

MEMORANDUM

DATE: August 9, 2019

To: Carl Winter

FROM: Michael Slavick

SUBJECT: CR&R MRF Construction Emissions associated with the New Office/Maintenance Buildings and MRF Building Addition (LSA Project# CLT1802.01)

LSA has prepared this air quality and greenhouse gas (GHG) construction emission analysis technical memorandum for the CC&R Colton Facility in the City of Colton (City). The project site is located at 2059 East Steel Road. The proposed project would construct a new office/maintenance buildings and MRF building addition. The purpose of this air quality and GHG emission analysis is to present the estimated construction emissions and compare the resultant emissions to the SCAQMD significant thresholds.

The demolition activity would include the removal of 3 buildings totaling 6,668 square feet (sf) (i.e., 3,210 sf maintenance building, 533 sf staff building, and 2,925 sf office building). The construction activity would include a 15,680 sf vehicle maintenance building/administration building, which includes a 9,970 sf single-story building with 8 heavy duty vehicle maintenance bays) and an adjoining two-story, 5,710 sf of office/administration space. Construction will be standard concrete tilt-up with metal roof. Additionally, a 24,000 prefabricated metal building will be constructed to enclose the existing dump/sorting pad. Excavation will generally be limited to the footprints of the existing buildings to a depth no more than 5 feet below grade.

The nearest sensitive use (residential) is located approximately 1,100 feet from the project site.

Equipment Exhausts and Related Construction Activities

Construction activities produce combustion emissions from various sources such as grading, site preparation, utility engines, tenant improvements, and motor vehicles transporting the construction crew. Exhaust emissions from construction activities envisioned on site would vary daily as construction activity levels change. The use of construction equipment on site would result in localized exhaust emissions. The California Emissions Estimator Model version 2016.3.2 (CalEEMod) was used to calculate the construction emissions. The construction emissions are shown in Table 1.

Table 1: Short-Term Regional Construction Emissions

| Construction Phase | Total Regional Pollutant Emissions (lbs/day) | | | | | | | |
|----------------------------------|--|---------------|---------------|---------------|---------------------------|--------------------------|----------------------------|---------------------------|
| | VOC | NOx | CO | SOx | Fugitive PM ₁₀ | Exhaust PM ₁₀ | Fugitive PM _{2.5} | Exhaust PM _{2.5} |
| Demolition | 3.40 | 33.63 | 22.48 | 0.04 | 0.32 | 1.66 | 0.07 | 1.54 |
| Site Preparation | 4.17 | 42.48 | 22.32 | 0.04 | 7.25 | 2.20 | 3.93 | 2.02 |
| Grading | 2.51 | 26.44 | 16.73 | 0.03 | 2.56 | 1.27 | 1.34 | 1.17 |
| Building Construction | 2.24 | 19.98 | 17.76 | 0.03 | 0.23 | 1.12 | 0.06 | 1.05 |
| Paving | 1.33 | 12.97 | 15.27 | 0.02 | 0.17 | 0.68 | 0.04 | 0.62 |
| Architectural Coatings | 18.63 | 1.54 | 1.94 | 0.00 | 0.03 | 0.09 | 0.01 | 0.09 |
| Peak Daily Emissions | 18.63 | 42.48 | 22.48 | 0.04 | 9.45 | | 5.95 | |
| SCAQMD Thresholds | 75.00 | 100.00 | 550.00 | 150.00 | 150.00 | | 55.00 | |
| Exceed SCAQMD Thresholds? | No | No | No | No | No | | No | |

Source: LSA (August 2019).

CO = carbon monoxide
lbs/day = pounds per day

NOx = nitrogen oxides

PM₁₀ = particulate matter less than 10 microns in size

PM_{2.5} = particulate matter less than 2.5 microns in size

SCAQMD = South Coast Air Quality Management District

SOx = sulfur oxides

VOC = volatile organic compounds

As shown in Table 1, the construction emissions would be less than the SCAQMD thresholds. Since no exceedances of any criteria pollutants are expected, no significant impacts would occur for project construction.

Localized Impacts Analysis

The SCAQMD has issued guidance on applying CalEEMod modeling results to localized impacts analyses. Sensitive receptors include residences, schools, hospitals, and similar uses that are sensitive to adverse air quality. Table 2 shows that the construction emission rates would not exceed the localized significant threshold (LST) for the project site.

Table 2: Construction Localized Impacts Analysis

| Emissions Sources | NOx (lbs/day) | CO (lbs/day) | PM ₁₀ (lbs/day) | PM _{2.5} (lbs/day) |
|---------------------------|---------------|--------------|----------------------------|-----------------------------|
| Maximum On-site Emissions | 42 | 22 | 9.2 | 5.9 |
| LST Thresholds | 253 | 1,461 | 12.0 | 7.3 |
| Significant Emissions? | No | No | No | No |

Source: Compiled by LSA (August 2019).

Note: Source Receptor Area 33 Southwest San Bernardino Valley, 5 acres.

CO = carbon monoxide

LST = local significance threshold

NOx = nitrogen oxides

PM_{2.5} = particulate matter less than 2.5 microns in size

PM₁₀ = particulate matter less than 10 microns in size

Table 2 also shows that the emissions of the pollutants on the peak day of construction will result in concentrations of pollutants at these nearest residences that are all below the SCAQMD thresholds of significance.

Construction Greenhouse Gas Emissions

During construction of the project, GHGs would be emitted through the operation of construction equipment and from worker and vendor vehicles, each of which typically uses fossil-based fuels to operate. The combustion of fossil-based fuels creates GHGs (e.g., CO₂, CH₄, and N₂O). GHG emissions associated with the project would occur over the short-term from construction activities and would consist primarily of emissions from equipment exhaust. Table 3 presents the annual CO₂ emissions for each of the construction phases. See the CalEEMod modeling output in Attachment for details.

Table 3: Construction Greenhouse Gas Emissions

| Construction Phase | | Total Regional Pollutant Emissions (MT/yr) | | | |
|------------------------------|-----------------------|--|-----------------|------------------|-------------------|
| | | CO ₂ | CH ₄ | N ₂ O | CO ₂ e |
| 2020 | Demolition | 36.53 | <0.01 | 0 | 36.77 |
| | Site Preparation | 17.56 | <0.01 | 0 | 17.70 |
| | Grading | 27.47 | <0.01 | 0 | 27.68 |
| | Building Construction | 250.86 | 0.06 | 0 | 252.23 |
| 2021 | Building Construction | 54.30 | 0.01 | 0 | 54.60 |
| | Paving | 21.39 | <0.01 | 0 | 21.55 |
| | Architectural Coating | 2.83 | <0.01 | 0 | 2.83 |
| Total Construction Emissions | | 410.93 | 0.10 | 0 | 413.36 |

Source: LSA (August 2019).

Notes:

CH₄ = methane

CO₂ = carbon dioxide

CO₂e = carbon dioxide equivalent

MT/yr = metric tons per year

N₂O = nitrous oxide

As shown in Table 3, the resultant GHG emission of 413 metric tons of CO₂e is below the SCAQMD Interim GHG Significant Threshold of 3,000 metric tons and the proposed project would not impede or interfere with achieving the State’s emission reduction objectives in AB 32 (and SB 32). Therefore, the project’s impacts related to GHG emissions would remain less than significant and no mitigation is required.

Attachment: CalEEMod Output Files

CCR MRF Construction - San Bernardino-South Coast County, Winter

CCR MRF Construction
San Bernardino-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

| Land Uses | Size | Metric | Lot Acreage | Floor Surface Area | Population |
|------------------------|-------|----------|-------------|--------------------|------------|
| General Heavy Industry | 39.68 | 1000sqft | 6.10 | 39,680.00 | 0 |

1.2 Other Project Characteristics

| | | | | | |
|--------------------------------|----------------------------|--------------------------------|-------|----------------------------------|-------|
| Urbanization | Urban | Wind Speed (m/s) | 2.2 | Precipitation Freq (Days) | 32 |
| Climate Zone | 10 | | | Operational Year | 2021 |
| Utility Company | Southern California Edison | | | | |
| CO2 Intensity (lb/MWhr) | 702.44 | CH4 Intensity (lb/MWhr) | 0.029 | N2O Intensity (lb/MWhr) | 0.006 |

1.3 User Entered Comments & Non-Default Data

CCR MRF Construction - San Bernardino-South Coast County, Winter

Project Characteristics -

Land Use - Gross acreage is 6.1 acres. New buildings would be approx 39,680 sf.

Grading - graded area is approx 2 acres.

Demolition - Approx 6,668 sf of maintenance, staff, and office bldgs would be demolished.

Vehicle Trips - Operational emissions would remain unchanged.

Road Dust - Operational road dust would remain unchanged.

Consumer Products - Unchanged.

Area Coating - Unchanged

Landscape Equipment - Unchanged

Construction Off-road Equipment Mitigation - Fugitive dust control with on-site watering at least 3 times daily.

| Table Name | Column Name | Default Value | New Value |
|---------------------|------------------------------|---------------|-----------|
| tblAreaCoating | Area_Nonresidential_Exterior | 19840 | 0 |
| tblAreaCoating | Area_Nonresidential_Interior | 59520 | 0 |
| tblConsumerProducts | ROG_EF | 1.98E-05 | 0 |
| tblConsumerProducts | ROG_EF_Degreaser | 3.542E-07 | 0 |
| tblGrading | AcresOfGrading | 10.00 | 2.00 |
| tblLandUse | LotAcreage | 0.91 | 6.10 |
| tblRoadDust | MeanVehicleSpeed | 40 | 0 |
| tblRoadDust | MobileAverageVehicleWeight | 2.4 | 0 |
| tblVehicleTrips | ST_TR | 1.50 | 0.00 |
| tblVehicleTrips | SU_TR | 1.50 | 0.00 |
| tblVehicleTrips | WD_TR | 1.50 | 0.00 |

2.0 Emissions Summary

CCR MRF Construction - San Bernardino-South Coast County, Winter

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 | 3.8000e-004 | 4.0000e-005 | 4.0700e-003 | 0.0000 | | 1.0000e-005 | 1.0000e-005 | | 1.0000e-005 | 1.0000e-005 | | 8.6800e-003 | 8.6800e-003 | 2.0000e-005 | | 9.2600e-003 |
| Energy | 0.0381 | 0.3463 | 0.2909 | 2.0800e-003 | | 0.0263 | 0.0263 | | 0.0263 | 0.0263 | | 415.5369 | 415.5369 | 7.9600e-003 | 7.6200e-003 | 418.0062 |
| Mobile | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Total | 0.0385 | 0.3463 | 0.2950 | 2.0800e-003 | 0.0000 | 0.0263 | 0.0263 | 0.0000 | 0.0263 | 0.0263 | | 415.5456 | 415.5456 | 7.9800e-003 | 7.6200e-003 | 418.0155 |

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 | 3.8000e-004 | 4.0000e-005 | 4.0700e-003 | 0.0000 | | 1.0000e-005 | 1.0000e-005 | | 1.0000e-005 | 1.0000e-005 | | 8.6800e-003 | 8.6800e-003 | 2.0000e-005 | | 9.2600e-003 |
| Energy | 0.0381 | 0.3463 | 0.2909 | 2.0800e-003 | | 0.0263 | 0.0263 | | 0.0263 | 0.0263 | | 415.5369 | 415.5369 | 7.9600e-003 | 7.6200e-003 | 418.0062 |
| Mobile | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Total | 0.0385 | 0.3463 | 0.2950 | 2.0800e-003 | 0.0000 | 0.0263 | 0.0263 | 0.0000 | 0.0263 | 0.0263 | | 415.5456 | 415.5456 | 7.9800e-003 | 7.6200e-003 | 418.0155 |

CCR MRF Construction - San Bernardino-South Coast County, Winter

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N2O | CO2e |
|-------------------|------|------|------|------|---------------|--------------|------------|----------------|---------------|-------------|----------|----------|-----------|------|------|------|
| 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 | 2/3/2020 | 2/28/2020 | 5 | 20 | |
| 2 | Site Preparation | Site Preparation | 2/29/2020 | 3/13/2020 | 5 | 10 | |
| 3 | Grading | Grading | 3/14/2020 | 4/10/2020 | 5 | 20 | |
| 4 | Building Construction | Building Construction | 4/11/2020 | 2/26/2021 | 5 | 230 | |
| 5 | Paving | Paving | 2/27/2021 | 3/26/2021 | 5 | 20 | |
| 6 | Architectural Coating | Architectural Coating | 3/27/2021 | 4/23/2021 | 5 | 20 | |

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 2

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 59,520; Non-Residential Outdoor: 19,840; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

CCR MRF Construction - San Bernardino-South Coast County, Winter

| Phase Name | Offroad Equipment Type | Amount | Usage Hours | Horse Power | Load Factor |
|-----------------------|---------------------------|--------|-------------|-------------|-------------|
| Architectural Coating | Air Compressors | 1 | 6.00 | 78 | 0.48 |
| Demolition | Excavators | 3 | 8.00 | 158 | 0.38 |
| Demolition | Concrete/Industrial Saws | 1 | 8.00 | 81 | 0.73 |
| Grading | Excavators | 1 | 8.00 | 158 | 0.38 |
| Building Construction | Cranes | 1 | 7.00 | 231 | 0.29 |
| Building Construction | Forklifts | 3 | 8.00 | 89 | 0.20 |
| Building Construction | Generator Sets | 1 | 8.00 | 84 | 0.74 |
| Paving | Pavers | 2 | 8.00 | 130 | 0.42 |
| Paving | Rollers | 2 | 8.00 | 80 | 0.38 |
| Demolition | Rubber Tired Dozers | 2 | 8.00 | 247 | 0.40 |
| Grading | Rubber Tired Dozers | 1 | 8.00 | 247 | 0.40 |
| Building Construction | Tractors/Loaders/Backhoes | 3 | 7.00 | 97 | 0.37 |
| Grading | Graders | 1 | 8.00 | 187 | 0.41 |
| Grading | Tractors/Loaders/Backhoes | 3 | 8.00 | 97 | 0.37 |
| Paving | Paving Equipment | 2 | 8.00 | 132 | 0.36 |
| Site Preparation | Tractors/Loaders/Backhoes | 4 | 8.00 | 97 | 0.37 |
| Site Preparation | Rubber Tired Dozers | 3 | 8.00 | 247 | 0.40 |
| Building Construction | Welders | 1 | 8.00 | 46 | 0.45 |

Trips and VMT

CCR MRF Construction - San Bernardino-South Coast County, Winter

| 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 | 6 | 15.00 | 0.00 | 30.00 | 14.70 | 6.90 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Site Preparation | 7 | 18.00 | 0.00 | 0.00 | 14.70 | 6.90 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Grading | 6 | 15.00 | 0.00 | 0.00 | 14.70 | 6.90 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Building Construction | 9 | 17.00 | 7.00 | 0.00 | 14.70 | 6.90 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Paving | 6 | 15.00 | 0.00 | 0.00 | 14.70 | 6.90 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Architectural Coating | 1 | 3.00 | 0.00 | 0.00 | 14.70 | 6.90 | 20.00 | LD_Mix | HDT_Mix | HHDT |

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 Demolition - 2020

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 | | | | | 0.3282 | 0.0000 | 0.3282 | 0.0497 | 0.0000 | 0.0497 | | | 0.0000 | | | 0.0000 |
| Off-Road | 3.3121 | 33.2010 | 21.7532 | 0.0388 | | 1.6587 | 1.6587 | | 1.5419 | 1.5419 | | 3,747.7049 | 3,747.7049 | 1.0580 | | 3,774.1536 |
| Total | 3.3121 | 33.2010 | 21.7532 | 0.0388 | 0.3282 | 1.6587 | 1.9869 | 0.0497 | 1.5419 | 1.5915 | | 3,747.7049 | 3,747.7049 | 1.0580 | | 3,774.1536 |

