

East Side Dike Improvement Project - Riverside-Salton Sea County, Annual

East Side Dike Improvement Project
Riverside-Salton Sea County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Non-Asphalt Surfaces	1,089.00	1000sqft	25.00	1,089,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.4	Precipitation Freq (Days)	28
Climate Zone	15			Operational Year	2019
Utility Company	Southern California Edison				
CO2 Intensity (lb/MW hr)	702.44	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

East Side Dike Improvement Project - Riverside-Salton Sea County, Annual

Project Characteristics -

Land Use -

Construction Phase - Construction phase per CVWD

Off-road Equipment -

Off-road Equipment - Equipment per CVWD

Off-road Equipment - Equipment per CVWD

Off-road Equipment - Equipment per CVWD

Off-road Equipment - Equipment per CVWD

Grading -

Trips and VMT - Haul truck trip distance accounts for on-site soil movement

Construction Off-road Equipment Mitigation - SCAQMD Rule 403

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	40	15
tblConstructionPhase	NumDays	370.00	90.00
tblConstructionPhase	NumDays	35.00	100.00
tblConstructionPhase	NumDays	20.00	90.00
tblConstructionPhase	PhaseEndDate	6/6/2019	10/5/2018
tblConstructionPhase	PhaseEndDate	1/4/2018	10/6/2018
tblConstructionPhase	PhaseEndDate	7/4/2019	10/5/2018
tblConstructionPhase	PhaseEndDate	11/16/2017	5/18/2018
tblConstructionPhase	PhaseStartDate	1/5/2018	6/4/2018
tblConstructionPhase	PhaseStartDate	11/17/2017	5/19/2018
tblConstructionPhase	PhaseStartDate	6/7/2019	6/4/2018
tblConstructionPhase	PhaseStartDate	11/3/2017	5/7/2018
tblGrading	MaterialExported	0.00	115,000.00
tblOffRoadEquipment	LoadFactor	0.43	0.43

East Side Dike Improvement Project - Riverside-Salton Sea County, Annual

tblOffRoadEquipment	LoadFactor	0.38	0.38
tblOffRoadEquipment	LoadFactor	0.43	0.43
tblOffRoadEquipment	LoadFactor	0.38	0.38
tblOffRoadEquipment	LoadFactor	0.38	0.38
tblOffRoadEquipment	OffRoadEquipmentType		Crawler Tractors
tblOffRoadEquipment	OffRoadEquipmentType		Excavators
tblOffRoadEquipment	OffRoadEquipmentType		Crawler Tractors
tblOffRoadEquipment	OffRoadEquipmentType		Off-Highway Trucks
tblOffRoadEquipment	OffRoadEquipmentType		Rollers
tblOffRoadEquipment	OffRoadEquipmentType		Cement and Mortar Mixers
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblProjectCharacteristics	OperationalYear	2018	2019
tblTripsAndVMT	HaulingTripLength	20.00	0.65

2.0 Emissions Summary

East Side Dike Improvement Project - Riverside-Salton Sea County, Annual

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
3	4-6-2018	7-5-2018	1.3512	1.3512
4	7-6-2018	9-30-2018	2.7456	2.7456
		Highest	2.7456	2.7456

2.2 Overall Operational
Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.1092	9.0000e-005	0.0101	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.0195	0.0195	5.0000e-005	0.0000	0.0208
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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
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	0.1092	9.0000e-005	0.0101	0.0000	0.0000	4.0000e-005	4.0000e-005	0.0000	4.0000e-005	4.0000e-005	0.0000	0.0195	0.0195	5.0000e-005	0.0000	0.0208

East Side Dike Improvement Project - Riverside-Salton Sea County, Annual

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.1092	9.0000e-005	0.0101	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.0195	0.0195	5.0000e-005	0.0000	0.0208
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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
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	0.1092	9.0000e-005	0.0101	0.0000	0.0000	4.0000e-005	4.0000e-005	0.0000	4.0000e-005	4.0000e-005	0.0000	0.0195	0.0195	5.0000e-005	0.0000	0.0208

	ROG	NOx	CO	SO2	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

East Side Dike Improvement Project - Riverside-Salton Sea County, Annual

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	5/7/2018	5/18/2018	5	10	
2	Grading	Grading	5/19/2018	10/6/2018	5	100	
3	Building Construction	Building Construction	6/4/2018	10/5/2018	5	90	
4	Paving	Paving	6/4/2018	10/5/2018	5	90	

