

Yorba Villas Existing General Plan Operation - San Bernardino-South Coast County, Annual

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

Yorba Villas Existing General Plan Operation

San Bernardino-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	4.03	Acre	4.03	175,546.80	0
City Park	0.51	Acre	0.51	22,215.60	0
Single Family Housing	27.00	Dwelling Unit	8.81	48,600.00	77

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	32
Climate Zone	10			Operational Year	2023
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	390.98	CH4 Intensity (lb/MWhr)	0.033	N2O Intensity (lb/MWhr)	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -
 Land Use - Acres from project site plan
 Construction Phase - Operation Only.
 Off-road Equipment - Operation Analysis Only.
 Trips and VMT - Operation Analysis Only.
 Vehicle Trips - City park in place of landscape, does not generate trips.
 Woodstoves - No woodstoves proposed. Assumed every home has a fireplace.
 Area Mitigation - SCAQMD Rule 1113

Yorba Villas Existing General Plan Operation - San Bernardino-South Coast County, Annual

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

Table Name	Column Name	Default Value	New Value
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorValue	100	50
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	100	50
tblAreaMitigation	UseLowVOCPaintParkingCheck	False	True
tblAreaMitigation	UseLowVOCPaintParkingValue	100	50
tblConstructionPhase	NumDays	20.00	0.00
tblConstructionPhase	PhaseEndDate	12/8/2021	11/10/2021
tblFireplaces	NumberGas	22.95	27.00
tblFireplaces	NumberNoFireplace	2.70	0.00
tblFireplaces	NumberWood	1.35	0.00
tblLandUse	LotAcreage	8.77	8.81
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblTripsAndVMT	WorkerTripNumber	19.00	0.00
tblVehicleTrips	ST_TR	1.96	0.00
tblVehicleTrips	SU_TR	2.19	0.00
tblVehicleTrips	WD_TR	0.78	0.00
tblWoodstoves	NumberCatalytic	1.35	0.00
tblWoodstoves	NumberNoncatalytic	1.35	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

2.0 Emissions Summary

Yorba Villas Existing General Plan Operation - San Bernardino-South Coast County, Annual

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

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

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

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)

Yorba Villas Existing General Plan Operation - San Bernardino-South Coast County, Annual

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

		Highest		
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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	0.2139	8.8100e-003	0.2809	5.0000e-005		1.9900e-003	1.9900e-003		1.9900e-003	1.9900e-003	0.0000	6.9387	6.9387	5.6000e-004	1.2000e-004	6.9881
Energy	4.1200e-003	0.0352	0.0150	2.2000e-004		2.8500e-003	2.8500e-003		2.8500e-003	2.8500e-003	0.0000	78.8939	78.8939	4.0000e-003	1.1400e-003	79.3328
Mobile	0.1373	0.2239	1.4509	3.1900e-003	0.3245	2.5800e-003	0.3271	0.0867	2.4100e-003	0.0891	0.0000	297.6958	297.6958	0.0171	0.0150	302.6042
Waste						0.0000	0.0000		0.0000	0.0000	6.4165	0.0000	6.4165	0.3792	0.0000	15.8967
Water						0.0000	0.0000		0.0000	0.0000	0.5581	7.4447	8.0028	0.0580	1.4300e-003	9.8776
Total	0.3552	0.2679	1.7468	3.4600e-003	0.3245	7.4200e-003	0.3319	0.0867	7.2500e-003	0.0939	6.9746	390.9730	397.9477	0.4589	0.0177	414.6995

Yorba Villas Existing General Plan Operation - San Bernardino-South Coast County, Annual

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

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.2127	8.8100e-003	0.2809	5.0000e-005		1.9900e-003	1.9900e-003		1.9900e-003	1.9900e-003	0.0000	6.9387	6.9387	5.6000e-004	1.2000e-004	6.9881
Energy	4.1200e-003	0.0352	0.0150	2.2000e-004		2.8500e-003	2.8500e-003		2.8500e-003	2.8500e-003	0.0000	78.8939	78.8939	4.0000e-003	1.1400e-003	79.3328
Mobile	0.1373	0.2239	1.4509	3.1900e-003	0.3245	2.5800e-003	0.3271	0.0867	2.4100e-003	0.0891	0.0000	297.6958	297.6958	0.0171	0.0150	302.6042
Waste						0.0000	0.0000		0.0000	0.0000	6.4165	0.0000	6.4165	0.3792	0.0000	15.8967
Water						0.0000	0.0000		0.0000	0.0000	0.5581	7.4447	8.0028	0.0580	1.4300e-003	9.8776
Total	0.3540	0.2679	1.7468	3.4600e-003	0.3245	7.4200e-003	0.3319	0.0867	7.2500e-003	0.0939	6.9746	390.9730	397.9477	0.4589	0.0177	414.6995

	ROG	NOx	CO	SO2	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	0.34	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	Operation Only	Architectural Coating	11/11/2021	11/10/2021	5	0	

Acres of Grading (Site Preparation Phase): 0

Yorba Villas Existing General Plan Operation - San Bernardino-South Coast County, Annual

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

3.2 Operation Only - 2021

Mitigated Construction Off-Site

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

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Yorba Villas Existing General Plan Operation - San Bernardino-South Coast County, Annual

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.1373	0.2239	1.4509	3.1900e-003	0.3245	2.5800e-003	0.3271	0.0867	2.4100e-003	0.0891	0.0000	297.6958	297.6958	0.0171	0.0150	302.6042
Unmitigated	0.1373	0.2239	1.4509	3.1900e-003	0.3245	2.5800e-003	0.3271	0.0867	2.4100e-003	0.0891	0.0000	297.6958	297.6958	0.0171	0.0150	302.6042

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	0.00	0.00	0.00		
Other Asphalt Surfaces	0.00	0.00	0.00		
Single Family Housing	254.88	257.58	230.85	860,551	860,551
Total	254.88	257.58	230.85	860,551	860,551

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
City Park	16.60	8.40	6.90	33.00	48.00	19.00	66	28	6
Other Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Single Family Housing	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
City Park	0.537785	0.055838	0.172353	0.139003	0.027005	0.007196	0.011392	0.017285	0.000559	0.000254	0.025303	0.000954	0.005071
Other Asphalt Surfaces	0.537785	0.055838	0.172353	0.139003	0.027005	0.007196	0.011392	0.017285	0.000559	0.000254	0.025303	0.000954	0.005071

Yorba Villas Existing General Plan Operation - San Bernardino-South Coast County, Annual

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

Single Family Housing	0.537785	0.055838	0.172353	0.139003	0.027005	0.007196	0.011392	0.017285	0.000559	0.000254	0.025303	0.000954	0.005071
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5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	38.1374	38.1374	3.2200e-003	3.9000e-004	38.3342
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	38.1374	38.1374	3.2200e-003	3.9000e-004	38.3342
Natural Gas Mitigated	4.1200e-003	0.0352	0.0150	2.2000e-004		2.8500e-003	2.8500e-003		2.8500e-003	2.8500e-003	0.0000	40.7565	40.7565	7.8000e-004	7.5000e-004	40.9987
Natural Gas Unmitigated	4.1200e-003	0.0352	0.0150	2.2000e-004		2.8500e-003	2.8500e-003		2.8500e-003	2.8500e-003	0.0000	40.7565	40.7565	7.8000e-004	7.5000e-004	40.9987

Yorba Villas Existing General Plan Operation - San Bernardino-South Coast County, Annual

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

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Single Family Housing	763747	4.1200e-003	0.0352	0.0150	2.2000e-004		2.8500e-003	2.8500e-003		2.8500e-003	2.8500e-003	0.0000	40.7565	40.7565	7.8000e-004	7.5000e-004	40.9987
Total		4.1200e-003	0.0352	0.0150	2.2000e-004		2.8500e-003	2.8500e-003		2.8500e-003	2.8500e-003	0.0000	40.7565	40.7565	7.8000e-004	7.5000e-004	40.9987

Yorba Villas Existing General Plan Operation - San Bernardino-South Coast County, Annual

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

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Single Family Housing	763747	4.1200e-003	0.0352	0.0150	2.2000e-004		2.8500e-003	2.8500e-003		2.8500e-003	2.8500e-003	0.0000	40.7565	40.7565	7.8000e-004	7.5000e-004	40.9987
Total		4.1200e-003	0.0352	0.0150	2.2000e-004		2.8500e-003	2.8500e-003		2.8500e-003	2.8500e-003	0.0000	40.7565	40.7565	7.8000e-004	7.5000e-004	40.9987

Yorba Villas Existing General Plan Operation - San Bernardino-South Coast County, Annual

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

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
City Park	0	0.0000	0.0000	0.0000	0.0000
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	215046	38.1374	3.2200e-003	3.9000e-004	38.3342
Total		38.1374	3.2200e-003	3.9000e-004	38.3342

Yorba Villas Existing General Plan Operation - San Bernardino-South Coast County, Annual

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

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
City Park	0	0.0000	0.0000	0.0000	0.0000
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	215046	38.1374	3.2200e-003	3.9000e-004	38.3342
Total		38.1374	3.2200e-003	3.9000e-004	38.3342

6.0 Area Detail

6.1 Mitigation Measures Area

- Use Low VOC Paint - Residential Interior
- Use Low VOC Paint - Residential Exterior
- Use Low VOC Paint - Non-Residential Interior
- Use Low VOC Paint - Non-Residential Exterior

Yorba Villas Existing General Plan Operation - San Bernardino-South Coast County, Annual

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.2127	8.8100e-003	0.2809	5.0000e-005		1.9900e-003	1.9900e-003		1.9900e-003	1.9900e-003	0.0000	6.9387	6.9387	5.6000e-004	1.2000e-004	6.9881
Unmitigated	0.2139	8.8100e-003	0.2809	5.0000e-005		1.9900e-003	1.9900e-003		1.9900e-003	1.9900e-003	0.0000	6.9387	6.9387	5.6000e-004	1.2000e-004	6.9881

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	0.0177					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1872					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	6.6000e-004	5.6000e-003	2.3800e-003	4.0000e-005		4.5000e-004	4.5000e-004		4.5000e-004	4.5000e-004	0.0000	6.4837	6.4837	1.2000e-004	1.2000e-004	6.5222
Landscaping	8.4000e-003	3.2100e-003	0.2786	1.0000e-005		1.5400e-003	1.5400e-003		1.5400e-003	1.5400e-003	0.0000	0.4549	0.4549	4.4000e-004	0.0000	0.4659
Total	0.2139	8.8100e-003	0.2809	5.0000e-005		1.9900e-003	1.9900e-003		1.9900e-003	1.9900e-003	0.0000	6.9386	6.9386	5.6000e-004	1.2000e-004	6.9881

Yorba Villas Existing General Plan Operation - San Bernardino-South Coast County, Annual

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

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0164					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1872					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	6.6000e-004	5.6000e-003	2.3800e-003	4.0000e-005		4.5000e-004	4.5000e-004		4.5000e-004	4.5000e-004	0.0000	6.4837	6.4837	1.2000e-004	1.2000e-004	6.5222
Landscaping	8.4000e-003	3.2100e-003	0.2786	1.0000e-005		1.5400e-003	1.5400e-003		1.5400e-003	1.5400e-003	0.0000	0.4549	0.4549	4.4000e-004	0.0000	0.4659
Total	0.2127	8.8100e-003	0.2809	5.0000e-005		1.9900e-003	1.9900e-003		1.9900e-003	1.9900e-003	0.0000	6.9386	6.9386	5.6000e-004	1.2000e-004	6.9881

7.0 Water Detail

7.1 Mitigation Measures Water

Yorba Villas Existing General Plan Operation - San Bernardino-South Coast County, Annual

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

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	8.0028	0.0580	1.4300e-003	9.8776
Unmitigated	8.0028	0.0580	1.4300e-003	9.8776

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
City Park	0 / 0.607655	1.1973	1.0000e-004	1.0000e-005	1.2035
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	1.75916 / 1.10903	6.8055	0.0579	1.4200e-003	8.6742
Total		8.0028	0.0580	1.4300e-003	9.8776

Yorba Villas Existing General Plan Operation - San Bernardino-South Coast County, Annual

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

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
City Park	0 / 0.607655	1.1973	1.0000e-004	1.0000e-005	1.2035
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	1.75916 / 1.10903	6.8055	0.0579	1.4200e-003	8.6742
Total		8.0028	0.0580	1.4300e-003	9.8776

8.0 Waste Detail

8.1 Mitigation Measures Waste

Yorba Villas Existing General Plan Operation - San Bernardino-South Coast County, Annual

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

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	6.4165	0.3792	0.0000	15.8967
Unmitigated	6.4165	0.3792	0.0000	15.8967

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park	0.04	8.1200e-003	4.8000e-004	0.0000	0.0201
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	31.57	6.4084	0.3787	0.0000	15.8766
Total		6.4165	0.3792	0.0000	15.8967

Yorba Villas Existing General Plan Operation - San Bernardino-South Coast County, Annual

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

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park	0.04	8.1200e-003	4.8000e-004	0.0000	0.0201
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	31.57	6.4084	0.3787	0.0000	15.8766
Total		6.4165	0.3792	0.0000	15.8967

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
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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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Yorba Villas Existing General Plan Operation - San Bernardino-South Coast County, Annual

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

11.0 Vegetation

Yorba Villas Existing General Plan Operation - San Bernardino-South Coast County, Annual

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

Yorba Villas Existing General Plan Operation

San Bernardino-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	4.03	Acre	4.03	175,546.80	0
City Park	0.51	Acre	0.51	22,215.60	0
Single Family Housing	27.00	Dwelling Unit	8.81	48,600.00	77

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	32
Climate Zone	10			Operational Year	2023
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	390.98	CH4 Intensity (lb/MWhr)	0.033	N2O Intensity (lb/MWhr)	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -
 Land Use - Acres from project site plan
 Construction Phase - Operation Only.
 Off-road Equipment - Operation Analysis Only.
 Trips and VMT - Operation Analysis Only.
 Vehicle Trips - City park in place of landscape, does not generate trips.
 Woodstoves - No woodstoves proposed. Assumed every home has a fireplace.
 Area Mitigation - SCAQMD Rule 1113

Yorba Villas Existing General Plan Operation - San Bernardino-South Coast County, Annual

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

Table Name	Column Name	Default Value	New Value
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorValue	100	50
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	100	50
tblAreaMitigation	UseLowVOCPaintParkingCheck	False	True
tblAreaMitigation	UseLowVOCPaintParkingValue	100	50
tblConstructionPhase	NumDays	20.00	0.00
tblConstructionPhase	PhaseEndDate	12/8/2021	11/10/2021
tblFireplaces	NumberGas	22.95	27.00
tblFireplaces	NumberNoFireplace	2.70	0.00
tblFireplaces	NumberWood	1.35	0.00
tblLandUse	LotAcreage	8.77	8.81
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblTripsAndVMT	WorkerTripNumber	19.00	0.00
tblVehicleTrips	ST_TR	1.96	0.00
tblVehicleTrips	SU_TR	2.19	0.00
tblVehicleTrips	WD_TR	0.78	0.00
tblWoodstoves	NumberCatalytic	1.35	0.00
tblWoodstoves	NumberNoncatalytic	1.35	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

2.0 Emissions Summary

Yorba Villas Existing General Plan Operation - San Bernardino-South Coast County, Annual

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

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

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

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)

Yorba Villas Existing General Plan Operation - San Bernardino-South Coast County, Annual

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

		Highest		
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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	0.2139	8.8100e-003	0.2809	5.0000e-005		1.9900e-003	1.9900e-003		1.9900e-003	1.9900e-003	0.0000	6.9387	6.9387	5.6000e-004	1.2000e-004	6.9881
Energy	4.1200e-003	0.0352	0.0150	2.2000e-004		2.8500e-003	2.8500e-003		2.8500e-003	2.8500e-003	0.0000	78.8939	78.8939	4.0000e-003	1.1400e-003	79.3328
Mobile	0.1373	0.2239	1.4509	3.1900e-003	0.3245	2.5800e-003	0.3271	0.0867	2.4100e-003	0.0891	0.0000	297.6958	297.6958	0.0171	0.0150	302.6042
Waste						0.0000	0.0000		0.0000	0.0000	6.4165	0.0000	6.4165	0.3792	0.0000	15.8967
Water						0.0000	0.0000		0.0000	0.0000	0.5581	7.4447	8.0028	0.0580	1.4300e-003	9.8776
Total	0.3552	0.2679	1.7468	3.4600e-003	0.3245	7.4200e-003	0.3319	0.0867	7.2500e-003	0.0939	6.9746	390.9730	397.9477	0.4589	0.0177	414.6995

Yorba Villas Existing General Plan Operation - San Bernardino-South Coast County, Annual

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

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.2127	8.8100e-003	0.2809	5.0000e-005		1.9900e-003	1.9900e-003		1.9900e-003	1.9900e-003	0.0000	6.9387	6.9387	5.6000e-004	1.2000e-004	6.9881
Energy	4.1200e-003	0.0352	0.0150	2.2000e-004		2.8500e-003	2.8500e-003		2.8500e-003	2.8500e-003	0.0000	78.8939	78.8939	4.0000e-003	1.1400e-003	79.3328
Mobile	0.1373	0.2239	1.4509	3.1900e-003	0.3245	2.5800e-003	0.3271	0.0867	2.4100e-003	0.0891	0.0000	297.6958	297.6958	0.0171	0.0150	302.6042
Waste						0.0000	0.0000		0.0000	0.0000	6.4165	0.0000	6.4165	0.3792	0.0000	15.8967
Water						0.0000	0.0000		0.0000	0.0000	0.5581	7.4447	8.0028	0.0580	1.4300e-003	9.8776
Total	0.3540	0.2679	1.7468	3.4600e-003	0.3245	7.4200e-003	0.3319	0.0867	7.2500e-003	0.0939	6.9746	390.9730	397.9477	0.4589	0.0177	414.6995

