

APPENDIX A
Air Quality/Greenhouse Gas Data

**Parenthetical CALEEMOD Assumptions
For: Santa Ana River Interceptor Rock Removal Project
Date: September 2015**

CONSTRUCTION

Grading: Location 1 (2017)

- 6,000 tons of export.
- 26 days.

Equipment:

Quantity	Type	Hours of Daily Operation
2	Tractors/Loaders/Backhoes	8

Grading: Location 2 (2017)

- 6,000 tons of export.
- 26 days.

Equipment:

Quantity	Type	Hours of Daily Operation
2	Tractors/Loaders/Backhoes	8

Grading: Location 3 (2017)

- 3,000 tons of export.
- 26 days.

Equipment:

Quantity	Type	Hours of Daily Operation
2	Tractors/Loaders/Backhoes	8

Grading: Location 4 (2017 – 2018)

- 6,000 tons of export.
- 26 days.

Equipment:

Quantity	Type	Hours of Daily Operation
2	Tractors/Loaders/Backhoes	8

Grading: Location 5 (2018)

- 9,000 tons of export.
- 26 days.

Equipment:

Quantity	Type	Hours of Daily Operation
2	Tractors/Loaders/Backhoes	8

SARI Rip Rap Removal
South Coast AQMD Air District, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Industrial	1.00	User Defined Unit	25.00	0.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	31
Climate Zone	8			Operational Year	2018
Utility Company	Southern California Edison				
CO2 Intensity (lb/MW hr)	630.89	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Project Area

Construction Phase - Construction Schedule

Off-road Equipment - Only Loaders needed

Off-road Equipment - Only Loaders needed

Off-road Equipment - Only Loaders needed

Off-road Equipment - Only Loaders needed

Off-road Equipment - Only Loaders needed

Grading - Total: 30,000 tons export

Trips and VMT - Haul Distance = 10 miles

Construction Off-road Equipment Mitigation - Per SCAQMD Rule 403

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	26
tblConstructionPhase	NumDays	35.00	26.00
tblConstructionPhase	NumDays	35.00	26.00
tblConstructionPhase	NumDays	35.00	26.00
tblConstructionPhase	NumDays	35.00	26.00
tblConstructionPhase	NumDays	35.00	26.00
tblGrading	AcresOfGrading	0.00	10.00
tblGrading	AcresOfGrading	0.00	10.00
tblGrading	AcresOfGrading	0.00	10.00
tblGrading	AcresOfGrading	0.00	10.00
tblGrading	AcresOfGrading	0.00	10.00
tblGrading	MaterialExported	0.00	3,000.00
tblGrading	MaterialExported	0.00	6,000.00
tblGrading	MaterialExported	0.00	6,000.00
tblGrading	MaterialExported	0.00	6,000.00
tblGrading	MaterialExported	0.00	9,000.00
tblLandUse	LotAcreage	0.00	25.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblProjectCharacteristics	OperationalYear	2014	2018
tblTripsAndVMT	HaulingTripLength	20.00	10.00
tblTripsAndVMT	HaulingTripLength	20.00	10.00
tblTripsAndVMT	HaulingTripLength	20.00	10.00
tblTripsAndVMT	HaulingTripLength	20.00	10.00
tblTripsAndVMT	HaulingTripLength	20.00	10.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2017	0.0376	0.3813	0.3614	6.1000e-004	0.0330	0.0214	0.0544	5.3500e-003	0.0197	0.0250	0.0000	55.1829	55.1829	7.9300e-003	0.0000	55.3495
2018	0.0193	0.2022	0.2178	4.0000e-004	0.0183	9.5100e-003	0.0278	3.1800e-003	8.7500e-003	0.0119	0.0000	35.2070	35.2070	4.1100e-003	0.0000	35.2933
Total	0.0569	0.5835	0.5792	1.0100e-003	0.0512	0.0309	0.0821	8.5300e-003	0.0284	0.0370	0.0000	90.3899	90.3899	0.0120	0.0000	90.6428

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2017	0.0376	0.3813	0.3614	6.1000e-004	0.0180	0.0214	0.0394	3.3900e-003	0.0197	0.0231	0.0000	55.1829	55.1829	7.9300e-003	0.0000	55.3495
2018	0.0193	0.2022	0.2178	4.0000e-004	0.0105	9.5100e-003	0.0200	2.1300e-003	8.7500e-003	0.0109	0.0000	35.2070	35.2070	4.1100e-003	0.0000	35.2933
Total	0.0569	0.5835	0.5792	1.0100e-003	0.0285	0.0309	0.0594	5.5200e-003	0.0284	0.0340	0.0000	90.3898	90.3898	0.0120	0.0000	90.6428

	ROG	NOx	CO	SO2	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	44.29	0.00	27.65	35.29	0.00	8.14	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	Location 1	Grading	9/1/2017	10/6/2017	5	26	rip rap removal
2	Location 2	Grading	10/7/2017	11/13/2017	5	26	rip rap removal
3	Location 3	Grading	11/14/2017	12/19/2017	5	26	rip rap removal
4	Location 4	Grading	12/20/2017	1/24/2018	5	26	rip rap removal
5	Location 5	Grading	1/25/2018	3/1/2018	5	26	rip rap removal

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

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

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Location 2	Excavators	0	8.00	162	0.38
Location 1	Excavators	0	8.00	162	0.38
Location 1	Concrete/Industrial Saws	0	8.00	81	0.73
Location 3	Excavators	0	8.00	162	0.38
Location 4	Cranes	0	7.00	226	0.29
Location 4	Forklifts	0	8.00	89	0.20
Location 4	Generator Sets	0	8.00	84	0.74
Location 5	Pavers	0	8.00	125	0.42
Location 5	Rollers	0	8.00	80	0.38
Location 1	Rubber Tired Dozers	0	8.00	255	0.40
Location 3	Rubber Tired Dozers	0	8.00	255	0.40
Location 4	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Location 3	Graders	0	8.00	174	0.41
Location 3	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Location 5	Paving Equipment	0	8.00	130	0.36
Location 2	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Location 2	Rubber Tired Dozers	0	8.00	255	0.40
Location 3	Scrapers	0	8.00	361	0.48
Location 4	Welders	0	8.00	46	0.45
Location 4	Excavators	0	8.00	162	0.38
Location 5	Excavators	0	8.00	162	0.38
Location 1	Graders	0	8.00	174	0.41
Location 2	Graders	0	8.00	174	0.41
Location 4	Graders	0	8.00	174	0.41
Location 5	Graders	0	8.00	174	0.41
Location 4	Rubber Tired Dozers	0	8.00	255	0.40
Location 5	Rubber Tired Dozers	0	8.00	255	0.40
Location 1	Scrapers	0	8.00	361	0.48

Location 2	Scrapers	0	8.00	361	0.48
Location 4	Scrapers	0	8.00	361	0.48
Location 5	Scrapers	0	8.00	361	0.48
Location 1	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Location 5	Tractors/Loaders/Backhoes	2	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
Location 1	2	5.00	0.00	593.00	14.70	6.90	10.00	LD_Mix	HDT_Mix	HHDT
Location 2	2	5.00	0.00	593.00	14.70	6.90	10.00	LD_Mix	HDT_Mix	HHDT
Location 3	2	5.00	0.00	297.00	14.70	6.90	10.00	LD_Mix	HDT_Mix	HHDT
Location 4	2	5.00	0.00	593.00	14.70	6.90	10.00	LD_Mix	HDT_Mix	HHDT
Location 5	2	5.00	0.00	890.00	14.70	6.90	10.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Replace Ground Cover

Water Exposed Area

Water Unpaved Roads

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

3.2 Location 1 - 2017

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					5.5700e-003	0.0000	5.5700e-003	6.1000e-004	0.0000	6.1000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	8.2400e-003	0.0791	0.0622	8.0000e-005		5.9500e-003	5.9500e-003		5.4800e-003	5.4800e-003	0.0000	7.5069	7.5069	2.3000e-003	0.0000	7.5552
Total	8.2400e-003	0.0791	0.0622	8.0000e-005	5.5700e-003	5.9500e-003	0.0115	6.1000e-004	5.4800e-003	6.0900e-003	0.0000	7.5069	7.5069	2.3000e-003	0.0000	7.5552

