# APPENDIX B
## CRITERIA AIR POLLUTANTS AND GREENHOUSE GAS EMISSIONS DATA

# Super Creek Quarry Expansion

**South Coast AQMD Air District, Summer**

## 1.0 Project Characteristics

### 1.1 Land Usage

| Land Uses | Size | Metric |
|---|---|---|
| City Park | 33.4 | Acre |

### 1.2 Other Project Characteristics

| | | | | | |
|---|---|---|---|---|---|
| **Urbanization** | Rural | **Wind Speed (m/s)** | 2.2 | **Utility Company** | Southern California Edison |
| **Climate Zone** | 15 | **Precipitation Freq (Days)** | 31 | | |

### 1.3 User Entered Comments

Project Characteristics -

Land Use - Includes 21 acres of undisturbed areas

Construction Phase - Schedule of operations and reclamation

Off-road Equipment - Super Creek Quarry equipment list (2012)

Off-road Equipment - Super Creek Quarry equipment list

Off-road Equipment - Super Creek Quarry equipment list (2012)

Trips and VMT - 8 haul truck trips to a stock yard 3.5 miles from quarry site.

On-road Fugitive Dust - Unpaved haul road will be used for access to this quarry.

Grading - Total active mining area.

Road Dust -

Water And Wastewater - Water is imported to the quarry via 4,000 gallon water trucks from local wells.

Solid Waste - Solid waste generation is negligible.

Construction Off-road Equipment Mitigation - Water is used onsite for dust suppression activities.

## 2.0 Emissions Summary

### 2.1 Overall Construction (Maximum Daily Emission)

**Unmitigated Construction**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Year | lb/day | | | | | | | | | | lb/day | | | | | |
| 2013 | 25.58 | 200.02 | 106.19 | 0.24 | 10,810.36 | 9.98 | 10,820.34 | 1,083.97 | 9.97 | 1,093.94 | 0.00 | 25,858.91 | 0.00 | 2.29 | 0.00 | 25,907.10 |
| 2014 | 24.06 | 183.53 | 102.80 | 0.24 | 10,810.36 | 9.02 | 10,819.38 | 1,083.97 | 9.02 | 1,092.98 | 0.00 | 25,843.44 | 0.00 | 2.15 | 0.00 | 25,888.65 |
| **Total** | **NA** | **NA** | **NA** | **NA** | **NA** | **NA** | **NA** | **NA** | **NA** | **NA** | **NA** | **NA** | **NA** | **NA** | **NA** | **NA** |

## 2.1 Overall Construction (Maximum Daily Emission)

### Mitigated Construction

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Year | lb/day | | | | | | | | | | lb/day | | | | | |
| 2013 | 25.58 | 200.02 | 106.19 | 0.24 | 6,373.92 | 9.98 | 6,383.89 | 637.03 | 9.97 | 647.00 | 0.00 | 25,858.91 | 0.00 | 2.29 | 0.00 | 25,907.10 |
| 2014 | 24.06 | 183.53 | 102.80 | 0.24 | 6,373.92 | 9.02 | 6,382.94 | 637.03 | 9.02 | 646.04 | 0.00 | 25,843.44 | 0.00 | 2.15 | 0.00 | 25,888.65 |
| **Total** | **NA** | **NA** | **NA** | **NA** | **NA** | **NA** | **NA** | **NA** | **NA** | **NA** | **NA** | **NA** | **NA** | **NA** | **NA** | **NA** |

## 2.2 Overall Operational

### Unmitigated Operational

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Area | 0.00 | 0.00 | 0.00 | 0.00 | | 0.00 | 0.00 | | 0.00 | 0.00 | | 0.00 | | 0.00 | | 0.00 |
| Energy | 0.00 | 0.00 | 0.00 | 0.00 | | 0.00 | 0.00 | | 0.00 | 0.00 | | 0.00 | | 0.00 | 0.00 | 0.00 |
| Mobile | 0.34 | 0.90 | 3.56 | 0.01 | 0.63 | 0.04 | 0.66 | 0.01 | 0.03 | 0.04 | | 603.12 | | 0.03 | | 603.70 |
| **Total** | **0.34** | **0.90** | **3.56** | **0.01** | **0.63** | **0.04** | **0.66** | **0.01** | **0.03** | **0.04** | | **603.12** | | **0.03** | **0.00** | **603.70** |