Acres of Grading (Site Preparation Phase): 5

Acres of Grading (Grading Phase): 100

Acres of Paving: 25

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

OffRoad Equipment

East Side Dike Improvement Project - Riverside-Salton Sea County, Annual

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Crawler Tractors	1	8.00	212	0.43
Site Preparation	Excavators	1	8.00	158	0.38
Grading	Crawler Tractors	2	8.00	212	0.43
Grading	Excavators	2	8.00	158	0.38
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	0	8.00	89	0.20
Building Construction	Generator Sets	0	8.00	84	0.74
Paving	Pavers	0	8.00	130	0.42
Paving	Rollers	0	8.00	80	0.38
Grading	Off-Highway Trucks	1	4.00	402	0.38
Grading	Rubber Tired Dozers	0	8.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	0	7.00	97	0.37
Grading	Graders	0	8.00	187	0.41
Grading	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Paving	Paving Equipment	2	8.00	132	0.36
Site Preparation	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Site Preparation	Rubber Tired Dozers	0	8.00	247	0.40
Grading	Scrapers	0	8.00	367	0.48
Building Construction	Welders	0	8.00	46	0.45
Grading	Rollers	1	8.00	80	0.38
Paving	Cement and Mortar Mixers	4	8.00	9	0.56

Trips and VMT

East Side Dike Improvement Project - Riverside-Salton Sea County, Annual

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
Building Construction	1	457.00	178.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	14,375.00	11.00	5.40	0.65	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	2	5.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

3.2 Site Preparation - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.6500e-003	0.0000	2.6500e-003	2.9000e-004	0.0000	2.9000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.6500e-003	0.0580	0.0297	7.0000e-005		2.3600e-003	2.3600e-003		2.1700e-003	2.1700e-003	0.0000	5.9438	5.9438	1.8500e-003	0.0000	5.9900
Total	4.6500e-003	0.0580	0.0297	7.0000e-005	2.6500e-003	2.3600e-003	5.0100e-003	2.9000e-004	2.1700e-003	2.4600e-003	0.0000	5.9438	5.9438	1.8500e-003	0.0000	5.9900

East Side Dike Improvement Project - Riverside-Salton Sea County, Annual

3.2 Site Preparation - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	1.1000e-004	8.0000e-005	8.3000e-004	0.0000	2.1000e-004	0.0000	2.1000e-004	5.0000e-005	0.0000	6.0000e-005	0.0000	0.1846	0.1846	1.0000e-005	0.0000	0.1847
Total	1.1000e-004	8.0000e-005	8.3000e-004	0.0000	2.1000e-004	0.0000	2.1000e-004	5.0000e-005	0.0000	6.0000e-005	0.0000	0.1846	0.1846	1.0000e-005	0.0000	0.1847

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.0300e-003	0.0000	1.0300e-003	1.1000e-004	0.0000	1.1000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.6500e-003	0.0580	0.0297	7.0000e-005		2.3600e-003	2.3600e-003		2.1700e-003	2.1700e-003	0.0000	5.9438	5.9438	1.8500e-003	0.0000	5.9900
Total	4.6500e-003	0.0580	0.0297	7.0000e-005	1.0300e-003	2.3600e-003	3.3900e-003	1.1000e-004	2.1700e-003	2.2800e-003	0.0000	5.9438	5.9438	1.8500e-003	0.0000	5.9900

East Side Dike Improvement Project - Riverside-Salton Sea County, Annual

3.2 Site Preparation - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.1000e-004	8.0000e-005	8.3000e-004	0.0000	2.1000e-004	0.0000	2.1000e-004	5.0000e-005	0.0000	6.0000e-005	0.0000	0.1846	0.1846	1.0000e-005	0.0000	0.1847
Total	1.1000e-004	8.0000e-005	8.3000e-004	0.0000	2.1000e-004	0.0000	2.1000e-004	5.0000e-005	0.0000	6.0000e-005	0.0000	0.1846	0.1846	1.0000e-005	0.0000	0.1847

