

Preserve at San Juan Operational Emissions - South Coast Air Basin, Summer

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1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Single Family Housing	72.00	Dwelling Unit	23.38	129,600.00	206

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	31
Climate Zone	8			Operational Year	2017
Utility Company	Southern California Edison				
CO2 Intensity (lb/MW hr)	702.44	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

Preserve at San Juan Operational Emissions - South Coast Air Basin, Summer

Project Characteristics -

Land Use - Project Description based on Table 1. 72 dwelling units

Construction Phase - Operational run only

Off-road Equipment -

Trips and VMT - Operational runs only

On-road Fugitive Dust -

Grading -

Architectural Coating - Operational runs only

Vehicle Trips - Trip generation rates obtained from traffic report Table 3-1. 690 weekday trips, Assumed same trip gen for weekend trips as a conservative estimate

Vehicle Emission Factors -

Vehicle Emission Factors -

Vehicle Emission Factors -

Woodstoves - No wood burning fireplaces

Consumer Products -

Area Coating -

Landscape Equipment -

Energy Use -

Water And Wastewater - Wastewater treatment is on-site

Area Mitigation -

Water Mitigation -

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Residential_Exterior	87,480.00	0.00
tblArchitecturalCoating	ConstArea_Residential_Interior	262,440.00	0.00
tblArchitecturalCoating	EF_Nonresidential_Exterior	100.00	0.00
tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	0.00
tblArchitecturalCoating	EF_Parking	100.00	0.00

Preserve at San Juan Operational Emissions - South Coast Air Basin, Summer

tblArchitecturalCoating	EF_Residential_Exterior	50.00	0.00
tblArchitecturalCoating	EF_Residential_Interior	50.00	0.00
tblConstructionPhase	NumDays	20.00	0.00
tblConstructionPhase	NumDays	370.00	0.00
tblConstructionPhase	NumDays	20.00	0.00
tblConstructionPhase	NumDays	35.00	0.00
tblConstructionPhase	NumDays	20.00	0.00
tblConstructionPhase	NumDays	10.00	0.00
tblFireplaces	NumberGas	61.20	72.00
tblFireplaces	NumberNoFireplace	7.20	0.00
tblFireplaces	NumberWood	3.60	0.00
tblProjectCharacteristics	OperationalYear	2018	2017
tblTripsAndVMT	VendorTripLength	6.90	7.90
tblTripsAndVMT	VendorTripLength	6.90	7.90
tblTripsAndVMT	VendorTripLength	6.90	7.90
tblTripsAndVMT	VendorTripLength	6.90	7.90
tblTripsAndVMT	VendorTripLength	6.90	7.90
tblTripsAndVMT	VendorTripLength	6.90	7.90
tblTripsAndVMT	WorkerTripLength	14.70	19.80
tblTripsAndVMT	WorkerTripLength	14.70	19.80
tblTripsAndVMT	WorkerTripLength	14.70	19.80
tblTripsAndVMT	WorkerTripLength	14.70	19.80
tblTripsAndVMT	WorkerTripLength	14.70	19.80
tblTripsAndVMT	WorkerTripLength	14.70	19.80
tblTripsAndVMT	WorkerTripNumber	15.00	0.00
tblTripsAndVMT	WorkerTripNumber	18.00	0.00
tblTripsAndVMT	WorkerTripNumber	20.00	0.00

Preserve at San Juan Operational Emissions - South Coast Air Basin, Summer

tblTripsAndVMT	WorkerTripNumber	26.00	0.00
tblTripsAndVMT	WorkerTripNumber	15.00	0.00
tblTripsAndVMT	WorkerTripNumber	5.00	0.00
tblVehicleTrips	ST_TR	9.91	9.58
tblVehicleTrips	SU_TR	8.62	9.58
tblVehicleTrips	WD_TR	9.52	9.58
tblWater	IndoorWaterUseRate	4,691,089.84	15,760,000.00
tblWater	OutdoorWaterUseRate	2,957,426.21	106,918,720.00
tblWoodstoves	NumberCatalytic	3.60	0.00
tblWoodstoves	NumberNoncatalytic	3.60	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

2.0 Emissions Summary

Preserve at San Juan Operational Emissions - South Coast Air Basin, Summer

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	3.1148	1.2643	6.5082	7.9400e-003		0.1291	0.1291		0.1291	0.1291	0.0000	1,535.4017	1,535.4017	0.0400	0.0280	1,544.7306
Energy	0.0664	0.5672	0.2413	3.6200e-003		0.0459	0.0459		0.0459	0.0459		724.0185	724.0185	0.0139	0.0133	728.3210
Mobile	1.8496	8.3230	25.2278	0.0685	5.0129	0.0893	5.1021	1.3416	0.0842	1.4258		6,936.6583	6,936.6583	0.4010		6,946.6833
Total	5.0308	10.1544	31.9773	0.0801	5.0129	0.2642	5.2771	1.3416	0.2592	1.6008	0.0000	9,196.0785	9,196.0785	0.4548	0.0412	9,219.7349

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	3.1148	1.2643	6.5082	7.9400e-003		0.1291	0.1291		0.1291	0.1291	0.0000	1,535.4017	1,535.4017	0.0400	0.0280	1,544.7306
Energy	0.0664	0.5672	0.2413	3.6200e-003		0.0459	0.0459		0.0459	0.0459		724.0185	724.0185	0.0139	0.0133	728.3210
Mobile	1.8496	8.3230	25.2278	0.0685	5.0129	0.0893	5.1021	1.3416	0.0842	1.4258		6,936.6583	6,936.6583	0.4010		6,946.6833
Total	5.0308	10.1544	31.9773	0.0801	5.0129	0.2642	5.2771	1.3416	0.2592	1.6008	0.0000	9,196.0785	9,196.0785	0.4548	0.0412	9,219.7349

