BC	< 0.001	< 0.001
HFC	< 0.001	< 0.001
Total CO2e	-	0.042

=====

Summary of Consumptions

Gasoline	4.292	gallons
Diesel	0.587	gallons
Natural Gas	0.009	diesel-equivalent gallons
Electricity	11.341	kilowatt-hours

=====END=====

File Name: Ventura (SCC) - 2050 - Annual.EM
 CT-EMFAC2021 Version: 1.0.2.0
 Run Date: 8/20/2025 10:33:49 AM
 Area: Ventura (SCC)
 Analysis Year: 2050
 Season: Annual

```
=====
```

Vehicle Category	VMT Fraction Across Category	Diesel VMT Fraction Within Category	Gas VMT Fraction Within Category
Truck 1	0.032	0.260	0.254
Truck 2	0.040	0.642	0.016
Non-Truck	0.928	0.004	0.890

```
=====
```

```
=====
```

Road Type:	Major/Collector
Silt Loading Factor:	CARB 0.032 g/m2
Precipitation Correction:	None P = NA N = NA

```
=====
```

```
=====
```

Road Length:	1.7 miles
Volume:	698 vehicles per hour
Number of Hours:	24 hours
VMT:	28478.4 miles

VMT Distribution by Speed Bin (mph):

<= 5 mph	0.00%
10 mph	0.00%
15 mph	0.00%
20 mph	0.00%
25 mph	0.00%
30 mph	0.00%
35 mph	0.00%
40 mph	0.00%
45 mph	0.00%
50 mph	0.00%
55 mph	100.00%
60 mph	0.00%
65 mph	0.00%
70 mph	0.00%
75 mph	0.00%

```
=====
```

Summary of Emissions

Dust	Total	Running Exhaust Total	Running Loss Total	Tire Wear	Brake Wear	Road
(grams)	Pollutant Name (grams)	(grams) (pounds)	(grams) (US tons)	(grams)	(grams)	
532.5	PM2.5	21.9	-	62.5	78.9	
	695.8	1.534	< 0.001			
	PM10	23.2	-	249.9	225.5	
3,549.9	4,048.5	8.926	0.004			
	NOx	942.0	-	-	-	

-	942.0	2.077	0.001		
	CO	10,430.0	-	-	-
-	10,430.0	22.994	0.011		
	ROG	133.9	400.1	-	-
-	534.0	1.177	< 0.001		
	CO2	6,664,279.9	-	-	-
-	6,664,279.9	14,692.221	7.346		
	N2O	227.9	-	-	-
-	227.9	0.503	< 0.001		
	CH4	42.5	-	-	-
-	42.5	0.094	< 0.001		
	BC	2.8	-	-	-
-	2.8	0.006	< 0.001		
	HFC	-	0.3	-	-
-	0.3	< 0.001	< 0.001		

=====

Summary of GHG Emissions

Pollutant Name	Emissions (metric tons)	CO2e (metric tons)
CO2	6.664	6.664
N2O	< 0.001	0.068
CH4	< 0.001	0.001
BC	< 0.001	0.001
HFC	< 0.001	< 0.001
Total CO2e	-	6.735

=====

Summary of Consumptions

Gasoline	688.294	gallons
Diesel	94.178	gallons
Natural Gas	1.367	diesel-equivalent gallons
Electricity	1,818.545	kilowatt-hours

=====END=====

File Name: Ventura (SCC) - 2050 - Annual.EM
 CT-EMFAC2021 Version: 1.0.2.0
 Run Date: 8/20/2025 10:34:22 AM
 Area: Ventura (SCC)
 Analysis Year: 2050
 Season: Annual

```
=====
```

Vehicle Category	VMT Fraction Across Category	Diesel VMT Fraction Within Category	Gas VMT Fraction Within Category
Truck 1	0.032	0.260	0.254
Truck 2	0.040	0.642	0.016
Non-Truck	0.928	0.004	0.890

```
=====
```

```
=====
```