3.3 Grading - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0603	0.0000	0.0603	6.8300e-003	0.0000	6.8300e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1249	1.4899	0.7938	1.7600e-003		0.0632	0.0632		0.0582	0.0582	0.0000	160.7649	160.7649	0.0501	0.0000	162.0161
Total	0.1249	1.4899	0.7938	1.7600e-003	0.0603	0.0632	0.1235	6.8300e-003	0.0582	0.0650	0.0000	160.7649	160.7649	0.0501	0.0000	162.0161

East Side Dike Improvement Project - Riverside-Salton Sea County, Annual

3.3 Grading - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0186	0.8637	0.0970	1.1600e-003	4.1800e-003	7.5000e-004	4.9300e-003	1.1600e-003	7.2000e-004	1.8800e-003	0.0000	111.7061	111.7061	0.0262	0.0000	112.3611
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	3.3000e-003	2.3800e-003	0.0249	6.0000e-005	6.1700e-003	4.0000e-005	6.2100e-003	1.6400e-003	4.0000e-005	1.6800e-003	0.0000	5.5376	5.5376	1.7000e-004	0.0000	5.5418
Total	0.0219	0.8661	0.1219	1.2200e-003	0.0104	7.9000e-004	0.0111	2.8000e-003	7.6000e-004	3.5600e-003	0.0000	117.2436	117.2436	0.0264	0.0000	117.9029

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0235	0.0000	0.0235	2.6600e-003	0.0000	2.6600e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1249	1.4899	0.7938	1.7600e-003		0.0632	0.0632		0.0582	0.0582	0.0000	160.7647	160.7647	0.0501	0.0000	162.0159
Total	0.1249	1.4899	0.7938	1.7600e-003	0.0235	0.0632	0.0867	2.6600e-003	0.0582	0.0608	0.0000	160.7647	160.7647	0.0501	0.0000	162.0159

East Side Dike Improvement Project - Riverside-Salton Sea County, Annual

3.3 Grading - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0186	0.8637	0.0970	1.1600e-003	4.1800e-003	7.5000e-004	4.9300e-003	1.1600e-003	7.2000e-004	1.8800e-003	0.0000	111.7061	111.7061	0.0262	0.0000	112.3611
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	3.3000e-003	2.3800e-003	0.0249	6.0000e-005	6.1700e-003	4.0000e-005	6.2100e-003	1.6400e-003	4.0000e-005	1.6800e-003	0.0000	5.5376	5.5376	1.7000e-004	0.0000	5.5418
Total	0.0219	0.8661	0.1219	1.2200e-003	0.0104	7.9000e-004	0.0111	2.8000e-003	7.6000e-004	3.5600e-003	0.0000	117.2436	117.2436	0.0264	0.0000	117.9029

3.4 Building Construction - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0225	0.2686	0.0993	2.3000e-004		0.0116	0.0116		0.0107	0.0107	0.0000	20.7392	20.7392	6.4600e-003	0.0000	20.9006
Total	0.0225	0.2686	0.0993	2.3000e-004		0.0116	0.0116		0.0107	0.0107	0.0000	20.7392	20.7392	6.4600e-003	0.0000	20.9006

East Side Dike Improvement Project - Riverside-Salton Sea County, Annual

3.4 Building Construction - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	0.0268	0.8991	0.1854	1.7600e-003	0.0396	6.5200e-003	0.0462	0.0114	6.2400e-003	0.0177	0.0000	168.6406	168.6406	0.0170	0.0000	169.0663
Worker	0.0905	0.0653	0.6819	1.6800e-003	0.1692	1.1100e-003	0.1703	0.0449	1.0200e-003	0.0460	0.0000	151.8396	151.8396	4.6400e-003	0.0000	151.9557
Total	0.1173	0.9644	0.8672	3.4400e-003	0.2088	7.6300e-003	0.2165	0.0564	7.2600e-003	0.0636	0.0000	320.4802	320.4802	0.0217	0.0000	321.0220

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0225	0.2686	0.0993	2.3000e-004		0.0116	0.0116		0.0107	0.0107	0.0000	20.7392	20.7392	6.4600e-003	0.0000	20.9006
Total	0.0225	0.2686	0.0993	2.3000e-004		0.0116	0.0116		0.0107	0.0107	0.0000	20.7392	20.7392	6.4600e-003	0.0000	20.9006