CCR MRF Construction - San Bernardino-South Coast County, Winter

3.2 Demolition - 2020

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 | 9.7400e-003 | 0.3715 | 0.0624 | 1.1500e-003 | 0.0263 | 1.1200e-003 | 0.0274 | 7.2000e-003 | 1.0700e-003 | 8.2600e-003 | | 121.6494 | 121.6494 | 7.3100e-003 | | 121.8322 |
| 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 | 0.0819 | 0.0553 | 0.5544 | 1.5300e-003 | 0.1677 | 1.1000e-003 | 0.1688 | 0.0445 | 1.0100e-003 | 0.0455 | | 152.0625 | 152.0625 | 4.5400e-003 | | 152.1760 |
| Total | 0.0917 | 0.4268 | 0.6168 | 2.6800e-003 | 0.1939 | 2.2200e-003 | 0.1961 | 0.0517 | 2.0800e-003 | 0.0537 | | 273.7118 | 273.7118 | 0.0119 | | 274.0082 |

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 | | | | | 0.1280 | 0.0000 | 0.1280 | 0.0194 | 0.0000 | 0.0194 | | | 0.0000 | | | 0.0000 |
| Off-Road | 3.3121 | 33.2010 | 21.7532 | 0.0388 | | 1.6587 | 1.6587 | | 1.5419 | 1.5419 | 0.0000 | 3,747.7049 | 3,747.7049 | 1.0580 | | 3,774.1536 |
| Total | 3.3121 | 33.2010 | 21.7532 | 0.0388 | 0.1280 | 1.6587 | 1.7867 | 0.0194 | 1.5419 | 1.5612 | 0.0000 | 3,747.7049 | 3,747.7049 | 1.0580 | | 3,774.1536 |

CCR MRF Construction - San Bernardino-South Coast County, Winter

3.2 Demolition - 2020

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 | 9.7400e-003 | 0.3715 | 0.0624 | 1.1500e-003 | 0.0263 | 1.1200e-003 | 0.0274 | 7.2000e-003 | 1.0700e-003 | 8.2600e-003 | | 121.6494 | 121.6494 | 7.3100e-003 | | 121.8322 |
| 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 | 0.0819 | 0.0553 | 0.5544 | 1.5300e-003 | 0.1677 | 1.1000e-003 | 0.1688 | 0.0445 | 1.0100e-003 | 0.0455 | | 152.0625 | 152.0625 | 4.5400e-003 | | 152.1760 |
| Total | 0.0917 | 0.4268 | 0.6168 | 2.6800e-003 | 0.1939 | 2.2200e-003 | 0.1961 | 0.0517 | 2.0800e-003 | 0.0537 | | 273.7118 | 273.7118 | 0.0119 | | 274.0082 |

3.3 Site Preparation - 2020

Unmitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---------------|---------------|----------------|----------------|---------------|----------------|---------------|----------------|----------------|---------------|----------------|----------|-------------------|-------------------|---------------|-----|-------------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Fugitive Dust | | | | | 18.0663 | 0.0000 | 18.0663 | 9.9307 | 0.0000 | 9.9307 | | | 0.0000 | | | 0.0000 |
| Off-Road | 4.0765 | 42.4173 | 21.5136 | 0.0380 | | 2.1974 | 2.1974 | | 2.0216 | 2.0216 | | 3,685.1016 | 3,685.1016 | 1.1918 | | 3,714.8975 |
| Total | 4.0765 | 42.4173 | 21.5136 | 0.0380 | 18.0663 | 2.1974 | 20.2637 | 9.9307 | 2.0216 | 11.9523 | | 3,685.1016 | 3,685.1016 | 1.1918 | | 3,714.8975 |

CCR MRF Construction - San Bernardino-South Coast County, Winter

3.3 Site Preparation - 2020

Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|---------------|---------------|--------------------|---------------|--------------------|---------------|----------------|--------------------|---------------|----------|-----------------|-----------------|--------------------|-----|-----------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.0983 | 0.0663 | 0.6653 | 1.8300e-003 | 0.2012 | 1.3200e-003 | 0.2025 | 0.0534 | 1.2100e-003 | 0.0546 | | 182.4750 | 182.4750 | 5.4500e-003 | | 182.6112 |
| Total | 0.0983 | 0.0663 | 0.6653 | 1.8300e-003 | 0.2012 | 1.3200e-003 | 0.2025 | 0.0534 | 1.2100e-003 | 0.0546 | | 182.4750 | 182.4750 | 5.4500e-003 | | 182.6112 |

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 | | | | | 7.0458 | 0.0000 | 7.0458 | 3.8730 | 0.0000 | 3.8730 | | | 0.0000 | | | 0.0000 |
| Off-Road | 4.0765 | 42.4173 | 21.5136 | 0.0380 | | 2.1974 | 2.1974 | | 2.0216 | 2.0216 | 0.0000 | 3,685.1016 | 3,685.1016 | 1.1918 | | 3,714.8975 |
| Total | 4.0765 | 42.4173 | 21.5136 | 0.0380 | 7.0458 | 2.1974 | 9.2433 | 3.8730 | 2.0216 | 5.8946 | 0.0000 | 3,685.1016 | 3,685.1016 | 1.1918 | | 3,714.8975 |

CCR MRF Construction - San Bernardino-South Coast County, Winter

3.3 Site Preparation - 2020

Mitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|---------------|---------------|--------------------|---------------|--------------------|---------------|----------------|--------------------|---------------|----------|-----------------|-----------------|--------------------|-----|-----------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.0983 | 0.0663 | 0.6653 | 1.8300e-003 | 0.2012 | 1.3200e-003 | 0.2025 | 0.0534 | 1.2100e-003 | 0.0546 | | 182.4750 | 182.4750 | 5.4500e-003 | | 182.6112 |
| Total | 0.0983 | 0.0663 | 0.6653 | 1.8300e-003 | 0.2012 | 1.3200e-003 | 0.2025 | 0.0534 | 1.2100e-003 | 0.0546 | | 182.4750 | 182.4750 | 5.4500e-003 | | 182.6112 |

3.4 Grading - 2020

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 | | | | | 6.1281 | 0.0000 | 6.1281 | 3.3217 | 0.0000 | 3.3217 | | | 0.0000 | | | 0.0000 |
| Off-Road | 2.4288 | 26.3859 | 16.0530 | 0.0297 | | 1.2734 | 1.2734 | | 1.1716 | 1.1716 | | 2,872.4851 | 2,872.4851 | 0.9290 | | 2,895.7106 |
| Total | 2.4288 | 26.3859 | 16.0530 | 0.0297 | 6.1281 | 1.2734 | 7.4016 | 3.3217 | 1.1716 | 4.4932 | | 2,872.4851 | 2,872.4851 | 0.9290 | | 2,895.7106 |

CCR MRF Construction - San Bernardino-South Coast County, Winter

3.4 Grading - 2020

Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|---------------|---------------|--------------------|---------------|--------------------|---------------|----------------|--------------------|---------------|----------|-----------------|-----------------|--------------------|-----|-----------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.0819 | 0.0553 | 0.5544 | 1.5300e-003 | 0.1677 | 1.1000e-003 | 0.1688 | 0.0445 | 1.0100e-003 | 0.0455 | | 152.0625 | 152.0625 | 4.5400e-003 | | 152.1760 |
| Total | 0.0819 | 0.0553 | 0.5544 | 1.5300e-003 | 0.1677 | 1.1000e-003 | 0.1688 | 0.0445 | 1.0100e-003 | 0.0455 | | 152.0625 | 152.0625 | 4.5400e-003 | | 152.1760 |

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 | | | | | 2.3900 | 0.0000 | 2.3900 | 1.2955 | 0.0000 | 1.2955 | | | 0.0000 | | | 0.0000 |
| Off-Road | 2.4288 | 26.3859 | 16.0530 | 0.0297 | | 1.2734 | 1.2734 | | 1.1716 | 1.1716 | 0.0000 | 2,872.4851 | 2,872.4851 | 0.9290 | | 2,895.7106 |
| Total | 2.4288 | 26.3859 | 16.0530 | 0.0297 | 2.3900 | 1.2734 | 3.6634 | 1.2955 | 1.1716 | 2.4670 | 0.0000 | 2,872.4851 | 2,872.4851 | 0.9290 | | 2,895.7106 |

CCR MRF Construction - San Bernardino-South Coast County, Winter

3.4 Grading - 2020

Mitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|---------------|---------------|--------------------|---------------|--------------------|---------------|----------------|--------------------|---------------|----------|-----------------|-----------------|--------------------|-----|-----------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.0819 | 0.0553 | 0.5544 | 1.5300e-003 | 0.1677 | 1.1000e-003 | 0.1688 | 0.0445 | 1.0100e-003 | 0.0455 | | 152.0625 | 152.0625 | 4.5400e-003 | | 152.1760 |
| Total | 0.0819 | 0.0553 | 0.5544 | 1.5300e-003 | 0.1677 | 1.1000e-003 | 0.1688 | 0.0445 | 1.0100e-003 | 0.0455 | | 152.0625 | 152.0625 | 4.5400e-003 | | 152.1760 |

3.5 Building Construction - 2020

Unmitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|----------------|----------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|----------|-------------------|-------------------|---------------|-----|-------------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Off-Road | 2.1198 | 19.1860 | 16.8485 | 0.0269 | | 1.1171 | 1.1171 | | 1.0503 | 1.0503 | | 2,553.0631 | 2,553.0631 | 0.6229 | | 2,568.6345 |
| Total | 2.1198 | 19.1860 | 16.8485 | 0.0269 | | 1.1171 | 1.1171 | | 1.0503 | 1.0503 | | 2,553.0631 | 2,553.0631 | 0.6229 | | 2,568.6345 |

CCR MRF Construction - San Bernardino-South Coast County, Winter

3.5 Building Construction - 2020

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 | 0.0224 | 0.7327 | 0.1669 | 1.8300e-003 | 0.0448 | 3.4400e-003 | 0.0483 | 0.0129 | 3.2900e-003 | 0.0162 | | 192.5001 | 192.5001 | 0.0144 | | 192.8596 |
| Worker | 0.0928 | 0.0627 | 0.6284 | 1.7300e-003 | 0.1900 | 1.2500e-003 | 0.1913 | 0.0504 | 1.1500e-003 | 0.0515 | | 172.3375 | 172.3375 | 5.1400e-003 | | 172.4661 |
| Total | 0.1152 | 0.7954 | 0.7952 | 3.5600e-003 | 0.2349 | 4.6900e-003 | 0.2396 | 0.0633 | 4.4400e-003 | 0.0677 | | 364.8375 | 364.8375 | 0.0195 | | 365.3257 |

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 | 2.1198 | 19.1860 | 16.8485 | 0.0269 | | 1.1171 | 1.1171 | | 1.0503 | 1.0503 | 0.0000 | 2,553.0631 | 2,553.0631 | 0.6229 | | 2,568.6345 |
| Total | 2.1198 | 19.1860 | 16.8485 | 0.0269 | | 1.1171 | 1.1171 | | 1.0503 | 1.0503 | 0.0000 | 2,553.0631 | 2,553.0631 | 0.6229 | | 2,568.6345 |

CCR MRF Construction - San Bernardino-South Coast County, Winter

3.5 Building Construction - 2020

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 | 0.0224 | 0.7327 | 0.1669 | 1.8300e-003 | 0.0448 | 3.4400e-003 | 0.0483 | 0.0129 | 3.2900e-003 | 0.0162 | | 192.5001 | 192.5001 | 0.0144 | | 192.8596 |
| Worker | 0.0928 | 0.0627 | 0.6284 | 1.7300e-003 | 0.1900 | 1.2500e-003 | 0.1913 | 0.0504 | 1.1500e-003 | 0.0515 | | 172.3375 | 172.3375 | 5.1400e-003 | | 172.4661 |
| Total | 0.1152 | 0.7954 | 0.7952 | 3.5600e-003 | 0.2349 | 4.6900e-003 | 0.2396 | 0.0633 | 4.4400e-003 | 0.0677 | | 364.8375 | 364.8375 | 0.0195 | | 365.3257 |

3.5 Building Construction - 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 | 1.9009 | 17.4321 | 16.5752 | 0.0269 | | 0.9586 | 0.9586 | | 0.9013 | 0.9013 | | 2,553.3639 | 2,553.3639 | 0.6160 | | 2,568.7643 |
| Total | 1.9009 | 17.4321 | 16.5752 | 0.0269 | | 0.9586 | 0.9586 | | 0.9013 | 0.9013 | | 2,553.3639 | 2,553.3639 | 0.6160 | | 2,568.7643 |

CCR MRF Construction - San Bernardino-South Coast County, Winter

3.5 Building Construction - 2021

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 | 0.0192 | 0.6679 | 0.1486 | 1.8200e-003 | 0.0448 | 1.1900e-003 | 0.0460 | 0.0129 | 1.1400e-003 | 0.0141 | | 191.4746 | 191.4746 | 0.0140 | | 191.8234 |
| Worker | 0.0866 | 0.0562 | 0.5773 | 1.6700e-003 | 0.1900 | 1.2200e-003 | 0.1912 | 0.0504 | 1.1200e-003 | 0.0515 | | 166.8546 | 166.8546 | 4.6400e-003 | | 166.9707 |
| Total | 0.1058 | 0.7240 | 0.7258 | 3.4900e-003 | 0.2349 | 2.4100e-003 | 0.2373 | 0.0633 | 2.2600e-003 | 0.0656 | | 358.3292 | 358.3292 | 0.0186 | | 358.7942 |

Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|----------------|----------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|---------------|-------------------|-------------------|---------------|-----|-------------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Off-Road | 1.9009 | 17.4321 | 16.5752 | 0.0269 | | 0.9586 | 0.9586 | | 0.9013 | 0.9013 | 0.0000 | 2,553.3639 | 2,553.3639 | 0.6160 | | 2,568.7643 |
| Total | 1.9009 | 17.4321 | 16.5752 | 0.0269 | | 0.9586 | 0.9586 | | 0.9013 | 0.9013 | 0.0000 | 2,553.3639 | 2,553.3639 | 0.6160 | | 2,568.7643 |

CCR MRF Construction - San Bernardino-South Coast County, Winter

3.5 Building Construction - 2021

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 | 0.0192 | 0.6679 | 0.1486 | 1.8200e-003 | 0.0448 | 1.1900e-003 | 0.0460 | 0.0129 | 1.1400e-003 | 0.0141 | | 191.4746 | 191.4746 | 0.0140 | | 191.8234 |
| Worker | 0.0866 | 0.0562 | 0.5773 | 1.6700e-003 | 0.1900 | 1.2200e-003 | 0.1912 | 0.0504 | 1.1200e-003 | 0.0515 | | 166.8546 | 166.8546 | 4.6400e-003 | | 166.9707 |
| Total | 0.1058 | 0.7240 | 0.7258 | 3.4900e-003 | 0.2349 | 2.4100e-003 | 0.2373 | 0.0633 | 2.2600e-003 | 0.0656 | | 358.3292 | 358.3292 | 0.0186 | | 358.7942 |

3.6 Paving - 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 | 1.2556 | 12.9191 | 14.6532 | 0.0228 | | 0.6777 | 0.6777 | | 0.6235 | 0.6235 | | 2,207.2109 | 2,207.2109 | 0.7139 | | 2,225.0573 |
| Paving | 0.0000 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Total | 1.2556 | 12.9191 | 14.6532 | 0.0228 | | 0.6777 | 0.6777 | | 0.6235 | 0.6235 | | 2,207.2109 | 2,207.2109 | 0.7139 | | 2,225.0573 |