Preserve at San Juan Operational Emissions - South Coast Air Basin, Summer

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	6/15/2015	6/14/2015	5	0	
2	Site Preparation	Site Preparation	6/15/2015	6/14/2015	5	0	
3	Grading	Grading	6/15/2015	6/14/2015	5	0	
4	Building Construction	Building Construction	6/15/2015	6/14/2015	5	0	
5	Paving	Paving	6/15/2015	6/14/2015	5	0	
6	Architectural Coating	Architectural Coating	6/15/2015	6/14/2015	5	0	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

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

OffRoad Equipment

Preserve at San Juan Operational Emissions - South Coast Air Basin, Summer

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Preserve at San Juan Operational Emissions - South Coast Air Basin, Summer

3.7 Architectural Coating - 2015

Mitigated Construction Off-Site

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

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Preserve at San Juan Operational Emissions - South Coast Air Basin, Summer

	ROG	NOx	CO	SO2	Fugitive 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	1.8496	8.3230	25.2278	0.0685	5.0129	0.0893	5.1021	1.3416	0.0842	1.4258		6,936.6583	6,936.6583	0.4010		6,946.6833
Unmitigated	1.8496	8.3230	25.2278	0.0685	5.0129	0.0893	5.1021	1.3416	0.0842	1.4258		6,936.6583	6,936.6583	0.4010		6,946.6833

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Single Family Housing	690.05	690.05	690.05	2,357,999	2,357,999
Total	690.05	690.05	690.05	2,357,999	2,357,999

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
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
Single Family Housing	0.544524	0.045551	0.198447	0.129336	0.019135	0.005878	0.019261	0.027434	0.001914	0.002222	0.004531	0.000699	0.001069

5.0 Energy Detail

Historical Energy Use: N

Preserve at San Juan Operational Emissions - South Coast Air Basin, Summer

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	0.0664	0.5672	0.2413	3.6200e-003		0.0459	0.0459		0.0459	0.0459		724.0185	724.0185	0.0139	0.0133	728.3210
NaturalGas Unmitigated	0.0664	0.5672	0.2413	3.6200e-003		0.0459	0.0459		0.0459	0.0459		724.0185	724.0185	0.0139	0.0133	728.3210

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					
Single Family Housing	6154.16	0.0664	0.5672	0.2413	3.6200e-003		0.0459	0.0459		0.0459	0.0459		724.0185	724.0185	0.0139	0.0133	728.3210
Total		0.0664	0.5672	0.2413	3.6200e-003		0.0459	0.0459		0.0459	0.0459		724.0185	724.0185	0.0139	0.0133	728.3210

Preserve at San Juan Operational Emissions - South Coast Air Basin, Summer

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					
Single Family Housing	6.15416	0.0664	0.5672	0.2413	3.6200e-003		0.0459	0.0459		0.0459	0.0459		724.0185	724.0185	0.0139	0.0133	728.3210
Total		0.0664	0.5672	0.2413	3.6200e-003		0.0459	0.0459		0.0459	0.0459		724.0185	724.0185	0.0139	0.0133	728.3210

6.0 Area Detail

6.1 Mitigation Measures Area

Use Low VOC Paint - Residential Interior

Use Low VOC Paint - Residential Exterior

Preserve at San Juan Operational Emissions - South Coast Air Basin, Summer

	ROG	NOx	CO	SO2	Fugitive 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	3.1148	1.2643	6.5082	7.9400e-003		0.1291	0.1291		0.1291	0.1291	0.0000	1,535.4017	1,535.4017	0.0400	0.0280	1,544.7306
Unmitigated	3.1148	1.2643	6.5082	7.9400e-003		0.1291	0.1291		0.1291	0.1291	0.0000	1,535.4017	1,535.4017	0.0400	0.0280	1,544.7306

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	0.2222					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.5661					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.1398	1.1944	0.5082	7.6200e-003		0.0966	0.0966		0.0966	0.0966	0.0000	1,524.7059	1,524.7059	0.0292	0.0280	1,533.7665
Landscaping	0.1868	0.0699	5.9999	3.1000e-004		0.0326	0.0326		0.0326	0.0326		10.6958	10.6958	0.0107		10.9642
Total	3.1148	1.2643	6.5082	7.9300e-003		0.1291	0.1291		0.1291	0.1291	0.0000	1,535.4017	1,535.4017	0.0400	0.0280	1,544.7306

Preserve at San Juan Operational Emissions - South Coast Air Basin, Summer

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	0.2222					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.5661					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.1398	1.1944	0.5082	7.6200e-003		0.0966	0.0966		0.0966	0.0966	0.0000	1,524.7059	1,524.7059	0.0292	0.0280	1,533.7665
Landscaping	0.1868	0.0699	5.9999	3.1000e-004		0.0326	0.0326		0.0326	0.0326		10.6958	10.6958	0.0107		10.9642
Total	3.1148	1.2643	6.5082	7.9300e-003		0.1291	0.1291		0.1291	0.1291	0.0000	1,535.4017	1,535.4017	0.0400	0.0280	1,544.7306

7.0 Water Detail

7.1 Mitigation Measures Water

Use Water Efficient Irrigation System

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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Preserve at San Juan Operational Emissions - South Coast Air Basin, Summer

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

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

Equipment Type	Number
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11.0 Vegetation