	ROG	NOx	CO	SO2	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	0.34	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	Operation Only	Architectural Coating	11/11/2021	11/10/2021	5	0	

Acres of Grading (Site Preparation Phase): 0

Yorba Villas Existing General Plan Operation - San Bernardino-South Coast County, Annual

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

3.2 Operation Only - 2021

Mitigated Construction Off-Site

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

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Yorba Villas Existing General Plan Operation - San Bernardino-South Coast County, Annual

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.1373	0.2239	1.4509	3.1900e-003	0.3245	2.5800e-003	0.3271	0.0867	2.4100e-003	0.0891	0.0000	297.6958	297.6958	0.0171	0.0150	302.6042
Unmitigated	0.1373	0.2239	1.4509	3.1900e-003	0.3245	2.5800e-003	0.3271	0.0867	2.4100e-003	0.0891	0.0000	297.6958	297.6958	0.0171	0.0150	302.6042

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	0.00	0.00	0.00		
Other Asphalt Surfaces	0.00	0.00	0.00		
Single Family Housing	254.88	257.58	230.85	860,551	860,551
Total	254.88	257.58	230.85	860,551	860,551

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
City Park	16.60	8.40	6.90	33.00	48.00	19.00	66	28	6
Other Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Single Family Housing	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
City Park	0.537785	0.055838	0.172353	0.139003	0.027005	0.007196	0.011392	0.017285	0.000559	0.000254	0.025303	0.000954	0.005071
Other Asphalt Surfaces	0.537785	0.055838	0.172353	0.139003	0.027005	0.007196	0.011392	0.017285	0.000559	0.000254	0.025303	0.000954	0.005071

Yorba Villas Existing General Plan Operation - San Bernardino-South Coast County, Annual

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

Single Family Housing	0.537785	0.055838	0.172353	0.139003	0.027005	0.007196	0.011392	0.017285	0.000559	0.000254	0.025303	0.000954	0.005071
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5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	38.1374	38.1374	3.2200e-003	3.9000e-004	38.3342
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	38.1374	38.1374	3.2200e-003	3.9000e-004	38.3342
Natural Gas Mitigated	4.1200e-003	0.0352	0.0150	2.2000e-004		2.8500e-003	2.8500e-003		2.8500e-003	2.8500e-003	0.0000	40.7565	40.7565	7.8000e-004	7.5000e-004	40.9987
Natural Gas Unmitigated	4.1200e-003	0.0352	0.0150	2.2000e-004		2.8500e-003	2.8500e-003		2.8500e-003	2.8500e-003	0.0000	40.7565	40.7565	7.8000e-004	7.5000e-004	40.9987

Yorba Villas Existing General Plan Operation - San Bernardino-South Coast County, Annual

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

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Single Family Housing	763747	4.1200e-003	0.0352	0.0150	2.2000e-004		2.8500e-003	2.8500e-003		2.8500e-003	2.8500e-003	0.0000	40.7565	40.7565	7.8000e-004	7.5000e-004	40.9987
Total		4.1200e-003	0.0352	0.0150	2.2000e-004		2.8500e-003	2.8500e-003		2.8500e-003	2.8500e-003	0.0000	40.7565	40.7565	7.8000e-004	7.5000e-004	40.9987

Yorba Villas Existing General Plan Operation - San Bernardino-South Coast County, Annual

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

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Single Family Housing	763747	4.1200e-003	0.0352	0.0150	2.2000e-004		2.8500e-003	2.8500e-003		2.8500e-003	2.8500e-003	0.0000	40.7565	40.7565	7.8000e-004	7.5000e-004	40.9987
Total		4.1200e-003	0.0352	0.0150	2.2000e-004		2.8500e-003	2.8500e-003		2.8500e-003	2.8500e-003	0.0000	40.7565	40.7565	7.8000e-004	7.5000e-004	40.9987

Yorba Villas Existing General Plan Operation - San Bernardino-South Coast County, Annual

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

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
City Park	0	0.0000	0.0000	0.0000	0.0000
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	215046	38.1374	3.2200e-003	3.9000e-004	38.3342
Total		38.1374	3.2200e-003	3.9000e-004	38.3342

Yorba Villas Existing General Plan Operation - San Bernardino-South Coast County, Annual

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

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
City Park	0	0.0000	0.0000	0.0000	0.0000
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	215046	38.1374	3.2200e-003	3.9000e-004	38.3342
Total		38.1374	3.2200e-003	3.9000e-004	38.3342

6.0 Area Detail

6.1 Mitigation Measures Area

- Use Low VOC Paint - Residential Interior
- Use Low VOC Paint - Residential Exterior
- Use Low VOC Paint - Non-Residential Interior
- Use Low VOC Paint - Non-Residential Exterior

Yorba Villas Existing General Plan Operation - San Bernardino-South Coast County, Annual

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.2127	8.8100e-003	0.2809	5.0000e-005		1.9900e-003	1.9900e-003		1.9900e-003	1.9900e-003	0.0000	6.9387	6.9387	5.6000e-004	1.2000e-004	6.9881
Unmitigated	0.2139	8.8100e-003	0.2809	5.0000e-005		1.9900e-003	1.9900e-003		1.9900e-003	1.9900e-003	0.0000	6.9387	6.9387	5.6000e-004	1.2000e-004	6.9881

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	0.0177					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1872					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	6.6000e-004	5.6000e-003	2.3800e-003	4.0000e-005		4.5000e-004	4.5000e-004		4.5000e-004	4.5000e-004	0.0000	6.4837	6.4837	1.2000e-004	1.2000e-004	6.5222
Landscaping	8.4000e-003	3.2100e-003	0.2786	1.0000e-005		1.5400e-003	1.5400e-003		1.5400e-003	1.5400e-003	0.0000	0.4549	0.4549	4.4000e-004	0.0000	0.4659
Total	0.2139	8.8100e-003	0.2809	5.0000e-005		1.9900e-003	1.9900e-003		1.9900e-003	1.9900e-003	0.0000	6.9386	6.9386	5.6000e-004	1.2000e-004	6.9881

Yorba Villas Existing General Plan Operation - San Bernardino-South Coast County, Annual

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

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0164					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1872					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	6.6000e-004	5.6000e-003	2.3800e-003	4.0000e-005		4.5000e-004	4.5000e-004		4.5000e-004	4.5000e-004	0.0000	6.4837	6.4837	1.2000e-004	1.2000e-004	6.5222
Landscaping	8.4000e-003	3.2100e-003	0.2786	1.0000e-005		1.5400e-003	1.5400e-003		1.5400e-003	1.5400e-003	0.0000	0.4549	0.4549	4.4000e-004	0.0000	0.4659
Total	0.2127	8.8100e-003	0.2809	5.0000e-005		1.9900e-003	1.9900e-003		1.9900e-003	1.9900e-003	0.0000	6.9386	6.9386	5.6000e-004	1.2000e-004	6.9881

7.0 Water Detail

7.1 Mitigation Measures Water

Yorba Villas Existing General Plan Operation - San Bernardino-South Coast County, Annual

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

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	8.0028	0.0580	1.4300e-003	9.8776
Unmitigated	8.0028	0.0580	1.4300e-003	9.8776

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
City Park	0 / 0.607655	1.1973	1.0000e-004	1.0000e-005	1.2035
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	1.75916 / 1.10903	6.8055	0.0579	1.4200e-003	8.6742
Total		8.0028	0.0580	1.4300e-003	9.8776

Yorba Villas Existing General Plan Operation - San Bernardino-South Coast County, Annual

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

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
City Park	0 / 0.607655	1.1973	1.0000e-004	1.0000e-005	1.2035
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	1.75916 / 1.10903	6.8055	0.0579	1.4200e-003	8.6742
Total		8.0028	0.0580	1.4300e-003	9.8776

8.0 Waste Detail

8.1 Mitigation Measures Waste

Yorba Villas Existing General Plan Operation - San Bernardino-South Coast County, Annual

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

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	6.4165	0.3792	0.0000	15.8967
Unmitigated	6.4165	0.3792	0.0000	15.8967

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park	0.04	8.1200e-003	4.8000e-004	0.0000	0.0201
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	31.57	6.4084	0.3787	0.0000	15.8766
Total		6.4165	0.3792	0.0000	15.8967

Yorba Villas Existing General Plan Operation - San Bernardino-South Coast County, Annual

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

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park	0.04	8.1200e-003	4.8000e-004	0.0000	0.0201
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	31.57	6.4084	0.3787	0.0000	15.8766
Total		6.4165	0.3792	0.0000	15.8967

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
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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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Yorba Villas Existing General Plan Operation - San Bernardino-South Coast County, Annual

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

11.0 Vegetation

Yorba Villas Existing General Plan Operation - San Bernardino-South Coast County, Summer

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

Yorba Villas Existing General Plan Operation

San Bernardino-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	4.03	Acre	4.03	175,546.80	0
City Park	0.51	Acre	0.51	22,215.60	0
Single Family Housing	27.00	Dwelling Unit	8.81	48,600.00	77

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	32
Climate Zone	10			Operational Year	2023
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	390.98	CH4 Intensity (lb/MWhr)	0.033	N2O Intensity (lb/MWhr)	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -
 Land Use - Acres from project site plan
 Construction Phase - Operation Only.
 Off-road Equipment - Operation Analysis Only.
 Trips and VMT - Operation Analysis Only.
 Vehicle Trips - City park in place of landscape, does not generate trips.
 Woodstoves - No woodstoves proposed. Assumed every home has a fireplace.
 Area Mitigation - SCAQMD Rule 1113

Yorba Villas Existing General Plan Operation - San Bernardino-South Coast County, Summer

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

Table Name	Column Name	Default Value	New Value
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorValue	100	50
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	100	50
tblAreaMitigation	UseLowVOCPaintParkingCheck	False	True
tblAreaMitigation	UseLowVOCPaintParkingValue	100	50
tblConstructionPhase	NumDays	20.00	0.00
tblConstructionPhase	PhaseEndDate	12/8/2021	11/10/2021
tblFireplaces	NumberGas	22.95	27.00
tblFireplaces	NumberNoFireplace	2.70	0.00
tblFireplaces	NumberWood	1.35	0.00
tblLandUse	LotAcreage	8.77	8.81
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblTripsAndVMT	WorkerTripNumber	19.00	0.00
tblVehicleTrips	ST_TR	1.96	0.00
tblVehicleTrips	SU_TR	2.19	0.00
tblVehicleTrips	WD_TR	0.78	0.00
tblWoodstoves	NumberCatalytic	1.35	0.00
tblWoodstoves	NumberNoncatalytic	1.35	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

2.0 Emissions Summary

Yorba Villas Existing General Plan Operation - San Bernardino-South Coast County, Summer

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

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	1.2419	0.4736	2.4191	2.9800e-003		0.0486	0.0486		0.0486	0.0486	0.0000	575.7766	575.7766	0.0148	0.0105	579.2708
Energy	0.0226	0.1928	0.0821	1.2300e-003		0.0156	0.0156		0.0156	0.0156		246.1716	246.1716	4.7200e-003	4.5100e-003	247.6345
Mobile	0.8912	1.1605	8.7833	0.0191	1.8587	0.0145	1.8732	0.4957	0.0136	0.5093		1,961.112 2	1,961.112 2	0.1026	0.0896	1,990.369 3
Total	2.1556	1.8269	11.2845	0.0233	1.8587	0.0786	1.9373	0.4957	0.0777	0.5735	0.0000	2,783.060 4	2,783.060 4	0.1222	0.1046	2,817.274 6

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	1.2352	0.4736	2.4191	2.9800e-003		0.0486	0.0486		0.0486	0.0486	0.0000	575.7766	575.7766	0.0148	0.0105	579.2708
Energy	0.0226	0.1928	0.0821	1.2300e-003		0.0156	0.0156		0.0156	0.0156		246.1716	246.1716	4.7200e-003	4.5100e-003	247.6345
Mobile	0.8912	1.1605	8.7833	0.0191	1.8587	0.0145	1.8732	0.4957	0.0136	0.5093		1,961.112 2	1,961.112 2	0.1026	0.0896	1,990.369 3
Total	2.1489	1.8269	11.2845	0.0233	1.8587	0.0786	1.9373	0.4957	0.0777	0.5735	0.0000	2,783.060 4	2,783.060 4	0.1222	0.1046	2,817.274 6

Yorba Villas Existing General Plan Operation - San Bernardino-South Coast County, Summer

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.31	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	Operation Only	Architectural Coating	11/11/2021	11/10/2021	5	0	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 4.03

Residential Indoor: 98,415; Residential Outdoor: 32,805; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 10,533 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Operation Only	Air Compressors	0	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Operation Only	0	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Yorba Villas Existing General Plan Operation - San Bernardino-South Coast County, Summer

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

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive 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	0.8912	1.1605	8.7833	0.0191	1.8587	0.0145	1.8732	0.4957	0.0136	0.5093		1,961.112 2	1,961.112 2	0.1026	0.0896	1,990.369 3
Unmitigated	0.8912	1.1605	8.7833	0.0191	1.8587	0.0145	1.8732	0.4957	0.0136	0.5093		1,961.112 2	1,961.112 2	0.1026	0.0896	1,990.369 3

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	0.00	0.00	0.00		
Other Asphalt Surfaces	0.00	0.00	0.00		
Single Family Housing	254.88	257.58	230.85	860,551	860,551
Total	254.88	257.58	230.85	860,551	860,551

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
City Park	16.60	8.40	6.90	33.00	48.00	19.00	66	28	6
Other Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Single Family Housing	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3

Yorba Villas Existing General Plan Operation - San Bernardino-South Coast County, Summer

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

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
City Park	0.537785	0.055838	0.172353	0.139003	0.027005	0.007196	0.011392	0.017285	0.000559	0.000254	0.025303	0.000954	0.005071
Other Asphalt Surfaces	0.537785	0.055838	0.172353	0.139003	0.027005	0.007196	0.011392	0.017285	0.000559	0.000254	0.025303	0.000954	0.005071
Single Family Housing	0.537785	0.055838	0.172353	0.139003	0.027005	0.007196	0.011392	0.017285	0.000559	0.000254	0.025303	0.000954	0.005071

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0226	0.1928	0.0821	1.2300e-003		0.0156	0.0156		0.0156	0.0156		246.1716	246.1716	4.7200e-003	4.5100e-003	247.6345
NaturalGas Unmitigated	0.0226	0.1928	0.0821	1.2300e-003		0.0156	0.0156		0.0156	0.0156		246.1716	246.1716	4.7200e-003	4.5100e-003	247.6345

Yorba Villas Existing General Plan Operation - San Bernardino-South Coast County, Summer

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

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
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
Single Family Housing	2092.46	0.0226	0.1928	0.0821	1.2300e-003		0.0156	0.0156		0.0156	0.0156		246.1716	246.1716	4.7200e-003	4.5100e-003	247.6345
Total		0.0226	0.1928	0.0821	1.2300e-003		0.0156	0.0156		0.0156	0.0156		246.1716	246.1716	4.7200e-003	4.5100e-003	247.6345

Yorba Villas Existing General Plan Operation - San Bernardino-South Coast County, Summer

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

5.2 Energy by Land Use - NaturalGas

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					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
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
Single Family Housing	2.09246	0.0226	0.1928	0.0821	1.2300e-003		0.0156	0.0156		0.0156	0.0156		246.1716	246.1716	4.7200e-003	4.5100e-003	247.6345
Total		0.0226	0.1928	0.0821	1.2300e-003		0.0156	0.0156		0.0156	0.0156		246.1716	246.1716	4.7200e-003	4.5100e-003	247.6345

6.0 Area Detail

6.1 Mitigation Measures Area

- Use Low VOC Paint - Residential Interior
- Use Low VOC Paint - Residential Exterior
- Use Low VOC Paint - Non-Residential Interior
- Use Low VOC Paint - Non-Residential Exterior

Yorba Villas Existing General Plan Operation - San Bernardino-South Coast County, Summer

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	1.2352	0.4736	2.4191	2.9800e-003		0.0486	0.0486		0.0486	0.0486	0.0000	575.7766	575.7766	0.0148	0.0105	579.2708
Unmitigated	1.2419	0.4736	2.4191	2.9800e-003		0.0486	0.0486		0.0486	0.0486	0.0000	575.7766	575.7766	0.0148	0.0105	579.2708

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	0.0967					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.0256					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0524	0.4479	0.1906	2.8600e-003		0.0362	0.0362		0.0362	0.0362	0.0000	571.7647	571.7647	0.0110	0.0105	575.1624
Landscaping	0.0672	0.0257	2.2285	1.2000e-004		0.0123	0.0123		0.0123	0.0123		4.0119	4.0119	3.8600e-003		4.1084
Total	1.2419	0.4736	2.4191	2.9800e-003		0.0485	0.0485		0.0485	0.0485	0.0000	575.7766	575.7766	0.0148	0.0105	579.2708

Yorba Villas Existing General Plan Operation - San Bernardino-South Coast County, Summer

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

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0900					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.0256					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0524	0.4479	0.1906	2.8600e-003		0.0362	0.0362		0.0362	0.0362	0.0000	571.7647	571.7647	0.0110	0.0105	575.1624
Landscaping	0.0672	0.0257	2.2285	1.2000e-004		0.0123	0.0123		0.0123	0.0123		4.0119	4.0119	3.8600e-003		4.1084
Total	1.2352	0.4736	2.4191	2.9800e-003		0.0485	0.0485		0.0485	0.0485	0.0000	575.7766	575.7766	0.0148	0.0105	579.2708

