

City of Banning
Sun Lakes Boulevard Extension Project

Appendix A

Technical Memorandum

To: Art Vela, City of Banning

From: Eliza Laws, Senior Environmental Analyst
 Noemi Avila, Assistant Environmental Analyst

Date: November 2, 2021

Re: Air Quality/Greenhouse Gas Analysis for Sun Lakes Boulevard Extension Project in the City of Banning, County of Riverside, California

The following air quality assessment was prepared to evaluate whether the expected criteria air pollutant emissions generated as a result of construction and operation of the proposed Project would cause exceedances of the South Coast Air Quality Management District (SCAQMD) thresholds for air quality in the Project area. The greenhouse gas (GHG) assessment was prepared to evaluate whether the expected GHG emissions generated as a result of construction and operation of the proposed Project would exceed the SCAQMD draft screening significance thresholds. This assessment was conducted within the context of the California Environmental Quality Act (CEQA, California Public Resources Code Sections 21000 *et seq.*). The methodology follows the *CEQA Air Quality Handbook* prepared by the SCAQMD for quantification of emissions and evaluation of potential impacts to air resources. As recommended by SCAQMD staff, the **California Emissions Estimator Model**[®] version 2020.4.0 (CalEEMod) was used to quantify Project-related emissions.

The proposed Sun Lakes Boulevard Extension Project (Project) will improve the existing Sun Lakes Boulevard, an unpaved road running in an east-west direction between the intersections of South Highland Home Road to the west and Sunset Avenue to the east, in the City of Banning. The Project alignment is approximately one mile long, and the existing right-of-way is 110-feet wide. The Project will be constructed with 4-lanes (two lanes in each direction), 8-foot bike lanes, 8-foot sidewalks, associated road striping, street light improvements, two traffic signals, intersection improvements, and existing power pole relocation. The Project also proposes drainage improvements that are consistent with the City's Master Drainage Plan (MDP). The total construction footprint, inclusive of drainage improvements, proposed right-of-way, temporary grading, and staging area is approximately 23 acres.

■ Regional Significance Thresholds

The thresholds contained in the *SCAQMD CEQA Air Quality Handbook*¹ (SCAQMD 1993) are considered regional thresholds and are shown in **Table 1 – SCAQMD CEQA Daily Regional Significance Thresholds**, below. These regional thresholds were developed based on the SCAQMD's treatment of a major stationary source.

¹ South Coast Air Quality Management District, *CEQA Air Quality Handbook*, November 1993. (Available at SCAQMD.)

Table 1 – SCAQMD CEQA Daily Regional Significance Thresholds

Emission Threshold	Units	VOC	NO_x	CO	SO_x	PM-10	PM-2.5
Construction	lbs/day	75	100	550	150	150	55
Operation ¹	lbs/day	55	55	550	150	150	55

Air quality impacts can be described in a short- and long-term perspective. Short-term impacts occur during site grading and Project construction and consist of fugitive dust and other particulate matter, as well as exhaust emissions generated by construction-related vehicles. Long-term impacts occur once the Project is in operation. Operational emissions would primarily be from infrequent visits by vehicles driven by maintenance personnel and are considered negligible; therefore, only short-term impacts were quantified.

The Project will be required to comply with existing SCAQMD rules for the reduction of fugitive dust emissions. SCAQMD Rule 403 establishes these procedures. Compliance with this rule is achieved through application of standard best management practices in construction and operation activities, such as application of water or chemical stabilizers to disturbed soils, managing haul road dust by application of water, covering haul vehicles, restricting vehicle speeds on unpaved roads to 15 mph, sweeping loose dirt from paved site access roadways, cessation of construction activity when winds exceed 25 mph and establishing a permanent, stabilizing ground cover on finished sites. In addition, projects that disturb 50 or more acres or more of soil or move 5,000 cubic yards of materials per day are required to submit a Fugitive Dust Control Plan or a Large Operation Notification Form to SCAQMD. Based on the size of this Project's disturbance area (approximately 23.47 acres) a Fugitive Dust Control Plan or a Large Operation Notification Form would not be required.

Short-Term Analysis

Short-term emissions from Project construction were evaluated using the CalEEMod version 2020.4.0 program. The estimated construction period for the proposed Project is approximately 18 to 24 months, beginning no sooner than February 2023. A duration of 24 months was evaluated to provide a worst-case analysis. The default parameters within CalEEMod were used and these default values reflect a worst-case scenario, which means that Project emissions are expected to be equal to or less than the estimated emissions. In addition to the default values used, assumptions relevant to model inputs for short-term construction emission estimates used are:

- Construction is anticipated to begin in February 2023, which will include construction activities such as utility relocation, installation of drainage improvements, roadway improvements, and traffic signal installation and paving. Because the schedule is unknown, the grading and paving activities were assumed to occur concurrently throughout the estimated construction duration to provide a conservative analysis. The estimated construction schedule is shown below:

Construction Activity	Start Date	End Date	Total Working Days
Grading	February 01, 2023	January 31, 2025	523
Paving	February 01, 2023	January 31, 2025	523

- The off-road equipment to be used for each activity is shown below and represents program defaults. Each piece of equipment is assumed to operate 8 hours per day:

Construction Activity	Off-Road Equipment	Unit Amount
Grading	Excavators	2
	Grader	1
	Rubber Tired Dozer	1
	Tractors/Loaders/Backhoes	2
	Scrapers	2
Paving	Pavers	2
	Paving Equipment	2
	Rollers	2

- To evaluate Project compliance with SCAQMD Rule 403 for fugitive dust control, the Project utilized the mitigation option of watering the Project site three times daily which achieves a control efficiency of 61 percent for PM-10 and PM-2.5 emissions. Two (2) one-way vendor trips per day were added to the grading and paving activity to account for water truck trips.
- Eight (8) one-way hauling truck trips per day were included during paving to account for material delivery.
- Approximately 98,180 cubic yards of soil import is required for the Project. The import site is currently unknown. Therefore, the CalEEMod default was utilized with assumes a hauling trip length of 20 miles per trip. Based on the CalEEMod default truck capacity of 16 cubic yards, approximately 6,136 truckloads of soil would be imported.

The results of this analysis are summarized below.

Table 2 – Estimated Maximum Daily Construction Emissions

Activity	Peak Daily Emissions (lb/day)					
	VOC	NO _x	CO	SO ₂	PM-10	PM-2.5
SCAQMD Daily Construction Thresholds	75	100	550	150	150	55
Grading 2023	3.45	37.11	29.45	0.08	5.70	2.94
Grading 2024	3.34	34.98	29.09	0.08	5.61	2.86
Grading 2025	3.02	30.52	27.65	0.08	5.41	2.67
Paving 2023	1.16	11.14	15.38	0.03	0.84	0.57
Paving 2024	1.11	10.47	15.39	0.03	0.80	0.53
Paving 2025	1.03	9.52	15.31	0.03	0.75	0.48
Maximum¹	4.61	48.25	44.83	0.11	6.54	3.51
Exceeds Threshold?	No	No	No	No	No	No

Note: ¹ Maximum emissions are either the greater of grading and paving in 2023, 2024, or 2025 as these activities overlap. Maximum emissions are shown in bold.

As shown in the table above, the emissions from construction of the Project are below the SCAQMD daily construction thresholds for all the criteria pollutants.

■ Localized Significance Threshold Analysis

Background

As part of the SCAQMD's environmental justice program, attention has been focused on localized effects of air quality. Staff at SCAQMD has developed localized significance threshold (LST) methodology² that can be used by public agencies to determine whether or not a project may generate significant adverse localized air quality impacts (both short- and long-term) to sensitive receptors. SCAQMD considers a sensitive receptor to be a location where a sensitive individual could remain for 24 hours, such as residences, hospitals, or convalescent facilities. LSTs represent the maximum emissions from a project that will not cause or contribute to an exceedance of the state ambient air quality standard, and are developed based on the ambient concentrations of that pollutant for each source receptor area (SRA). The Project site is located in SRA 29.

Short-Term Analysis

According to the LST methodology, only on-site emissions need to be analyzed. Emissions associated with vendor and worker trips are mobile source emissions that occur off site. The emissions analyzed under the LST methodology are NO₂, CO, PM-10, and PM-2.5. SCAQMD has provided LST lookup tables³ to allow users to readily determine if the daily emissions for proposed construction or operational activities could result in significant localized air quality impacts for projects five acres or smaller. The Project's total disturbance area is approximately 23.47 acres. However, based on SCAQMD guidance, the daily disturbance area is approximately 3 acres.⁴ Therefore, the two-acre LST Look-Up Table was compared with the on-site emissions estimated by CalEEMod to provide a conservative analysis.

The LST thresholds are estimated using the maximum daily disturbed area (in acres) and the distance of the Project to the nearest sensitive receptors (in meters). The closest sensitive receptors are residential houses adjacent to each end of the Project alignment. The closest receptor distance on the LST look-up tables is 25 meters. According to LST methodology, projects with boundaries closer than 25 meters to the nearest receptor should use the LSTs for receptors located at 25 meters. Therefore, a receptor distance of 25 meters (82 feet) was used to ensure a conservative analysis. The results are summarized below.

Table 3 – LST Results for Daily Construction Emissions

Activity	Peak Daily Emissions (lb/day)			
	NO _x	CO	PM-10	PM-2.5
LST for 2 acres at 25 meters	149	1,541	10	6
Grading 2023	34.52	28.05	5.02	2.74
Grading 2024	32.38	27.72	4.93	2.65
Grading 2025	27.94	26.33	4.73	2.47
Paving 2023	10.19	14.58	0.51	0.47
Paving 2024	9.52	14.63	0.47	0.43
Paving 2025	8.58	14.58	0.42	0.39

² South Coast Air Quality Management District, *Final Localized Significance Threshold Methodology*, Revised July 2008. (Available at <http://www.aqmd.gov/home/regulations/ceqa/air-quality-analysis-handbook/localized-significance-thresholds>, accessed November 2, 2021.)

³ <http://www.aqmd.gov/home/regulations/ceqa/air-quality-analysis-handbook/localized-significance-thresholds>

⁴ <http://www.aqmd.gov/docs/default-source/ceqa/handbook/localized-significance-thresholds/caleemod-guidance.pdf?sfvrsn=2>

Activity	Peak Daily Emissions (lb/day)			
	NO _x	CO	PM-10	PM-2.5
Maximum ¹	44.71	42.63	5.53	3.21
Exceeds Threshold?	No	No	No	No

Note: ¹ Maximum emissions are either the greater of grading and paving in 2023, 2024, or 2025 as these activities overlap. Maximum emissions are shown in bold.

Emissions from construction of the Project will be below the LST established by SCAQMD for the Project.

Long-Term Analysis

This Project involves the construction of roadway and drainage improvements. According to SCAQMD LST methodology, LSTs would apply to the operational phase of a project, if the project includes stationary sources (e.g., flares and turbines) and/or on-site mobile equipment or attracts mobile sources that may spend long periods of time idling at the site, such as warehouse/transfer facilities. The proposed Project does not include such uses. Therefore, due to the lack of stationary source emissions or on-site mobile equipment, no long-term LST analysis is needed.

Greenhouse Gas Analysis

Greenhouse gases (GHG) are not presented in lbs/day like criteria pollutants; they are typically evaluated on an annual basis using the metric system. Additionally, unlike the criteria pollutants, GHG do not have adopted significance thresholds associated with them at this time. Several agencies, at various levels, have proposed draft GHG significance thresholds for use in CEQA documents. SCAQMD has been working on GHG thresholds for development projects. The most recent draft proposal was in September 2010⁵ and included significance thresholds for residential, commercial, and mixed-use projects at 3,500, 1,400, and 3,000 metric tonnes per year of carbon dioxide equivalents (MTCO₂E/yr), respectively. Alternatively, a lead agency has the option to use 3,000 MTCO₂E/yr as a threshold for all non-industrial projects. Although both options are recommended by SCAQMD, a lead agency is advised to use only one option and to use it consistently. In December 2008, the SCAQMD adopted a threshold of 10,000 MTCO₂E/yr for stationary source projects where SCAQMD is the lead agency. The SCAQMD significance thresholds evaluate construction emissions by amortizing them over an expected project life of 30 years. The analysis herein uses the threshold of 3,000 MTCO₂E/yr.

