

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**

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

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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**

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**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
<b>Maximum</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**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
<b>Maximum</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

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

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

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		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
<b>Total</b>	<b>0.3552</b>	<b>0.2679</b>	<b>1.7468</b>	<b>3.4600e-003</b>	<b>0.3245</b>	<b>7.4200e-003</b>	<b>0.3319</b>	<b>0.0867</b>	<b>7.2500e-003</b>	<b>0.0939</b>	<b>6.9746</b>	<b>390.9730</b>	<b>397.9477</b>	<b>0.4589</b>	<b>0.0177</b>	<b>414.6995</b>

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**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
<b>Total</b>	<b>0.3540</b>	<b>0.2679</b>	<b>1.7468</b>	<b>3.4600e-003</b>	<b>0.3245</b>	<b>7.4200e-003</b>	<b>0.3319</b>	<b>0.0867</b>	<b>7.2500e-003</b>	<b>0.0939</b>	<b>6.9746</b>	<b>390.9730</b>	<b>397.9477</b>	<b>0.4589</b>	<b>0.0177</b>	<b>414.6995</b>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
<b>Percent Reduction</b>	<b>0.34</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>

**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**





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**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
<b>Total</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**4.0 Operational Detail - Mobile**

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**4.1 Mitigation Measures Mobile**



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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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

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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

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**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
<b>Total</b>		<b>4.1200e-003</b>	<b>0.0352</b>	<b>0.0150</b>	<b>2.2000e-004</b>		<b>2.8500e-003</b>	<b>2.8500e-003</b>		<b>2.8500e-003</b>	<b>2.8500e-003</b>	<b>0.0000</b>	<b>40.7565</b>	<b>40.7565</b>	<b>7.8000e-004</b>	<b>7.5000e-004</b>	<b>40.9987</b>

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**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
<b>Total</b>		<b>4.1200e-003</b>	<b>0.0352</b>	<b>0.0150</b>	<b>2.2000e-004</b>		<b>2.8500e-003</b>	<b>2.8500e-003</b>		<b>2.8500e-003</b>	<b>2.8500e-003</b>	<b>0.0000</b>	<b>40.7565</b>	<b>40.7565</b>	<b>7.8000e-004</b>	<b>7.5000e-004</b>	<b>40.9987</b>

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**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
<b>Total</b>		<b>38.1374</b>	<b>3.2200e-003</b>	<b>3.9000e-004</b>	<b>38.3342</b>

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**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
<b>Total</b>		<b>38.1374</b>	<b>3.2200e-003</b>	<b>3.9000e-004</b>	<b>38.3342</b>

**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

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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
<b>Total</b>	<b>0.2139</b>	<b>8.8100e-003</b>	<b>0.2809</b>	<b>5.0000e-005</b>		<b>1.9900e-003</b>	<b>1.9900e-003</b>		<b>1.9900e-003</b>	<b>1.9900e-003</b>	<b>0.0000</b>	<b>6.9386</b>	<b>6.9386</b>	<b>5.6000e-004</b>	<b>1.2000e-004</b>	<b>6.9881</b>

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**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
<b>Total</b>	<b>0.2127</b>	<b>8.8100e-003</b>	<b>0.2809</b>	<b>5.0000e-005</b>		<b>1.9900e-003</b>	<b>1.9900e-003</b>		<b>1.9900e-003</b>	<b>1.9900e-003</b>	<b>0.0000</b>	<b>6.9386</b>	<b>6.9386</b>	<b>5.6000e-004</b>	<b>1.2000e-004</b>	<b>6.9881</b>

**7.0 Water Detail**

**7.1 Mitigation Measures Water**



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**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
<b>Total</b>		<b>8.0028</b>	<b>0.0580</b>	<b>1.4300e-003</b>	<b>9.8776</b>

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**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
<b>Total</b>		<b>8.0028</b>	<b>0.0580</b>	<b>1.4300e-003</b>	<b>9.8776</b>

**8.0 Waste Detail**

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**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
<b>Total</b>		<b>6.4165</b>	<b>0.3792</b>	<b>0.0000</b>	<b>15.8967</b>

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
<b>Total</b>		<b>6.4165</b>	<b>0.3792</b>	<b>0.0000</b>	<b>15.8967</b>

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

**11.0 Vegetation**

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**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**

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

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**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**

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**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
<b>Maximum</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**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
<b>Maximum</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

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

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



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**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
<b>Total</b>	<b>0.3552</b>	<b>0.2679</b>	<b>1.7468</b>	<b>3.4600e-003</b>	<b>0.3245</b>	<b>7.4200e-003</b>	<b>0.3319</b>	<b>0.0867</b>	<b>7.2500e-003</b>	<b>0.0939</b>	<b>6.9746</b>	<b>390.9730</b>	<b>397.9477</b>	<b>0.4589</b>	<b>0.0177</b>	<b>414.6995</b>

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**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
<b>Total</b>	<b>0.3540</b>	<b>0.2679</b>	<b>1.7468</b>	<b>3.4600e-003</b>	<b>0.3245</b>	<b>7.4200e-003</b>	<b>0.3319</b>	<b>0.0867</b>	<b>7.2500e-003</b>	<b>0.0939</b>	<b>6.9746</b>	<b>390.9730</b>	<b>397.9477</b>	<b>0.4589</b>	<b>0.0177</b>	<b>414.6995</b>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
<b>Percent Reduction</b>	<b>0.34</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>

**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**





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**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
<b>Total</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**4.0 Operational Detail - Mobile**

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**4.1 Mitigation Measures Mobile**

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**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

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**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

