

APPENDIX D

Air Quality and Greenhouse Gas
CalEEMod Version 2013.2.2 Outputs
For the
La Quinta Peninsular Bighorn Sheep Barrier

Prepared by

Terra Nova Planning & Research, Inc.
42635 Melanie Place, Suite 101
Palm Desert, CA 92211

December 2016

APPENDIX D

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Alternative A: Toe-of-Slope Alignment

CalEEMod Version 2013.2.2 Outputs

Alternative A: Toe-of-Slope
Salton Sea Air Basin, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Non-Asphalt Surfaces	67.28	1000sqft	1.54	67,277.00	0

1.2 Other Project Characteristics

Urbanization	Rural	Wind Speed (m/s)	3.4	Precipitation Freq (Days)	20
Climate Zone	15			Operational Year	2018

Utility Company Imperial Irrigation District

CO2 Intensity (lb/MW/hr)	1270.9	CH4 Intensity (lb/MW/hr)	0.029	N2O Intensity (lb/MW/hr)	0.006
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1.3 User Entered Comments & Non-Default Data

Project Characteristics -
 Land Use -
 Construction Phase - Assumes a 1-year buildout.
 Off-road Equipment - Construction equipment will be limited, most work will be by hand. Use of helicopters is analysed separately.
 On-road Fugitive Dust - The majority of roadways in the project area are paved. Access to the site may require access to dirt roads.
 Vehicle Trips - Operational mobile trips will be limited to routine maintenance.
 Road Dust - Most roads will be paved, some dirt roads will be accessed.
 Construction Off-road Equipment Mitigation - Standard dust control measures.

Table Name	Column Name	Default Value	New Value
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	OxidationCatalyst	0.00	15.00
tblConstEquipMitigation	OxidationCatalyst	0.00	15.00
tblConstEquipMitigation	OxidationCatalyst	0.00	15.00
tblConstructionPhase	NumDays	2.00	260.00
tblGrading	AcresOfGrading	0.00	130.00
tblLandUse	LandUseSquareFeet	67,280.00	67,277.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOnRoadDust	HaulingPercentPave	50.00	99.00
tblOnRoadDust	VendorPercentPave	50.00	99.00
tblOnRoadDust	WorkerPercentPave	50.00	99.00
tblProjectCharacteristics	OperationalYear	2014	2018
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblRoadDust	RoadPercentPave	50	99
tblVehicleTrips	CC_TTP	0.00	20.00
tblVehicleTrips	CNW_TTP	0.00	20.00
tblVehicleTrips	CW_TTP	0.00	60.00
tblVehicleTrips	ST_TR	0.00	0.01
tblVehicleTrips	SU_TR	0.00	0.01
tblVehicleTrips	WD_TR	0.00	0.01

2.0 Emissions Summary

2.2 Overall Operational
Unmitigated Operational

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
lb/day																
Area	1.8676	7.0000e-005	6.9600e-003	0.0000	3.0000e-005	3.0000e-005	3.0000e-005	3.0000e-005	3.0000e-005	3.0000e-005	0.0147	0.0147	0.0147	4.0000e-005	0.0000	0.0156
Energy	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	1.8300e-003	1.5700e-003	0.0153	0.0000	1.0000e-005	1.0000e-005	1.0000e-005	0.0000	1.0000e-005	1.0000e-005	0.1676	0.1676	0.1676	2.0000e-005	0.0000	0.1680
Total	1.8694	1.6400e-003	0.0222	0.0000	0.0000	4.0000e-005	4.0000e-005	0.0000	4.0000e-005	4.0000e-005	0.1823	0.1823	0.1823	6.0000e-005	0.0000	0.1836

Mitigated Operational

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
lb/day																
Area	1.8676	7.0000e-005	6.9600e-003	0.0000	3.0000e-005	3.0000e-005	3.0000e-005	3.0000e-005	3.0000e-005	3.0000e-005	0.0147	0.0147	0.0147	4.0000e-005	0.0000	0.0156
Energy	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	1.8300e-003	1.5700e-003	0.0153	0.0000	1.0000e-005	1.0000e-005	1.0000e-005	0.0000	1.0000e-005	1.0000e-005	0.1676	0.1676	0.1676	2.0000e-005	0.0000	0.1680
Total	1.8694	1.6400e-003	0.0222	0.0000	0.0000	4.0000e-005	4.0000e-005	0.0000	4.0000e-005	4.0000e-005	0.1823	0.1823	0.1823	6.0000e-005	0.0000	0.1836

Percent Reduction	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
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	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	1/1/2017	12/29/2017	5	260	

Acres of Grading (Site Preparation Phase): 130

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

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

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Bore/Drill Rigs	1	6.00	205	0.50
Site Preparation	Graders	0	8.00	174	0.41
Site Preparation	Other Construction Equipment	2	6.00	171	0.42
Site Preparation	Rough Terrain Forklifts	2	6.00	100	0.40
Site Preparation	Rubber Tired Dozers	0	7.00	255	0.40
Site Preparation	Tractors/Loaders/Backhoes	0	8.00	97	0.37

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
Site Preparation	5	13.00	0.00	0.00	14.60	6.20	20.00	LD_Mix	HDT_Mix	HHTD

3.1 Mitigation Measures Construction

Use Oxidation Catalyst for Construction Equipment
Water Exposed Area

3.2 Site Preparation - 2017

Unmitigated Construction On-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	lb/day															
Fugitive Dust					0.5303	0.0000	0.5303	0.0573	0.0000	0.0573			0.0000			0.0000
Off-Road	1.4728	17.4745	11.3469	0.0209		0.8420	0.8420		0.7746	0.7746		2,140.4878	2,140.4878	0.6558		2,154.2605
Total	1.4728	17.4745	11.3469	0.0209	0.5303	0.8420	1.3722	0.0573	0.7746	0.8319		2,140.4878	2,140.4878	0.6558		2,154.2605

3.2 Site Preparation - 2017
Unmitigated Construction Off-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
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
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
Worker	0.0508	0.0947	0.7828	1.5500e-003	2.9365	8.8000e-004	2.9374	0.3167	8.1000e-004	0.3175	120.7808	120.7808	120.7808	7.5700e-003		120.9397
Total	0.0508	0.0947	0.7828	1.5500e-003	2.9365	8.8000e-004	2.9374	0.3167	8.1000e-004	0.3175	120.7808	120.7808	120.7808	7.5700e-003		120.9397

Mitigated Construction On-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
lb/day																
Fugitive Dust					0.2068	0.0000	0.2068	0.0223	0.0000	0.0223	0.0000	0.0000	0.0000			0.0000
Off-Road	1.4728	14.8534	11.3469	0.0209	0.8420	0.8420	0.8420	0.7746	0.7746	0.7746	0.0000	2,140.4878	2,140.4878	0.6558		2,154.2605
Total	1.4728	14.8534	11.3469	0.0209	0.2068	0.8420	1.0488	0.0223	0.7746	0.7970	0.0000	2,140.4878	2,140.4878	0.6558		2,154.2605

3.2 Site Preparation - 2017
Mitigated Construction Off-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
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
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
Worker	0.0508	0.0947	0.7828	1.5500e-003	2.9365	8.8000e-004	2.9374	0.3167	8.1000e-004	0.3175	120.7808	120.7808	120.7808	7.5700e-003		120.9397
Total	0.0508	0.0947	0.7828	1.5500e-003	2.9365	8.8000e-004	2.9374	0.3167	8.1000e-004	0.3175	120.7808	120.7808	120.7808	7.5700e-003		120.9397

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
lb/day																
Mitigated	1.8300e-003	1.5700e-003	0.0153	0.0000	0.0000	1.0000e-005	1.0000e-005	0.0000	1.0000e-005	1.0000e-005	0.1676	0.1676	0.1676	2.0000e-005		0.1680
Unmitigated	1.8300e-003	1.5700e-003	0.0153	0.0000	0.0000	1.0000e-005	1.0000e-005	0.0000	1.0000e-005	1.0000e-005	0.1676	0.1676	0.1676	2.0000e-005		0.1680

5.2 Energy by Land Use - NaturalGas

Unmitigated

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

Mitigated

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

6.0 Area Detail

6.1 Mitigation Measures Area

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	lb/day															
Mitigated	1.8676	7.0000e-005	6.9600e-003	0.0000	3.0000e-005	3.0000e-005	3.0000e-005	3.0000e-005	3.0000e-005	3.0000e-005	0.0147	0.0147	0.0147	4.0000e-005		0.0156
Unmitigated	1.8676	7.0000e-005	6.9600e-003	0.0000	3.0000e-005	3.0000e-005	3.0000e-005	3.0000e-005	3.0000e-005	3.0000e-005	0.0147	0.0147	0.0147	4.0000e-005		0.0156

6.2 Area by SubCategory

Unmitigated

SubCategory	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	lb/day															
Architectural Coating	0.4272				0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Consumer Products	1.4397				0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Landscaping	6.7000e-004	7.0000e-005	6.9600e-003	0.0000	3.0000e-005	3.0000e-005	3.0000e-005	3.0000e-005	3.0000e-005	3.0000e-005	0.0147	0.0147	0.0147	4.0000e-005		0.0156
Total	1.8676	7.0000e-005	6.9600e-003	0.0000	3.0000e-005	3.0000e-005	3.0000e-005	3.0000e-005	3.0000e-005	3.0000e-005	0.0147	0.0147	0.0147	4.0000e-005		0.0156

6.2 Area by SubCategory

Mitigated

SubCategory	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	lb/day															
Architectural Coating	0.4272				0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Consumer Products	1.4397				0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Landscaping	6.7000e-004	7.0000e-005	6.9600e-003	0.0000	3.0000e-005	3.0000e-005	3.0000e-005	3.0000e-005	3.0000e-005	3.0000e-005		0.0147	0.0147	4.0000e-005		0.0156
Total	1.8676	7.0000e-005	6.9600e-003	0.0000	3.0000e-005	3.0000e-005	3.0000e-005	3.0000e-005	3.0000e-005	3.0000e-005	0.0147	0.0147	0.0147	4.0000e-005		0.0156

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

10.0 Vegetation

Alternative A: Toe-of-Slope
Salton Sea Air Basin, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Non-Asphalt Surfaces	67.28	1000sqft	1.54	67,277.00	0

1.2 Other Project Characteristics

Urbanization	Rural	Wind Speed (m/s)	3.4	Precipitation Freq (Days)	20
Climate Zone	15			Operational Year	2018

Utility Company Imperial Irrigation District

CO2 Intensity (lb/MW/hr)	1270.9	CH4 Intensity (lb/MW/hr)	0.029	N2O Intensity (lb/MW/hr)	0.006
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1.3 User Entered Comments & Non-Default Data

Project Characteristics -
 Land Use -
 Construction Phase - Assumes a 1-year buildout.
 Off-road Equipment - Construction equipment will be limited, most work will be by hand. Use of helicopters is analysed separately.
 On-road Fugitive Dust - The majority of roadways in the project area are paved. Access to the site may require access to dirt roads.
 Vehicle Trips - Operational mobile trips will be limited to routine maintenance.
 Road Dust - Most roads will be paved, some dirt roads will be accessed.
 Construction Off-road Equipment Mitigation - Standard dust control measures.