The CalEEMod output results for construction-related GHG emissions present the GHG emissions estimates for the Project for CO₂, methane (CH₄), nitrous oxide (N₂O), and CO₂E.⁶

Short-Term Analysis

Construction-Related Emissions

The CalEEMod model calculates GHG emissions from fuel usage by construction equipment and construction-related activities, like construction worker trips, for the Project. The CalEEMod estimate does not analyze emissions from construction-related electricity or natural gas. Construction-related electricity and natural gas emissions vary based on the amount of electric power used during construction and other unknown factors which make them too speculative to quantify.

⁵ [http://www.aqmd.gov/docs/default-source/ceqa/handbook/greenhouse-gases-\(ghg\)-ceqa-significance-thresholds/year-2008-2009/ghg-meeting-15/ghg-meeting-15-main-presentation.pdf?sfvrsn=2](http://www.aqmd.gov/docs/default-source/ceqa/handbook/greenhouse-gases-(ghg)-ceqa-significance-thresholds/year-2008-2009/ghg-meeting-15/ghg-meeting-15-main-presentation.pdf?sfvrsn=2)

⁶ CO₂E is the sum of CO₂ emissions estimated plus the sum of CH₄ and N₂O emissions estimated multiplied by their respective global warming potential (GWP).

Table 4 – Project Construction Equipment GHG Emissions

Year	Metric Tons per year (MT/yr)			
	Total CO ₂	Total CH ₄	Total N ₂ O	Total CO ₂ E
2023	1,129.57	0.29	0.03	1,146.84
2024	1,238.34	0.32	0.04	1,257.15
2023	108.18	0.03	0.00	109.81
Total	2,476.09	0.64	0.07	2,513.80
Amortized ¹				83.79

Note: ¹ Construction emissions were amortized over a 30-year period, as recommended by SCAQMD.

Evaluation of the table above indicates that an estimated 2,513.80 MTCO₂E will occur from Project construction equipment over the course of the estimated construction period. The draft SCAQMD GHG threshold guidance document released in October 2008⁷ recommends that construction emissions be amortized for a project lifetime of 30 years to ensure that GHG reduction measures address construction GHG emissions as part of the operational reduction strategies. Therefore, the total GHG emissions from Project construction were amortized and are included in **Table 5**, below.

Long-Term Analysis

Energy-Related Emissions

CalEEMod estimates the GHG emissions associated with building electricity and natural gas usage for each land use type. Electricity and natural gas used in buildings is typically generated at an off-site power plant which indirectly generates GHG emissions. The indirect GHG emissions from the proposed street lighting were estimated in CalEEMod using the default electricity rate for parking lot lighting. Utility-specific carbon intensity information from the City of Banning Electric Utility was used.⁸ **Table 5** summarizes the Project's annual electricity emissions, which were reported as 21.87 MTCO₂E per year.

Total Project GHG Emissions

As shown on **Table 5 – Total Project-Related GHG Emissions**, using the emissions quantified above, the total GHG emissions generated from the Project is approximately 105.66 MTCO₂E/yr which includes construction-related emissions amortized over a typical project life of 30 years.

Table 5 – Total Project-Related GHG Emissions

Source	Metric Tons per year (MT/yr)			
	CO ₂	CH ₄	N ₂ O	Total CO ₂ E
Amortized Construction	--	--	--	83.79
Energy	21.73	0.00	0.00	21.87
Total	21.73	0.00	0.00	105.66

Note: Emissions reported as zero are rounded and not necessarily equal to zero.

The total GHG emissions from the Project do not exceed the SCAQMD threshold of level of 3,000 MTCO₂E/yr for non-industrial projects. Due to the estimated amount of emissions from Project construction and the proposed street light electricity usage as well as the negligible operational emissions from infrequent maintenance vehicles, the proposed Project will not generate GHG emissions that exceed the screening threshold.

⁷ [http://www.aqmd.gov/docs/default-source/ceqa/handbook/greenhouse-gases-\(ghg\)-ceqa-significance-thresholds/year-2008-2009/ghg-meeting-6/ghg-meeting-6-guidance-document-discussion.pdf?sfvrsn=2](http://www.aqmd.gov/docs/default-source/ceqa/handbook/greenhouse-gases-(ghg)-ceqa-significance-thresholds/year-2008-2009/ghg-meeting-6/ghg-meeting-6-guidance-document-discussion.pdf?sfvrsn=2)

⁸ The total GHG intensity factor (in CO₂E) was obtained from the 2020 Power Content Label, available at http://www.banning.ca.us/DocumentCenter/View/224/PowerContentLabel_2015_Annual?bidId=. The individual intensity factor for CO₂, CH₄, and N₂O was derived based on data in the CalEEMod User's Guide.

▪ **Conclusion**

The conclusion of this analysis indicates that construction and operation of the proposed Project will not exceed criteria pollutant thresholds established by SCAQMD on a regional or localized level. The Project will also not exceed the SCAQMD screening threshold. No mitigation is required.

Should you have any questions, please contact me at (951) 686-1070.

CALEEMOD OUTPUT FILES

Sunlakes Boulevard - Riverside-South Coast County, Summer

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

Sunlakes Boulevard
Riverside-South Coast County, Summer

1.0 Project Characteristics**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Asphalt Surfaces	440.15	1000sqft	10.10	440,152.00	0
Other Non-Asphalt Surfaces	582.36	1000sqft	13.37	582,364.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.4	Precipitation Freq (Days)	28
Climate Zone	10			Operational Year	2025
Utility Company	User Defined				
CO2 Intensity (lb/MWhr)	310.98	CH4 Intensity (lb/MWhr)	0.033	N2O Intensity (lb/MWhr)	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - City of Banning Electric Co.

Land Use - Per Project Engineers

Construction Phase - Per Project Engineers

Trips and VMT - 2 daily water truck trips added as vendor trips for grading and paving phases. 8 hauling truck trips per day were added to paving.

Grading - Per Project Engineers

Energy Use - Account for street lighting.

Construction Off-road Equipment Mitigation - Per Rule 403

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	35.00	523.00

Sunlakes Boulevard - Riverside-South Coast County, Summer

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

tblConstructionPhase	NumDays	20.00	523.00
tblEnergyUse	LightingElect	0.00	0.35
tblGrading	MaterialImported	0.00	98,180.00
tblLandUse	LandUseSquareFeet	440,150.00	440,152.00
tblLandUse	LandUseSquareFeet	582,360.00	582,364.00
tblProjectCharacteristics	CH4IntensityFactor	0	0.033
tblProjectCharacteristics	CO2IntensityFactor	0	310.98
tblProjectCharacteristics	N2OIntensityFactor	0	0.004
tblTripsAndVMT	HaulingTripNumber	0.00	4,184.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00

2.0 Emissions Summary

Sunlakes Boulevard - Riverside-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**2.1 Overall Construction (Maximum Daily Emission)****Unmitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2023	4.6062	48.0593	44.8338	0.1063	10.1949	1.9756	12.1705	3.9195	1.8190	5.7384	0.0000	10,487.42 23	10,487.42 23	2.6932	0.3101	10,647.16 62
2024	4.4491	45.2538	44.4725	0.1059	10.1949	1.8445	12.0394	3.9195	1.6984	5.6178	0.0000	10,443.27 76	10,443.27 76	2.6934	0.3047	10,601.39 89
2025	4.0512	39.8379	42.9546	0.1054	10.1949	1.5898	11.7847	3.9195	1.4641	5.3835	0.0000	10,391.95 99	10,391.95 99	2.6935	0.2983	10,548.18 45
Maximum	4.6062	48.0593	44.8338	0.1063	10.1949	1.9756	12.1705	3.9195	1.8190	5.7384	0.0000	10,487.42 23	10,487.42 23	2.6935	0.3101	10,647.16 62

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2023	4.6062	48.0593	44.8338	0.1063	4.5662	1.9756	6.5418	1.6885	1.8190	3.5075	0.0000	10,487.42 23	10,487.42 23	2.6932	0.3101	10,647.16 61
2024	4.4491	45.2538	44.4725	0.1059	4.5662	1.8445	6.4107	1.6885	1.6984	3.3868	0.0000	10,443.27 76	10,443.27 76	2.6934	0.3047	10,601.39 88
2025	4.0512	39.8379	42.9546	0.1054	4.5662	1.5898	6.1560	1.6885	1.4641	3.1526	0.0000	10,391.95 99	10,391.95 99	2.6935	0.2983	10,548.18 44
Maximum	4.6062	48.0593	44.8338	0.1063	4.5662	1.9756	6.5418	1.6885	1.8190	3.5075	0.0000	10,487.42 23	10,487.42 23	2.6935	0.3101	10,647.16 61

Sunlakes Boulevard - Riverside-South Coast County, Summer

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	55.21	0.00	46.91	56.92	0.00	39.98	0.00	0.00	0.00	0.00	0.00	0.00

Sunlakes Boulevard - Riverside-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**2.2 Overall Operational****Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.4497	9.4000e-004	0.1041	1.0000e-005		3.7000e-004	3.7000e-004		3.7000e-004	3.7000e-004		0.2238	0.2238	5.8000e-004		0.2383
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.4497	9.4000e-004	0.1041	1.0000e-005	0.0000	3.7000e-004	3.7000e-004	0.0000	3.7000e-004	3.7000e-004		0.2238	0.2238	5.8000e-004	0.0000	0.2383

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.4497	9.4000e-004	0.1041	1.0000e-005		3.7000e-004	3.7000e-004		3.7000e-004	3.7000e-004		0.2238	0.2238	5.8000e-004		0.2383
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.4497	9.4000e-004	0.1041	1.0000e-005	0.0000	3.7000e-004	3.7000e-004	0.0000	3.7000e-004	3.7000e-004		0.2238	0.2238	5.8000e-004	0.0000	0.2383

Sunlakes Boulevard - Riverside-South Coast County, Summer

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Grading	Grading	2/1/2023	1/31/2025	5	523	
2	Paving	Paving	2/1/2023	1/31/2025	5	523	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 1569

Acres of Paving: 23.47

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38

Trips and VMT

Sunlakes Boulevard - Riverside-South Coast County, Summer

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

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Grading	8	20.00	2.00	12,273.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	2.00	4,184.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 Grading - 2023**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.2274	0.0000	9.2274	3.6574	0.0000	3.6574			0.0000			0.0000
Off-Road	3.3217	34.5156	28.0512	0.0621		1.4245	1.4245		1.3105	1.3105		6,011.4777	6,011.4777	1.9442		6,060.0836
Total	3.3217	34.5156	28.0512	0.0621	9.2274	1.4245	10.6519	3.6574	1.3105	4.9679		6,011.4777	6,011.4777	1.9442		6,060.0836

Sunlakes Boulevard - Riverside-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**3.2 Grading - 2023****Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0514	2.3435	0.6444	0.0129	0.4107	0.0283	0.4390	0.1126	0.0271	0.1397		1,377.006 4	1,377.006 4	0.0195	0.2170	1,442.154 9
Vendor	2.2500e-003	0.0653	0.0269	3.5000e-004	0.0128	5.7000e-004	0.0134	3.6900e-003	5.4000e-004	4.2300e-003		37.0542	37.0542	3.8000e-004	5.4800e-003	38.6954
Worker	0.0730	0.0451	0.7317	1.9700e-003	0.2236	1.0500e-003	0.2246	0.0593	9.6000e-004	0.0603		198.7481	198.7481	4.5900e-003	4.6900e-003	200.2612
Total	0.1266	2.4539	1.4031	0.0152	0.6471	0.0299	0.6770	0.1756	0.0286	0.2041		1,612.808 7	1,612.808 7	0.0245	0.2272	1,681.111 4