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**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
<b>Total</b>		<b>4.1200e-003</b>	<b>0.0352</b>	<b>0.0150</b>	<b>2.2000e-004</b>		<b>2.8500e-003</b>	<b>2.8500e-003</b>		<b>2.8500e-003</b>	<b>2.8500e-003</b>	<b>0.0000</b>	<b>40.7565</b>	<b>40.7565</b>	<b>7.8000e-004</b>	<b>7.5000e-004</b>	<b>40.9987</b>



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**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
<b>Total</b>		<b>4.1200e-003</b>	<b>0.0352</b>	<b>0.0150</b>	<b>2.2000e-004</b>		<b>2.8500e-003</b>	<b>2.8500e-003</b>		<b>2.8500e-003</b>	<b>2.8500e-003</b>	<b>0.0000</b>	<b>40.7565</b>	<b>40.7565</b>	<b>7.8000e-004</b>	<b>7.5000e-004</b>	<b>40.9987</b>

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**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
<b>Total</b>		<b>38.1374</b>	<b>3.2200e-003</b>	<b>3.9000e-004</b>	<b>38.3342</b>

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**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
<b>Total</b>		<b>38.1374</b>	<b>3.2200e-003</b>	<b>3.9000e-004</b>	<b>38.3342</b>

**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

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**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
<b>Total</b>	<b>0.2139</b>	<b>8.8100e-003</b>	<b>0.2809</b>	<b>5.0000e-005</b>		<b>1.9900e-003</b>	<b>1.9900e-003</b>		<b>1.9900e-003</b>	<b>1.9900e-003</b>	<b>0.0000</b>	<b>6.9386</b>	<b>6.9386</b>	<b>5.6000e-004</b>	<b>1.2000e-004</b>	<b>6.9881</b>

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**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
<b>Total</b>	<b>0.2127</b>	<b>8.8100e-003</b>	<b>0.2809</b>	<b>5.0000e-005</b>		<b>1.9900e-003</b>	<b>1.9900e-003</b>		<b>1.9900e-003</b>	<b>1.9900e-003</b>	<b>0.0000</b>	<b>6.9386</b>	<b>6.9386</b>	<b>5.6000e-004</b>	<b>1.2000e-004</b>	<b>6.9881</b>

**7.0 Water Detail**

**7.1 Mitigation Measures Water**

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**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
<b>Total</b>		<b>8.0028</b>	<b>0.0580</b>	<b>1.4300e-003</b>	<b>9.8776</b>

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**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
<b>Total</b>		<b>8.0028</b>	<b>0.0580</b>	<b>1.4300e-003</b>	<b>9.8776</b>

**8.0 Waste Detail**

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**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
<b>Total</b>		<b>6.4165</b>	<b>0.3792</b>	<b>0.0000</b>	<b>15.8967</b>



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
<b>Total</b>		<b>6.4165</b>	<b>0.3792</b>	<b>0.0000</b>	<b>15.8967</b>

**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**

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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**

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

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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
<b>Total</b>	<b>2.1556</b>	<b>1.8269</b>	<b>11.2845</b>	<b>0.0233</b>	<b>1.8587</b>	<b>0.0786</b>	<b>1.9373</b>	<b>0.4957</b>	<b>0.0777</b>	<b>0.5735</b>	<b>0.0000</b>	<b>2,783.060 4</b>	<b>2,783.060 4</b>	<b>0.1222</b>	<b>0.1046</b>	<b>2,817.274 6</b>

**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
<b>Total</b>	<b>2.1489</b>	<b>1.8269</b>	<b>11.2845</b>	<b>0.0233</b>	<b>1.8587</b>	<b>0.0786</b>	<b>1.9373</b>	<b>0.4957</b>	<b>0.0777</b>	<b>0.5735</b>	<b>0.0000</b>	<b>2,783.060 4</b>	<b>2,783.060 4</b>	<b>0.1222</b>	<b>0.1046</b>	<b>2,817.274 6</b>

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
<b>Total</b>	<b>254.88</b>	<b>257.58</b>	<b>230.85</b>	<b>860,551</b>	<b>860,551</b>

**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 - 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	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
<b>Total</b>		<b>0.0226</b>	<b>0.1928</b>	<b>0.0821</b>	<b>1.2300e-003</b>		<b>0.0156</b>	<b>0.0156</b>		<b>0.0156</b>	<b>0.0156</b>		<b>246.1716</b>	<b>246.1716</b>	<b>4.7200e-003</b>	<b>4.5100e-003</b>	<b>247.6345</b>

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
<b>Total</b>		<b>0.0226</b>	<b>0.1928</b>	<b>0.0821</b>	<b>1.2300e-003</b>		<b>0.0156</b>	<b>0.0156</b>		<b>0.0156</b>	<b>0.0156</b>		<b>246.1716</b>	<b>246.1716</b>	<b>4.7200e-003</b>	<b>4.5100e-003</b>	<b>247.6345</b>

**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
<b>Total</b>	<b>1.2419</b>	<b>0.4736</b>	<b>2.4191</b>	<b>2.9800e-003</b>		<b>0.0485</b>	<b>0.0485</b>		<b>0.0485</b>	<b>0.0485</b>	<b>0.0000</b>	<b>575.7766</b>	<b>575.7766</b>	<b>0.0148</b>	<b>0.0105</b>	<b>579.2708</b>

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
<b>Total</b>	<b>1.2352</b>	<b>0.4736</b>	<b>2.4191</b>	<b>2.9800e-003</b>		<b>0.0485</b>	<b>0.0485</b>		<b>0.0485</b>	<b>0.0485</b>	<b>0.0000</b>	<b>575.7766</b>	<b>575.7766</b>	<b>0.0148</b>	<b>0.0105</b>	<b>579.2708</b>