East Side Dike Improvement Project - Riverside-Salton Sea County, Annual

3.4 Building Construction - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0268	0.8991	0.1854	1.7600e-003	0.0396	6.5200e-003	0.0462	0.0114	6.2400e-003	0.0177	0.0000	168.6406	168.6406	0.0170	0.0000	169.0663
Worker	0.0905	0.0653	0.6819	1.6800e-003	0.1692	1.1100e-003	0.1703	0.0449	1.0200e-003	0.0460	0.0000	151.8396	151.8396	4.6400e-003	0.0000	151.9557
Total	0.1173	0.9644	0.8672	3.4400e-003	0.2088	7.6300e-003	0.2165	0.0564	7.2600e-003	0.0636	0.0000	320.4802	320.4802	0.0217	0.0000	321.0220

3.5 Paving - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0320	0.3055	0.2838	4.9000e-004		0.0143	0.0143		0.0134	0.0134	0.0000	41.7245	41.7245	0.0113	0.0000	42.0065
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0320	0.3055	0.2838	4.9000e-004		0.0143	0.0143		0.0134	0.0134	0.0000	41.7245	41.7245	0.0113	0.0000	42.0065

East Side Dike Improvement Project - Riverside-Salton Sea County, Annual

3.5 Paving - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	2.9700e-003	2.1400e-003	0.0224	6.0000e-005	5.5500e-003	4.0000e-005	5.5900e-003	1.4700e-003	3.0000e-005	1.5100e-003	0.0000	4.9838	4.9838	1.5000e-004	0.0000	4.9876
Total	2.9700e-003	2.1400e-003	0.0224	6.0000e-005	5.5500e-003	4.0000e-005	5.5900e-003	1.4700e-003	3.0000e-005	1.5100e-003	0.0000	4.9838	4.9838	1.5000e-004	0.0000	4.9876

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0320	0.3055	0.2838	4.9000e-004		0.0143	0.0143		0.0134	0.0134	0.0000	41.7245	41.7245	0.0113	0.0000	42.0064
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0320	0.3055	0.2838	4.9000e-004		0.0143	0.0143		0.0134	0.0134	0.0000	41.7245	41.7245	0.0113	0.0000	42.0064

East Side Dike Improvement Project - Riverside-Salton Sea County, Annual

3.5 Paving - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.9700e-003	2.1400e-003	0.0224	6.0000e-005	5.5500e-003	4.0000e-005	5.5900e-003	1.4700e-003	3.0000e-005	1.5100e-003	0.0000	4.9838	4.9838	1.5000e-004	0.0000	4.9876
Total	2.9700e-003	2.1400e-003	0.0224	6.0000e-005	5.5500e-003	4.0000e-005	5.5900e-003	1.4700e-003	3.0000e-005	1.5100e-003	0.0000	4.9838	4.9838	1.5000e-004	0.0000	4.9876

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

East Side Dike Improvement Project - Riverside-Salton Sea County, Annual

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

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Other Non-Asphalt Surfaces	12.50	4.20	5.40	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Other Non-Asphalt Surfaces	0.533383	0.039495	0.183627	0.126156	0.018688	0.005561	0.017029	0.066607	0.001345	0.001247	0.004677	0.000974	0.001211

5.0 Energy Detail

Historical Energy Use: N

East Side Dike Improvement Project - Riverside-Salton Sea County, Annual

5.2 Energy by Land Use - Natural Gas

Mitigated

	Natural Gas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
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
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

5.3 Energy by Land Use - Electricity

Unmitigated

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

East Side Dike Improvement Project - Riverside-Salton Sea County, Annual

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.1092	9.0000e-005	0.0101	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.0195	0.0195	5.0000e-005	0.0000	0.0208
Unmitigated	0.1092	9.0000e-005	0.0101	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.0195	0.0195	5.0000e-005	0.0000	0.0208

East Side Dike Improvement Project - Riverside-Salton Sea County, Annual

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0379					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0704					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	9.6000e-004	9.0000e-005	0.0101	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.0195	0.0195	5.0000e-005	0.0000	0.0208
Total	0.1092	9.0000e-005	0.0101	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.0195	0.0195	5.0000e-005	0.0000	0.0208

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0379					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0704					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	9.6000e-004	9.0000e-005	0.0101	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.0195	0.0195	5.0000e-005	0.0000	0.0208
Total	0.1092	9.0000e-005	0.0101	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.0195	0.0195	5.0000e-005	0.0000	0.0208