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	3.4200e-003	0.0421	0.0512	1.1000e-004	2.5500e-003	6.0000e-004	3.1400e-003	7.0000e-004	5.5000e-004	1.2500e-003	0.0000	10.0506	10.0506	8.0000e-005	0.0000	10.0522
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	2.3000e-004	3.5000e-004	3.6000e-003	1.0000e-005	7.1000e-004	1.0000e-005	7.2000e-004	1.9000e-004	1.0000e-005	1.9000e-004	0.0000	0.6425	0.6425	3.0000e-005	0.0000	0.6432
Total	3.6500e-003	0.0425	0.0548	1.2000e-004	3.2600e-003	6.1000e-004	3.8600e-003	8.9000e-004	5.6000e-004	1.4400e-003	0.0000	10.6931	10.6931	1.1000e-004	0.0000	10.6954

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					2.3800e-003	0.0000	2.3800e-003	2.6000e-004	0.0000	2.6000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	8.2400e-003	0.0791	0.0622	8.0000e-005		5.9500e-003	5.9500e-003		5.4800e-003	5.4800e-003	0.0000	7.5068	7.5068	2.3000e-003	0.0000	7.5552
Total	8.2400e-003	0.0791	0.0622	8.0000e-005	2.3800e-003	5.9500e-003	8.3300e-003	2.6000e-004	5.4800e-003	5.7400e-003	0.0000	7.5068	7.5068	2.3000e-003	0.0000	7.5552

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	3.4200e-003	0.0421	0.0512	1.1000e-004	2.0500e-003	6.0000e-004	2.6400e-003	5.8000e-004	5.5000e-004	1.1300e-003	0.0000	10.0506	10.0506	8.0000e-005	0.0000	10.0522
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	2.3000e-004	3.5000e-004	3.6000e-003	1.0000e-005	5.5000e-004	1.0000e-005	5.6000e-004	1.5000e-004	1.0000e-005	1.6000e-004	0.0000	0.6425	0.6425	3.0000e-005	0.0000	0.6432
Total	3.6500e-003	0.0425	0.0548	1.2000e-004	2.6000e-003	6.1000e-004	3.2000e-003	7.3000e-004	5.6000e-004	1.2900e-003	0.0000	10.6931	10.6931	1.1000e-004	0.0000	10.6954

3.3 Location 2 - 2017

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					5.5700e-003	0.0000	5.5700e-003	6.1000e-004	0.0000	6.1000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	8.2400e-003	0.0791	0.0622	8.0000e-005		5.9500e-003	5.9500e-003		5.4800e-003	5.4800e-003	0.0000	7.5069	7.5069	2.3000e-003	0.0000	7.5552
Total	8.2400e-003	0.0791	0.0622	8.0000e-005	5.5700e-003	5.9500e-003	0.0115	6.1000e-004	5.4800e-003	6.0900e-003	0.0000	7.5069	7.5069	2.3000e-003	0.0000	7.5552

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	3.4200e-003	0.0421	0.0512	1.1000e-004	2.5500e-003	6.0000e-004	3.1400e-003	7.0000e-004	5.5000e-004	1.2500e-003	0.0000	10.0506	10.0506	8.0000e-005	0.0000	10.0522
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	2.3000e-004	3.5000e-004	3.6000e-003	1.0000e-005	7.1000e-004	1.0000e-005	7.2000e-004	1.9000e-004	1.0000e-005	1.9000e-004	0.0000	0.6425	0.6425	3.0000e-005	0.0000	0.6432
Total	3.6500e-003	0.0425	0.0548	1.2000e-004	3.2600e-003	6.1000e-004	3.8600e-003	8.9000e-004	5.6000e-004	1.4400e-003	0.0000	10.6931	10.6931	1.1000e-004	0.0000	10.6954

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					2.3800e-003	0.0000	2.3800e-003	2.6000e-004	0.0000	2.6000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	8.2400e-003	0.0791	0.0622	8.0000e-005		5.9500e-003	5.9500e-003		5.4800e-003	5.4800e-003	0.0000	7.5068	7.5068	2.3000e-003	0.0000	7.5552
Total	8.2400e-003	0.0791	0.0622	8.0000e-005	2.3800e-003	5.9500e-003	8.3300e-003	2.6000e-004	5.4800e-003	5.7400e-003	0.0000	7.5068	7.5068	2.3000e-003	0.0000	7.5552

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	3.4200e-003	0.0421	0.0512	1.1000e-004	2.0500e-003	6.0000e-004	2.6400e-003	5.8000e-004	5.5000e-004	1.1300e-003	0.0000	10.0506	10.0506	8.0000e-005	0.0000	10.0522
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	2.3000e-004	3.5000e-004	3.6000e-003	1.0000e-005	5.5000e-004	1.0000e-005	5.6000e-004	1.5000e-004	1.0000e-005	1.6000e-004	0.0000	0.6425	0.6425	3.0000e-005	0.0000	0.6432
Total	3.6500e-003	0.0425	0.0548	1.2000e-004	2.6000e-003	6.1000e-004	3.2000e-003	7.3000e-004	5.6000e-004	1.2900e-003	0.0000	10.6931	10.6931	1.1000e-004	0.0000	10.6954

3.4 Location 3 - 2017

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					5.4400e-003	0.0000	5.4400e-003	5.9000e-004	0.0000	5.9000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	8.2400e-003	0.0791	0.0622	8.0000e-005		5.9500e-003	5.9500e-003		5.4800e-003	5.4800e-003	0.0000	7.5069	7.5069	2.3000e-003	0.0000	7.5552
Total	8.2400e-003	0.0791	0.0622	8.0000e-005	5.4400e-003	5.9500e-003	0.0114	5.9000e-004	5.4800e-003	6.0700e-003	0.0000	7.5069	7.5069	2.3000e-003	0.0000	7.5552

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	1.7100e-003	0.0211	0.0256	6.0000e-005	1.2700e-003	3.0000e-004	1.5700e-003	3.5000e-004	2.8000e-004	6.2000e-004	0.0000	5.0338	5.0338	4.0000e-005	0.0000	5.0346
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	2.3000e-004	3.5000e-004	3.6000e-003	1.0000e-005	7.1000e-004	1.0000e-005	7.2000e-004	1.9000e-004	1.0000e-005	1.9000e-004	0.0000	0.6425	0.6425	3.0000e-005	0.0000	0.6432
Total	1.9400e-003	0.0215	0.0292	7.0000e-005	1.9800e-003	3.1000e-004	2.2900e-003	5.4000e-004	2.9000e-004	8.1000e-004	0.0000	5.6762	5.6762	7.0000e-005	0.0000	5.6778

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					2.3200e-003	0.0000	2.3200e-003	2.5000e-004	0.0000	2.5000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	8.2400e-003	0.0791	0.0622	8.0000e-005		5.9500e-003	5.9500e-003		5.4800e-003	5.4800e-003	0.0000	7.5068	7.5068	2.3000e-003	0.0000	7.5552
Total	8.2400e-003	0.0791	0.0622	8.0000e-005	2.3200e-003	5.9500e-003	8.2700e-003	2.5000e-004	5.4800e-003	5.7300e-003	0.0000	7.5068	7.5068	2.3000e-003	0.0000	7.5552

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	1.7100e-003	0.0211	0.0256	6.0000e-005	1.0200e-003	3.0000e-004	1.3200e-003	2.9000e-004	2.8000e-004	5.6000e-004	0.0000	5.0338	5.0338	4.0000e-005	0.0000	5.0346
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	2.3000e-004	3.5000e-004	3.6000e-003	1.0000e-005	5.5000e-004	1.0000e-005	5.6000e-004	1.5000e-004	1.0000e-005	1.6000e-004	0.0000	0.6425	0.6425	3.0000e-005	0.0000	0.6432
Total	1.9400e-003	0.0215	0.0292	7.0000e-005	1.5700e-003	3.1000e-004	1.8800e-003	4.4000e-004	2.9000e-004	7.2000e-004	0.0000	5.6762	5.6762	7.0000e-005	0.0000	5.6778