**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**

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**8.1 Mitigation Measures Waste**

**9.0 Operational Offroad**

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

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**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**

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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**

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

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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
<b>Total</b>	<b>2.0417</b>	<b>1.8986</b>	<b>10.3254</b>	<b>0.0219</b>	<b>1.8587</b>	<b>0.0787</b>	<b>1.9373</b>	<b>0.4957</b>	<b>0.0777</b>	<b>0.5735</b>	<b>0.0000</b>	<b>2,641.1512</b>	<b>2,641.1512</b>	<b>0.1245</b>	<b>0.1068</b>	<b>2,676.1006</b>

**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
<b>Total</b>	<b>2.0350</b>	<b>1.8986</b>	<b>10.3254</b>	<b>0.0219</b>	<b>1.8587</b>	<b>0.0787</b>	<b>1.9373</b>	<b>0.4957</b>	<b>0.0777</b>	<b>0.5735</b>	<b>0.0000</b>	<b>2,641.1512</b>	<b>2,641.1512</b>	<b>0.1245</b>	<b>0.1068</b>	<b>2,676.1006</b>

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
<b>Total</b>	<b>254.88</b>	<b>257.58</b>	<b>230.85</b>	<b>860,551</b>	<b>860,551</b>

**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
<b>Total</b>		<b>0.0226</b>	<b>0.1928</b>	<b>0.0821</b>	<b>1.2300e-003</b>		<b>0.0156</b>	<b>0.0156</b>		<b>0.0156</b>	<b>0.0156</b>		<b>246.1716</b>	<b>246.1716</b>	<b>4.7200e-003</b>	<b>4.5100e-003</b>	<b>247.6345</b>

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
<b>Total</b>		<b>0.0226</b>	<b>0.1928</b>	<b>0.0821</b>	<b>1.2300e-003</b>		<b>0.0156</b>	<b>0.0156</b>		<b>0.0156</b>	<b>0.0156</b>		<b>246.1716</b>	<b>246.1716</b>	<b>4.7200e-003</b>	<b>4.5100e-003</b>	<b>247.6345</b>

**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
<b>Total</b>	<b>1.2419</b>	<b>0.4736</b>	<b>2.4191</b>	<b>2.9800e-003</b>		<b>0.0485</b>	<b>0.0485</b>		<b>0.0485</b>	<b>0.0485</b>	<b>0.0000</b>	<b>575.7766</b>	<b>575.7766</b>	<b>0.0148</b>	<b>0.0105</b>	<b>579.2708</b>

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
<b>Total</b>	<b>1.2352</b>	<b>0.4736</b>	<b>2.4191</b>	<b>2.9800e-003</b>		<b>0.0485</b>	<b>0.0485</b>		<b>0.0485</b>	<b>0.0485</b>	<b>0.0000</b>	<b>575.7766</b>	<b>575.7766</b>	<b>0.0148</b>	<b>0.0105</b>	<b>579.2708</b>

**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**

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**8.1 Mitigation Measures Waste**

**9.0 Operational Offroad**

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

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**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**

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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**

**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**

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

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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**

**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
<b>Maximum</b>	<b>0.0000</b>				<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**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
<b>Maximum</b>	<b>0.0000</b>				<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

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

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
<b>Total</b>	<b>0.1783</b>	<b>0.1290</b>	<b>0.8411</b>	<b>1.6600e-003</b>	<b>0.1562</b>	<b>3.5700e-003</b>	<b>0.1598</b>	<b>0.0417</b>	<b>3.4900e-003</b>	<b>0.0452</b>	<b>3.3562</b>	<b>188.8672</b>	<b>192.2234</b>	<b>0.2209</b>	<b>8.5400e-003</b>	<b>200.2894</b>

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
<b>Total</b>	<b>0.1771</b>	<b>0.1290</b>	<b>0.8411</b>	<b>1.6600e-003</b>	<b>0.1562</b>	<b>3.5700e-003</b>	<b>0.1598</b>	<b>0.0417</b>	<b>3.4900e-003</b>	<b>0.0452</b>	<b>3.3562</b>	<b>188.8672</b>	<b>192.2234</b>	<b>0.2209</b>	<b>8.5400e-003</b>	<b>200.2894</b>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
<b>Percent Reduction</b>	<b>0.68</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>

**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**





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**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
<b>Total</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**4.0 Operational Detail - Mobile**

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**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

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**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



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**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
<b>Total</b>		<b>1.9800e-003</b>	<b>0.0169</b>	<b>7.2100e-003</b>	<b>1.1000e-004</b>		<b>1.3700e-003</b>	<b>1.3700e-003</b>		<b>1.3700e-003</b>	<b>1.3700e-003</b>	<b>0.0000</b>	<b>19.6235</b>	<b>19.6235</b>	<b>3.8000e-004</b>	<b>3.6000e-004</b>	<b>19.7401</b>

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
<b>Total</b>		<b>1.9800e-003</b>	<b>0.0169</b>	<b>7.2100e-003</b>	<b>1.1000e-004</b>		<b>1.3700e-003</b>	<b>1.3700e-003</b>		<b>1.3700e-003</b>	<b>1.3700e-003</b>	<b>0.0000</b>	<b>19.6235</b>	<b>19.6235</b>	<b>3.8000e-004</b>	<b>3.6000e-004</b>	<b>19.7401</b>

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
<b>Total</b>		<b>18.3625</b>	<b>1.5500e-003</b>	<b>1.9000e-004</b>	<b>18.4572</b>

