

Moosa Creek Restoration Project - San Diego Air Basin, Annual

Moosa Creek Restoration Project

San Diego Air Basin, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
City Park	67.00	Acre	67.00	2,918,520.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.6	Precipitation Freq (Days)	40
Climate Zone	13			Operational Year	2022
Utility Company	San Diego Gas & Electric				
CO2 Intensity (lb/MW hr)	720.49	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 - City Park is the most similar land use to a restoration area

Construction Phase - Project specific

Off-road Equipment - Phase-specific equipment

Off-road Equipment - Phase-specific equipment

Off-road Equipment - Phase-specific construction equipment

Trips and VMT - Project-specific VMT

Grading - site-specific

Vehicle Trips - Because this is a restoration area, people will not be visiting it. Trips account for maintenance work and other visits for restoration activities

Consumer Products - No consumer products used

Area Coating - No architectural coatings used

Landscape Equipment - No landscaping equipment used

Water And Wastewater -

Land Use Change -

Construction Off-road Equipment Mitigation -

Table Name	Column Name	Default Value	New Value
tblAreaCoating	ReapplicationRatePercent	10	0
tblConstructionPhase	NumDays	70.00	12.00
tblConstructionPhase	NumDays	110.00	90.00
tblConstructionPhase	NumDays	40.00	5.00
tblConstructionPhase	NumDaysWeek	5.00	7.00
tblConstructionPhase	NumDaysWeek	5.00	7.00
tblConstructionPhase	NumDaysWeek	5.00	7.00
tblGrading	AcresOfGrading	360.00	27.00
tblGrading	AcresOfGrading	10.00	4.35
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	2.00
tblTripsAndVMT	VendorTripNumber	0.00	16.00
tblTripsAndVMT	VendorTripNumber	0.00	16.00
tblTripsAndVMT	VendorTripNumber	0.00	16.00
tblTripsAndVMT	WorkerTripNumber	25.00	40.00
tblTripsAndVMT	WorkerTripNumber	20.00	40.00
tblTripsAndVMT	WorkerTripNumber	38.00	40.00
tblVehicleTrips	ST_TR	22.75	2.00

tblVehicleTrips	SU_TR	16.74	2.00
tblVehicleTrips	WD_TR	1.89	2.00

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					
2021	0.4493	4.6213	3.0180	7.5100e-003	0.6116	0.1915	0.8031	0.3225	0.1762	0.4987	0.0000	662.1016	662.1016	0.2041	0.0000	667.2051
Maximum	0.4493	4.6213	3.0180	7.5100e-003	0.6116	0.1915	0.8031	0.3225	0.1762	0.4987	0.0000	662.1016	662.1016	0.2041	0.0000	667.2051
San Diego County Threshold	13.7	40	100	40	N/A	N/A	15	N/A	N/A	0.4987	N/A	N/A	N/A	N/A	N/A	900

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					
2021	0.4493	4.6213	3.0180	7.5100e-003	0.2878	0.1915	0.4793	0.1485	0.1762	0.3247	0.0000	662.1009	662.1009	0.2041	0.0000	667.2044
Maximum	0.4493	4.6213	3.0180	7.5100e-003	0.2878	0.1915	0.4793	0.1485	0.1762	0.3247	0.0000	662.1009	662.1009	0.2041	0.0000	667.2044
San Diego County Threshold	13.7	40	100	40	N/A	N/A	15	N/A	N/A	0.4987	N/A	N/A	N/A	N/A	N/A	900

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	52.94	0.00	40.32	53.94	0.00	34.88	0.00	0.00	0.00	0.00	0.00	0.00

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	1-1-2021	3-31-2021	4.1856	4.1856
2	4-1-2021	6-30-2021	0.8849	0.8849
		Highest	4.1856	4.1856

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2021	1/12/2021	7	12	
2	Site Preparation	Site Preparation	1/13/2021	1/17/2021	7	5	
3	Grading	Grading	1/18/2021	4/17/2021	7	90	

Acres of Grading (Site Preparation Phase): 4.35

Acres of Grading (Grading Phase): 27

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Excavators	2	8.00	158	0.38
Demolition	Forklifts	2	8.00	89	0.20
Demolition	Off-Highway Trucks	4	8.00	402	0.38
Demolition	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Site Preparation	Off-Highway Trucks	2	8.00	402	0.38

