

Preserve at San Juan Construction Emissions-Phase 2 - South Coast Air Basin, Winter

Preserve at San Juan Construction Emissions-Phase 2
South Coast Air Basin, Winter

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/MWhr)	702.44	CH4 Intensity (lb/MWhr)	0.029	N2O Intensity (lb/MWhr)	0.006

1.3 User Entered Comments & Non-Default Data

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Project Characteristics -

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

Construction Phase - Construction runs only-Phase 2

Off-road Equipment -

Off-road Equipment -

Off-road Equipment - Construction equipment for drainage construction assumed to be similar to building construction equipment

Off-road Equipment - No demolition

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Trips and VMT - Work trips are for Phase 2 (as shown in Table 2.7 of project description section)

On-road Fugitive Dust - No Demolition

Grading - Total acres developed under Phase 2- 60.9 acres

Architectural Coating -

Vehicle Trips - Construction Phase 1 only

Woodstoves - Construction only Phase 1

Consumer Products - Construction only runs

Area Coating - Construction Only Runs Phase 1

Landscape Equipment - Construction Phase 1 only

Water And Wastewater - Construction Runs Only-Phase 1

Construction Off-road Equipment Mitigation - Rule 403- Reduce dust during construction- watering 2 per day

Rule 1110.2 reduce NOx emissions from engines- Tier 2

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_EF_Nonresidential_Exterior	100	0
tblAreaCoating	Area_EF_Nonresidential_Interior	100	0
tblAreaCoating	Area_EF_Parking	100	0
tblAreaCoating	Area_EF_Residential_Exterior	50	0

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tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstructionPhase	NumDays	370.00	70.00
tblConstructionPhase	NumDays	370.00	90.00
tblConstructionPhase	NumDays	20.00	0.00
tblConstructionPhase	NumDays	35.00	90.00
tblConstructionPhase	NumDays	10.00	30.00
tblFireplaces	FireplaceDayYear	25.00	0.00
tblFireplaces	FireplaceHourDay	3.00	0.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	NumberGas	61.20	0.00
tblFireplaces	NumberNoFireplace	7.20	0.00
tblFireplaces	NumberWood	3.60	0.00
tblGrading	AcresOfGrading	225.00	60.90
tblGrading	MaterialExported	0.00	450,000.00
tblGrading	MaterialImported	0.00	450,000.00
tblOnRoadDust	HaulingPercentPave	100.00	0.00
tblOnRoadDust	VendorPercentPave	100.00	0.00
tblOnRoadDust	WorkerPercentPave	100.00	0.00
tblProjectCharacteristics	OperationalYear	2018	2017
tblTripsAndVMT	WorkerTripNumber	18.00	5.00
tblTripsAndVMT	WorkerTripNumber	15.00	0.00
tblTripsAndVMT	WorkerTripNumber	20.00	15.00
tblTripsAndVMT	WorkerTripNumber	26.00	10.00
tblTripsAndVMT	WorkerTripNumber	26.00	50.00
tblTripsAndVMT	WorkerTripNumber	15.00	6.00

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tblTripsAndVMT	WorkerTripNumber	5.00	4.00
tblVehicleTrips	DV_TP	11.00	0.00
tblVehicleTrips	HO_TL	8.70	0.00
tblVehicleTrips	HO_TTP	40.60	0.00
tblVehicleTrips	HS_TL	5.90	0.00
tblVehicleTrips	HS_TTP	19.20	0.00
tblVehicleTrips	HW_TL	14.70	0.00
tblVehicleTrips	HW_TTP	40.20	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	86.00	0.00
tblVehicleTrips	ST_TR	9.91	0.00
tblVehicleTrips	SU_TR	8.62	0.00
tblVehicleTrips	WD_TR	9.52	0.00
tblWater	IndoorWaterUseRate	4,691,089.84	0.00
tblWater	OutdoorWaterUseRate	2,957,426.21	0.00
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

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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	lb/day										lb/day					
Area	2.7529	0.0699	5.9999	3.1000e-004		0.0326	0.0326		0.0326	0.0326	0.0000	10.6958	10.6958	0.0107	0.0000	10.9642
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	0.0000	0.0000	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	2.8193	0.6371	6.2413	3.9300e-003	0.0000	0.0784	0.0784	0.0000	0.0784	0.0784	0.0000	734.7143	734.7143	0.0246	0.0133	739.2852