Road Type:	Major/Collector
Silt Loading Factor:	CARB 0.032 g/m2
Precipitation Correction:	None P = NA N = NA

```
=====
```

```
=====
```

Road Length:	0.4 miles
Volume:	609 vehicles per hour
Number of Hours:	24 hours
VMT:	5846.4 miles

VMT Distribution by Speed Bin (mph):

<= 5 mph	0.00%
10 mph	0.00%
15 mph	0.00%
20 mph	0.00%
25 mph	0.00%
30 mph	0.00%
35 mph	0.00%
40 mph	0.00%
45 mph	0.00%
50 mph	0.00%
55 mph	100.00%
60 mph	0.00%
65 mph	0.00%
70 mph	0.00%
75 mph	0.00%

```
=====
```

Summary of Emissions

Dust	Total	Running Exhaust Total	Running Loss Total	Tire Wear	Brake Wear	Road
(grams)	Pollutant Name (grams)	(grams) (pounds)	(grams) (US tons)	(grams)	(grams)	
109.3	PM2.5	4.5	-	12.8	16.2	
	142.8	0.315	< 0.001			
	PM10	4.8	-	51.3	46.3	
728.8	831.1	1.832	< 0.001			
	NOx	193.4	-	-	-	

-	193.4	0.426	< 0.001		
	CO	2,141.2	-	-	-
-	2,141.2	4.721	0.002		
	ROG	27.5	82.1	-	-
-	109.6	0.242	< 0.001		
	CO2	1,368,126.2	-	-	-
-	1,368,126.2	3,016.202	1.508		
	N2O	46.8	-	-	-
-	46.8	0.103	< 0.001		
	CH4	8.7	-	-	-
-	8.7	0.019	< 0.001		
	BC	0.6	-	-	-
-	0.6	0.001	< 0.001		
	HFC	-	< 0.1	-	-
-	< 0.1	< 0.001	< 0.001		

=====

Summary of GHG Emissions

Pollutant Name	Emissions (metric tons)	CO2e (metric tons)
CO2	1.368	1.368
N2O	< 0.001	0.014
CH4	< 0.001	< 0.001
BC	< 0.001	< 0.001
HFC	< 0.001	< 0.001
Total CO2e	-	1.383

=====

Summary of Consumptions

Gasoline	141.302	gallons
Diesel	19.334	gallons
Natural Gas	0.281	diesel-equivalent gallons
Electricity	373.334	kilowatt-hours

=====END=====

File Name: Ventura (SCC) - 2050 - Annual.EM
 CT-EMFAC2021 Version: 1.0.2.0
 Run Date: 8/20/2025 10:34:52 AM
 Area: Ventura (SCC)
 Analysis Year: 2050
 Season: Annual

```
=====
```

Vehicle Category	VMT Fraction Across Category	Diesel VMT Fraction Within Category	Gas VMT Fraction Within Category
Truck 1	0.032	0.260	0.254
Truck 2	0.040	0.642	0.016
Non-Truck	0.928	0.004	0.890

```
=====
```

```
=====
```

Road Type:	Major/Collector
Silt Loading Factor:	CARB 0.032 g/m2
Precipitation Correction:	None P = NA N = NA

```
=====
```

```
=====
```

Road Length:	0.1 miles
Volume:	698 vehicles per hour
Number of Hours:	24 hours
VMT:	1675.2 miles

VMT Distribution by Speed Bin (mph):

<= 5 mph	0.00%
10 mph	0.00%
15 mph	0.00%
20 mph	0.00%
25 mph	0.00%
30 mph	0.00%
35 mph	0.00%
40 mph	0.00%
45 mph	0.00%
50 mph	0.00%
55 mph	100.00%
60 mph	0.00%
65 mph	0.00%
70 mph	0.00%
75 mph	0.00%

```
=====
```