### Mitigated Operational

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Area | 0.00 | 0.00 | 0.00 | 0.00 | | 0.00 | 0.00 | | 0.00 | 0.00 | | 0.00 | | 0.00 | | 0.00 |
| Energy | 0.00 | 0.00 | 0.00 | 0.00 | | 0.00 | 0.00 | | 0.00 | 0.00 | | 0.00 | | 0.00 | 0.00 | 0.00 |
| Mobile | 0.34 | 0.90 | 3.56 | 0.01 | 0.63 | 0.04 | 0.66 | 0.01 | 0.03 | 0.04 | | 603.12 | | 0.03 | | 603.70 |
| **Total** | **0.34** | **0.90** | **3.56** | **0.01** | **0.63** | **0.04** | **0.66** | **0.01** | **0.03** | **0.04** | | **603.12** | | **0.03** | **0.00** | **603.70** |

## 3.0 Construction Detail

## 3.1 Mitigation Measures Construction

Water Exposed Area

Water Unpaved Roads

## 3.2 Excavations - 2013

### 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 | | | | | 0.14 | 0.00 | 0.14 | 0.00 | 0.00 | 0.00 | | | | | | 0.00 |
| Off-Road | 7.57 | 50.52 | 34.92 | 0.06 | | 3.81 | 3.81 | | 3.81 | 3.81 | | 5,437.54 | | 0.68 | | 5,451.81 |
| **Total** | **7.57** | **50.52** | **34.92** | **0.06** | **0.14** | **3.81** | **3.95** | **0.00** | **3.81** | **3.81** | | **5,437.54** | | **0.68** | | **5,451.81** |

### 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 | 0.12 | 1.15 | 0.77 | 0.00 | 10,797.04 | 0.04 | 10,797.08 | 1,077.33 | 0.03 | 1,077.36 | | 138.61 | | 0.01 | | 138.74 |
| Vendor | 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 |
| Worker | 0.14 | 0.15 | 1.81 | 0.00 | 0.38 | 0.01 | 0.40 | 0.01 | 0.01 | 0.02 | | 313.27 | | 0.02 | | 313.65 |
| **Total** | **0.26** | **1.30** | **2.58** | **0.00** | **10,797.42** | **0.05** | **10,797.48** | **1,077.34** | **0.04** | **1,077.38** | | **451.88** | | **0.03** | | **452.39** |

## 3.2 Excavations - 2013

### 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 | | | | | 0.06 | 0.00 | 0.06 | 0.00 | 0.00 | 0.00 | | | | | | 0.00 |
| Off-Road | 7.57 | 50.52 | 34.92 | 0.06 | | 3.81 | 3.81 | | 3.81 | 3.81 | 0.00 | 5,437.54 | | 0.68 | | 5,451.81 |
| **Total** | **7.57** | **50.52** | **34.92** | **0.06** | **0.06** | **3.81** | **3.87** | **0.00** | **3.81** | **3.81** | **0.00** | **5,437.54** | | **0.68** | | **5,451.81** |

### 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 | 0.12 | 1.15 | 0.77 | 0.00 | 6,368.04 | 0.04 | 6,368.07 | 634.43 | 0.03 | 634.46 | | 138.61 | | 0.01 | | 138.74 |
| Vendor | 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 |
| Worker | 0.14 | 0.15 | 1.81 | 0.00 | 0.38 | 0.01 | 0.40 | 0.01 | 0.01 | 0.02 | | 313.27 | | 0.02 | | 313.65 |
| **Total** | **0.26** | **1.30** | **2.58** | **0.00** | **6,368.42** | **0.05** | **6,368.47** | **634.44** | **0.04** | **634.48** | | **451.88** | | **0.03** | | **452.39** |