7.0 Water Detail

East Side Dike Improvement Project - Riverside-Salton Sea County, Annual

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

East Side Dike Improvement Project - Riverside-Salton Sea County, Annual

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

East Side Dike Improvement Project - Riverside-Salton Sea County, Annual

8.2 Waste by Land Use

Unmitigated

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

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
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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East Side Dike Improvement Project - Riverside-Salton Sea County, Annual

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

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

Equipment Type	Number
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11.0 Vegetation

East Side Dike Improvement Project - Riverside-Salton Sea County, Summer

East Side Dike Improvement Project
Riverside-Salton Sea County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Non-Asphalt Surfaces	1,089.00	1000sqft	25.00	1,089,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.4	Precipitation Freq (Days)	28
Climate Zone	15			Operational Year	2019
Utility Company	Southern California Edison				
CO2 Intensity (lb/MW hr)	702.44	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

East Side Dike Improvement Project - Riverside-Salton Sea County, Summer

Project Characteristics -

Land Use -

Construction Phase - Construction phase per CVWD

Off-road Equipment -

Off-road Equipment - Equipment per CVWD

Off-road Equipment - Equipment per CVWD

Off-road Equipment - Equipment per CVWD

Off-road Equipment - Equipment per CVWD

Grading -

Trips and VMT - Haul truck trip distance accounts for on-site soil movement

Construction Off-road Equipment Mitigation - SCAQMD Rule 403

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	40	15
tblConstructionPhase	NumDays	370.00	90.00
tblConstructionPhase	NumDays	35.00	100.00
tblConstructionPhase	NumDays	20.00	90.00
tblConstructionPhase	PhaseEndDate	6/6/2019	10/5/2018
tblConstructionPhase	PhaseEndDate	1/4/2018	10/6/2018
tblConstructionPhase	PhaseEndDate	7/4/2019	10/5/2018
tblConstructionPhase	PhaseEndDate	11/16/2017	5/18/2018
tblConstructionPhase	PhaseStartDate	1/5/2018	6/4/2018
tblConstructionPhase	PhaseStartDate	11/17/2017	5/19/2018
tblConstructionPhase	PhaseStartDate	6/7/2019	6/4/2018
tblConstructionPhase	PhaseStartDate	11/3/2017	5/7/2018
tblGrading	MaterialExported	0.00	115,000.00
tblOffRoadEquipment	LoadFactor	0.43	0.43

East Side Dike Improvement Project - Riverside-Salton Sea County, Summer

tblOffRoadEquipment	LoadFactor	0.38	0.38
tblOffRoadEquipment	LoadFactor	0.43	0.43
tblOffRoadEquipment	LoadFactor	0.38	0.38
tblOffRoadEquipment	LoadFactor	0.38	0.38
tblOffRoadEquipment	OffRoadEquipmentType		Crawler Tractors
tblOffRoadEquipment	OffRoadEquipmentType		Excavators
tblOffRoadEquipment	OffRoadEquipmentType		Crawler Tractors
tblOffRoadEquipment	OffRoadEquipmentType		Off-Highway Trucks
tblOffRoadEquipment	OffRoadEquipmentType		Rollers
tblOffRoadEquipment	OffRoadEquipmentType		Cement and Mortar Mixers
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblProjectCharacteristics	OperationalYear	2018	2019
tblTripsAndVMT	HaulingTripLength	20.00	0.65

2.0 Emissions Summary

East Side Dike Improvement Project - Riverside-Salton Sea County, Summer

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.6038	1.0400e-003	0.1123	1.0000e-005		4.0000e-004	4.0000e-004		4.0000e-004	4.0000e-004		0.2383	0.2383	6.5000e-004		0.2545
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
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	0.6038	1.0400e-003	0.1123	1.0000e-005	0.0000	4.0000e-004	4.0000e-004	0.0000	4.0000e-004	4.0000e-004		0.2383	0.2383	6.5000e-004	0.0000	0.2545

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.6038	1.0400e-003	0.1123	1.0000e-005		4.0000e-004	4.0000e-004		4.0000e-004	4.0000e-004		0.2383	0.2383	6.5000e-004		0.2545
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
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	0.6038	1.0400e-003	0.1123	1.0000e-005	0.0000	4.0000e-004	4.0000e-004	0.0000	4.0000e-004	4.0000e-004		0.2383	0.2383	6.5000e-004	0.0000	0.2545