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
<b>Total</b>		<b>18.3625</b>	<b>1.5500e-003</b>	<b>1.9000e-004</b>	<b>18.4572</b>

**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
<b>Total</b>	<b>0.1102</b>	<b>4.2500e-003</b>	<b>0.1353</b>	<b>3.0000e-005</b>		<b>9.6000e-004</b>	<b>9.6000e-004</b>		<b>9.6000e-004</b>	<b>9.6000e-004</b>	<b>0.0000</b>	<b>3.3409</b>	<b>3.3409</b>	<b>2.7000e-004</b>	<b>6.0000e-005</b>	<b>3.3647</b>

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
<b>Total</b>	<b>0.1090</b>	<b>4.2500e-003</b>	<b>0.1353</b>	<b>3.0000e-005</b>		<b>9.6000e-004</b>	<b>9.6000e-004</b>		<b>9.6000e-004</b>	<b>9.6000e-004</b>	<b>0.0000</b>	<b>3.3409</b>	<b>3.3409</b>	<b>2.7000e-004</b>	<b>6.0000e-005</b>	<b>3.3647</b>

**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
<b>Total</b>		<b>4.4740</b>	<b>0.0280</b>	<b>6.9000e-004</b>	<b>5.3799</b>

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 / 0.533398	3.2767	0.0279	6.8000e-004	4.1764
<b>Total</b>		<b>4.4740</b>	<b>0.0280</b>	<b>6.9000e-004</b>	<b>5.3799</b>

**8.0 Waste Detail**

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**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
<b>Total</b>		<b>3.0875</b>	<b>0.1825</b>	<b>0.0000</b>	<b>7.6491</b>

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
<b>Total</b>		<b>3.0875</b>	<b>0.1825</b>	<b>0.0000</b>	<b>7.6491</b>

**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**

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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**

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

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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
<b>Total</b>	<b>1.0777</b>	<b>0.8796</b>	<b>5.4335</b>	<b>0.0112</b>	<b>0.8949</b>	<b>0.0379</b>	<b>0.9328</b>	<b>0.2387</b>	<b>0.0374</b>	<b>0.2761</b>	<b>0.0000</b>	<b>1,339.9926</b>	<b>1,339.9926</b>	<b>0.0588</b>	<b>0.0504</b>	<b>1,356.4661</b>

**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
<b>Total</b>	<b>1.0710</b>	<b>0.8796</b>	<b>5.4335</b>	<b>0.0112</b>	<b>0.8949</b>	<b>0.0379</b>	<b>0.9328</b>	<b>0.2387</b>	<b>0.0374</b>	<b>0.2761</b>	<b>0.0000</b>	<b>1,339.9926</b>	<b>1,339.9926</b>	<b>0.0588</b>	<b>0.0504</b>	<b>1,356.4661</b>

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
<b>Total</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**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
<b>Total</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**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
<b>Total</b>	<b>122.72</b>	<b>124.02</b>	<b>111.15</b>	<b>414,339</b>	<b>414,339</b>

**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
<b>Total</b>		<b>0.0109</b>	<b>0.0929</b>	<b>0.0395</b>	<b>5.9000e-004</b>		<b>7.5100e-003</b>	<b>7.5100e-003</b>		<b>7.5100e-003</b>	<b>7.5100e-003</b>		<b>118.5271</b>	<b>118.5271</b>	<b>2.2700e-003</b>	<b>2.1700e-003</b>	<b>119.2314</b>

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
<b>Total</b>		<b>0.0109</b>	<b>0.0929</b>	<b>0.0395</b>	<b>5.9000e-004</b>		<b>7.5100e-003</b>	<b>7.5100e-003</b>		<b>7.5100e-003</b>	<b>7.5100e-003</b>		<b>118.5271</b>	<b>118.5271</b>	<b>2.2700e-003</b>	<b>2.1700e-003</b>	<b>119.2314</b>

**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
<b>Total</b>	<b>0.6377</b>	<b>0.2280</b>	<b>1.1650</b>	<b>1.4400e-003</b>		<b>0.0234</b>	<b>0.0234</b>		<b>0.0234</b>	<b>0.0234</b>	<b>0.0000</b>	<b>277.2263</b>	<b>277.2263</b>	<b>7.1400e-003</b>	<b>5.0500e-003</b>	<b>278.9087</b>

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
<b>Total</b>	<b>0.6310</b>	<b>0.2280</b>	<b>1.1650</b>	<b>1.4400e-003</b>		<b>0.0234</b>	<b>0.0234</b>		<b>0.0234</b>	<b>0.0234</b>	<b>0.0000</b>	<b>277.2263</b>	<b>277.2263</b>	<b>7.1400e-003</b>	<b>5.0500e-003</b>	<b>278.9087</b>

**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**

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**8.1 Mitigation Measures Waste**

**9.0 Operational Offroad**

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

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**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**

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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**

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

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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
<b>Total</b>	<b>1.0228</b>	<b>0.9142</b>	<b>4.9717</b>	<b>0.0105</b>	<b>0.8949</b>	<b>0.0379</b>	<b>0.9328</b>	<b>0.2387</b>	<b>0.0374</b>	<b>0.2761</b>	<b>0.0000</b>	<b>1,271.6659</b>	<b>1,271.6659</b>	<b>0.0600</b>	<b>0.0514</b>	<b>1,288.4935</b>

**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
<b>Total</b>	<b>1.0161</b>	<b>0.9142</b>	<b>4.9717</b>	<b>0.0105</b>	<b>0.8949</b>	<b>0.0379</b>	<b>0.9328</b>	<b>0.2387</b>	<b>0.0374</b>	<b>0.2761</b>	<b>0.0000</b>	<b>1,271.6659</b>	<b>1,271.6659</b>	<b>0.0600</b>	<b>0.0514</b>	<b>1,288.4935</b>