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tblConstructionPhase	NumDays	2.00	260.00
tblGrading	AcresOfGrading	0.00	130.00
tblLandUse	LandUseSquareFeet	67,280.00	67,277.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOnRoadDust	HaulingPercentPave	50.00	99.00
tblOnRoadDust	VendorPercentPave	50.00	99.00
tblOnRoadDust	WorkerPercentPave	50.00	99.00
tblProjectCharacteristics	OperationalYear	2014	2018
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblRoadDust	RoadPercentPave	50	99
tblVehicleTrips	CC_TTP	0.00	20.00
tblVehicleTrips	CNW_TTP	0.00	20.00
tblVehicleTrips	CW_TTP	0.00	60.00
tblVehicleTrips	ST_TR	0.00	0.01
tblVehicleTrips	SU_TR	0.00	0.01
tblVehicleTrips	WD_TR	0.00	0.01

2.0 Emissions Summary

2.2 Overall Operational
Unmitigated Operational

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
lb/day																
Area	1.8676	7.0000e-005	6.9600e-003	0.0000	3.0000e-005	3.0000e-005	3.0000e-005	3.0000e-005	3.0000e-005	3.0000e-005	0.0147	0.0147	0.0147	4.0000e-005	0.0000	0.0156
Energy	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	2.2200e-003	1.5500e-003	0.0119	0.0000	1.0000e-005	1.0000e-005	1.0000e-005	0.0000	1.0000e-005	1.0000e-005	0.1778	0.1778	0.1778	2.0000e-005	0.0000	0.1783
Total	1.8698	1.6200e-003	0.0188	0.0000	0.0000	4.0000e-005	4.0000e-005	0.0000	4.0000e-005	4.0000e-005	0.1925	0.1925	0.1925	6.0000e-005	0.0000	0.1938

Mitigated Operational

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
lb/day																
Area	1.8676	7.0000e-005	6.9600e-003	0.0000	3.0000e-005	3.0000e-005	3.0000e-005	3.0000e-005	3.0000e-005	3.0000e-005	0.0147	0.0147	0.0147	4.0000e-005	0.0000	0.0156
Energy	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	2.2200e-003	1.5500e-003	0.0119	0.0000	1.0000e-005	1.0000e-005	1.0000e-005	0.0000	1.0000e-005	1.0000e-005	0.1778	0.1778	0.1778	2.0000e-005	0.0000	0.1783
Total	1.8698	1.6200e-003	0.0188	0.0000	0.0000	4.0000e-005	4.0000e-005	0.0000	4.0000e-005	4.0000e-005	0.1925	0.1925	0.1925	6.0000e-005	0.0000	0.1938

ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
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	1/1/2017	12/29/2017	5	260	

Acres of Grading (Site Preparation Phase): 130

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

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

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Bore/Drill Rigs	1	6.00	205	0.50
Site Preparation	Graders	0	8.00	174	0.41
Site Preparation	Other Construction Equipment	2	6.00	171	0.42
Site Preparation	Rough Terrain Forklifts	2	6.00	100	0.40
Site Preparation	Rubber Tired Dozers	0	7.00	255	0.40
Site Preparation	Tractors/Loaders/Backhoes	0	8.00	97	0.37

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
Site Preparation	5	13.00	0.00	0.00	14.60	6.20	20.00	LD_Mix	HDT_Mix	HHTD

3.1 Mitigation Measures Construction

Use Oxidation Catalyst for Construction Equipment
Water Exposed Area

3.2 Site Preparation - 2017

Unmitigated Construction On-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	lb/day															
Fugitive Dust					0.5303	0.0000	0.5303	0.0573	0.0000	0.0573			0.0000			0.0000
Off-Road	1.4728	17.4745	11.3469	0.0209		0.8420	0.8420		0.7746	0.7746			2,140.4878	0.6558		2,154.2605
Total	1.4728	17.4745	11.3469	0.0209	0.5303	0.8420	1.3722	0.0573	0.7746	0.8319		2,140.4878	2,140.4878	0.6558		2,154.2605

3.2 Site Preparation - 2017
Unmitigated Construction Off-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
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
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
Worker	0.0676	0.0853	0.9640	1.6700e-003	2.9365	8.8000e-004	2.9374	0.3167	8.1000e-004	0.3175		130.2840	130.2840	7.5700e-003		130.4429
Total	0.0676	0.0853	0.9640	1.6700e-003	2.9365	8.8000e-004	2.9374	0.3167	8.1000e-004	0.3175		130.2840	130.2840	7.5700e-003		130.4429

Mitigated Construction On-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
lb/day																
Fugitive Dust					0.2068	0.0000	0.2068	0.0223	0.0000	0.0223			0.0000			0.0000
Off-Road	1.4728	14.8534	11.3469	0.0209		0.8420	0.8420		0.7746	0.7746	0.0000	2,140.4878	2,140.4878	0.6558		2,154.2605
Total	1.4728	14.8534	11.3469	0.0209	0.2068	0.8420	1.0488	0.0223	0.7746	0.7970	0.0000	2,140.4878	2,140.4878	0.6558		2,154.2605

3.2 Site Preparation - 2017
Mitigated Construction Off-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
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
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
Worker	0.0676	0.0853	0.9640	1.6700e-003	2.9365	8.8000e-004	2.9374	0.3167	8.1000e-004	0.3175	130.2840	130.2840	130.2840	7.5700e-003		130.4429
Total	0.0676	0.0853	0.9640	1.6700e-003	2.9365	8.8000e-004	2.9374	0.3167	8.1000e-004	0.3175	130.2840	130.2840	130.2840	7.5700e-003		130.4429

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Mitigated	2.2200e-003	1.5500e-003	0.0119	0.0000	0.0000	1.0000e-005	1.0000e-005	0.0000	1.0000e-005	1.0000e-005	0.1778	0.1778	0.1778	2.0000e-005		0.1783
Unmitigated	2.2200e-003	1.5500e-003	0.0119	0.0000	0.0000	1.0000e-005	1.0000e-005	0.0000	1.0000e-005	1.0000e-005	0.1778	0.1778	0.1778	2.0000e-005		0.1783

5.2 Energy by Land Use - NaturalGas

Unmitigated

Land Use	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	
	kBTU/yr	lb/day																
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Mitigated

Land Use	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	
	kBTU/yr	lb/day																
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

6.0 Area Detail

6.1 Mitigation Measures Area

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	lb/day															
Mitigated	1.8676	7.0000e-005	6.9600e-003	0.0000	3.0000e-005	3.0000e-005	3.0000e-005	3.0000e-005	3.0000e-005	3.0000e-005	0.0147	0.0147	0.0147	4.0000e-005		0.0156
Unmitigated	1.8676	7.0000e-005	6.9600e-003	0.0000	3.0000e-005	3.0000e-005	3.0000e-005	3.0000e-005	3.0000e-005	3.0000e-005	0.0147	0.0147	0.0147	4.0000e-005		0.0156

6.2 Area by SubCategory

Unmitigated

SubCategory	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	lb/day															
Architectural Coating	0.4272				0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Consumer Products	1.4397				0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Landscaping	6.7000e-004	7.0000e-005	6.9600e-003	0.0000	3.0000e-005	3.0000e-005	3.0000e-005	3.0000e-005	3.0000e-005	3.0000e-005	0.0147	0.0147	0.0147	4.0000e-005		0.0156
Total	1.8676	7.0000e-005	6.9600e-003	0.0000	3.0000e-005	3.0000e-005	3.0000e-005	3.0000e-005	3.0000e-005	3.0000e-005	0.0147	0.0147	0.0147	4.0000e-005		0.0156

6.2 Area by SubCategory

Mitigated

SubCategory	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	lb/day															
Architectural Coating	0.4272				0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Consumer Products	1.4397				0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Landscaping	6.7000e-004	7.0000e-005	6.9600e-003	0.0000	3.0000e-005	3.0000e-005	3.0000e-005	3.0000e-005	3.0000e-005	3.0000e-005		0.0147	0.0147	4.0000e-005		0.0156
Total	1.8676	7.0000e-005	6.9600e-003	0.0000	3.0000e-005	3.0000e-005	3.0000e-005	3.0000e-005	3.0000e-005	3.0000e-005	0.0147	0.0147	0.0147	4.0000e-005		0.0156

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

10.0 Vegetation

Alternative A: Toe-of-Slope
Salton Sea Air Basin, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Non-Asphalt Surfaces	67.28	1000sqft	1.54	67,277.00	0

1.2 Other Project Characteristics

Urbanization	Rural	Wind Speed (m/s)	3.4	Precipitation Freq (Days)	20
Climate Zone	15			Operational Year	2018

Utility Company Imperial Irrigation District

CO2 Intensity (lb/MW/hr)	1270.9	CH4 Intensity (lb/MW/hr)	0.029	N2O Intensity (lb/MW/hr)	0.006
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1.3 User Entered Comments & Non-Default Data

Project Characteristics -
 Land Use -
 Construction Phase - Assumes a 1-year buildout.
 Off-road Equipment - Construction equipment will be limited, most work will be by hand. Use of helicopters is analysed separately.
 On-road Fugitive Dust - The majority of roadways in the project area are paved. Access to the site may require access to dirt roads.
 Vehicle Trips - Operational mobile trips will be limited to routine maintenance.
 Road Dust - Most roads will be paved, some dirt roads will be accessed.
 Construction Off-road Equipment Mitigation - Standard dust control measures.