Site Preparation	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Scrapers	2	8.00	367	0.48
Site Preparation	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Grading	Excavators	1	8.00	158	0.38
Grading	Forklifts	2	8.00	89	0.20
Grading	Off-Highway Trucks	4	8.00	402	0.38
Grading	Rubber Tired Dozers	2	8.00	247	0.40
Grading	Scrapers	4	8.00	367	0.48
Grading	Skid Steer Loaders	1	8.00	65	0.37
Grading	Tractors/Loaders/Backhoes	1	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
Demolition	10	40.00	16.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	8	40.00	16.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	15	40.00	16.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 Demolition - 2021

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	0.0211	0.1891	0.1669	4.3000e-004		8.2300e-003	8.2300e-003		7.5700e-003	7.5700e-003	0.0000	38.1689	38.1689	0.0123	0.0000	38.4775
Total	0.0211	0.1891	0.1669	4.3000e-004		8.2300e-003	8.2300e-003		7.5700e-003	7.5700e-003	0.0000	38.1689	38.1689	0.0123	0.0000	38.4775

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	3.0000e-004	9.8700e-003	2.6300e-003	3.0000e-005	6.4000e-004	2.0000e-005	6.6000e-004	1.8000e-004	2.0000e-005	2.0000e-004	0.0000	2.5098	2.5098	1.9000e-004	0.0000	2.5145
Worker	8.3000e-004	6.0000e-004	6.0000e-003	2.0000e-005	1.9200e-003	1.0000e-005	1.9400e-003	5.1000e-004	1.0000e-005	5.2000e-004	0.0000	1.6813	1.6813	5.0000e-005	0.0000	1.6825
Total	1.1300e-003	0.0105	8.6300e-003	5.0000e-005	2.5600e-003	3.0000e-005	2.6000e-003	6.9000e-004	3.0000e-005	7.2000e-004	0.0000	4.1911	4.1911	2.4000e-004	0.0000	4.1969

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	0.0211	0.1891	0.1669	4.3000e-004		8.2300e-003	8.2300e-003		7.5700e-003	7.5700e-003	0.0000	38.1689	38.1689	0.0123	0.0000	38.4775
Total	0.0211	0.1891	0.1669	4.3000e-004		8.2300e-003	8.2300e-003		7.5700e-003	7.5700e-003	0.0000	38.1689	38.1689	0.0123	0.0000	38.4775

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	3.0000e-004	9.8700e-003	2.6300e-003	3.0000e-005	6.4000e-004	2.0000e-005	6.6000e-004	1.8000e-004	2.0000e-005	2.0000e-004	0.0000	2.5098	2.5098	1.9000e-004	0.0000	2.5145
Worker	8.3000e-004	6.0000e-004	6.0000e-003	2.0000e-005	1.9200e-003	1.0000e-005	1.9400e-003	5.1000e-004	1.0000e-005	5.2000e-004	0.0000	1.6813	1.6813	5.0000e-005	0.0000	1.6825
Total	1.1300e-003	0.0105	8.6300e-003	5.0000e-005	2.5600e-003	3.0000e-005	2.6000e-003	6.9000e-004	3.0000e-005	7.2000e-004	0.0000	4.1911	4.1911	2.4000e-004	0.0000	4.1969

3.3 Site Preparation - 2021

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					0.0324	0.0000	0.0324	0.0168	0.0000	0.0168	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0138	0.1442	0.0845	2.0000e-004		6.2700e-003	6.2700e-003		5.7700e-003	5.7700e-003	0.0000	17.5753	17.5753	5.6800e-003	0.0000	17.7174
Total	0.0138	0.1442	0.0845	2.0000e-004	0.0324	6.2700e-003	0.0387	0.0168	5.7700e-003	0.0226	0.0000	17.5753	17.5753	5.6800e-003	0.0000	17.7174

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	1.2000e-004	4.1100e-003	1.1000e-003	1.0000e-005	2.7000e-004	1.0000e-005	2.7000e-004	8.0000e-005	1.0000e-005	8.0000e-005	0.0000	1.0458	1.0458	8.0000e-005	0.0000	1.0477
Worker	3.5000e-004	2.5000e-004	2.5000e-003	1.0000e-005	8.0000e-004	1.0000e-005	8.1000e-004	2.1000e-004	1.0000e-005	2.2000e-004	0.0000	0.7005	0.7005	2.0000e-005	0.0000	0.7010
Total	4.7000e-004	4.3600e-003	3.6000e-003	2.0000e-005	1.0700e-003	2.0000e-005	1.0800e-003	2.9000e-004	2.0000e-005	3.0000e-004	0.0000	1.7463	1.7463	1.0000e-004	0.0000	1.7487