Summary of Emissions

Dust	Total	Running Exhaust Total	Running Loss Total	Tire Wear	Brake Wear	Road
(grams)	Pollutant Name (grams)	(grams) (pounds)	(grams) (US tons)	(grams)	(grams)	
31.3	PM2.5	40.9	1.3	3.7	4.6	
	PM10		1.4	14.7	13.3	
208.8	NOx	238.1	0.525			
			55.4			

-	55.4	0.122	< 0.001		
	CO	613.5	-	-	-
-	613.5	1.353	< 0.001		
	ROG	7.9	23.5	-	-
-	31.4	0.069	< 0.001		
	CO2	392,016.5	-	-	-
-	392,016.5	864.248	0.432		
	N2O	13.4	-	-	-
-	13.4	0.030	< 0.001		
	CH4	2.5	-	-	-
-	2.5	0.006	< 0.001		
	BC	0.2	-	-	-
-	0.2	< 0.001	< 0.001		
	HFC	-	< 0.1	-	-
-	< 0.1	< 0.001	< 0.001		

=====

Summary of GHG Emissions

Pollutant Name	Emissions (metric tons)	CO2e (metric tons)
CO2	0.392	0.392
N2O	< 0.001	0.004
CH4	< 0.001	< 0.001
BC	< 0.001	< 0.001
HFC	< 0.001	< 0.001
Total CO2e	-	0.396

=====

Summary of Consumptions

Gasoline	40.488	gallons
Diesel	5.540	gallons
Natural Gas	0.080	diesel-equivalent gallons
Electricity	106.973	kilowatt-hours

=====END=====

File Name: Ventura (SCC) - 2050 - Annual.EM
 CT-EMFAC2021 Version: 1.0.2.0
 Run Date: 8/22/2025 8:41:51 AM
 Area: Ventura (SCC)
 Analysis Year: 2050
 Season: Annual

```
=====
```

Vehicle Category	VMT Fraction Across Category	Diesel VMT Fraction Within Category	Gas VMT Fraction Within Category
Truck 1	0.029	0.260	0.254
Truck 2	0.037	0.642	0.016
Non-Truck	0.934	0.004	0.890

```
=====
```

```
=====
```

Road Type:	Major/Collector
Silt Loading Factor:	CARB 0.032 g/m2
Precipitation Correction:	None P = NA N = NA

```
=====
```

```
=====
```

Road Length:	0.1 miles
Volume:	362 vehicles per hour
Number of Hours:	24 hours
VMT:	868.8 miles

VMT Distribution by Speed Bin (mph):

<= 5 mph	0.00%
10 mph	0.00%
15 mph	0.00%
20 mph	0.00%
25 mph	0.00%
30 mph	0.00%
35 mph	0.00%
40 mph	0.00%
45 mph	0.00%
50 mph	0.00%
55 mph	100.00%
60 mph	0.00%
65 mph	0.00%
70 mph	0.00%
75 mph	0.00%

```
=====
```

Summary of Emissions

Dust	Total	Running Exhaust Total	Running Loss Total	Tire Wear	Brake Wear	Road
(grams)	Pollutant Name (grams)	(grams) (pounds)	(grams) (US tons)	(grams)	(grams)	
15.9	PM2.5	0.6	-	1.9	2.3	
	20.7	0.046	< 0.001			
	PM10	0.7	-	7.6	6.6	
106.0	120.8	0.266	< 0.001			
	NOx	27.8	-	-	-	

-	27.8	0.061	< 0.001		
	CO	319.8	-	-	-
-	319.8	0.705	< 0.001		
	ROG	4.1	12.2	-	-
-	16.3	0.036	< 0.001		
	CO2	201,980.9	-	-	-
-	201,980.9	445.292	0.223		
	N2O	6.6	-	-	-
-	6.6	0.015	< 0.001		
	CH4	1.3	-	-	-
-	1.3	0.003	< 0.001		
	BC	< 0.1	-	-	-
-	< 0.1	< 0.001	< 0.001		
	HFC	-	< 0.1	-	-
-	< 0.1	< 0.001	< 0.001		