Table Name	Column Name	Default Value	New Value
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	OxidationCatalyst	0.00	15.00
tblConstEquipMitigation	OxidationCatalyst	0.00	15.00
tblConstEquipMitigation	OxidationCatalyst	0.00	15.00
tblConstructionPhase	NumDays	2.00	260.00
tblGrading	AcresOfGrading	0.00	130.00
tblLandUse	LandUseSquareFeet	67,280.00	67,277.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOnRoadDust	HaulingPercentPave	50.00	99.00
tblOnRoadDust	VendorPercentPave	50.00	99.00
tblOnRoadDust	WorkerPercentPave	50.00	99.00
tblProjectCharacteristics	OperationalYear	2014	2018
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblRoadDust	RoadPercentPave	50	99
tblVehicleTrips	CC_TTP	0.00	20.00
tblVehicleTrips	CNW_TTP	0.00	20.00
tblVehicleTrips	CW_TTP	0.00	60.00
tblVehicleTrips	ST_TR	0.00	0.01
tblVehicleTrips	SU_TR	0.00	0.01
tblVehicleTrips	WD_TR	0.00	0.01

2.0 Emissions Summary

2.2 Overall Operational
Unmitigated Operational

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
lb/day																
Area	1.8676	7.0000e-005	6.9600e-003	0.0000	3.0000e-005	3.0000e-005	3.0000e-005	3.0000e-005	3.0000e-005	3.0000e-005	0.0147	0.0147	0.0147	4.0000e-005	0.0000	0.0156
Energy	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	1.8300e-003	1.5700e-003	0.0153	0.0000	1.0000e-005	1.0000e-005	1.0000e-005	0.0000	1.0000e-005	1.0000e-005	0.1676	0.1676	0.1676	2.0000e-005	0.0000	0.1680
Total	1.8694	1.6400e-003	0.0222	0.0000	0.0000	4.0000e-005	4.0000e-005	0.0000	4.0000e-005	4.0000e-005	0.1823	0.1823	0.1823	6.0000e-005	0.0000	0.1836

Mitigated Operational

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
lb/day																
Area	1.8676	7.0000e-005	6.9600e-003	0.0000	3.0000e-005	3.0000e-005	3.0000e-005	3.0000e-005	3.0000e-005	3.0000e-005	0.0147	0.0147	0.0147	4.0000e-005	0.0000	0.0156
Energy	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	1.8300e-003	1.5700e-003	0.0153	0.0000	1.0000e-005	1.0000e-005	1.0000e-005	0.0000	1.0000e-005	1.0000e-005	0.1676	0.1676	0.1676	2.0000e-005	0.0000	0.1680
Total	1.8694	1.6400e-003	0.0222	0.0000	0.0000	4.0000e-005	4.0000e-005	0.0000	4.0000e-005	4.0000e-005	0.1823	0.1823	0.1823	6.0000e-005	0.0000	0.1836

Percent Reduction	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
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	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	1/1/2017	12/29/2017	5	260	

Acres of Grading (Site Preparation Phase): 130

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

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

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Bore/Drill Rigs	1	6.00	205	0.50
Site Preparation	Graders	0	8.00	174	0.41
Site Preparation	Other Construction Equipment	2	6.00	171	0.42
Site Preparation	Rough Terrain Forklifts	2	6.00	100	0.40
Site Preparation	Rubber Tired Dozers	0	7.00	255	0.40
Site Preparation	Tractors/Loaders/Backhoes	0	8.00	97	0.37

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
Site Preparation	5	13.00	0.00	0.00	14.60	6.20	20.00	LD_Mix	HDT_Mix	HHTD

3.1 Mitigation Measures Construction

Use Oxidation Catalyst for Construction Equipment
Water Exposed Area

3.2 Site Preparation - 2017

Unmitigated Construction On-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	lb/day															
Fugitive Dust					0.5303	0.0000	0.5303	0.0573	0.0000	0.0573			0.0000			0.0000
Off-Road	1.4728	17.4745	11.3469	0.0209		0.8420	0.8420		0.7746	0.7746		2,140.4878	2,140.4878	0.6558		2,154.2605
Total	1.4728	17.4745	11.3469	0.0209	0.5303	0.8420	1.3722	0.0573	0.7746	0.8319		2,140.4878	2,140.4878	0.6558		2,154.2605

3.2 Site Preparation - 2017
Unmitigated Construction Off-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
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
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
Worker	0.0508	0.0947	0.7828	1.5500e-003	2.9365	8.8000e-004	2.9374	0.3167	8.1000e-004	0.3175	120.7808	120.7808	120.7808	7.5700e-003		120.9397
Total	0.0508	0.0947	0.7828	1.5500e-003	2.9365	8.8000e-004	2.9374	0.3167	8.1000e-004	0.3175	120.7808	120.7808	120.7808	7.5700e-003		120.9397

Mitigated Construction On-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
lb/day																
Fugitive Dust					0.2068	0.0000	0.2068	0.0223	0.0000	0.0223	0.0000	0.0000	0.0000			0.0000
Off-Road	1.4728	14.8534	11.3469	0.0209	0.8420	0.8420	0.8420	0.7746	0.7746	0.7746	0.0000	2,140.4878	2,140.4878	0.6558		2,154.2605
Total	1.4728	14.8534	11.3469	0.0209	0.2068	0.8420	1.0488	0.0223	0.7746	0.7970	0.0000	2,140.4878	2,140.4878	0.6558		2,154.2605

3.2 Site Preparation - 2017
Mitigated Construction Off-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
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
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
Worker	0.0508	0.0947	0.7828	1.5500e-003	2.9365	8.8000e-004	2.9374	0.3167	8.1000e-004	0.3175	120.7808	120.7808	120.7808	7.5700e-003		120.9397
Total	0.0508	0.0947	0.7828	1.5500e-003	2.9365	8.8000e-004	2.9374	0.3167	8.1000e-004	0.3175	120.7808	120.7808	120.7808	7.5700e-003		120.9397

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
lb/day																
Mitigated	1.8300e-003	1.5700e-003	0.0153	0.0000	0.0000	1.0000e-005	1.0000e-005	0.0000	1.0000e-005	1.0000e-005	0.1676	0.1676	0.1676	2.0000e-005		0.1680
Unmitigated	1.8300e-003	1.5700e-003	0.0153	0.0000	0.0000	1.0000e-005	1.0000e-005	0.0000	1.0000e-005	1.0000e-005	0.1676	0.1676	0.1676	2.0000e-005		0.1680

5.2 Energy by Land Use - NaturalGas

Unmitigated

Land Use	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	
	kBTU/yr	lb/day																
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Mitigated

Land Use	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	
	kBTU/yr	lb/day																
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

6.0 Area Detail

6.1 Mitigation Measures Area

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
lb/day																
Mitigated	1.8676	7.0000e-005	6.9600e-003	0.0000	3.0000e-005	3.0000e-005	3.0000e-005	3.0000e-005	3.0000e-005	3.0000e-005	0.0147	0.0147	0.0147	4.0000e-005		0.0156
Unmitigated	1.8676	7.0000e-005	6.9600e-003	0.0000	3.0000e-005	3.0000e-005	3.0000e-005	3.0000e-005	3.0000e-005	3.0000e-005	0.0147	0.0147	0.0147	4.0000e-005		0.0156

6.2 Area by SubCategory

Unmitigated

SubCategory	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
lb/day																
Architectural Coating	0.4272				0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Consumer Products	1.4397				0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Landscaping	6.7000e-004	7.0000e-005	6.9600e-003	0.0000	3.0000e-005	3.0000e-005	3.0000e-005	3.0000e-005	3.0000e-005	3.0000e-005	0.0147	0.0147	0.0147	4.0000e-005		0.0156
Total	1.8676	7.0000e-005	6.9600e-003	0.0000	3.0000e-005	3.0000e-005	3.0000e-005	3.0000e-005	3.0000e-005	3.0000e-005	0.0147	0.0147	0.0147	4.0000e-005		0.0156

6.2 Area by SubCategory

Mitigated

SubCategory	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	lb/day															
Architectural Coating	0.4272				0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Consumer Products	1.4397				0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Landscaping	6.7000e-004	7.0000e-005	6.9600e-003	0.0000	3.0000e-005	3.0000e-005	3.0000e-005	3.0000e-005	3.0000e-005	3.0000e-005		0.0147	0.0147	4.0000e-005		0.0156
Total	1.8676	7.0000e-005	6.9600e-003	0.0000	3.0000e-005	3.0000e-005	3.0000e-005	3.0000e-005	3.0000e-005	3.0000e-005	0.0147	0.0147	0.0147	4.0000e-005		0.0156

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

10.0 Vegetation

Alternative B: Ridgeline Alignment

CalEEMod Version 2013.2.2 Outputs

Alternative B: Ridgeline
Salton Sea Air Basin, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Non-Asphalt Surfaces	47.09	1000sqft	1.08	47,093.00	0

1.2 Other Project Characteristics

Urbanization	Rural	Wind Speed (m/s)	3.4	Precipitation Freq (Days)	20
Climate Zone	15			Operational Year	2018

Utility Company Imperial Irrigation District

CO2 Intensity (lb/MW/hr)	1270.9	CH4 Intensity (lb/MW/hr)	0.029	N2O Intensity (lb/MW/hr)	0.006
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1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Alternative B will be approximately 47,093 linear feet.

Construction Phase - Assumes a 1-year buildout.

Off-road Equipment - Construction equipment will be limited, most work will be by hand. Use of helicopters is analysed separately.

On-road Fugitive Dust - The majority of roadways in the project area are paved. Access to the site may require access to dirt roads.

Vehicle Trips - Operational mobile trips will be limited to routine maintenance.

Road Dust - Most roads will be paved, some dirt roads will be accessed.

Construction Off-road Equipment Mitigation - Standard dust control measures.

Trips and VMT - Assumes all haul trips will travel at least 30 mile (one way).

Table Name	Column Name	Default Value	New Value
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	OxidationCatalyst	0.00	15.00
tblConstEquipMitigation	OxidationCatalyst	0.00	15.00
tblConstEquipMitigation	OxidationCatalyst	0.00	15.00
tblConstructionPhase	NumDays	2.00	260.00
tblConstructionPhase	PhaseEndDate	12/29/2017	12/31/2017
tblGrading	AcresOfGrading	0.00	1.00
tblLandUse	LandUseSquareFeet	47,090.00	47,093.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOnRoadDust	HaulingPercentPave	50.00	99.00
tblOnRoadDust	VendorPercentPave	50.00	99.00
tblOnRoadDust	WorkerPercentPave	50.00	99.00
tblProjectCharacteristics	OperationalYear	2014	2018
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblRoadDust	RoadPercentPave	50	99
tblTripsAndVMT	HaulingTripLength	20.00	30.00
tblTripsAndVMT	WorkerTripNumber	13.00	8.00
tblVehicleTrips	CC_TTP	0.00	20.00
tblVehicleTrips	CNW_TTP	0.00	20.00
tblVehicleTrips	CW_TTP	0.00	60.00
tblVehicleTrips	ST_TR	0.00	0.01
tblVehicleTrips	SU_TR	0.00	0.01
tblVehicleTrips	WD_TR	0.00	0.01

2.0 Emissions Summary

2.1 Overall Construction Unmitigated Construction

Year	tons/yr											MT/yr				
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
2017	0.1959	2.2790	1.5438	2.8500e-003	0.2231	0.1095	0.3326	0.0241	0.1008	0.1249	0.0000	261.7147	261.7147	0.0779	0.0000	263.3505
Total	0.1959	2.2790	1.5438	2.8500e-003	0.2231	0.1095	0.3326	0.0241	0.1008	0.1249	0.0000	261.7147	261.7147	0.0779	0.0000	263.3505

Mitigated Construction

Year	tons/yr											MT/yr				
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
2017	0.1959	1.9383	1.5437	2.8500e-003	0.2228	0.1095	0.3323	0.0241	0.1008	0.1249	0.0000	261.7144	261.7144	0.0779	0.0000	263.3502
Total	0.1959	1.9383	1.5437	2.8500e-003	0.2228	0.1095	0.3323	0.0241	0.1008	0.1249	0.0000	261.7144	261.7144	0.0779	0.0000	263.3502

	ROG	NOx	CO	SO2	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	14.95	0.00	0.00	0.14	0.00	0.10	0.17	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00