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					0.0146	0.0000	0.0146	7.5600e-003	0.0000	7.5600e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0138	0.1442	0.0845	2.0000e-004		6.2700e-003	6.2700e-003		5.7700e-003	5.7700e-003	0.0000	17.5753	17.5753	5.6800e-003	0.0000	17.7174
Total	0.0138	0.1442	0.0845	2.0000e-004	0.0146	6.2700e-003	0.0209	7.5600e-003	5.7700e-003	0.0133	0.0000	17.5753	17.5753	5.6800e-003	0.0000	17.7174

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	1.2000e-004	4.1100e-003	1.1000e-003	1.0000e-005	2.7000e-004	1.0000e-005	2.7000e-004	8.0000e-005	1.0000e-005	8.0000e-005	0.0000	1.0458	1.0458	8.0000e-005	0.0000	1.0477
Worker	3.5000e-004	2.5000e-004	2.5000e-003	1.0000e-005	8.0000e-004	1.0000e-005	8.1000e-004	2.1000e-004	1.0000e-005	2.2000e-004	0.0000	0.7005	0.7005	2.0000e-005	0.0000	0.7010
Total	4.7000e-004	4.3600e-003	3.6000e-003	2.0000e-005	1.0700e-003	2.0000e-005	1.0800e-003	2.9000e-004	2.0000e-005	3.0000e-004	0.0000	1.7463	1.7463	1.0000e-004	0.0000	1.7487

3.4 Grading - 2021

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					0.5563	0.0000	0.5563	0.2995	0.0000	0.2995	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.4043	4.1948	2.6896	6.4800e-003		0.1767	0.1767		0.1626	0.1626	0.0000	568.9870	568.9870	0.1840	0.0000	573.5875
Total	0.4043	4.1948	2.6896	6.4800e-003	0.5563	0.1767	0.7330	0.2995	0.1626	0.4621	0.0000	568.9870	568.9870	0.1840	0.0000	573.5875

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	2.2300e-003	0.0740	0.0197	1.9000e-004	4.7800e-003	1.6000e-004	4.9400e-003	1.3800e-003	1.5000e-004	1.5300e-003	0.0000	18.8237	18.8237	1.4000e-003	0.0000	18.8586
Worker	6.2600e-003	4.4600e-003	0.0450	1.4000e-004	0.0144	1.0000e-004	0.0145	3.8400e-003	9.0000e-005	3.9300e-003	0.0000	12.6094	12.6094	3.6000e-004	0.0000	12.6184
Total	8.4900e-003	0.0785	0.0647	3.3000e-004	0.0192	2.6000e-004	0.0195	5.2200e-003	2.4000e-004	5.4600e-003	0.0000	31.4331	31.4331	1.7600e-003	0.0000	31.4771

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					0.2503	0.0000	0.2503	0.1348	0.0000	0.1348	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.4043	4.1948	2.6896	6.4800e-003		0.1767	0.1767		0.1626	0.1626	0.0000	568.9863	568.9863	0.1840	0.0000	573.5868
Total	0.4043	4.1948	2.6896	6.4800e-003	0.2503	0.1767	0.4271	0.1348	0.1626	0.2973	0.0000	568.9863	568.9863	0.1840	0.0000	573.5868

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	2.2300e-003	0.0740	0.0197	1.9000e-004	4.7800e-003	1.6000e-004	4.9400e-003	1.3800e-003	1.5000e-004	1.5300e-003	0.0000	18.8237	18.8237	1.4000e-003	0.0000	18.8586
Worker	6.2600e-003	4.4600e-003	0.0450	1.4000e-004	0.0144	1.0000e-004	0.0145	3.8400e-003	9.0000e-005	3.9300e-003	0.0000	12.6094	12.6094	3.6000e-004	0.0000	12.6184
Total	8.4900e-003	0.0785	0.0647	3.3000e-004	0.0192	2.6000e-004	0.0195	5.2200e-003	2.4000e-004	5.4600e-003	0.0000	31.4331	31.4331	1.7600e-003	0.0000	31.4771

Moosa Creek Restoration Project - San Diego Air Basin, Summer

Moosa Creek Restoration Project

San Diego Air Basin, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
City Park	67.00	Acre	67.00	2,918,520.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.6	Precipitation Freq (Days)	40
Climate Zone	13			Operational Year	2022
Utility Company	San Diego Gas & Electric				
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1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - City Park is the most similar land use to a restoration area

Construction Phase - Project specific

Off-road Equipment - Phase-specific equipment

Off-road Equipment - Phase-specific equipment

Off-road Equipment - Phase-specific construction equipment

Trips and VMT - Project-specific VMT

Grading - site-specific

Vehicle Trips - Because this is a restoration area, people will not be visiting it. Trips account for maintenance work and other visits for restoration activities