=====

Summary of GHG Emissions

Pollutant Name	Emissions (metric tons)	CO2e (metric tons)
CO2	0.202	0.202
N2O	< 0.001	0.002
CH4	< 0.001	< 0.001
BC	< 0.001	< 0.001
HFC	< 0.001	< 0.001
Total CO2e	-	0.204

=====

Summary of Consumptions

Gasoline	21.093	gallons
Diesel	2.662	gallons
Natural Gas	0.039	diesel-equivalent gallons
Electricity	53.805	kilowatt-hours

=====END=====

File Name: Ventura (SCC) - 2050 - Annual.EM
 CT-EMFAC2021 Version: 1.0.2.0
 Run Date: 8/20/2025 10:29:32 AM
 Area: Ventura (SCC)
 Analysis Year: 2050
 Season: Annual

```
=====
```

Vehicle Category	VMT Fraction Across Category	Diesel VMT Fraction Within Category	Gas VMT Fraction Within Category
Truck 1	0.032	0.260	0.254
Truck 2	0.040	0.642	0.016
Non-Truck	0.928	0.004	0.890

```
=====
```

```
=====
```

Road Type:	Major/Collector
Silt Loading Factor:	CARB 0.032 g/m2
Precipitation Correction:	None P = NA N = NA

```
=====
```

```
=====
```

Road Length:	0.1 miles
Volume:	74 vehicles per hour
Number of Hours:	24 hours
VMT:	177.6 miles

VMT Distribution by Speed Bin (mph):

<= 5 mph	0.00%
10 mph	0.00%
15 mph	0.00%
20 mph	0.00%
25 mph	0.00%
30 mph	0.00%
35 mph	0.00%
40 mph	0.00%
45 mph	0.00%
50 mph	0.00%
55 mph	100.00%
60 mph	0.00%
65 mph	0.00%
70 mph	0.00%
75 mph	0.00%

```
=====
```

Summary of Emissions

Dust	Total	Running Exhaust Total	Running Loss Total	Tire Wear	Brake Wear	Road
(grams)	Pollutant Name (grams)	(grams) (pounds)	(grams) (US tons)	(grams)	(grams)	
3.3	PM2.5	0.1	-	0.4	0.5	
	4.3	0.010	< 0.001			
	PM10	0.1	-	1.6	1.4	
22.1	25.2	0.056	< 0.001			
	NOx	5.9	-	-	-	

-	5.9	0.013	< 0.001		
	CO	65.0	-	-	-
-	65.0	0.143	< 0.001		
	ROG	0.8	2.5	-	-
-	3.3	0.007	< 0.001		
	CO2	41,560.5	-	-	-
-	41,560.5	91.625	0.046		
	N2O	1.4	-	-	-
-	1.4	0.003	< 0.001		
	CH4	0.3	-	-	-
-	0.3	< 0.001	< 0.001		
	BC	< 0.1	-	-	-
-	< 0.1	< 0.001	< 0.001		
	HFC	-	< 0.1	-	-
-	< 0.1	< 0.001	< 0.001		

=====

Summary of GHG Emissions

Pollutant Name	Emissions (metric tons)	CO2e (metric tons)
CO2	0.042	0.042
N2O	< 0.001	< 0.001
CH4	< 0.001	< 0.001
BC	< 0.001	< 0.001
HFC	< 0.001	< 0.001
Total CO2e	-	0.042

=====

Summary of Consumptions

Gasoline	4.292	gallons
Diesel	0.587	gallons
Natural Gas	0.009	diesel-equivalent gallons
Electricity	11.341	kilowatt-hours

=====END=====

File Name: Ventura (SCC) - 2050 - Annual.EM
 CT-EMFAC2021 Version: 1.0.2.0
 Run Date: 8/20/2025 10:30:01 AM
 Area: Ventura (SCC)
 Analysis Year: 2050
 Season: Annual

```
=====
```