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
<b>Total</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**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
<b>Total</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**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
<b>Total</b>		<b>0.0109</b>	<b>0.0929</b>	<b>0.0395</b>	<b>5.9000e-004</b>		<b>7.5100e-003</b>	<b>7.5100e-003</b>		<b>7.5100e-003</b>	<b>7.5100e-003</b>		<b>118.5271</b>	<b>118.5271</b>	<b>2.2700e-003</b>	<b>2.1700e-003</b>	<b>119.2314</b>

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
<b>Total</b>		<b>0.0109</b>	<b>0.0929</b>	<b>0.0395</b>	<b>5.9000e-004</b>		<b>7.5100e-003</b>	<b>7.5100e-003</b>		<b>7.5100e-003</b>	<b>7.5100e-003</b>		<b>118.5271</b>	<b>118.5271</b>	<b>2.2700e-003</b>	<b>2.1700e-003</b>	<b>119.2314</b>

**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
<b>Total</b>	<b>0.6377</b>	<b>0.2280</b>	<b>1.1650</b>	<b>1.4400e-003</b>		<b>0.0234</b>	<b>0.0234</b>		<b>0.0234</b>	<b>0.0234</b>	<b>0.0000</b>	<b>277.2263</b>	<b>277.2263</b>	<b>7.1400e-003</b>	<b>5.0500e-003</b>	<b>278.9087</b>

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
<b>Total</b>	<b>0.6310</b>	<b>0.2280</b>	<b>1.1650</b>	<b>1.4400e-003</b>		<b>0.0234</b>	<b>0.0234</b>		<b>0.0234</b>	<b>0.0234</b>	<b>0.0000</b>	<b>277.2263</b>	<b>277.2263</b>	<b>7.1400e-003</b>	<b>5.0500e-003</b>	<b>278.9087</b>

**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**

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**8.1 Mitigation Measures Waste**

**9.0 Operational Offroad**

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

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**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**

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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**

**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**

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



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**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**

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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**

**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
<b>Maximum</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**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
<b>Maximum</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

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

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

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**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
<b>Total</b>	<b>0.8608</b>	<b>0.6647</b>	<b>4.3346</b>	<b>8.6000e-003</b>	<b>0.8052</b>	<b>0.0184</b>	<b>0.8236</b>	<b>0.2151</b>	<b>0.0180</b>	<b>0.2331</b>	<b>17.3725</b>	<b>968.4184</b>	<b>985.7909</b>	<b>1.1423</b>	<b>0.0440</b>	<b>1,027.4472</b>

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
<b>Total</b>	<b>0.8596</b>	<b>0.6647</b>	<b>4.3346</b>	<b>8.6000e-003</b>	<b>0.8052</b>	<b>0.0184</b>	<b>0.8236</b>	<b>0.2151</b>	<b>0.0180</b>	<b>0.2331</b>	<b>17.3725</b>	<b>968.4184</b>	<b>985.7909</b>	<b>1.1423</b>	<b>0.0440</b>	<b>1,027.4472</b>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
<b>Percent Reduction</b>	<b>0.14</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>

**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**





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**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
<b>Total</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**4.0 Operational Detail - Mobile**

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**4.1 Mitigation Measures Mobile**

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**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



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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

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**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	1.89522e+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
<b>Total</b>		<b>0.0102</b>	<b>0.0873</b>	<b>0.0372</b>	<b>5.6000e-004</b>		<b>7.0600e-003</b>	<b>7.0600e-003</b>		<b>7.0600e-003</b>	<b>7.0600e-003</b>	<b>0.0000</b>	<b>101.1364</b>	<b>101.1364</b>	<b>1.9400e-003</b>	<b>1.8500e-003</b>	<b>101.7374</b>

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**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	1.89522e+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
<b>Total</b>		<b>0.0102</b>	<b>0.0873</b>	<b>0.0372</b>	<b>5.6000e-004</b>		<b>7.0600e-003</b>	<b>7.0600e-003</b>		<b>7.0600e-003</b>	<b>7.0600e-003</b>	<b>0.0000</b>	<b>101.1364</b>	<b>101.1364</b>	<b>1.9400e-003</b>	<b>1.8500e-003</b>	<b>101.7374</b>

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**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
<b>Total</b>		<b>94.6373</b>	<b>7.9900e-003</b>	<b>9.7000e-004</b>	<b>95.1255</b>

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**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
<b>Total</b>		<b>94.6373</b>	<b>7.9900e-003</b>	<b>9.7000e-004</b>	<b>95.1255</b>

**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

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**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
<b>Total</b>	<b>0.5100</b>	<b>0.0219</b>	<b>0.6971</b>	<b>1.3000e-004</b>		<b>4.9500e-003</b>	<b>4.9500e-003</b>		<b>4.9500e-003</b>	<b>4.9500e-003</b>	<b>0.0000</b>	<b>17.2180</b>	<b>17.2180</b>	<b>1.4000e-003</b>	<b>2.9000e-004</b>	<b>17.3407</b>

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**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
<b>Total</b>	<b>0.5088</b>	<b>0.0219</b>	<b>0.6971</b>	<b>1.3000e-004</b>		<b>4.9500e-003</b>	<b>4.9500e-003</b>		<b>4.9500e-003</b>	<b>4.9500e-003</b>	<b>0.0000</b>	<b>17.2180</b>	<b>17.2180</b>	<b>1.4000e-003</b>	<b>2.9000e-004</b>	<b>17.3407</b>