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Area Coating - No architectural coatings used

Landscape Equipment - No landscaping equipment used

Water And Wastewater -

Land Use Change -

Construction Off-road Equipment Mitigation -

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tblConstructionPhase	NumDays	110.00	90.00
tblConstructionPhase	NumDays	40.00	5.00
tblConstructionPhase	NumDaysWeek	5.00	7.00
tblConstructionPhase	NumDaysWeek	5.00	7.00
tblConstructionPhase	NumDaysWeek	5.00	7.00
tblGrading	AcresOfGrading	360.00	27.00
tblGrading	AcresOfGrading	10.00	4.35
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	2.00
tblTripsAndVMT	VendorTripNumber	0.00	16.00
tblTripsAndVMT	VendorTripNumber	0.00	16.00
tblTripsAndVMT	VendorTripNumber	0.00	16.00
tblTripsAndVMT	WorkerTripNumber	25.00	40.00
tblTripsAndVMT	WorkerTripNumber	20.00	40.00
tblTripsAndVMT	WorkerTripNumber	38.00	40.00
tblVehicleTrips	ST_TR	22.75	2.00

tblVehicleTrips	SU_TR	16.74	2.00
tblVehicleTrips	WD_TR	1.89	2.00

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					
2021	9.1715	94.9373	61.2456	0.1515	13.4037	3.9328	16.7320	6.8384	3.6183	10.3914	0.0000	14,729.7340	14,729.7340	4.5504	0.0000	14,843.4933
Maximum	9.1715	94.9373	61.2456	0.1515	13.4037	3.9328	16.7320	6.8384	3.6183	10.3914	0.0000	14,729.7340	14,729.7340	4.5504	0.0000	14,843.4933
San Diego County Thresholds	75	250	550	250	N/A	N/A	100	N/A	N/A	55	N/A	N/A	N/A	N/A	N/A	N/A

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					
2021	9.1715	94.9373	61.2456	0.1515	6.2720	3.9328	9.9328	3.1424	3.6183	6.7313	0.0000	14,729.7340	14,729.7340	4.5504	0.0000	14,843.4933
Maximum	9.1715	94.9373	61.2456	0.1515	6.2720	3.9328	9.9328	3.1424	3.6183	6.7313	0.0000	14,729.7340	14,729.7340	4.5504	0.0000	14,843.4933
San Diego County Thresholds	75	250	550	250	N/A	N/A	100	N/A	N/A	55	N/A	N/A	N/A	N/A	N/A	N/A

	ROG	NOx	CO	SO2	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	53.21	0.00	40.64	54.05	0.00	35.22	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2021	1/12/2021	7	12	
2	Site Preparation	Site Preparation	1/13/2021	1/17/2021	7	5	
3	Grading	Grading	1/18/2021	4/17/2021	7	90	

Acres of Grading (Site Preparation Phase): 4.35

Acres of Grading (Grading Phase): 27

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Excavators	2	8.00	158	0.38
Demolition	Forklifts	2	8.00	89	0.20
Demolition	Off-Highway Trucks	4	8.00	402	0.38
Demolition	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Site Preparation	Off-Highway Trucks	2	8.00	402	0.38
Site Preparation	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Scrapers	2	8.00	367	0.48
Site Preparation	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Grading	Excavators	1	8.00	158	0.38
Grading	Forklifts	2	8.00	89	0.20

Grading	Off-Highway Trucks	4	8.00	402	0.38
Grading	Rubber Tired Dozers	2	8.00	247	0.40
Grading	Scrapers	4	8.00	367	0.48
Grading	Skid Steer Loaders	1	8.00	65	0.37
Grading	Tractors/Loaders/Backhoes	1	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
Demolition	10	40.00	16.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	8	40.00	16.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	15	40.00	16.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 Demolition - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.5152	31.5101	27.8172	0.0724		1.3721	1.3721		1.2623	1.2623		7,012.3377	7,012.3377	2.2679		7,069.0360
Total	3.5152	31.5101	27.8172	0.0724		1.3721	1.3721		1.2623	1.2623		7,012.3377	7,012.3377	2.2679		7,069.0360

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	0.0484	1.6293	0.4152	4.3300e-003	0.1083	3.4200e-003	0.1117	0.0312	3.2700e-003	0.0345		466.1631	466.1631	0.0333		466.9958
Worker	0.1384	0.0899	1.0610	3.2700e-003	0.3286	2.2700e-003	0.3309	0.0872	2.0900e-003	0.0893		325.7764	325.7764	9.3000e-003		326.0088
Total	0.1867	1.7192	1.4762	7.6000e-003	0.4369	5.6900e-003	0.4426	0.1183	5.3600e-003	0.1237		791.9395	791.9395	0.0426		793.0046