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.5987	0.0000	3.5987	1.4264	0.0000	1.4264			0.0000			0.0000
Off-Road	3.3217	34.5156	28.0512	0.0621		1.4245	1.4245		1.3105	1.3105	0.0000	6,011.477 7	6,011.477 7	1.9442		6,060.083 6
Total	3.3217	34.5156	28.0512	0.0621	3.5987	1.4245	5.0232	1.4264	1.3105	2.7369	0.0000	6,011.477 7	6,011.477 7	1.9442		6,060.083 6

Sunlakes Boulevard - Riverside-South Coast County, Summer

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

3.2 Grading - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0514	2.3435	0.6444	0.0129	0.4107	0.0283	0.4390	0.1126	0.0271	0.1397		1,377.006 4	1,377.006 4	0.0195	0.2170	1,442.154 9
Vendor	2.2500e-003	0.0653	0.0269	3.5000e-004	0.0128	5.7000e-004	0.0134	3.6900e-003	5.4000e-004	4.2300e-003		37.0542	37.0542	3.8000e-004	5.4800e-003	38.6954
Worker	0.0730	0.0451	0.7317	1.9700e-003	0.2236	1.0500e-003	0.2246	0.0593	9.6000e-004	0.0603		198.7481	198.7481	4.5900e-003	4.6900e-003	200.2612
Total	0.1266	2.4539	1.4031	0.0152	0.6471	0.0299	0.6770	0.1756	0.0286	0.2041		1,612.808 7	1,612.808 7	0.0245	0.2272	1,681.111 4

3.2 Grading - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.2274	0.0000	9.2274	3.6574	0.0000	3.6574			0.0000			0.0000
Off-Road	3.2181	32.3770	27.7228	0.0621		1.3354	1.3354		1.2286	1.2286		6,009.748 7	6,009.748 7	1.9437		6,058.340 5
Total	3.2181	32.3770	27.7228	0.0621	9.2274	1.3354	10.5628	3.6574	1.2286	4.8859		6,009.748 7	6,009.748 7	1.9437		6,058.340 5

Sunlakes Boulevard - Riverside-South Coast County, Summer

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

3.2 Grading - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0512	2.3501	0.6516	0.0127	0.4107	0.0281	0.4388	0.1126	0.0269	0.1395		1,354.5106	1,354.5106	0.0206	0.2135	1,418.6440
Vendor	2.2200e-003	0.0654	0.0266	3.4000e-004	0.0128	5.7000e-004	0.0134	3.6900e-003	5.4000e-004	4.2300e-003		36.4831	36.4831	3.9000e-004	5.3800e-003	38.0970
Worker	0.0681	0.0402	0.6840	1.9000e-003	0.2236	1.0000e-003	0.2246	0.0593	9.2000e-004	0.0602		192.4214	192.4214	4.1600e-003	4.3600e-003	193.8244
Total	0.1215	2.4556	1.3622	0.0149	0.6471	0.0297	0.6767	0.1756	0.0284	0.2039		1,583.4151	1,583.4151	0.0252	0.2232	1,650.5654

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.5987	0.0000	3.5987	1.4264	0.0000	1.4264			0.0000			0.0000
Off-Road	3.2181	32.3770	27.7228	0.0621		1.3354	1.3354		1.2286	1.2286	0.0000	6,009.7487	6,009.7487	1.9437		6,058.3405
Total	3.2181	32.3770	27.7228	0.0621	3.5987	1.3354	4.9341	1.4264	1.2286	2.6549	0.0000	6,009.7487	6,009.7487	1.9437		6,058.3405

Sunlakes Boulevard - Riverside-South Coast County, Summer

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

3.2 Grading - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0512	2.3501	0.6516	0.0127	0.4107	0.0281	0.4388	0.1126	0.0269	0.1395		1,354.5106	1,354.5106	0.0206	0.2135	1,418.6440
Vendor	2.2200e-003	0.0654	0.0266	3.4000e-004	0.0128	5.7000e-004	0.0134	3.6900e-003	5.4000e-004	4.2300e-003		36.4831	36.4831	3.9000e-004	5.3800e-003	38.0970
Worker	0.0681	0.0402	0.6840	1.9000e-003	0.2236	1.0000e-003	0.2246	0.0593	9.2000e-004	0.0602		192.4214	192.4214	4.1600e-003	4.3600e-003	193.8244
Total	0.1215	2.4556	1.3622	0.0149	0.6471	0.0297	0.6767	0.1756	0.0284	0.2039		1,583.4151	1,583.4151	0.0252	0.2232	1,650.5654

3.2 Grading - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.2274	0.0000	9.2274	3.6574	0.0000	3.6574			0.0000			0.0000
Off-Road	2.9012	27.9429	26.3311	0.0621		1.1309	1.1309		1.0404	1.0404		6,008.2814	6,008.2814	1.9432		6,056.8614
Total	2.9012	27.9429	26.3311	0.0621	9.2274	1.1309	10.3583	3.6574	1.0404	4.6978		6,008.2814	6,008.2814	1.9432		6,056.8614

Sunlakes Boulevard - Riverside-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**3.2 Grading - 2025****Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0511	2.3273	0.6561	0.0124	0.4107	0.0281	0.4388	0.1126	0.0269	0.1394		1,327.4550	1,327.4550	0.0218	0.2093	1,390.3605
Vendor	2.1900e-003	0.0648	0.0263	3.4000e-004	0.0128	5.7000e-004	0.0134	3.6900e-003	5.4000e-004	4.2300e-003		35.8400	35.8400	4.1000e-004	5.2800e-003	37.4229
Worker	0.0636	0.0360	0.6361	1.8400e-003	0.2236	9.5000e-004	0.2245	0.0593	8.7000e-004	0.0602		185.8596	185.8596	3.7500e-003	4.0700e-003	187.1656
Total	0.1169	2.4282	1.3185	0.0146	0.6470	0.0296	0.6766	0.1756	0.0283	0.2038		1,549.1547	1,549.1547	0.0259	0.2186	1,614.9490

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.5987	0.0000	3.5987	1.4264	0.0000	1.4264			0.0000			0.0000
Off-Road	2.9012	27.9429	26.3311	0.0621		1.1309	1.1309		1.0404	1.0404	0.0000	6,008.2814	6,008.2814	1.9432		6,056.8614
Total	2.9012	27.9429	26.3311	0.0621	3.5987	1.1309	4.7296	1.4264	1.0404	2.4668	0.0000	6,008.2814	6,008.2814	1.9432		6,056.8614

Sunlakes Boulevard - Riverside-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**3.2 Grading - 2025****Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0511	2.3273	0.6561	0.0124	0.4107	0.0281	0.4388	0.1126	0.0269	0.1394		1,327.455 0	1,327.455 0	0.0218	0.2093	1,390.360 5
Vendor	2.1900e-003	0.0648	0.0263	3.4000e-004	0.0128	5.7000e-004	0.0134	3.6900e-003	5.4000e-004	4.2300e-003		35.8400	35.8400	4.1000e-004	5.2800e-003	37.4229
Worker	0.0636	0.0360	0.6361	1.8400e-003	0.2236	9.5000e-004	0.2245	0.0593	8.7000e-004	0.0602		185.8596	185.8596	3.7500e-003	4.0700e-003	187.1656
Total	0.1169	2.4282	1.3185	0.0146	0.6470	0.0296	0.6766	0.1756	0.0283	0.2038		1,549.154 7	1,549.154 7	0.0259	0.2186	1,614.949 0

3.3 Paving - 2023**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694		2,207.584 1	2,207.584 1	0.7140		2,225.433 6
Paving	0.0506					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	1.0833	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694		2,207.584 1	2,207.584 1	0.7140		2,225.433 6

Sunlakes Boulevard - Riverside-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**3.3 Paving - 2023****Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0175	0.7989	0.2197	4.4000e-003	0.1400	9.6400e-003	0.1497	0.0384	9.2300e-003	0.0476		469.4366	469.4366	6.6600e-003	0.0740	491.6464
Vendor	2.2500e-003	0.0653	0.0269	3.5000e-004	0.0128	5.7000e-004	0.0134	3.6900e-003	5.4000e-004	4.2300e-003		37.0542	37.0542	3.8000e-004	5.4800e-003	38.6954
Worker	0.0548	0.0338	0.5488	1.4700e-003	0.1677	7.8000e-004	0.1685	0.0445	7.2000e-004	0.0452		149.0611	149.0611	3.4500e-003	3.5200e-003	150.1959
Total	0.0745	0.8981	0.7954	6.2200e-003	0.3205	0.0110	0.3315	0.0866	0.0105	0.0970		655.5518	655.5518	0.0105	0.0830	680.5376

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694	0.0000	2,207.5841	2,207.5841	0.7140		2,225.4336
Paving	0.0506					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	1.0833	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694	0.0000	2,207.5841	2,207.5841	0.7140		2,225.4336

Sunlakes Boulevard - Riverside-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**3.3 Paving - 2023****Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0175	0.7989	0.2197	4.4000e-003	0.1400	9.6400e-003	0.1497	0.0384	9.2300e-003	0.0476		469.4366	469.4366	6.6600e-003	0.0740	491.6464
Vendor	2.2500e-003	0.0653	0.0269	3.5000e-004	0.0128	5.7000e-004	0.0134	3.6900e-003	5.4000e-004	4.2300e-003		37.0542	37.0542	3.8000e-004	5.4800e-003	38.6954
Worker	0.0548	0.0338	0.5488	1.4700e-003	0.1677	7.8000e-004	0.1685	0.0445	7.2000e-004	0.0452		149.0611	149.0611	3.4500e-003	3.5200e-003	150.1959
Total	0.0745	0.8981	0.7954	6.2200e-003	0.3205	0.0110	0.3315	0.0866	0.0105	0.0970		655.5518	655.5518	0.0105	0.0830	680.5376

3.3 Paving - 2024**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9882	9.5246	14.6258	0.0228		0.4685	0.4685		0.4310	0.4310		2,207.547 2	2,207.547 2	0.7140		2,225.396 3
Paving	0.0506					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	1.0388	9.5246	14.6258	0.0228		0.4685	0.4685		0.4310	0.4310		2,207.547 2	2,207.547 2	0.7140		2,225.396 3

Sunlakes Boulevard - Riverside-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**3.3 Paving - 2024****Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0175	0.8012	0.2221	4.3200e-003	0.1400	9.5900e-003	0.1496	0.0384	9.1700e-003	0.0476		461.7675	461.7675	7.0300e-003	0.0728	483.6312
Vendor	2.2200e-003	0.0654	0.0266	3.4000e-004	0.0128	5.7000e-004	0.0134	3.6900e-003	5.4000e-004	4.2300e-003		36.4831	36.4831	3.9000e-004	5.3800e-003	38.0970
Worker	0.0510	0.0301	0.5130	1.4300e-003	0.1677	7.5000e-004	0.1684	0.0445	6.9000e-004	0.0452		144.3160	144.3160	3.1200e-003	3.2700e-003	145.3683
Total	0.0707	0.8967	0.7617	6.0900e-003	0.3205	0.0109	0.3314	0.0865	0.0104	0.0969		642.5666	642.5666	0.0105	0.0814	667.0966