2.2 Overall Operational

Unmitigated Operational

Category	tons/yr										MT/yr					
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Area	0.2385	0.0000	4.4000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	8.4000e-004	8.4000e-004	0.0000	0.0000	8.9000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	2.4000e-004	2.0000e-004	1.5800e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0200	0.0200	0.0000	0.0000	0.0201
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.2388	2.0000e-004	2.0200e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0209	0.0209	0.0000	0.0000	0.0210

**2.2 Overall Operational
Mitigated Operational**

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
	MT/yr																
Area	0.2385	0.0000	4.4000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	8.4000e-004	8.4000e-004	0.0000	0.0000	0.0000	8.9000e-004
Energy	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	2.4000e-004	2.0000e-004	1.5800e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0200	0.0200	0.0000	0.0000	0.0000	0.0201
Waste					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.2388	2.0000e-004	2.0200e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0209	0.0209	0.0000	0.0000	0.0000	0.0210

	ROG	NOx	CO	SO2	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	1/1/2017	12/31/2017	5	260	

Acres of Grading (Site Preparation Phase): 1

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

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

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Bore/Drill Rigs	1	6.00	205	0.50
Site Preparation	Graders	0	8.00	174	0.41
Site Preparation	Other Construction Equipment	2	6.00	171	0.42
Site Preparation	Rough Terrain Forklifts	2	6.00	100	0.40
Site Preparation	Rubber Tired Dozers	0	7.00	255	0.40
Site Preparation	Tractors/Loaders/Backhoes	0	8.00	97	0.37

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
Site Preparation	5	8.00	0.00	0.00	14.60	6.20	30.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Oxidation Catalyst for Construction Equipment

Water Exposed Area

Clean Paved Roads

3.2 Site Preparation - 2017
Unmitigated Construction On-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	tons/yr															
	MT/yr															
Fugitive Dust					5.3000e-004	0.0000	5.3000e-004	6.0000e-005	0.0000	6.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1915	2.2717	1.4751	2.7200e-003	0.1095	0.1095	0.1095	0.1007	0.1007	0.1007	0.0000	252.4363	252.4363	0.0774	0.0000	254.0606
Total	0.1915	2.2717	1.4751	2.7200e-003	5.3000e-004	0.1095	0.1100	6.0000e-005	0.1007	0.1008	0.0000	252.4363	252.4363	0.0774	0.0000	254.0606

Unmitigated Construction Off-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	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	4.4000e-003	7.3300e-003	0.0687	1.3000e-004	0.2225	7.0000e-005	0.2226	0.0241	7.0000e-005	0.0242	0.0000	9.2783	9.2783	5.5000e-004	0.0000	9.2899
Total	4.4000e-003	7.3300e-003	0.0687	1.3000e-004	0.2225	7.0000e-005	0.2226	0.0241	7.0000e-005	0.0242	0.0000	9.2783	9.2783	5.5000e-004	0.0000	9.2899

3.2 Site Preparation - 2017
Mitigated Construction On-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	tons/yr															
	MT/yr															
Fugitive Dust					2.1000e-004	0.0000	2.1000e-004	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1915	1.9309	1.4751	2.7200e-003	0.1095	0.1095	0.1095	0.1007	0.1007	0.1007	0.0000	252.4360	252.4360	0.0774	0.0000	254.0603
Total	0.1915	1.9309	1.4751	2.7200e-003	2.1000e-004	0.1095	0.1097	2.0000e-005	0.1007	0.1007	0.0000	252.4360	252.4360	0.0774	0.0000	254.0603

Mitigated Construction Off-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	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	4.4000e-003	7.3300e-003	0.0687	1.3000e-004	0.2225	7.0000e-005	0.2226	0.0241	7.0000e-005	0.0242	0.0000	9.2783	9.2783	5.5000e-004	0.0000	9.2899
Total	4.4000e-003	7.3300e-003	0.0687	1.3000e-004	0.2225	7.0000e-005	0.2226	0.0241	7.0000e-005	0.0242	0.0000	9.2783	9.2783	5.5000e-004	0.0000	9.2899

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Category	tons/yr											MT/yr					CO2e
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O		
Mitigated	2.4000e-004	2.0000e-004	1.5800e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0200	0.0200	0.0000	0.0000	0.0201	
Unmitigated	2.4000e-004	2.0000e-004	1.5800e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0200	0.0200	0.0000	0.0000	0.0201	

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated Annual VMT	Mitigated Annual VMT
	Weekday	Saturday	Sunday		
Other Non-Asphalt Surfaces	0.47	0.47	0.47		
Total	0.47	0.47	0.47		

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	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by	
Other Non-Asphalt Surfaces	13.80	6.20	6.20	60.00	20.00	20.00	20.00	20.00	0	0	0	

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.470587	0.065225	0.167137	0.156168	0.039201	0.006383	0.011938	0.074091	0.001423	0.001209	0.003733	0.000549	0.002355

5.0 Energy Mix

Historical Energy Use: N

5.2 Energy by Land Use - NaturalGas

Mitigated

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

5.3 Energy by Land Use - Electricity

Unmitigated

Land Use	Electricity Use kWh/yr	Total CO2	CH4	N2O	CO2e
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

5.3 Energy by Land Use - Electricity

Mitigated

Land Use	Electricity Use kWh/yr	Total CO2	CH4	N2O	CO2e
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

6.0 Area Detail

6.1 Mitigation Measures Area

Category	tons/yr											MT/yr					
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Mitigated	0.2385	0.0000	4.4000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	8.4000e-004	8.4000e-004	0.0000	0.0000	0.0000	8.9000e-004
Unmitigated	0.2385	0.0000	4.4000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	8.4000e-004	8.4000e-004	0.0000	0.0000	0.0000	8.9000e-004

6.2 Area by SubCategory

Unmitigated

SubCategory	tons/yr										MT/yr					
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Architectural Coating	0.0546					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1839					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	4.0000e-005	0.0000	4.4000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	8.4000e-004	8.4000e-004	8.4000e-004	0.0000	0.0000	8.9000e-004
Total	0.2385	0.0000	4.4000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	8.4000e-004	8.4000e-004	0.0000	0.0000	8.9000e-004

Mitigated

SubCategory	tons/yr										MT/yr					
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Architectural Coating	0.0546					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1839					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	4.0000e-005	0.0000	4.4000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	8.4000e-004	8.4000e-004	8.4000e-004	0.0000	0.0000	8.9000e-004
Total	0.2385	0.0000	4.4000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	8.4000e-004	8.4000e-004	0.0000	0.0000	8.9000e-004

7.0 Water Detail

7.1 Mitigation Measures Water

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

7.2 Water by Land Use

Unmitigated

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

7.2 Water by Land Use

Mitigated

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

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

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

8.2 Waste by Land Use

Unmitigated

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

Mitigated

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

9.0 Operational Offroad

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

Alternative B: Ridgeline
Salton Sea Air Basin, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Non-Asphalt Surfaces	47.09	1000sqft	1.08	47,093.00	0

1.2 Other Project Characteristics

Urbanization	Rural	Wind Speed (m/s)	3.4	Precipitation Freq (Days)	20
Climate Zone	15			Operational Year	2018

Utility Company

Imperial Irrigation District

CO2 Intensity (lb/MW/hr)	1270.9	CH4 Intensity (lb/MW/hr)	0.029	N2O Intensity (lb/MW/hr)	0.006
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1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Alternative B will be approximately 47,093 linear feet.

Construction Phase - Assumes a 1-year buildout.

Off-road Equipment - Construction equipment will be limited, most work will be by hand. Use of helicopters is analysed separately.

On-road Fugitive Dust - The majority of roadways in the project area are paved. Access to the site may require access to dirt roads.

Vehicle Trips - Operational mobile trips will be limited to routine maintenance.

Road Dust - Most roads will be paved, some dirt roads will be accessed.

Construction Off-road Equipment Mitigation - Standard dust control measures.

Trips and VMT - Assumes all haul trips will travel at least 30 mile (one way).

Table Name	Column Name	Default Value	New Value
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	OxidationCatalyst	0.00	15.00
tblConstEquipMitigation	OxidationCatalyst	0.00	15.00
tblConstEquipMitigation	OxidationCatalyst	0.00	15.00
tblConstructionPhase	NumDays	2.00	260.00
tblConstructionPhase	PhaseEndDate	12/29/2017	12/31/2017
tblGrading	AcresOfGrading	0.00	1.00
tblLandUse	LandUseSquareFeet	47,090.00	47,093.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOnRoadDust	HaulingPercentPave	50.00	99.00
tblOnRoadDust	VendorPercentPave	50.00	99.00
tblOnRoadDust	WorkerPercentPave	50.00	99.00
tblProjectCharacteristics	OperationalYear	2014	2018
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblRoadDust	RoadPercentPave	50	99
tblTripsAndVMT	HaulingTripLength	20.00	30.00
tblTripsAndVMT	WorkerTripNumber	13.00	8.00
tblVehicleTrips	CC_TTP	0.00	20.00
tblVehicleTrips	CNW_TTP	0.00	20.00
tblVehicleTrips	CW_TTP	0.00	60.00
tblVehicleTrips	ST_TR	0.00	0.01
tblVehicleTrips	SU_TR	0.00	0.01
tblVehicleTrips	WD_TR	0.00	0.01

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

Year	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	lb/day															
2017	1.5144	17.5270	11.9401	0.0220	1.8112	0.8425	2.6537	0.1953	0.7751	0.9705	0.0000	2,220.6626	2,220.6626	0.6605	0.0000	2,234.5331
Total	1.5144	17.5270	11.9401	0.0220	1.8112	0.8425	2.6537	0.1953	0.7751	0.9705	0.0000	2,220.6626	2,220.6626	0.6605	0.0000	2,234.5331

Mitigated Construction

Year	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	lb/day															
2017	1.5144	14.9059	11.9401	0.0220	1.8087	0.8425	2.6512	0.1951	0.7751	0.9702	0.0000	2,220.6626	2,220.6626	0.6605	0.0000	2,234.5331
Total	1.5144	14.9059	11.9401	0.0220	1.8087	0.8425	2.6512	0.1951	0.7751	0.9702	0.0000	2,220.6626	2,220.6626	0.6605	0.0000	2,234.5331

2.2 Overall Operational
Unmitigated Operational

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
lb/day																
Area	1.3073	5.0000e-005	4.8700e-003	0.0000	2.0000e-005	2.0000e-005	2.0000e-005	2.0000e-005	2.0000e-005	2.0000e-005	0.0103	0.0103	0.0103	3.0000e-005	0.0000	0.0109
Energy	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	1.5600e-003	1.0900e-003	8.3000e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.1244	0.1244	0.1244	2.0000e-005	0.0000	0.1248
Total	1.3088	1.1400e-003	0.0132	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	2.0000e-005	2.0000e-005	0.1348	0.1348	0.1348	5.0000e-005	0.0000	0.1357