CCR MRF Construction - San Bernardino-South Coast County, Winter

3.6 Paving - 2021

Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|---------------|---------------|--------------------|---------------|--------------------|---------------|----------------|--------------------|---------------|----------|-----------------|-----------------|--------------------|-----|-----------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.0764 | 0.0496 | 0.5093 | 1.4800e-003 | 0.1677 | 1.0700e-003 | 0.1687 | 0.0445 | 9.9000e-004 | 0.0455 | | 147.2247 | 147.2247 | 4.1000e-003 | | 147.3271 |
| Total | 0.0764 | 0.0496 | 0.5093 | 1.4800e-003 | 0.1677 | 1.0700e-003 | 0.1687 | 0.0445 | 9.9000e-004 | 0.0455 | | 147.2247 | 147.2247 | 4.1000e-003 | | 147.3271 |

Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|----------------|----------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|---------------|-------------------|-------------------|---------------|-----|-------------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Off-Road | 1.2556 | 12.9191 | 14.6532 | 0.0228 | | 0.6777 | 0.6777 | | 0.6235 | 0.6235 | 0.0000 | 2,207.2109 | 2,207.2109 | 0.7139 | | 2,225.0573 |
| Paving | 0.0000 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Total | 1.2556 | 12.9191 | 14.6532 | 0.0228 | | 0.6777 | 0.6777 | | 0.6235 | 0.6235 | 0.0000 | 2,207.2109 | 2,207.2109 | 0.7139 | | 2,225.0573 |

CCR MRF Construction - San Bernardino-South Coast County, Winter

3.6 Paving - 2021

Mitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|---------------|---------------|--------------------|---------------|--------------------|---------------|----------------|--------------------|---------------|----------|-----------------|-----------------|--------------------|-----|-----------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.0764 | 0.0496 | 0.5093 | 1.4800e-003 | 0.1677 | 1.0700e-003 | 0.1687 | 0.0445 | 9.9000e-004 | 0.0455 | | 147.2247 | 147.2247 | 4.1000e-003 | | 147.3271 |
| Total | 0.0764 | 0.0496 | 0.5093 | 1.4800e-003 | 0.1677 | 1.0700e-003 | 0.1687 | 0.0445 | 9.9000e-004 | 0.0455 | | 147.2247 | 147.2247 | 4.1000e-003 | | 147.3271 |

3.7 Architectural Coating - 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 | | | | | |
| Archit. Coating | 18.3917 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Off-Road | 0.2189 | 1.5268 | 1.8176 | 2.9700e-003 | | 0.0941 | 0.0941 | | 0.0941 | 0.0941 | | 281.4481 | 281.4481 | 0.0193 | | 281.9309 |
| Total | 18.6106 | 1.5268 | 1.8176 | 2.9700e-003 | | 0.0941 | 0.0941 | | 0.0941 | 0.0941 | | 281.4481 | 281.4481 | 0.0193 | | 281.9309 |

CCR MRF Construction - San Bernardino-South Coast County, Winter

3.7 Architectural Coating - 2021

Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|--------------------|---------------|--------------------|---------------|--------------------|---------------|--------------------|--------------------|--------------------|----------|----------------|----------------|--------------------|-----|----------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.0153 | 9.9100e-003 | 0.1019 | 3.0000e-004 | 0.0335 | 2.1000e-004 | 0.0338 | 8.8900e-003 | 2.0000e-004 | 9.0900e-003 | | 29.4449 | 29.4449 | 8.2000e-004 | | 29.4654 |
| Total | 0.0153 | 9.9100e-003 | 0.1019 | 3.0000e-004 | 0.0335 | 2.1000e-004 | 0.0338 | 8.8900e-003 | 2.0000e-004 | 9.0900e-003 | | 29.4449 | 29.4449 | 8.2000e-004 | | 29.4654 |

Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|-----------------|----------------|---------------|---------------|--------------------|---------------|---------------|---------------|----------------|---------------|---------------|---------------|-----------------|-----------------|---------------|-----|-----------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Archit. Coating | 18.3917 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Off-Road | 0.2189 | 1.5268 | 1.8176 | 2.9700e-003 | | 0.0941 | 0.0941 | | 0.0941 | 0.0941 | 0.0000 | 281.4481 | 281.4481 | 0.0193 | | 281.9309 |
| Total | 18.6106 | 1.5268 | 1.8176 | 2.9700e-003 | | 0.0941 | 0.0941 | | 0.0941 | 0.0941 | 0.0000 | 281.4481 | 281.4481 | 0.0193 | | 281.9309 |

CCR MRF Construction - San Bernardino-South Coast County, Winter

3.7 Architectural Coating - 2021

Mitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|--------------------|---------------|--------------------|---------------|--------------------|---------------|--------------------|--------------------|--------------------|----------|----------------|----------------|--------------------|-----|----------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.0153 | 9.9100e-003 | 0.1019 | 3.0000e-004 | 0.0335 | 2.1000e-004 | 0.0338 | 8.8900e-003 | 2.0000e-004 | 9.0900e-003 | | 29.4449 | 29.4449 | 8.2000e-004 | | 29.4654 |
| Total | 0.0153 | 9.9100e-003 | 0.1019 | 3.0000e-004 | 0.0335 | 2.1000e-004 | 0.0338 | 8.8900e-003 | 2.0000e-004 | 9.0900e-003 | | 29.4449 | 29.4449 | 8.2000e-004 | | 29.4654 |

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

CCR MRF Construction - San Bernardino-South Coast County, Winter

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

4.2 Trip Summary Information

| Land Use | Average Daily Trip Rate | | | Unmitigated | Mitigated |
|------------------------|-------------------------|----------|--------|-------------|------------|
| | Weekday | Saturday | Sunday | Annual VMT | Annual VMT |
| General Heavy Industry | 0.00 | 0.00 | 0.00 | | |
| Total | 0.00 | 0.00 | 0.00 | | |

4.3 Trip Type Information

| Land Use | Miles | | | Trip % | | | Trip Purpose % | | |
|------------------------|------------|------------|-------------|------------|------------|-------------|----------------|----------|---------|
| | H-W or C-W | H-S or C-C | H-O or C-NW | H-W or C-W | H-S or C-C | H-O or C-NW | Primary | Diverted | Pass-by |
| General Heavy Industry | 16.60 | 8.40 | 6.90 | 59.00 | 28.00 | 13.00 | 92 | 5 | 3 |

4.4 Fleet Mix

| Land Use | LDA | LDT1 | LDT2 | MDV | LHD1 | LHD2 | MHD | HHD | OBUS | UBUS | MCY | SBUS | MH |
|------------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| General Heavy Industry | 0.549952 | 0.037123 | 0.179649 | 0.119457 | 0.017229 | 0.005267 | 0.017877 | 0.062669 | 0.001348 | 0.001607 | 0.006000 | 0.000812 | 0.001010 |

5.0 Energy Detail

Historical Energy Use: N

CCR MRF Construction - San Bernardino-South Coast County, Winter

5.1 Mitigation Measures Energy

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|------------------------|--------|--------|--------|-------------|---------------|--------------|------------|----------------|---------------|-------------|----------|-----------|-----------|-------------|-------------|----------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| NaturalGas Mitigated | 0.0381 | 0.3463 | 0.2909 | 2.0800e-003 | | 0.0263 | 0.0263 | | 0.0263 | 0.0263 | | 415.5369 | 415.5369 | 7.9600e-003 | 7.6200e-003 | 418.0062 |
| NaturalGas Unmitigated | 0.0381 | 0.3463 | 0.2909 | 2.0800e-003 | | 0.0263 | 0.0263 | | 0.0263 | 0.0263 | | 415.5369 | 415.5369 | 7.9600e-003 | 7.6200e-003 | 418.0062 |

5.2 Energy by Land Use - NaturalGas

Unmitigated

| | NaturalGas Use | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|------------------------|----------------|---------------|---------------|---------------|--------------------|---------------|---------------|---------------|----------------|---------------|---------------|----------|-----------------|-----------------|--------------------|--------------------|-----------------|
| Land Use | kBTU/yr | lb/day | | | | | | | | | | lb/day | | | | | |
| General Heavy Industry | 3532.06 | 0.0381 | 0.3463 | 0.2909 | 2.0800e-003 | | 0.0263 | 0.0263 | | 0.0263 | 0.0263 | | 415.5369 | 415.5369 | 7.9600e-003 | 7.6200e-003 | 418.0062 |
| Total | | 0.0381 | 0.3463 | 0.2909 | 2.0800e-003 | | 0.0263 | 0.0263 | | 0.0263 | 0.0263 | | 415.5369 | 415.5369 | 7.9600e-003 | 7.6200e-003 | 418.0062 |

CCR MRF Construction - San Bernardino-South Coast County, Winter

5.2 Energy by Land Use - Natural Gas

Mitigated

| | Natural Gas Use | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|------------------------|-----------------|---------------|---------------|---------------|--------------------|---------------|---------------|---------------|----------------|---------------|---------------|----------|-----------------|-----------------|--------------------|--------------------|-----------------|
| Land Use | kBTU/yr | lb/day | | | | | | | | | | lb/day | | | | | |
| General Heavy Industry | 3.53206 | 0.0381 | 0.3463 | 0.2909 | 2.0800e-003 | | 0.0263 | 0.0263 | | 0.0263 | 0.0263 | | 415.5369 | 415.5369 | 7.9600e-003 | 7.6200e-003 | 418.0062 |
| Total | | 0.0381 | 0.3463 | 0.2909 | 2.0800e-003 | | 0.0263 | 0.0263 | | 0.0263 | 0.0263 | | 415.5369 | 415.5369 | 7.9600e-003 | 7.6200e-003 | 418.0062 |

6.0 Area Detail

6.1 Mitigation Measures Area

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|-------------|-------------|-------------|-------------|--------|---------------|--------------|-------------|----------------|---------------|-------------|----------|-------------|-------------|-------------|-----|-------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Mitigated | 3.8000e-004 | 4.0000e-005 | 4.0700e-003 | 0.0000 | | 1.0000e-005 | 1.0000e-005 | | 1.0000e-005 | 1.0000e-005 | | 8.6800e-003 | 8.6800e-003 | 2.0000e-005 | | 9.2600e-003 |
| Unmitigated | 3.8000e-004 | 4.0000e-005 | 4.0700e-003 | 0.0000 | | 1.0000e-005 | 1.0000e-005 | | 1.0000e-005 | 1.0000e-005 | | 8.6800e-003 | 8.6800e-003 | 2.0000e-005 | | 9.2600e-003 |

CCR MRF Construction - San Bernardino-South Coast County, Winter

6.2 Area by SubCategory

Unmitigated

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|-----------------------|--------------------|--------------------|--------------------|---------------|---------------|--------------------|--------------------|----------------|--------------------|--------------------|----------|--------------------|--------------------|--------------------|-----|--------------------|
| SubCategory | lb/day | | | | | | | | | | lb/day | | | | | |
| Architectural Coating | 0.0000 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Consumer Products | 0.0000 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Landscaping | 3.8000e-004 | 4.0000e-005 | 4.0700e-003 | 0.0000 | | 1.0000e-005 | 1.0000e-005 | | 1.0000e-005 | 1.0000e-005 | | 8.6800e-003 | 8.6800e-003 | 2.0000e-005 | | 9.2600e-003 |
| Total | 3.8000e-004 | 4.0000e-005 | 4.0700e-003 | 0.0000 | | 1.0000e-005 | 1.0000e-005 | | 1.0000e-005 | 1.0000e-005 | | 8.6800e-003 | 8.6800e-003 | 2.0000e-005 | | 9.2600e-003 |

Mitigated

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|-----------------------|--------------------|--------------------|--------------------|---------------|---------------|--------------------|--------------------|----------------|--------------------|--------------------|----------|--------------------|--------------------|--------------------|-----|--------------------|
| SubCategory | lb/day | | | | | | | | | | lb/day | | | | | |
| Architectural Coating | 0.0000 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Consumer Products | 0.0000 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Landscaping | 3.8000e-004 | 4.0000e-005 | 4.0700e-003 | 0.0000 | | 1.0000e-005 | 1.0000e-005 | | 1.0000e-005 | 1.0000e-005 | | 8.6800e-003 | 8.6800e-003 | 2.0000e-005 | | 9.2600e-003 |
| Total | 3.8000e-004 | 4.0000e-005 | 4.0700e-003 | 0.0000 | | 1.0000e-005 | 1.0000e-005 | | 1.0000e-005 | 1.0000e-005 | | 8.6800e-003 | 8.6800e-003 | 2.0000e-005 | | 9.2600e-003 |

7.0 Water Detail

CCR MRF Construction - San Bernardino-South Coast County, Winter

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

| Equipment Type | Number | Hours/Day | Days/Year | Horse Power | Load Factor | Fuel Type |
|----------------|--------|-----------|-----------|-------------|-------------|-----------|
|----------------|--------|-----------|-----------|-------------|-------------|-----------|

10.0 Stationary Equipment**Fire Pumps and Emergency Generators**

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

Boilers

| Equipment Type | Number | Heat Input/Day | Heat Input/Year | Boiler Rating | Fuel Type |
|----------------|--------|----------------|-----------------|---------------|-----------|
|----------------|--------|----------------|-----------------|---------------|-----------|

User Defined Equipment

| Equipment Type | Number |
|----------------|--------|
|----------------|--------|

11.0 Vegetation

CCR MRF Construction - San Bernardino-South Coast County, Summer

CCR MRF Construction
San Bernardino-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

| Land Uses | Size | Metric | Lot Acreage | Floor Surface Area | Population |
|------------------------|-------|----------|-------------|--------------------|------------|
| General Heavy Industry | 39.68 | 1000sqft | 6.10 | 39,680.00 | 0 |

1.2 Other Project Characteristics

| | | | | | |
|--------------------------------|----------------------------|--------------------------------|-------|----------------------------------|-------|
| Urbanization | Urban | Wind Speed (m/s) | 2.2 | Precipitation Freq (Days) | 32 |
| Climate Zone | 10 | | | Operational Year | 2021 |
| Utility Company | Southern California Edison | | | | |
| CO2 Intensity (lb/MWhr) | 702.44 | CH4 Intensity (lb/MWhr) | 0.029 | N2O Intensity (lb/MWhr) | 0.006 |

1.3 User Entered Comments & Non-Default Data

CCR MRF Construction - San Bernardino-South Coast County, Summer

Project Characteristics -

Land Use - Gross acreage is 6.1 acres. New buildings would be approx 39,680 sf.

Grading - graded area is approx 2 acres.

Demolition - Approx 6,668 sf of maintenance, staff, and office bldgs would be demolished.

Vehicle Trips - Operational emissions would remain unchanged.

Road Dust - Operational road dust would remain unchanged.

Consumer Products - Unchanged.