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9882	9.5246	14.6258	0.0228		0.4685	0.4685		0.4310	0.4310	0.0000	2,207.547 2	2,207.547 2	0.7140		2,225.396 3
Paving	0.0506					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	1.0388	9.5246	14.6258	0.0228		0.4685	0.4685		0.4310	0.4310	0.0000	2,207.547 2	2,207.547 2	0.7140		2,225.396 3

Sunlakes Boulevard - Riverside-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**3.3 Paving - 2024****Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0175	0.8012	0.2221	4.3200e-003	0.1400	9.5900e-003	0.1496	0.0384	9.1700e-003	0.0476		461.7675	461.7675	7.0300e-003	0.0728	483.6312
Vendor	2.2200e-003	0.0654	0.0266	3.4000e-004	0.0128	5.7000e-004	0.0134	3.6900e-003	5.4000e-004	4.2300e-003		36.4831	36.4831	3.9000e-004	5.3800e-003	38.0970
Worker	0.0510	0.0301	0.5130	1.4300e-003	0.1677	7.5000e-004	0.1684	0.0445	6.9000e-004	0.0452		144.3160	144.3160	3.1200e-003	3.2700e-003	145.3683
Total	0.0707	0.8967	0.7617	6.0900e-003	0.3205	0.0109	0.3314	0.0865	0.0104	0.0969		642.5666	642.5666	0.0105	0.0814	667.0966

3.3 Paving - 2025**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9152	8.5816	14.5780	0.0228		0.4185	0.4185		0.3850	0.3850		2,206.7452	2,206.7452	0.7137		2,224.5878
Paving	0.0506					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.9658	8.5816	14.5780	0.0228		0.4185	0.4185		0.3850	0.3850		2,206.7452	2,206.7452	0.7137		2,224.5878

Sunlakes Boulevard - Riverside-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**3.3 Paving - 2025****Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0174	0.7934	0.2237	4.2300e-003	0.1400	9.5700e-003	0.1496	0.0384	9.1600e-003	0.0475		452.5439	452.5439	7.4100e-003	0.0713	473.9891
Vendor	2.1900e-003	0.0648	0.0263	3.4000e-004	0.0128	5.7000e-004	0.0134	3.6900e-003	5.4000e-004	4.2300e-003		35.8400	35.8400	4.1000e-004	5.2800e-003	37.4229
Worker	0.0477	0.0270	0.4771	1.3800e-003	0.1677	7.1000e-004	0.1684	0.0445	6.5000e-004	0.0451		139.3947	139.3947	2.8100e-003	3.0500e-003	140.3742
Total	0.0673	0.8852	0.7271	5.9500e-003	0.3205	0.0109	0.3313	0.0865	0.0104	0.0969		627.7787	627.7787	0.0106	0.0797	651.7862

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9152	8.5816	14.5780	0.0228		0.4185	0.4185		0.3850	0.3850	0.0000	2,206.7452	2,206.7452	0.7137		2,224.5878
Paving	0.0506					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.9658	8.5816	14.5780	0.0228		0.4185	0.4185		0.3850	0.3850	0.0000	2,206.7452	2,206.7452	0.7137		2,224.5878

Sunlakes Boulevard - Riverside-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**3.3 Paving - 2025****Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0174	0.7934	0.2237	4.2300e-003	0.1400	9.5700e-003	0.1496	0.0384	9.1600e-003	0.0475		452.5439	452.5439	7.4100e-003	0.0713	473.9891
Vendor	2.1900e-003	0.0648	0.0263	3.4000e-004	0.0128	5.7000e-004	0.0134	3.6900e-003	5.4000e-004	4.2300e-003		35.8400	35.8400	4.1000e-004	5.2800e-003	37.4229
Worker	0.0477	0.0270	0.4771	1.3800e-003	0.1677	7.1000e-004	0.1684	0.0445	6.5000e-004	0.0451		139.3947	139.3947	2.8100e-003	3.0500e-003	140.3742
Total	0.0673	0.8852	0.7271	5.9500e-003	0.3205	0.0109	0.3313	0.0865	0.0104	0.0969		627.7787	627.7787	0.0106	0.0797	651.7862

4.0 Operational Detail - Mobile**4.1 Mitigation Measures Mobile**

Sunlakes Boulevard - Riverside-South Coast County, Summer

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

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

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Other Asphalt Surfaces	0.00	0.00	0.00		
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Other Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Other Non-Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Other Asphalt Surfaces	0.540541	0.056458	0.173793	0.136090	0.025268	0.007074	0.011525	0.018705	0.000610	0.000304	0.023606	0.001094	0.004932
Other Non-Asphalt Surfaces	0.540541	0.056458	0.173793	0.136090	0.025268	0.007074	0.011525	0.018705	0.000610	0.000304	0.023606	0.001094	0.004932

5.0 Energy Detail

Sunlakes Boulevard - Riverside-South Coast County, Summer

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

Historical Energy Use: N

5.1 Mitigation Measures Energy

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

5.2 Energy by Land Use - NaturalGas**Unmitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

Sunlakes Boulevard - Riverside-South Coast County, Summer

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

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.4497	9.4000e-004	0.1041	1.0000e-005		3.7000e-004	3.7000e-004		3.7000e-004	3.7000e-004		0.2238	0.2238	5.8000e-004		0.2383
Unmitigated	0.4497	9.4000e-004	0.1041	1.0000e-005		3.7000e-004	3.7000e-004		3.7000e-004	3.7000e-004		0.2238	0.2238	5.8000e-004		0.2383

Sunlakes Boulevard - Riverside-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**6.2 Area by SubCategory****Unmitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0779					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.3622					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	9.5900e-003	9.4000e-004	0.1041	1.0000e-005		3.7000e-004	3.7000e-004		3.7000e-004	3.7000e-004		0.2238	0.2238	5.8000e-004		0.2383
Total	0.4497	9.4000e-004	0.1041	1.0000e-005		3.7000e-004	3.7000e-004		3.7000e-004	3.7000e-004		0.2238	0.2238	5.8000e-004		0.2383

Sunlakes Boulevard - Riverside-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**6.2 Area by SubCategory****Mitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0779					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.3622					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	9.5900e-003	9.4000e-004	0.1041	1.0000e-005		3.7000e-004	3.7000e-004		3.7000e-004	3.7000e-004		0.2238	0.2238	5.8000e-004		0.2383
Total	0.4497	9.4000e-004	0.1041	1.0000e-005		3.7000e-004	3.7000e-004		3.7000e-004	3.7000e-004		0.2238	0.2238	5.8000e-004		0.2383

7.0 Water Detail**7.1 Mitigation Measures Water**

Sunlakes Boulevard - Riverside-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**8.0 Waste Detail**

8.1 Mitigation Measures Waste**9.0 Operational Offroad**

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

Fire Pumps and Emergency Generators

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

Boilers

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

Equipment Type	Number
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11.0 Vegetation

Sunlakes Boulevard - Riverside-South Coast County, Winter

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

Sunlakes Boulevard

Riverside-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Asphalt Surfaces	440.15	1000sqft	10.10	440,152.00	0
Other Non-Asphalt Surfaces	582.36	1000sqft	13.37	582,364.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.4	Precipitation Freq (Days)	28
Climate Zone	10			Operational Year	2025
Utility Company	User Defined				
CO2 Intensity (lb/MWhr)	310.98	CH4 Intensity (lb/MWhr)	0.033	N2O Intensity (lb/MWhr)	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - City of Banning Electric Co.

Land Use - Per Project Engineers

Construction Phase - Per Project Engineers

Trips and VMT - 2 daily water truck trips added as vendor trips for grading and paving phases. 8 hauling truck trips per day were added to paving.

Grading - Per Project Engineers

Energy Use - Account for street lighting.

Construction Off-road Equipment Mitigation - Per Rule 403

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	35.00	523.00

Sunlakes Boulevard - Riverside-South Coast County, Winter

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

tblConstructionPhase	NumDays	20.00	523.00
tblEnergyUse	LightingElect	0.00	0.35
tblGrading	MaterialImported	0.00	98,180.00
tblLandUse	LandUseSquareFeet	440,150.00	440,152.00
tblLandUse	LandUseSquareFeet	582,360.00	582,364.00
tblProjectCharacteristics	CH4IntensityFactor	0	0.033
tblProjectCharacteristics	CO2IntensityFactor	0	310.98
tblProjectCharacteristics	N2OIntensityFactor	0	0.004
tblTripsAndVMT	HaulingTripNumber	0.00	4,184.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00

2.0 Emissions Summary

Sunlakes Boulevard - Riverside-South Coast County, Winter

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

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2023	4.5923	48.2574	44.6131	0.1060	10.1949	1.9756	12.1706	3.9195	1.8190	5.7385	0.0000	10,457.83 30	10,457.83 30	2.6929	0.3108	10,617.77 34
2024	4.4361	45.4523	44.2678	0.1056	10.1949	1.8446	12.0395	3.9195	1.6984	5.6179	0.0000	10,414.74 77	10,414.74 77	2.6931	0.3053	10,573.05 94
2025	4.0389	40.0344	42.7668	0.1051	10.1949	1.5899	11.7848	3.9195	1.4641	5.3836	0.0000	10,364.53 79	10,364.53 79	2.6932	0.2989	10,520.94 70
Maximum	4.5923	48.2574	44.6131	0.1060	10.1949	1.9756	12.1706	3.9195	1.8190	5.7385	0.0000	10,457.83 30	10,457.83 30	2.6932	0.3108	10,617.77 34

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2023	4.5923	48.2574	44.6131	0.1060	4.5662	1.9756	6.5419	1.6885	1.8190	3.5075	0.0000	10,457.83 30	10,457.83 30	2.6929	0.3108	10,617.77 34
2024	4.4361	45.4523	44.2678	0.1056	4.5662	1.8446	6.4108	1.6885	1.6984	3.3869	0.0000	10,414.74 77	10,414.74 77	2.6931	0.3053	10,573.05 93
2025	4.0389	40.0344	42.7668	0.1051	4.5662	1.5899	6.1561	1.6885	1.4641	3.1526	0.0000	10,364.53 79	10,364.53 79	2.6932	0.2989	10,520.94 70
Maximum	4.5923	48.2574	44.6131	0.1060	4.5662	1.9756	6.5419	1.6885	1.8190	3.5075	0.0000	10,457.83 30	10,457.83 30	2.6932	0.3108	10,617.77 34

Sunlakes Boulevard - Riverside-South Coast County, Winter

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	55.21	0.00	46.91	56.92	0.00	39.98	0.00	0.00	0.00	0.00	0.00	0.00

Sunlakes Boulevard - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**2.2 Overall Operational****Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.4497	9.4000e-004	0.1041	1.0000e-005		3.7000e-004	3.7000e-004		3.7000e-004	3.7000e-004		0.2238	0.2238	5.8000e-004		0.2383
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.4497	9.4000e-004	0.1041	1.0000e-005	0.0000	3.7000e-004	3.7000e-004	0.0000	3.7000e-004	3.7000e-004		0.2238	0.2238	5.8000e-004	0.0000	0.2383

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.4497	9.4000e-004	0.1041	1.0000e-005		3.7000e-004	3.7000e-004		3.7000e-004	3.7000e-004		0.2238	0.2238	5.8000e-004		0.2383
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.4497	9.4000e-004	0.1041	1.0000e-005	0.0000	3.7000e-004	3.7000e-004	0.0000	3.7000e-004	3.7000e-004		0.2238	0.2238	5.8000e-004	0.0000	0.2383

Sunlakes Boulevard - Riverside-South Coast County, Winter

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail**Construction Phase**

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Grading	Grading	2/1/2023	1/31/2025	5	523	
2	Paving	Paving	2/1/2023	1/31/2025	5	523	

Acres of Grading (Site Preparation Phase): 0**Acres of Grading (Grading Phase): 1569****Acres of Paving: 23.47****Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)****OffRoad Equipment**