7.0 Water Detail

7.1 Mitigation Measures Water

Yorba Villas Existing General Plan Operation - San Bernardino-South Coast County, Summer

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

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

Yorba Villas Existing General Plan Operation - San Bernardino-South Coast County, Winter

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

**Yorba Villas Existing General Plan Operation
San Bernardino-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	4.03	Acre	4.03	175,546.80	0
City Park	0.51	Acre	0.51	22,215.60	0
Single Family Housing	27.00	Dwelling Unit	8.81	48,600.00	77

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	32
Climate Zone	10			Operational Year	2023
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	390.98	CH4 Intensity (lb/MWhr)	0.033	N2O Intensity (lb/MWhr)	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -
 Land Use - Acres from project site plan
 Construction Phase - Operation Only.
 Off-road Equipment - Operation Analysis Only.
 Trips and VMT - Operation Analysis Only.
 Vehicle Trips - City park in place of landscape, does not generate trips.
 Woodstoves - No woodstoves proposed. Assumed every home has a fireplace.
 Area Mitigation - SCAQMD Rule 1113

Yorba Villas Existing General Plan Operation - San Bernardino-South Coast County, Winter

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

Table Name	Column Name	Default Value	New Value
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorValue	100	50
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	100	50
tblAreaMitigation	UseLowVOCPaintParkingCheck	False	True
tblAreaMitigation	UseLowVOCPaintParkingValue	100	50
tblConstructionPhase	NumDays	20.00	0.00
tblConstructionPhase	PhaseEndDate	12/8/2021	11/10/2021
tblFireplaces	NumberGas	22.95	27.00
tblFireplaces	NumberNoFireplace	2.70	0.00
tblFireplaces	NumberWood	1.35	0.00
tblLandUse	LotAcreage	8.77	8.81
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblTripsAndVMT	WorkerTripNumber	19.00	0.00
tblVehicleTrips	ST_TR	1.96	0.00
tblVehicleTrips	SU_TR	2.19	0.00
tblVehicleTrips	WD_TR	0.78	0.00
tblWoodstoves	NumberCatalytic	1.35	0.00
tblWoodstoves	NumberNoncatalytic	1.35	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

2.0 Emissions Summary

Yorba Villas Existing General Plan Operation - San Bernardino-South Coast County, Winter

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

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	1.2419	0.4736	2.4191	2.9800e-003		0.0486	0.0486		0.0486	0.0486	0.0000	575.7766	575.7766	0.0148	0.0105	579.2708
Energy	0.0226	0.1928	0.0821	1.2300e-003		0.0156	0.0156		0.0156	0.0156		246.1716	246.1716	4.7200e-003	4.5100e-003	247.6345
Mobile	0.7773	1.2322	7.8242	0.0177	1.8587	0.0145	1.8732	0.4957	0.0136	0.5093		1,819.2030	1,819.2030	0.1050	0.0918	1,849.1954
Total	2.0417	1.8986	10.3254	0.0219	1.8587	0.0787	1.9373	0.4957	0.0777	0.5735	0.0000	2,641.1512	2,641.1512	0.1245	0.1068	2,676.1006

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	1.2352	0.4736	2.4191	2.9800e-003		0.0486	0.0486		0.0486	0.0486	0.0000	575.7766	575.7766	0.0148	0.0105	579.2708
Energy	0.0226	0.1928	0.0821	1.2300e-003		0.0156	0.0156		0.0156	0.0156		246.1716	246.1716	4.7200e-003	4.5100e-003	247.6345
Mobile	0.7773	1.2322	7.8242	0.0177	1.8587	0.0145	1.8732	0.4957	0.0136	0.5093		1,819.2030	1,819.2030	0.1050	0.0918	1,849.1954
Total	2.0350	1.8986	10.3254	0.0219	1.8587	0.0787	1.9373	0.4957	0.0777	0.5735	0.0000	2,641.1512	2,641.1512	0.1245	0.1068	2,676.1006

Yorba Villas Existing General Plan Operation - San Bernardino-South Coast County, Winter

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.33	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	Operation Only	Architectural Coating	11/11/2021	11/10/2021	5	0	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 4.03

Residential Indoor: 98,415; Residential Outdoor: 32,805; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 10,533 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Operation Only	Air Compressors	0	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Operation Only	0	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Yorba Villas Existing General Plan Operation - San Bernardino-South Coast County, Winter

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

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive 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	0.7773	1.2322	7.8242	0.0177	1.8587	0.0145	1.8732	0.4957	0.0136	0.5093		1,819.203 0	1,819.203 0	0.1050	0.0918	1,849.195 4
Unmitigated	0.7773	1.2322	7.8242	0.0177	1.8587	0.0145	1.8732	0.4957	0.0136	0.5093		1,819.203 0	1,819.203 0	0.1050	0.0918	1,849.195 4

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	0.00	0.00	0.00		
Other Asphalt Surfaces	0.00	0.00	0.00		
Single Family Housing	254.88	257.58	230.85	860,551	860,551
Total	254.88	257.58	230.85	860,551	860,551

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
City Park	16.60	8.40	6.90	33.00	48.00	19.00	66	28	6
Other Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Single Family Housing	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3

Yorba Villas Existing General Plan Operation - San Bernardino-South Coast County, Winter

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

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
City Park	0.537785	0.055838	0.172353	0.139003	0.027005	0.007196	0.011392	0.017285	0.000559	0.000254	0.025303	0.000954	0.005071
Other Asphalt Surfaces	0.537785	0.055838	0.172353	0.139003	0.027005	0.007196	0.011392	0.017285	0.000559	0.000254	0.025303	0.000954	0.005071
Single Family Housing	0.537785	0.055838	0.172353	0.139003	0.027005	0.007196	0.011392	0.017285	0.000559	0.000254	0.025303	0.000954	0.005071

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0226	0.1928	0.0821	1.2300e-003		0.0156	0.0156		0.0156	0.0156		246.1716	246.1716	4.7200e-003	4.5100e-003	247.6345
NaturalGas Unmitigated	0.0226	0.1928	0.0821	1.2300e-003		0.0156	0.0156		0.0156	0.0156		246.1716	246.1716	4.7200e-003	4.5100e-003	247.6345

Yorba Villas Existing General Plan Operation - San Bernardino-South Coast County, Winter

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

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
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
Single Family Housing	2092.46	0.0226	0.1928	0.0821	1.2300e-003		0.0156	0.0156		0.0156	0.0156		246.1716	246.1716	4.7200e-003	4.5100e-003	247.6345
Total		0.0226	0.1928	0.0821	1.2300e-003		0.0156	0.0156		0.0156	0.0156		246.1716	246.1716	4.7200e-003	4.5100e-003	247.6345

Yorba Villas Existing General Plan Operation - San Bernardino-South Coast County, Winter

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

5.2 Energy by Land Use - NaturalGas

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					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
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
Single Family Housing	2.09246	0.0226	0.1928	0.0821	1.2300e-003		0.0156	0.0156		0.0156	0.0156		246.1716	246.1716	4.7200e-003	4.5100e-003	247.6345
Total		0.0226	0.1928	0.0821	1.2300e-003		0.0156	0.0156		0.0156	0.0156		246.1716	246.1716	4.7200e-003	4.5100e-003	247.6345

6.0 Area Detail

6.1 Mitigation Measures Area

- Use Low VOC Paint - Residential Interior
- Use Low VOC Paint - Residential Exterior
- Use Low VOC Paint - Non-Residential Interior
- Use Low VOC Paint - Non-Residential Exterior

Yorba Villas Existing General Plan Operation - San Bernardino-South Coast County, Winter

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	1.2352	0.4736	2.4191	2.9800e-003		0.0486	0.0486		0.0486	0.0486	0.0000	575.7766	575.7766	0.0148	0.0105	579.2708
Unmitigated	1.2419	0.4736	2.4191	2.9800e-003		0.0486	0.0486		0.0486	0.0486	0.0000	575.7766	575.7766	0.0148	0.0105	579.2708

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	0.0967					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.0256					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0524	0.4479	0.1906	2.8600e-003		0.0362	0.0362		0.0362	0.0362	0.0000	571.7647	571.7647	0.0110	0.0105	575.1624
Landscaping	0.0672	0.0257	2.2285	1.2000e-004		0.0123	0.0123		0.0123	0.0123		4.0119	4.0119	3.8600e-003		4.1084
Total	1.2419	0.4736	2.4191	2.9800e-003		0.0485	0.0485		0.0485	0.0485	0.0000	575.7766	575.7766	0.0148	0.0105	579.2708

Yorba Villas Existing General Plan Operation - San Bernardino-South Coast County, Winter

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

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0900					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.0256					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0524	0.4479	0.1906	2.8600e-003		0.0362	0.0362		0.0362	0.0362	0.0000	571.7647	571.7647	0.0110	0.0105	575.1624
Landscaping	0.0672	0.0257	2.2285	1.2000e-004		0.0123	0.0123		0.0123	0.0123		4.0119	4.0119	3.8600e-003		4.1084
Total	1.2352	0.4736	2.4191	2.9800e-003		0.0485	0.0485		0.0485	0.0485	0.0000	575.7766	575.7766	0.0148	0.0105	579.2708

7.0 Water Detail

7.1 Mitigation Measures Water

Yorba Villas Existing General Plan Operation - San Bernardino-South Coast County, Winter

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

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

Yorba Villas Existing Zoning Operation - San Bernardino-South Coast County, Annual

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

**Yorba Villas Existing Zoning Operation
San Bernardino-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	4.03	Acre	4.03	175,546.80	0
City Park	0.51	Acre	0.51	22,215.60	0
Single Family Housing	13.00	Dwelling Unit	8.81	23,400.00	37

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	32
Climate Zone	10			Operational Year	2023
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	390.98	CH4 Intensity (lb/MWhr)	0.033	N2O Intensity (lb/MWhr)	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -
 Land Use - Acres from project site plan
 Construction Phase - Operation Only.
 Off-road Equipment - Operation Analysis Only.
 Trips and VMT - Operation Analysis Only.
 Vehicle Trips - City park in place of landscape, does not generate trips.
 Woodstoves - No woodstoves proposed. Assumed every home has a fireplace.
 Area Mitigation - SCAQMD Rule 1113

Yorba Villas Existing Zoning Operation - San Bernardino-South Coast County, Annual

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

Table Name	Column Name	Default Value	New Value
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorValue	100	50
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	100	50
tblAreaMitigation	UseLowVOCPaintParkingCheck	False	True
tblAreaMitigation	UseLowVOCPaintParkingValue	100	50
tblConstructionPhase	NumDays	20.00	0.00
tblFireplaces	NumberGas	11.05	13.00
tblFireplaces	NumberNoFireplace	1.30	0.00
tblFireplaces	NumberWood	0.65	0.00
tblLandUse	LotAcreage	4.22	8.81
tblVehicleTrips	ST_TR	1.96	0.00
tblVehicleTrips	SU_TR	2.19	0.00
tblVehicleTrips	WD_TR	0.78	0.00
tblWoodstoves	NumberCatalytic	0.65	0.00
tblWoodstoves	NumberNoncatalytic	0.65	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

2.0 Emissions Summary

Yorba Villas Existing Zoning Operation - San Bernardino-South Coast County, Annual

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

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	0.0000				0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	0.0000				0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

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					
2021	0.0000				0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	0.0000				0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

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

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)

Yorba Villas Existing Zoning Operation - San Bernardino-South Coast County, Annual

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

		Highest		
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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	0.1102	4.2400e-003	0.1353	2.0000e-005		9.6000e-004	9.6000e-004		9.6000e-004	9.6000e-004	0.0000	3.3409	3.3409	2.7000e-004	6.0000e-005	3.3647
Energy	1.9800e-003	0.0169	7.2100e-003	1.1000e-004		1.3700e-003	1.3700e-003		1.3700e-003	1.3700e-003	0.0000	37.9860	37.9860	1.9300e-003	5.5000e-004	38.1973
Mobile	0.0661	0.1078	0.6986	1.5300e-003	0.1562	1.2400e-003	0.1575	0.0417	1.1600e-003	0.0429	0.0000	143.3350	143.3350	8.2500e-003	7.2400e-003	145.6983
Waste						0.0000	0.0000		0.0000	0.0000	3.0875	0.0000	3.0875	0.1825	0.0000	7.6491
Water						0.0000	0.0000		0.0000	0.0000	0.2687	4.2053	4.4740	0.0280	6.9000e-004	5.3799
Total	0.1783	0.1290	0.8411	1.6600e-003	0.1562	3.5700e-003	0.1598	0.0417	3.4900e-003	0.0452	3.3562	188.8672	192.2234	0.2209	8.5400e-003	200.2894

Yorba Villas Existing Zoning Operation - San Bernardino-South Coast County, Annual

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

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.1090	4.2400e-003	0.1353	2.0000e-005		9.6000e-004	9.6000e-004		9.6000e-004	9.6000e-004	0.0000	3.3409	3.3409	2.7000e-004	6.0000e-005	3.3647
Energy	1.9800e-003	0.0169	7.2100e-003	1.1000e-004		1.3700e-003	1.3700e-003		1.3700e-003	1.3700e-003	0.0000	37.9860	37.9860	1.9300e-003	5.5000e-004	38.1973
Mobile	0.0661	0.1078	0.6986	1.5300e-003	0.1562	1.2400e-003	0.1575	0.0417	1.1600e-003	0.0429	0.0000	143.3350	143.3350	8.2500e-003	7.2400e-003	145.6983
Waste						0.0000	0.0000		0.0000	0.0000	3.0875	0.0000	3.0875	0.1825	0.0000	7.6491
Water						0.0000	0.0000		0.0000	0.0000	0.2687	4.2053	4.4740	0.0280	6.9000e-004	5.3799
Total	0.1771	0.1290	0.8411	1.6600e-003	0.1562	3.5700e-003	0.1598	0.0417	3.4900e-003	0.0452	3.3562	188.8672	192.2234	0.2209	8.5400e-003	200.2894

	ROG	NOx	CO	SO2	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	0.68	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	Operation Only	Architectural Coating	11/11/2021	11/10/2021	5	0	

Acres of Grading (Site Preparation Phase): 0

Yorba Villas Existing Zoning Operation - San Bernardino-South Coast County, Annual

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

3.2 Operation Only - 2021

Mitigated Construction Off-Site

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

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Yorba Villas Existing Zoning Operation - San Bernardino-South Coast County, Annual

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0661	0.1078	0.6986	1.5300e-003	0.1562	1.2400e-003	0.1575	0.0417	1.1600e-003	0.0429	0.0000	143.3350	143.3350	8.2500e-003	7.2400e-003	145.6983
Unmitigated	0.0661	0.1078	0.6986	1.5300e-003	0.1562	1.2400e-003	0.1575	0.0417	1.1600e-003	0.0429	0.0000	143.3350	143.3350	8.2500e-003	7.2400e-003	145.6983

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	0.00	0.00	0.00		
Other Asphalt Surfaces	0.00	0.00	0.00		
Single Family Housing	122.72	124.02	111.15	414,339	414,339
Total	122.72	124.02	111.15	414,339	414,339

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
City Park	16.60	8.40	6.90	33.00	48.00	19.00	66	28	6
Other Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Single Family Housing	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
City Park	0.537785	0.055838	0.172353	0.139003	0.027005	0.007196	0.011392	0.017285	0.000559	0.000254	0.025303	0.000954	0.005071
Other Asphalt Surfaces	0.537785	0.055838	0.172353	0.139003	0.027005	0.007196	0.011392	0.017285	0.000559	0.000254	0.025303	0.000954	0.005071

Yorba Villas Existing Zoning Operation - San Bernardino-South Coast County, Annual

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

Single Family Housing	0.537785	0.055838	0.172353	0.139003	0.027005	0.007196	0.011392	0.017285	0.000559	0.000254	0.025303	0.000954	0.005071
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5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	18.3625	18.3625	1.5500e-003	1.9000e-004	18.4572
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	18.3625	18.3625	1.5500e-003	1.9000e-004	18.4572
NaturalGas Mitigated	1.9800e-003	0.0169	7.2100e-003	1.1000e-004		1.3700e-003	1.3700e-003		1.3700e-003	1.3700e-003	0.0000	19.6235	19.6235	3.8000e-004	3.6000e-004	19.7401
NaturalGas Unmitigated	1.9800e-003	0.0169	7.2100e-003	1.1000e-004		1.3700e-003	1.3700e-003		1.3700e-003	1.3700e-003	0.0000	19.6235	19.6235	3.8000e-004	3.6000e-004	19.7401

Yorba Villas Existing Zoning Operation - San Bernardino-South Coast County, Annual

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

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Single Family Housing	367730	1.9800e-003	0.0169	7.2100e-003	1.1000e-004		1.3700e-003	1.3700e-003		1.3700e-003	1.3700e-003	0.0000	19.6235	19.6235	3.8000e-004	3.6000e-004	19.7401
Total		1.9800e-003	0.0169	7.2100e-003	1.1000e-004		1.3700e-003	1.3700e-003		1.3700e-003	1.3700e-003	0.0000	19.6235	19.6235	3.8000e-004	3.6000e-004	19.7401

Yorba Villas Existing Zoning Operation - San Bernardino-South Coast County, Annual

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

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Single Family Housing	367730	1.9800e-003	0.0169	7.2100e-003	1.1000e-004		1.3700e-003	1.3700e-003		1.3700e-003	1.3700e-003	0.0000	19.6235	19.6235	3.8000e-004	3.6000e-004	19.7401
Total		1.9800e-003	0.0169	7.2100e-003	1.1000e-004		1.3700e-003	1.3700e-003		1.3700e-003	1.3700e-003	0.0000	19.6235	19.6235	3.8000e-004	3.6000e-004	19.7401