Mitigated Operational

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
lb/day																
Area	1.3073	5.0000e-005	4.8700e-003	0.0000	2.0000e-005	2.0000e-005	2.0000e-005	2.0000e-005	2.0000e-005	2.0000e-005	0.0103	0.0103	0.0103	3.0000e-005	0.0000	0.0109
Energy	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	1.5600e-003	1.0900e-003	8.3000e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.1244	0.1244	0.1244	2.0000e-005	0.0000	0.1248
Total	1.3088	1.1400e-003	0.0132	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	2.0000e-005	2.0000e-005	0.1348	0.1348	0.1348	5.0000e-005	0.0000	0.1357

Percent Reduction	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
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	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	1/1/2017	12/31/2017	5	260	

Acres of Grading (Site Preparation Phase): 1

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

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

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Bore/Drill Rigs	1	6.00	205	0.50
Site Preparation	Graders	0	8.00	174	0.41
Site Preparation	Other Construction Equipment	2	6.00	171	0.42
Site Preparation	Rough Terrain Forklifts	2	6.00	100	0.40
Site Preparation	Rubber Tired Dozers	0	7.00	255	0.40
Site Preparation	Tractors/Loaders/Backhoes	0	8.00	97	0.37

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
Site Preparation	5	8.00	0.00	0.00	14.60	6.20	30.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Oxidation Catalyst for Construction Equipment

Water Exposed Area

Clean Paved Roads

3.2 Site Preparation - 2017

Unmitigated Construction On-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	lb/day															
Fugitive Dust					4.0800e-003	0.0000	4.0800e-003	4.4000e-004	0.0000	4.4000e-004			0.0000			0.0000
Off-Road	1.4728	17.4745	11.3469	0.0209		0.8420	0.8420		0.7746	0.7746			2,140.4878	0.6558		2,154.2605
Total	1.4728	17.4745	11.3469	0.0209	4.0800e-003	0.8420	0.8461	4.4000e-004	0.7746	0.7751		2,140.4878	2,140.4878	0.6558		2,154.2605

3.2 Site Preparation - 2017
Unmitigated Construction Off-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
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
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
Worker	0.0416	0.0525	0.5932	1.0300e-003	1.8071	5.4000e-004	1.8076	0.1949	5.0000e-004	0.1954	80.1748	80.1748	4.6600e-003			80.2725
Total	0.0416	0.0525	0.5932	1.0300e-003	1.8071	5.4000e-004	1.8076	0.1949	5.0000e-004	0.1954	80.1748	80.1748	4.6600e-003			80.2725

Mitigated Construction On-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
lb/day																
Fugitive Dust					1.5900e-003	0.0000	1.5900e-003	1.7000e-004	0.0000	1.7000e-004			0.0000			0.0000
Off-Road	1.4728	14.8534	11.3469	0.0209		0.8420	0.8420	0.7746	0.7746	0.7746	0.0000	2,140.4878	2,140.4878	0.6558		2,154.2605
Total	1.4728	14.8534	11.3469	0.0209	1.5900e-003	0.8420	0.8436	0.7746	0.7746	0.7748	0.0000	2,140.4878	2,140.4878	0.6558		2,154.2605

3.2 Site Preparation - 2017
Mitigated Construction Off-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
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	0.0416	0.0525	0.5932	1.0300e-003	1.8071	5.4000e-004	1.8076	0.1949	5.0000e-004	0.1954	80.1748	80.1748	80.1748	4.6600e-003		80.2725
Total	0.0416	0.0525	0.5932	1.0300e-003	1.8071	5.4000e-004	1.8076	0.1949	5.0000e-004	0.1954	80.1748	80.1748	80.1748	4.6600e-003		80.2725

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
lb/day																
Mitigated	1.5600e-003	1.0900e-003	8.3000e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.1244	0.1244	0.1244	2.0000e-005		0.1248
Unmitigated	1.5600e-003	1.0900e-003	8.3000e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.1244	0.1244	0.1244	2.0000e-005		0.1248

5.2 Energy by Land Use - NaturalGas

Unmitigated

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

Mitigated

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

6.0 Area Detail

6.1 Mitigation Measures Area

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
lb/day																
Mitigated	1.3073	5.0000e-005	4.8700e-003	0.0000	2.0000e-005	2.0000e-005	2.0000e-005	2.0000e-005	2.0000e-005	2.0000e-005	0.0103	0.0103	0.0103	3.0000e-005		0.0109
Unmitigated	1.3073	5.0000e-005	4.8700e-003	0.0000	2.0000e-005	2.0000e-005	2.0000e-005	2.0000e-005	2.0000e-005	2.0000e-005	0.0103	0.0103	0.0103	3.0000e-005		0.0109

6.2 Area by SubCategory

Unmitigated

SubCategory	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
lb/day																
Architectural Coating	0.2990					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.0078					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	4.7000e-004	5.0000e-005	4.8700e-003	0.0000	2.0000e-005	2.0000e-005	2.0000e-005	2.0000e-005	2.0000e-005	2.0000e-005	0.0103	0.0103	0.0103	3.0000e-005		0.0109
Total	1.3073	5.0000e-005	4.8700e-003	0.0000	2.0000e-005	2.0000e-005	2.0000e-005	2.0000e-005	2.0000e-005	2.0000e-005	0.0103	0.0103	0.0103	3.0000e-005		0.0109

6.2 Area by SubCategory

Mitigated

SubCategory	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	lb/day															
Architectural Coating	0.2990					0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Consumer Products	1.0078					0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Landscaping	4.7000e-004	5.0000e-005	4.8700e-003	0.0000	2.0000e-005	2.0000e-005	2.0000e-005	2.0000e-005	2.0000e-005	2.0000e-005		0.0103	0.0103	3.0000e-005		0.0109
Total	1.3073	5.0000e-005	4.8700e-003	0.0000	2.0000e-005	2.0000e-005	2.0000e-005	2.0000e-005	2.0000e-005	2.0000e-005	0.0103	0.0103	0.0103	3.0000e-005		0.0109

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

10.0 Vegetation

Alternative B: Ridgeline
Salton Sea Air Basin, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Non-Asphalt Surfaces	47.09	1000sqft	1.08	47,093.00	0

1.2 Other Project Characteristics

Urbanization	Rural	Wind Speed (m/s)	3.4	Precipitation Freq (Days)	20
Climate Zone	15			Operational Year	2018

Utility Company Imperial Irrigation District

CO2 Intensity (lb/MW/hr)	1270.9	CH4 Intensity (lb/MW/hr)	0.029	N2O Intensity (lb/MW/hr)	0.006
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1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Alternative B will be approximately 47,093 linear feet.

Construction Phase - Assumes a 1-year buildout.

Off-road Equipment - Construction equipment will be limited, most work will be by hand. Use of helicopters is analysed separately.

On-road Fugitive Dust - The majority of roadways in the project area are paved. Access to the site may require access to dirt roads.

Vehicle Trips - Operational mobile trips will be limited to routine maintenance.

Road Dust - Most roads will be paved, some dirt roads will be accessed.

Construction Off-road Equipment Mitigation - Standard dust control measures.

Trips and VMT - Assumes all haul trips will travel at least 30 mile (one way).

Table Name	Column Name	Default Value	New Value
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	OxidationCatalyst	0.00	15.00
tblConstEquipMitigation	OxidationCatalyst	0.00	15.00
tblConstEquipMitigation	OxidationCatalyst	0.00	15.00
tblConstructionPhase	NumDays	2.00	260.00
tblConstructionPhase	PhaseEndDate	12/29/2017	12/31/2017
tblGrading	AcresOfGrading	0.00	1.00
tblLandUse	LandUseSquareFeet	47,090.00	47,093.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOnRoadDust	HaulingPercentPave	50.00	99.00
tblOnRoadDust	VendorPercentPave	50.00	99.00
tblOnRoadDust	WorkerPercentPave	50.00	99.00
tblProjectCharacteristics	OperationalYear	2014	2018
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblRoadDust	RoadPercentPave	50	99
tblTripsAndVMT	HaulingTripLength	20.00	30.00
tblTripsAndVMT	WorkerTripNumber	13.00	8.00
tblVehicleTrips	CC_TTP	0.00	20.00
tblVehicleTrips	CNW_TTP	0.00	20.00
tblVehicleTrips	CW_TTP	0.00	60.00
tblVehicleTrips	ST_TR	0.00	0.01
tblVehicleTrips	SU_TR	0.00	0.01
tblVehicleTrips	WD_TR	0.00	0.01

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

Year	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	lb/day															
2017	1.5041	17.5328	11.8286	0.0219	1.8112	0.8425	2.6537	0.1953	0.7751	0.9705	0.0000	2,214.8145	2,214.8145	0.6605	0.0000	2,228.6849
Total	1.5041	17.5328	11.8286	0.0219	1.8112	0.8425	2.6537	0.1953	0.7751	0.9705	0.0000	2,214.8145	2,214.8145	0.6605	0.0000	2,228.6849

Mitigated Construction

Year	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	lb/day															
2017	1.5041	14.9116	11.8286	0.0219	1.8087	0.8425	2.6512	0.1951	0.7751	0.9702	0.0000	2,214.8145	2,214.8145	0.6605	0.0000	2,228.6849
Total	1.5041	14.9116	11.8286	0.0219	1.8087	0.8425	2.6512	0.1951	0.7751	0.9702	0.0000	2,214.8145	2,214.8145	0.6605	0.0000	2,228.6849

2.2 Overall Operational
Unmitigated Operational

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
lb/day																
Area	1.3073	5.000e-005	4.8700e-003	0.0000	2.0000e-005	2.0000e-005	2.0000e-005	2.0000e-005	2.0000e-005	2.0000e-005	0.0103	0.0103	0.0103	3.0000e-005	0.0000	0.0109
Energy	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	1.2800e-003	1.1000e-003	0.0107	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.1173	0.1173	0.1173	2.0000e-005	0.0000	0.1176
Total	1.3086	1.1500e-003	0.0156	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	2.0000e-005	2.0000e-005	0.1276	0.1276	0.1276	5.0000e-005	0.0000	0.1285

Mitigated Operational

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
lb/day																
Area	1.3073	5.0000e-005	4.8700e-003	0.0000	2.0000e-005	2.0000e-005	2.0000e-005	2.0000e-005	2.0000e-005	2.0000e-005	0.0103	0.0103	0.0103	3.0000e-005	0.0000	0.0109
Energy	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	1.2800e-003	1.1000e-003	0.0107	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.1173	0.1173	0.1173	2.0000e-005	0.0000	0.1176
Total	1.3086	1.1500e-003	0.0156	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	2.0000e-005	2.0000e-005	0.1276	0.1276	0.1276	5.0000e-005	0.0000	0.1285

Percent Reduction	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
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	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	1/1/2017	12/31/2017	5	260	

Acres of Grading (Site Preparation Phase): 1

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

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

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Bore/Drill Rigs	1	6.00	205	0.50
Site Preparation	Graders	0	8.00	174	0.41
Site Preparation	Other Construction Equipment	2	6.00	171	0.42
Site Preparation	Rough Terrain Forklifts	2	6.00	100	0.40
Site Preparation	Rubber Tired Dozers	0	7.00	255	0.40
Site Preparation	Tractors/Loaders/Backhoes	0	8.00	97	0.37