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	3.5152	31.5101	27.8172	0.0724		1.3721	1.3721		1.2623	1.2623	0.0000	7,012.3377	7,012.3377	2.2679		7,069.0360
Total	3.5152	31.5101	27.8172	0.0724		1.3721	1.3721		1.2623	1.2623	0.0000	7,012.3377	7,012.3377	2.2679		7,069.0360

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	0.0484	1.6293	0.4152	4.3300e-003	0.1083	3.4200e-003	0.1117	0.0312	3.2700e-003	0.0345		466.1631	466.1631	0.0333		466.9958
Worker	0.1384	0.0899	1.0610	3.2700e-003	0.3286	2.2700e-003	0.3309	0.0872	2.0900e-003	0.0893		325.7764	325.7764	9.3000e-003		326.0088
Total	0.1867	1.7192	1.4762	7.6000e-003	0.4369	5.6900e-003	0.4426	0.1183	5.3600e-003	0.1237		791.9395	791.9395	0.0426		793.0046

3.3 Site Preparation - 2021

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					12.9668	0.0000	12.9668	6.7201	0.0000	6.7201			0.0000			0.0000
Off-Road	5.5380	57.6665	33.8141	0.0800		2.5073	2.5073		2.3068	2.3068		7,749.3736	7,749.3736	2.5063		7,812.0312
Total	5.5380	57.6665	33.8141	0.0800	12.9668	2.5073	15.4741	6.7201	2.3068	9.0268		7,749.3736	7,749.3736	2.5063		7,812.0312

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	0.0484	1.6293	0.4152	4.3300e-003	0.1083	3.4200e-003	0.1117	0.0312	3.2700e-003	0.0345		466.1631	466.1631	0.0333		466.9958
Worker	0.1384	0.0899	1.0610	3.2700e-003	0.3286	2.2700e-003	0.3309	0.0872	2.0900e-003	0.0893		325.7764	325.7764	9.3000e-003		326.0088
Total	0.1867	1.7192	1.4762	7.6000e-003	0.4369	5.6900e-003	0.4426	0.1183	5.3600e-003	0.1237		791.9395	791.9395	0.0426		793.0046

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					5.8351	0.0000	5.8351	3.0240	0.0000	3.0240			0.0000			0.0000
Off-Road	5.5380	57.6665	33.8141	0.0800		2.5073	2.5073		2.3068	2.3068	0.0000	7,749.3736	7,749.3736	2.5063		7,812.0312
Total	5.5380	57.6665	33.8141	0.0800	5.8351	2.5073	8.3424	3.0240	2.3068	5.3308	0.0000	7,749.3736	7,749.3736	2.5063		7,812.0312

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	0.0484	1.6293	0.4152	4.3300e-003	0.1083	3.4200e-003	0.1117	0.0312	3.2700e-003	0.0345		466.1631	466.1631	0.0333		466.9958
Worker	0.1384	0.0899	1.0610	3.2700e-003	0.3286	2.2700e-003	0.3309	0.0872	2.0900e-003	0.0893		325.7764	325.7764	9.3000e-003		326.0088
Total	0.1867	1.7192	1.4762	7.6000e-003	0.4369	5.6900e-003	0.4426	0.1183	5.3600e-003	0.1237		791.9395	791.9395	0.0426		793.0046

3.4 Grading - 2021

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					12.3623	0.0000	12.3623	6.6548	0.0000	6.6548			0.0000			0.0000
Off-Road	8.9848	93.2182	59.7694	0.1439		3.9271	3.9271		3.6129	3.6129		13,937.7945	13,937.7945	4.5078		14,050.4887
Total	8.9848	93.2182	59.7694	0.1439	12.3623	3.9271	16.2894	6.6548	3.6129	10.2677		13,937.7945	13,937.7945	4.5078		14,050.4887

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	0.0484	1.6293	0.4152	4.3300e-003	0.1083	3.4200e-003	0.1117	0.0312	3.2700e-003	0.0345		466.1631	466.1631	0.0333		466.9958
Worker	0.1384	0.0899	1.0610	3.2700e-003	0.3286	2.2700e-003	0.3309	0.0872	2.0900e-003	0.0893		325.7764	325.7764	9.3000e-003		326.0088
Total	0.1867	1.7192	1.4762	7.6000e-003	0.4369	5.6900e-003	0.4426	0.1183	5.3600e-003	0.1237		791.9395	791.9395	0.0426		793.0046