Yorba Villas Existing Zoning Operation - San Bernardino-South Coast County, Annual

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

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
City Park	0	0.0000	0.0000	0.0000	0.0000
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	103541	18.3625	1.5500e-003	1.9000e-004	18.4572
Total		18.3625	1.5500e-003	1.9000e-004	18.4572

Yorba Villas Existing Zoning Operation - San Bernardino-South Coast County, Annual

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

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
City Park	0	0.0000	0.0000	0.0000	0.0000
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	103541	18.3625	1.5500e-003	1.9000e-004	18.4572
Total		18.3625	1.5500e-003	1.9000e-004	18.4572

6.0 Area Detail

6.1 Mitigation Measures Area

- Use Low VOC Paint - Residential Interior
- Use Low VOC Paint - Residential Exterior
- Use Low VOC Paint - Non-Residential Interior
- Use Low VOC Paint - Non-Residential Exterior

Yorba Villas Existing Zoning Operation - San Bernardino-South Coast County, Annual

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.1090	4.2400e-003	0.1353	2.0000e-005		9.6000e-004	9.6000e-004		9.6000e-004	9.6000e-004	0.0000	3.3409	3.3409	2.7000e-004	6.0000e-005	3.3647
Unmitigated	0.1102	4.2400e-003	0.1353	2.0000e-005		9.6000e-004	9.6000e-004		9.6000e-004	9.6000e-004	0.0000	3.3409	3.3409	2.7000e-004	6.0000e-005	3.3647

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	9.7600e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0961					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	3.2000e-004	2.7000e-003	1.1500e-003	2.0000e-005		2.2000e-004	2.2000e-004		2.2000e-004	2.2000e-004	0.0000	3.1218	3.1218	6.0000e-005	6.0000e-005	3.1403
Landscaping	4.0500e-003	1.5500e-003	0.1342	1.0000e-005		7.4000e-004	7.4000e-004		7.4000e-004	7.4000e-004	0.0000	0.2191	0.2191	2.1000e-004	0.0000	0.2244
Total	0.1102	4.2500e-003	0.1353	3.0000e-005		9.6000e-004	9.6000e-004		9.6000e-004	9.6000e-004	0.0000	3.3409	3.3409	2.7000e-004	6.0000e-005	3.3647

Yorba Villas Existing Zoning Operation - San Bernardino-South Coast County, Annual

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

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	8.5400e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0961					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	3.2000e-004	2.7000e-003	1.1500e-003	2.0000e-005		2.2000e-004	2.2000e-004		2.2000e-004	2.2000e-004	0.0000	3.1218	3.1218	6.0000e-005	6.0000e-005	3.1403
Landscaping	4.0500e-003	1.5500e-003	0.1342	1.0000e-005		7.4000e-004	7.4000e-004		7.4000e-004	7.4000e-004	0.0000	0.2191	0.2191	2.1000e-004	0.0000	0.2244
Total	0.1090	4.2500e-003	0.1353	3.0000e-005		9.6000e-004	9.6000e-004		9.6000e-004	9.6000e-004	0.0000	3.3409	3.3409	2.7000e-004	6.0000e-005	3.3647

7.0 Water Detail

7.1 Mitigation Measures Water

Yorba Villas Existing Zoning Operation - San Bernardino-South Coast County, Annual

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

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	4.4740	0.0280	6.9000e-004	5.3799
Unmitigated	4.4740	0.0280	6.9000e-004	5.3799

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
City Park	0 / 0.607655	1.1973	1.0000e-004	1.0000e-005	1.2035
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	0.847002 / 0.53398	3.2767	0.0279	6.8000e-004	4.1764
Total		4.4740	0.0280	6.9000e-004	5.3799

Yorba Villas Existing Zoning Operation - San Bernardino-South Coast County, Annual

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

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
City Park	0 / 0.607655	1.1973	1.0000e-004	1.0000e-005	1.2035
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	0.847002 / 0.53398	3.2767	0.0279	6.8000e-004	4.1764
Total		4.4740	0.0280	6.9000e-004	5.3799

8.0 Waste Detail

8.1 Mitigation Measures Waste

Yorba Villas Existing Zoning Operation - San Bernardino-South Coast County, Annual

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

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	3.0875	0.1825	0.0000	7.6491
Unmitigated	3.0875	0.1825	0.0000	7.6491

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park	0.04	8.1200e-003	4.8000e-004	0.0000	0.0201
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	15.17	3.0794	0.1820	0.0000	7.6290
Total		3.0875	0.1825	0.0000	7.6491

Yorba Villas Existing Zoning Operation - San Bernardino-South Coast County, Annual

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

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park	0.04	8.1200e-003	4.8000e-004	0.0000	0.0201
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	15.17	3.0794	0.1820	0.0000	7.6290
Total		3.0875	0.1825	0.0000	7.6491

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
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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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Yorba Villas Existing Zoning Operation - San Bernardino-South Coast County, Annual

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

11.0 Vegetation

Yorba Villas Existing Zoning Operation - San Bernardino-South Coast County, Summer

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

**Yorba Villas Existing Zoning Operation
San Bernardino-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	4.03	Acre	4.03	175,546.80	0
City Park	0.51	Acre	0.51	22,215.60	0
Single Family Housing	13.00	Dwelling Unit	8.81	23,400.00	37

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	32
Climate Zone	10			Operational Year	2023
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	390.98	CH4 Intensity (lb/MWhr)	0.033	N2O Intensity (lb/MWhr)	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -
 Land Use - Acres from project site plan
 Construction Phase - Operation Only.
 Off-road Equipment - Operation Analysis Only.
 Trips and VMT - Operation Analysis Only.
 Vehicle Trips - City park in place of landscape, does not generate trips.
 Woodstoves - No woodstoves proposed. Assumed every home has a fireplace.
 Area Mitigation - SCAQMD Rule 1113

Yorba Villas Existing Zoning Operation - San Bernardino-South Coast County, Summer

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

Table Name	Column Name	Default Value	New Value
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorValue	100	50
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	100	50
tblAreaMitigation	UseLowVOCPaintParkingCheck	False	True
tblAreaMitigation	UseLowVOCPaintParkingValue	100	50
tblConstructionPhase	NumDays	20.00	0.00
tblFireplaces	NumberGas	11.05	13.00
tblFireplaces	NumberNoFireplace	1.30	0.00
tblFireplaces	NumberWood	0.65	0.00
tblLandUse	LotAcreage	4.22	8.81
tblVehicleTrips	ST_TR	1.96	0.00
tblVehicleTrips	SU_TR	2.19	0.00
tblVehicleTrips	WD_TR	0.78	0.00
tblWoodstoves	NumberCatalytic	0.65	0.00
tblWoodstoves	NumberNoncatalytic	0.65	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

2.0 Emissions Summary

Yorba Villas Existing Zoning Operation - San Bernardino-South Coast County, Summer

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

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.6377	0.2280	1.1650	1.4300e-003		0.0234	0.0234		0.0234	0.0234	0.0000	277.2263	277.2263	7.1400e-003	5.0500e-003	278.9087
Energy	0.0109	0.0929	0.0395	5.9000e-004		7.5100e-003	7.5100e-003		7.5100e-003	7.5100e-003		118.5271	118.5271	2.2700e-003	2.1700e-003	119.2314
Mobile	0.4291	0.5588	4.2290	9.1700e-003	0.8949	6.9800e-003	0.9019	0.2387	6.5400e-003	0.2452		944.2392	944.2392	0.0494	0.0431	958.3260
Total	1.0777	0.8796	5.4335	0.0112	0.8949	0.0379	0.9328	0.2387	0.0374	0.2761	0.0000	1,339.9926	1,339.9926	0.0588	0.0504	1,356.4661

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	0.6310	0.2280	1.1650	1.4300e-003		0.0234	0.0234		0.0234	0.0234	0.0000	277.2263	277.2263	7.1400e-003	5.0500e-003	278.9087
Energy	0.0109	0.0929	0.0395	5.9000e-004		7.5100e-003	7.5100e-003		7.5100e-003	7.5100e-003		118.5271	118.5271	2.2700e-003	2.1700e-003	119.2314
Mobile	0.4291	0.5588	4.2290	9.1700e-003	0.8949	6.9800e-003	0.9019	0.2387	6.5400e-003	0.2452		944.2392	944.2392	0.0494	0.0431	958.3260
Total	1.0710	0.8796	5.4335	0.0112	0.8949	0.0379	0.9328	0.2387	0.0374	0.2761	0.0000	1,339.9926	1,339.9926	0.0588	0.0504	1,356.4661

Yorba Villas Existing Zoning Operation - San Bernardino-South Coast County, Summer

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.62	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	Operation Only	Architectural Coating	11/11/2021	11/10/2021	5	0	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 4.03

Residential Indoor: 47,385; Residential Outdoor: 15,795; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 10,533 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor

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
Operation Only			0.00	0.00	14.70	6.90				

3.1 Mitigation Measures Construction

Yorba Villas Existing Zoning Operation - San Bernardino-South Coast County, Summer

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

3.2 Operation Only - 2021

Mitigated Construction On-Site

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

Mitigated Construction Off-Site

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

4.0 Operational Detail - Mobile

Yorba Villas Existing Zoning Operation - San Bernardino-South Coast County, Summer

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

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.4291	0.5588	4.2290	9.1700e-003	0.8949	6.9800e-003	0.9019	0.2387	6.5400e-003	0.2452		944.2392	944.2392	0.0494	0.0431	958.3260
Unmitigated	0.4291	0.5588	4.2290	9.1700e-003	0.8949	6.9800e-003	0.9019	0.2387	6.5400e-003	0.2452		944.2392	944.2392	0.0494	0.0431	958.3260

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	0.00	0.00	0.00		
Other Asphalt Surfaces	0.00	0.00	0.00		
Single Family Housing	122.72	124.02	111.15	414,339	414,339
Total	122.72	124.02	111.15	414,339	414,339

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
City Park	16.60	8.40	6.90	33.00	48.00	19.00	66	28	6
Other Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Single Family Housing	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3

4.4 Fleet Mix

Yorba Villas Existing Zoning Operation - San Bernardino-South Coast County, Summer

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

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
City Park	0.537785	0.055838	0.172353	0.139003	0.027005	0.007196	0.011392	0.017285	0.000559	0.000254	0.025303	0.000954	0.005071
Other Asphalt Surfaces	0.537785	0.055838	0.172353	0.139003	0.027005	0.007196	0.011392	0.017285	0.000559	0.000254	0.025303	0.000954	0.005071
Single Family Housing	0.537785	0.055838	0.172353	0.139003	0.027005	0.007196	0.011392	0.017285	0.000559	0.000254	0.025303	0.000954	0.005071

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0109	0.0929	0.0395	5.9000e-004		7.5100e-003	7.5100e-003		7.5100e-003	7.5100e-003		118.5271	118.5271	2.2700e-003	2.1700e-003	119.2314
NaturalGas Unmitigated	0.0109	0.0929	0.0395	5.9000e-004		7.5100e-003	7.5100e-003		7.5100e-003	7.5100e-003		118.5271	118.5271	2.2700e-003	2.1700e-003	119.2314

Yorba Villas Existing Zoning Operation - San Bernardino-South Coast County, Summer

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

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
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
Single Family Housing	1007.48	0.0109	0.0929	0.0395	5.9000e-004		7.5100e-003	7.5100e-003		7.5100e-003	7.5100e-003		118.5271	118.5271	2.2700e-003	2.1700e-003	119.2314
Total		0.0109	0.0929	0.0395	5.9000e-004		7.5100e-003	7.5100e-003		7.5100e-003	7.5100e-003		118.5271	118.5271	2.2700e-003	2.1700e-003	119.2314

Yorba Villas Existing Zoning Operation - San Bernardino-South Coast County, Summer

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

5.2 Energy by Land Use - NaturalGas

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					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
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
Single Family Housing	1.00748	0.0109	0.0929	0.0395	5.9000e-004		7.5100e-003	7.5100e-003		7.5100e-003	7.5100e-003		118.5271	118.5271	2.2700e-003	2.1700e-003	119.2314
Total		0.0109	0.0929	0.0395	5.9000e-004		7.5100e-003	7.5100e-003		7.5100e-003	7.5100e-003		118.5271	118.5271	2.2700e-003	2.1700e-003	119.2314

6.0 Area Detail

6.1 Mitigation Measures Area

- Use Low VOC Paint - Residential Interior
- Use Low VOC Paint - Residential Exterior
- Use Low VOC Paint - Non-Residential Interior
- Use Low VOC Paint - Non-Residential Exterior

Yorba Villas Existing Zoning Operation - San Bernardino-South Coast County, Summer

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.6310	0.2280	1.1650	1.4300e-003		0.0234	0.0234		0.0234	0.0234	0.0000	277.2263	277.2263	7.1400e-003	5.0500e-003	278.9087
Unmitigated	0.6377	0.2280	1.1650	1.4300e-003		0.0234	0.0234		0.0234	0.0234	0.0000	277.2263	277.2263	7.1400e-003	5.0500e-003	278.9087

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	0.0535					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.5266					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0252	0.2157	0.0918	1.3800e-003		0.0174	0.0174		0.0174	0.0174	0.0000	275.2941	275.2941	5.2800e-003	5.0500e-003	276.9301
Landscaping	0.0324	0.0124	1.0732	6.0000e-005		5.9400e-003	5.9400e-003		5.9400e-003	5.9400e-003		1.9322	1.9322	1.8600e-003		1.9787
Total	0.6377	0.2280	1.1650	1.4400e-003		0.0234	0.0234		0.0234	0.0234	0.0000	277.2263	277.2263	7.1400e-003	5.0500e-003	278.9087

Yorba Villas Existing Zoning Operation - San Bernardino-South Coast County, Summer

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

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0468					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.5266					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0252	0.2157	0.0918	1.3800e-003		0.0174	0.0174		0.0174	0.0174	0.0000	275.2941	275.2941	5.2800e-003	5.0500e-003	276.9301
Landscaping	0.0324	0.0124	1.0732	6.0000e-005		5.9400e-003	5.9400e-003		5.9400e-003	5.9400e-003		1.9322	1.9322	1.8600e-003		1.9787
Total	0.6310	0.2280	1.1650	1.4400e-003		0.0234	0.0234		0.0234	0.0234	0.0000	277.2263	277.2263	7.1400e-003	5.0500e-003	278.9087

7.0 Water Detail

7.1 Mitigation Measures Water

Yorba Villas Existing Zoning Operation - San Bernardino-South Coast County, Summer

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

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

Yorba Villas Existing Zoning Operation - San Bernardino-South Coast County, Winter

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

**Yorba Villas Existing Zoning Operation
San Bernardino-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	4.03	Acre	4.03	175,546.80	0
City Park	0.51	Acre	0.51	22,215.60	0
Single Family Housing	13.00	Dwelling Unit	8.81	23,400.00	37

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	32
Climate Zone	10			Operational Year	2023
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	390.98	CH4 Intensity (lb/MWhr)	0.033	N2O Intensity (lb/MWhr)	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -
 Land Use - Acres from project site plan
 Construction Phase - Operation Only.
 Off-road Equipment - Operation Analysis Only.
 Trips and VMT - Operation Analysis Only.
 Vehicle Trips - City park in place of landscape, does not generate trips.
 Woodstoves - No woodstoves proposed. Assumed every home has a fireplace.
 Area Mitigation - SCAQMD Rule 1113

Yorba Villas Existing Zoning Operation - San Bernardino-South Coast County, Winter

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

Table Name	Column Name	Default Value	New Value
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorValue	100	50
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	100	50
tblAreaMitigation	UseLowVOCPaintParkingCheck	False	True
tblAreaMitigation	UseLowVOCPaintParkingValue	100	50
tblConstructionPhase	NumDays	20.00	0.00
tblFireplaces	NumberGas	11.05	13.00
tblFireplaces	NumberNoFireplace	1.30	0.00
tblFireplaces	NumberWood	0.65	0.00
tblLandUse	LotAcreage	4.22	8.81
tblVehicleTrips	ST_TR	1.96	0.00
tblVehicleTrips	SU_TR	2.19	0.00
tblVehicleTrips	WD_TR	0.78	0.00
tblWoodstoves	NumberCatalytic	0.65	0.00
tblWoodstoves	NumberNoncatalytic	0.65	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

2.0 Emissions Summary

Yorba Villas Existing Zoning Operation - San Bernardino-South Coast County, Winter

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

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.6377	0.2280	1.1650	1.4300e-003		0.0234	0.0234		0.0234	0.0234	0.0000	277.2263	277.2263	7.1400e-003	5.0500e-003	278.9087
Energy	0.0109	0.0929	0.0395	5.9000e-004		7.5100e-003	7.5100e-003		7.5100e-003	7.5100e-003		118.5271	118.5271	2.2700e-003	2.1700e-003	119.2314
Mobile	0.3742	0.5933	3.7672	8.5000e-003	0.8949	6.9900e-003	0.9019	0.2387	6.5400e-003	0.2452		875.9126	875.9126	0.0506	0.0442	890.3533
Total	1.0228	0.9142	4.9717	0.0105	0.8949	0.0379	0.9328	0.2387	0.0374	0.2761	0.0000	1,271.6659	1,271.6659	0.0600	0.0514	1,288.4935