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
Site Preparation	5	8.00	0.00	0.00	14.60	6.20	30.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Oxidation Catalyst for Construction Equipment

Water Exposed Area

Clean Paved Roads

3.2 Site Preparation - 2017

Unmitigated Construction On-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	lb/day															
Fugitive Dust					4.0800e-003	0.0000	4.0800e-003	4.4000e-004	0.0000	4.4000e-004			0.0000			0.0000
Off-Road	1.4728	17.4745	11.3469	0.0209		0.8420	0.8420		0.7746	0.7746			2,140.4878	0.6558		2,154.2605
Total	1.4728	17.4745	11.3469	0.0209	4.0800e-003	0.8420	0.8461	4.4000e-004	0.7746	0.7751		2,140.4878	2,140.4878	0.6558		2,154.2605

3.2 Site Preparation - 2017
Unmitigated Construction Off-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
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	0.0313	0.0583	0.4817	9.5000e-004	1.8071	5.4000e-004	1.8076	0.1949	5.0000e-004	0.1954		74.3266	74.3266	4.6600e-003		74.4244
Total	0.0313	0.0583	0.4817	9.5000e-004	1.8071	5.4000e-004	1.8076	0.1949	5.0000e-004	0.1954		74.3266	74.3266	4.6600e-003		74.4244

Mitigated Construction On-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
lb/day																
Fugitive Dust					1.5900e-003	0.0000	1.5900e-003	1.7000e-004	0.0000	1.7000e-004			0.0000			0.0000
Off-Road	1.4728	14.8534	11.3469	0.0209		0.8420	0.8420	0.7746	0.7746	0.7746	0.0000	2,140.4878	2,140.4878	0.6558		2,154.2605
Total	1.4728	14.8534	11.3469	0.0209	1.5900e-003	0.8420	0.8436	1.7000e-004	0.7746	0.7748	0.0000	2,140.4878	2,140.4878	0.6558		2,154.2605

3.2 Site Preparation - 2017
Mitigated Construction Off-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
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	0.0313	0.0583	0.4817	9.5000e-004	1.8071	5.4000e-004	1.8076	0.1949	5.0000e-004	0.1954	74.3266	74.3266	4.6600e-003	74.4244	74.4244	74.4244
Total	0.0313	0.0583	0.4817	9.5000e-004	1.8071	5.4000e-004	1.8076	0.1949	5.0000e-004	0.1954	74.3266	74.3266	4.6600e-003	74.4244	74.4244	74.4244

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
lb/day																
Mitigated	1.2800e-003	1.1000e-003	0.0107	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.1173	0.1173	0.1173	2.0000e-005	0.1176	0.1176
Unmitigated	1.2800e-003	1.1000e-003	0.0107	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.1173	0.1173	0.1173	2.0000e-005	0.1176	0.1176

5.2 Energy by Land Use - NaturalGas

Unmitigated

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

Mitigated

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

6.0 Area Detail

6.1 Mitigation Measures Area

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
lb/day																
Mitigated	1.3073	5.0000e-005	4.8700e-003	0.0000	2.0000e-005	2.0000e-005	2.0000e-005	2.0000e-005	2.0000e-005	2.0000e-005	0.0103	0.0103	0.0103	3.0000e-005		0.0109
Unmitigated	1.3073	5.0000e-005	4.8700e-003	0.0000	2.0000e-005	2.0000e-005	2.0000e-005	2.0000e-005	2.0000e-005	2.0000e-005	0.0103	0.0103	0.0103	3.0000e-005		0.0109

6.2 Area by SubCategory

Unmitigated

SubCategory	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
lb/day																
Architectural Coating	0.2990					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.0078					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	4.7000e-004	5.0000e-005	4.8700e-003	0.0000	2.0000e-005	2.0000e-005	2.0000e-005	2.0000e-005	2.0000e-005	2.0000e-005	0.0103	0.0103	0.0103	3.0000e-005		0.0109
Total	1.3073	5.0000e-005	4.8700e-003	0.0000	2.0000e-005	2.0000e-005	2.0000e-005	2.0000e-005	2.0000e-005	2.0000e-005	0.0103	0.0103	0.0103	3.0000e-005		0.0109

6.2 Area by SubCategory

Mitigated

SubCategory	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	lb/day															
Architectural Coating	0.2990				0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Consumer Products	1.0078				0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Landscaping	4.7000e-004	5.0000e-005	4.8700e-003	0.0000	2.0000e-005	2.0000e-005	2.0000e-005	2.0000e-005	2.0000e-005	2.0000e-005		0.0103	0.0103	3.0000e-005		0.0109
Total	1.3073	5.0000e-005	4.8700e-003	0.0000	2.0000e-005	2.0000e-005	2.0000e-005	2.0000e-005	2.0000e-005	2.0000e-005		0.0103	0.0103	3.0000e-005		0.0109

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

10.0 Vegetation

Alternative C: Cove to Lake Alignment

CalEEMod Version 2013.2.2 Outputs

Alternative C: Cove to Lake
Salton Sea Air Basin, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Non-Asphalt Surfaces	24.77	1000sqft	0.57	24,773.00	0

1.2 Other Project Characteristics

Urbanization	Rural	Wind Speed (m/s)	3.4	Precipitation Freq (Days)	20
Climate Zone	15			Operational Year	2018

Utility Company Imperial Irrigation District

CO2 Intensity (lb/MW/hr)	1270.9	CH4 Intensity (lb/MW/hr)	0.029	N2O Intensity (lb/MW/hr)	0.006
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1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase - Assumes a 1-year buildout.

Off-road Equipment - Construction equipment will be limited, most work will be by hand. Use of helicopters is analysed separately.

On-road Fugitive Dust - The majority of roadways in the project area are paved. Access to the site may require access to dirt roads.

Vehicle Trips - Operational mobile trips will be limited to routine maintenance.

Road Dust - Most roads will be paved, some dirt roads will be accessed.

Construction Off-road Equipment Mitigation - Standard dust control measures.

Table Name	Column Name	Default Value	New Value
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	OxidationCatalyst	0.00	15.00
tblConstEquipMitigation	OxidationCatalyst	0.00	15.00
tblConstEquipMitigation	OxidationCatalyst	0.00	15.00
tblConstructionPhase	NumDays	1.00	260.00
tblConstructionPhase	PhaseEndDate	12/29/2017	12/31/2017
tblGrading	AcresOfGrading	0.00	0.50
tblLandUse	LandUseSquareFeet	24,770.00	24,773.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOnRoadDust	HaulingPercentPave	50.00	99.00
tblOnRoadDust	VendorPercentPave	50.00	99.00
tblOnRoadDust	WorkerPercentPave	50.00	99.00
tblProjectCharacteristics	OperationalYear	2014	2018
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblRoadDust	RoadPercentPave	50	99
tblTripsAndVMT	WorkerTripNumber	13.00	5.00
tblVehicleTrips	CC_TTP	0.00	20.00
tblVehicleTrips	CNW_TTP	0.00	20.00
tblVehicleTrips	CW_TTP	0.00	60.00
tblVehicleTrips	ST_TR	0.00	0.01
tblVehicleTrips	SU_TR	0.00	0.01
tblVehicleTrips	WD_TR	0.00	0.01

2.0 Emissions Summary

2.2 Overall Operational
Unmitigated Operational

Category	tons/yr										MT/yr						
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Area	0.1255	0.0000	2.3000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	4.4000e-004	4.4000e-004	0.0000	0.0000	0.0000	4.7000e-004
Energy	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	1.2000e-004	1.0000e-004	8.3000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0105	0.0105	0.0000	0.0000	0.0000	0.0106
Waste					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.1256	1.0000e-004	1.0600e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0110	0.0110	0.0000	0.0000	0.0000	0.0110

**2.2 Overall Operational
Mitigated Operational**

Category	tons/yr										MT/yr						
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Area	0.1255	0.0000	2.3000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	4.4000e-004	4.4000e-004	0.0000	0.0000	0.0000	4.7000e-004
Energy	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	1.2000e-004	1.0000e-004	8.3000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0105	0.0105	0.0000	0.0000	0.0000	0.0106
Waste					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.1256	1.0000e-004	1.0600e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0110	0.0110	0.0000	0.0000	0.0110	0.0110

Percent Reduction	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	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	1/1/2017	12/31/2017	5	260	

Acres of Grading (Site Preparation Phase): 0.5

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

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

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Bore/Drill Rigs	1	6.00	205	0.50
Site Preparation	Graders	0	8.00	174	0.41
Site Preparation	Other Construction Equipment	2	6.00	171	0.42
Site Preparation	Rough Terrain Forklifts	2	6.00	100	0.40
Site Preparation	Rubber Tired Dozers	0	7.00	255	0.40
Site Preparation	Tractors/Loaders/Backhoes	0	8.00	97	0.37

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
Site Preparation	5	5.00	0.00	0.00	14.60	6.20	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Oxidation Catalyst for Construction Equipment

Water Exposed Area

3.2 Site Preparation - 2017
Unmitigated Construction On-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	tons/yr															
	MT/yr															
Fugitive Dust					2.7000e-004	0.0000	2.7000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1915	2.2717	1.4751	2.7200e-003	0.1095	0.1095	0.1095	0.1007	0.1007	0.1007	0.0000	252.4363	252.4363	0.0774	0.0000	254.0606
Total	0.1915	2.2717	1.4751	2.7200e-003	2.7000e-004	0.1095	0.1097	3.0000e-005	0.1007	0.1007	0.0000	252.4363	252.4363	0.0774	0.0000	254.0606

Unmitigated Construction Off-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	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	2.7500e-003	4.5800e-003	0.0429	8.0000e-005	0.1391	4.0000e-005	0.1391	0.0151	4.0000e-005	0.0151	0.0000	5.7990	5.7990	3.4000e-004	0.0000	5.8062
Total	2.7500e-003	4.5800e-003	0.0429	8.0000e-005	0.1391	4.0000e-005	0.1391	0.0151	4.0000e-005	0.0151	0.0000	5.7990	5.7990	3.4000e-004	0.0000	5.8062

3.2 Site Preparation - 2017
Mitigated Construction On-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	tons/yr															
	MT/yr															
Fugitive Dust					1.0000e-004	0.0000	1.0000e-004	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1915	1.9309	1.4751	2.7200e-003		0.1095	0.1095	0.1007	0.1007	0.1007	0.0000	252.4360	252.4360	0.0774	0.0000	254.0603
Total	0.1915	1.9309	1.4751	2.7200e-003	1.0000e-004	0.1095	0.1096	1.0000e-005	0.1007	0.1007	0.0000	252.4360	252.4360	0.0774	0.0000	254.0603

Mitigated Construction Off-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	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	2.7500e-003	4.5800e-003	0.0429	8.0000e-005	0.1391	4.0000e-005	0.1391	0.0151	4.0000e-005	0.0151	0.0000	5.7990	5.7990	3.4000e-004	0.0000	5.8062
Total	2.7500e-003	4.5800e-003	0.0429	8.0000e-005	0.1391	4.0000e-005	0.1391	0.0151	4.0000e-005	0.0151	0.0000	5.7990	5.7990	3.4000e-004	0.0000	5.8062