3.5 Location 4 - 2017

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					5.5700e-003	0.0000	5.5700e-003	6.1000e-004	0.0000	6.1000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.5300e-003	0.0244	0.0192	2.0000e-005		1.8300e-003	1.8300e-003		1.6800e-003	1.6800e-003	0.0000	2.3098	2.3098	7.1000e-004	0.0000	2.3247
Total	2.5300e-003	0.0244	0.0192	2.0000e-005	5.5700e-003	1.8300e-003	7.4000e-003	6.1000e-004	1.6800e-003	2.2900e-003	0.0000	2.3098	2.3098	7.1000e-004	0.0000	2.3247

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	1.0500e-003	0.0130	0.0157	3.0000e-005	2.1100e-003	1.8000e-004	2.2900e-003	5.4000e-004	1.7000e-004	7.1000e-004	0.0000	3.0925	3.0925	2.0000e-005	0.0000	3.0930
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	7.0000e-005	1.1000e-004	1.1100e-003	0.0000	2.2000e-004	0.0000	2.2000e-004	6.0000e-005	0.0000	6.0000e-005	0.0000	0.1977	0.1977	1.0000e-005	0.0000	0.1979
Total	1.1200e-003	0.0131	0.0169	3.0000e-005	2.3300e-003	1.8000e-004	2.5100e-003	6.0000e-004	1.7000e-004	7.7000e-004	0.0000	3.2902	3.2902	3.0000e-005	0.0000	3.2909

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					2.3800e-003	0.0000	2.3800e-003	2.6000e-004	0.0000	2.6000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.5300e-003	0.0244	0.0192	2.0000e-005		1.8300e-003	1.8300e-003		1.6800e-003	1.6800e-003	0.0000	2.3098	2.3098	7.1000e-004	0.0000	2.3247
Total	2.5300e-003	0.0244	0.0192	2.0000e-005	2.3800e-003	1.8300e-003	4.2100e-003	2.6000e-004	1.6800e-003	1.9400e-003	0.0000	2.3098	2.3098	7.1000e-004	0.0000	2.3247

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	1.0500e-003	0.0130	0.0157	3.0000e-005	1.6100e-003	1.8000e-004	1.8000e-003	4.2000e-004	1.7000e-004	5.9000e-004	0.0000	3.0925	3.0925	2.0000e-005	0.0000	3.0930
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	7.0000e-005	1.1000e-004	1.1100e-003	0.0000	1.7000e-004	0.0000	1.7000e-004	5.0000e-005	0.0000	5.0000e-005	0.0000	0.1977	0.1977	1.0000e-005	0.0000	0.1979
Total	1.1200e-003	0.0131	0.0169	3.0000e-005	1.7800e-003	1.8000e-004	1.9700e-003	4.7000e-004	1.7000e-004	6.4000e-004	0.0000	3.2902	3.2902	3.0000e-005	0.0000	3.2909

3.5 Location 4 - 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					5.5700e-003	0.0000	5.5700e-003	6.1000e-004	0.0000	6.1000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.7900e-003	0.0473	0.0421	6.0000e-005		3.3500e-003	3.3500e-003		3.0900e-003	3.0900e-003	0.0000	5.1074	5.1074	1.5900e-003	0.0000	5.1408
Total	4.7900e-003	0.0473	0.0421	6.0000e-005	5.5700e-003	3.3500e-003	8.9200e-003	6.1000e-004	3.0900e-003	3.7000e-003	0.0000	5.1074	5.1074	1.5900e-003	0.0000	5.1408

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	2.2700e-003	0.0271	0.0346	8.0000e-005	2.3500e-003	4.1000e-004	2.7700e-003	6.3000e-004	3.8000e-004	1.0100e-003	0.0000	6.8423	6.8423	5.0000e-005	0.0000	6.8434
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	1.5000e-004	2.2000e-004	2.2500e-003	1.0000e-005	4.9000e-004	0.0000	5.0000e-004	1.3000e-004	0.0000	1.3000e-004	0.0000	0.4282	0.4282	2.0000e-005	0.0000	0.4286
Total	2.4200e-003	0.0273	0.0368	9.0000e-005	2.8400e-003	4.1000e-004	3.2700e-003	7.6000e-004	3.8000e-004	1.1400e-003	0.0000	7.2704	7.2704	7.0000e-005	0.0000	7.2720

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					2.3800e-003	0.0000	2.3800e-003	2.6000e-004	0.0000	2.6000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.7900e-003	0.0473	0.0421	6.0000e-005		3.3500e-003	3.3500e-003		3.0900e-003	3.0900e-003	0.0000	5.1074	5.1074	1.5900e-003	0.0000	5.1408
Total	4.7900e-003	0.0473	0.0421	6.0000e-005	2.3800e-003	3.3500e-003	5.7300e-003	2.6000e-004	3.0900e-003	3.3500e-003	0.0000	5.1074	5.1074	1.5900e-003	0.0000	5.1408

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	2.2700e-003	0.0271	0.0346	8.0000e-005	1.8500e-003	4.1000e-004	2.2700e-003	5.1000e-004	3.8000e-004	8.9000e-004	0.0000	6.8423	6.8423	5.0000e-005	0.0000	6.8434
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	1.5000e-004	2.2000e-004	2.2500e-003	1.0000e-005	3.8000e-004	0.0000	3.9000e-004	1.0000e-004	0.0000	1.1000e-004	0.0000	0.4282	0.4282	2.0000e-005	0.0000	0.4286
Total	2.4200e-003	0.0273	0.0368	9.0000e-005	2.2300e-003	4.1000e-004	2.6600e-003	6.1000e-004	3.8000e-004	1.0000e-003	0.0000	7.2704	7.2704	7.0000e-005	0.0000	7.2720

3.6 Location 5 - 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					5.3000e-003	0.0000	5.3000e-003	5.7000e-004	0.0000	5.7000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.9200e-003	0.0684	0.0608	8.0000e-005		4.8400e-003	4.8400e-003		4.4600e-003	4.4600e-003	0.0000	7.3774	7.3774	2.3000e-003	0.0000	7.4256
Total	6.9200e-003	0.0684	0.0608	8.0000e-005	5.3000e-003	4.8400e-003	0.0101	5.7000e-004	4.4600e-003	5.0300e-003	0.0000	7.3774	7.3774	2.3000e-003	0.0000	7.4256

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	4.9200e-003	0.0588	0.0749	1.7000e-004	3.8200e-003	8.9000e-004	4.7100e-003	1.0500e-003	8.2000e-004	1.8700e-003	0.0000	14.8332	14.8332	1.2000e-004	0.0000	14.8357
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	2.1000e-004	3.1000e-004	3.2600e-003	1.0000e-005	7.1000e-004	1.0000e-005	7.2000e-004	1.9000e-004	1.0000e-005	1.9000e-004	0.0000	0.6185	0.6185	3.0000e-005	0.0000	0.6191
Total	5.1300e-003	0.0591	0.0782	1.8000e-004	4.5300e-003	9.0000e-004	5.4300e-003	1.2400e-003	8.3000e-004	2.0600e-003	0.0000	15.4517	15.4517	1.5000e-004	0.0000	15.4548

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					2.2700e-003	0.0000	2.2700e-003	2.4000e-004	0.0000	2.4000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.9200e-003	0.0684	0.0608	8.0000e-005		4.8400e-003	4.8400e-003		4.4600e-003	4.4600e-003	0.0000	7.3774	7.3774	2.3000e-003	0.0000	7.4256
Total	6.9200e-003	0.0684	0.0608	8.0000e-005	2.2700e-003	4.8400e-003	7.1100e-003	2.4000e-004	4.4600e-003	4.7000e-003	0.0000	7.3774	7.3774	2.3000e-003	0.0000	7.4256