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	0.6310	0.2280	1.1650	1.4300e-003		0.0234	0.0234		0.0234	0.0234	0.0000	277.2263	277.2263	7.1400e-003	5.0500e-003	278.9087
Energy	0.0109	0.0929	0.0395	5.9000e-004		7.5100e-003	7.5100e-003		7.5100e-003	7.5100e-003		118.5271	118.5271	2.2700e-003	2.1700e-003	119.2314
Mobile	0.3742	0.5933	3.7672	8.5000e-003	0.8949	6.9900e-003	0.9019	0.2387	6.5400e-003	0.2452		875.9126	875.9126	0.0506	0.0442	890.3533
Total	1.0161	0.9142	4.9717	0.0105	0.8949	0.0379	0.9328	0.2387	0.0374	0.2761	0.0000	1,271.6659	1,271.6659	0.0600	0.0514	1,288.4935

Yorba Villas Existing Zoning Operation - San Bernardino-South Coast County, Winter

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.65	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	Operation Only	Architectural Coating	11/11/2021	11/10/2021	5	0	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 4.03

Residential Indoor: 47,385; Residential Outdoor: 15,795; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 10,533 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor

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
Operation Only			0.00	0.00	14.70	6.90				

3.1 Mitigation Measures Construction

Yorba Villas Existing Zoning Operation - San Bernardino-South Coast County, Winter

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

3.2 Operation Only - 2021

Mitigated Construction On-Site

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

Mitigated Construction Off-Site

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

4.0 Operational Detail - Mobile

Yorba Villas Existing Zoning Operation - San Bernardino-South Coast County, Winter

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

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.3742	0.5933	3.7672	8.5000e-003	0.8949	6.9900e-003	0.9019	0.2387	6.5400e-003	0.2452		875.9126	875.9126	0.0506	0.0442	890.3533
Unmitigated	0.3742	0.5933	3.7672	8.5000e-003	0.8949	6.9900e-003	0.9019	0.2387	6.5400e-003	0.2452		875.9126	875.9126	0.0506	0.0442	890.3533

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	0.00	0.00	0.00		
Other Asphalt Surfaces	0.00	0.00	0.00		
Single Family Housing	122.72	124.02	111.15	414,339	414,339
Total	122.72	124.02	111.15	414,339	414,339

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
City Park	16.60	8.40	6.90	33.00	48.00	19.00	66	28	6
Other Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Single Family Housing	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3

4.4 Fleet Mix

Yorba Villas Existing Zoning Operation - San Bernardino-South Coast County, Winter

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

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
City Park	0.537785	0.055838	0.172353	0.139003	0.027005	0.007196	0.011392	0.017285	0.000559	0.000254	0.025303	0.000954	0.005071
Other Asphalt Surfaces	0.537785	0.055838	0.172353	0.139003	0.027005	0.007196	0.011392	0.017285	0.000559	0.000254	0.025303	0.000954	0.005071
Single Family Housing	0.537785	0.055838	0.172353	0.139003	0.027005	0.007196	0.011392	0.017285	0.000559	0.000254	0.025303	0.000954	0.005071

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0109	0.0929	0.0395	5.9000e-004		7.5100e-003	7.5100e-003		7.5100e-003	7.5100e-003		118.5271	118.5271	2.2700e-003	2.1700e-003	119.2314
NaturalGas Unmitigated	0.0109	0.0929	0.0395	5.9000e-004		7.5100e-003	7.5100e-003		7.5100e-003	7.5100e-003		118.5271	118.5271	2.2700e-003	2.1700e-003	119.2314

Yorba Villas Existing Zoning Operation - San Bernardino-South Coast County, Winter

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

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
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
Single Family Housing	1007.48	0.0109	0.0929	0.0395	5.9000e-004		7.5100e-003	7.5100e-003		7.5100e-003	7.5100e-003		118.5271	118.5271	2.2700e-003	2.1700e-003	119.2314
Total		0.0109	0.0929	0.0395	5.9000e-004		7.5100e-003	7.5100e-003		7.5100e-003	7.5100e-003		118.5271	118.5271	2.2700e-003	2.1700e-003	119.2314

Yorba Villas Existing Zoning Operation - San Bernardino-South Coast County, Winter

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

5.2 Energy by Land Use - NaturalGas

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					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
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
Single Family Housing	1.00748	0.0109	0.0929	0.0395	5.9000e-004		7.5100e-003	7.5100e-003		7.5100e-003	7.5100e-003		118.5271	118.5271	2.2700e-003	2.1700e-003	119.2314
Total		0.0109	0.0929	0.0395	5.9000e-004		7.5100e-003	7.5100e-003		7.5100e-003	7.5100e-003		118.5271	118.5271	2.2700e-003	2.1700e-003	119.2314

6.0 Area Detail

6.1 Mitigation Measures Area

- Use Low VOC Paint - Residential Interior
- Use Low VOC Paint - Residential Exterior
- Use Low VOC Paint - Non-Residential Interior
- Use Low VOC Paint - Non-Residential Exterior

Yorba Villas Existing Zoning Operation - San Bernardino-South Coast County, Winter

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.6310	0.2280	1.1650	1.4300e-003		0.0234	0.0234		0.0234	0.0234	0.0000	277.2263	277.2263	7.1400e-003	5.0500e-003	278.9087
Unmitigated	0.6377	0.2280	1.1650	1.4300e-003		0.0234	0.0234		0.0234	0.0234	0.0000	277.2263	277.2263	7.1400e-003	5.0500e-003	278.9087

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	0.0535					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.5266					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0252	0.2157	0.0918	1.3800e-003		0.0174	0.0174		0.0174	0.0174	0.0000	275.2941	275.2941	5.2800e-003	5.0500e-003	276.9301
Landscaping	0.0324	0.0124	1.0732	6.0000e-005		5.9400e-003	5.9400e-003		5.9400e-003	5.9400e-003		1.9322	1.9322	1.8600e-003		1.9787
Total	0.6377	0.2280	1.1650	1.4400e-003		0.0234	0.0234		0.0234	0.0234	0.0000	277.2263	277.2263	7.1400e-003	5.0500e-003	278.9087

Yorba Villas Existing Zoning Operation - San Bernardino-South Coast County, Winter

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

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0468					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.5266					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0252	0.2157	0.0918	1.3800e-003		0.0174	0.0174		0.0174	0.0174	0.0000	275.2941	275.2941	5.2800e-003	5.0500e-003	276.9301
Landscaping	0.0324	0.0124	1.0732	6.0000e-005		5.9400e-003	5.9400e-003		5.9400e-003	5.9400e-003		1.9322	1.9322	1.8600e-003		1.9787
Total	0.6310	0.2280	1.1650	1.4400e-003		0.0234	0.0234		0.0234	0.0234	0.0000	277.2263	277.2263	7.1400e-003	5.0500e-003	278.9087

7.0 Water Detail

7.1 Mitigation Measures Water

Yorba Villas Existing Zoning Operation - San Bernardino-South Coast County, Winter

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

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

Yorba Villas Proposed General Plan Operation - San Bernardino-South Coast County, Annual

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

**Yorba Villas Proposed General Plan Operation
San Bernardino-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	4.03	Acre	4.03	175,546.80	0
City Park	0.51	Acre	0.51	22,215.60	0
Single Family Housing	67.00	Dwelling Unit	8.81	120,600.00	192

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	32
Climate Zone	10			Operational Year	2023
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	390.98	CH4 Intensity (lb/MWhr)	0.033	N2O Intensity (lb/MWhr)	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -
 Land Use - Acres from project site plan
 Construction Phase - Operation Only.
 Off-road Equipment - Operation Analysis Only.
 Trips and VMT - Operation Analysis Only.
 Vehicle Trips - City park in place of landscape, does not generate trips.
 Woodstoves - No woodstoves proposed. Assumed every home has a fireplace.
 Area Mitigation - SCAQMD Rule 1113

Yorba Villas Proposed General Plan Operation - San Bernardino-South Coast County, Annual

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

Table Name	Column Name	Default Value	New Value
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorValue	100	50
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	100	50
tblAreaMitigation	UseLowVOCPaintParkingCheck	False	True
tblAreaMitigation	UseLowVOCPaintParkingValue	100	50
tblConstructionPhase	NumDays	20.00	0.00
tblConstructionPhase	PhaseEndDate	12/8/2021	11/10/2021
tblFireplaces	NumberGas	56.95	67.00
tblFireplaces	NumberNoFireplace	6.70	0.00
tblFireplaces	NumberWood	3.35	0.00
tblLandUse	LotAcreage	21.75	8.81
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblTripsAndVMT	WorkerTripNumber	21.00	0.00
tblVehicleTrips	ST_TR	1.96	0.00
tblVehicleTrips	SU_TR	2.19	0.00
tblVehicleTrips	WD_TR	0.78	0.00
tblWoodstoves	NumberCatalytic	3.35	0.00
tblWoodstoves	NumberNoncatalytic	3.35	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

2.0 Emissions Summary

Yorba Villas Proposed General Plan Operation - San Bernardino-South Coast County, Annual

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

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

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

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)

Yorba Villas Proposed General Plan Operation - San Bernardino-South Coast County, Annual

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

		Highest	
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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	0.5100	0.0219	0.6971	1.3000e-004		4.9500e-003	4.9500e-003		4.9500e-003	4.9500e-003	0.0000	17.2180	17.2180	1.3900e-003	2.9000e-004	17.3407
Energy	0.0102	0.0873	0.0372	5.6000e-004		7.0600e-003	7.0600e-003		7.0600e-003	7.0600e-003	0.0000	195.7737	195.7737	9.9300e-003	2.8200e-003	196.8629
Mobile	0.3406	0.5555	3.6004	7.9100e-003	0.8052	6.4000e-003	0.8116	0.2151	5.9900e-003	0.2211	0.0000	738.7266	738.7266	0.0425	0.0373	750.9068
Waste						0.0000	0.0000		0.0000	0.0000	15.9876	0.0000	15.9876	0.9448	0.0000	39.6085
Water						0.0000	0.0000		0.0000	0.0000	1.3849	16.7001	18.0850	0.1437	3.5300e-003	22.7282
Total	0.8608	0.6647	4.3346	8.6000e-003	0.8052	0.0184	0.8236	0.2151	0.0180	0.2331	17.3725	968.4184	985.7909	1.1423	0.0440	1,027.4472

Yorba Villas Proposed General Plan Operation - San Bernardino-South Coast County, Annual

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

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.5088	0.0219	0.6971	1.3000e-004		4.9500e-003	4.9500e-003		4.9500e-003	4.9500e-003	0.0000	17.2180	17.2180	1.3900e-003	2.9000e-004	17.3407
Energy	0.0102	0.0873	0.0372	5.6000e-004		7.0600e-003	7.0600e-003		7.0600e-003	7.0600e-003	0.0000	195.7737	195.7737	9.9300e-003	2.8200e-003	196.8629
Mobile	0.3406	0.5555	3.6004	7.9100e-003	0.8052	6.4000e-003	0.8116	0.2151	5.9900e-003	0.2211	0.0000	738.7266	738.7266	0.0425	0.0373	750.9068
Waste						0.0000	0.0000		0.0000	0.0000	15.9876	0.0000	15.9876	0.9448	0.0000	39.6085
Water						0.0000	0.0000		0.0000	0.0000	1.3849	16.7001	18.0850	0.1437	3.5300e-003	22.7282
Total	0.8596	0.6647	4.3346	8.6000e-003	0.8052	0.0184	0.8236	0.2151	0.0180	0.2331	17.3725	968.4184	985.7909	1.1423	0.0440	1,027.4472

	ROG	NOx	CO	SO2	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	0.14	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	Operation Only	Architectural Coating	11/11/2021	11/10/2021	5	0	

Acres of Grading (Site Preparation Phase): 0

Yorba Villas Proposed General Plan Operation - San Bernardino-South Coast County, Annual

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

3.2 Operation Only - 2021

Mitigated Construction Off-Site

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

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Yorba Villas Proposed General Plan Operation - San Bernardino-South Coast County, Annual

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.3406	0.5555	3.6004	7.9100e-003	0.8052	6.4000e-003	0.8116	0.2151	5.9900e-003	0.2211	0.0000	738.7266	738.7266	0.0425	0.0373	750.9068
Unmitigated	0.3406	0.5555	3.6004	7.9100e-003	0.8052	6.4000e-003	0.8116	0.2151	5.9900e-003	0.2211	0.0000	738.7266	738.7266	0.0425	0.0373	750.9068

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	0.00	0.00	0.00		
Other Asphalt Surfaces	0.00	0.00	0.00		
Single Family Housing	632.48	639.18	572.85	2,135,442	2,135,442
Total	632.48	639.18	572.85	2,135,442	2,135,442

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
City Park	16.60	8.40	6.90	33.00	48.00	19.00	66	28	6
Other Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Single Family Housing	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
City Park	0.537785	0.055838	0.172353	0.139003	0.027005	0.007196	0.011392	0.017285	0.000559	0.000254	0.025303	0.000954	0.005071
Other Asphalt Surfaces	0.537785	0.055838	0.172353	0.139003	0.027005	0.007196	0.011392	0.017285	0.000559	0.000254	0.025303	0.000954	0.005071

Yorba Villas Proposed General Plan Operation - San Bernardino-South Coast County, Annual

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

Single Family Housing	0.537785	0.055838	0.172353	0.139003	0.027005	0.007196	0.011392	0.017285	0.000559	0.000254	0.025303	0.000954	0.005071
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5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	94.6373	94.6373	7.9900e-003	9.7000e-004	95.1255
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	94.6373	94.6373	7.9900e-003	9.7000e-004	95.1255
Natural Gas Mitigated	0.0102	0.0873	0.0372	5.6000e-004		7.0600e-003	7.0600e-003		7.0600e-003	7.0600e-003	0.0000	101.1364	101.1364	1.9400e-003	1.8500e-003	101.7374
Natural Gas Unmitigated	0.0102	0.0873	0.0372	5.6000e-004		7.0600e-003	7.0600e-003		7.0600e-003	7.0600e-003	0.0000	101.1364	101.1364	1.9400e-003	1.8500e-003	101.7374

Yorba Villas Proposed General Plan Operation - San Bernardino-South Coast County, Annual

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

5.2 Energy by Land Use - Natural Gas

Unmitigated

	Natural Gas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Single Family Housing	1.89522e+006	0.0102	0.0873	0.0372	5.6000e-004		7.0600e-003	7.0600e-003		7.0600e-003	7.0600e-003	0.0000	101.1364	101.1364	1.9400e-003	1.8500e-003	101.7374
Total		0.0102	0.0873	0.0372	5.6000e-004		7.0600e-003	7.0600e-003		7.0600e-003	7.0600e-003	0.0000	101.1364	101.1364	1.9400e-003	1.8500e-003	101.7374

Yorba Villas Proposed General Plan Operation - San Bernardino-South Coast County, Annual

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

5.2 Energy by Land Use - Natural Gas

Mitigated

	Natural Gas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Single Family Housing	1.89522e+006	0.0102	0.0873	0.0372	5.6000e-004		7.0600e-003	7.0600e-003		7.0600e-003	7.0600e-003	0.0000	101.1364	101.1364	1.9400e-003	1.8500e-003	101.7374
Total		0.0102	0.0873	0.0372	5.6000e-004		7.0600e-003	7.0600e-003		7.0600e-003	7.0600e-003	0.0000	101.1364	101.1364	1.9400e-003	1.8500e-003	101.7374

Yorba Villas Proposed General Plan Operation - San Bernardino-South Coast County, Annual

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

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
City Park	0	0.0000	0.0000	0.0000	0.0000
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	533632	94.6373	7.9900e-003	9.7000e-004	95.1255
Total		94.6373	7.9900e-003	9.7000e-004	95.1255

Yorba Villas Proposed General Plan Operation - San Bernardino-South Coast County, Annual

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

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
City Park	0	0.0000	0.0000	0.0000	0.0000
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	533632	94.6373	7.9900e-003	9.7000e-004	95.1255
Total		94.6373	7.9900e-003	9.7000e-004	95.1255

6.0 Area Detail

6.1 Mitigation Measures Area

- Use Low VOC Paint - Residential Interior
- Use Low VOC Paint - Residential Exterior
- Use Low VOC Paint - Non-Residential Interior
- Use Low VOC Paint - Non-Residential Exterior

Yorba Villas Proposed General Plan Operation - San Bernardino-South Coast County, Annual

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.5088	0.0219	0.6971	1.3000e-004		4.9500e-003	4.9500e-003		4.9500e-003	4.9500e-003	0.0000	17.2180	17.2180	1.3900e-003	2.9000e-004	17.3407
Unmitigated	0.5100	0.0219	0.6971	1.3000e-004		4.9500e-003	4.9500e-003		4.9500e-003	4.9500e-003	0.0000	17.2180	17.2180	1.3900e-003	2.9000e-004	17.3407

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	0.0402					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.4473					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	1.6300e-003	0.0139	5.9100e-003	9.0000e-005		1.1200e-003	1.1200e-003		1.1200e-003	1.1200e-003	0.0000	16.0892	16.0892	3.1000e-004	2.9000e-004	16.1848
Landscaping	0.0208	7.9700e-003	0.6912	4.0000e-005		3.8300e-003	3.8300e-003		3.8300e-003	3.8300e-003	0.0000	1.1288	1.1288	1.0900e-003	0.0000	1.1559
Total	0.5100	0.0219	0.6971	1.3000e-004		4.9500e-003	4.9500e-003		4.9500e-003	4.9500e-003	0.0000	17.2180	17.2180	1.4000e-003	2.9000e-004	17.3407

Yorba Villas Proposed General Plan Operation - San Bernardino-South Coast County, Annual