**7.0 Water Detail**

**7.1 Mitigation Measures Water**

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**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
<b>Total</b>		<b>18.0850</b>	<b>0.1437</b>	<b>3.5300e-003</b>	<b>22.7282</b>



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**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
<b>Total</b>		<b>18.0850</b>	<b>0.1437</b>	<b>3.5300e-003</b>	<b>22.7282</b>

**8.0 Waste Detail**

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**8.1 Mitigation Measures Waste**

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**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
<b>Total</b>		<b>15.9876</b>	<b>0.9448</b>	<b>0.0000</b>	<b>39.6085</b>

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**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
<b>Total</b>		<b>15.9876</b>	<b>0.9448</b>	<b>0.0000</b>	<b>39.6085</b>

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

**11.0 Vegetation**

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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**

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

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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
<b>Total</b>	<b>5.2354</b>	<b>4.5334</b>	<b>28.0015</b>	<b>0.0577</b>	<b>4.6122</b>	<b>0.1951</b>	<b>4.8074</b>	<b>1.2302</b>	<b>0.1928</b>	<b>1.4230</b>	<b>0.0000</b>	<b>6,906.1115</b>	<b>6,906.1115</b>	<b>0.3031</b>	<b>0.2595</b>	<b>6,991.0131</b>

**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
<b>Total</b>	<b>5.2287</b>	<b>4.5334</b>	<b>28.0015</b>	<b>0.0577</b>	<b>4.6122</b>	<b>0.1951</b>	<b>4.8074</b>	<b>1.2302</b>	<b>0.1928</b>	<b>1.4230</b>	<b>0.0000</b>	<b>6,906.1115</b>	<b>6,906.1115</b>	<b>0.3031</b>	<b>0.2595</b>	<b>6,991.0131</b>



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
<b>Total</b>	<b>632.48</b>	<b>639.18</b>	<b>572.85</b>	<b>2,135,442</b>	<b>2,135,442</b>

**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
<b>Total</b>		<b>0.0560</b>	<b>0.4785</b>	<b>0.2036</b>	<b>3.0500e-003</b>		<b>0.0387</b>	<b>0.0387</b>		<b>0.0387</b>	<b>0.0387</b>		<b>610.8703</b>	<b>610.8703</b>	<b>0.0117</b>	<b>0.0112</b>	<b>614.5004</b>

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
<b>Total</b>		<b>0.0560</b>	<b>0.4785</b>	<b>0.2036</b>	<b>3.0500e-003</b>		<b>0.0387</b>	<b>0.0387</b>		<b>0.0387</b>	<b>0.0387</b>		<b>610.8703</b>	<b>610.8703</b>	<b>0.0117</b>	<b>0.0112</b>	<b>614.5004</b>

**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
<b>Total</b>	<b>2.9680</b>	<b>1.1752</b>	<b>6.0022</b>	<b>7.3800e-003</b>		<b>0.1205</b>	<b>0.1205</b>		<b>0.1205</b>	<b>0.1205</b>	<b>0.0000</b>	<b>1,428.7775</b>	<b>1,428.7775</b>	<b>0.0368</b>	<b>0.0260</b>	<b>1,437.4482</b>



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
<b>Total</b>	<b>2.9613</b>	<b>1.1752</b>	<b>6.0022</b>	<b>7.3800e-003</b>		<b>0.1205</b>	<b>0.1205</b>		<b>0.1205</b>	<b>0.1205</b>	<b>0.0000</b>	<b>1,428.7775</b>	<b>1,428.7775</b>	<b>0.0368</b>	<b>0.0260</b>	<b>1,437.4482</b>

**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**

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**8.1 Mitigation Measures Waste**

**9.0 Operational Offroad**

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

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**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**

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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**

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

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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
<b>Total</b>	<b>4.9527</b>	<b>4.7114</b>	<b>25.6215</b>	<b>0.0543</b>	<b>4.6122</b>	<b>0.1952</b>	<b>4.8074</b>	<b>1.2302</b>	<b>0.1929</b>	<b>1.4230</b>	<b>0.0000</b>	<b>6,553.9664</b>	<b>6,553.9664</b>	<b>0.3090</b>	<b>0.2651</b>	<b>6,640.6926</b>

**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
<b>Total</b>	<b>4.9460</b>	<b>4.7114</b>	<b>25.6215</b>	<b>0.0543</b>	<b>4.6122</b>	<b>0.1952</b>	<b>4.8074</b>	<b>1.2302</b>	<b>0.1929</b>	<b>1.4230</b>	<b>0.0000</b>	<b>6,553.9664</b>	<b>6,553.9664</b>	<b>0.3090</b>	<b>0.2651</b>	<b>6,640.6926</b>

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
<b>Total</b>	<b>632.48</b>	<b>639.18</b>	<b>572.85</b>	<b>2,135,442</b>	<b>2,135,442</b>

**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
<b>Total</b>		<b>0.0560</b>	<b>0.4785</b>	<b>0.2036</b>	<b>3.0500e-003</b>		<b>0.0387</b>	<b>0.0387</b>		<b>0.0387</b>	<b>0.0387</b>		<b>610.8703</b>	<b>610.8703</b>	<b>0.0117</b>	<b>0.0112</b>	<b>614.5004</b>

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**

**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	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
<b>Total</b>		<b>0.0560</b>	<b>0.4785</b>	<b>0.2036</b>	<b>3.0500e-003</b>		<b>0.0387</b>	<b>0.0387</b>		<b>0.0387</b>	<b>0.0387</b>		<b>610.8703</b>	<b>610.8703</b>	<b>0.0117</b>	<b>0.0112</b>	<b>614.5004</b>