East Side Dike Improvement Project - Riverside-Salton Sea County, Summer

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	5/7/2018	5/18/2018	5	10	
2	Grading	Grading	5/19/2018	10/6/2018	5	100	
3	Building Construction	Building Construction	6/4/2018	10/5/2018	5	90	
4	Paving	Paving	6/4/2018	10/5/2018	5	90	

Acres of Grading (Site Preparation Phase): 5

Acres of Grading (Grading Phase): 100

Acres of Paving: 25

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

OffRoad Equipment

East Side Dike Improvement Project - Riverside-Salton Sea County, Summer

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Crawler Tractors	1	8.00	212	0.43
Site Preparation	Excavators	1	8.00	158	0.38
Grading	Crawler Tractors	2	8.00	212	0.43
Grading	Excavators	2	8.00	158	0.38
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	0	8.00	89	0.20
Building Construction	Generator Sets	0	8.00	84	0.74
Paving	Pavers	0	8.00	130	0.42
Paving	Rollers	0	8.00	80	0.38
Grading	Off-Highway Trucks	1	4.00	402	0.38
Grading	Rubber Tired Dozers	0	8.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	0	7.00	97	0.37
Grading	Graders	0	8.00	187	0.41
Grading	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Paving	Paving Equipment	2	8.00	132	0.36
Site Preparation	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Site Preparation	Rubber Tired Dozers	0	8.00	247	0.40
Grading	Scrapers	0	8.00	367	0.48
Building Construction	Welders	0	8.00	46	0.45
Grading	Rollers	1	8.00	80	0.38
Paving	Cement and Mortar Mixers	4	8.00	9	0.56

Trips and VMT

East Side Dike Improvement Project - Riverside-Salton Sea County, Summer

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
Building Construction	1	457.00	178.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	14,375.00	11.00	5.40	0.65	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	2	5.00	0.00	0.00	11.00	5.40	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

3.2 Site Preparation - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.5303	0.0000	0.5303	0.0573	0.0000	0.0573			0.0000			0.0000
Off-Road	0.9292	11.5922	5.9432	0.0130		0.4718	0.4718		0.4340	0.4340		1,310.375 1	1,310.375 1	0.4079		1,320.573 5
Total	0.9292	11.5922	5.9432	0.0130	0.5303	0.4718	1.0020	0.0573	0.4340	0.4913		1,310.375 1	1,310.375 1	0.4079		1,320.573 5

East Side Dike Improvement Project - Riverside-Salton Sea County, Summer

3.2 Site Preparation - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0248	0.0148	0.1916	4.4000e-004	0.0418	2.7000e-004	0.0421	0.0111	2.5000e-004	0.0113		44.2010	44.2010	1.3700e-003		44.2353
Total	0.0248	0.0148	0.1916	4.4000e-004	0.0418	2.7000e-004	0.0421	0.0111	2.5000e-004	0.0113		44.2010	44.2010	1.3700e-003		44.2353

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.2068	0.0000	0.2068	0.0223	0.0000	0.0223			0.0000			0.0000
Off-Road	0.9292	11.5922	5.9432	0.0130		0.4718	0.4718		0.4340	0.4340	0.0000	1,310.375 1	1,310.375 1	0.4079		1,320.573 5
Total	0.9292	11.5922	5.9432	0.0130	0.2068	0.4718	0.6786	0.0223	0.4340	0.4563	0.0000	1,310.375 1	1,310.375 1	0.4079		1,320.573 5

East Side Dike Improvement Project - Riverside-Salton Sea County, Summer

3.2 Site Preparation - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0248	0.0148	0.1916	4.4000e-004	0.0418	2.7000e-004	0.0421	0.0111	2.5000e-004	0.0113		44.2010	44.2010	1.3700e-003		44.2353
Total	0.0248	0.0148	0.1916	4.4000e-004	0.0418	2.7000e-004	0.0421	0.0111	2.5000e-004	0.0113		44.2010	44.2010	1.3700e-003		44.2353