## 3.2 Excavations - 2014

### 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 | | | | | 0.14 | 0.00 | 0.14 | 0.00 | 0.00 | 0.00 | | | | | | 0.00 |
| Off-Road | 7.01 | 47.24 | 34.70 | 0.06 | | 3.44 | 3.44 | | 3.44 | 3.44 | | 5,437.54 | | 0.63 | | 5,450.75 |
| **Total** | **7.01** | **47.24** | **34.70** | **0.06** | **0.14** | **3.44** | **3.58** | **0.00** | **3.44** | **3.44** | | **5,437.54** | | **0.63** | | **5,450.75** |

### 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 | 0.11 | 1.08 | 0.71 | 0.00 | 10,797.04 | 0.03 | 10,797.07 | 1,077.33 | 0.03 | 1,077.36 | | 139.38 | | 0.01 | | 139.50 |
| Vendor | 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 |
| Worker | 0.13 | 0.14 | 1.66 | 0.00 | 0.38 | 0.01 | 0.40 | 0.01 | 0.01 | 0.02 | | 307.76 | | 0.02 | | 308.11 |
| **Total** | **0.24** | **1.22** | **2.37** | **0.00** | **10,797.42** | **0.04** | **10,797.47** | **1,077.34** | **0.04** | **1,077.38** | | **447.14** | | **0.03** | | **447.61** |

## 3.2 Excavations - 2014

### 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 | | | | | 0.06 | 0.00 | 0.06 | 0.00 | 0.00 | 0.00 | | | | | | 0.00 |
| Off-Road | 7.01 | 47.24 | 34.70 | 0.06 | | 3.44 | 3.44 | | 3.44 | 3.44 | 0.00 | 5,437.54 | | 0.63 | | 5,450.75 |
| **Total** | **7.01** | **47.24** | **34.70** | **0.06** | **0.06** | **3.44** | **3.50** | **0.00** | **3.44** | **3.44** | **0.00** | **5,437.54** | | **0.63** | | **5,450.75** |

### 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 | 0.11 | 1.08 | 0.71 | 0.00 | 6,368.04 | 0.03 | 6,368.07 | 634.43 | 0.03 | 634.46 | | 139.38 | | 0.01 | | 139.50 |
| Vendor | 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 |
| Worker | 0.13 | 0.14 | 1.66 | 0.00 | 0.38 | 0.01 | 0.40 | 0.01 | 0.01 | 0.02 | | 307.76 | | 0.02 | | 308.11 |
| **Total** | **0.24** | **1.22** | **2.37** | **0.00** | **6,368.42** | **0.04** | **6,368.47** | **634.44** | **0.04** | **634.48** | | **447.14** | | **0.03** | | **447.61** |

## 3.3 Reclamation - 2013

### Unmitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Fugitive Dust | | | | | 12.04 | 0.00 | 12.04 | 6.62 | 0.00 | 6.62 | | | | | | 0.00 |
| Off-Road | 17.46 | 147.90 | 65.18 | 0.17 | | 6.10 | 6.10 | | 6.10 | 6.10 | | 19,360.34 | | 1.56 | | 19,393.02 |
| **Total** | **17.46** | **147.90** | **65.18** | **0.17** | **12.04** | **6.10** | **18.14** | **6.62** | **6.10** | **12.72** | | **19,360.34** | | **1.56** | | **19,393.02** |

### 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 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | | 0.00 | | 0.00 | | 0.00 |
| Vendor | 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 |
| Worker | 0.28 | 0.30 | 3.51 | 0.01 | 0.74 | 0.02 | 0.77 | 0.01 | 0.02 | 0.03 | | 609.14 | | 0.03 | | 609.87 |
| **Total** | **0.28** | **0.30** | **3.51** | **0.01** | **0.74** | **0.02** | **0.77** | **0.01** | **0.02** | **0.03** | | **609.14** | | **0.03** | | **609.87** |

## 3.3 Reclamation - 2013

### 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 | | | | | 4.70 | 0.00 | 4.70 | 2.58 | 0.00 | 2.58 | | | | | | 0.00 |
| Off-Road | 17.46 | 147.90 | 65.18 | 0.17 | | 6.10 | 6.10 | | 6.10 | 6.10 | 0.00 | 19,360.34 | | 1.56 | | 19,393.02 |
| **Total** | **17.46** | **147.90** | **65.18** | **0.17** | **4.70** | **6.10** | **10.80** | **2.58** | **6.10** | **8.68** | **0.00** | **19,360.34** | | **1.56** | | **19,393.02** |