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

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0390					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.4473					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	1.6300e-003	0.0139	5.9100e-003	9.0000e-005		1.1200e-003	1.1200e-003		1.1200e-003	1.1200e-003	0.0000	16.0892	16.0892	3.1000e-004	2.9000e-004	16.1848
Landscaping	0.0208	7.9700e-003	0.6912	4.0000e-005		3.8300e-003	3.8300e-003		3.8300e-003	3.8300e-003	0.0000	1.1288	1.1288	1.0900e-003	0.0000	1.1559
Total	0.5088	0.0219	0.6971	1.3000e-004		4.9500e-003	4.9500e-003		4.9500e-003	4.9500e-003	0.0000	17.2180	17.2180	1.4000e-003	2.9000e-004	17.3407

7.0 Water Detail

7.1 Mitigation Measures Water

Yorba Villas Proposed General Plan Operation - San Bernardino-South Coast County, Annual

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

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	18.0850	0.1437	3.5300e-003	22.7282
Unmitigated	18.0850	0.1437	3.5300e-003	22.7282

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
City Park	0 / 0.607655	1.1973	1.0000e-004	1.0000e-005	1.2035
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	4.36532 / 2.75205	16.8878	0.1436	3.5200e-003	21.5247
Total		18.0850	0.1437	3.5300e-003	22.7282

Yorba Villas Proposed General Plan Operation - San Bernardino-South Coast County, Annual

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

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
City Park	0 / 0.607655	1.1973	1.0000e-004	1.0000e-005	1.2035
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	4.36532 / 2.75205	16.8878	0.1436	3.5200e-003	21.5247
Total		18.0850	0.1437	3.5300e-003	22.7282

8.0 Waste Detail

8.1 Mitigation Measures Waste

Yorba Villas Proposed General Plan Operation - San Bernardino-South Coast County, Annual

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

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	15.9876	0.9448	0.0000	39.6085
Unmitigated	15.9876	0.9448	0.0000	39.6085

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park	0.04	8.1200e-003	4.8000e-004	0.0000	0.0201
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	78.72	15.9795	0.9444	0.0000	39.5884
Total		15.9876	0.9448	0.0000	39.6085

Yorba Villas Proposed General Plan Operation - San Bernardino-South Coast County, Annual

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

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park	0.04	8.1200e-003	4.8000e-004	0.0000	0.0201
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	78.72	15.9795	0.9444	0.0000	39.5884
Total		15.9876	0.9448	0.0000	39.6085

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
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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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Yorba Villas Proposed General Plan Operation - San Bernardino-South Coast County, Annual

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

11.0 Vegetation

Yorba Villas Proposed General Plan Operation - San Bernardino-South Coast County, Summer

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

**Yorba Villas Proposed General Plan Operation
San Bernardino-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	4.03	Acre	4.03	175,546.80	0
City Park	0.51	Acre	0.51	22,215.60	0
Single Family Housing	67.00	Dwelling Unit	8.81	120,600.00	192

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	32
Climate Zone	10			Operational Year	2023
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	390.98	CH4 Intensity (lb/MWhr)	0.033	N2O Intensity (lb/MWhr)	0.004

1.3 User Entered Comments & Non-Default Data

- Project Characteristics -
- Land Use - Acres from project site plan
- Construction Phase - Operation Only.
- Off-road Equipment - Operation Analysis Only.
- Trips and VMT - Operation Analysis Only.
- Vehicle Trips - City park in place of landscape, does not generate trips.
- Woodstoves - No woodstoves proposed. Assumed every home has a fireplace.
- Area Mitigation - SCAQMD Rule 1113

Yorba Villas Proposed General Plan Operation - San Bernardino-South Coast County, Summer

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

Table Name	Column Name	Default Value	New Value
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorValue	100	50
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	100	50
tblAreaMitigation	UseLowVOCPaintParkingCheck	False	True
tblAreaMitigation	UseLowVOCPaintParkingValue	100	50
tblConstructionPhase	NumDays	20.00	0.00
tblConstructionPhase	PhaseEndDate	12/8/2021	11/10/2021
tblFireplaces	NumberGas	56.95	67.00
tblFireplaces	NumberNoFireplace	6.70	0.00
tblFireplaces	NumberWood	3.35	0.00
tblLandUse	LotAcreage	21.75	8.81
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblTripsAndVMT	WorkerTripNumber	21.00	0.00
tblVehicleTrips	ST_TR	1.96	0.00
tblVehicleTrips	SU_TR	2.19	0.00
tblVehicleTrips	WD_TR	0.78	0.00
tblWoodstoves	NumberCatalytic	3.35	0.00
tblWoodstoves	NumberNoncatalytic	3.35	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

2.0 Emissions Summary

Yorba Villas Proposed General Plan Operation - San Bernardino-South Coast County, Summer

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

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	2.9680	1.1752	6.0022	7.3900e-003		0.1205	0.1205		0.1205	0.1205	0.0000	1,428.7775	1,428.7775	0.0368	0.0260	1,437.4482
Energy	0.0560	0.4785	0.2036	3.0500e-003		0.0387	0.0387		0.0387	0.0387		610.8703	610.8703	0.0117	0.0112	614.5004
Mobile	2.2114	2.8798	21.7956	0.0473	4.6122	0.0360	4.6482	1.2302	0.0337	1.2638		4,866.4637	4,866.4637	0.2546	0.2223	4,939.0646
Total	5.2354	4.5334	28.0015	0.0577	4.6122	0.1951	4.8074	1.2302	0.1928	1.4230	0.0000	6,906.1115	6,906.1115	0.3031	0.2595	6,991.0131

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	2.9613	1.1752	6.0022	7.3900e-003		0.1205	0.1205		0.1205	0.1205	0.0000	1,428.7775	1,428.7775	0.0368	0.0260	1,437.4482
Energy	0.0560	0.4785	0.2036	3.0500e-003		0.0387	0.0387		0.0387	0.0387		610.8703	610.8703	0.0117	0.0112	614.5004
Mobile	2.2114	2.8798	21.7956	0.0473	4.6122	0.0360	4.6482	1.2302	0.0337	1.2638		4,866.4637	4,866.4637	0.2546	0.2223	4,939.0646
Total	5.2287	4.5334	28.0015	0.0577	4.6122	0.1951	4.8074	1.2302	0.1928	1.4230	0.0000	6,906.1115	6,906.1115	0.3031	0.2595	6,991.0131

Yorba Villas Proposed General Plan Operation - San Bernardino-South Coast County, Summer

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.13	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	Operation Only	Architectural Coating	11/11/2021	11/10/2021	5	0	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 4.03

Residential Indoor: 244,215; Residential Outdoor: 81,405; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 10,533 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Operation Only	Air Compressors	0	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Operation Only	0	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Yorba Villas Proposed General Plan Operation - San Bernardino-South Coast County, Summer

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

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	2.2114	2.8798	21.7956	0.0473	4.6122	0.0360	4.6482	1.2302	0.0337	1.2638		4,866.4637	4,866.4637	0.2546	0.2223	4,939.0646
Unmitigated	2.2114	2.8798	21.7956	0.0473	4.6122	0.0360	4.6482	1.2302	0.0337	1.2638		4,866.4637	4,866.4637	0.2546	0.2223	4,939.0646

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	0.00	0.00	0.00		
Other Asphalt Surfaces	0.00	0.00	0.00		
Single Family Housing	632.48	639.18	572.85	2,135,442	2,135,442
Total	632.48	639.18	572.85	2,135,442	2,135,442

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
City Park	16.60	8.40	6.90	33.00	48.00	19.00	66	28	6
Other Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Single Family Housing	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3

Yorba Villas Proposed General Plan Operation - San Bernardino-South Coast County, Summer

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

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
City Park	0.537785	0.055838	0.172353	0.139003	0.027005	0.007196	0.011392	0.017285	0.000559	0.000254	0.025303	0.000954	0.005071
Other Asphalt Surfaces	0.537785	0.055838	0.172353	0.139003	0.027005	0.007196	0.011392	0.017285	0.000559	0.000254	0.025303	0.000954	0.005071
Single Family Housing	0.537785	0.055838	0.172353	0.139003	0.027005	0.007196	0.011392	0.017285	0.000559	0.000254	0.025303	0.000954	0.005071

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0560	0.4785	0.2036	3.0500e-003		0.0387	0.0387		0.0387	0.0387		610.8703	610.8703	0.0117	0.0112	614.5004
NaturalGas Unmitigated	0.0560	0.4785	0.2036	3.0500e-003		0.0387	0.0387		0.0387	0.0387		610.8703	610.8703	0.0117	0.0112	614.5004

Yorba Villas Proposed General Plan Operation - San Bernardino-South Coast County, Summer

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

5.2 Energy by Land Use - Natural Gas

Unmitigated

	Natural Gas 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					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
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
Single Family Housing	5192.4	0.0560	0.4785	0.2036	3.0500e-003		0.0387	0.0387		0.0387	0.0387		610.8703	610.8703	0.0117	0.0112	614.5004
Total		0.0560	0.4785	0.2036	3.0500e-003		0.0387	0.0387		0.0387	0.0387		610.8703	610.8703	0.0117	0.0112	614.5004

Yorba Villas Proposed General Plan Operation - San Bernardino-South Coast County, Summer

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

5.2 Energy by Land Use - NaturalGas

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					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
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
Single Family Housing	5.1924	0.0560	0.4785	0.2036	3.0500e-003		0.0387	0.0387		0.0387	0.0387		610.8703	610.8703	0.0117	0.0112	614.5004
Total		0.0560	0.4785	0.2036	3.0500e-003		0.0387	0.0387		0.0387	0.0387		610.8703	610.8703	0.0117	0.0112	614.5004

6.0 Area Detail

6.1 Mitigation Measures Area

- Use Low VOC Paint - Residential Interior
- Use Low VOC Paint - Residential Exterior
- Use Low VOC Paint - Non-Residential Interior
- Use Low VOC Paint - Non-Residential Exterior

Yorba Villas Proposed General Plan Operation - San Bernardino-South Coast County, Summer

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	2.9613	1.1752	6.0022	7.3900e-003		0.1205	0.1205		0.1205	0.1205	0.0000	1,428.7775	1,428.7775	0.0368	0.0260	1,437.4482
Unmitigated	2.9680	1.1752	6.0022	7.3900e-003		0.1205	0.1205		0.1205	0.1205	0.0000	1,428.7775	1,428.7775	0.0368	0.0260	1,437.4482

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	0.2201					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.4512					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.1301	1.1114	0.4729	7.0900e-003		0.0899	0.0899		0.0899	0.0899	0.0000	1,418.8235	1,418.8235	0.0272	0.0260	1,427.2549
Landscaping	0.1666	0.0637	5.5293	2.9000e-004		0.0306	0.0306		0.0306	0.0306		9.9540	9.9540	9.5700e-003		10.1933
Total	2.9680	1.1752	6.0022	7.3800e-003		0.1205	0.1205		0.1205	0.1205	0.0000	1,428.7775	1,428.7775	0.0368	0.0260	1,437.4482

Yorba Villas Proposed General Plan Operation - San Bernardino-South Coast County, Summer

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

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.2134					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.4512					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.1301	1.1114	0.4729	7.0900e-003		0.0899	0.0899		0.0899	0.0899	0.0000	1,418.8235	1,418.8235	0.0272	0.0260	1,427.2549
Landscaping	0.1666	0.0637	5.5293	2.9000e-004		0.0306	0.0306		0.0306	0.0306		9.9540	9.9540	9.5700e-003		10.1933
Total	2.9613	1.1752	6.0022	7.3800e-003		0.1205	0.1205		0.1205	0.1205	0.0000	1,428.7775	1,428.7775	0.0368	0.0260	1,437.4482

7.0 Water Detail

7.1 Mitigation Measures Water

Yorba Villas Proposed General Plan Operation - San Bernardino-South Coast County, Summer

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

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

11.0 Vegetation

Yorba Villas Proposed General Plan Operation - San Bernardino-South Coast County, Winter

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

**Yorba Villas Proposed General Plan Operation
San Bernardino-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	4.03	Acre	4.03	175,546.80	0
City Park	0.51	Acre	0.51	22,215.60	0
Single Family Housing	67.00	Dwelling Unit	8.81	120,600.00	192

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	32
Climate Zone	10			Operational Year	2023
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	390.98	CH4 Intensity (lb/MWhr)	0.033	N2O Intensity (lb/MWhr)	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -
 Land Use - Acres from project site plan
 Construction Phase - Operation Only.
 Off-road Equipment - Operation Analysis Only.
 Trips and VMT - Operation Analysis Only.
 Vehicle Trips - City park in place of landscape, does not generate trips.
 Woodstoves - No woodstoves proposed. Assumed every home has a fireplace.
 Area Mitigation - SCAQMD Rule 1113

Yorba Villas Proposed General Plan Operation - San Bernardino-South Coast County, Winter

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

Table Name	Column Name	Default Value	New Value
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorValue	100	50
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	100	50
tblAreaMitigation	UseLowVOCPaintParkingCheck	False	True
tblAreaMitigation	UseLowVOCPaintParkingValue	100	50
tblConstructionPhase	NumDays	20.00	0.00
tblConstructionPhase	PhaseEndDate	12/8/2021	11/10/2021
tblFireplaces	NumberGas	56.95	67.00
tblFireplaces	NumberNoFireplace	6.70	0.00
tblFireplaces	NumberWood	3.35	0.00
tblLandUse	LotAcreage	21.75	8.81
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblTripsAndVMT	WorkerTripNumber	21.00	0.00
tblVehicleTrips	ST_TR	1.96	0.00
tblVehicleTrips	SU_TR	2.19	0.00
tblVehicleTrips	WD_TR	0.78	0.00
tblWoodstoves	NumberCatalytic	3.35	0.00
tblWoodstoves	NumberNoncatalytic	3.35	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

2.0 Emissions Summary

Yorba Villas Proposed General Plan Operation - San Bernardino-South Coast County, Winter

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

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	2.9680	1.1752	6.0022	7.3900e-003		0.1205	0.1205		0.1205	0.1205	0.0000	1,428.7775	1,428.7775	0.0368	0.0260	1,437.4482
Energy	0.0560	0.4785	0.2036	3.0500e-003		0.0387	0.0387		0.0387	0.0387		610.8703	610.8703	0.0117	0.0112	614.5004
Mobile	1.9287	3.0577	19.4156	0.0438	4.6122	0.0360	4.6482	1.2302	0.0337	1.2639		4,514.3186	4,514.3186	0.2606	0.2279	4,588.7441
Total	4.9527	4.7114	25.6215	0.0543	4.6122	0.1952	4.8074	1.2302	0.1929	1.4230	0.0000	6,553.9664	6,553.9664	0.3090	0.2651	6,640.6926

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	2.9613	1.1752	6.0022	7.3900e-003		0.1205	0.1205		0.1205	0.1205	0.0000	1,428.7775	1,428.7775	0.0368	0.0260	1,437.4482
Energy	0.0560	0.4785	0.2036	3.0500e-003		0.0387	0.0387		0.0387	0.0387		610.8703	610.8703	0.0117	0.0112	614.5004
Mobile	1.9287	3.0577	19.4156	0.0438	4.6122	0.0360	4.6482	1.2302	0.0337	1.2639		4,514.3186	4,514.3186	0.2606	0.2279	4,588.7441
Total	4.9460	4.7114	25.6215	0.0543	4.6122	0.1952	4.8074	1.2302	0.1929	1.4230	0.0000	6,553.9664	6,553.9664	0.3090	0.2651	6,640.6926

Yorba Villas Proposed General Plan Operation - San Bernardino-South Coast County, Winter

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.14	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	Operation Only	Architectural Coating	11/11/2021	11/10/2021	5	0	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 4.03

Residential Indoor: 244,215; Residential Outdoor: 81,405; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 10,533 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Operation Only	Air Compressors	0	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Operation Only	0	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Yorba Villas Proposed General Plan Operation - San Bernardino-South Coast County, Winter

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

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	1.9287	3.0577	19.4156	0.0438	4.6122	0.0360	4.6482	1.2302	0.0337	1.2639		4,514.318 6	4,514.318 6	0.2606	0.2279	4,588.744 1
Unmitigated	1.9287	3.0577	19.4156	0.0438	4.6122	0.0360	4.6482	1.2302	0.0337	1.2639		4,514.318 6	4,514.318 6	0.2606	0.2279	4,588.744 1

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	0.00	0.00	0.00		
Other Asphalt Surfaces	0.00	0.00	0.00		
Single Family Housing	632.48	639.18	572.85	2,135,442	2,135,442
Total	632.48	639.18	572.85	2,135,442	2,135,442

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
City Park	16.60	8.40	6.90	33.00	48.00	19.00	66	28	6
Other Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Single Family Housing	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3

Yorba Villas Proposed General Plan Operation - San Bernardino-South Coast County, Winter

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

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
City Park	0.537785	0.055838	0.172353	0.139003	0.027005	0.007196	0.011392	0.017285	0.000559	0.000254	0.025303	0.000954	0.005071
Other Asphalt Surfaces	0.537785	0.055838	0.172353	0.139003	0.027005	0.007196	0.011392	0.017285	0.000559	0.000254	0.025303	0.000954	0.005071
Single Family Housing	0.537785	0.055838	0.172353	0.139003	0.027005	0.007196	0.011392	0.017285	0.000559	0.000254	0.025303	0.000954	0.005071

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0560	0.4785	0.2036	3.0500e-003		0.0387	0.0387		0.0387	0.0387		610.8703	610.8703	0.0117	0.0112	614.5004
NaturalGas Unmitigated	0.0560	0.4785	0.2036	3.0500e-003		0.0387	0.0387		0.0387	0.0387		610.8703	610.8703	0.0117	0.0112	614.5004