Area Coating - Unchanged

Landscape Equipment - Unchanged

Construction Off-road Equipment Mitigation - Fugitive dust control with on-site watering at least 3 times daily.

| Table Name | Column Name | Default Value | New Value |
|---------------------|------------------------------|---------------|-----------|
| tblAreaCoating | Area_Nonresidential_Exterior | 19840 | 0 |
| tblAreaCoating | Area_Nonresidential_Interior | 59520 | 0 |
| tblConsumerProducts | ROG_EF | 1.98E-05 | 0 |
| tblConsumerProducts | ROG_EF_Degreaser | 3.542E-07 | 0 |
| tblGrading | AcresOfGrading | 10.00 | 2.00 |
| tblLandUse | LotAcreage | 0.91 | 6.10 |
| tblRoadDust | MeanVehicleSpeed | 40 | 0 |
| tblRoadDust | MobileAverageVehicleWeight | 2.4 | 0 |
| tblVehicleTrips | ST_TR | 1.50 | 0.00 |
| tblVehicleTrips | SU_TR | 1.50 | 0.00 |
| tblVehicleTrips | WD_TR | 1.50 | 0.00 |

2.0 Emissions Summary

CCR MRF Construction - San Bernardino-South Coast County, Summer

2.2 Overall Operational

Unmitigated Operational

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|---------------|---------------|--------------------|---------------|---------------|---------------|----------------|---------------|---------------|----------|-----------------|-----------------|--------------------|--------------------|-----------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Area | 3.8000e-004 | 4.0000e-005 | 4.0700e-003 | 0.0000 | | 1.0000e-005 | 1.0000e-005 | | 1.0000e-005 | 1.0000e-005 | | 8.6800e-003 | 8.6800e-003 | 2.0000e-005 | | 9.2600e-003 |
| Energy | 0.0381 | 0.3463 | 0.2909 | 2.0800e-003 | | 0.0263 | 0.0263 | | 0.0263 | 0.0263 | | 415.5369 | 415.5369 | 7.9600e-003 | 7.6200e-003 | 418.0062 |
| Mobile | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Total | 0.0385 | 0.3463 | 0.2950 | 2.0800e-003 | 0.0000 | 0.0263 | 0.0263 | 0.0000 | 0.0263 | 0.0263 | | 415.5456 | 415.5456 | 7.9800e-003 | 7.6200e-003 | 418.0155 |

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 | 3.8000e-004 | 4.0000e-005 | 4.0700e-003 | 0.0000 | | 1.0000e-005 | 1.0000e-005 | | 1.0000e-005 | 1.0000e-005 | | 8.6800e-003 | 8.6800e-003 | 2.0000e-005 | | 9.2600e-003 |
| Energy | 0.0381 | 0.3463 | 0.2909 | 2.0800e-003 | | 0.0263 | 0.0263 | | 0.0263 | 0.0263 | | 415.5369 | 415.5369 | 7.9600e-003 | 7.6200e-003 | 418.0062 |
| Mobile | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Total | 0.0385 | 0.3463 | 0.2950 | 2.0800e-003 | 0.0000 | 0.0263 | 0.0263 | 0.0000 | 0.0263 | 0.0263 | | 415.5456 | 415.5456 | 7.9800e-003 | 7.6200e-003 | 418.0155 |

CCR MRF Construction - San Bernardino-South Coast County, Summer

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

3.0 Construction Detail**Construction Phase**

| Phase Number | Phase Name | Phase Type | Start Date | End Date | Num Days Week | Num Days | Phase Description |
|--------------|-----------------------|-----------------------|------------|-----------|---------------|----------|-------------------|
| 1 | Demolition | Demolition | 2/3/2020 | 2/28/2020 | 5 | 20 | |
| 2 | Site Preparation | Site Preparation | 2/29/2020 | 3/13/2020 | 5 | 10 | |
| 3 | Grading | Grading | 3/14/2020 | 4/10/2020 | 5 | 20 | |
| 4 | Building Construction | Building Construction | 4/11/2020 | 2/26/2021 | 5 | 230 | |
| 5 | Paving | Paving | 2/27/2021 | 3/26/2021 | 5 | 20 | |
| 6 | Architectural Coating | Architectural Coating | 3/27/2021 | 4/23/2021 | 5 | 20 | |

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 2

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 59,520; Non-Residential Outdoor: 19,840; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

CCR MRF Construction - San Bernardino-South Coast County, Summer

| Phase Name | Offroad Equipment Type | Amount | Usage Hours | Horse Power | Load Factor |
|-----------------------|---------------------------|--------|-------------|-------------|-------------|
| Architectural Coating | Air Compressors | 1 | 6.00 | 78 | 0.48 |
| Demolition | Excavators | 3 | 8.00 | 158 | 0.38 |
| Demolition | Concrete/Industrial Saws | 1 | 8.00 | 81 | 0.73 |
| Grading | Excavators | 1 | 8.00 | 158 | 0.38 |
| Building Construction | Cranes | 1 | 7.00 | 231 | 0.29 |
| Building Construction | Forklifts | 3 | 8.00 | 89 | 0.20 |
| Building Construction | Generator Sets | 1 | 8.00 | 84 | 0.74 |
| Paving | Pavers | 2 | 8.00 | 130 | 0.42 |
| Paving | Rollers | 2 | 8.00 | 80 | 0.38 |
| Demolition | Rubber Tired Dozers | 2 | 8.00 | 247 | 0.40 |
| Grading | Rubber Tired Dozers | 1 | 8.00 | 247 | 0.40 |
| Building Construction | Tractors/Loaders/Backhoes | 3 | 7.00 | 97 | 0.37 |
| Grading | Graders | 1 | 8.00 | 187 | 0.41 |
| Grading | Tractors/Loaders/Backhoes | 3 | 8.00 | 97 | 0.37 |
| Paving | Paving Equipment | 2 | 8.00 | 132 | 0.36 |
| Site Preparation | Tractors/Loaders/Backhoes | 4 | 8.00 | 97 | 0.37 |
| Site Preparation | Rubber Tired Dozers | 3 | 8.00 | 247 | 0.40 |
| Building Construction | Welders | 1 | 8.00 | 46 | 0.45 |

Trips and VMT

CCR MRF Construction - San Bernardino-South Coast County, Summer

| Phase Name | Offroad Equipment Count | Worker Trip Number | Vendor Trip Number | Hauling Trip Number | Worker Trip Length | Vendor Trip Length | Hauling Trip Length | Worker Vehicle Class | Vendor Vehicle Class | Hauling Vehicle Class |
|-----------------------|-------------------------|--------------------|--------------------|---------------------|--------------------|--------------------|---------------------|----------------------|----------------------|-----------------------|
| Demolition | 6 | 15.00 | 0.00 | 30.00 | 14.70 | 6.90 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Site Preparation | 7 | 18.00 | 0.00 | 0.00 | 14.70 | 6.90 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Grading | 6 | 15.00 | 0.00 | 0.00 | 14.70 | 6.90 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Building Construction | 9 | 17.00 | 7.00 | 0.00 | 14.70 | 6.90 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Paving | 6 | 15.00 | 0.00 | 0.00 | 14.70 | 6.90 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Architectural Coating | 1 | 3.00 | 0.00 | 0.00 | 14.70 | 6.90 | 20.00 | LD_Mix | HDT_Mix | HHDT |

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 Demolition - 2020

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 | | | | | 0.3282 | 0.0000 | 0.3282 | 0.0497 | 0.0000 | 0.0497 | | | 0.0000 | | | 0.0000 |
| Off-Road | 3.3121 | 33.2010 | 21.7532 | 0.0388 | | 1.6587 | 1.6587 | | 1.5419 | 1.5419 | | 3,747.7049 | 3,747.7049 | 1.0580 | | 3,774.1536 |
| Total | 3.3121 | 33.2010 | 21.7532 | 0.0388 | 0.3282 | 1.6587 | 1.9869 | 0.0497 | 1.5419 | 1.5915 | | 3,747.7049 | 3,747.7049 | 1.0580 | | 3,774.1536 |

CCR MRF Construction - San Bernardino-South Coast County, Summer

3.2 Demolition - 2020

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 | 9.3200e-003 | 0.3695 | 0.0545 | 1.1800e-003 | 0.0263 | 1.1000e-003 | 0.0274 | 7.2000e-003 | 1.0500e-003 | 8.2500e-003 | | 124.9062 | 124.9062 | 6.7400e-003 | | 125.0747 |
| 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 | 0.0819 | 0.0525 | 0.6746 | 1.7000e-003 | 0.1677 | 1.1000e-003 | 0.1688 | 0.0445 | 1.0100e-003 | 0.0455 | | 169.5126 | 169.5126 | 5.1700e-003 | | 169.6420 |
| Total | 0.0912 | 0.4221 | 0.7291 | 2.8800e-003 | 0.1939 | 2.2000e-003 | 0.1961 | 0.0517 | 2.0600e-003 | 0.0537 | | 294.4188 | 294.4188 | 0.0119 | | 294.7167 |

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 | | | | | 0.1280 | 0.0000 | 0.1280 | 0.0194 | 0.0000 | 0.0194 | | | 0.0000 | | | 0.0000 |
| Off-Road | 3.3121 | 33.2010 | 21.7532 | 0.0388 | | 1.6587 | 1.6587 | | 1.5419 | 1.5419 | 0.0000 | 3,747.7049 | 3,747.7049 | 1.0580 | | 3,774.1536 |
| Total | 3.3121 | 33.2010 | 21.7532 | 0.0388 | 0.1280 | 1.6587 | 1.7867 | 0.0194 | 1.5419 | 1.5612 | 0.0000 | 3,747.7049 | 3,747.7049 | 1.0580 | | 3,774.1536 |

CCR MRF Construction - San Bernardino-South Coast County, Summer

3.2 Demolition - 2020

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 | 9.3200e-003 | 0.3695 | 0.0545 | 1.1800e-003 | 0.0263 | 1.1000e-003 | 0.0274 | 7.2000e-003 | 1.0500e-003 | 8.2500e-003 | | 124.9062 | 124.9062 | 6.7400e-003 | | 125.0747 |
| 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 | 0.0819 | 0.0525 | 0.6746 | 1.7000e-003 | 0.1677 | 1.1000e-003 | 0.1688 | 0.0445 | 1.0100e-003 | 0.0455 | | 169.5126 | 169.5126 | 5.1700e-003 | | 169.6420 |
| Total | 0.0912 | 0.4221 | 0.7291 | 2.8800e-003 | 0.1939 | 2.2000e-003 | 0.1961 | 0.0517 | 2.0600e-003 | 0.0537 | | 294.4188 | 294.4188 | 0.0119 | | 294.7167 |

3.3 Site Preparation - 2020

Unmitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---------------|---------------|----------------|----------------|---------------|----------------|---------------|----------------|----------------|---------------|----------------|----------|-------------------|-------------------|---------------|-----|-------------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Fugitive Dust | | | | | 18.0663 | 0.0000 | 18.0663 | 9.9307 | 0.0000 | 9.9307 | | | 0.0000 | | | 0.0000 |
| Off-Road | 4.0765 | 42.4173 | 21.5136 | 0.0380 | | 2.1974 | 2.1974 | | 2.0216 | 2.0216 | | 3,685.1016 | 3,685.1016 | 1.1918 | | 3,714.8975 |
| Total | 4.0765 | 42.4173 | 21.5136 | 0.0380 | 18.0663 | 2.1974 | 20.2637 | 9.9307 | 2.0216 | 11.9523 | | 3,685.1016 | 3,685.1016 | 1.1918 | | 3,714.8975 |

CCR MRF Construction - San Bernardino-South Coast County, Summer

3.3 Site Preparation - 2020

Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|---------------|---------------|--------------------|---------------|--------------------|---------------|----------------|--------------------|---------------|----------|-----------------|-----------------|--------------------|-----|-----------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.0982 | 0.0631 | 0.8095 | 2.0400e-003 | 0.2012 | 1.3200e-003 | 0.2025 | 0.0534 | 1.2100e-003 | 0.0546 | | 203.4151 | 203.4151 | 6.2100e-003 | | 203.5704 |
| Total | 0.0982 | 0.0631 | 0.8095 | 2.0400e-003 | 0.2012 | 1.3200e-003 | 0.2025 | 0.0534 | 1.2100e-003 | 0.0546 | | 203.4151 | 203.4151 | 6.2100e-003 | | 203.5704 |

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 | | | | | 7.0458 | 0.0000 | 7.0458 | 3.8730 | 0.0000 | 3.8730 | | | 0.0000 | | | 0.0000 |
| Off-Road | 4.0765 | 42.4173 | 21.5136 | 0.0380 | | 2.1974 | 2.1974 | | 2.0216 | 2.0216 | 0.0000 | 3,685.1016 | 3,685.1016 | 1.1918 | | 3,714.8975 |
| Total | 4.0765 | 42.4173 | 21.5136 | 0.0380 | 7.0458 | 2.1974 | 9.2433 | 3.8730 | 2.0216 | 5.8946 | 0.0000 | 3,685.1016 | 3,685.1016 | 1.1918 | | 3,714.8975 |

CCR MRF Construction - San Bernardino-South Coast County, Summer

3.3 Site Preparation - 2020

Mitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|---------------|---------------|--------------------|---------------|--------------------|---------------|----------------|--------------------|---------------|----------|-----------------|-----------------|--------------------|-----|-----------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.0982 | 0.0631 | 0.8095 | 2.0400e-003 | 0.2012 | 1.3200e-003 | 0.2025 | 0.0534 | 1.2100e-003 | 0.0546 | | 203.4151 | 203.4151 | 6.2100e-003 | | 203.5704 |
| Total | 0.0982 | 0.0631 | 0.8095 | 2.0400e-003 | 0.2012 | 1.3200e-003 | 0.2025 | 0.0534 | 1.2100e-003 | 0.0546 | | 203.4151 | 203.4151 | 6.2100e-003 | | 203.5704 |

3.4 Grading - 2020

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 | | | | | 6.1281 | 0.0000 | 6.1281 | 3.3217 | 0.0000 | 3.3217 | | | 0.0000 | | | 0.0000 |
| Off-Road | 2.4288 | 26.3859 | 16.0530 | 0.0297 | | 1.2734 | 1.2734 | | 1.1716 | 1.1716 | | 2,872.4851 | 2,872.4851 | 0.9290 | | 2,895.7106 |
| Total | 2.4288 | 26.3859 | 16.0530 | 0.0297 | 6.1281 | 1.2734 | 7.4016 | 3.3217 | 1.1716 | 4.4932 | | 2,872.4851 | 2,872.4851 | 0.9290 | | 2,895.7106 |

CCR MRF Construction - San Bernardino-South Coast County, Summer

3.4 Grading - 2020

Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|---------------|---------------|--------------------|---------------|--------------------|---------------|----------------|--------------------|---------------|----------|-----------------|-----------------|--------------------|-----|-----------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.0819 | 0.0525 | 0.6746 | 1.7000e-003 | 0.1677 | 1.1000e-003 | 0.1688 | 0.0445 | 1.0100e-003 | 0.0455 | | 169.5126 | 169.5126 | 5.1700e-003 | | 169.6420 |
| Total | 0.0819 | 0.0525 | 0.6746 | 1.7000e-003 | 0.1677 | 1.1000e-003 | 0.1688 | 0.0445 | 1.0100e-003 | 0.0455 | | 169.5126 | 169.5126 | 5.1700e-003 | | 169.6420 |

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 | | | | | 2.3900 | 0.0000 | 2.3900 | 1.2955 | 0.0000 | 1.2955 | | | 0.0000 | | | 0.0000 |
| Off-Road | 2.4288 | 26.3859 | 16.0530 | 0.0297 | | 1.2734 | 1.2734 | | 1.1716 | 1.1716 | 0.0000 | 2,872.4851 | 2,872.4851 | 0.9290 | | 2,895.7106 |
| Total | 2.4288 | 26.3859 | 16.0530 | 0.0297 | 2.3900 | 1.2734 | 3.6634 | 1.2955 | 1.1716 | 2.4670 | 0.0000 | 2,872.4851 | 2,872.4851 | 0.9290 | | 2,895.7106 |

CCR MRF Construction - San Bernardino-South Coast County, Summer

3.4 Grading - 2020

Mitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|---------------|---------------|--------------------|---------------|--------------------|---------------|----------------|--------------------|---------------|----------|-----------------|-----------------|--------------------|-----|-----------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.0819 | 0.0525 | 0.6746 | 1.7000e-003 | 0.1677 | 1.1000e-003 | 0.1688 | 0.0445 | 1.0100e-003 | 0.0455 | | 169.5126 | 169.5126 | 5.1700e-003 | | 169.6420 |
| Total | 0.0819 | 0.0525 | 0.6746 | 1.7000e-003 | 0.1677 | 1.1000e-003 | 0.1688 | 0.0445 | 1.0100e-003 | 0.0455 | | 169.5126 | 169.5126 | 5.1700e-003 | | 169.6420 |