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					5.5631	0.0000	5.5631	2.9947	0.0000	2.9947			0.0000			0.0000
Off-Road	8.9848	93.2182	59.7694	0.1439		3.9271	3.9271		3.6129	3.6129	0.0000	13,937.7945	13,937.7945	4.5078		14,050.4886
Total	8.9848	93.2182	59.7694	0.1439	5.5631	3.9271	9.4902	2.9947	3.6129	6.6076	0.0000	13,937.7945	13,937.7945	4.5078		14,050.4886

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	0.0484	1.6293	0.4152	4.3300e-003	0.1083	3.4200e-003	0.1117	0.0312	3.2700e-003	0.0345		466.1631	466.1631	0.0333		466.9958
Worker	0.1384	0.0899	1.0610	3.2700e-003	0.3286	2.2700e-003	0.3309	0.0872	2.0900e-003	0.0893		325.7764	325.7764	9.3000e-003		326.0088
Total	0.1867	1.7192	1.4762	7.6000e-003	0.4369	5.6900e-003	0.4426	0.1183	5.3600e-003	0.1237		791.9395	791.9395	0.0426		793.0046

Moosa Creek Restoration Project - San Diego Air Basin, Winter

Moosa Creek Restoration Project

San Diego Air Basin, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
City Park	67.00	Acre	67.00	2,918,520.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.6	Precipitation Freq (Days)	40
Climate Zone	13			Operational Year	2022
Utility Company	San Diego Gas & Electric				
CO2 Intensity (lb/MW hr)	720.49	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 - City Park is the most similar land use to a restoration area

Construction Phase - Project specific

Off-road Equipment - Phase-specific equipment

Off-road Equipment - Phase-specific equipment

Off-road Equipment - Phase-specific construction equipment

Trips and VMT - Project-specific VMT

Grading - site-specific

Vehicle Trips - Because this is a restoration area, people will not be visiting it. Trips account for maintenance work and other visits for restoration activities

Consumer Products - No consumer products used

Area Coating - No architectural coatings used

Landscape Equipment - No landscaping equipment used

Water And Wastewater -

Land Use Change -

Construction Off-road Equipment Mitigation -

Table Name	Column Name	Default Value	New Value
tblAreaCoating	ReapplicationRatePercent	10	0
tblConstructionPhase	NumDays	70.00	12.00
tblConstructionPhase	NumDays	110.00	90.00
tblConstructionPhase	NumDays	40.00	5.00
tblConstructionPhase	NumDaysWeek	5.00	7.00
tblConstructionPhase	NumDaysWeek	5.00	7.00
tblConstructionPhase	NumDaysWeek	5.00	7.00
tblGrading	AcresOfGrading	360.00	27.00
tblGrading	AcresOfGrading	10.00	4.35
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	2.00
tblTripsAndVMT	VendorTripNumber	0.00	16.00
tblTripsAndVMT	VendorTripNumber	0.00	16.00
tblTripsAndVMT	VendorTripNumber	0.00	16.00
tblTripsAndVMT	WorkerTripNumber	25.00	40.00
tblTripsAndVMT	WorkerTripNumber	20.00	40.00
tblTripsAndVMT	WorkerTripNumber	38.00	40.00
tblVehicleTrips	ST_TR	22.75	2.00

tblVehicleTrips	SU_TR	16.74	2.00
tblVehicleTrips	WD_TR	1.89	2.00

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					
2021	9.1927	94.9440	61.2291	0.1512	13.4037	3.9329	16.7322	6.8384	3.6184	10.3916	0.0000	14,697.7244	14,697.7244	4.5519	0.0000	14,811.5226
Maximum	9.1927	94.9440	61.2291	0.1512	13.4037	3.9329	16.7322	6.8384	3.6184	10.3916	0.0000	14,697.7244	14,697.7244	4.5519	0.0000	14,811.5226
San Diego County Thresholds	75	250	550	250	N/A	N/A	100	N/A	N/A	55	N/A	N/A	N/A	N/A	N/A	N/A

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					
2021	9.1927	94.9440	61.2291	0.1512	6.2720	3.9329	9.9329	3.1424	3.6184	6.7314	0.0000	14,697.7244	14,697.7244	4.5519	0.0000	14,811.5226
Maximum	9.1927	94.9440	61.2291	0.1512	6.2720	3.9329	9.9329	3.1424	3.6184	6.7314	0.0000	14,697.7244	14,697.7244	4.5519	0.0000	14,811.5226
San Diego County Thresholds	75	250	550	250	N/A	N/A	100	N/A	N/A	55	N/A	N/A	N/A	N/A	N/A	N/A