Yorba Villas Proposed General Plan Operation - San Bernardino-South Coast County, Winter

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

5.2 Energy by Land Use - Natural Gas

Unmitigated

	Natural Gas 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					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
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
Single Family Housing	5192.4	0.0560	0.4785	0.2036	3.0500e-003		0.0387	0.0387		0.0387	0.0387		610.8703	610.8703	0.0117	0.0112	614.5004
Total		0.0560	0.4785	0.2036	3.0500e-003		0.0387	0.0387		0.0387	0.0387		610.8703	610.8703	0.0117	0.0112	614.5004

Yorba Villas Proposed General Plan Operation - San Bernardino-South Coast County, Winter

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

5.2 Energy by Land Use - NaturalGas

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					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
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
Single Family Housing	5.1924	0.0560	0.4785	0.2036	3.0500e-003		0.0387	0.0387		0.0387	0.0387		610.8703	610.8703	0.0117	0.0112	614.5004
Total		0.0560	0.4785	0.2036	3.0500e-003		0.0387	0.0387		0.0387	0.0387		610.8703	610.8703	0.0117	0.0112	614.5004

6.0 Area Detail

6.1 Mitigation Measures Area

- Use Low VOC Paint - Residential Interior
- Use Low VOC Paint - Residential Exterior
- Use Low VOC Paint - Non-Residential Interior
- Use Low VOC Paint - Non-Residential Exterior

Yorba Villas Proposed General Plan Operation - San Bernardino-South Coast County, Winter

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	2.9613	1.1752	6.0022	7.3900e-003		0.1205	0.1205		0.1205	0.1205	0.0000	1,428.7775	1,428.7775	0.0368	0.0260	1,437.4482
Unmitigated	2.9680	1.1752	6.0022	7.3900e-003		0.1205	0.1205		0.1205	0.1205	0.0000	1,428.7775	1,428.7775	0.0368	0.0260	1,437.4482

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	0.2201					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.4512					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.1301	1.1114	0.4729	7.0900e-003		0.0899	0.0899		0.0899	0.0899	0.0000	1,418.8235	1,418.8235	0.0272	0.0260	1,427.2549
Landscaping	0.1666	0.0637	5.5293	2.9000e-004		0.0306	0.0306		0.0306	0.0306		9.9540	9.9540	9.5700e-003		10.1933
Total	2.9680	1.1752	6.0022	7.3800e-003		0.1205	0.1205		0.1205	0.1205	0.0000	1,428.7775	1,428.7775	0.0368	0.0260	1,437.4482

Yorba Villas Proposed General Plan Operation - San Bernardino-South Coast County, Winter

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

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.2134					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.4512					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.1301	1.1114	0.4729	7.0900e-003		0.0899	0.0899		0.0899	0.0899	0.0000	1,418.8235	1,418.8235	0.0272	0.0260	1,427.2549
Landscaping	0.1666	0.0637	5.5293	2.9000e-004		0.0306	0.0306		0.0306	0.0306		9.9540	9.9540	9.5700e-003		10.1933
Total	2.9613	1.1752	6.0022	7.3800e-003		0.1205	0.1205		0.1205	0.1205	0.0000	1,428.7775	1,428.7775	0.0368	0.0260	1,437.4482

7.0 Water Detail

7.1 Mitigation Measures Water

Yorba Villas Proposed General Plan Operation - San Bernardino-South Coast County, Winter

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

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

Yorba Villas Proposed Zoning Operation - San Bernardino-South Coast County, Annual

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

**Yorba Villas Proposed Zoning Operation
San Bernardino-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	4.03	Acre	4.03	175,546.80	0
City Park	0.51	Acre	0.51	22,215.60	0
Single Family Housing	53.00	Dwelling Unit	8.81	95,400.00	152

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	32
Climate Zone	10			Operational Year	2023
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	390.98	CH4 Intensity (lb/MWhr)	0.033	N2O Intensity (lb/MWhr)	0.004

1.3 User Entered Comments & Non-Default Data

- Project Characteristics -
- Land Use - Acres from project site plan
- Construction Phase - Operation Only.
- Off-road Equipment - Operation Analysis Only.
- Trips and VMT - Operation Analysis Only.
- Vehicle Trips - City park in place of landscape, does not generate trips.
- Woodstoves - No woodstoves proposed. Assumed every home has a fireplace.
- Area Mitigation - SCAQMD Rule 1113

Yorba Villas Proposed Zoning Operation - San Bernardino-South Coast County, Annual

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

Table Name	Column Name	Default Value	New Value
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorValue	100	50
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	100	50
tblAreaMitigation	UseLowVOCPaintParkingCheck	False	True
tblAreaMitigation	UseLowVOCPaintParkingValue	100	50
tblConstructionPhase	NumDays	20.00	0.00
tblConstructionPhase	PhaseEndDate	12/8/2021	11/10/2021
tblFireplaces	NumberGas	45.05	53.00
tblFireplaces	NumberNoFireplace	5.30	0.00
tblFireplaces	NumberWood	2.65	0.00
tblLandUse	LotAcreage	17.21	8.81
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblTripsAndVMT	WorkerTripNumber	20.00	0.00
tblVehicleTrips	ST_TR	1.96	0.00
tblVehicleTrips	SU_TR	2.19	0.00
tblVehicleTrips	WD_TR	0.78	0.00
tblWoodstoves	NumberCatalytic	2.65	0.00
tblWoodstoves	NumberNoncatalytic	2.65	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

2.0 Emissions Summary

Yorba Villas Proposed Zoning Operation - San Bernardino-South Coast County, Annual

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

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

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

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
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Yorba Villas Proposed Zoning Operation - San Bernardino-South Coast County, Annual

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

		Highest		
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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	0.4063	0.0173	0.5514	1.0000e-004		3.9100e-003	3.9100e-003		3.9100e-003	3.9100e-003	0.0000	13.6202	13.6202	1.1000e-003	2.3000e-004	13.7173
Energy	8.0800e-003	0.0691	0.0294	4.4000e-004		5.5900e-003	5.5900e-003		5.5900e-003	5.5900e-003	0.0000	154.8658	154.8658	7.8500e-003	2.2300e-003	155.7274
Mobile	0.2694	0.4395	2.8481	6.2500e-003	0.6370	5.0600e-003	0.6420	0.1702	4.7400e-003	0.1749	0.0000	584.3658	584.3658	0.0336	0.0295	594.0009
Waste						0.0000	0.0000		0.0000	0.0000	12.6585	0.0000	12.6585	0.7481	0.0000	31.3609
Water						0.0000	0.0000		0.0000	0.0000	1.0955	13.4607	14.5563	0.1137	2.7900e-003	18.2305
Total	0.6838	0.5258	3.4289	6.7900e-003	0.6370	0.0146	0.6515	0.1702	0.0142	0.1844	13.7541	766.3125	780.0666	0.9043	0.0348	813.0370

Yorba Villas Proposed Zoning Operation - San Bernardino-South Coast County, Annual

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

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.4051	0.0173	0.5514	1.0000e-004		3.9100e-003	3.9100e-003		3.9100e-003	3.9100e-003	0.0000	13.6202	13.6202	1.1000e-003	2.3000e-004	13.7173
Energy	8.0800e-003	0.0691	0.0294	4.4000e-004		5.5900e-003	5.5900e-003		5.5900e-003	5.5900e-003	0.0000	154.8658	154.8658	7.8500e-003	2.2300e-003	155.7274
Mobile	0.2694	0.4395	2.8481	6.2500e-003	0.6370	5.0600e-003	0.6420	0.1702	4.7400e-003	0.1749	0.0000	584.3658	584.3658	0.0336	0.0295	594.0009
Waste						0.0000	0.0000		0.0000	0.0000	12.6585	0.0000	12.6585	0.7481	0.0000	31.3609
Water						0.0000	0.0000		0.0000	0.0000	1.0955	13.4607	14.5563	0.1137	2.7900e-003	18.2305
Total	0.6826	0.5258	3.4289	6.7900e-003	0.6370	0.0146	0.6515	0.1702	0.0142	0.1844	13.7541	766.3125	780.0666	0.9043	0.0348	813.0370

	ROG	NOx	CO	SO2	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	0.18	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	Operation Only	Architectural Coating	11/11/2021	11/10/2021	5	0	

Acres of Grading (Site Preparation Phase): 0

Yorba Villas Proposed Zoning Operation - San Bernardino-South Coast County, Annual

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

3.2 Operation Only - 2021

Mitigated Construction Off-Site

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

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Yorba Villas Proposed Zoning Operation - San Bernardino-South Coast County, Annual

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.2694	0.4395	2.8481	6.2500e-003	0.6370	5.0600e-003	0.6420	0.1702	4.7400e-003	0.1749	0.0000	584.3658	584.3658	0.0336	0.0295	594.0009
Unmitigated	0.2694	0.4395	2.8481	6.2500e-003	0.6370	5.0600e-003	0.6420	0.1702	4.7400e-003	0.1749	0.0000	584.3658	584.3658	0.0336	0.0295	594.0009

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	0.00	0.00	0.00		
Other Asphalt Surfaces	0.00	0.00	0.00		
Single Family Housing	500.32	505.62	453.15	1,689,230	1,689,230
Total	500.32	505.62	453.15	1,689,230	1,689,230

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
City Park	16.60	8.40	6.90	33.00	48.00	19.00	66	28	6
Other Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Single Family Housing	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
City Park	0.537785	0.055838	0.172353	0.139003	0.027005	0.007196	0.011392	0.017285	0.000559	0.000254	0.025303	0.000954	0.005071
Other Asphalt Surfaces	0.537785	0.055838	0.172353	0.139003	0.027005	0.007196	0.011392	0.017285	0.000559	0.000254	0.025303	0.000954	0.005071

Yorba Villas Proposed Zoning Operation - San Bernardino-South Coast County, Annual

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

Single Family Housing	0.537785	0.055838	0.172353	0.139003	0.027005	0.007196	0.011392	0.017285	0.000559	0.000254	0.025303	0.000954	0.005071
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5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	74.8623	74.8623	6.3200e-003	7.7000e-004	75.2485
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	74.8623	74.8623	6.3200e-003	7.7000e-004	75.2485
Natural Gas Mitigated	8.0800e-003	0.0691	0.0294	4.4000e-004		5.5900e-003	5.5900e-003		5.5900e-003	5.5900e-003	0.0000	80.0034	80.0034	1.5300e-003	1.4700e-003	80.4789
Natural Gas Unmitigated	8.0800e-003	0.0691	0.0294	4.4000e-004		5.5900e-003	5.5900e-003		5.5900e-003	5.5900e-003	0.0000	80.0034	80.0034	1.5300e-003	1.4700e-003	80.4789

Yorba Villas Proposed Zoning Operation - San Bernardino-South Coast County, Annual

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

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Single Family Housing	1.49921e+006	8.0800e-003	0.0691	0.0294	4.4000e-004		5.5900e-003	5.5900e-003		5.5900e-003	5.5900e-003	0.0000	80.0034	80.0034	1.5300e-003	1.4700e-003	80.4789
Total		8.0800e-003	0.0691	0.0294	4.4000e-004		5.5900e-003	5.5900e-003		5.5900e-003	5.5900e-003	0.0000	80.0034	80.0034	1.5300e-003	1.4700e-003	80.4789

Yorba Villas Proposed Zoning Operation - San Bernardino-South Coast County, Annual

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

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Single Family Housing	1.49921e+006	8.0800e-003	0.0691	0.0294	4.4000e-004		5.5900e-003	5.5900e-003		5.5900e-003	5.5900e-003	0.0000	80.0034	80.0034	1.5300e-003	1.4700e-003	80.4789
Total		8.0800e-003	0.0691	0.0294	4.4000e-004		5.5900e-003	5.5900e-003		5.5900e-003	5.5900e-003	0.0000	80.0034	80.0034	1.5300e-003	1.4700e-003	80.4789

Yorba Villas Proposed Zoning Operation - San Bernardino-South Coast County, Annual

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

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
City Park	0	0.0000	0.0000	0.0000	0.0000
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	422127	74.8623	6.3200e-003	7.7000e-004	75.2485
Total		74.8623	6.3200e-003	7.7000e-004	75.2485

Yorba Villas Proposed Zoning Operation - San Bernardino-South Coast County, Annual

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

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
City Park	0	0.0000	0.0000	0.0000	0.0000
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	422127	74.8623	6.3200e-003	7.7000e-004	75.2485
Total		74.8623	6.3200e-003	7.7000e-004	75.2485

6.0 Area Detail

6.1 Mitigation Measures Area

- Use Low VOC Paint - Residential Interior
- Use Low VOC Paint - Residential Exterior
- Use Low VOC Paint - Non-Residential Interior
- Use Low VOC Paint - Non-Residential Exterior

Yorba Villas Proposed Zoning Operation - San Bernardino-South Coast County, Annual

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.4051	0.0173	0.5514	1.0000e-004		3.9100e-003	3.9100e-003		3.9100e-003	3.9100e-003	0.0000	13.6202	13.6202	1.1000e-003	2.3000e-004	13.7173
Unmitigated	0.4063	0.0173	0.5514	1.0000e-004		3.9100e-003	3.9100e-003		3.9100e-003	3.9100e-003	0.0000	13.6202	13.6202	1.1000e-003	2.3000e-004	13.7173

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	0.0323					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.3563					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	1.2900e-003	0.0110	4.6800e-003	7.0000e-005		8.9000e-004	8.9000e-004		8.9000e-004	8.9000e-004	0.0000	12.7273	12.7273	2.4000e-004	2.3000e-004	12.8029
Landscaping	0.0165	6.3000e-003	0.5468	3.0000e-005		3.0300e-003	3.0300e-003		3.0300e-003	3.0300e-003	0.0000	0.8929	0.8929	8.6000e-004	0.0000	0.9144
Total	0.4063	0.0173	0.5514	1.0000e-004		3.9200e-003	3.9200e-003		3.9200e-003	3.9200e-003	0.0000	13.6202	13.6202	1.1000e-003	2.3000e-004	13.7173

Yorba Villas Proposed Zoning Operation - San Bernardino-South Coast County, Annual

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

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0311					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.3563					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	1.2900e-003	0.0110	4.6800e-003	7.0000e-005		8.9000e-004	8.9000e-004		8.9000e-004	8.9000e-004	0.0000	12.7273	12.7273	2.4000e-004	2.3000e-004	12.8029
Landscaping	0.0165	6.3000e-003	0.5468	3.0000e-005		3.0300e-003	3.0300e-003		3.0300e-003	3.0300e-003	0.0000	0.8929	0.8929	8.6000e-004	0.0000	0.9144
Total	0.4051	0.0173	0.5514	1.0000e-004		3.9200e-003	3.9200e-003		3.9200e-003	3.9200e-003	0.0000	13.6202	13.6202	1.1000e-003	2.3000e-004	13.7173

7.0 Water Detail

7.1 Mitigation Measures Water

Yorba Villas Proposed Zoning Operation - San Bernardino-South Coast County, Annual

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

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	14.5563	0.1137	2.7900e-003	18.2305
Unmitigated	14.5563	0.1137	2.7900e-003	18.2305

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
City Park	0 / 0.607655	1.1973	1.0000e-004	1.0000e-005	1.2035
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	3.45316 / 2.17699	13.3590	0.1136	2.7800e-003	17.0270
Total		14.5563	0.1137	2.7900e-003	18.2305

Yorba Villas Proposed Zoning Operation - San Bernardino-South Coast County, Annual

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

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
City Park	0 / 0.607655	1.1973	1.0000e-004	1.0000e-005	1.2035
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	3.45316 / 2.17699	13.3590	0.1136	2.7800e-003	17.0270
Total		14.5563	0.1137	2.7900e-003	18.2305

8.0 Waste Detail

8.1 Mitigation Measures Waste

Yorba Villas Proposed Zoning Operation - San Bernardino-South Coast County, Annual

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

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	12.6585	0.7481	0.0000	31.3609
Unmitigated	12.6585	0.7481	0.0000	31.3609

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park	0.04	8.1200e-003	4.8000e-004	0.0000	0.0201
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	62.32	12.6504	0.7476	0.0000	31.3408
Total		12.6585	0.7481	0.0000	31.3609

Yorba Villas Proposed Zoning Operation - San Bernardino-South Coast County, Annual

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

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park	0.04	8.1200e-003	4.8000e-004	0.0000	0.0201
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	62.32	12.6504	0.7476	0.0000	31.3408
Total		12.6585	0.7481	0.0000	31.3609

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
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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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Yorba Villas Proposed Zoning Operation - San Bernardino-South Coast County, Annual

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

11.0 Vegetation

Yorba Villas Proposed Zoning Operation - San Bernardino-South Coast County, Summer

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

**Yorba Villas Proposed Zoning Operation
San Bernardino-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	4.03	Acre	4.03	175,546.80	0
City Park	0.51	Acre	0.51	22,215.60	0
Single Family Housing	53.00	Dwelling Unit	8.81	95,400.00	152

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	32
Climate Zone	10			Operational Year	2023
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	390.98	CH4 Intensity (lb/MWhr)	0.033	N2O Intensity (lb/MWhr)	0.004

1.3 User Entered Comments & Non-Default Data

- Project Characteristics -
- Land Use - Acres from project site plan
- Construction Phase - Operation Only.
- Off-road Equipment - Operation Analysis Only.
- Trips and VMT - Operation Analysis Only.
- Vehicle Trips - City park in place of landscape, does not generate trips.
- Woodstoves - No woodstoves proposed. Assumed every home has a fireplace.
- Area Mitigation - SCAQMD Rule 1113

Yorba Villas Proposed Zoning Operation - San Bernardino-South Coast County, Summer