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38

Trips and VMT

Sunlakes Boulevard - Riverside-South Coast County, Winter

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

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Grading	8	20.00	2.00	12,273.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	2.00	4,184.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 Grading - 2023**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.2274	0.0000	9.2274	3.6574	0.0000	3.6574			0.0000			0.0000
Off-Road	3.3217	34.5156	28.0512	0.0621		1.4245	1.4245		1.3105	1.3105		6,011.4777	6,011.4777	1.9442		6,060.0836
Total	3.3217	34.5156	28.0512	0.0621	9.2274	1.4245	10.6519	3.6574	1.3105	4.9679		6,011.4777	6,011.4777	1.9442		6,060.0836

Sunlakes Boulevard - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**3.2 Grading - 2023****Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0472	2.4831	0.6580	0.0129	0.4107	0.0283	0.4390	0.1126	0.0271	0.1397		1,379.159 ₉	1,379.159 ₉	0.0193	0.2173	1,444.404 ₉
Vendor	2.0900e-003	0.0693	0.0278	3.5000e-004	0.0128	5.7000e-004	0.0134	3.6900e-003	5.5000e-004	4.2300e-003		37.1462	37.1462	3.7000e-004	5.4900e-003	38.7926
Worker	0.0684	0.0468	0.5942	1.7800e-003	0.2236	1.0500e-003	0.2246	0.0593	9.6000e-004	0.0603		180.0847	180.0847	4.5800e-003	4.8000e-003	181.6302
Total	0.1177	2.5992	1.2800	0.0150	0.6471	0.0299	0.6770	0.1756	0.0286	0.2042		1,596.390₈	1,596.390₈	0.0243	0.2276	1,664.827₆

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.5987	0.0000	3.5987	1.4264	0.0000	1.4264			0.0000			0.0000
Off-Road	3.3217	34.5156	28.0512	0.0621		1.4245	1.4245		1.3105	1.3105	0.0000	6,011.477 ₇	6,011.477 ₇	1.9442		6,060.083 ₆
Total	3.3217	34.5156	28.0512	0.0621	3.5987	1.4245	5.0232	1.4264	1.3105	2.7369	0.0000	6,011.477₇	6,011.477₇	1.9442		6,060.083₆

Sunlakes Boulevard - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**3.2 Grading - 2023****Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0472	2.4831	0.6580	0.0129	0.4107	0.0283	0.4390	0.1126	0.0271	0.1397		1,379.159 ₉	1,379.159 ₉	0.0193	0.2173	1,444.404 ₉
Vendor	2.0900e-003	0.0693	0.0278	3.5000e-004	0.0128	5.7000e-004	0.0134	3.6900e-003	5.5000e-004	4.2300e-003		37.1462	37.1462	3.7000e-004	5.4900e-003	38.7926
Worker	0.0684	0.0468	0.5942	1.7800e-003	0.2236	1.0500e-003	0.2246	0.0593	9.6000e-004	0.0603		180.0847	180.0847	4.5800e-003	4.8000e-003	181.6302
Total	0.1177	2.5992	1.2800	0.0150	0.6471	0.0299	0.6770	0.1756	0.0286	0.2042		1,596.390₈	1,596.390₈	0.0243	0.2276	1,664.827₆

3.2 Grading - 2024**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.2274	0.0000	9.2274	3.6574	0.0000	3.6574			0.0000			0.0000
Off-Road	3.2181	32.3770	27.7228	0.0621		1.3354	1.3354		1.2286	1.2286		6,009.748 ₇	6,009.748 ₇	1.9437		6,058.340 ₅
Total	3.2181	32.3770	27.7228	0.0621	9.2274	1.3354	10.5628	3.6574	1.2286	4.8859		6,009.748₇	6,009.748₇	1.9437		6,058.340₅

Sunlakes Boulevard - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**3.2 Grading - 2024****Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0471	2.4903	0.6651	0.0127	0.4107	0.0282	0.4389	0.1126	0.0269	0.1395		1,356.636 7	1,356.636 7	0.0204	0.2138	1,420.865 2
Vendor	2.0500e-003	0.0693	0.0275	3.4000e-004	0.0128	5.7000e-004	0.0134	3.6900e-003	5.4000e-004	4.2300e-003		36.5743	36.5743	3.8000e-004	5.4000e-003	38.1933
Worker	0.0640	0.0417	0.5557	1.7300e-003	0.2236	1.0000e-003	0.2246	0.0593	9.2000e-004	0.0602		174.3853	174.3853	4.1600e-003	4.4600e-003	175.8183
Total	0.1131	2.6013	1.2483	0.0148	0.6471	0.0297	0.6768	0.1756	0.0284	0.2040		1,567.596 3	1,567.596 3	0.0250	0.2237	1,634.876 9

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.5987	0.0000	3.5987	1.4264	0.0000	1.4264			0.0000			0.0000
Off-Road	3.2181	32.3770	27.7228	0.0621		1.3354	1.3354		1.2286	1.2286	0.0000	6,009.748 7	6,009.748 7	1.9437		6,058.340 5
Total	3.2181	32.3770	27.7228	0.0621	3.5987	1.3354	4.9341	1.4264	1.2286	2.6549	0.0000	6,009.748 7	6,009.748 7	1.9437		6,058.340 5

Sunlakes Boulevard - Riverside-South Coast County, Winter

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

3.2 Grading - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0471	2.4903	0.6651	0.0127	0.4107	0.0282	0.4389	0.1126	0.0269	0.1395		1,356.636 7	1,356.636 7	0.0204	0.2138	1,420.865 2
Vendor	2.0500e-003	0.0693	0.0275	3.4000e-004	0.0128	5.7000e-004	0.0134	3.6900e-003	5.4000e-004	4.2300e-003		36.5743	36.5743	3.8000e-004	5.4000e-003	38.1933
Worker	0.0640	0.0417	0.5557	1.7300e-003	0.2236	1.0000e-003	0.2246	0.0593	9.2000e-004	0.0602		174.3853	174.3853	4.1600e-003	4.4600e-003	175.8183
Total	0.1131	2.6013	1.2483	0.0148	0.6471	0.0297	0.6768	0.1756	0.0284	0.2040		1,567.596 3	1,567.596 3	0.0250	0.2237	1,634.876 9

3.2 Grading - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.2274	0.0000	9.2274	3.6574	0.0000	3.6574			0.0000			0.0000
Off-Road	2.9012	27.9429	26.3311	0.0621		1.1309	1.1309		1.0404	1.0404		6,008.281 4	6,008.281 4	1.9432		6,056.861 4
Total	2.9012	27.9429	26.3311	0.0621	9.2274	1.1309	10.3583	3.6574	1.0404	4.6978		6,008.281 4	6,008.281 4	1.9432		6,056.861 4

Sunlakes Boulevard - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**3.2 Grading - 2025****Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0470	2.4662	0.6695	0.0124	0.4107	0.0281	0.4388	0.1126	0.0269	0.1395		1,329.5478	1,329.5478	0.0216	0.2096	1,392.5470
Vendor	2.0200e-003	0.0687	0.0272	3.4000e-004	0.0128	5.7000e-004	0.0134	3.6900e-003	5.4000e-004	4.2300e-003		35.9301	35.9301	4.0000e-004	5.2900e-003	37.5180
Worker	0.0600	0.0374	0.5175	1.6700e-003	0.2236	9.5000e-004	0.2245	0.0593	8.7000e-004	0.0602		168.4834	168.4834	3.7600e-003	4.1600e-003	169.8174
Total	0.1089	2.5723	1.2142	0.0144	0.6470	0.0296	0.6767	0.1756	0.0283	0.2039		1,533.9613	1,533.9613	0.0257	0.2191	1,599.8823

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.5987	0.0000	3.5987	1.4264	0.0000	1.4264			0.0000			0.0000
Off-Road	2.9012	27.9429	26.3311	0.0621		1.1309	1.1309		1.0404	1.0404	0.0000	6,008.2814	6,008.2814	1.9432		6,056.8614
Total	2.9012	27.9429	26.3311	0.0621	3.5987	1.1309	4.7296	1.4264	1.0404	2.4668	0.0000	6,008.2814	6,008.2814	1.9432		6,056.8614

Sunlakes Boulevard - Riverside-South Coast County, Winter

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

3.2 Grading - 2025

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0470	2.4662	0.6695	0.0124	0.4107	0.0281	0.4388	0.1126	0.0269	0.1395		1,329.5478	1,329.5478	0.0216	0.2096	1,392.5470
Vendor	2.0200e-003	0.0687	0.0272	3.4000e-004	0.0128	5.7000e-004	0.0134	3.6900e-003	5.4000e-004	4.2300e-003		35.9301	35.9301	4.0000e-004	5.2900e-003	37.5180
Worker	0.0600	0.0374	0.5175	1.6700e-003	0.2236	9.5000e-004	0.2245	0.0593	8.7000e-004	0.0602		168.4834	168.4834	3.7600e-003	4.1600e-003	169.8174
Total	0.1089	2.5723	1.2142	0.0144	0.6470	0.0296	0.6767	0.1756	0.0283	0.2039		1,533.9613	1,533.9613	0.0257	0.2191	1,599.8823

3.3 Paving - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694		2,207.5841	2,207.5841	0.7140		2,225.4336
Paving	0.0506					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	1.0833	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694		2,207.5841	2,207.5841	0.7140		2,225.4336

Sunlakes Boulevard - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**3.3 Paving - 2023****Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0161	0.8465	0.2243	4.4000e-003	0.1400	9.6600e-003	0.1497	0.0384	9.2400e-003	0.0476		470.1707	470.1707	6.5900e-003	0.0741	492.4134
Vendor	2.0900e-003	0.0693	0.0278	3.5000e-004	0.0128	5.7000e-004	0.0134	3.6900e-003	5.5000e-004	4.2300e-003		37.1462	37.1462	3.7000e-004	5.4900e-003	38.7926
Worker	0.0513	0.0351	0.4456	1.3400e-003	0.1677	7.8000e-004	0.1685	0.0445	7.2000e-004	0.0452		135.0635	135.0635	3.4300e-003	3.6000e-003	136.2226
Total	0.0695	0.9509	0.6978	6.0900e-003	0.3205	0.0110	0.3315	0.0866	0.0105	0.0970		642.3804	642.3804	0.0104	0.0832	667.4286

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694	0.0000	2,207.5841	2,207.5841	0.7140		2,225.4336
Paving	0.0506					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	1.0833	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694	0.0000	2,207.5841	2,207.5841	0.7140		2,225.4336

Sunlakes Boulevard - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**3.3 Paving - 2023****Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0161	0.8465	0.2243	4.4000e-003	0.1400	9.6600e-003	0.1497	0.0384	9.2400e-003	0.0476		470.1707	470.1707	6.5900e-003	0.0741	492.4134
Vendor	2.0900e-003	0.0693	0.0278	3.5000e-004	0.0128	5.7000e-004	0.0134	3.6900e-003	5.5000e-004	4.2300e-003		37.1462	37.1462	3.7000e-004	5.4900e-003	38.7926
Worker	0.0513	0.0351	0.4456	1.3400e-003	0.1677	7.8000e-004	0.1685	0.0445	7.2000e-004	0.0452		135.0635	135.0635	3.4300e-003	3.6000e-003	136.2226
Total	0.0695	0.9509	0.6978	6.0900e-003	0.3205	0.0110	0.3315	0.0866	0.0105	0.0970		642.3804	642.3804	0.0104	0.0832	667.4286

3.3 Paving - 2024**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9882	9.5246	14.6258	0.0228		0.4685	0.4685		0.4310	0.4310		2,207.547 2	2,207.547 2	0.7140		2,225.396 3
Paving	0.0506					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	1.0388	9.5246	14.6258	0.0228		0.4685	0.4685		0.4310	0.4310		2,207.547 2	2,207.547 2	0.7140		2,225.396 3