**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
<b>Total</b>	<b>2.9680</b>	<b>1.1752</b>	<b>6.0022</b>	<b>7.3800e-003</b>		<b>0.1205</b>	<b>0.1205</b>		<b>0.1205</b>	<b>0.1205</b>	<b>0.0000</b>	<b>1,428.7775</b>	<b>1,428.7775</b>	<b>0.0368</b>	<b>0.0260</b>	<b>1,437.4482</b>

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
<b>Total</b>	<b>2.9613</b>	<b>1.1752</b>	<b>6.0022</b>	<b>7.3800e-003</b>		<b>0.1205</b>	<b>0.1205</b>		<b>0.1205</b>	<b>0.1205</b>	<b>0.0000</b>	<b>1,428.7775</b>	<b>1,428.7775</b>	<b>0.0368</b>	<b>0.0260</b>	<b>1,437.4482</b>

**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**

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**8.1 Mitigation Measures Waste**

**9.0 Operational Offroad**

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

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**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**

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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**

**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**

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

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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**

**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
<b>Maximum</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**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
<b>Maximum</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

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

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

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**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
<b>Total</b>	<b>0.6838</b>	<b>0.5258</b>	<b>3.4289</b>	<b>6.7900e-003</b>	<b>0.6370</b>	<b>0.0146</b>	<b>0.6515</b>	<b>0.1702</b>	<b>0.0142</b>	<b>0.1844</b>	<b>13.7541</b>	<b>766.3125</b>	<b>780.0666</b>	<b>0.9043</b>	<b>0.0348</b>	<b>813.0370</b>

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
<b>Total</b>	<b>0.6826</b>	<b>0.5258</b>	<b>3.4289</b>	<b>6.7900e-003</b>	<b>0.6370</b>	<b>0.0146</b>	<b>0.6515</b>	<b>0.1702</b>	<b>0.0142</b>	<b>0.1844</b>	<b>13.7541</b>	<b>766.3125</b>	<b>780.0666</b>	<b>0.9043</b>	<b>0.0348</b>	<b>813.0370</b>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
<b>Percent Reduction</b>	<b>0.18</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>

**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**





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**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
<b>Total</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**4.0 Operational Detail - Mobile**

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**4.1 Mitigation Measures Mobile**



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**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

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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
NaturalGas 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
NaturalGas 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

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**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
<b>Total</b>		<b>8.0800e-003</b>	<b>0.0691</b>	<b>0.0294</b>	<b>4.4000e-004</b>		<b>5.5900e-003</b>	<b>5.5900e-003</b>		<b>5.5900e-003</b>	<b>5.5900e-003</b>	<b>0.0000</b>	<b>80.0034</b>	<b>80.0034</b>	<b>1.5300e-003</b>	<b>1.4700e-003</b>	<b>80.4789</b>

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**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
<b>Total</b>		<b>8.0800e-003</b>	<b>0.0691</b>	<b>0.0294</b>	<b>4.4000e-004</b>		<b>5.5900e-003</b>	<b>5.5900e-003</b>		<b>5.5900e-003</b>	<b>5.5900e-003</b>	<b>0.0000</b>	<b>80.0034</b>	<b>80.0034</b>	<b>1.5300e-003</b>	<b>1.4700e-003</b>	<b>80.4789</b>

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**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
<b>Total</b>		<b>74.8623</b>	<b>6.3200e-003</b>	<b>7.7000e-004</b>	<b>75.2485</b>

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**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
<b>Total</b>		<b>74.8623</b>	<b>6.3200e-003</b>	<b>7.7000e-004</b>	<b>75.2485</b>

**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

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**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
<b>Total</b>	<b>0.4063</b>	<b>0.0173</b>	<b>0.5514</b>	<b>1.0000e-004</b>		<b>3.9200e-003</b>	<b>3.9200e-003</b>		<b>3.9200e-003</b>	<b>3.9200e-003</b>	<b>0.0000</b>	<b>13.6202</b>	<b>13.6202</b>	<b>1.1000e-003</b>	<b>2.3000e-004</b>	<b>13.7173</b>

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**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
<b>Total</b>	<b>0.4051</b>	<b>0.0173</b>	<b>0.5514</b>	<b>1.0000e-004</b>		<b>3.9200e-003</b>	<b>3.9200e-003</b>		<b>3.9200e-003</b>	<b>3.9200e-003</b>	<b>0.0000</b>	<b>13.6202</b>	<b>13.6202</b>	<b>1.1000e-003</b>	<b>2.3000e-004</b>	<b>13.7173</b>

**7.0 Water Detail**

**7.1 Mitigation Measures Water**



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**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
<b>Total</b>		<b>14.5563</b>	<b>0.1137</b>	<b>2.7900e-003</b>	<b>18.2305</b>

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**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
<b>Total</b>		<b>14.5563</b>	<b>0.1137</b>	<b>2.7900e-003</b>	<b>18.2305</b>

**8.0 Waste Detail**

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**8.1 Mitigation Measures Waste**

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**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
<b>Total</b>		<b>12.6585</b>	<b>0.7481</b>	<b>0.0000</b>	<b>31.3609</b>

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**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
<b>Total</b>		<b>12.6585</b>	<b>0.7481</b>	<b>0.0000</b>	<b>31.3609</b>

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

**11.0 Vegetation**

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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**

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

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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
<b>Total</b>	<b>4.1574</b>	<b>3.5861</b>	<b>22.1505</b>	<b>0.0457</b>	<b>3.6485</b>	<b>0.1544</b>	<b>3.8028</b>	<b>0.9731</b>	<b>0.1525</b>	<b>1.1257</b>	<b>0.0000</b>	<b>5,463.0436</b>	<b>5,463.0436</b>	<b>0.2398</b>	<b>0.2053</b>	<b>5,530.2046</b>