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	4.9200e-003	0.0588	0.0749	1.7000e-004	3.0700e-003	8.9000e-004	3.9700e-003	8.6000e-004	8.2000e-004	1.6900e-003	0.0000	14.8332	14.8332	1.2000e-004	0.0000	14.8357
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	2.1000e-004	3.1000e-004	3.2600e-003	1.0000e-005	5.5000e-004	1.0000e-005	5.6000e-004	1.5000e-004	1.0000e-005	1.6000e-004	0.0000	0.6185	0.6185	3.0000e-005	0.0000	0.6191
Total	5.1300e-003	0.0591	0.0782	1.8000e-004	3.6200e-003	9.0000e-004	4.5300e-003	1.0100e-003	8.3000e-004	1.8500e-003	0.0000	15.4517	15.4517	1.5000e-004	0.0000	15.4548

SARI Rip Rap Removal South Coast AQMD Air District, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Industrial	1.00	User Defined Unit	25.00	0.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	31
Climate Zone	8			Operational Year	2018
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	630.89	CH4 Intensity (lb/MWhr)	0.029	N2O Intensity (lb/MWhr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Project Area

Construction Phase - Construction Schedule

Off-road Equipment - Only Loaders needed

Off-road Equipment - Only Loaders needed

Off-road Equipment - Only Loaders needed

Off-road Equipment - Only Loaders needed

Off-road Equipment - Only Loaders needed

Grading - Total: 30,000 tons export

Trips and VMT - Haul Distance = 10 miles

Construction Off-road Equipment Mitigation - Per SCAQMD Rule 403

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	26
tblConstructionPhase	NumDays	35.00	26.00
tblConstructionPhase	NumDays	35.00	26.00
tblConstructionPhase	NumDays	35.00	26.00
tblConstructionPhase	NumDays	35.00	26.00
tblConstructionPhase	NumDays	35.00	26.00
tblGrading	AcresOfGrading	0.00	10.00
tblGrading	AcresOfGrading	0.00	10.00
tblGrading	AcresOfGrading	0.00	10.00
tblGrading	AcresOfGrading	0.00	10.00
tblGrading	AcresOfGrading	0.00	10.00
tblGrading	MaterialExported	0.00	3,000.00
tblGrading	MaterialExported	0.00	6,000.00
tblGrading	MaterialExported	0.00	6,000.00
tblGrading	MaterialExported	0.00	6,000.00
tblGrading	MaterialExported	0.00	9,000.00
tblLandUse	LotAcreage	0.00	25.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblProjectCharacteristics	OperationalYear	2014	2018
tblTripsAndVMT	HaulingTripLength	20.00	10.00
tblTripsAndVMT	HaulingTripLength	20.00	10.00
tblTripsAndVMT	HaulingTripLength	20.00	10.00
tblTripsAndVMT	HaulingTripLength	20.00	10.00
tblTripsAndVMT	HaulingTripLength	20.00	10.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	0.9209	9.2999	9.0848	0.0155	1.0226	0.5043	1.5270	0.1998	0.4640	0.6637	0.0000	1,540.0938	1,540.0938	0.2045	0.0000	1,544.3883
2018	0.9356	9.7288	10.8210	0.0198	0.7624	0.4420	1.2045	0.1407	0.4067	0.5474	0.0000	1,931.5515	1,931.5515	0.2075	0.0000	1,935.9088
Total	1.8565	19.0287	19.9058	0.0352	1.7851	0.9464	2.7314	0.3405	0.8706	1.2111	0.0000	3,471.6453	3,471.6453	0.4120	0.0000	3,480.2971

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	0.9209	9.2999	9.0848	0.0155	0.6373	0.5043	1.1416	0.1384	0.4640	0.6024	0.0000	1,540.0938	1,540.0938	0.2045	0.0000	1,544.3883
2018	0.9356	9.7288	10.8210	0.0198	0.4575	0.4420	0.8995	0.0979	0.4067	0.5046	0.0000	1,931.5515	1,931.5515	0.2075	0.0000	1,935.9088
Total	1.8565	19.0287	19.9058	0.0352	1.0947	0.9464	2.0411	0.2363	0.8706	1.1070	0.0000	3,471.6453	3,471.6453	0.4120	0.0000	3,480.2971

	ROG	NOx	CO	SO2	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	38.67	0.00	25.27	30.59	0.00	8.60	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	Location 1	Grading	9/1/2017	10/6/2017	5	26	rip rap removal
2	Location 2	Grading	10/7/2017	11/13/2017	5	26	rip rap removal
3	Location 3	Grading	11/14/2017	12/19/2017	5	26	rip rap removal
4	Location 4	Grading	12/20/2017	1/24/2018	5	26	rip rap removal
5	Location 5	Grading	1/25/2018	3/1/2018	5	26	rip rap removal

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

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

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Location 2	Excavators	0	8.00	162	0.38
Location 1	Excavators	0	8.00	162	0.38
Location 1	Concrete/Industrial Saws	0	8.00	81	0.73
Location 3	Excavators	0	8.00	162	0.38
Location 4	Cranes	0	7.00	226	0.29
Location 4	Forklifts	0	8.00	89	0.20
Location 4	Generator Sets	0	8.00	84	0.74
Location 5	Pavers	0	8.00	125	0.42
Location 5	Rollers	0	8.00	80	0.38
Location 1	Rubber Tired Dozers	0	8.00	255	0.40
Location 3	Rubber Tired Dozers	0	8.00	255	0.40
Location 4	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Location 3	Graders	0	8.00	174	0.41
Location 3	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Location 5	Paving Equipment	0	8.00	130	0.36
Location 2	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Location 2	Rubber Tired Dozers	0	8.00	255	0.40
Location 3	Scrapers	0	8.00	361	0.48
Location 4	Welders	0	8.00	46	0.45
Location 4	Excavators	0	8.00	162	0.38
Location 5	Excavators	0	8.00	162	0.38
Location 1	Graders	0	8.00	174	0.41
Location 2	Graders	0	8.00	174	0.41
Location 4	Graders	0	8.00	174	0.41
Location 5	Graders	0	8.00	174	0.41
Location 4	Rubber Tired Dozers	0	8.00	255	0.40
Location 5	Rubber Tired Dozers	0	8.00	255	0.40
Location 1	Scrapers	0	8.00	361	0.48

Location 2	Scrapers	0	8.00	361	0.48
Location 4	Scrapers	0	8.00	361	0.48
Location 5	Scrapers	0	8.00	361	0.48
Location 1	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Location 5	Tractors/Loaders/Backhoes	2	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
Location 1	2	5.00	0.00	593.00	14.70	6.90	10.00	LD_Mix	HDT_Mix	HHDT
Location 2	2	5.00	0.00	593.00	14.70	6.90	10.00	LD_Mix	HDT_Mix	HHDT
Location 3	2	5.00	0.00	297.00	14.70	6.90	10.00	LD_Mix	HDT_Mix	HHDT
Location 4	2	5.00	0.00	593.00	14.70	6.90	10.00	LD_Mix	HDT_Mix	HHDT
Location 5	2	5.00	0.00	890.00	14.70	6.90	10.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Replace Ground Cover

Water Exposed Area

Water Unpaved Roads

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

3.2 Location 1 - 2017

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					0.4285	0.0000	0.4285	0.0472	0.0000	0.0472			0.0000			0.0000
Off-Road	0.6336	6.0877	4.7877	6.2200e-003		0.4578	0.4578		0.4212	0.4212		636.5299	636.5299	0.1950		640.6256
Total	0.6336	6.0877	4.7877	6.2200e-003	0.4285	0.4578	0.8864	0.0472	0.4212	0.4684		636.5299	636.5299	0.1950		640.6256