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	2.7529	0.0699	5.9999	3.1000e-004		0.0326	0.0326		0.0326	0.0326	0.0000	10.6958	10.6958	0.0107	0.0000	10.9642
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	0.0000	0.0000	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	2.8193	0.6371	6.2413	3.9300e-003	0.0000	0.0784	0.0784	0.0000	0.0784	0.0784	0.0000	734.7143	734.7143	0.0246	0.0133	739.2852

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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
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	Site Preparation	Site Preparation	6/15/2015	7/24/2015	5	30	
2	Demolition	Demolition	6/15/2015	6/14/2015	5	0	
3	Grading	Grading	7/25/2015	11/27/2015	5	90	
4	Construction of Drainage	Building Construction	11/28/2015	3/4/2016	5	70	
5	Building Construction	Building Construction	3/5/2016	7/8/2016	5	90	
6	Paving	Paving	7/9/2016	8/5/2016	5	20	
7	Architectural Coating	Architectural Coating	8/6/2016	9/2/2016	5	20	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 60.9

Acres of Paving: 0

Residential Indoor: 262,440; Residential Outdoor: 87,480; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

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Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
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
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
Construction of Drainage	Cranes	1	7.00	231	0.29
Construction of Drainage	Forklifts	3	8.00	89	0.20
Construction of Drainage	Generator Sets	1	8.00	84	0.74
Construction of Drainage	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Construction of Drainage	Welders	1	8.00	46	0.45
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

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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
Site Preparation	7	5.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Demolition	6	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Construction of Drainage	9	10.00	8.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	50.00	8.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	6.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	4.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Water Exposed Area

Clean Paved Roads

3.2 Site Preparation - 2015

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	5.2493	55.4642	23.9236	0.0381		3.1336	3.1336		2.8830	2.8830		4,000.7845	4,000.7845	1.1944		4,030.6445
Total	5.2493	55.4642	23.9236	0.0381	18.0663	3.1336	21.1999	9.9307	2.8830	12.8136		4,000.7845	4,000.7845	1.1944		4,030.6445

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3.2 Site Preparation - 2015

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	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
Worker	0.0418	0.0319	0.3372	6.2000e-004	0.0559	5.1000e-004	0.0564	0.0148	4.8000e-004	0.0153		61.8798	61.8798	2.9000e-003		61.9522
Total	0.0418	0.0319	0.3372	6.2000e-004	0.0559	5.1000e-004	0.0564	0.0148	4.8000e-004	0.0153		61.8798	61.8798	2.9000e-003		61.9522

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.1298	0.0000	8.1298	4.4688	0.0000	4.4688			0.0000			0.0000
Off-Road	1.2097	33.7214	22.9600	0.0381		0.9462	0.9462		0.9462	0.9462	0.0000	4,000.7845	4,000.7845	1.1944		4,030.6445
Total	1.2097	33.7214	22.9600	0.0381	8.1298	0.9462	9.0760	4.4688	0.9462	5.4150	0.0000	4,000.7845	4,000.7845	1.1944		4,030.6445

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3.3 Demolition - 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

3.4 Grading - 2015

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					7.8706	0.0000	7.8706	3.5590	0.0000	3.5590			0.0000			0.0000
Off-Road	6.2723	75.8267	41.8203	0.0621		3.4704	3.4704		3.1927	3.1927		6,516.0375	6,516.0375	1.9453		6,564.6703
Total	6.2723	75.8267	41.8203	0.0621	7.8706	3.4704	11.3410	3.5590	3.1927	6.7517		6,516.0375	6,516.0375	1.9453		6,564.6703

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3.4 Grading - 2015

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	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
Worker	0.1253	0.0956	1.0116	1.8700e-003	0.1677	1.5400e-003	0.1692	0.0445	1.4300e-003	0.0459		185.6393	185.6393	8.6900e-003		185.8566
Total	0.1253	0.0956	1.0116	1.8700e-003	0.1677	1.5400e-003	0.1692	0.0445	1.4300e-003	0.0459		185.6393	185.6393	8.6900e-003		185.8566