Vehicle Category	VMT Fraction Across Category	Diesel VMT Fraction Within Category	Gas VMT Fraction Within Category
Truck 1	0.032	0.260	0.254
Truck 2	0.040	0.642	0.016
Non-Truck	0.928	0.004	0.890

```
=====
```

Road Type: Major/Collector
 Silt Loading Factor: CARB 0.032 g/m2
 Precipitation Correction: None P = NA N = NA

```
=====
```

Road Length: 1.7 miles
 Volume: 679 vehicles per hour
 Number of Hours: 24 hours
 VMT: 27703.2 miles

VMT Distribution by Speed Bin (mph):

<= 5 mph	0.00%
10 mph	0.00%
15 mph	0.00%
20 mph	0.00%
25 mph	0.00%
30 mph	0.00%
35 mph	0.00%
40 mph	0.00%
45 mph	0.00%
50 mph	0.00%
55 mph	100.00%
60 mph	0.00%
65 mph	0.00%
70 mph	0.00%
75 mph	0.00%

```
=====
```

Summary of Emissions

Dust	Total	Running Exhaust Total	Running Loss Total	Tire Wear	Brake Wear	Road
(grams)	Pollutant Name (grams)	(grams) (pounds)	(grams) (US tons)	(grams)	(grams)	
518.0	PM2.5	21.3	-	60.8	76.8	
	676.9	1.492	< 0.001			
	PM10	22.6	-	243.1	219.4	
3,453.3	3,938.3	8.683	0.004			
	NOx	916.4	-	-	-	

-	916.4	2.020	0.001		
	CO	10,146.1	-	-	-
-	10,146.1	22.368	0.011		
	ROG	130.3	389.2	-	-
-	519.5	1.145	< 0.001		
	CO2	6,482,874.1	-	-	-
-	6,482,874.1	14,292.290	7.146		
	N2O	221.7	-	-	-
-	221.7	0.489	< 0.001		
	CH4	41.4	-	-	-
-	41.4	0.091	< 0.001		
	BC	2.8	-	-	-
-	2.8	0.006	< 0.001		
	HFC	-	0.2	-	-
-	0.2	< 0.001	< 0.001		

=====

Summary of GHG Emissions

Pollutant Name	Emissions (metric tons)	CO2e (metric tons)
CO2	6.483	6.483
N2O	< 0.001	0.066
CH4	< 0.001	0.001
BC	< 0.001	0.001
HFC	< 0.001	< 0.001
Total CO2e	-	6.552

=====

Summary of Consumptions

Gasoline	669.559	gallons
Diesel	91.614	gallons
Natural Gas	1.330	diesel-equivalent gallons
Electricity	1,769.043	kilowatt-hours

=====END=====

File Name: Ventura (SCC) - 2050 - Annual.EM
 CT-EMFAC2021 Version: 1.0.2.0
 Run Date: 8/20/2025 10:30:27 AM
 Area: Ventura (SCC)
 Analysis Year: 2050
 Season: Annual

```

=====

```

Vehicle Category	VMT Fraction Across Category	Diesel VMT Fraction Within Category	Gas VMT Fraction Within Category
Truck 1	0.032	0.260	0.254
Truck 2	0.040	0.642	0.016
Non-Truck	0.928	0.004	0.890

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```

Road Type:	Major/Collector
Silt Loading Factor:	CARB 0.032 g/m2
Precipitation Correction:	None P = NA N = NA

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```

Road Length:	0.4 miles
Volume:	599 vehicles per hour
Number of Hours:	24 hours
VMT:	5750.4 miles

VMT Distribution by Speed Bin (mph):

<= 5 mph	0.00%
10 mph	0.00%
15 mph	0.00%
20 mph	0.00%
25 mph	0.00%
30 mph	0.00%
35 mph	0.00%
40 mph	0.00%
45 mph	0.00%
50 mph	0.00%
55 mph	100.00%
60 mph	0.00%
65 mph	0.00%
70 mph	0.00%
75 mph	0.00%

```

=====