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	0.2682	3.1863	4.0272	8.5900e-003	0.1990	0.0461	0.2450	0.0545	0.0424	0.0969		849.9209	849.9209	6.6500e-003		850.0606
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	0.0191	0.0259	0.2699	6.6000e-004	0.0559	4.5000e-004	0.0563	0.0148	4.1000e-004	0.0152		53.6430	53.6430	2.8200e-003		53.7022
Total	0.2873	3.2121	4.2971	9.2500e-003	0.2549	0.0465	0.3014	0.0693	0.0428	0.1121		903.5639	903.5639	9.4700e-003		903.7627

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					0.1832	0.0000	0.1832	0.0202	0.0000	0.0202			0.0000			0.0000
Off-Road	0.6336	6.0877	4.7877	6.2200e-003		0.4578	0.4578		0.4212	0.4212	0.0000	636.5299	636.5299	0.1950		640.6256
Total	0.6336	6.0877	4.7877	6.2200e-003	0.1832	0.4578	0.6410	0.0202	0.4212	0.4414	0.0000	636.5299	636.5299	0.1950		640.6256

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	0.2682	3.1863	4.0272	8.5900e-003	0.1598	0.0461	0.2058	0.0449	0.0424	0.0872		849.9209	849.9209	6.6500e-003		850.0606
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	0.0191	0.0259	0.2699	6.6000e-004	0.0433	4.5000e-004	0.0437	0.0117	4.1000e-004	0.0121		53.6430	53.6430	2.8200e-003		53.7022
Total	0.2873	3.2121	4.2971	9.2500e-003	0.2030	0.0465	0.2495	0.0566	0.0428	0.0994		903.5639	903.5639	9.4700e-003		903.7627

3.3 Location 2 - 2017

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					0.4285	0.0000	0.4285	0.0472	0.0000	0.0472			0.0000			0.0000
Off-Road	0.6336	6.0877	4.7877	6.2200e-003		0.4578	0.4578		0.4212	0.4212		636.5299	636.5299	0.1950		640.6256
Total	0.6336	6.0877	4.7877	6.2200e-003	0.4285	0.4578	0.8864	0.0472	0.4212	0.4684		636.5299	636.5299	0.1950		640.6256

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	0.2682	3.1863	4.0272	8.5900e-003	0.1990	0.0461	0.2450	0.0545	0.0424	0.0969		849.9209	849.9209	6.6500e-003		850.0606
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	0.0191	0.0259	0.2699	6.6000e-004	0.0559	4.5000e-004	0.0563	0.0148	4.1000e-004	0.0152		53.6430	53.6430	2.8200e-003		53.7022
Total	0.2873	3.2121	4.2971	9.2500e-003	0.2549	0.0465	0.3014	0.0693	0.0428	0.1121		903.5639	903.5639	9.4700e-003		903.7627

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					0.1832	0.0000	0.1832	0.0202	0.0000	0.0202			0.0000			0.0000
Off-Road	0.6336	6.0877	4.7877	6.2200e-003		0.4578	0.4578		0.4212	0.4212	0.0000	636.5299	636.5299	0.1950		640.6256
Total	0.6336	6.0877	4.7877	6.2200e-003	0.1832	0.4578	0.6410	0.0202	0.4212	0.4414	0.0000	636.5299	636.5299	0.1950		640.6256

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	0.2682	3.1863	4.0272	8.5900e-003	0.1598	0.0461	0.2058	0.0449	0.0424	0.0872		849.9209	849.9209	6.6500e-003		850.0606
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	0.0191	0.0259	0.2699	6.6000e-004	0.0433	4.5000e-004	0.0437	0.0117	4.1000e-004	0.0121		53.6430	53.6430	2.8200e-003		53.7022
Total	0.2873	3.2121	4.2971	9.2500e-003	0.2030	0.0465	0.2495	0.0566	0.0428	0.0994		903.5639	903.5639	9.4700e-003		903.7627

3.4 Location 3 - 2017

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					0.4182	0.0000	0.4182	0.0456	0.0000	0.0456			0.0000				0.0000
Off-Road	0.6336	6.0877	4.7877	6.2200e-003		0.4578	0.4578		0.4212	0.4212		636.5299	636.5299	0.1950			640.6256
Total	0.6336	6.0877	4.7877	6.2200e-003	0.4182	0.4578	0.8760	0.0456	0.4212	0.4668		636.5299	636.5299	0.1950			640.6256

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	0.1343	1.5958	2.0170	4.3000e-003	0.0997	0.0231	0.1227	0.0273	0.0212	0.0485		425.6771	425.6771	3.3300e-003			425.7470
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	0.0191	0.0259	0.2699	6.6000e-004	0.0559	4.5000e-004	0.0563	0.0148	4.1000e-004	0.0152		53.6430	53.6430	2.8200e-003			53.7022
Total	0.1534	1.6217	2.2869	4.9600e-003	0.1555	0.0235	0.1791	0.0421	0.0216	0.0638		479.3201	479.3201	6.1500e-003			479.4492

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					0.1788	0.0000	0.1788	0.0195	0.0000	0.0195			0.0000			0.0000
Off-Road	0.6336	6.0877	4.7877	6.2200e-003		0.4578	0.4578		0.4212	0.4212	0.0000	636.5299	636.5299	0.1950		640.6256
Total	0.6336	6.0877	4.7877	6.2200e-003	0.1788	0.4578	0.6366	0.0195	0.4212	0.4407	0.0000	636.5299	636.5299	0.1950		640.6256

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	0.1343	1.5958	2.0170	4.3000e-003	0.0800	0.0231	0.1031	0.0225	0.0212	0.0437		425.6771	425.6771	3.3300e-003		425.7470
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	0.0191	0.0259	0.2699	6.6000e-004	0.0433	4.5000e-004	0.0437	0.0117	4.1000e-004	0.0121		53.6430	53.6430	2.8200e-003		53.7022
Total	0.1534	1.6217	2.2869	4.9600e-003	0.1233	0.0235	0.1468	0.0342	0.0216	0.0558		479.3201	479.3201	6.1500e-003		479.4492

3.5 Location 4 - 2017

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					0.4285	0.0000	0.4285	0.0472	0.0000	0.0472			0.0000			0.0000
Off-Road	0.6336	6.0877	4.7877	6.2200e-003		0.4578	0.4578		0.4212	0.4212		636.5299	636.5299	0.1950		640.6256
Total	0.6336	6.0877	4.7877	6.2200e-003	0.4285	0.4578	0.8864	0.0472	0.4212	0.4684		636.5299	636.5299	0.1950		640.6256

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	0.2682	3.1863	4.0272	8.5900e-003	0.5382	0.0461	0.5843	0.1378	0.0424	0.1801		849.9209	849.9209	6.6500e-003		850.0606
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	0.0191	0.0259	0.2699	6.6000e-004	0.0559	4.5000e-004	0.0563	0.0148	4.1000e-004	0.0152		53.6430	53.6430	2.8200e-003		53.7022
Total	0.2873	3.2121	4.2971	9.2500e-003	0.5941	0.0465	0.6406	0.1526	0.0428	0.1954		903.5639	903.5639	9.4700e-003		903.7627

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					0.1832	0.0000	0.1832	0.0202	0.0000	0.0202			0.0000			0.0000
Off-Road	0.6336	6.0877	4.7877	6.2200e-003		0.4578	0.4578		0.4212	0.4212	0.0000	636.5299	636.5299	0.1950		640.6256
Total	0.6336	6.0877	4.7877	6.2200e-003	0.1832	0.4578	0.6410	0.0202	0.4212	0.4414	0.0000	636.5299	636.5299	0.1950		640.6256

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	0.2682	3.1863	4.0272	8.5900e-003	0.4108	0.0461	0.4569	0.1065	0.0424	0.1489		849.9209	849.9209	6.6500e-003		850.0606
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	0.0191	0.0259	0.2699	6.6000e-004	0.0433	4.5000e-004	0.0437	0.0117	4.1000e-004	0.0121		53.6430	53.6430	2.8200e-003		53.7022
Total	0.2873	3.2121	4.2971	9.2500e-003	0.4541	0.0465	0.5006	0.1182	0.0428	0.1610		903.5639	903.5639	9.4700e-003		903.7627