3.3 Grading - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.2061	0.0000	1.2061	0.1366	0.0000	0.1366			0.0000			0.0000
Off-Road	2.4987	29.7986	15.8759	0.0352		1.2641	1.2641		1.1630	1.1630		3,544.2593	3,544.2593	1.1034		3,571.8437
Total	2.4987	29.7986	15.8759	0.0352	1.2061	1.2641	2.4702	0.1366	1.1630	1.2995		3,544.2593	3,544.2593	1.1034		3,571.8437

East Side Dike Improvement Project - Riverside-Salton Sea County, Summer

3.3 Grading - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.3531	17.5352	1.5795	0.0245	0.0847	0.0139	0.0986	0.0235	0.0133	0.0368		2,585.2767	2,585.2767	0.5470		2,598.9514
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	0.0745	0.0445	0.5749	1.3300e-003	0.1255	8.1000e-004	0.1263	0.0333	7.5000e-004	0.0340		132.6029	132.6029	4.1200e-003		132.7058
Total	0.4276	17.5797	2.1544	0.0258	0.2102	0.0147	0.2249	0.0568	0.0141	0.0708		2,717.8796	2,717.8796	0.5511		2,731.6572

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.4704	0.0000	0.4704	0.0533	0.0000	0.0533			0.0000			0.0000
Off-Road	2.4987	29.7986	15.8759	0.0352		1.2641	1.2641		1.1630	1.1630	0.0000	3,544.2593	3,544.2593	1.1034		3,571.8437
Total	2.4987	29.7986	15.8759	0.0352	0.4704	1.2641	1.7345	0.0533	1.1630	1.2162	0.0000	3,544.2593	3,544.2593	1.1034		3,571.8437

East Side Dike Improvement Project - Riverside-Salton Sea County, Summer

3.3 Grading - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.3531	17.5352	1.5795	0.0245	0.0847	0.0139	0.0986	0.0235	0.0133	0.0368		2,585.2767	2,585.2767	0.5470		2,598.9514
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	0.0745	0.0445	0.5749	1.3300e-003	0.1255	8.1000e-004	0.1263	0.0333	7.5000e-004	0.0340		132.6029	132.6029	4.1200e-003		132.7058
Total	0.4276	17.5797	2.1544	0.0258	0.2102	0.0147	0.2249	0.0568	0.0141	0.0708		2,717.8796	2,717.8796	0.5511		2,731.6572

3.4 Building Construction - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.4994	5.9682	2.2066	5.0400e-003		0.2583	0.2583		0.2377	0.2377		508.0232	508.0232	0.1582		511.9770
Total	0.4994	5.9682	2.2066	5.0400e-003		0.2583	0.2583		0.2377	0.2377		508.0232	508.0232	0.1582		511.9770

East Side Dike Improvement Project - Riverside-Salton Sea County, Summer

3.4 Building Construction - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.5846	19.7617	3.8135	0.0400	0.8931	0.1439	1.0371	0.2573	0.1377	0.3950		4,208.717 0	4,208.717 0	0.3977		4,218.658 2
Worker	2.2697	1.3563	17.5160	0.0406	3.8236	0.0247	3.8482	1.0142	0.0227	1.0369		4,039.969 1	4,039.969 1	0.1254		4,043.103 5
Total	2.8543	21.1180	21.3294	0.0806	4.7167	0.1686	4.8853	1.2715	0.1604	1.4319		8,248.686 1	8,248.686 1	0.5230		8,261.761 7

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.4994	5.9682	2.2066	5.0400e-003		0.2583	0.2583		0.2377	0.2377	0.0000	508.0232	508.0232	0.1582		511.9770
Total	0.4994	5.9682	2.2066	5.0400e-003		0.2583	0.2583		0.2377	0.2377	0.0000	508.0232	508.0232	0.1582		511.9770

East Side Dike Improvement Project - Riverside-Salton Sea County, Summer

3.4 Building Construction - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.5846	19.7617	3.8135	0.0400	0.8931	0.1439	1.0371	0.2573	0.1377	0.3950		4,208.717 0	4,208.717 0	0.3977		4,218.658 2
Worker	2.2697	1.3563	17.5160	0.0406	3.8236	0.0247	3.8482	1.0142	0.0227	1.0369		4,039.969 1	4,039.969 1	0.1254		4,043.103 5
Total	2.8543	21.1180	21.3294	0.0806	4.7167	0.1686	4.8853	1.2715	0.1604	1.4319		8,248.686 1	8,248.686 1	0.5230		8,261.761 7