Sunlakes Boulevard - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**3.3 Paving - 2024****Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0161	0.8490	0.2267	4.3300e-003	0.1400	9.6000e-003	0.1496	0.0384	9.1800e-003	0.0476		462.4923	462.4923	6.9600e-003	0.0729	484.3885
Vendor	2.0500e-003	0.0693	0.0275	3.4000e-004	0.0128	5.7000e-004	0.0134	3.6900e-003	5.4000e-004	4.2300e-003		36.5743	36.5743	3.8000e-004	5.4000e-003	38.1933
Worker	0.0480	0.0313	0.4168	1.2900e-003	0.1677	7.5000e-004	0.1684	0.0445	6.9000e-004	0.0452		130.7890	130.7890	3.1200e-003	3.3500e-003	131.8638
Total	0.0661	0.9495	0.6710	5.9600e-003	0.3205	0.0109	0.3314	0.0865	0.0104	0.0970		629.8556	629.8556	0.0105	0.0816	654.4456

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9882	9.5246	14.6258	0.0228		0.4685	0.4685		0.4310	0.4310	0.0000	2,207.547 2	2,207.547 2	0.7140		2,225.396 3
Paving	0.0506					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	1.0388	9.5246	14.6258	0.0228		0.4685	0.4685		0.4310	0.4310	0.0000	2,207.547 2	2,207.547 2	0.7140		2,225.396 3

Sunlakes Boulevard - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**3.3 Paving - 2024****Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0161	0.8490	0.2267	4.3300e-003	0.1400	9.6000e-003	0.1496	0.0384	9.1800e-003	0.0476		462.4923	462.4923	6.9600e-003	0.0729	484.3885
Vendor	2.0500e-003	0.0693	0.0275	3.4000e-004	0.0128	5.7000e-004	0.0134	3.6900e-003	5.4000e-004	4.2300e-003		36.5743	36.5743	3.8000e-004	5.4000e-003	38.1933
Worker	0.0480	0.0313	0.4168	1.2900e-003	0.1677	7.5000e-004	0.1684	0.0445	6.9000e-004	0.0452		130.7890	130.7890	3.1200e-003	3.3500e-003	131.8638
Total	0.0661	0.9495	0.6710	5.9600e-003	0.3205	0.0109	0.3314	0.0865	0.0104	0.0970		629.8556	629.8556	0.0105	0.0816	654.4456

3.3 Paving - 2025**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9152	8.5816	14.5780	0.0228		0.4185	0.4185		0.3850	0.3850		2,206.7452	2,206.7452	0.7137		2,224.5878
Paving	0.0506					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.9658	8.5816	14.5780	0.0228		0.4185	0.4185		0.3850	0.3850		2,206.7452	2,206.7452	0.7137		2,224.5878

Sunlakes Boulevard - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**3.3 Paving - 2025****Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0160	0.8408	0.2283	4.2400e-003	0.1400	9.5800e-003	0.1496	0.0384	9.1700e-003	0.0476		453.2574	453.2574	7.3500e-003	0.0715	474.7345
Vendor	2.0200e-003	0.0687	0.0272	3.4000e-004	0.0128	5.7000e-004	0.0134	3.6900e-003	5.4000e-004	4.2300e-003		35.9301	35.9301	4.0000e-004	5.2900e-003	37.5180
Worker	0.0450	0.0280	0.3881	1.2500e-003	0.1677	7.1000e-004	0.1684	0.0445	6.5000e-004	0.0451		126.3625	126.3625	2.8200e-003	3.1200e-003	127.3630
Total	0.0630	0.9375	0.6435	5.8300e-003	0.3205	0.0109	0.3313	0.0865	0.0104	0.0969		615.5500	615.5500	0.0106	0.0799	639.6155

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9152	8.5816	14.5780	0.0228		0.4185	0.4185		0.3850	0.3850	0.0000	2,206.7452	2,206.7452	0.7137		2,224.5878
Paving	0.0506					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.9658	8.5816	14.5780	0.0228		0.4185	0.4185		0.3850	0.3850	0.0000	2,206.7452	2,206.7452	0.7137		2,224.5878

Sunlakes Boulevard - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**3.3 Paving - 2025****Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0160	0.8408	0.2283	4.2400e-003	0.1400	9.5800e-003	0.1496	0.0384	9.1700e-003	0.0476		453.2574	453.2574	7.3500e-003	0.0715	474.7345
Vendor	2.0200e-003	0.0687	0.0272	3.4000e-004	0.0128	5.7000e-004	0.0134	3.6900e-003	5.4000e-004	4.2300e-003		35.9301	35.9301	4.0000e-004	5.2900e-003	37.5180
Worker	0.0450	0.0280	0.3881	1.2500e-003	0.1677	7.1000e-004	0.1684	0.0445	6.5000e-004	0.0451		126.3625	126.3625	2.8200e-003	3.1200e-003	127.3630
Total	0.0630	0.9375	0.6435	5.8300e-003	0.3205	0.0109	0.3313	0.0865	0.0104	0.0969		615.5500	615.5500	0.0106	0.0799	639.6155

4.0 Operational Detail - Mobile**4.1 Mitigation Measures Mobile**

Sunlakes Boulevard - Riverside-South Coast County, Winter

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

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

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Other Asphalt Surfaces	0.00	0.00	0.00		
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Other Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Other Non-Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Other Asphalt Surfaces	0.540541	0.056458	0.173793	0.136090	0.025268	0.007074	0.011525	0.018705	0.000610	0.000304	0.023606	0.001094	0.004932
Other Non-Asphalt Surfaces	0.540541	0.056458	0.173793	0.136090	0.025268	0.007074	0.011525	0.018705	0.000610	0.000304	0.023606	0.001094	0.004932

5.0 Energy Detail

Sunlakes Boulevard - Riverside-South Coast County, Winter

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

Historical Energy Use: N

5.1 Mitigation Measures Energy

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

5.2 Energy by Land Use - NaturalGas**Unmitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

Sunlakes Boulevard - Riverside-South Coast County, Winter

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

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.4497	9.4000e-004	0.1041	1.0000e-005		3.7000e-004	3.7000e-004		3.7000e-004	3.7000e-004		0.2238	0.2238	5.8000e-004		0.2383
Unmitigated	0.4497	9.4000e-004	0.1041	1.0000e-005		3.7000e-004	3.7000e-004		3.7000e-004	3.7000e-004		0.2238	0.2238	5.8000e-004		0.2383

Sunlakes Boulevard - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**6.2 Area by SubCategory****Unmitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0779					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.3622					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	9.5900e-003	9.4000e-004	0.1041	1.0000e-005		3.7000e-004	3.7000e-004		3.7000e-004	3.7000e-004		0.2238	0.2238	5.8000e-004		0.2383
Total	0.4497	9.4000e-004	0.1041	1.0000e-005		3.7000e-004	3.7000e-004		3.7000e-004	3.7000e-004		0.2238	0.2238	5.8000e-004		0.2383

Sunlakes Boulevard - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**6.2 Area by SubCategory****Mitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0779					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.3622					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	9.5900e-003	9.4000e-004	0.1041	1.0000e-005		3.7000e-004	3.7000e-004		3.7000e-004	3.7000e-004		0.2238	0.2238	5.8000e-004		0.2383
Total	0.4497	9.4000e-004	0.1041	1.0000e-005		3.7000e-004	3.7000e-004		3.7000e-004	3.7000e-004		0.2238	0.2238	5.8000e-004		0.2383

7.0 Water Detail**7.1 Mitigation Measures Water**

Sunlakes Boulevard - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**8.0 Waste Detail**

8.1 Mitigation Measures Waste**9.0 Operational Offroad**

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

Fire Pumps and Emergency Generators

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

Boilers

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

Equipment Type	Number
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11.0 Vegetation

Sunlakes Boulevard - Riverside-South Coast County, Annual

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

Sunlakes Boulevard

Riverside-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Asphalt Surfaces	440.15	1000sqft	10.10	440,152.00	0
Other Non-Asphalt Surfaces	582.36	1000sqft	13.37	582,364.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.4	Precipitation Freq (Days)	28
Climate Zone	10			Operational Year	2025
Utility Company	User Defined				
CO2 Intensity (lb/MWhr)	310.98	CH4 Intensity (lb/MWhr)	0.033	N2O Intensity (lb/MWhr)	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - City of Banning Electric Co.

Land Use - Per Project Engineers

Construction Phase - Per Project Engineers

Trips and VMT - 2 daily water truck trips added as vendor trips for grading and paving phases. 8 hauling truck trips per day were added to paving.

Grading - Per Project Engineers

Energy Use - Account for street lighting.

Construction Off-road Equipment Mitigation - Per Rule 403

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	35.00	523.00

Sunlakes Boulevard - Riverside-South Coast County, Annual

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

tblConstructionPhase	NumDays	20.00	523.00
tblEnergyUse	LightingElect	0.00	0.35
tblGrading	MaterialImported	0.00	98,180.00
tblLandUse	LandUseSquareFeet	440,150.00	440,152.00
tblLandUse	LandUseSquareFeet	582,360.00	582,364.00
tblProjectCharacteristics	CH4IntensityFactor	0	0.033
tblProjectCharacteristics	CO2IntensityFactor	0	310.98
tblProjectCharacteristics	N2OIntensityFactor	0	0.004
tblTripsAndVMT	HaulingTripNumber	0.00	4,184.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00

2.0 Emissions Summary

Sunlakes Boulevard - Riverside-South Coast County, Annual

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

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2023	0.5462	5.7410	5.3143	0.0126	1.6682	0.2351	1.9033	0.5155	0.2165	0.7319	0.0000	1,129.574 3	1,129.574 3	0.2907	0.0335	1,146.837 3
2024	0.5808	5.9524	5.8044	0.0138	1.7519	0.2416	1.9935	0.5583	0.2225	0.7808	0.0000	1,238.335 2	1,238.335 2	0.3201	0.0363	1,257.145 1
2025	0.0464	0.4602	0.4922	1.2100e-003	0.9184	0.0183	0.9367	0.1318	0.0168	0.1487	0.0000	108.1825	108.1825	0.0281	3.1200e-003	109.8139
Maximum	0.5808	5.9524	5.8044	0.0138	1.7519	0.2416	1.9935	0.5583	0.2225	0.7808	0.0000	1,238.335 2	1,238.335 2	0.3201	0.0363	1,257.145 1

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2023	0.5462	5.7410	5.3142	0.0126	0.7198	0.2351	0.9548	0.2198	0.2165	0.4363	0.0000	1,129.573 3	1,129.573 3	0.2907	0.0335	1,146.836 3
2024	0.5808	5.9524	5.8044	0.0138	0.7594	0.2416	1.0010	0.2384	0.2225	0.4609	0.0000	1,238.334 0	1,238.334 0	0.3201	0.0363	1,257.143 9
2025	0.0464	0.4602	0.4922	1.2100e-003	0.3649	0.0183	0.3831	0.0532	0.0168	0.0701	0.0000	108.1824	108.1824	0.0281	3.1200e-003	109.8138
Maximum	0.5808	5.9524	5.8044	0.0138	0.7594	0.2416	1.0010	0.2384	0.2225	0.4609	0.0000	1,238.334 0	1,238.334 0	0.3201	0.0363	1,257.143 9

Sunlakes Boulevard - Riverside-South Coast County, Annual

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	57.50	0.00	51.61	57.58	0.00	41.78	0.00	0.00	0.00	0.00	0.00	0.00

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	1-31-2023	4-29-2023	1.6591	1.6591
2	4-30-2023	7-30-2023	1.7304	1.7304
3	7-31-2023	10-30-2023	1.7324	1.7324
4	10-31-2023	1-30-2024	1.7048	1.7048
5	1-31-2024	4-29-2024	1.6016	1.6016
6	4-30-2024	7-30-2024	1.6331	1.6331
7	7-31-2024	10-30-2024	1.6351	1.6351
8	10-31-2024	1-30-2025	1.5769	1.5769
9	1-31-2025	4-29-2025	0.0157	0.0157
		Highest	1.7324	1.7324