3.5 Location 4 - 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					0.4285	0.0000	0.4285	0.0472	0.0000	0.0472			0.0000			0.0000
Off-Road	0.5322	5.2595	4.6734	6.2100e-003		0.3726	0.3726		0.3428	0.3428		625.5519	625.5519	0.1947		629.6415
Total	0.5322	5.2595	4.6734	6.2100e-003	0.4285	0.3726	0.8011	0.0472	0.3428	0.3900		625.5519	625.5519	0.1947		629.6415

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	0.2573	2.9622	3.9334	8.5800e-003	0.2660	0.0460	0.3120	0.0710	0.0423	0.1133		835.7699	835.7699	6.7500e-003		835.9117
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	0.0172	0.0235	0.2442	6.6000e-004	0.0559	4.4000e-004	0.0563	0.0148	4.0000e-004	0.0152		51.6400	51.6400	2.6100e-003		51.6949
Total	0.2745	2.9857	4.1776	9.2400e-003	0.3219	0.0464	0.3683	0.0858	0.0427	0.1285		887.4099	887.4099	9.3600e-003		887.6066

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					0.1832	0.0000	0.1832	0.0202	0.0000	0.0202			0.0000			0.0000
Off-Road	0.5322	5.2595	4.6734	6.2100e-003		0.3726	0.3726		0.3428	0.3428	0.0000	625.5519	625.5519	0.1947		629.6415
Total	0.5322	5.2595	4.6734	6.2100e-003	0.1832	0.3726	0.5558	0.0202	0.3428	0.3630	0.0000	625.5519	625.5519	0.1947		629.6415

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	0.2573	2.9622	3.9334	8.5800e-003	0.2094	0.0460	0.2554	0.0571	0.0423	0.0994		835.7699	835.7699	6.7500e-003		835.9117
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	0.0172	0.0235	0.2442	6.6000e-004	0.0433	4.4000e-004	0.0437	0.0117	4.0000e-004	0.0121		51.6400	51.6400	2.6100e-003		51.6949
Total	0.2745	2.9857	4.1776	9.2400e-003	0.2527	0.0464	0.2990	0.0688	0.0427	0.1115		887.4099	887.4099	9.3600e-003		887.6066

3.6 Location 5 - 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					0.4079	0.0000	0.4079	0.0440	0.0000	0.0440			0.0000			0.0000
Off-Road	0.5322	5.2595	4.6734	6.2100e-003		0.3726	0.3726		0.3428	0.3428		625.5519	625.5519	0.1947		629.6415
Total	0.5322	5.2595	4.6734	6.2100e-003	0.4079	0.3726	0.7805	0.0440	0.3428	0.3868		625.5519	625.5519	0.1947		629.6415

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	0.3862	4.4459	5.9034	0.0129	0.2987	0.0690	0.3677	0.0818	0.0635	0.1453		1,254.3596	1,254.3596	0.0101		1,254.5724
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	0.0172	0.0235	0.2442	6.6000e-004	0.0559	4.4000e-004	0.0563	0.0148	4.0000e-004	0.0152		51.6400	51.6400	2.6100e-003		51.6949
Total	0.4034	4.4693	6.1476	0.0135	0.3546	0.0694	0.4240	0.0966	0.0639	0.1605		1,305.9996	1,305.9996	0.0127		1,306.2673

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					0.1744	0.0000	0.1744	0.0188	0.0000	0.0188			0.0000			0.0000
Off-Road	0.5322	5.2595	4.6734	6.2100e-003		0.3726	0.3726		0.3428	0.3428	0.0000	625.5519	625.5519	0.1947		629.6415
Total	0.5322	5.2595	4.6734	6.2100e-003	0.1744	0.3726	0.5470	0.0188	0.3428	0.3616	0.0000	625.5519	625.5519	0.1947		629.6415

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	0.3862	4.4459	5.9034	0.0129	0.2398	0.0690	0.3088	0.0674	0.0635	0.1308		1,254.3596	1,254.3596	0.0101		1,254.5724
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	0.0172	0.0235	0.2442	6.6000e-004	0.0433	4.4000e-004	0.0437	0.0117	4.0000e-004	0.0121		51.6400	51.6400	2.6100e-003		51.6949
Total	0.4034	4.4693	6.1476	0.0135	0.2831	0.0694	0.3525	0.0791	0.0639	0.1430		1,305.9996	1,305.9996	0.0127		1,306.2673

SARI Rip Rap Removal South Coast AQMD Air District, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Industrial	1.00	User Defined Unit	25.00	0.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	31
Climate Zone	8			Operational Year	2018
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	630.89	CH4 Intensity (lb/MWhr)	0.029	N2O Intensity (lb/MWhr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Project Area

Construction Phase - Construction Schedule

Off-road Equipment - Only Loaders needed

Off-road Equipment - Only Loaders needed

Off-road Equipment - Only Loaders needed

Off-road Equipment - Only Loaders needed

Off-road Equipment - Only Loaders needed

Grading - Total: 30,000 tons export

Trips and VMT - Haul Distance = 10 miles

Construction Off-road Equipment Mitigation - Per SCAQMD Rule 403

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	26
tblConstructionPhase	NumDays	35.00	26.00
tblConstructionPhase	NumDays	35.00	26.00
tblConstructionPhase	NumDays	35.00	26.00
tblConstructionPhase	NumDays	35.00	26.00
tblConstructionPhase	NumDays	35.00	26.00
tblGrading	AcresOfGrading	0.00	10.00
tblGrading	AcresOfGrading	0.00	10.00
tblGrading	AcresOfGrading	0.00	10.00
tblGrading	AcresOfGrading	0.00	10.00
tblGrading	AcresOfGrading	0.00	10.00
tblGrading	MaterialExported	0.00	3,000.00
tblGrading	MaterialExported	0.00	6,000.00
tblGrading	MaterialExported	0.00	6,000.00
tblGrading	MaterialExported	0.00	6,000.00
tblGrading	MaterialExported	0.00	9,000.00
tblLandUse	LotAcreage	0.00	25.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblProjectCharacteristics	OperationalYear	2014	2018
tblTripsAndVMT	HaulingTripLength	20.00	10.00
tblTripsAndVMT	HaulingTripLength	20.00	10.00
tblTripsAndVMT	HaulingTripLength	20.00	10.00
tblTripsAndVMT	HaulingTripLength	20.00	10.00
tblTripsAndVMT	HaulingTripLength	20.00	10.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	0.9011	9.1979	8.4502	0.0156	1.0226	0.5041	1.5268	0.1998	0.4638	0.6636	0.0000	1,547.6148	1,547.6148	0.2043	0.0000	1,551.9058
2018	0.9089	9.5882	9.8506	0.0199	0.7624	0.4417	1.2042	0.1407	0.4064	0.5471	0.0000	1,940.8386	1,940.8386	0.2072	0.0000	1,945.1905
Total	1.8099	18.7861	18.3008	0.0354	1.7851	0.9459	2.7309	0.3405	0.8702	1.2106	0.0000	3,488.4534	3,488.4534	0.4116	0.0000	3,497.0963

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	0.9011	9.1979	8.4502	0.0156	0.6373	0.5041	1.1414	0.1384	0.4638	0.6022	0.0000	1,547.6148	1,547.6148	0.2043	0.0000	1,551.9058
2018	0.9089	9.5882	9.8506	0.0199	0.4575	0.4417	0.8992	0.0979	0.4064	0.5043	0.0000	1,940.8386	1,940.8386	0.2072	0.0000	1,945.1905
Total	1.8099	18.7861	18.3008	0.0354	1.0947	0.9459	2.0406	0.2363	0.8702	1.1065	0.0000	3,488.4534	3,488.4534	0.4116	0.0000	3,497.0963