```

Summary of Emissions

Dust	Total	Running Exhaust Total	Running Loss Total	Tire Wear	Brake Wear	Road
(grams)	Pollutant Name (grams)	(grams) (pounds)	(grams) (US tons)	(grams)	(grams)	
107.5	PM2.5	4.4	-	12.6	15.9	
	140.5	0.310	< 0.001			
	PM10	4.7	-	50.5	45.5	
716.8	817.5	1.802	< 0.001			
	NOx	190.2	-	-	-	

-	190.2	0.419	< 0.001		
	CO	2,106.0	-	-	-
-	2,106.0	4.643	0.002		
	ROG	27.0	80.8	-	-
-	107.8	0.238	< 0.001		
	CO2	1,345,661.1	-	-	-
-	1,345,661.1	2,966.675	1.483		
	N2O	46.0	-	-	-
-	46.0	0.101	< 0.001		
	CH4	8.6	-	-	-
-	8.6	0.019	< 0.001		
	BC	0.6	-	-	-
-	0.6	0.001	< 0.001		
	HFC	-	< 0.1	-	-
-	< 0.1	< 0.001	< 0.001		

=====

Summary of GHG Emissions

Pollutant Name	Emissions (metric tons)	CO2e (metric tons)
CO2	1.346	1.346
N2O	< 0.001	0.014
CH4	< 0.001	< 0.001
BC	< 0.001	< 0.001
HFC	< 0.001	< 0.001
Total CO2e	-	1.360

=====

Summary of Consumptions

Gasoline	138.981	gallons
Diesel	19.017	gallons
Natural Gas	0.276	diesel-equivalent gallons
Electricity	367.203	kilowatt-hours

=====END=====

File Name: Ventura (SCC) - 2050 - Annual.EM
 CT-EMFAC2021 Version: 1.0.2.0
 Run Date: 8/20/2025 10:30:54 AM
 Area: Ventura (SCC)
 Analysis Year: 2050
 Season: Annual

```
=====
```

Vehicle Category	VMT Fraction Across Category	Diesel VMT Fraction Within Category	Gas VMT Fraction Within Category
Truck 1	0.032	0.260	0.254
Truck 2	0.040	0.642	0.016
Non-Truck	0.928	0.004	0.890

```
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=====
```

Road Type:	Major/Collector
Silt Loading Factor:	CARB 0.032 g/m2
Precipitation Correction:	None P = NA N = NA

```
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=====
```

Road Length:	0.1 miles
Volume:	679 vehicles per hour
Number of Hours:	24 hours
VMT:	1629.6 miles

VMT Distribution by Speed Bin (mph):

<= 5 mph	0.00%
10 mph	0.00%
15 mph	0.00%
20 mph	0.00%
25 mph	0.00%
30 mph	0.00%
35 mph	0.00%
40 mph	0.00%
45 mph	0.00%
50 mph	0.00%
55 mph	100.00%
60 mph	0.00%
65 mph	0.00%
70 mph	0.00%
75 mph	0.00%

```
=====
```

Summary of Emissions

Dust	Total	Running Exhaust Total	Running Loss Total	Tire Wear	Brake Wear	Road
(grams)	Pollutant Name (grams)	(grams) (pounds)	(grams) (US tons)	(grams)	(grams)	
30.5	PM2.5	1.3	-	3.6	4.5	
	39.8	0.088	< 0.001			
	PM10	1.3	-	14.3	12.9	
203.1	231.7	0.511	< 0.001			
	NOx	53.9	-	-	-	