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.5418	0.0000	3.5418	1.6015	0.0000	1.6015			0.0000			0.0000
Off-Road	1.8106	51.2386	36.7226	0.0621		1.3333	1.3333		1.3333	1.3333	0.0000	6,516.0375	6,516.0375	1.9453		6,564.6703
Total	1.8106	51.2386	36.7226	0.0621	3.5418	1.3333	4.8751	1.6015	1.3333	2.9348	0.0000	6,516.0375	6,516.0375	1.9453		6,564.6703

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3.4 Grading - 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
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
Worker	0.1253	0.0956	1.0116	1.8700e-003	0.1677	1.5400e-003	0.1692	0.0445	1.4300e-003	0.0459		185.6393	185.6393	8.6900e-003		185.8566
Total	0.1253	0.0956	1.0116	1.8700e-003	0.1677	1.5400e-003	0.1692	0.0445	1.4300e-003	0.0459		185.6393	185.6393	8.6900e-003		185.8566

3.5 Construction of Drainage - 2015

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.6734	30.2005	18.8039	0.0269		2.1245	2.1245		1.9976	1.9976		2,701.0442	2,701.0442	0.6782		2,718.0002
Total	3.6734	30.2005	18.8039	0.0269		2.1245	2.1245		1.9976	1.9976		2,701.0442	2,701.0442	0.6782		2,718.0002

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3.5 Construction of Drainage - 2015

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	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	0.0546	1.1917	0.3840	2.0500e-003	0.0512	0.0143	0.0655	0.0147	0.0137	0.0284		217.2190	217.2190	0.0189		217.6926
Worker	0.0835	0.0637	0.6744	1.2500e-003	0.1118	1.0300e-003	0.1128	0.0296	9.5000e-004	0.0306		123.7596	123.7596	5.7900e-003		123.9044
Total	0.1381	1.2554	1.0584	3.3000e-003	0.1630	0.0153	0.1783	0.0444	0.0146	0.0590		340.9786	340.9786	0.0247		341.5970

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0809	23.5544	17.8738	0.0269		0.9036	0.9036		0.9036	0.9036	0.0000	2,701.0442	2,701.0442	0.6782		2,718.0002
Total	1.0809	23.5544	17.8738	0.0269		0.9036	0.9036		0.9036	0.9036	0.0000	2,701.0442	2,701.0442	0.6782		2,718.0002

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3.5 Construction of Drainage - 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
Vendor	0.0546	1.1917	0.3840	2.0500e-003	0.0512	0.0143	0.0655	0.0147	0.0137	0.0284		217.2190	217.2190	0.0189		217.6926
Worker	0.0835	0.0637	0.6744	1.2500e-003	0.1118	1.0300e-003	0.1128	0.0296	9.5000e-004	0.0306		123.7596	123.7596	5.7900e-003		123.9044
Total	0.1381	1.2554	1.0584	3.3000e-003	0.1630	0.0153	0.1783	0.0444	0.0146	0.0590		340.9786	340.9786	0.0247		341.5970

3.5 Construction of Drainage - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.4202	28.6715	18.5644	0.0269		1.9749	1.9749		1.8554	1.8554		2,680.6350	2,680.6350	0.6655		2,697.2713
Total	3.4202	28.6715	18.5644	0.0269		1.9749	1.9749		1.8554	1.8554		2,680.6350	2,680.6350	0.6655		2,697.2713

Preserve at San Juan Construction Emissions-Phase 2 - South Coast Air Basin, Winter

3.5 Construction of Drainage - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	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	0.0478	1.1183	0.3396	2.0400e-003	0.0512	0.0120	0.0632	0.0147	0.0114	0.0262		217.0164	217.0164	0.0183		217.4732
Worker	0.0743	0.0557	0.5933	1.2200e-003	0.1118	9.7000e-004	0.1128	0.0296	9.0000e-004	0.0305		120.7347	120.7347	5.0900e-003		120.8620
Total	0.1221	1.1741	0.9329	3.2600e-003	0.1630	0.0129	0.1759	0.0444	0.0123	0.0567		337.7511	337.7511	0.0234		338.3351