	ROG	NOx	CO	SO2	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	38.67	0.00	25.28	30.59	0.00	8.60	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	Location 1	Grading	9/1/2017	10/6/2017	5	26	rip rap removal
2	Location 2	Grading	10/7/2017	11/13/2017	5	26	rip rap removal
3	Location 3	Grading	11/14/2017	12/19/2017	5	26	rip rap removal
4	Location 4	Grading	12/20/2017	1/24/2018	5	26	rip rap removal
5	Location 5	Grading	1/25/2018	3/1/2018	5	26	rip rap removal

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

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

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Location 2	Excavators	0	8.00	162	0.38
Location 1	Excavators	0	8.00	162	0.38
Location 1	Concrete/Industrial Saws	0	8.00	81	0.73
Location 3	Excavators	0	8.00	162	0.38
Location 4	Cranes	0	7.00	226	0.29
Location 4	Forklifts	0	8.00	89	0.20
Location 4	Generator Sets	0	8.00	84	0.74
Location 5	Pavers	0	8.00	125	0.42
Location 5	Rollers	0	8.00	80	0.38
Location 1	Rubber Tired Dozers	0	8.00	255	0.40
Location 3	Rubber Tired Dozers	0	8.00	255	0.40
Location 4	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Location 3	Graders	0	8.00	174	0.41
Location 3	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Location 5	Paving Equipment	0	8.00	130	0.36
Location 2	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Location 2	Rubber Tired Dozers	0	8.00	255	0.40
Location 3	Scrapers	0	8.00	361	0.48
Location 4	Welders	0	8.00	46	0.45
Location 4	Excavators	0	8.00	162	0.38
Location 5	Excavators	0	8.00	162	0.38
Location 1	Graders	0	8.00	174	0.41
Location 2	Graders	0	8.00	174	0.41
Location 4	Graders	0	8.00	174	0.41
Location 5	Graders	0	8.00	174	0.41
Location 4	Rubber Tired Dozers	0	8.00	255	0.40
Location 5	Rubber Tired Dozers	0	8.00	255	0.40
Location 1	Scrapers	0	8.00	361	0.48

Location 2	Scrapers	0	8.00	361	0.48
Location 4	Scrapers	0	8.00	361	0.48
Location 5	Scrapers	0	8.00	361	0.48
Location 1	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Location 5	Tractors/Loaders/Backhoes	2	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
Location 1	2	5.00	0.00	593.00	14.70	6.90	10.00	LD_Mix	HDT_Mix	HHDT
Location 2	2	5.00	0.00	593.00	14.70	6.90	10.00	LD_Mix	HDT_Mix	HHDT
Location 3	2	5.00	0.00	297.00	14.70	6.90	10.00	LD_Mix	HDT_Mix	HHDT
Location 4	2	5.00	0.00	593.00	14.70	6.90	10.00	LD_Mix	HDT_Mix	HHDT
Location 5	2	5.00	0.00	890.00	14.70	6.90	10.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Replace Ground Cover

Water Exposed Area

Water Unpaved Roads

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

3.2 Location 1 - 2017

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					0.4285	0.0000	0.4285	0.0472	0.0000	0.0472			0.0000			0.0000
Off-Road	0.6336	6.0877	4.7877	6.2200e-003		0.4578	0.4578		0.4212	0.4212		636.5299	636.5299	0.1950		640.6256
Total	0.6336	6.0877	4.7877	6.2200e-003	0.4285	0.4578	0.8864	0.0472	0.4212	0.4684		636.5299	636.5299	0.1950		640.6256

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	0.2487	3.0866	3.3685	8.6200e-003	0.1990	0.0459	0.2448	0.0545	0.0422	0.0967		853.8882	853.8882	6.4900e-003		854.0245
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	0.0188	0.0236	0.2940	7.1000e-004	0.0559	4.5000e-004	0.0563	0.0148	4.1000e-004	0.0152		57.1967	57.1967	2.8200e-003		57.2558
Total	0.2675	3.1101	3.6625	9.3300e-003	0.2549	0.0463	0.3012	0.0693	0.0426	0.1119		911.0849	911.0849	9.3100e-003		911.2803

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					0.1832	0.0000	0.1832	0.0202	0.0000	0.0202			0.0000			0.0000
Off-Road	0.6336	6.0877	4.7877	6.2200e-003		0.4578	0.4578		0.4212	0.4212	0.0000	636.5299	636.5299	0.1950		640.6256
Total	0.6336	6.0877	4.7877	6.2200e-003	0.1832	0.4578	0.6410	0.0202	0.4212	0.4414	0.0000	636.5299	636.5299	0.1950		640.6256

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	0.2487	3.0866	3.3685	8.6200e-003	0.1598	0.0459	0.2056	0.0449	0.0422	0.0871		853.8882	853.8882	6.4900e-003		854.0245
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	0.0188	0.0236	0.2940	7.1000e-004	0.0433	4.5000e-004	0.0437	0.0117	4.1000e-004	0.0121		57.1967	57.1967	2.8200e-003		57.2558
Total	0.2675	3.1101	3.6625	9.3300e-003	0.2030	0.0463	0.2493	0.0566	0.0426	0.0992		911.0849	911.0849	9.3100e-003		911.2803

3.3 Location 2 - 2017

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					0.4285	0.0000	0.4285	0.0472	0.0000	0.0472			0.0000			0.0000
Off-Road	0.6336	6.0877	4.7877	6.2200e-003		0.4578	0.4578		0.4212	0.4212		636.5299	636.5299	0.1950		640.6256
Total	0.6336	6.0877	4.7877	6.2200e-003	0.4285	0.4578	0.8864	0.0472	0.4212	0.4684		636.5299	636.5299	0.1950		640.6256

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	0.2487	3.0866	3.3685	8.6200e-003	0.1990	0.0459	0.2448	0.0545	0.0422	0.0967		853.8882	853.8882	6.4900e-003		854.0245
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	0.0188	0.0236	0.2940	7.1000e-004	0.0559	4.5000e-004	0.0563	0.0148	4.1000e-004	0.0152		57.1967	57.1967	2.8200e-003		57.2558
Total	0.2675	3.1101	3.6625	9.3300e-003	0.2549	0.0463	0.3012	0.0693	0.0426	0.1119		911.0849	911.0849	9.3100e-003		911.2803

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					0.1832	0.0000	0.1832	0.0202	0.0000	0.0202			0.0000			0.0000
Off-Road	0.6336	6.0877	4.7877	6.2200e-003		0.4578	0.4578		0.4212	0.4212	0.0000	636.5299	636.5299	0.1950		640.6256
Total	0.6336	6.0877	4.7877	6.2200e-003	0.1832	0.4578	0.6410	0.0202	0.4212	0.4414	0.0000	636.5299	636.5299	0.1950		640.6256

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	0.2487	3.0866	3.3685	8.6200e-003	0.1598	0.0459	0.2056	0.0449	0.0422	0.0871		853.8882	853.8882	6.4900e-003		854.0245
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	0.0188	0.0236	0.2940	7.1000e-004	0.0433	4.5000e-004	0.0437	0.0117	4.1000e-004	0.0121		57.1967	57.1967	2.8200e-003		57.2558
Total	0.2675	3.1101	3.6625	9.3300e-003	0.2030	0.0463	0.2493	0.0566	0.0426	0.0992		911.0849	911.0849	9.3100e-003		911.2803

3.4 Location 3 - 2017

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					0.4182	0.0000	0.4182	0.0456	0.0000	0.0456			0.0000			0.0000
Off-Road	0.6336	6.0877	4.7877	6.2200e-003		0.4578	0.4578		0.4212	0.4212		636.5299	636.5299	0.1950		640.6256
Total	0.6336	6.0877	4.7877	6.2200e-003	0.4182	0.4578	0.8760	0.0456	0.4212	0.4668		636.5299	636.5299	0.1950		640.6256