Sunlakes Boulevard - Riverside-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**2.2 Overall Operational****Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0815	1.2000e-004	0.0130	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005	0.0000	0.0254	0.0254	7.0000e-005	0.0000	0.0270
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	21.7305	21.7305	2.3100e-003	2.8000e-004	21.8714
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0815	1.2000e-004	0.0130	0.0000	0.0000	5.0000e-005	5.0000e-005	0.0000	5.0000e-005	5.0000e-005	0.0000	21.7558	21.7558	2.3800e-003	2.8000e-004	21.8984

Sunlakes Boulevard - Riverside-South Coast County, Annual

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

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0815	1.2000e-004	0.0130	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005	0.0000	0.0254	0.0254	7.0000e-005	0.0000	0.0270
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	21.7305	21.7305	2.3100e-003	2.8000e-004	21.8714
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0815	1.2000e-004	0.0130	0.0000	0.0000	5.0000e-005	5.0000e-005	0.0000	5.0000e-005	5.0000e-005	0.0000	21.7558	21.7558	2.3800e-003	2.8000e-004	21.8984

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Grading	Grading	2/1/2023	1/31/2025	5	523	
2	Paving	Paving	2/1/2023	1/31/2025	5	523	

Sunlakes Boulevard - Riverside-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**Acres of Grading (Site Preparation Phase): 0****Acres of Grading (Grading Phase): 1569****Acres of Paving: 23.47****Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)****OffRoad Equipment**

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Grading	8	20.00	2.00	12,273.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	2.00	4,184.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Sunlakes Boulevard - Riverside-South Coast County, Annual

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

3.2 Grading - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.5548	0.0000	1.5548	0.4847	0.0000	0.4847	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.3953	4.1074	3.3381	7.3900e-003		0.1695	0.1695		0.1560	0.1560	0.0000	648.9690	648.9690	0.2099	0.0000	654.2162
Total	0.3953	4.1074	3.3381	7.3900e-003	1.5548	0.1695	1.7243	0.4847	0.1560	0.6406	0.0000	648.9690	648.9690	0.2099	0.0000	654.2162

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	5.9000e-003	0.2942	0.0774	1.5400e-003	0.0482	3.3700e-003	0.0515	0.0132	3.2200e-003	0.0165	0.0000	148.7523	148.7523	2.1000e-003	0.0234	155.7899
Vendor	2.6000e-004	8.1600e-003	3.2500e-003	4.0000e-005	1.5000e-003	7.0000e-005	1.5700e-003	4.3000e-004	6.0000e-005	5.0000e-004	0.0000	4.0044	4.0044	4.0000e-005	5.9000e-004	4.1818
Worker	7.7200e-003	5.7200e-003	0.0745	2.2000e-004	0.0262	1.2000e-004	0.0263	6.9500e-003	1.1000e-004	7.0600e-003	0.0000	19.8933	19.8933	5.0000e-004	5.3000e-004	20.0631
Total	0.0139	0.3081	0.1551	1.8000e-003	0.0758	3.5600e-003	0.0794	0.0206	3.3900e-003	0.0240	0.0000	172.6500	172.6500	2.6400e-003	0.0246	180.0348

Sunlakes Boulevard - Riverside-South Coast County, Annual

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

3.2 Grading - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.6064	0.0000	0.6064	0.1890	0.0000	0.1890	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.3953	4.1074	3.3381	7.3900e-003		0.1695	0.1695		0.1560	0.1560	0.0000	648.9682	648.9682	0.2099	0.0000	654.2155
Total	0.3953	4.1074	3.3381	7.3900e-003	0.6064	0.1695	0.7759	0.1890	0.1560	0.3450	0.0000	648.9682	648.9682	0.2099	0.0000	654.2155

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	5.9000e-003	0.2942	0.0774	1.5400e-003	0.0482	3.3700e-003	0.0515	0.0132	3.2200e-003	0.0165	0.0000	148.7523	148.7523	2.1000e-003	0.0234	155.7899
Vendor	2.6000e-004	8.1600e-003	3.2500e-003	4.0000e-005	1.5000e-003	7.0000e-005	1.5700e-003	4.3000e-004	6.0000e-005	5.0000e-004	0.0000	4.0044	4.0044	4.0000e-005	5.9000e-004	4.1818
Worker	7.7200e-003	5.7200e-003	0.0745	2.2000e-004	0.0262	1.2000e-004	0.0263	6.9500e-003	1.1000e-004	7.0600e-003	0.0000	19.8933	19.8933	5.0000e-004	5.3000e-004	20.0631
Total	0.0139	0.3081	0.1551	1.8000e-003	0.0758	3.5600e-003	0.0794	0.0206	3.3900e-003	0.0240	0.0000	172.6500	172.6500	2.6400e-003	0.0246	180.0348

Sunlakes Boulevard - Riverside-South Coast County, Annual

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

3.2 Grading - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.6271	0.0000	1.6271	0.5244	0.0000	0.5244	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.4216	4.2414	3.6317	8.1300e-003		0.1749	0.1749		0.1609	0.1609	0.0000	714.2058	714.2058	0.2310	0.0000	719.9805
Total	0.4216	4.2414	3.6317	8.1300e-003	1.6271	0.1749	1.8020	0.5244	0.1609	0.6854	0.0000	714.2058	714.2058	0.2310	0.0000	719.9805

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	6.4800e-003	0.3248	0.0861	1.6600e-003	0.0530	3.6900e-003	0.0567	0.0146	3.5300e-003	0.0181	0.0000	161.0778	161.0778	2.4400e-003	0.0254	168.7043
Vendor	2.8000e-004	8.9800e-003	3.5400e-003	5.0000e-005	1.6600e-003	7.0000e-005	1.7300e-003	4.8000e-004	7.0000e-005	5.5000e-004	0.0000	4.3403	4.3403	5.0000e-005	6.4000e-004	4.5324
Worker	7.9300e-003	5.6000e-003	0.0767	2.3000e-004	0.0288	1.3000e-004	0.0289	7.6500e-003	1.2000e-004	7.7700e-003	0.0000	21.2060	21.2060	5.0000e-004	5.4000e-004	21.3793
Total	0.0147	0.3394	0.1664	1.9400e-003	0.0835	3.8900e-003	0.0874	0.0227	3.7200e-003	0.0264	0.0000	186.6240	186.6240	2.9900e-003	0.0266	194.6159

Sunlakes Boulevard - Riverside-South Coast County, Annual

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

3.2 Grading - 2024

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.6346	0.0000	0.6346	0.2045	0.0000	0.2045	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.4216	4.2414	3.6317	8.1300e-003		0.1749	0.1749		0.1609	0.1609	0.0000	714.2049	714.2049	0.2310	0.0000	719.9796
Total	0.4216	4.2414	3.6317	8.1300e-003	0.6346	0.1749	0.8095	0.2045	0.1609	0.3655	0.0000	714.2049	714.2049	0.2310	0.0000	719.9796

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	6.4800e-003	0.3248	0.0861	1.6600e-003	0.0530	3.6900e-003	0.0567	0.0146	3.5300e-003	0.0181	0.0000	161.0778	161.0778	2.4400e-003	0.0254	168.7043
Vendor	2.8000e-004	8.9800e-003	3.5400e-003	5.0000e-005	1.6600e-003	7.0000e-005	1.7300e-003	4.8000e-004	7.0000e-005	5.5000e-004	0.0000	4.3403	4.3403	5.0000e-005	6.4000e-004	4.5324
Worker	7.9300e-003	5.6000e-003	0.0767	2.3000e-004	0.0288	1.3000e-004	0.0289	7.6500e-003	1.2000e-004	7.7700e-003	0.0000	21.2060	21.2060	5.0000e-004	5.4000e-004	21.3793
Total	0.0147	0.3394	0.1664	1.9400e-003	0.0835	3.8900e-003	0.0874	0.0227	3.7200e-003	0.0264	0.0000	186.6240	186.6240	2.9900e-003	0.0266	194.6159

Sunlakes Boulevard - Riverside-South Coast County, Annual

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

3.2 Grading - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.9074	0.0000	0.9074	0.1288	0.0000	0.1288	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0334	0.3213	0.3028	7.1000e-004		0.0130	0.0130		0.0120	0.0120	0.0000	62.6821	62.6821	0.0203	0.0000	63.1890
Total	0.0334	0.3213	0.3028	7.1000e-004	0.9074	0.0130	0.9204	0.1288	0.0120	0.1408	0.0000	62.6821	62.6821	0.0203	0.0000	63.1890

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	5.7000e-004	0.0282	7.6100e-003	1.4000e-004	4.6500e-003	3.2000e-004	4.9800e-003	1.2800e-003	3.1000e-004	1.5900e-003	0.0000	13.8580	13.8580	2.3000e-004	2.1800e-003	14.5147
Vendor	2.0000e-005	7.8000e-004	3.1000e-004	0.0000	1.5000e-004	1.0000e-005	1.5000e-004	4.0000e-005	1.0000e-005	5.0000e-005	0.0000	0.3743	0.3743	0.0000	6.0000e-005	0.3908
Worker	6.5000e-004	4.4000e-004	6.2700e-003	2.0000e-005	2.5300e-003	1.0000e-005	2.5400e-003	6.7000e-004	1.0000e-005	6.8000e-004	0.0000	1.7985	1.7985	4.0000e-005	4.0000e-005	1.8126
Total	1.2400e-003	0.0295	0.0142	1.6000e-004	7.3300e-003	3.4000e-004	7.6700e-003	1.9900e-003	3.3000e-004	2.3200e-003	0.0000	16.0308	16.0308	2.7000e-004	2.2800e-003	16.7182

Sunlakes Boulevard - Riverside-South Coast County, Annual

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

3.2 Grading - 2025

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.3539	0.0000	0.3539	0.0503	0.0000	0.0503	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0334	0.3213	0.3028	7.1000e-004		0.0130	0.0130		0.0120	0.0120	0.0000	62.6821	62.6821	0.0203	0.0000	63.1889
Total	0.0334	0.3213	0.3028	7.1000e-004	0.3539	0.0130	0.3669	0.0503	0.0120	0.0622	0.0000	62.6821	62.6821	0.0203	0.0000	63.1889

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	5.7000e-004	0.0282	7.6100e-003	1.4000e-004	4.6500e-003	3.2000e-004	4.9800e-003	1.2800e-003	3.1000e-004	1.5900e-003	0.0000	13.8580	13.8580	2.3000e-004	2.1800e-003	14.5147
Vendor	2.0000e-005	7.8000e-004	3.1000e-004	0.0000	1.5000e-004	1.0000e-005	1.5000e-004	4.0000e-005	1.0000e-005	5.0000e-005	0.0000	0.3743	0.3743	0.0000	6.0000e-005	0.3908
Worker	6.5000e-004	4.4000e-004	6.2700e-003	2.0000e-005	2.5300e-003	1.0000e-005	2.5400e-003	6.7000e-004	1.0000e-005	6.8000e-004	0.0000	1.7985	1.7985	4.0000e-005	4.0000e-005	1.8126
Total	1.2400e-003	0.0295	0.0142	1.6000e-004	7.3300e-003	3.4000e-004	7.6700e-003	1.9900e-003	3.3000e-004	2.3200e-003	0.0000	16.0308	16.0308	2.7000e-004	2.2800e-003	16.7182