	ROG	NOx	CO	SO2	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	53.21	0.00	40.64	54.05	0.00	35.22	0.00	0.00	0.00	0.00	0.00	0.00

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	0.1510	6.0000e-005	6.8500e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0147	0.0147	4.0000e-005		0.0156
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.1922	0.7977	2.0716	6.7500e-003	0.6066	5.8300e-003	0.6124	0.1621	5.4400e-003	0.1676		686.3790	686.3790	0.0381		687.3325
Total	0.3432	0.7978	2.0785	6.7500e-003	0.6066	5.8500e-003	0.6124	0.1621	5.4600e-003	0.1676		686.3937	686.3937	0.0382	0.0000	687.3481

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	0.1510	6.0000e-005	6.8500e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0147	0.0147	4.0000e-005		0.0156
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.1922	0.7977	2.0716	6.7500e-003	0.6066	5.8300e-003	0.6124	0.1621	5.4400e-003	0.1676		686.3790	686.3790	0.0381		687.3325
Total	0.3432	0.7978	2.0785	6.7500e-003	0.6066	5.8500e-003	0.6124	0.1621	5.4600e-003	0.1676		686.3937	686.3937	0.0382	0.0000	687.3481

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2021	1/12/2021	7	12	
2	Site Preparation	Site Preparation	1/13/2021	1/17/2021	7	5	
3	Grading	Grading	1/18/2021	4/17/2021	7	90	

Acres of Grading (Site Preparation Phase): 4.35

Acres of Grading (Grading Phase): 27

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Excavators	2	8.00	158	0.38
Demolition	Forklifts	2	8.00	89	0.20
Demolition	Off-Highway Trucks	4	8.00	402	0.38
Demolition	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Site Preparation	Off-Highway Trucks	2	8.00	402	0.38
Site Preparation	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Scrapers	2	8.00	367	0.48
Site Preparation	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Grading	Excavators	1	8.00	158	0.38
Grading	Forklifts	2	8.00	89	0.20
Grading	Off-Highway Trucks	4	8.00	402	0.38

Grading	Rubber Tired Dozers	2	8.00	247	0.40
Grading	Scrapers	4	8.00	367	0.48
Grading	Skid Steer Loaders	1	8.00	65	0.37
Grading	Tractors/Loaders/Backhoes	1	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
Demolition	10	40.00	16.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	8	40.00	16.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	15	40.00	16.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 Demolition - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.5152	31.5101	27.8172	0.0724		1.3721	1.3721		1.2623	1.2623		7,012.3377	7,012.3377	2.2679		7,069.0360
Total	3.5152	31.5101	27.8172	0.0724		1.3721	1.3721		1.2623	1.2623		7,012.3377	7,012.3377	2.2679		7,069.0360

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	0.0510	1.6249	0.4623	4.2200e-003	0.1083	3.5600e-003	0.1119	0.0312	3.4000e-003	0.0346		454.1109	454.1109	0.0354		454.9953
Worker	0.1569	0.1009	0.9973	3.0700e-003	0.3286	2.2700e-003	0.3309	0.0872	2.0900e-003	0.0893		305.8190	305.8190	8.7900e-003		306.0387
Total	0.2079	1.7258	1.4596	7.2900e-003	0.4369	5.8300e-003	0.4427	0.1183	5.4900e-003	0.1238		759.9299	759.9299	0.0442		761.0340

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	3.5152	31.5101	27.8172	0.0724		1.3721	1.3721		1.2623	1.2623	0.0000	7,012.3377	7,012.3377	2.2679		7,069.0360
Total	3.5152	31.5101	27.8172	0.0724		1.3721	1.3721		1.2623	1.2623	0.0000	7,012.3377	7,012.3377	2.2679		7,069.0360

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	0.0510	1.6249	0.4623	4.2200e-003	0.1083	3.5600e-003	0.1119	0.0312	3.4000e-003	0.0346		454.1109	454.1109	0.0354		454.9953
Worker	0.1569	0.1009	0.9973	3.0700e-003	0.3286	2.2700e-003	0.3309	0.0872	2.0900e-003	0.0893		305.8190	305.8190	8.7900e-003		306.0387
Total	0.2079	1.7258	1.4596	7.2900e-003	0.4369	5.8300e-003	0.4427	0.1183	5.4900e-003	0.1238		759.9299	759.9299	0.0442		761.0340