-	53.9	0.119	< 0.001		
	CO	596.8	-	-	-
-	596.8	1.316	< 0.001		
	ROG	7.7	22.9	-	-
-	30.6	0.067	< 0.001		
	CO2	381,345.5	-	-	-
-	381,345.5	840.723	0.420		
	N2O	13.0	-	-	-
-	13.0	0.029	< 0.001		
	CH4	2.4	-	-	-
-	2.4	0.005	< 0.001		
	BC	0.2	-	-	-
-	0.2	< 0.001	< 0.001		
	HFC	-	< 0.1	-	-
-	< 0.1	< 0.001	< 0.001		

=====

Summary of GHG Emissions

Pollutant Name	Emissions (metric tons)	CO2e (metric tons)
CO2	0.381	0.381
N2O	< 0.001	0.004
CH4	< 0.001	< 0.001
BC	< 0.001	< 0.001
HFC	< 0.001	< 0.001
Total CO2e	-	0.385

=====

Summary of Consumptions

Gasoline	39.386	gallons
Diesel	5.389	gallons
Natural Gas	0.078	diesel-equivalent gallons
Electricity	104.061	kilowatt-hours

=====END=====

File Name: Ventura (SCC) - 2050 - Annual.EM
 CT-EMFAC2021 Version: 1.0.2.0
 Run Date: 8/22/2025 8:41:21 AM
 Area: Ventura (SCC)
 Analysis Year: 2050
 Season: Annual

```

=====

```

Vehicle Category	VMT Fraction Across Category	Diesel VMT Fraction Within Category	Gas VMT Fraction Within Category
Truck 1	0.029	0.260	0.254
Truck 2	0.037	0.642	0.016
Non-Truck	0.934	0.004	0.890

```

=====

```

Road Type:	Major/Collector
Silt Loading Factor:	CARB 0.032 g/m2
Precipitation Correction:	None P = NA N = NA

```

=====

```

Road Length:	0.1 miles
Volume:	364 vehicles per hour
Number of Hours:	24 hours
VMT:	873.6 miles

VMT Distribution by Speed Bin (mph):

<= 5 mph	0.00%
10 mph	0.00%
15 mph	0.00%
20 mph	0.00%
25 mph	0.00%
30 mph	0.00%
35 mph	0.00%
40 mph	0.00%
45 mph	0.00%
50 mph	0.00%
55 mph	100.00%
60 mph	0.00%
65 mph	0.00%
70 mph	0.00%
75 mph	0.00%

```

=====

```

Summary of Emissions

Dust	Total	Running Exhaust Total	Running Loss Total	Tire Wear	Brake Wear	Road
(grams)	Pollutant Name (grams)	(grams) (pounds)	(grams) (US tons)	(grams)	(grams)	
16.0	PM2.5	0.6	-	1.9	2.3	
	20.9	0.046	< 0.001			
	PM10	0.7	-	7.6	6.6	
106.6	121.5	0.268	< 0.001			
	NOx	28.0	-	-	-	

-	28.0	0.062	< 0.001		
	CO	321.5	-	-	-
-	321.5	0.709	< 0.001		
	ROG	4.1	12.3	-	-
-	16.4	0.036	< 0.001		
	CO2	203,096.8	-	-	-
-	203,096.8	447.752	0.224		
	N2O	6.7	-	-	-
-	6.7	0.015	< 0.001		
	CH4	1.3	-	-	-
-	1.3	0.003	< 0.001		
	BC	< 0.1	-	-	-
-	< 0.1	< 0.001	< 0.001		
	HFC	-	< 0.1	-	-
-	< 0.1	< 0.001	< 0.001		

=====

Summary of GHG Emissions

Pollutant Name	Emissions (metric tons)	CO2e (metric tons)
CO2	0.203	0.203
N2O	< 0.001	0.002
CH4	< 0.001	< 0.001
BC	< 0.001	< 0.001
HFC	< 0.001	< 0.001
Total CO2e	-	0.205

=====

Summary of Consumptions

Gasoline	21.209	gallons
Diesel	2.677	gallons
Natural Gas	0.039	diesel-equivalent gallons
Electricity	54.102	kilowatt-hours

=====END=====