3.5 Building Construction - 2020

Unmitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|----------------|----------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|----------|-------------------|-------------------|---------------|-----|-------------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Off-Road | 2.1198 | 19.1860 | 16.8485 | 0.0269 | | 1.1171 | 1.1171 | | 1.0503 | 1.0503 | | 2,553.0631 | 2,553.0631 | 0.6229 | | 2,568.6345 |
| Total | 2.1198 | 19.1860 | 16.8485 | 0.0269 | | 1.1171 | 1.1171 | | 1.0503 | 1.0503 | | 2,553.0631 | 2,553.0631 | 0.6229 | | 2,568.6345 |

CCR MRF Construction - San Bernardino-South Coast County, Summer

3.5 Building Construction - 2020

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 | 0.0213 | 0.7387 | 0.1440 | 1.9000e-003 | 0.0448 | 3.4000e-003 | 0.0482 | 0.0129 | 3.2500e-003 | 0.0162 | | 200.2710 | 200.2710 | 0.0130 | | 200.5962 |
| Worker | 0.0928 | 0.0596 | 0.7645 | 1.9300e-003 | 0.1900 | 1.2500e-003 | 0.1913 | 0.0504 | 1.1500e-003 | 0.0515 | | 192.1143 | 192.1143 | 5.8600e-003 | | 192.2609 |
| Total | 0.1140 | 0.7983 | 0.9085 | 3.8300e-003 | 0.2349 | 4.6500e-003 | 0.2395 | 0.0633 | 4.4000e-003 | 0.0677 | | 392.3853 | 392.3853 | 0.0189 | | 392.8571 |

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 | 2.1198 | 19.1860 | 16.8485 | 0.0269 | | 1.1171 | 1.1171 | | 1.0503 | 1.0503 | 0.0000 | 2,553.0631 | 2,553.0631 | 0.6229 | | 2,568.6345 |
| Total | 2.1198 | 19.1860 | 16.8485 | 0.0269 | | 1.1171 | 1.1171 | | 1.0503 | 1.0503 | 0.0000 | 2,553.0631 | 2,553.0631 | 0.6229 | | 2,568.6345 |

CCR MRF Construction - San Bernardino-South Coast County, Summer

3.5 Building Construction - 2020

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 | 0.0213 | 0.7387 | 0.1440 | 1.9000e-003 | 0.0448 | 3.4000e-003 | 0.0482 | 0.0129 | 3.2500e-003 | 0.0162 | | 200.2710 | 200.2710 | 0.0130 | | 200.5962 |
| Worker | 0.0928 | 0.0596 | 0.7645 | 1.9300e-003 | 0.1900 | 1.2500e-003 | 0.1913 | 0.0504 | 1.1500e-003 | 0.0515 | | 192.1143 | 192.1143 | 5.8600e-003 | | 192.2609 |
| Total | 0.1140 | 0.7983 | 0.9085 | 3.8300e-003 | 0.2349 | 4.6500e-003 | 0.2395 | 0.0633 | 4.4000e-003 | 0.0677 | | 392.3853 | 392.3853 | 0.0189 | | 392.8571 |

3.5 Building Construction - 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 | 1.9009 | 17.4321 | 16.5752 | 0.0269 | | 0.9586 | 0.9586 | | 0.9013 | 0.9013 | | 2,553.3639 | 2,553.3639 | 0.6160 | | 2,568.7643 |
| Total | 1.9009 | 17.4321 | 16.5752 | 0.0269 | | 0.9586 | 0.9586 | | 0.9013 | 0.9013 | | 2,553.3639 | 2,553.3639 | 0.6160 | | 2,568.7643 |

CCR MRF Construction - San Bernardino-South Coast County, Summer

3.5 Building Construction - 2021

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 | 0.0181 | 0.6751 | 0.1270 | 1.8900e-003 | 0.0448 | 1.1600e-003 | 0.0460 | 0.0129 | 1.1100e-003 | 0.0140 | | 199.2125 | 199.2125 | 0.0126 | | 199.5273 |
| Worker | 0.0864 | 0.0534 | 0.7038 | 1.8700e-003 | 0.1900 | 1.2200e-003 | 0.1912 | 0.0504 | 1.1200e-003 | 0.0515 | | 185.9937 | 185.9937 | 5.2900e-003 | | 186.1260 |
| Total | 0.1045 | 0.7285 | 0.8308 | 3.7600e-003 | 0.2349 | 2.3800e-003 | 0.2372 | 0.0633 | 2.2300e-003 | 0.0655 | | 385.2062 | 385.2062 | 0.0179 | | 385.6533 |

Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|----------------|----------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|---------------|-------------------|-------------------|---------------|-----|-------------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Off-Road | 1.9009 | 17.4321 | 16.5752 | 0.0269 | | 0.9586 | 0.9586 | | 0.9013 | 0.9013 | 0.0000 | 2,553.3639 | 2,553.3639 | 0.6160 | | 2,568.7643 |
| Total | 1.9009 | 17.4321 | 16.5752 | 0.0269 | | 0.9586 | 0.9586 | | 0.9013 | 0.9013 | 0.0000 | 2,553.3639 | 2,553.3639 | 0.6160 | | 2,568.7643 |

CCR MRF Construction - San Bernardino-South Coast County, Summer

3.5 Building Construction - 2021

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 | 0.0181 | 0.6751 | 0.1270 | 1.8900e-003 | 0.0448 | 1.1600e-003 | 0.0460 | 0.0129 | 1.1100e-003 | 0.0140 | | 199.2125 | 199.2125 | 0.0126 | | 199.5273 |
| Worker | 0.0864 | 0.0534 | 0.7038 | 1.8700e-003 | 0.1900 | 1.2200e-003 | 0.1912 | 0.0504 | 1.1200e-003 | 0.0515 | | 185.9937 | 185.9937 | 5.2900e-003 | | 186.1260 |
| Total | 0.1045 | 0.7285 | 0.8308 | 3.7600e-003 | 0.2349 | 2.3800e-003 | 0.2372 | 0.0633 | 2.2300e-003 | 0.0655 | | 385.2062 | 385.2062 | 0.0179 | | 385.6533 |

3.6 Paving - 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 | 1.2556 | 12.9191 | 14.6532 | 0.0228 | | 0.6777 | 0.6777 | | 0.6235 | 0.6235 | | 2,207.2109 | 2,207.2109 | 0.7139 | | 2,225.0573 |
| Paving | 0.0000 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Total | 1.2556 | 12.9191 | 14.6532 | 0.0228 | | 0.6777 | 0.6777 | | 0.6235 | 0.6235 | | 2,207.2109 | 2,207.2109 | 0.7139 | | 2,225.0573 |

CCR MRF Construction - San Bernardino-South Coast County, Summer

3.6 Paving - 2021

Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|---------------|---------------|--------------------|---------------|--------------------|---------------|----------------|--------------------|---------------|----------|-----------------|-----------------|--------------------|-----|-----------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.0762 | 0.0471 | 0.6210 | 1.6500e-003 | 0.1677 | 1.0700e-003 | 0.1687 | 0.0445 | 9.9000e-004 | 0.0455 | | 164.1121 | 164.1121 | 4.6700e-003 | | 164.2289 |
| Total | 0.0762 | 0.0471 | 0.6210 | 1.6500e-003 | 0.1677 | 1.0700e-003 | 0.1687 | 0.0445 | 9.9000e-004 | 0.0455 | | 164.1121 | 164.1121 | 4.6700e-003 | | 164.2289 |

Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|----------------|----------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|---------------|-------------------|-------------------|---------------|-----|-------------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Off-Road | 1.2556 | 12.9191 | 14.6532 | 0.0228 | | 0.6777 | 0.6777 | | 0.6235 | 0.6235 | 0.0000 | 2,207.2109 | 2,207.2109 | 0.7139 | | 2,225.0573 |
| Paving | 0.0000 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Total | 1.2556 | 12.9191 | 14.6532 | 0.0228 | | 0.6777 | 0.6777 | | 0.6235 | 0.6235 | 0.0000 | 2,207.2109 | 2,207.2109 | 0.7139 | | 2,225.0573 |

CCR MRF Construction - San Bernardino-South Coast County, Summer

3.6 Paving - 2021

Mitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|---------------|---------------|--------------------|---------------|--------------------|---------------|----------------|--------------------|---------------|----------|-----------------|-----------------|--------------------|-----|-----------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.0762 | 0.0471 | 0.6210 | 1.6500e-003 | 0.1677 | 1.0700e-003 | 0.1687 | 0.0445 | 9.9000e-004 | 0.0455 | | 164.1121 | 164.1121 | 4.6700e-003 | | 164.2289 |
| Total | 0.0762 | 0.0471 | 0.6210 | 1.6500e-003 | 0.1677 | 1.0700e-003 | 0.1687 | 0.0445 | 9.9000e-004 | 0.0455 | | 164.1121 | 164.1121 | 4.6700e-003 | | 164.2289 |

3.7 Architectural Coating - 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 | | | | | |
| Archit. Coating | 18.3917 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Off-Road | 0.2189 | 1.5268 | 1.8176 | 2.9700e-003 | | 0.0941 | 0.0941 | | 0.0941 | 0.0941 | | 281.4481 | 281.4481 | 0.0193 | | 281.9309 |
| Total | 18.6106 | 1.5268 | 1.8176 | 2.9700e-003 | | 0.0941 | 0.0941 | | 0.0941 | 0.0941 | | 281.4481 | 281.4481 | 0.0193 | | 281.9309 |

CCR MRF Construction - San Bernardino-South Coast County, Summer

3.7 Architectural Coating - 2021

Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|--------------------|---------------|--------------------|---------------|--------------------|---------------|--------------------|--------------------|--------------------|----------|----------------|----------------|--------------------|-----|----------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.0152 | 9.4200e-003 | 0.1242 | 3.3000e-004 | 0.0335 | 2.1000e-004 | 0.0338 | 8.8900e-003 | 2.0000e-004 | 9.0900e-003 | | 32.8224 | 32.8224 | 9.3000e-004 | | 32.8458 |
| Total | 0.0152 | 9.4200e-003 | 0.1242 | 3.3000e-004 | 0.0335 | 2.1000e-004 | 0.0338 | 8.8900e-003 | 2.0000e-004 | 9.0900e-003 | | 32.8224 | 32.8224 | 9.3000e-004 | | 32.8458 |

Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|-----------------|----------------|---------------|---------------|--------------------|---------------|---------------|---------------|----------------|---------------|---------------|---------------|-----------------|-----------------|---------------|-----|-----------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Archit. Coating | 18.3917 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Off-Road | 0.2189 | 1.5268 | 1.8176 | 2.9700e-003 | | 0.0941 | 0.0941 | | 0.0941 | 0.0941 | 0.0000 | 281.4481 | 281.4481 | 0.0193 | | 281.9309 |
| Total | 18.6106 | 1.5268 | 1.8176 | 2.9700e-003 | | 0.0941 | 0.0941 | | 0.0941 | 0.0941 | 0.0000 | 281.4481 | 281.4481 | 0.0193 | | 281.9309 |

CCR MRF Construction - San Bernardino-South Coast County, Summer

3.7 Architectural Coating - 2021

Mitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|--------------------|---------------|--------------------|---------------|--------------------|---------------|--------------------|--------------------|--------------------|----------|----------------|----------------|--------------------|-----|----------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.0152 | 9.4200e-003 | 0.1242 | 3.3000e-004 | 0.0335 | 2.1000e-004 | 0.0338 | 8.8900e-003 | 2.0000e-004 | 9.0900e-003 | | 32.8224 | 32.8224 | 9.3000e-004 | | 32.8458 |
| Total | 0.0152 | 9.4200e-003 | 0.1242 | 3.3000e-004 | 0.0335 | 2.1000e-004 | 0.0338 | 8.8900e-003 | 2.0000e-004 | 9.0900e-003 | | 32.8224 | 32.8224 | 9.3000e-004 | | 32.8458 |

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

CCR MRF Construction - San Bernardino-South Coast County, Summer

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

4.2 Trip Summary Information

| Land Use | Average Daily Trip Rate | | | Unmitigated | Mitigated |
|------------------------|-------------------------|----------|--------|-------------|------------|
| | Weekday | Saturday | Sunday | Annual VMT | Annual VMT |
| General Heavy Industry | 0.00 | 0.00 | 0.00 | | |
| Total | 0.00 | 0.00 | 0.00 | | |

4.3 Trip Type Information

| Land Use | Miles | | | Trip % | | | Trip Purpose % | | |
|------------------------|------------|------------|-------------|------------|------------|-------------|----------------|----------|---------|
| | H-W or C-W | H-S or C-C | H-O or C-NW | H-W or C-W | H-S or C-C | H-O or C-NW | Primary | Diverted | Pass-by |
| General Heavy Industry | 16.60 | 8.40 | 6.90 | 59.00 | 28.00 | 13.00 | 92 | 5 | 3 |

4.4 Fleet Mix

| Land Use | LDA | LDT1 | LDT2 | MDV | LHD1 | LHD2 | MHD | HHD | OBUS | UBUS | MCY | SBUS | MH |
|------------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| General Heavy Industry | 0.549952 | 0.037123 | 0.179649 | 0.119457 | 0.017229 | 0.005267 | 0.017877 | 0.062669 | 0.001348 | 0.001607 | 0.006000 | 0.000812 | 0.001010 |

5.0 Energy Detail

Historical Energy Use: N

CCR MRF Construction - San Bernardino-South Coast County, Summer

5.1 Mitigation Measures Energy

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|------------------------|--------|--------|--------|-------------|---------------|--------------|------------|----------------|---------------|-------------|----------|-----------|-----------|-------------|-------------|----------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| NaturalGas Mitigated | 0.0381 | 0.3463 | 0.2909 | 2.0800e-003 | | 0.0263 | 0.0263 | | 0.0263 | 0.0263 | | 415.5369 | 415.5369 | 7.9600e-003 | 7.6200e-003 | 418.0062 |
| NaturalGas Unmitigated | 0.0381 | 0.3463 | 0.2909 | 2.0800e-003 | | 0.0263 | 0.0263 | | 0.0263 | 0.0263 | | 415.5369 | 415.5369 | 7.9600e-003 | 7.6200e-003 | 418.0062 |

5.2 Energy by Land Use - NaturalGas

Unmitigated

| | NaturalGas Use | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|------------------------|----------------|---------------|---------------|---------------|--------------------|---------------|---------------|---------------|----------------|---------------|---------------|----------|-----------------|-----------------|--------------------|--------------------|-----------------|
| Land Use | kBTU/yr | lb/day | | | | | | | | | | lb/day | | | | | |
| General Heavy Industry | 3532.06 | 0.0381 | 0.3463 | 0.2909 | 2.0800e-003 | | 0.0263 | 0.0263 | | 0.0263 | 0.0263 | | 415.5369 | 415.5369 | 7.9600e-003 | 7.6200e-003 | 418.0062 |
| Total | | 0.0381 | 0.3463 | 0.2909 | 2.0800e-003 | | 0.0263 | 0.0263 | | 0.0263 | 0.0263 | | 415.5369 | 415.5369 | 7.9600e-003 | 7.6200e-003 | 418.0062 |

CCR MRF Construction - San Bernardino-South Coast County, Summer

5.2 Energy by Land Use - Natural Gas

Mitigated

| | Natural Gas Use | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|------------------------|-----------------|---------------|---------------|---------------|--------------------|---------------|---------------|---------------|----------------|---------------|---------------|----------|-----------------|-----------------|--------------------|--------------------|-----------------|
| Land Use | kBTU/yr | lb/day | | | | | | | | | | lb/day | | | | | |
| General Heavy Industry | 3.53206 | 0.0381 | 0.3463 | 0.2909 | 2.0800e-003 | | 0.0263 | 0.0263 | | 0.0263 | 0.0263 | | 415.5369 | 415.5369 | 7.9600e-003 | 7.6200e-003 | 418.0062 |
| Total | | 0.0381 | 0.3463 | 0.2909 | 2.0800e-003 | | 0.0263 | 0.0263 | | 0.0263 | 0.0263 | | 415.5369 | 415.5369 | 7.9600e-003 | 7.6200e-003 | 418.0062 |