**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
<b>Total</b>	<b>4.1508</b>	<b>3.5861</b>	<b>22.1505</b>	<b>0.0457</b>	<b>3.6485</b>	<b>0.1544</b>	<b>3.8028</b>	<b>0.9731</b>	<b>0.1525</b>	<b>1.1257</b>	<b>0.0000</b>	<b>5,463.0436</b>	<b>5,463.0436</b>	<b>0.2398</b>	<b>0.2053</b>	<b>5,530.2046</b>

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
<b>Total</b>	<b>500.32</b>	<b>505.62</b>	<b>453.15</b>	<b>1,689,230</b>	<b>1,689,230</b>

**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
<b>Total</b>		<b>0.0443</b>	<b>0.3785</b>	<b>0.1611</b>	<b>2.4200e-003</b>		<b>0.0306</b>	<b>0.0306</b>		<b>0.0306</b>	<b>0.0306</b>		<b>483.2257</b>	<b>483.2257</b>	<b>9.2600e-003</b>	<b>8.8600e-003</b>	<b>486.0973</b>

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
<b>Total</b>		<b>0.0443</b>	<b>0.3785</b>	<b>0.1611</b>	<b>2.4200e-003</b>		<b>0.0306</b>	<b>0.0306</b>		<b>0.0306</b>	<b>0.0306</b>		<b>483.2257</b>	<b>483.2257</b>	<b>9.2600e-003</b>	<b>8.8600e-003</b>	<b>486.0973</b>

**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
<b>Total</b>	<b>2.3638</b>	<b>0.9296</b>	<b>4.7481</b>	<b>5.8400e-003</b>		<b>0.0953</b>	<b>0.0953</b>		<b>0.0953</b>	<b>0.0953</b>	<b>0.0000</b>	<b>1,130.2272</b>	<b>1,130.2272</b>	<b>0.0291</b>	<b>0.0206</b>	<b>1,137.0861</b>

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
<b>Total</b>	<b>2.3572</b>	<b>0.9296</b>	<b>4.7481</b>	<b>5.8400e-003</b>		<b>0.0953</b>	<b>0.0953</b>		<b>0.0953</b>	<b>0.0953</b>	<b>0.0000</b>	<b>1,130.2272</b>	<b>1,130.2272</b>	<b>0.0291</b>	<b>0.0206</b>	<b>1,137.0861</b>

**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**

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**8.1 Mitigation Measures Waste**

**9.0 Operational Offroad**

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

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**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**

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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**

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

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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
<b>Total</b>	<b>3.9339</b>	<b>3.7269</b>	<b>20.2678</b>	<b>0.0429</b>	<b>3.6485</b>	<b>0.1544</b>	<b>3.8029</b>	<b>0.9731</b>	<b>0.1526</b>	<b>1.1257</b>	<b>0.0000</b>	<b>5,184.481 1</b>	<b>5,184.481 1</b>	<b>0.2445</b>	<b>0.2097</b>	<b>5,253.085 4</b>

**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
<b>Total</b>	<b>3.9272</b>	<b>3.7269</b>	<b>20.2678</b>	<b>0.0429</b>	<b>3.6485</b>	<b>0.1544</b>	<b>3.8029</b>	<b>0.9731</b>	<b>0.1526</b>	<b>1.1257</b>	<b>0.0000</b>	<b>5,184.481 1</b>	<b>5,184.481 1</b>	<b>0.2445</b>	<b>0.2097</b>	<b>5,253.085 4</b>

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
<b>Total</b>	<b>500.32</b>	<b>505.62</b>	<b>453.15</b>	<b>1,689,230</b>	<b>1,689,230</b>

**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
<b>Total</b>		<b>0.0443</b>	<b>0.3785</b>	<b>0.1611</b>	<b>2.4200e-003</b>		<b>0.0306</b>	<b>0.0306</b>		<b>0.0306</b>	<b>0.0306</b>		<b>483.2257</b>	<b>483.2257</b>	<b>9.2600e-003</b>	<b>8.8600e-003</b>	<b>486.0973</b>

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
<b>Total</b>		<b>0.0443</b>	<b>0.3785</b>	<b>0.1611</b>	<b>2.4200e-003</b>		<b>0.0306</b>	<b>0.0306</b>		<b>0.0306</b>	<b>0.0306</b>		<b>483.2257</b>	<b>483.2257</b>	<b>9.2600e-003</b>	<b>8.8600e-003</b>	<b>486.0973</b>

**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
<b>Total</b>	<b>2.3638</b>	<b>0.9296</b>	<b>4.7481</b>	<b>5.8400e-003</b>		<b>0.0953</b>	<b>0.0953</b>		<b>0.0953</b>	<b>0.0953</b>	<b>0.0000</b>	<b>1,130.2272</b>	<b>1,130.2272</b>	<b>0.0291</b>	<b>0.0206</b>	<b>1,137.0861</b>

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
<b>Total</b>	<b>2.3572</b>	<b>0.9296</b>	<b>4.7481</b>	<b>5.8400e-003</b>		<b>0.0953</b>	<b>0.0953</b>		<b>0.0953</b>	<b>0.0953</b>	<b>0.0000</b>	<b>1,130.2272</b>	<b>1,130.2272</b>	<b>0.0291</b>	<b>0.0206</b>	<b>1,137.0861</b>

**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**

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**8.1 Mitigation Measures Waste**

**9.0 Operational Offroad**

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

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**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**

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