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

Table Name	Column Name	Default Value	New Value
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorValue	100	50
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	100	50
tblAreaMitigation	UseLowVOCPaintParkingCheck	False	True
tblAreaMitigation	UseLowVOCPaintParkingValue	100	50
tblConstructionPhase	NumDays	20.00	0.00
tblConstructionPhase	PhaseEndDate	12/8/2021	11/10/2021
tblFireplaces	NumberGas	45.05	53.00
tblFireplaces	NumberNoFireplace	5.30	0.00
tblFireplaces	NumberWood	2.65	0.00
tblLandUse	LotAcreage	17.21	8.81
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblTripsAndVMT	WorkerTripNumber	20.00	0.00
tblVehicleTrips	ST_TR	1.96	0.00
tblVehicleTrips	SU_TR	2.19	0.00
tblVehicleTrips	WD_TR	0.78	0.00
tblWoodstoves	NumberCatalytic	2.65	0.00
tblWoodstoves	NumberNoncatalytic	2.65	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

2.0 Emissions Summary

Yorba Villas Proposed Zoning Operation - San Bernardino-South Coast County, Summer

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

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	2.3639	0.9296	4.7481	5.8400e-003		0.0953	0.0953		0.0953	0.0953	0.0000	1,130.2272	1,130.2272	0.0291	0.0206	1,137.0861
Energy	0.0443	0.3785	0.1611	2.4200e-003		0.0306	0.0306		0.0306	0.0306		483.2257	483.2257	9.2600e-003	8.8600e-003	486.0973
Mobile	1.7493	2.2780	17.2413	0.0374	3.6485	0.0285	3.6769	0.9731	0.0267	0.9998		3,849.5907	3,849.5907	0.2014	0.1758	3,907.0212
Total	4.1574	3.5861	22.1505	0.0457	3.6485	0.1544	3.8028	0.9731	0.1525	1.1257	0.0000	5,463.0436	5,463.0436	0.2398	0.2053	5,530.2046

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	2.3572	0.9296	4.7481	5.8400e-003		0.0953	0.0953		0.0953	0.0953	0.0000	1,130.2272	1,130.2272	0.0291	0.0206	1,137.0861
Energy	0.0443	0.3785	0.1611	2.4200e-003		0.0306	0.0306		0.0306	0.0306		483.2257	483.2257	9.2600e-003	8.8600e-003	486.0973
Mobile	1.7493	2.2780	17.2413	0.0374	3.6485	0.0285	3.6769	0.9731	0.0267	0.9998		3,849.5907	3,849.5907	0.2014	0.1758	3,907.0212
Total	4.1508	3.5861	22.1505	0.0457	3.6485	0.1544	3.8028	0.9731	0.1525	1.1257	0.0000	5,463.0436	5,463.0436	0.2398	0.2053	5,530.2046

Yorba Villas Proposed Zoning Operation - San Bernardino-South Coast County, Summer

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.16	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	Operation Only	Architectural Coating	11/11/2021	11/10/2021	5	0	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 4.03

Residential Indoor: 193,185; Residential Outdoor: 64,395; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 10,533 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Operation Only	Air Compressors	0	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Operation Only	0	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Yorba Villas Proposed Zoning Operation - San Bernardino-South Coast County, Summer

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

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	1.7493	2.2780	17.2413	0.0374	3.6485	0.0285	3.6769	0.9731	0.0267	0.9998		3,849,590 7	3,849,590 7	0.2014	0.1758	3,907,021 2
Unmitigated	1.7493	2.2780	17.2413	0.0374	3.6485	0.0285	3.6769	0.9731	0.0267	0.9998		3,849,590 7	3,849,590 7	0.2014	0.1758	3,907,021 2

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	0.00	0.00	0.00		
Other Asphalt Surfaces	0.00	0.00	0.00		
Single Family Housing	500.32	505.62	453.15	1,689,230	1,689,230
Total	500.32	505.62	453.15	1,689,230	1,689,230

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
City Park	16.60	8.40	6.90	33.00	48.00	19.00	66	28	6
Other Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Single Family Housing	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3

Yorba Villas Proposed Zoning Operation - San Bernardino-South Coast County, Summer

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

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
City Park	0.537785	0.055838	0.172353	0.139003	0.027005	0.007196	0.011392	0.017285	0.000559	0.000254	0.025303	0.000954	0.005071
Other Asphalt Surfaces	0.537785	0.055838	0.172353	0.139003	0.027005	0.007196	0.011392	0.017285	0.000559	0.000254	0.025303	0.000954	0.005071
Single Family Housing	0.537785	0.055838	0.172353	0.139003	0.027005	0.007196	0.011392	0.017285	0.000559	0.000254	0.025303	0.000954	0.005071

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0443	0.3785	0.1611	2.4200e-003		0.0306	0.0306		0.0306	0.0306		483.2257	483.2257	9.2600e-003	8.8600e-003	486.0973
NaturalGas Unmitigated	0.0443	0.3785	0.1611	2.4200e-003		0.0306	0.0306		0.0306	0.0306		483.2257	483.2257	9.2600e-003	8.8600e-003	486.0973

Yorba Villas Proposed Zoning Operation - San Bernardino-South Coast County, Summer

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

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
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
Single Family Housing	4107.42	0.0443	0.3785	0.1611	2.4200e-003		0.0306	0.0306		0.0306	0.0306		483.2257	483.2257	9.2600e-003	8.8600e-003	486.0973
Total		0.0443	0.3785	0.1611	2.4200e-003		0.0306	0.0306		0.0306	0.0306		483.2257	483.2257	9.2600e-003	8.8600e-003	486.0973

Yorba Villas Proposed Zoning Operation - San Bernardino-South Coast County, Summer

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

5.2 Energy by Land Use - NaturalGas

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					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
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
Single Family Housing	4.10742	0.0443	0.3785	0.1611	2.4200e-003		0.0306	0.0306		0.0306	0.0306		483.2257	483.2257	9.2600e-003	8.8600e-003	486.0973
Total		0.0443	0.3785	0.1611	2.4200e-003		0.0306	0.0306		0.0306	0.0306		483.2257	483.2257	9.2600e-003	8.8600e-003	486.0973

6.0 Area Detail

6.1 Mitigation Measures Area

- Use Low VOC Paint - Residential Interior
- Use Low VOC Paint - Residential Exterior
- Use Low VOC Paint - Non-Residential Interior
- Use Low VOC Paint - Non-Residential Exterior

Yorba Villas Proposed Zoning Operation - San Bernardino-South Coast County, Summer

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	2.3572	0.9296	4.7481	5.8400e-003		0.0953	0.0953		0.0953	0.0953	0.0000	1,130.2272	1,130.2272	0.0291	0.0206	1,137.0861
Unmitigated	2.3639	0.9296	4.7481	5.8400e-003		0.0953	0.0953		0.0953	0.0953	0.0000	1,130.2272	1,130.2272	0.0291	0.0206	1,137.0861

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	0.1769					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.9522					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.1029	0.8792	0.3741	5.6100e-003		0.0711	0.0711		0.0711	0.0711	0.0000	1,122.3529	1,122.3529	0.0215	0.0206	1,129.0225
Landscaping	0.1318	0.0504	4.3740	2.3000e-004		0.0242	0.0242		0.0242	0.0242		7.8743	7.8743	7.5700e-003		8.0636
Total	2.3638	0.9296	4.7481	5.8400e-003		0.0953	0.0953		0.0953	0.0953	0.0000	1,130.2272	1,130.2272	0.0291	0.0206	1,137.0861

Yorba Villas Proposed Zoning Operation - San Bernardino-South Coast County, Summer

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

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.1702					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.9522					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.1029	0.8792	0.3741	5.6100e-003		0.0711	0.0711		0.0711	0.0711	0.0000	1,122.3529	1,122.3529	0.0215	0.0206	1,129.0225
Landscaping	0.1318	0.0504	4.3740	2.3000e-004		0.0242	0.0242		0.0242	0.0242		7.8743	7.8743	7.5700e-003		8.0636
Total	2.3572	0.9296	4.7481	5.8400e-003		0.0953	0.0953		0.0953	0.0953	0.0000	1,130.2272	1,130.2272	0.0291	0.0206	1,137.0861

7.0 Water Detail

7.1 Mitigation Measures Water

Yorba Villas Proposed Zoning Operation - San Bernardino-South Coast County, Summer

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

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

Yorba Villas Proposed Zoning Operation - San Bernardino-South Coast County, Winter

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

**Yorba Villas Proposed Zoning Operation
San Bernardino-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	4.03	Acre	4.03	175,546.80	0
City Park	0.51	Acre	0.51	22,215.60	0
Single Family Housing	53.00	Dwelling Unit	8.81	95,400.00	152

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	32
Climate Zone	10			Operational Year	2023
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	390.98	CH4 Intensity (lb/MWhr)	0.033	N2O Intensity (lb/MWhr)	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -
 Land Use - Acres from project site plan
 Construction Phase - Operation Only.
 Off-road Equipment - Operation Analysis Only.
 Trips and VMT - Operation Analysis Only.
 Vehicle Trips - City park in place of landscape, does not generate trips.
 Woodstoves - No woodstoves proposed. Assumed every home has a fireplace.
 Area Mitigation - SCAQMD Rule 1113

Yorba Villas Proposed Zoning Operation - San Bernardino-South Coast County, Winter

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

Table Name	Column Name	Default Value	New Value
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorValue	100	50
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	100	50
tblAreaMitigation	UseLowVOCPaintParkingCheck	False	True
tblAreaMitigation	UseLowVOCPaintParkingValue	100	50
tblConstructionPhase	NumDays	20.00	0.00
tblConstructionPhase	PhaseEndDate	12/8/2021	11/10/2021
tblFireplaces	NumberGas	45.05	53.00
tblFireplaces	NumberNoFireplace	5.30	0.00
tblFireplaces	NumberWood	2.65	0.00
tblLandUse	LotAcreage	17.21	8.81
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblTripsAndVMT	WorkerTripNumber	20.00	0.00
tblVehicleTrips	ST_TR	1.96	0.00
tblVehicleTrips	SU_TR	2.19	0.00
tblVehicleTrips	WD_TR	0.78	0.00
tblWoodstoves	NumberCatalytic	2.65	0.00
tblWoodstoves	NumberNoncatalytic	2.65	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

2.0 Emissions Summary

Yorba Villas Proposed Zoning Operation - San Bernardino-South Coast County, Winter

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

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	2.3639	0.9296	4.7481	5.8400e-003		0.0953	0.0953		0.0953	0.0953	0.0000	1,130.227 2	1,130.227 2	0.0291	0.0206	1,137.086 1
Energy	0.0443	0.3785	0.1611	2.4200e-003		0.0306	0.0306		0.0306	0.0306		483.2257	483.2257	9.2600e-003	8.8600e-003	486.0973
Mobile	1.5257	2.4188	15.3586	0.0347	3.6485	0.0285	3.6770	0.9731	0.0267	0.9998		3,571.028 2	3,571.028 2	0.2061	0.1803	3,629.902 0
Total	3.9339	3.7269	20.2678	0.0429	3.6485	0.1544	3.8029	0.9731	0.1526	1.1257	0.0000	5,184.481 1	5,184.481 1	0.2445	0.2097	5,253.085 4

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	2.3572	0.9296	4.7481	5.8400e-003		0.0953	0.0953		0.0953	0.0953	0.0000	1,130.227 2	1,130.227 2	0.0291	0.0206	1,137.086 1
Energy	0.0443	0.3785	0.1611	2.4200e-003		0.0306	0.0306		0.0306	0.0306		483.2257	483.2257	9.2600e-003	8.8600e-003	486.0973
Mobile	1.5257	2.4188	15.3586	0.0347	3.6485	0.0285	3.6770	0.9731	0.0267	0.9998		3,571.028 2	3,571.028 2	0.2061	0.1803	3,629.902 0
Total	3.9272	3.7269	20.2678	0.0429	3.6485	0.1544	3.8029	0.9731	0.1526	1.1257	0.0000	5,184.481 1	5,184.481 1	0.2445	0.2097	5,253.085 4

Yorba Villas Proposed Zoning Operation - San Bernardino-South Coast County, Winter

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.17	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	Operation Only	Architectural Coating	11/11/2021	11/10/2021	5	0	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 4.03

Residential Indoor: 193,185; Residential Outdoor: 64,395; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 10,533 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Operation Only	Air Compressors	0	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Operation Only	0	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Yorba Villas Proposed Zoning Operation - San Bernardino-South Coast County, Winter

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

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	1.5257	2.4188	15.3586	0.0347	3.6485	0.0285	3.6770	0.9731	0.0267	0.9998		3,571.028 2	3,571.028 2	0.2061	0.1803	3,629.902 0
Unmitigated	1.5257	2.4188	15.3586	0.0347	3.6485	0.0285	3.6770	0.9731	0.0267	0.9998		3,571.028 2	3,571.028 2	0.2061	0.1803	3,629.902 0

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	0.00	0.00	0.00		
Other Asphalt Surfaces	0.00	0.00	0.00		
Single Family Housing	500.32	505.62	453.15	1,689,230	1,689,230
Total	500.32	505.62	453.15	1,689,230	1,689,230

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
City Park	16.60	8.40	6.90	33.00	48.00	19.00	66	28	6
Other Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Single Family Housing	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3

Yorba Villas Proposed Zoning Operation - San Bernardino-South Coast County, Winter

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

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
City Park	0.537785	0.055838	0.172353	0.139003	0.027005	0.007196	0.011392	0.017285	0.000559	0.000254	0.025303	0.000954	0.005071
Other Asphalt Surfaces	0.537785	0.055838	0.172353	0.139003	0.027005	0.007196	0.011392	0.017285	0.000559	0.000254	0.025303	0.000954	0.005071
Single Family Housing	0.537785	0.055838	0.172353	0.139003	0.027005	0.007196	0.011392	0.017285	0.000559	0.000254	0.025303	0.000954	0.005071

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0443	0.3785	0.1611	2.4200e-003		0.0306	0.0306		0.0306	0.0306		483.2257	483.2257	9.2600e-003	8.8600e-003	486.0973
NaturalGas Unmitigated	0.0443	0.3785	0.1611	2.4200e-003		0.0306	0.0306		0.0306	0.0306		483.2257	483.2257	9.2600e-003	8.8600e-003	486.0973

Yorba Villas Proposed Zoning Operation - San Bernardino-South Coast County, Winter

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

5.2 Energy by Land Use - Natural Gas

Unmitigated

	Natural Gas 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					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
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
Single Family Housing	4107.42	0.0443	0.3785	0.1611	2.4200e-003		0.0306	0.0306		0.0306	0.0306		483.2257	483.2257	9.2600e-003	8.8600e-003	486.0973
Total		0.0443	0.3785	0.1611	2.4200e-003		0.0306	0.0306		0.0306	0.0306		483.2257	483.2257	9.2600e-003	8.8600e-003	486.0973

Yorba Villas Proposed Zoning Operation - San Bernardino-South Coast County, Winter

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

5.2 Energy by Land Use - NaturalGas

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					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
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
Single Family Housing	4.10742	0.0443	0.3785	0.1611	2.4200e-003		0.0306	0.0306		0.0306	0.0306		483.2257	483.2257	9.2600e-003	8.8600e-003	486.0973
Total		0.0443	0.3785	0.1611	2.4200e-003		0.0306	0.0306		0.0306	0.0306		483.2257	483.2257	9.2600e-003	8.8600e-003	486.0973

6.0 Area Detail

6.1 Mitigation Measures Area

- Use Low VOC Paint - Residential Interior
- Use Low VOC Paint - Residential Exterior
- Use Low VOC Paint - Non-Residential Interior
- Use Low VOC Paint - Non-Residential Exterior

Yorba Villas Proposed Zoning Operation - San Bernardino-South Coast County, Winter

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	2.3572	0.9296	4.7481	5.8400e-003		0.0953	0.0953		0.0953	0.0953	0.0000	1,130.2272	1,130.2272	0.0291	0.0206	1,137.0861
Unmitigated	2.3639	0.9296	4.7481	5.8400e-003		0.0953	0.0953		0.0953	0.0953	0.0000	1,130.2272	1,130.2272	0.0291	0.0206	1,137.0861

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	0.1769					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.9522					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.1029	0.8792	0.3741	5.6100e-003		0.0711	0.0711		0.0711	0.0711	0.0000	1,122.3529	1,122.3529	0.0215	0.0206	1,129.0225
Landscaping	0.1318	0.0504	4.3740	2.3000e-004		0.0242	0.0242		0.0242	0.0242		7.8743	7.8743	7.5700e-003		8.0636
Total	2.3638	0.9296	4.7481	5.8400e-003		0.0953	0.0953		0.0953	0.0953	0.0000	1,130.2272	1,130.2272	0.0291	0.0206	1,137.0861

Yorba Villas Proposed Zoning Operation - San Bernardino-South Coast County, Winter

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

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.1702					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.9522					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.1029	0.8792	0.3741	5.6100e-003		0.0711	0.0711		0.0711	0.0711	0.0000	1,122.3529	1,122.3529	0.0215	0.0206	1,129.0225
Landscaping	0.1318	0.0504	4.3740	2.3000e-004		0.0242	0.0242		0.0242	0.0242		7.8743	7.8743	7.5700e-003		8.0636
Total	2.3572	0.9296	4.7481	5.8400e-003		0.0953	0.0953		0.0953	0.0953	0.0000	1,130.2272	1,130.2272	0.0291	0.0206	1,137.0861

7.0 Water Detail

7.1 Mitigation Measures Water

Yorba Villas Proposed Zoning Operation - San Bernardino-South Coast County, Winter

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

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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