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	0.1246	1.5459	1.6871	4.3200e-003	0.0997	0.0230	0.1226	0.0273	0.0211	0.0484		427.6641	427.6641	3.2500e-003		427.7323
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	0.0188	0.0236	0.2940	7.1000e-004	0.0559	4.5000e-004	0.0563	0.0148	4.1000e-004	0.0152		57.1967	57.1967	2.8200e-003		57.2558
Total	0.1433	1.5695	1.9811	5.0300e-003	0.1555	0.0234	0.1790	0.0421	0.0215	0.0637		484.8608	484.8608	6.0700e-003		484.9881

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					0.1788	0.0000	0.1788	0.0195	0.0000	0.0195			0.0000			0.0000
Off-Road	0.6336	6.0877	4.7877	6.2200e-003		0.4578	0.4578		0.4212	0.4212	0.0000	636.5299	636.5299	0.1950		640.6256
Total	0.6336	6.0877	4.7877	6.2200e-003	0.1788	0.4578	0.6366	0.0195	0.4212	0.4407	0.0000	636.5299	636.5299	0.1950		640.6256

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	0.1246	1.5459	1.6871	4.3200e-003	0.0800	0.0230	0.1030	0.0225	0.0211	0.0436		427.6641	427.6641	3.2500e-003		427.7323
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	0.0188	0.0236	0.2940	7.1000e-004	0.0433	4.5000e-004	0.0437	0.0117	4.1000e-004	0.0121		57.1967	57.1967	2.8200e-003		57.2558
Total	0.1433	1.5695	1.9811	5.0300e-003	0.1233	0.0234	0.1467	0.0342	0.0215	0.0558		484.8608	484.8608	6.0700e-003		484.9881

3.5 Location 4 - 2017

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					0.4285	0.0000	0.4285	0.0472	0.0000	0.0472			0.0000			0.0000
Off-Road	0.6336	6.0877	4.7877	6.2200e-003		0.4578	0.4578		0.4212	0.4212		636.5299	636.5299	0.1950		640.6256
Total	0.6336	6.0877	4.7877	6.2200e-003	0.4285	0.4578	0.8864	0.0472	0.4212	0.4684		636.5299	636.5299	0.1950		640.6256

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	0.2487	3.0866	3.3685	8.6200e-003	0.5382	0.0459	0.5841	0.1378	0.0422	0.1800		853.8882	853.8882	6.4900e-003		854.0245
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	0.0188	0.0236	0.2940	7.1000e-004	0.0559	4.5000e-004	0.0563	0.0148	4.1000e-004	0.0152		57.1967	57.1967	2.8200e-003		57.2558
Total	0.2675	3.1101	3.6625	9.3300e-003	0.5941	0.0463	0.6404	0.1526	0.0426	0.1952		911.0849	911.0849	9.3100e-003		911.2803

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					0.1832	0.0000	0.1832	0.0202	0.0000	0.0202			0.0000			0.0000
Off-Road	0.6336	6.0877	4.7877	6.2200e-003		0.4578	0.4578		0.4212	0.4212	0.0000	636.5299	636.5299	0.1950		640.6256
Total	0.6336	6.0877	4.7877	6.2200e-003	0.1832	0.4578	0.6410	0.0202	0.4212	0.4414	0.0000	636.5299	636.5299	0.1950		640.6256

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	0.2487	3.0866	3.3685	8.6200e-003	0.4108	0.0459	0.4567	0.1065	0.0422	0.1487		853.8882	853.8882	6.4900e-003		854.0245
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	0.0188	0.0236	0.2940	7.1000e-004	0.0433	4.5000e-004	0.0437	0.0117	4.1000e-004	0.0121		57.1967	57.1967	2.8200e-003		57.2558
Total	0.2675	3.1101	3.6625	9.3300e-003	0.4541	0.0463	0.5004	0.1182	0.0426	0.1608		911.0849	911.0849	9.3100e-003		911.2803

3.5 Location 4 - 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					0.4285	0.0000	0.4285	0.0472	0.0000	0.0472			0.0000			0.0000
Off-Road	0.5322	5.2595	4.6734	6.2100e-003		0.3726	0.3726		0.3428	0.3428		625.5519	625.5519	0.1947		629.6415
Total	0.5322	5.2595	4.6734	6.2100e-003	0.4285	0.3726	0.8011	0.0472	0.3428	0.3900		625.5519	625.5519	0.1947		629.6415

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	0.2397	2.8700	3.2716	8.6100e-003	0.2660	0.0458	0.3118	0.0710	0.0421	0.1131		839.6735	839.6735	6.5800e-003		839.8117
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	0.0169	0.0214	0.2670	7.1000e-004	0.0559	4.4000e-004	0.0563	0.0148	4.0000e-004	0.0152		55.0685	55.0685	2.6100e-003		55.1233
Total	0.2566	2.8914	3.5386	9.3200e-003	0.3219	0.0462	0.3681	0.0858	0.0425	0.1283		894.7419	894.7419	9.1900e-003		894.9350

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					0.1832	0.0000	0.1832	0.0202	0.0000	0.0202			0.0000			0.0000
Off-Road	0.5322	5.2595	4.6734	6.2100e-003		0.3726	0.3726		0.3428	0.3428	0.0000	625.5519	625.5519	0.1947		629.6415
Total	0.5322	5.2595	4.6734	6.2100e-003	0.1832	0.3726	0.5558	0.0202	0.3428	0.3630	0.0000	625.5519	625.5519	0.1947		629.6415

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	0.2397	2.8700	3.2716	8.6100e-003	0.2094	0.0458	0.2552	0.0571	0.0421	0.0992		839.6735	839.6735	6.5800e-003		839.8117
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	0.0169	0.0214	0.2670	7.1000e-004	0.0433	4.4000e-004	0.0437	0.0117	4.0000e-004	0.0121		55.0685	55.0685	2.6100e-003		55.1233
Total	0.2566	2.8914	3.5386	9.3200e-003	0.2527	0.0462	0.2989	0.0688	0.0425	0.1113		894.7419	894.7419	9.1900e-003		894.9350

3.6 Location 5 - 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					0.4079	0.0000	0.4079	0.0440	0.0000	0.0440			0.0000			0.0000
Off-Road	0.5322	5.2595	4.6734	6.2100e-003		0.3726	0.3726		0.3428	0.3428		625.5519	625.5519	0.1947		629.6415
Total	0.5322	5.2595	4.6734	6.2100e-003	0.4079	0.3726	0.7805	0.0440	0.3428	0.3868		625.5519	625.5519	0.1947		629.6415

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	0.3597	4.3074	4.9102	0.0129	0.2987	0.0687	0.3674	0.0818	0.0632	0.1450		1,260.2182	1,260.2182	9.8800e-003		1,260.4257
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	0.0169	0.0214	0.2670	7.1000e-004	0.0559	4.4000e-004	0.0563	0.0148	4.0000e-004	0.0152		55.0685	55.0685	2.6100e-003		55.1233
Total	0.3766	4.3288	5.1772	0.0136	0.3546	0.0691	0.4237	0.0966	0.0636	0.1603		1,315.2867	1,315.2867	0.0125		1,315.5490

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					0.1744	0.0000	0.1744	0.0188	0.0000	0.0188			0.0000			0.0000
Off-Road	0.5322	5.2595	4.6734	6.2100e-003		0.3726	0.3726		0.3428	0.3428	0.0000	625.5519	625.5519	0.1947		629.6415
Total	0.5322	5.2595	4.6734	6.2100e-003	0.1744	0.3726	0.5470	0.0188	0.3428	0.3616	0.0000	625.5519	625.5519	0.1947		629.6415

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	0.3597	4.3074	4.9102	0.0129	0.2398	0.0687	0.3085	0.0674	0.0632	0.1306		1,260.2182	1,260.2182	9.8800e-003		1,260.4257
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	0.0169	0.0214	0.2670	7.1000e-004	0.0433	4.4000e-004	0.0437	0.0117	4.0000e-004	0.0121		55.0685	55.0685	2.6100e-003		55.1233
Total	0.3766	4.3288	5.1772	0.0136	0.2831	0.0691	0.3522	0.0791	0.0636	0.1427		1,315.2867	1,315.2867	0.0125		1,315.5490