3.5 Paving - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.7106	6.7898	6.3057	0.0110		0.3183	0.3183		0.2975	0.2975		1,022.075 5	1,022.075 5	0.2763		1,028.982 0
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.7106	6.7898	6.3057	0.0110		0.3183	0.3183		0.2975	0.2975		1,022.075 5	1,022.075 5	0.2763		1,028.982 0

East Side Dike Improvement Project - Riverside-Salton Sea County, Summer

3.5 Paving - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0745	0.0445	0.5749	1.3300e-003	0.1255	8.1000e-004	0.1263	0.0333	7.5000e-004	0.0340		132.6029	132.6029	4.1200e-003		132.7058
Total	0.0745	0.0445	0.5749	1.3300e-003	0.1255	8.1000e-004	0.1263	0.0333	7.5000e-004	0.0340		132.6029	132.6029	4.1200e-003		132.7058

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.7106	6.7898	6.3057	0.0110		0.3183	0.3183		0.2975	0.2975	0.0000	1,022.0755	1,022.0755	0.2763		1,028.9820
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.7106	6.7898	6.3057	0.0110		0.3183	0.3183		0.2975	0.2975	0.0000	1,022.0755	1,022.0755	0.2763		1,028.9820

East Side Dike Improvement Project - Riverside-Salton Sea County, Summer

3.5 Paving - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0745	0.0445	0.5749	1.3300e-003	0.1255	8.1000e-004	0.1263	0.0333	7.5000e-004	0.0340		132.6029	132.6029	4.1200e-003		132.7058
Total	0.0745	0.0445	0.5749	1.3300e-003	0.1255	8.1000e-004	0.1263	0.0333	7.5000e-004	0.0340		132.6029	132.6029	4.1200e-003		132.7058

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

East Side Dike Improvement Project - Riverside-Salton Sea County, Summer

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

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Other Non-Asphalt Surfaces	12.50	4.20	5.40	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Other Non-Asphalt Surfaces	0.533383	0.039495	0.183627	0.126156	0.018688	0.005561	0.017029	0.066607	0.001345	0.001247	0.004677	0.000974	0.001211

5.0 Energy Detail

Historical Energy Use: N

East Side Dike Improvement Project - Riverside-Salton Sea County, Summer

5.1 Mitigation Measures Energy

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

5.2 Energy by Land Use - NaturalGas

Unmitigated

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

East Side Dike Improvement Project - Riverside-Salton Sea County, Summer

5.2 Energy by Land Use - Natural Gas

Mitigated

	Natural Gas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
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
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

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.6038	1.0400e-003	0.1123	1.0000e-005		4.0000e-004	4.0000e-004		4.0000e-004	4.0000e-004		0.2383	0.2383	6.5000e-004		0.2545
Unmitigated	0.6038	1.0400e-003	0.1123	1.0000e-005		4.0000e-004	4.0000e-004		4.0000e-004	4.0000e-004		0.2383	0.2383	6.5000e-004		0.2545

East Side Dike Improvement Project - Riverside-Salton Sea County, Summer

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.2074					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.3857					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	0.0106	1.0400e-003	0.1123	1.0000e-005		4.0000e-004	4.0000e-004		4.0000e-004	4.0000e-004		0.2383	0.2383	6.5000e-004		0.2545
Total	0.6038	1.0400e-003	0.1123	1.0000e-005		4.0000e-004	4.0000e-004		4.0000e-004	4.0000e-004		0.2383	0.2383	6.5000e-004		0.2545

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.2074					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.3857					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	0.0106	1.0400e-003	0.1123	1.0000e-005		4.0000e-004	4.0000e-004		4.0000e-004	4.0000e-004		0.2383	0.2383	6.5000e-004		0.2545
Total	0.6038	1.0400e-003	0.1123	1.0000e-005		4.0000e-004	4.0000e-004		4.0000e-004	4.0000e-004		0.2383	0.2383	6.5000e-004		0.2545

7.0 Water Detail

East Side Dike Improvement Project - Riverside-Salton Sea County, Summer

7.1 Mitigation Measures Water**8.0 Waste Detail****8.1 Mitigation Measures Waste****9.0 Operational Offroad**

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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10.0 Stationary Equipment**Fire Pumps and Emergency Generators**

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

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

Equipment Type	Number
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11.0 Vegetation