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Category	tons/yr											MT/yr					CO2e
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O		
Mitigated	1.2000e-004	1.0000e-004	8.3000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0105	0.0105	0.0000	0.0000	0.0106	
Unmitigated	1.2000e-004	1.0000e-004	8.3000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0105	0.0105	0.0000	0.0000	0.0106	

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated Annual VMT	Mitigated Annual VMT
	Weekday	Saturday	Sunday		
Other Non-Asphalt Surfaces	0.25	0.25	0.25		
Total	0.25	0.25	0.25		

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	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by	
Other Non-Asphalt Surfaces	13.80	6.20	6.20	60.00	20.00	20.00	20.00	20.00	0	0	0	

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.470587	0.065225	0.167137	0.156168	0.039201	0.006383	0.011938	0.074091	0.001423	0.001209	0.003733	0.000549	0.002355

5.0 Energy Mix

Historical Energy Use: N

5.2 Energy by Land Use - NaturalGas

Mitigated

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

5.3 Energy by Land Use - Electricity

Unmitigated

Land Use	Electricity Use kWh/yr	Total CO2	CH4	N2O	CO2e
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

5.3 Energy by Land Use - Electricity

Mitigated

Land Use	Electricity Use kWh/yr	Total CO2	CH4	N2O	CO2e
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

6.0 Area Detail

6.1 Mitigation Measures Area

Category	tons/yr										MT/yr						
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Mitigated	0.1255	0.0000	2.3000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	4.4000e-004	4.4000e-004	0.0000	0.0000	0.0000	4.7000e-004
Unmitigated	0.1255	0.0000	2.3000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	4.4000e-004	4.4000e-004	0.0000	0.0000	0.0000	4.7000e-004

6.2 Area by SubCategory

Unmitigated

SubCategory	tons/yr										MT/yr					
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Architectural Coating	0.0287					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0968					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.0000e-005	0.0000	2.3000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	4.4000e-004	4.4000e-004	4.4000e-004	0.0000	0.0000	4.7000e-004
Total	0.1255	0.0000	2.3000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	4.4000e-004	4.4000e-004	4.4000e-004	0.0000	0.0000	4.7000e-004

Mitigated

SubCategory	tons/yr										MT/yr					
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Architectural Coating	0.0287					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0968					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.0000e-005	0.0000	2.3000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	4.4000e-004	4.4000e-004	4.4000e-004	0.0000	0.0000	4.7000e-004
Total	0.1255	0.0000	2.3000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	4.4000e-004	4.4000e-004	4.4000e-004	0.0000	0.0000	4.7000e-004

7.0 Water Detail

7.1 Mitigation Measures Water

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

7.2 Water by Land Use

Unmitigated

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

7.2 Water by Land Use

Mitigated

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

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

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

8.2 Waste by Land Use

Unmitigated

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

Mitigated

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

9.0 Operational Offroad

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

Alternative C: Cove to Lake
Salton Sea Air Basin, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Non-Asphalt Surfaces	24.77	1000sqft	0.57	24,773.00	0

1.2 Other Project Characteristics

Urbanization	Rural	Wind Speed (m/s)	3.4	Precipitation Freq (Days)	20
Climate Zone	15	Operational Year		2018	

Utility Company Imperial Irrigation District

CO2 Intensity (lb/MW/hr)	1270.9	CH4 Intensity (lb/MW/hr)	0.029	N2O Intensity (lb/MW/hr)	0.006
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1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase - Assumes a 1-year buildout.

Off-road Equipment - Construction equipment will be limited, most work will be by hand. Use of helicopters is analysed separately.

On-road Fugitive Dust - The majority of roadways in the project area are paved. Access to the site may require access to dirt roads.

Vehicle Trips - Operational mobile trips will be limited to routine maintenance.

Road Dust - Most roads will be paved, some dirt roads will be accessed.

Construction Off-road Equipment Mitigation - Standard dust control measures.

Table Name	Column Name	Default Value	New Value
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	OxidationCatalyst	0.00	15.00
tblConstEquipMitigation	OxidationCatalyst	0.00	15.00
tblConstEquipMitigation	OxidationCatalyst	0.00	15.00
tblConstructionPhase	NumDays	1.00	260.00
tblConstructionPhase	PhaseEndDate	12/29/2017	12/31/2017
tblGrading	AcresOfGrading	0.00	0.50
tblLandUse	LandUseSquareFeet	24,770.00	24,773.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOnRoadDust	HaulingPercentPave	50.00	99.00
tblOnRoadDust	VendorPercentPave	50.00	99.00
tblOnRoadDust	WorkerPercentPave	50.00	99.00
tblProjectCharacteristics	OperationalYear	2014	2018
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblRoadDust	RoadPercentPave	50	99
tblTripsAndVMT	WorkerTripNumber	13.00	5.00
tblVehicleTrips	CC_TTP	0.00	20.00
tblVehicleTrips	CNW_TTP	0.00	20.00
tblVehicleTrips	CW_TTP	0.00	60.00
tblVehicleTrips	ST_TR	0.00	0.01
tblVehicleTrips	SU_TR	0.00	0.01
tblVehicleTrips	WD_TR	0.00	0.01

2.0 Emissions Summary

2.2 Overall Operational
Unmitigated Operational

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
lb/day																
Area	0.6877	2.0000e-005	2.5600e-003	0.0000	1.0000e-005	1.0000e-005	1.0000e-005	1.0000e-005	1.0000e-005	1.0000e-005	5.4200e-003	5.4200e-003	5.4200e-003	1.0000e-005	0.0000	5.7300e-003
Energy	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	8.2000e-004	5.7000e-004	4.3600e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0655	0.0655	0.0655	1.0000e-005	0.0000	0.0656
Total	0.6885	5.9000e-004	6.9200e-003	0.0000	0.0000	1.0000e-005	1.0000e-005	0.0000	1.0000e-005	1.0000e-005	0.0709	0.0709	0.0709	2.0000e-005	0.0000	0.0714

Mitigated Operational

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
lb/day																
Area	0.6877	2.0000e-005	2.5600e-003	0.0000	1.0000e-005	1.0000e-005	1.0000e-005	1.0000e-005	1.0000e-005	1.0000e-005	5.4200e-003	5.4200e-003	5.4200e-003	1.0000e-005	0.0000	5.7300e-003
Energy	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	8.2000e-004	5.7000e-004	4.3600e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0655	0.0655	0.0655	1.0000e-005	0.0000	0.0656
Total	0.6885	5.9000e-004	6.9200e-003	0.0000	0.0000	1.0000e-005	1.0000e-005	0.0000	1.0000e-005	1.0000e-005	0.0709	0.0709	0.0709	2.0000e-005	0.0000	0.0714

Percent Reduction	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
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	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	1/1/2017	12/31/2017	5	260	

Acres of Grading (Site Preparation Phase): 0.5

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

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

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Bore/Drill Rigs	1	6.00	205	0.50
Site Preparation	Graders	0	8.00	174	0.41
Site Preparation	Other Construction Equipment	2	6.00	171	0.42
Site Preparation	Rough Terrain Forklifts	2	6.00	100	0.40
Site Preparation	Rubber Tired Dozers	0	7.00	255	0.40
Site Preparation	Tractors/Loaders/Backhoes	0	8.00	97	0.37

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
Site Preparation	5	5.00	0.00	0.00	14.60	6.20	20.00	LD_Mix	HDT_Mix	HHTD

3.1 Mitigation Measures Construction

Use Oxidation Catalyst for Construction Equipment
Water Exposed Area

3.2 Site Preparation - 2017

Unmitigated Construction On-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
lb/day																
Fugitive Dust					2.0400e-003	0.0000	2.0400e-003	2.2000e-004	0.0000	2.2000e-004			0.0000			0.0000
Off-Road	1.4728	17.4745	11.3469	0.0209		0.8420	0.8420		0.7746	0.7746			2,140.4878	0.6558		2,154.2605
Total	1.4728	17.4745	11.3469	0.0209	2.0400e-003	0.8420	0.8440	2.2000e-004	0.7746	0.7749		2,140.4878	2,140.4878	0.6558		2,154.2605

3.2 Site Preparation - 2017
Unmitigated Construction Off-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
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
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
Worker	0.0260	0.0328	0.3708	6.4000e-004	1.1294	3.4000e-004	1.1298	0.1218	3.1000e-004	0.1221	50.1092	50.1092	50.1092	2.9100e-003		50.1703
Total	0.0260	0.0328	0.3708	6.4000e-004	1.1294	3.4000e-004	1.1298	0.1218	3.1000e-004	0.1221	50.1092	50.1092	50.1092	2.9100e-003		50.1703

Mitigated Construction On-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
lb/day																
Fugitive Dust					8.0000e-004	0.0000	8.0000e-004	9.0000e-005	0.0000	9.0000e-005	0.0000	0.0000	0.0000			0.0000
Off-Road	1.4728	14.8534	11.3469	0.0209		0.8420	0.8420	0.7746	0.7746	0.7746	0.0000	2,140.4878	2,140.4878	0.6558		2,154.2605
Total	1.4728	14.8534	11.3469	0.0209	8.0000e-004	0.8420	0.8428	9.0000e-005	0.7746	0.7747	0.0000	2,140.4878	2,140.4878	0.6558		2,154.2605

3.2 Site Preparation - 2017
Mitigated Construction Off-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
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	0.0260	0.0328	0.3708	6.4000e-004	1.1294	3.4000e-004	1.1298	0.1218	3.1000e-004	0.1221	50.1092	50.1092	50.1092	2.9100e-003		50.1703
Total	0.0260	0.0328	0.3708	6.4000e-004	1.1294	3.4000e-004	1.1298	0.1218	3.1000e-004	0.1221	50.1092	50.1092	50.1092	2.9100e-003		50.1703

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
lb/day																
Mitigated	8.2000e-004	5.7000e-004	4.3600e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0655	0.0655	0.0655	1.0000e-005		0.0656
Unmitigated	8.2000e-004	5.7000e-004	4.3600e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0655	0.0655	0.0655	1.0000e-005		0.0656

5.2 Energy by Land Use - NaturalGas

Unmitigated

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

Mitigated

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

6.0 Area Detail

6.1 Mitigation Measures Area

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	lb/day															
Mitigated	0.6877	2.0000e-005	2.5600e-003	0.0000	1.0000e-005	1.0000e-005	1.0000e-005	1.0000e-005	1.0000e-005	1.0000e-005	5.4200e-003	5.4200e-003	5.4200e-003	1.0000e-005	1.0000e-005	5.7300e-003
Unmitigated	0.6877	2.0000e-005	2.5600e-003	0.0000	1.0000e-005	1.0000e-005	1.0000e-005	1.0000e-005	1.0000e-005	1.0000e-005	5.4200e-003	5.4200e-003	5.4200e-003	1.0000e-005	1.0000e-005	5.7300e-003