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0809	23.5544	17.8738	0.0269		0.9036	0.9036		0.9036	0.9036	0.0000	2,680.6350	2,680.6350	0.6655		2,697.2713
Total	1.0809	23.5544	17.8738	0.0269		0.9036	0.9036		0.9036	0.9036	0.0000	2,680.6350	2,680.6350	0.6655		2,697.2713

Preserve at San Juan Construction Emissions-Phase 2 - South Coast Air Basin, Winter

3.5 Construction of Drainage - 2016

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
Vendor	0.0478	1.1183	0.3396	2.0400e-003	0.0512	0.0120	0.0632	0.0147	0.0114	0.0262		217.0164	217.0164	0.0183		217.4732
Worker	0.0743	0.0557	0.5933	1.2200e-003	0.1118	9.7000e-004	0.1128	0.0296	9.0000e-004	0.0305		120.7347	120.7347	5.0900e-003		120.8620
Total	0.1221	1.1741	0.9329	3.2600e-003	0.1630	0.0129	0.1759	0.0444	0.0123	0.0567		337.7511	337.7511	0.0234		338.3351

3.6 Building Construction - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.4202	28.6715	18.5644	0.0269		1.9749	1.9749		1.8554	1.8554		2,680.6350	2,680.6350	0.6655		2,697.2713
Total	3.4202	28.6715	18.5644	0.0269		1.9749	1.9749		1.8554	1.8554		2,680.6350	2,680.6350	0.6655		2,697.2713

Preserve at San Juan Construction Emissions-Phase 2 - South Coast Air Basin, Winter

3.6 Building Construction - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	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	0.0478	1.1183	0.3396	2.0400e-003	0.0512	0.0120	0.0632	0.0147	0.0114	0.0262		217.0164	217.0164	0.0183		217.4732
Worker	0.3713	0.2786	2.9665	6.0800e-003	0.5589	4.8500e-003	0.5637	0.1482	4.4800e-003	0.1527		603.6736	603.6736	0.0255		604.3097
Total	0.4191	1.3969	3.3060	8.1200e-003	0.6101	0.0168	0.6269	0.1630	0.0159	0.1789		820.6900	820.6900	0.0437		821.7829

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0809	23.5544	17.8738	0.0269		0.9036	0.9036		0.9036	0.9036	0.0000	2,680.6350	2,680.6350	0.6655		2,697.2713
Total	1.0809	23.5544	17.8738	0.0269		0.9036	0.9036		0.9036	0.9036	0.0000	2,680.6350	2,680.6350	0.6655		2,697.2713

Preserve at San Juan Construction Emissions-Phase 2 - South Coast Air Basin, Winter

3.6 Building Construction - 2016

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
Vendor	0.0478	1.1183	0.3396	2.0400e-003	0.0512	0.0120	0.0632	0.0147	0.0114	0.0262		217.0164	217.0164	0.0183		217.4732
Worker	0.3713	0.2786	2.9665	6.0800e-003	0.5589	4.8500e-003	0.5637	0.1482	4.4800e-003	0.1527		603.6736	603.6736	0.0255		604.3097
Total	0.4191	1.3969	3.3060	8.1200e-003	0.6101	0.0168	0.6269	0.1630	0.0159	0.1789		820.6900	820.6900	0.0437		821.7829

3.7 Paving - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.1313	22.8567	15.1241	0.0228		1.2844	1.2844		1.1816	1.1816		2,366.7199	2,366.7199	0.7139		2,384.5671
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	2.1313	22.8567	15.1241	0.0228		1.2844	1.2844		1.1816	1.1816		2,366.7199	2,366.7199	0.7139		2,384.5671

Preserve at San Juan Construction Emissions-Phase 2 - South Coast Air Basin, Winter

3.7 Paving - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	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
Worker	0.0446	0.0334	0.3560	7.3000e-004	0.0671	5.8000e-004	0.0677	0.0178	5.4000e-004	0.0183		72.4408	72.4408	3.0500e-003		72.5172
Total	0.0446	0.0334	0.3560	7.3000e-004	0.0671	5.8000e-004	0.0677	0.0178	5.4000e-004	0.0183		72.4408	72.4408	3.0500e-003		72.5172