3.3 Site Preparation - 2021

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					12.9668	0.0000	12.9668	6.7201	0.0000	6.7201			0.0000			0.0000
Off-Road	5.5380	57.6665	33.8141	0.0800		2.5073	2.5073		2.3068	2.3068		7,749.3736	7,749.3736	2.5063		7,812.0312
Total	5.5380	57.6665	33.8141	0.0800	12.9668	2.5073	15.4741	6.7201	2.3068	9.0268		7,749.3736	7,749.3736	2.5063		7,812.0312

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	0.0510	1.6249	0.4623	4.2200e-003	0.1083	3.5600e-003	0.1119	0.0312	3.4000e-003	0.0346		454.1109	454.1109	0.0354		454.9953
Worker	0.1569	0.1009	0.9973	3.0700e-003	0.3286	2.2700e-003	0.3309	0.0872	2.0900e-003	0.0893		305.8190	305.8190	8.7900e-003		306.0387
Total	0.2079	1.7258	1.4596	7.2900e-003	0.4369	5.8300e-003	0.4427	0.1183	5.4900e-003	0.1238		759.9299	759.9299	0.0442		761.0340

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					5.8351	0.0000	5.8351	3.0240	0.0000	3.0240			0.0000			0.0000
Off-Road	5.5380	57.6665	33.8141	0.0800		2.5073	2.5073		2.3068	2.3068	0.0000	7,749.3736	7,749.3736	2.5063		7,812.0312
Total	5.5380	57.6665	33.8141	0.0800	5.8351	2.5073	8.3424	3.0240	2.3068	5.3308	0.0000	7,749.3736	7,749.3736	2.5063		7,812.0312

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	0.0510	1.6249	0.4623	4.2200e-003	0.1083	3.5600e-003	0.1119	0.0312	3.4000e-003	0.0346		454.1109	454.1109	0.0354		454.9953
Worker	0.1569	0.1009	0.9973	3.0700e-003	0.3286	2.2700e-003	0.3309	0.0872	2.0900e-003	0.0893		305.8190	305.8190	8.7900e-003		306.0387
Total	0.2079	1.7258	1.4596	7.2900e-003	0.4369	5.8300e-003	0.4427	0.1183	5.4900e-003	0.1238		759.9299	759.9299	0.0442		761.0340

3.4 Grading - 2021

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					12.3623	0.0000	12.3623	6.6548	0.0000	6.6548			0.0000			0.0000
Off-Road	8.9848	93.2182	59.7694	0.1439		3.9271	3.9271		3.6129	3.6129		13,937.7945	13,937.7945	4.5078		14,050.4887
Total	8.9848	93.2182	59.7694	0.1439	12.3623	3.9271	16.2894	6.6548	3.6129	10.2677		13,937.7945	13,937.7945	4.5078		14,050.4887

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	0.0510	1.6249	0.4623	4.2200e-003	0.1083	3.5600e-003	0.1119	0.0312	3.4000e-003	0.0346		454.1109	454.1109	0.0354		454.9953
Worker	0.1569	0.1009	0.9973	3.0700e-003	0.3286	2.2700e-003	0.3309	0.0872	2.0900e-003	0.0893		305.8190	305.8190	8.7900e-003		306.0387
Total	0.2079	1.7258	1.4596	7.2900e-003	0.4369	5.8300e-003	0.4427	0.1183	5.4900e-003	0.1238		759.9299	759.9299	0.0442		761.0340

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					5.5631	0.0000	5.5631	2.9947	0.0000	2.9947			0.0000			0.0000
Off-Road	8.9848	93.2182	59.7694	0.1439		3.9271	3.9271		3.6129	3.6129	0.0000	13,937.7945	13,937.7945	4.5078		14,050.4886
Total	8.9848	93.2182	59.7694	0.1439	5.5631	3.9271	9.4902	2.9947	3.6129	6.6076	0.0000	13,937.7945	13,937.7945	4.5078		14,050.4886

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	0.0510	1.6249	0.4623	4.2200e-003	0.1083	3.5600e-003	0.1119	0.0312	3.4000e-003	0.0346		454.1109	454.1109	0.0354		454.9953
Worker	0.1569	0.1009	0.9973	3.0700e-003	0.3286	2.2700e-003	0.3309	0.0872	2.0900e-003	0.0893		305.8190	305.8190	8.7900e-003		306.0387
Total	0.2079	1.7258	1.4596	7.2900e-003	0.4369	5.8300e-003	0.4427	0.1183	5.4900e-003	0.1238		759.9299	759.9299	0.0442		761.0340