6.0 Area Detail

6.1 Mitigation Measures Area

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|-------------|-------------|-------------|-------------|--------|---------------|--------------|-------------|----------------|---------------|-------------|----------|-------------|-------------|-------------|-----|-------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Mitigated | 3.8000e-004 | 4.0000e-005 | 4.0700e-003 | 0.0000 | | 1.0000e-005 | 1.0000e-005 | | 1.0000e-005 | 1.0000e-005 | | 8.6800e-003 | 8.6800e-003 | 2.0000e-005 | | 9.2600e-003 |
| Unmitigated | 3.8000e-004 | 4.0000e-005 | 4.0700e-003 | 0.0000 | | 1.0000e-005 | 1.0000e-005 | | 1.0000e-005 | 1.0000e-005 | | 8.6800e-003 | 8.6800e-003 | 2.0000e-005 | | 9.2600e-003 |

CCR MRF Construction - San Bernardino-South Coast County, Summer

6.2 Area by SubCategory

Unmitigated

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|-----------------------|--------------------|--------------------|--------------------|---------------|---------------|--------------------|--------------------|----------------|--------------------|--------------------|----------|--------------------|--------------------|--------------------|-----|--------------------|
| SubCategory | lb/day | | | | | | | | | | lb/day | | | | | |
| Architectural Coating | 0.0000 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Consumer Products | 0.0000 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Landscaping | 3.8000e-004 | 4.0000e-005 | 4.0700e-003 | 0.0000 | | 1.0000e-005 | 1.0000e-005 | | 1.0000e-005 | 1.0000e-005 | | 8.6800e-003 | 8.6800e-003 | 2.0000e-005 | | 9.2600e-003 |
| Total | 3.8000e-004 | 4.0000e-005 | 4.0700e-003 | 0.0000 | | 1.0000e-005 | 1.0000e-005 | | 1.0000e-005 | 1.0000e-005 | | 8.6800e-003 | 8.6800e-003 | 2.0000e-005 | | 9.2600e-003 |

Mitigated

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|-----------------------|--------------------|--------------------|--------------------|---------------|---------------|--------------------|--------------------|----------------|--------------------|--------------------|----------|--------------------|--------------------|--------------------|-----|--------------------|
| SubCategory | lb/day | | | | | | | | | | lb/day | | | | | |
| Architectural Coating | 0.0000 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Consumer Products | 0.0000 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Landscaping | 3.8000e-004 | 4.0000e-005 | 4.0700e-003 | 0.0000 | | 1.0000e-005 | 1.0000e-005 | | 1.0000e-005 | 1.0000e-005 | | 8.6800e-003 | 8.6800e-003 | 2.0000e-005 | | 9.2600e-003 |
| Total | 3.8000e-004 | 4.0000e-005 | 4.0700e-003 | 0.0000 | | 1.0000e-005 | 1.0000e-005 | | 1.0000e-005 | 1.0000e-005 | | 8.6800e-003 | 8.6800e-003 | 2.0000e-005 | | 9.2600e-003 |

7.0 Water Detail

CCR MRF Construction - San Bernardino-South Coast County, Summer

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

| Equipment Type | Number | Hours/Day | Days/Year | Horse Power | Load Factor | Fuel Type |
|----------------|--------|-----------|-----------|-------------|-------------|-----------|
|----------------|--------|-----------|-----------|-------------|-------------|-----------|

10.0 Stationary Equipment**Fire Pumps and Emergency Generators**

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

Boilers

| Equipment Type | Number | Heat Input/Day | Heat Input/Year | Boiler Rating | Fuel Type |
|----------------|--------|----------------|-----------------|---------------|-----------|
|----------------|--------|----------------|-----------------|---------------|-----------|

User Defined Equipment

| Equipment Type | Number |
|----------------|--------|
|----------------|--------|

11.0 Vegetation

CCR MRF Construction - San Bernardino-South Coast County, Annual

CCR MRF Construction
San Bernardino-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

| Land Uses | Size | Metric | Lot Acreage | Floor Surface Area | Population |
|------------------------|-------|----------|-------------|--------------------|------------|
| General Heavy Industry | 39.68 | 1000sqft | 6.10 | 39,680.00 | 0 |

1.2 Other Project Characteristics

| | | | | | |
|--------------------------------|----------------------------|--------------------------------|-------|----------------------------------|-------|
| Urbanization | Urban | Wind Speed (m/s) | 2.2 | Precipitation Freq (Days) | 32 |
| Climate Zone | 10 | | | Operational Year | 2021 |
| Utility Company | Southern California Edison | | | | |
| CO2 Intensity (lb/MWhr) | 702.44 | CH4 Intensity (lb/MWhr) | 0.029 | N2O Intensity (lb/MWhr) | 0.006 |

1.3 User Entered Comments & Non-Default Data

CCR MRF Construction - San Bernardino-South Coast County, Annual

Project Characteristics -

Land Use - Gross acreage is 6.1 acres. New buildings would be approx 39,680 sf.

Grading - graded area is approx 2 acres.

Demolition - Approx 6,668 sf of maintenance, staff, and office bldgs would be demolished.

Vehicle Trips - Operational emissions would remain unchanged.

Road Dust - Operational road dust would remain unchanged.

Consumer Products - Unchanged.

Area Coating - Unchanged

Landscape Equipment - Unchanged

Construction Off-road Equipment Mitigation - Fugitive dust control with on-site watering at least 3 times daily.

| Table Name | Column Name | Default Value | New Value |
|---------------------|------------------------------|---------------|-----------|
| tblAreaCoating | Area_Nonresidential_Exterior | 19840 | 0 |
| tblAreaCoating | Area_Nonresidential_Interior | 59520 | 0 |
| tblConsumerProducts | ROG_EF | 1.98E-05 | 0 |
| tblConsumerProducts | ROG_EF_Degreaser | 3.542E-07 | 0 |
| tblGrading | AcresOfGrading | 10.00 | 2.00 |
| tblLandUse | LotAcreage | 0.91 | 6.10 |
| tblRoadDust | MeanVehicleSpeed | 40 | 0 |
| tblRoadDust | MobileAverageVehicleWeight | 2.4 | 0 |
| tblVehicleTrips | ST_TR | 1.50 | 0.00 |
| tblVehicleTrips | SU_TR | 1.50 | 0.00 |
| tblVehicleTrips | WD_TR | 1.50 | 0.00 |

2.0 Emissions Summary

CCR MRF Construction - San Bernardino-South Coast County, Annual

| Quarter | Start Date | End Date | Maximum Unmitigated ROG + NOX (tons/quarter) | Maximum Mitigated ROG + NOX (tons/quarter) |
|---------|------------|-----------|--|--|
| 1 | 2-3-2020 | 5-2-2020 | 1.0412 | 1.0412 |
| 2 | 5-3-2020 | 8-2-2020 | 0.7300 | 0.7300 |
| 3 | 8-3-2020 | 11-2-2020 | 0.7300 | 0.7300 |
| 4 | 11-3-2020 | 2-2-2021 | 0.7058 | 0.7058 |
| 5 | 2-3-2021 | 5-2-2021 | 0.5175 | 0.5175 |
| | | Highest | 1.0412 | 1.0412 |

2.2 Overall Operational

Unmitigated Operational

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|--------------------|---------------|---------------|--------------------|---------------|--------------------|--------------------|----------------|--------------------|--------------------|----------------|-----------------|-----------------|---------------|--------------------|-----------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Area | 5.0000e-005 | 0.0000 | 5.1000e-004 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 9.8000e-004 | 9.8000e-004 | 0.0000 | 0.0000 | 1.0500e-003 |
| Energy | 6.9500e-003 | 0.0632 | 0.0531 | 3.8000e-004 | | 4.8000e-003 | 4.8000e-003 | | 4.8000e-003 | 4.8000e-003 | 0.0000 | 197.1222 | 197.1222 | 6.6200e-003 | 2.3600e-003 | 197.9901 |
| Mobile | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Waste | | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 9.9872 | 0.0000 | 9.9872 | 0.5902 | 0.0000 | 24.7428 |
| Water | | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 2.9111 | 38.0691 | 40.9802 | 0.3006 | 7.3900e-003 | 50.6953 |
| Total | 7.0000e-003 | 0.0632 | 0.0536 | 3.8000e-004 | 0.0000 | 4.8000e-003 | 4.8000e-003 | 0.0000 | 4.8000e-003 | 4.8000e-003 | 12.8983 | 235.1923 | 248.0906 | 0.8974 | 9.7500e-003 | 273.4292 |

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2.2 Overall Operational

Mitigated Operational

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|--------------------|---------------|---------------|--------------------|---------------|--------------------|--------------------|----------------|--------------------|--------------------|----------------|-----------------|-----------------|---------------|--------------------|-----------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Area | 5.0000e-005 | 0.0000 | 5.1000e-004 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 9.8000e-004 | 9.8000e-004 | 0.0000 | 0.0000 | 1.0500e-003 |
| Energy | 6.9500e-003 | 0.0632 | 0.0531 | 3.8000e-004 | | 4.8000e-003 | 4.8000e-003 | | 4.8000e-003 | 4.8000e-003 | 0.0000 | 197.1222 | 197.1222 | 6.6200e-003 | 2.3600e-003 | 197.9901 |
| Mobile | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Waste | | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 9.9872 | 0.0000 | 9.9872 | 0.5902 | 0.0000 | 24.7428 |
| Water | | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 2.9111 | 38.0691 | 40.9802 | 0.3006 | 7.3900e-003 | 50.6953 |
| Total | 7.0000e-003 | 0.0632 | 0.0536 | 3.8000e-004 | 0.0000 | 4.8000e-003 | 4.8000e-003 | 0.0000 | 4.8000e-003 | 4.8000e-003 | 12.8983 | 235.1923 | 248.0906 | 0.8974 | 9.7500e-003 | 273.4292 |

| | ROG | NOx | CO | SO2 | 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

CCR MRF Construction - San Bernardino-South Coast County, Annual

| Phase Number | Phase Name | Phase Type | Start Date | End Date | Num Days Week | Num Days | Phase Description |
|--------------|-----------------------|-----------------------|------------|-----------|---------------|----------|-------------------|
| 1 | Demolition | Demolition | 2/3/2020 | 2/28/2020 | 5 | 20 | |
| 2 | Site Preparation | Site Preparation | 2/29/2020 | 3/13/2020 | 5 | 10 | |
| 3 | Grading | Grading | 3/14/2020 | 4/10/2020 | 5 | 20 | |
| 4 | Building Construction | Building Construction | 4/11/2020 | 2/26/2021 | 5 | 230 | |
| 5 | Paving | Paving | 2/27/2021 | 3/26/2021 | 5 | 20 | |
| 6 | Architectural Coating | Architectural Coating | 3/27/2021 | 4/23/2021 | 5 | 20 | |

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 2

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 59,520; Non-Residential Outdoor: 19,840; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

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| Phase Name | Offroad Equipment Type | Amount | Usage Hours | Horse Power | Load Factor |
|-----------------------|---------------------------|--------|-------------|-------------|-------------|
| Architectural Coating | Air Compressors | 1 | 6.00 | 78 | 0.48 |
| Demolition | Excavators | 3 | 8.00 | 158 | 0.38 |
| Demolition | Concrete/Industrial Saws | 1 | 8.00 | 81 | 0.73 |
| Grading | Excavators | 1 | 8.00 | 158 | 0.38 |
| Building Construction | Cranes | 1 | 7.00 | 231 | 0.29 |
| Building Construction | Forklifts | 3 | 8.00 | 89 | 0.20 |
| Building Construction | Generator Sets | 1 | 8.00 | 84 | 0.74 |
| Paving | Pavers | 2 | 8.00 | 130 | 0.42 |
| Paving | Rollers | 2 | 8.00 | 80 | 0.38 |
| Demolition | Rubber Tired Dozers | 2 | 8.00 | 247 | 0.40 |
| Grading | Rubber Tired Dozers | 1 | 8.00 | 247 | 0.40 |
| Building Construction | Tractors/Loaders/Backhoes | 3 | 7.00 | 97 | 0.37 |
| Grading | Graders | 1 | 8.00 | 187 | 0.41 |
| Grading | Tractors/Loaders/Backhoes | 3 | 8.00 | 97 | 0.37 |
| Paving | Paving Equipment | 2 | 8.00 | 132 | 0.36 |
| Site Preparation | Tractors/Loaders/Backhoes | 4 | 8.00 | 97 | 0.37 |
| Site Preparation | Rubber Tired Dozers | 3 | 8.00 | 247 | 0.40 |
| Building Construction | Welders | 1 | 8.00 | 46 | 0.45 |

Trips and VMT

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| Phase Name | Offroad Equipment Count | Worker Trip Number | Vendor Trip Number | Hauling Trip Number | Worker Trip Length | Vendor Trip Length | Hauling Trip Length | Worker Vehicle Class | Vendor Vehicle Class | Hauling Vehicle Class |
|-----------------------|-------------------------|--------------------|--------------------|---------------------|--------------------|--------------------|---------------------|----------------------|----------------------|-----------------------|
| Demolition | 6 | 15.00 | 0.00 | 30.00 | 14.70 | 6.90 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Site Preparation | 7 | 18.00 | 0.00 | 0.00 | 14.70 | 6.90 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Grading | 6 | 15.00 | 0.00 | 0.00 | 14.70 | 6.90 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Building Construction | 9 | 17.00 | 7.00 | 0.00 | 14.70 | 6.90 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Paving | 6 | 15.00 | 0.00 | 0.00 | 14.70 | 6.90 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Architectural Coating | 1 | 3.00 | 0.00 | 0.00 | 14.70 | 6.90 | 20.00 | LD_Mix | HDT_Mix | HHDT |

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 Demolition - 2020

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 | | | | | 3.2800e-003 | 0.0000 | 3.2800e-003 | 5.0000e-004 | 0.0000 | 5.0000e-004 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 0.0331 | 0.3320 | 0.2175 | 3.9000e-004 | | 0.0166 | 0.0166 | | 0.0154 | 0.0154 | 0.0000 | 33.9986 | 33.9986 | 9.6000e-003 | 0.0000 | 34.2386 |
| Total | 0.0331 | 0.3320 | 0.2175 | 3.9000e-004 | 3.2800e-003 | 0.0166 | 0.0199 | 5.0000e-004 | 0.0154 | 0.0159 | 0.0000 | 33.9986 | 33.9986 | 9.6000e-003 | 0.0000 | 34.2386 |

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3.2 Demolition - 2020

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 | 9.0000e-005 | 3.7900e-003 | 5.8000e-004 | 1.0000e-005 | 2.6000e-004 | 1.0000e-005 | 2.7000e-004 | 7.0000e-005 | 1.0000e-005 | 8.0000e-005 | 0.0000 | 1.1207 | 1.1207 | 6.0000e-005 | 0.0000 | 1.1223 |
| 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 | 7.4000e-004 | 5.8000e-004 | 5.8200e-003 | 2.0000e-005 | 1.6400e-003 | 1.0000e-005 | 1.6600e-003 | 4.4000e-004 | 1.0000e-005 | 4.5000e-004 | 0.0000 | 1.4097 | 1.4097 | 4.0000e-005 | 0.0000 | 1.4108 |
| Total | 8.3000e-004 | 4.3700e-003 | 6.4000e-003 | 3.0000e-005 | 1.9000e-003 | 2.0000e-005 | 1.9300e-003 | 5.1000e-004 | 2.0000e-005 | 5.3000e-004 | 0.0000 | 2.5305 | 2.5305 | 1.0000e-004 | 0.0000 | 2.5331 |

Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---------------|---------------|---------------|---------------|--------------------|--------------------|---------------|---------------|--------------------|---------------|---------------|---------------|----------------|----------------|--------------------|---------------|----------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Fugitive Dust | | | | | 1.2800e-003 | 0.0000 | 1.2800e-003 | 1.9000e-004 | 0.0000 | 1.9000e-004 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 0.0331 | 0.3320 | 0.2175 | 3.9000e-004 | | 0.0166 | 0.0166 | | 0.0154 | 0.0154 | 0.0000 | 33.9986 | 33.9986 | 9.6000e-003 | 0.0000 | 34.2385 |
| Total | 0.0331 | 0.3320 | 0.2175 | 3.9000e-004 | 1.2800e-003 | 0.0166 | 0.0179 | 1.9000e-004 | 0.0154 | 0.0156 | 0.0000 | 33.9986 | 33.9986 | 9.6000e-003 | 0.0000 | 34.2385 |

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3.2 Demolition - 2020

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 | 9.0000e-005 | 3.7900e-003 | 5.8000e-004 | 1.0000e-005 | 2.6000e-004 | 1.0000e-005 | 2.7000e-004 | 7.0000e-005 | 1.0000e-005 | 8.0000e-005 | 0.0000 | 1.1207 | 1.1207 | 6.0000e-005 | 0.0000 | 1.1223 |
| 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 | 7.4000e-004 | 5.8000e-004 | 5.8200e-003 | 2.0000e-005 | 1.6400e-003 | 1.0000e-005 | 1.6600e-003 | 4.4000e-004 | 1.0000e-005 | 4.5000e-004 | 0.0000 | 1.4097 | 1.4097 | 4.0000e-005 | 0.0000 | 1.4108 |
| Total | 8.3000e-004 | 4.3700e-003 | 6.4000e-003 | 3.0000e-005 | 1.9000e-003 | 2.0000e-005 | 1.9300e-003 | 5.1000e-004 | 2.0000e-005 | 5.3000e-004 | 0.0000 | 2.5305 | 2.5305 | 1.0000e-004 | 0.0000 | 2.5331 |

3.3 Site Preparation - 2020

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 | | | | | 0.0903 | 0.0000 | 0.0903 | 0.0497 | 0.0000 | 0.0497 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 0.0204 | 0.2121 | 0.1076 | 1.9000e-004 | | 0.0110 | 0.0110 | | 0.0101 | 0.0101 | 0.0000 | 16.7153 | 16.7153 | 5.4100e-003 | 0.0000 | 16.8505 |
| Total | 0.0204 | 0.2121 | 0.1076 | 1.9000e-004 | 0.0903 | 0.0110 | 0.1013 | 0.0497 | 0.0101 | 0.0598 | 0.0000 | 16.7153 | 16.7153 | 5.4100e-003 | 0.0000 | 16.8505 |

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3.3 Site Preparation - 2020

Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|---------------|---------------|---------------|--------------------|---------------|---------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | 4.4000e-004 | 3.5000e-004 | 3.4900e-003 | 1.0000e-005 | 9.9000e-004 | 1.0000e-005 | 9.9000e-004 | 2.6000e-004 | 1.0000e-005 | 2.7000e-004 | 0.0000 | 0.8458 | 0.8458 | 3.0000e-005 | 0.0000 | 0.8465 |
| Total | 4.4000e-004 | 3.5000e-004 | 3.4900e-003 | 1.0000e-005 | 9.9000e-004 | 1.0000e-005 | 9.9000e-004 | 2.6000e-004 | 1.0000e-005 | 2.7000e-004 | 0.0000 | 0.8458 | 0.8458 | 3.0000e-005 | 0.0000 | 0.8465 |

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 | | | | | 0.0352 | 0.0000 | 0.0352 | 0.0194 | 0.0000 | 0.0194 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 0.0204 | 0.2121 | 0.1076 | 1.9000e-004 | | 0.0110 | 0.0110 | | 0.0101 | 0.0101 | 0.0000 | 16.7153 | 16.7153 | 5.4100e-003 | 0.0000 | 16.8505 |
| Total | 0.0204 | 0.2121 | 0.1076 | 1.9000e-004 | 0.0352 | 0.0110 | 0.0462 | 0.0194 | 0.0101 | 0.0295 | 0.0000 | 16.7153 | 16.7153 | 5.4100e-003 | 0.0000 | 16.8505 |

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3.3 Site Preparation - 2020

Mitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|---------------|---------------|---------------|--------------------|---------------|---------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | 4.4000e-004 | 3.5000e-004 | 3.4900e-003 | 1.0000e-005 | 9.9000e-004 | 1.0000e-005 | 9.9000e-004 | 2.6000e-004 | 1.0000e-005 | 2.7000e-004 | 0.0000 | 0.8458 | 0.8458 | 3.0000e-005 | 0.0000 | 0.8465 |
| Total | 4.4000e-004 | 3.5000e-004 | 3.4900e-003 | 1.0000e-005 | 9.9000e-004 | 1.0000e-005 | 9.9000e-004 | 2.6000e-004 | 1.0000e-005 | 2.7000e-004 | 0.0000 | 0.8458 | 0.8458 | 3.0000e-005 | 0.0000 | 0.8465 |

3.4 Grading - 2020

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 | | | | | 0.0613 | 0.0000 | 0.0613 | 0.0332 | 0.0000 | 0.0332 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 0.0243 | 0.2639 | 0.1605 | 3.0000e-004 | | 0.0127 | 0.0127 | | 0.0117 | 0.0117 | 0.0000 | 26.0588 | 26.0588 | 8.4300e-003 | 0.0000 | 26.2694 |
| Total | 0.0243 | 0.2639 | 0.1605 | 3.0000e-004 | 0.0613 | 0.0127 | 0.0740 | 0.0332 | 0.0117 | 0.0449 | 0.0000 | 26.0588 | 26.0588 | 8.4300e-003 | 0.0000 | 26.2694 |

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3.4 Grading - 2020

Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|---------------|---------------|---------------|--------------------|---------------|---------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | 7.4000e-004 | 5.8000e-004 | 5.8200e-003 | 2.0000e-005 | 1.6400e-003 | 1.0000e-005 | 1.6600e-003 | 4.4000e-004 | 1.0000e-005 | 4.5000e-004 | 0.0000 | 1.4097 | 1.4097 | 4.0000e-005 | 0.0000 | 1.4108 |
| Total | 7.4000e-004 | 5.8000e-004 | 5.8200e-003 | 2.0000e-005 | 1.6400e-003 | 1.0000e-005 | 1.6600e-003 | 4.4000e-004 | 1.0000e-005 | 4.5000e-004 | 0.0000 | 1.4097 | 1.4097 | 4.0000e-005 | 0.0000 | 1.4108 |

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 | | | | | 0.0239 | 0.0000 | 0.0239 | 0.0130 | 0.0000 | 0.0130 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 0.0243 | 0.2639 | 0.1605 | 3.0000e-004 | | 0.0127 | 0.0127 | | 0.0117 | 0.0117 | 0.0000 | 26.0587 | 26.0587 | 8.4300e-003 | 0.0000 | 26.2694 |
| Total | 0.0243 | 0.2639 | 0.1605 | 3.0000e-004 | 0.0239 | 0.0127 | 0.0366 | 0.0130 | 0.0117 | 0.0247 | 0.0000 | 26.0587 | 26.0587 | 8.4300e-003 | 0.0000 | 26.2694 |

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3.4 Grading - 2020

Mitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|---------------|---------------|---------------|--------------------|---------------|---------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | 7.4000e-004 | 5.8000e-004 | 5.8200e-003 | 2.0000e-005 | 1.6400e-003 | 1.0000e-005 | 1.6600e-003 | 4.4000e-004 | 1.0000e-005 | 4.5000e-004 | 0.0000 | 1.4097 | 1.4097 | 4.0000e-005 | 0.0000 | 1.4108 |
| Total | 7.4000e-004 | 5.8000e-004 | 5.8200e-003 | 2.0000e-005 | 1.6400e-003 | 1.0000e-005 | 1.6600e-003 | 4.4000e-004 | 1.0000e-005 | 4.5000e-004 | 0.0000 | 1.4097 | 1.4097 | 4.0000e-005 | 0.0000 | 1.4108 |

3.5 Building Construction - 2020

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 | 0.2003 | 1.8131 | 1.5922 | 2.5400e-003 | | 0.1056 | 0.1056 | | 0.0993 | 0.0993 | 0.0000 | 218.8714 | 218.8714 | 0.0534 | 0.0000 | 220.2064 |
| Total | 0.2003 | 1.8131 | 1.5922 | 2.5400e-003 | | 0.1056 | 0.1056 | | 0.0993 | 0.0993 | 0.0000 | 218.8714 | 218.8714 | 0.0534 | 0.0000 | 220.2064 |

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3.5 Building Construction - 2020

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 | 2.0500e-003 | 0.0706 | 0.0148 | 1.8000e-004 | 4.1700e-003 | 3.2000e-004 | 4.4900e-003 | 1.2000e-003 | 3.1000e-004 | 1.5100e-003 | 0.0000 | 16.8892 | 16.8892 | 1.1700e-003 | 0.0000 | 16.9184 |
| Worker | 7.9400e-003 | 6.2400e-003 | 0.0623 | 1.7000e-004 | 0.0176 | 1.2000e-004 | 0.0177 | 4.6800e-003 | 1.1000e-004 | 4.7900e-003 | 0.0000 | 15.0982 | 15.0982 | 4.5000e-004 | 0.0000 | 15.1096 |
| Total | 9.9900e-003 | 0.0769 | 0.0771 | 3.5000e-004 | 0.0218 | 4.4000e-004 | 0.0222 | 5.8800e-003 | 4.2000e-004 | 6.3000e-003 | 0.0000 | 31.9874 | 31.9874 | 1.6200e-003 | 0.0000 | 32.0280 |

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 | 0.2003 | 1.8131 | 1.5922 | 2.5400e-003 | | 0.1056 | 0.1056 | | 0.0993 | 0.0993 | 0.0000 | 218.8712 | 218.8712 | 0.0534 | 0.0000 | 220.2061 |
| Total | 0.2003 | 1.8131 | 1.5922 | 2.5400e-003 | | 0.1056 | 0.1056 | | 0.0993 | 0.0993 | 0.0000 | 218.8712 | 218.8712 | 0.0534 | 0.0000 | 220.2061 |

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3.5 Building Construction - 2020

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 | 2.0500e-003 | 0.0706 | 0.0148 | 1.8000e-004 | 4.1700e-003 | 3.2000e-004 | 4.4900e-003 | 1.2000e-003 | 3.1000e-004 | 1.5100e-003 | 0.0000 | 16.8892 | 16.8892 | 1.1700e-003 | 0.0000 | 16.9184 |
| Worker | 7.9400e-003 | 6.2400e-003 | 0.0623 | 1.7000e-004 | 0.0176 | 1.2000e-004 | 0.0177 | 4.6800e-003 | 1.1000e-004 | 4.7900e-003 | 0.0000 | 15.0982 | 15.0982 | 4.5000e-004 | 0.0000 | 15.1096 |
| Total | 9.9900e-003 | 0.0769 | 0.0771 | 3.5000e-004 | 0.0218 | 4.4000e-004 | 0.0222 | 5.8800e-003 | 4.2000e-004 | 6.3000e-003 | 0.0000 | 31.9874 | 31.9874 | 1.6200e-003 | 0.0000 | 32.0280 |

3.5 Building Construction - 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 | 0.0390 | 0.3574 | 0.3398 | 5.5000e-004 | | 0.0197 | 0.0197 | | 0.0185 | 0.0185 | 0.0000 | 47.4856 | 47.4856 | 0.0115 | 0.0000 | 47.7721 |
| Total | 0.0390 | 0.3574 | 0.3398 | 5.5000e-004 | | 0.0197 | 0.0197 | | 0.0185 | 0.0185 | 0.0000 | 47.4856 | 47.4856 | 0.0115 | 0.0000 | 47.7721 |

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3.5 Building Construction - 2021

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 | 3.8000e-004 | 0.0140 | 2.8400e-003 | 4.0000e-005 | 9.0000e-004 | 2.0000e-005 | 9.3000e-004 | 2.6000e-004 | 2.0000e-005 | 2.8000e-004 | 0.0000 | 3.6444 | 3.6444 | 2.5000e-004 | 0.0000 | 3.6505 |
| Worker | 1.6000e-003 | 1.2100e-003 | 0.0124 | 4.0000e-005 | 3.8200e-003 | 2.0000e-005 | 3.8500e-003 | 1.0100e-003 | 2.0000e-005 | 1.0400e-003 | 0.0000 | 3.1710 | 3.1710 | 9.0000e-005 | 0.0000 | 3.1732 |
| Total | 1.9800e-003 | 0.0152 | 0.0153 | 8.0000e-005 | 4.7200e-003 | 4.0000e-005 | 4.7800e-003 | 1.2700e-003 | 4.0000e-005 | 1.3200e-003 | 0.0000 | 6.8154 | 6.8154 | 3.4000e-004 | 0.0000 | 6.8237 |

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 | 0.0390 | 0.3574 | 0.3398 | 5.5000e-004 | | 0.0197 | 0.0197 | | 0.0185 | 0.0185 | 0.0000 | 47.4856 | 47.4856 | 0.0115 | 0.0000 | 47.7720 |
| Total | 0.0390 | 0.3574 | 0.3398 | 5.5000e-004 | | 0.0197 | 0.0197 | | 0.0185 | 0.0185 | 0.0000 | 47.4856 | 47.4856 | 0.0115 | 0.0000 | 47.7720 |

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3.5 Building Construction - 2021

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 | 3.8000e-004 | 0.0140 | 2.8400e-003 | 4.0000e-005 | 9.0000e-004 | 2.0000e-005 | 9.3000e-004 | 2.6000e-004 | 2.0000e-005 | 2.8000e-004 | 0.0000 | 3.6444 | 3.6444 | 2.5000e-004 | 0.0000 | 3.6505 |
| Worker | 1.6000e-003 | 1.2100e-003 | 0.0124 | 4.0000e-005 | 3.8200e-003 | 2.0000e-005 | 3.8500e-003 | 1.0100e-003 | 2.0000e-005 | 1.0400e-003 | 0.0000 | 3.1710 | 3.1710 | 9.0000e-005 | 0.0000 | 3.1732 |
| Total | 1.9800e-003 | 0.0152 | 0.0153 | 8.0000e-005 | 4.7200e-003 | 4.0000e-005 | 4.7800e-003 | 1.2700e-003 | 4.0000e-005 | 1.3200e-003 | 0.0000 | 6.8154 | 6.8154 | 3.4000e-004 | 0.0000 | 6.8237 |

3.6 Paving - 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 | 0.0126 | 0.1292 | 0.1465 | 2.3000e-004 | | 6.7800e-003 | 6.7800e-003 | | 6.2400e-003 | 6.2400e-003 | 0.0000 | 20.0235 | 20.0235 | 6.4800e-003 | 0.0000 | 20.1854 |
| Paving | 0.0000 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Total | 0.0126 | 0.1292 | 0.1465 | 2.3000e-004 | | 6.7800e-003 | 6.7800e-003 | | 6.2400e-003 | 6.2400e-003 | 0.0000 | 20.0235 | 20.0235 | 6.4800e-003 | 0.0000 | 20.1854 |