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9311	20.1146	17.2957	0.0228		0.6670	0.6670		0.6670	0.6670	0.0000	2,366.7199	2,366.7199	0.7139		2,384.5671
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.9311	20.1146	17.2957	0.0228		0.6670	0.6670		0.6670	0.6670	0.0000	2,366.7199	2,366.7199	0.7139		2,384.5671

Preserve at San Juan Construction Emissions-Phase 2 - South Coast Air Basin, Winter

3.7 Paving - 2016

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
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
Worker	0.0446	0.0334	0.3560	7.3000e-004	0.0671	5.8000e-004	0.0677	0.0178	5.4000e-004	0.0183		72.4408	72.4408	3.0500e-003		72.5172
Total	0.0446	0.0334	0.3560	7.3000e-004	0.0671	5.8000e-004	0.0677	0.0178	5.4000e-004	0.0183		72.4408	72.4408	3.0500e-003		72.5172

3.8 Architectural Coating - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	40.5470					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3685	2.3722	1.8839	2.9700e-003		0.1966	0.1966		0.1966	0.1966		281.4481	281.4481	0.0332		282.2776
Total	40.9154	2.3722	1.8839	2.9700e-003		0.1966	0.1966		0.1966	0.1966		281.4481	281.4481	0.0332		282.2776

Preserve at San Juan Construction Emissions-Phase 2 - South Coast Air Basin, Winter

3.8 Architectural Coating - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	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
Worker	0.0297	0.0223	0.2373	4.9000e-004	0.0447	3.9000e-004	0.0451	0.0119	3.6000e-004	0.0122		48.2939	48.2939	2.0400e-003		48.3448
Total	0.0297	0.0223	0.2373	4.9000e-004	0.0447	3.9000e-004	0.0451	0.0119	3.6000e-004	0.0122		48.2939	48.2939	2.0400e-003		48.3448

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	40.5470					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1139	2.3524	1.8324	2.9700e-003		0.0951	0.0951		0.0951	0.0951	0.0000	281.4481	281.4481	0.0332		282.2776
Total	40.6609	2.3524	1.8324	2.9700e-003		0.0951	0.0951		0.0951	0.0951	0.0000	281.4481	281.4481	0.0332		282.2776

Preserve at San Juan Construction Emissions-Phase 2 - South Coast Air Basin, Winter

3.8 Architectural Coating - 2016

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
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
Worker	0.0297	0.0223	0.2373	4.9000e-004	0.0447	3.9000e-004	0.0451	0.0119	3.6000e-004	0.0122		48.2939	48.2939	2.0400e-003		48.3448
Total	0.0297	0.0223	0.2373	4.9000e-004	0.0447	3.9000e-004	0.0451	0.0119	3.6000e-004	0.0122		48.2939	48.2939	2.0400e-003		48.3448

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Preserve at San Juan Construction Emissions-Phase 2 - South Coast Air Basin, Winter

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

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Single Family Housing	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Single Family Housing	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
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 Construction Emissions-Phase 2 - South Coast Air Basin, Winter

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 Construction Emissions-Phase 2 - South Coast Air Basin, Winter

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

	ROG	NOx	CO	SO2	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	2.7529	0.0699	5.9999	3.1000e-004		0.0326	0.0326		0.0326	0.0326	0.0000	10.6958	10.6958	0.0107	0.0000	10.9642
Unmitigated	2.7529	0.0699	5.9999	3.1000e-004		0.0326	0.0326		0.0326	0.0326	0.0000	10.6958	10.6958	0.0107	0.0000	10.9642

Preserve at San Juan Construction Emissions-Phase 2 - South Coast Air Basin, Winter

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	0.0000					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	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
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	2.7529	0.0699	5.9999	3.1000e-004		0.0326	0.0326		0.0326	0.0326	0.0000	10.6958	10.6958	0.0107	0.0000	10.9642

Preserve at San Juan Construction Emissions-Phase 2 - South Coast Air Basin, Winter

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	0.0000					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	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
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	2.7529	0.0699	5.9999	3.1000e-004		0.0326	0.0326		0.0326	0.0326	0.0000	10.6958	10.6958	0.0107	0.0000	10.9642

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

Preserve at San Juan Construction Emissions-Phase 2 - South Coast Air Basin, Winter

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