Sunlakes Boulevard - Riverside-South Coast County, Annual

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

3.3 Paving - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1229	1.2128	1.7355	2.7100e-003		0.0607	0.0607		0.0559	0.0559	0.0000	238.3197	238.3197	0.0771	0.0000	240.2467
Paving	6.0200e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.1289	1.2128	1.7355	2.7100e-003		0.0607	0.0607		0.0559	0.0559	0.0000	238.3197	238.3197	0.0771	0.0000	240.2467

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.0100e-003	0.1003	0.0264	5.2000e-004	0.0164	1.1500e-003	0.0176	4.5100e-003	1.1000e-003	5.6100e-003	0.0000	50.7113	50.7113	7.2000e-004	7.9900e-003	53.1105
Vendor	2.6000e-004	8.1600e-003	3.2500e-003	4.0000e-005	1.5000e-003	7.0000e-005	1.5700e-003	4.3000e-004	6.0000e-005	5.0000e-004	0.0000	4.0044	4.0044	4.0000e-005	5.9000e-004	4.1818
Worker	5.7900e-003	4.2900e-003	0.0559	1.6000e-004	0.0196	9.0000e-005	0.0197	5.2100e-003	9.0000e-005	5.3000e-003	0.0000	14.9200	14.9200	3.7000e-004	4.0000e-004	15.0473
Total	8.0600e-003	0.1128	0.0855	7.2000e-004	0.0375	1.3100e-003	0.0389	0.0102	1.2500e-003	0.0114	0.0000	69.6356	69.6356	1.1300e-003	8.9800e-003	72.3396

Sunlakes Boulevard - Riverside-South Coast County, Annual

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

3.3 Paving - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1229	1.2128	1.7355	2.7100e-003		0.0607	0.0607		0.0559	0.0559	0.0000	238.3194	238.3194	0.0771	0.0000	240.2464
Paving	6.0200e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.1289	1.2128	1.7355	2.7100e-003		0.0607	0.0607		0.0559	0.0559	0.0000	238.3194	238.3194	0.0771	0.0000	240.2464

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.0100e-003	0.1003	0.0264	5.2000e-004	0.0164	1.1500e-003	0.0176	4.5100e-003	1.1000e-003	5.6100e-003	0.0000	50.7113	50.7113	7.2000e-004	7.9900e-003	53.1105
Vendor	2.6000e-004	8.1600e-003	3.2500e-003	4.0000e-005	1.5000e-003	7.0000e-005	1.5700e-003	4.3000e-004	6.0000e-005	5.0000e-004	0.0000	4.0044	4.0044	4.0000e-005	5.9000e-004	4.1818
Worker	5.7900e-003	4.2900e-003	0.0559	1.6000e-004	0.0196	9.0000e-005	0.0197	5.2100e-003	9.0000e-005	5.3000e-003	0.0000	14.9200	14.9200	3.7000e-004	4.0000e-004	15.0473
Total	8.0600e-003	0.1128	0.0855	7.2000e-004	0.0375	1.3100e-003	0.0389	0.0102	1.2500e-003	0.0114	0.0000	69.6356	69.6356	1.1300e-003	8.9800e-003	72.3396

Sunlakes Boulevard - Riverside-South Coast County, Annual

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

3.3 Paving - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1295	1.2477	1.9160	2.9900e-003		0.0614	0.0614		0.0565	0.0565	0.0000	262.3476	262.3476	0.0849	0.0000	264.4688
Paving	6.6300e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.1361	1.2477	1.9160	2.9900e-003		0.0614	0.0614		0.0565	0.0565	0.0000	262.3476	262.3476	0.0849	0.0000	264.4688

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.2100e-003	0.1107	0.0294	5.7000e-004	0.0181	1.2600e-003	0.0193	4.9600e-003	1.2000e-003	6.1700e-003	0.0000	54.9132	54.9132	8.3000e-004	8.6500e-003	57.5131
Vendor	2.8000e-004	8.9800e-003	3.5400e-003	5.0000e-005	1.6600e-003	7.0000e-005	1.7300e-003	4.8000e-004	7.0000e-005	5.5000e-004	0.0000	4.3403	4.3403	5.0000e-005	6.4000e-004	4.5324
Worker	5.9500e-003	4.2000e-003	0.0575	1.7000e-004	0.0216	1.0000e-004	0.0217	5.7400e-003	9.0000e-005	5.8300e-003	0.0000	15.9045	15.9045	3.7000e-004	4.1000e-004	16.0345
Total	8.4400e-003	0.1239	0.0904	7.9000e-004	0.0413	1.4300e-003	0.0428	0.0112	1.3600e-003	0.0126	0.0000	75.1579	75.1579	1.2500e-003	9.7000e-003	78.0799

Sunlakes Boulevard - Riverside-South Coast County, Annual

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

3.3 Paving - 2024

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1295	1.2477	1.9160	2.9900e-003		0.0614	0.0614		0.0565	0.0565	0.0000	262.3473	262.3473	0.0849	0.0000	264.4685
Paving	6.6300e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.1361	1.2477	1.9160	2.9900e-003		0.0614	0.0614		0.0565	0.0565	0.0000	262.3473	262.3473	0.0849	0.0000	264.4685

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.2100e-003	0.1107	0.0294	5.7000e-004	0.0181	1.2600e-003	0.0193	4.9600e-003	1.2000e-003	6.1700e-003	0.0000	54.9132	54.9132	8.3000e-004	8.6500e-003	57.5131
Vendor	2.8000e-004	8.9800e-003	3.5400e-003	5.0000e-005	1.6600e-003	7.0000e-005	1.7300e-003	4.8000e-004	7.0000e-005	5.5000e-004	0.0000	4.3403	4.3403	5.0000e-005	6.4000e-004	4.5324
Worker	5.9500e-003	4.2000e-003	0.0575	1.7000e-004	0.0216	1.0000e-004	0.0217	5.7400e-003	9.0000e-005	5.8300e-003	0.0000	15.9045	15.9045	3.7000e-004	4.1000e-004	16.0345
Total	8.4400e-003	0.1239	0.0904	7.9000e-004	0.0413	1.4300e-003	0.0428	0.0112	1.3600e-003	0.0126	0.0000	75.1579	75.1579	1.2500e-003	9.7000e-003	78.0799

Sunlakes Boulevard - Riverside-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**3.3 Paving - 2025****Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0105	0.0987	0.1677	2.6000e-004		4.8100e-003	4.8100e-003		4.4300e-003	4.4300e-003	0.0000	23.0221	23.0221	7.4500e-003	0.0000	23.2083
Paving	5.8000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0111	0.0987	0.1677	2.6000e-004		4.8100e-003	4.8100e-003		4.4300e-003	4.4300e-003	0.0000	23.0221	23.0221	7.4500e-003	0.0000	23.2083

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.9000e-004	9.6300e-003	2.5900e-003	5.0000e-005	1.5900e-003	1.1000e-004	1.7000e-003	4.4000e-004	1.1000e-004	5.4000e-004	0.0000	4.7244	4.7244	8.0000e-005	7.4000e-004	4.9482
Vendor	2.0000e-005	7.8000e-004	3.1000e-004	0.0000	1.5000e-004	1.0000e-005	1.5000e-004	4.0000e-005	1.0000e-005	5.0000e-005	0.0000	0.3743	0.3743	0.0000	6.0000e-005	0.3908
Worker	4.9000e-004	3.3000e-004	4.7000e-003	1.0000e-005	1.9000e-003	1.0000e-005	1.9000e-003	5.0000e-004	1.0000e-005	5.1000e-004	0.0000	1.3488	1.3488	3.0000e-005	3.0000e-005	1.3595
Total	7.0000e-004	0.0107	7.6000e-003	6.0000e-005	3.6400e-003	1.3000e-004	3.7500e-003	9.8000e-004	1.3000e-004	1.1000e-003	0.0000	6.4475	6.4475	1.1000e-004	8.3000e-004	6.6985

Sunlakes Boulevard - Riverside-South Coast County, Annual

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

3.3 Paving - 2025

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0105	0.0987	0.1677	2.6000e-004		4.8100e-003	4.8100e-003		4.4300e-003	4.4300e-003	0.0000	23.0221	23.0221	7.4500e-003	0.0000	23.2083
Paving	5.8000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0111	0.0987	0.1677	2.6000e-004		4.8100e-003	4.8100e-003		4.4300e-003	4.4300e-003	0.0000	23.0221	23.0221	7.4500e-003	0.0000	23.2083

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.9000e-004	9.6300e-003	2.5900e-003	5.0000e-005	1.5900e-003	1.1000e-004	1.7000e-003	4.4000e-004	1.1000e-004	5.4000e-004	0.0000	4.7244	4.7244	8.0000e-005	7.4000e-004	4.9482
Vendor	2.0000e-005	7.8000e-004	3.1000e-004	0.0000	1.5000e-004	1.0000e-005	1.5000e-004	4.0000e-005	1.0000e-005	5.0000e-005	0.0000	0.3743	0.3743	0.0000	6.0000e-005	0.3908
Worker	4.9000e-004	3.3000e-004	4.7000e-003	1.0000e-005	1.9000e-003	1.0000e-005	1.9000e-003	5.0000e-004	1.0000e-005	5.1000e-004	0.0000	1.3488	1.3488	3.0000e-005	3.0000e-005	1.3595
Total	7.0000e-004	0.0107	7.6000e-003	6.0000e-005	3.6400e-003	1.3000e-004	3.7500e-003	9.8000e-004	1.3000e-004	1.1000e-003	0.0000	6.4475	6.4475	1.1000e-004	8.3000e-004	6.6985

Sunlakes Boulevard - Riverside-South Coast County, Annual

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

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

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

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Other Asphalt Surfaces	0.00	0.00	0.00		
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Other Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Other Non-Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

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

[illegible]

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

Unmitigated

[illegible]

Mitigated

[illegible]

Sunlakes Boulevard - Riverside-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**5.3 Energy by Land Use - Electricity****Unmitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Other Asphalt Surfaces	154053	21.7305	2.3100e-003	2.8000e-004	21.8714
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Total		21.7305	2.3100e-003	2.8000e-004	21.8714

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Other Asphalt Surfaces	154053	21.7305	2.3100e-003	2.8000e-004	21.8714
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Total		21.7305	2.3100e-003	2.8000e-004	21.8714

6.0 Area Detail

Sunlakes Boulevard - Riverside-South Coast County, Annual

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

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0815	1.2000e-004	0.0130	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005	0.0000	0.0254	0.0254	7.0000e-005	0.0000	0.0270
Unmitigated	0.0815	1.2000e-004	0.0130	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005	0.0000	0.0254	0.0254	7.0000e-005	0.0000	0.0270

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0142					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0661					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.2000e-003	1.2000e-004	0.0130	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005	0.0000	0.0254	0.0254	7.0000e-005	0.0000	0.0270
Total	0.0815	1.2000e-004	0.0130	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005	0.0000	0.0254	0.0254	7.0000e-005	0.0000	0.0270

Sunlakes Boulevard - Riverside-South Coast County, Annual

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

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0142					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0661					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.2000e-003	1.2000e-004	0.0130	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005	0.0000	0.0254	0.0254	7.0000e-005	0.0000	0.0270
Total	0.0815	1.2000e-004	0.0130	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005	0.0000	0.0254	0.0254	7.0000e-005	0.0000	0.0270

7.0 Water Detail

7.1 Mitigation Measures Water

Sunlakes Boulevard - Riverside-South Coast County, Annual

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

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

7.2 Water by Land Use**Unmitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

Sunlakes Boulevard - Riverside-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**7.2 Water by Land Use****Mitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

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

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

Sunlakes Boulevard - Riverside-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**8.2 Waste by Land Use****Unmitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Other Non- Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Other Non- Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

9.0 Operational Offroad

Sunlakes Boulevard - Riverside-South Coast County, Annual

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

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

Fire Pumps and Emergency Generators

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

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

Equipment Type	Number
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11.0 Vegetation