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3.6 Paving - 2021

Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|---------------|---------------|---------------|--------------------|---------------|---------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | 6.9000e-004 | 5.2000e-004 | 5.3400e-003 | 2.0000e-005 | 1.6400e-003 | 1.0000e-005 | 1.6600e-003 | 4.4000e-004 | 1.0000e-005 | 4.5000e-004 | 0.0000 | 1.3649 | 1.3649 | 4.0000e-005 | 0.0000 | 1.3658 |
| Total | 6.9000e-004 | 5.2000e-004 | 5.3400e-003 | 2.0000e-005 | 1.6400e-003 | 1.0000e-005 | 1.6600e-003 | 4.4000e-004 | 1.0000e-005 | 4.5000e-004 | 0.0000 | 1.3649 | 1.3649 | 4.0000e-005 | 0.0000 | 1.3658 |

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 | 0.0126 | 0.1292 | 0.1465 | 2.3000e-004 | | 6.7800e-003 | 6.7800e-003 | | 6.2400e-003 | 6.2400e-003 | 0.0000 | 20.0235 | 20.0235 | 6.4800e-003 | 0.0000 | 20.1854 |
| Paving | 0.0000 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Total | 0.0126 | 0.1292 | 0.1465 | 2.3000e-004 | | 6.7800e-003 | 6.7800e-003 | | 6.2400e-003 | 6.2400e-003 | 0.0000 | 20.0235 | 20.0235 | 6.4800e-003 | 0.0000 | 20.1854 |

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3.6 Paving - 2021

Mitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|---------------|---------------|---------------|--------------------|---------------|---------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | 6.9000e-004 | 5.2000e-004 | 5.3400e-003 | 2.0000e-005 | 1.6400e-003 | 1.0000e-005 | 1.6600e-003 | 4.4000e-004 | 1.0000e-005 | 4.5000e-004 | 0.0000 | 1.3649 | 1.3649 | 4.0000e-005 | 0.0000 | 1.3658 |
| Total | 6.9000e-004 | 5.2000e-004 | 5.3400e-003 | 2.0000e-005 | 1.6400e-003 | 1.0000e-005 | 1.6600e-003 | 4.4000e-004 | 1.0000e-005 | 4.5000e-004 | 0.0000 | 1.3649 | 1.3649 | 4.0000e-005 | 0.0000 | 1.3658 |

3.7 Architectural Coating - 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 | | | | | |
| Archit. Coating | 0.1839 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 2.1900e-003 | 0.0153 | 0.0182 | 3.0000e-005 | | 9.4000e-004 | 9.4000e-004 | | 9.4000e-004 | 9.4000e-004 | 0.0000 | 2.5533 | 2.5533 | 1.8000e-004 | 0.0000 | 2.5576 |
| Total | 0.1861 | 0.0153 | 0.0182 | 3.0000e-005 | | 9.4000e-004 | 9.4000e-004 | | 9.4000e-004 | 9.4000e-004 | 0.0000 | 2.5533 | 2.5533 | 1.8000e-004 | 0.0000 | 2.5576 |

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3.7 Architectural Coating - 2021

Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|--------------------|--------------------|--------------------|---------------|--------------------|---------------|--------------------|--------------------|---------------|--------------------|---------------|---------------|---------------|--------------------|---------------|---------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | 1.4000e-004 | 1.0000e-004 | 1.0700e-003 | 0.0000 | 3.3000e-004 | 0.0000 | 3.3000e-004 | 9.0000e-005 | 0.0000 | 9.0000e-005 | 0.0000 | 0.2730 | 0.2730 | 1.0000e-005 | 0.0000 | 0.2732 |
| Total | 1.4000e-004 | 1.0000e-004 | 1.0700e-003 | 0.0000 | 3.3000e-004 | 0.0000 | 3.3000e-004 | 9.0000e-005 | 0.0000 | 9.0000e-005 | 0.0000 | 0.2730 | 0.2730 | 1.0000e-005 | 0.0000 | 0.2732 |

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 | | | | | |
| Archit. Coating | 0.1839 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 2.1900e-003 | 0.0153 | 0.0182 | 3.0000e-005 | | 9.4000e-004 | 9.4000e-004 | | 9.4000e-004 | 9.4000e-004 | 0.0000 | 2.5533 | 2.5533 | 1.8000e-004 | 0.0000 | 2.5576 |
| Total | 0.1861 | 0.0153 | 0.0182 | 3.0000e-005 | | 9.4000e-004 | 9.4000e-004 | | 9.4000e-004 | 9.4000e-004 | 0.0000 | 2.5533 | 2.5533 | 1.8000e-004 | 0.0000 | 2.5576 |

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3.7 Architectural Coating - 2021

Mitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|--------------------|--------------------|--------------------|---------------|--------------------|---------------|--------------------|--------------------|---------------|--------------------|---------------|---------------|---------------|--------------------|---------------|---------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | 1.4000e-004 | 1.0000e-004 | 1.0700e-003 | 0.0000 | 3.3000e-004 | 0.0000 | 3.3000e-004 | 9.0000e-005 | 0.0000 | 9.0000e-005 | 0.0000 | 0.2730 | 0.2730 | 1.0000e-005 | 0.0000 | 0.2732 |
| Total | 1.4000e-004 | 1.0000e-004 | 1.0700e-003 | 0.0000 | 3.3000e-004 | 0.0000 | 3.3000e-004 | 9.0000e-005 | 0.0000 | 9.0000e-005 | 0.0000 | 0.2730 | 0.2730 | 1.0000e-005 | 0.0000 | 0.2732 |

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

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

4.2 Trip Summary Information

| Land Use | Average Daily Trip Rate | | | Unmitigated | Mitigated |
|------------------------|-------------------------|----------|--------|-------------|------------|
| | Weekday | Saturday | Sunday | Annual VMT | Annual VMT |
| General Heavy Industry | 0.00 | 0.00 | 0.00 | | |
| Total | 0.00 | 0.00 | 0.00 | | |

4.3 Trip Type Information

| Land Use | Miles | | | Trip % | | | Trip Purpose % | | |
|------------------------|------------|------------|-------------|------------|------------|-------------|----------------|----------|---------|
| | H-W or C-W | H-S or C-C | H-O or C-NW | H-W or C-W | H-S or C-C | H-O or C-NW | Primary | Diverted | Pass-by |
| General Heavy Industry | 16.60 | 8.40 | 6.90 | 59.00 | 28.00 | 13.00 | 92 | 5 | 3 |

4.4 Fleet Mix

| Land Use | LDA | LDT1 | LDT2 | MDV | LHD1 | LHD2 | MHD | HHD | OBUS | UBUS | MCY | SBUS | MH |
|------------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| General Heavy Industry | 0.549952 | 0.037123 | 0.179649 | 0.119457 | 0.017229 | 0.005267 | 0.017877 | 0.062669 | 0.001348 | 0.001607 | 0.006000 | 0.000812 | 0.001010 |

5.0 Energy Detail

Historical Energy Use: N

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5.1 Mitigation Measures Energy

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|-------------------------|-------------|--------|--------|-------------|---------------|--------------|-------------|----------------|---------------|-------------|----------|-----------|-----------|-------------|-------------|----------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Electricity Mitigated | | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 128.3254 | 128.3254 | 5.3000e-003 | 1.1000e-003 | 128.7845 |
| Electricity Unmitigated | | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 128.3254 | 128.3254 | 5.3000e-003 | 1.1000e-003 | 128.7845 |
| NaturalGas Mitigated | 6.9500e-003 | 0.0632 | 0.0531 | 3.8000e-004 | | 4.8000e-003 | 4.8000e-003 | | 4.8000e-003 | 4.8000e-003 | 0.0000 | 68.7968 | 68.7968 | 1.3200e-003 | 1.2600e-003 | 69.2056 |
| NaturalGas Unmitigated | 6.9500e-003 | 0.0632 | 0.0531 | 3.8000e-004 | | 4.8000e-003 | 4.8000e-003 | | 4.8000e-003 | 4.8000e-003 | 0.0000 | 68.7968 | 68.7968 | 1.3200e-003 | 1.2600e-003 | 69.2056 |

5.2 Energy by Land Use - NaturalGas

Unmitigated

| | NaturalGas Use | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|------------------------|----------------|--------------------|---------------|---------------|--------------------|---------------|--------------------|--------------------|----------------|--------------------|--------------------|---------------|----------------|----------------|--------------------|--------------------|----------------|
| Land Use | kBTU/yr | tons/yr | | | | | | | | | | MT/yr | | | | | |
| General Heavy Industry | 1.2892e+006 | 6.9500e-003 | 0.0632 | 0.0531 | 3.8000e-004 | | 4.8000e-003 | 4.8000e-003 | | 4.8000e-003 | 4.8000e-003 | 0.0000 | 68.7968 | 68.7968 | 1.3200e-003 | 1.2600e-003 | 69.2056 |
| Total | | 6.9500e-003 | 0.0632 | 0.0531 | 3.8000e-004 | | 4.8000e-003 | 4.8000e-003 | | 4.8000e-003 | 4.8000e-003 | 0.0000 | 68.7968 | 68.7968 | 1.3200e-003 | 1.2600e-003 | 69.2056 |

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5.2 Energy by Land Use - Natural Gas

Mitigated

| | Natural Gas Use | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|------------------------|-----------------|--------------------|---------------|---------------|--------------------|---------------|--------------------|--------------------|----------------|--------------------|--------------------|---------------|----------------|----------------|--------------------|--------------------|----------------|
| Land Use | kBTU/yr | tons/yr | | | | | | | | | | MT/yr | | | | | |
| General Heavy Industry | 1.2892e+006 | 6.9500e-003 | 0.0632 | 0.0531 | 3.8000e-004 | | 4.8000e-003 | 4.8000e-003 | | 4.8000e-003 | 4.8000e-003 | 0.0000 | 68.7968 | 68.7968 | 1.3200e-003 | 1.2600e-003 | 69.2056 |
| Total | | 6.9500e-003 | 0.0632 | 0.0531 | 3.8000e-004 | | 4.8000e-003 | 4.8000e-003 | | 4.8000e-003 | 4.8000e-003 | 0.0000 | 68.7968 | 68.7968 | 1.3200e-003 | 1.2600e-003 | 69.2056 |

5.3 Energy by Land Use - Electricity

Unmitigated

| | Electricity Use | Total CO2 | CH4 | N2O | CO2e |
|------------------------|-----------------|-----------------|--------------------|--------------------|-----------------|
| Land Use | kWh/yr | MT/yr | | | |
| General Heavy Industry | 402752 | 128.3254 | 5.3000e-003 | 1.1000e-003 | 128.7845 |
| Total | | 128.3254 | 5.3000e-003 | 1.1000e-003 | 128.7845 |

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5.3 Energy by Land Use - Electricity

Mitigated

| | Electricity Use | Total CO2 | CH4 | N2O | CO2e |
|------------------------|-----------------|-----------------|--------------------|--------------------|-----------------|
| Land Use | kWh/yr | MT/yr | | | |
| General Heavy Industry | 402752 | 128.3254 | 5.3000e-003 | 1.1000e-003 | 128.7845 |
| Total | | 128.3254 | 5.3000e-003 | 1.1000e-003 | 128.7845 |

6.0 Area Detail

6.1 Mitigation Measures Area

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|-------------|-------------|--------|-------------|--------|---------------|--------------|------------|----------------|---------------|-------------|----------|-------------|-------------|--------|--------|-------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Mitigated | 5.0000e-005 | 0.0000 | 5.1000e-004 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 9.8000e-004 | 9.8000e-004 | 0.0000 | 0.0000 | 1.0500e-003 |
| Unmitigated | 5.0000e-005 | 0.0000 | 5.1000e-004 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 9.8000e-004 | 9.8000e-004 | 0.0000 | 0.0000 | 1.0500e-003 |

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6.2 Area by SubCategory

Unmitigated

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|-----------------------|--------------------|---------------|--------------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|---------------|--------------------|--------------------|---------------|---------------|--------------------|
| SubCategory | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Architectural Coating | 0.0000 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Consumer Products | 0.0000 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Landscaping | 5.0000e-005 | 0.0000 | 5.1000e-004 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 9.8000e-004 | 9.8000e-004 | 0.0000 | 0.0000 | 1.0500e-003 |
| Total | 5.0000e-005 | 0.0000 | 5.1000e-004 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 9.8000e-004 | 9.8000e-004 | 0.0000 | 0.0000 | 1.0500e-003 |

Mitigated

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|-----------------------|--------------------|---------------|--------------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|---------------|--------------------|--------------------|---------------|---------------|--------------------|
| SubCategory | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Architectural Coating | 0.0000 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Consumer Products | 0.0000 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Landscaping | 5.0000e-005 | 0.0000 | 5.1000e-004 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 9.8000e-004 | 9.8000e-004 | 0.0000 | 0.0000 | 1.0500e-003 |
| Total | 5.0000e-005 | 0.0000 | 5.1000e-004 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 9.8000e-004 | 9.8000e-004 | 0.0000 | 0.0000 | 1.0500e-003 |

7.0 Water Detail

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7.1 Mitigation Measures Water

| | Total CO2 | CH4 | N2O | CO2e |
|-------------|-----------|--------|-------------|---------|
| Category | MT/yr | | | |
| Mitigated | 40.9802 | 0.3006 | 7.3900e-003 | 50.6953 |
| Unmitigated | 40.9802 | 0.3006 | 7.3900e-003 | 50.6953 |

7.2 Water by Land Use

Unmitigated

| | Indoor/Outdoor Use | Total CO2 | CH4 | N2O | CO2e |
|------------------------|--------------------|----------------|---------------|--------------------|----------------|
| Land Use | Mgal | MT/yr | | | |
| General Heavy Industry | 9.176 / 0 | 40.9802 | 0.3006 | 7.3900e-003 | 50.6953 |
| Total | | 40.9802 | 0.3006 | 7.3900e-003 | 50.6953 |

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7.2 Water by Land Use

Mitigated

| | Indoor/Outdoor Use | Total CO2 | CH4 | N2O | CO2e |
|------------------------|--------------------|----------------|---------------|--------------------|----------------|
| Land Use | Mgal | MT/yr | | | |
| General Heavy Industry | 9.176 / 0 | 40.9802 | 0.3006 | 7.3900e-003 | 50.6953 |
| Total | | 40.9802 | 0.3006 | 7.3900e-003 | 50.6953 |

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

| | Total CO2 | CH4 | N2O | CO2e |
|-------------|-----------|--------|--------|---------|
| | MT/yr | | | |
| Mitigated | 9.9872 | 0.5902 | 0.0000 | 24.7428 |
| Unmitigated | 9.9872 | 0.5902 | 0.0000 | 24.7428 |

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8.2 Waste by Land Use

Unmitigated

| | Waste Disposed | Total CO2 | CH4 | N2O | CO2e |
|------------------------|----------------|---------------|---------------|---------------|----------------|
| Land Use | tons | MT/yr | | | |
| General Heavy Industry | 49.2 | 9.9872 | 0.5902 | 0.0000 | 24.7428 |
| Total | | 9.9872 | 0.5902 | 0.0000 | 24.7428 |

Mitigated

| | Waste Disposed | Total CO2 | CH4 | N2O | CO2e |
|------------------------|----------------|---------------|---------------|---------------|----------------|
| Land Use | tons | MT/yr | | | |
| General Heavy Industry | 49.2 | 9.9872 | 0.5902 | 0.0000 | 24.7428 |
| Total | | 9.9872 | 0.5902 | 0.0000 | 24.7428 |

9.0 Operational Offroad

| Equipment Type | Number | Hours/Day | Days/Year | Horse Power | Load Factor | Fuel Type |
|----------------|--------|-----------|-----------|-------------|-------------|-----------|
|----------------|--------|-----------|-----------|-------------|-------------|-----------|

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10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

| Equipment Type | Number | Heat Input/Day | Heat Input/Year | Boiler Rating | Fuel Type |
|----------------|--------|----------------|-----------------|---------------|-----------|
|----------------|--------|----------------|-----------------|---------------|-----------|

User Defined Equipment

| Equipment Type | Number |
|----------------|--------|
|----------------|--------|

11.0 Vegetation