6.2 Area by SubCategory

Unmitigated

SubCategory	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	lb/day															
Architectural Coating	0.1573				0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Consumer Products	0.5301				0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Landscaping	2.5000e-004	2.0000e-005	2.5600e-003	0.0000	1.0000e-005	1.0000e-005	1.0000e-005	1.0000e-005	1.0000e-005	1.0000e-005	5.4200e-003	5.4200e-003	5.4200e-003	1.0000e-005	1.0000e-005	5.7300e-003
Total	0.6877	2.0000e-005	2.5600e-003	0.0000	1.0000e-005	1.0000e-005	1.0000e-005	1.0000e-005	1.0000e-005	1.0000e-005	5.4200e-003	5.4200e-003	5.4200e-003	1.0000e-005	1.0000e-005	5.7300e-003

6.2 Area by SubCategory

Mitigated

SubCategory	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	lb/day															
Architectural Coating	0.1573				0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Consumer Products	0.5301				0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Landscaping	2.5000e-004	2.0000e-005	2.5600e-003	0.0000	1.0000e-005	1.0000e-005	1.0000e-005	1.0000e-005	1.0000e-005	1.0000e-005		5.4200e-003	5.4200e-003	1.0000e-005		5.7300e-003
Total	0.6877	2.0000e-005	2.5600e-003	0.0000	1.0000e-005	1.0000e-005	1.0000e-005	1.0000e-005	1.0000e-005	1.0000e-005		5.4200e-003	5.4200e-003	1.0000e-005		5.7300e-003

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

10.0 Vegetation

Alternative C: Cove to Lake
Salton Sea Air Basin, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Non-Asphalt Surfaces	24.77	1000sqft	0.57	24,773.00	0

1.2 Other Project Characteristics

Urbanization	Rural	Wind Speed (m/s)	3.4	Precipitation Freq (Days)	20
Climate Zone	15			Operational Year	2018

Utility Company Imperial Irrigation District

CO2 Intensity (lb/MW/hr)	1270.9	CH4 Intensity (lb/MW/hr)	0.029	N2O Intensity (lb/MW/hr)	0.006
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1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase - Assumes a 1-year buildout.

Off-road Equipment - Construction equipment will be limited, most work will be by hand. Use of helicopters is analysed separately.

On-road Fugitive Dust - The majority of roadways in the project area are paved. Access to the site may require access to dirt roads.

Vehicle Trips - Operational mobile trips will be limited to routine maintenance.

Road Dust - Most roads will be paved, some dirt roads will be accessed.

Construction Off-road Equipment Mitigation - Standard dust control measures.

Table Name	Column Name	Default Value	New Value
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	OxidationCatalyst	0.00	15.00
tblConstEquipMitigation	OxidationCatalyst	0.00	15.00
tblConstEquipMitigation	OxidationCatalyst	0.00	15.00
tblConstructionPhase	NumDays	1.00	260.00
tblConstructionPhase	PhaseEndDate	12/29/2017	12/31/2017
tblGrading	AcresOfGrading	0.00	0.50
tblLandUse	LandUseSquareFeet	24,770.00	24,773.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOnRoadDust	HaulingPercentPave	50.00	99.00
tblOnRoadDust	VendorPercentPave	50.00	99.00
tblOnRoadDust	WorkerPercentPave	50.00	99.00
tblProjectCharacteristics	OperationalYear	2014	2018
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblRoadDust	RoadPercentPave	50	99
tblTripsAndVMT	WorkerTripNumber	13.00	5.00
tblVehicleTrips	CC_TTP	0.00	20.00
tblVehicleTrips	CNW_TTP	0.00	20.00
tblVehicleTrips	CW_TTP	0.00	60.00
tblVehicleTrips	ST_TR	0.00	0.01
tblVehicleTrips	SU_TR	0.00	0.01
tblVehicleTrips	WD_TR	0.00	0.01

2.0 Emissions Summary

2.2 Overall Operational
Unmitigated Operational

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
lb/day																
Area	0.6877	2.0000e-005	2.5600e-003	0.0000	1.0000e-005	1.0000e-005	1.0000e-005	1.0000e-005	1.0000e-005	1.0000e-005	5.4200e-003	5.4200e-003	5.4200e-003	1.0000e-005	0.0000	5.7300e-003
Energy	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	6.7000e-004	5.8000e-004	5.6300e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0617	0.0617	0.0617	1.0000e-005	0.0000	0.0619
Total	0.6884	6.0000e-004	8.1900e-003	0.0000	0.0000	1.0000e-005	1.0000e-005	0.0000	1.0000e-005	1.0000e-005	0.0671	0.0671	0.0671	2.0000e-005	0.0000	0.0676

Mitigated Operational

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
lb/day																
Area	0.6877	2.0000e-005	2.5600e-003	0.0000	1.0000e-005	1.0000e-005	1.0000e-005	1.0000e-005	1.0000e-005	1.0000e-005	5.4200e-003	5.4200e-003	5.4200e-003	1.0000e-005	0.0000	5.7300e-003
Energy	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	6.7000e-004	5.8000e-004	5.6300e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0617	0.0617	0.0617	1.0000e-005	0.0000	0.0619
Total	0.6884	6.0000e-004	8.1900e-003	0.0000	0.0000	1.0000e-005	1.0000e-005	0.0000	1.0000e-005	1.0000e-005	0.0671	0.0671	0.0671	2.0000e-005	0.0000	0.0676

Percent Reduction	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
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	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	1/1/2017	12/31/2017	5	260	

Acres of Grading (Site Preparation Phase): 0.5

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

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

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Bore/Drill Rigs	1	6.00	205	0.50
Site Preparation	Graders	0	8.00	174	0.41
Site Preparation	Other Construction Equipment	2	6.00	171	0.42
Site Preparation	Rough Terrain Forklifts	2	6.00	100	0.40
Site Preparation	Rubber Tired Dozers	0	7.00	255	0.40
Site Preparation	Tractors/Loaders/Backhoes	0	8.00	97	0.37

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
Site Preparation	5	5.00	0.00	0.00	14.60	6.20	20.00	LD_Mix	HDT_Mix	HHTD

3.1 Mitigation Measures Construction

Use Oxidation Catalyst for Construction Equipment
Water Exposed Area

3.2 Site Preparation - 2017

Unmitigated Construction On-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
lb/day																
Fugitive Dust					2.0400e-003	0.0000	2.0400e-003	2.2000e-004	0.0000	2.2000e-004			0.0000			0.0000
Off-Road	1.4728	17.4745	11.3469	0.0209		0.8420	0.8420		0.7746	0.7746			2,140.4878	0.6558		2,154.2605
Total	1.4728	17.4745	11.3469	0.0209	2.0400e-003	0.8420	0.8440	2.2000e-004	0.7746	0.7749		2,140.4878	2,140.4878	0.6558		2,154.2605

3.2 Site Preparation - 2017
Unmitigated Construction Off-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
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
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
Worker	0.0196	0.0364	0.3011	5.9000e-004	1.1294	3.4000e-004	1.1298	0.1218	3.1000e-004	0.1221	46.4542	46.4542	46.4542	2.9100e-003		46.5153
Total	0.0196	0.0364	0.3011	5.9000e-004	1.1294	3.4000e-004	1.1298	0.1218	3.1000e-004	0.1221	46.4542	46.4542	46.4542	2.9100e-003		46.5153

Mitigated Construction On-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
lb/day																
Fugitive Dust					8.0000e-004	0.0000	8.0000e-004	9.0000e-005	0.0000	9.0000e-005	0.0000	0.0000	0.0000			0.0000
Off-Road	1.4728	14.8534	11.3469	0.0209		0.8420	0.8420	0.7746	0.7746	0.7746	0.0000	2,140.4878	2,140.4878	0.6558		2,154.2605
Total	1.4728	14.8534	11.3469	0.0209	8.0000e-004	0.8420	0.8428	9.0000e-005	0.7746	0.7747	0.0000	2,140.4878	2,140.4878	0.6558		2,154.2605

3.2 Site Preparation - 2017
Mitigated Construction Off-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
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	0.0196	0.0364	0.3011	5.9000e-004	1.1294	3.4000e-004	1.1298	0.1218	3.1000e-004	0.1221	46.4542	46.4542	46.4542	2.9100e-003		46.5153
Total	0.0196	0.0364	0.3011	5.9000e-004	1.1294	3.4000e-004	1.1298	0.1218	3.1000e-004	0.1221	46.4542	46.4542	46.4542	2.9100e-003		46.5153

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
lb/day																
Mitigated	6.7000e-004	5.8000e-004	5.6300e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0617	0.0617	0.0617	1.0000e-005		0.0619
Unmitigated	6.7000e-004	5.8000e-004	5.6300e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0617	0.0617	0.0617	1.0000e-005		0.0619

5.2 Energy by Land Use - NaturalGas

Unmitigated

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

Mitigated

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

6.0 Area Detail

6.1 Mitigation Measures Area

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
lb/day																
Mitigated	0.6877	2.0000e-005	2.5600e-003	0.0000	1.0000e-005	1.0000e-005	1.0000e-005	1.0000e-005	1.0000e-005	1.0000e-005	5.4200e-003	5.4200e-003	5.4200e-003	1.0000e-005	1.0000e-005	5.7300e-003
Unmitigated	0.6877	2.0000e-005	2.5600e-003	0.0000	1.0000e-005	1.0000e-005	1.0000e-005	1.0000e-005	1.0000e-005	1.0000e-005	5.4200e-003	5.4200e-003	5.4200e-003	1.0000e-005	1.0000e-005	5.7300e-003

6.2 Area by SubCategory

Unmitigated

SubCategory	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
lb/day																
Architectural Coating	0.1573				0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Consumer Products	0.5301				0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Landscaping	2.5000e-004	2.0000e-005	2.5600e-003	0.0000	1.0000e-005	1.0000e-005	1.0000e-005	1.0000e-005	1.0000e-005	1.0000e-005	5.4200e-003	5.4200e-003	5.4200e-003	1.0000e-005	1.0000e-005	5.7300e-003
Total	0.6877	2.0000e-005	2.5600e-003	0.0000	1.0000e-005	1.0000e-005	1.0000e-005	1.0000e-005	1.0000e-005	1.0000e-005	5.4200e-003	5.4200e-003	5.4200e-003	1.0000e-005	1.0000e-005	5.7300e-003

6.2 Area by SubCategory

Mitigated

SubCategory	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	lb/day															
Architectural Coating	0.1573				0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Consumer Products	0.5301				0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Landscaping	2.5000e-004	2.0000e-005	2.5600e-003	0.0000	1.0000e-005	1.0000e-005	1.0000e-005	1.0000e-005	1.0000e-005	1.0000e-005		5.4200e-003	5.4200e-003	1.0000e-005		5.7300e-003
Total	0.6877	2.0000e-005	2.5600e-003	0.0000	1.0000e-005	1.0000e-005	1.0000e-005	1.0000e-005	1.0000e-005	1.0000e-005		5.4200e-003	5.4200e-003	1.0000e-005		5.7300e-003

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

10.0 Vegetation