### 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 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | | 0.00 | | 0.00 | | 0.00 |
| Vendor | 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 |
| Worker | 0.28 | 0.30 | 3.51 | 0.01 | 0.74 | 0.02 | 0.77 | 0.01 | 0.02 | 0.03 | | 609.14 | | 0.03 | | 609.87 |
| **Total** | **0.28** | **0.30** | **3.51** | **0.01** | **0.74** | **0.02** | **0.77** | **0.01** | **0.02** | **0.03** | | **609.14** | | **0.03** | | **609.87** |

## 3.3 Reclamation - 2014

### Unmitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Fugitive Dust | | | | | 12.04 | 0.00 | 12.04 | 6.62 | 0.00 | 6.62 | | | | | | 0.00 |
| Off-Road | 16.54 | 134.79 | 62.48 | 0.17 | | 5.52 | 5.52 | | 5.52 | 5.52 | | 19,360.34 | | 1.47 | | 19,391.19 |
| **Total** | **16.54** | **134.79** | **62.48** | **0.17** | **12.04** | **5.52** | **17.56** | **6.62** | **5.52** | **12.14** | | **19,360.34** | | **1.47** | | **19,391.19** |

### 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 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | | 0.00 | | 0.00 | | 0.00 |
| Vendor | 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 |
| Worker | 0.26 | 0.27 | 3.24 | 0.01 | 0.74 | 0.02 | 0.77 | 0.01 | 0.02 | 0.03 | | 598.42 | | 0.03 | | 599.10 |
| **Total** | **0.26** | **0.27** | **3.24** | **0.01** | **0.74** | **0.02** | **0.77** | **0.01** | **0.02** | **0.03** | | **598.42** | | **0.03** | | **599.10** |

## 3.3 Reclamation - 2014

### 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 | | | | | 4.70 | 0.00 | 4.70 | 2.58 | 0.00 | 2.58 | | | | | | 0.00 |
| Off-Road | 16.54 | 134.79 | 62.48 | 0.17 | | 5.52 | 5.52 | | 5.52 | 5.52 | 0.00 | 19,360.34 | | 1.47 | | 19,391.19 |
| **Total** | **16.54** | **134.79** | **62.48** | **0.17** | **4.70** | **5.52** | **10.22** | **2.58** | **5.52** | **8.10** | **0.00** | **19,360.34** | | **1.47** | | **19,391.19** |

### 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 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | | 0.00 | | 0.00 | | 0.00 |
| Vendor | 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 |
| Worker | 0.26 | 0.27 | 3.24 | 0.01 | 0.74 | 0.02 | 0.77 | 0.01 | 0.02 | 0.03 | | 598.42 | | 0.03 | | 599.10 |
| **Total** | **0.26** | **0.27** | **3.24** | **0.01** | **0.74** | **0.02** | **0.77** | **0.01** | **0.02** | **0.03** | | **598.42** | | **0.03** | | **599.10** |

# 4.0 Mobile Detail

## 4.1 Mitigation Measures Mobile

| | ROG | NOx | CO | SO2 | 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 | 0.34 | 0.90 | 3.56 | 0.01 | 0.63 | 0.04 | 0.66 | 0.01 | 0.03 | 0.04 | | 603.12 | | 0.03 | | 603.70 |
| Unmitigated | 0.34 | 0.90 | 3.56 | 0.01 | 0.63 | 0.04 | 0.66 | 0.01 | 0.03 | 0.04 | | 603.12 | | 0.03 | | 603.70 |
| **Total** | **NA** | **NA** | **NA** | **NA** | **NA** | **NA** | **NA** | **NA** | **NA** | **NA** | **NA** | **NA** | **NA** | **NA** | **NA** | **NA** |

## 4.2 Trip Summary Information

| | Average Daily Trip Rate | | | Unmitigated | Mitigated |
|---|---|---|---|---|---|
| Land Use | Weekday | Saturday | Sunday | Annual VMT | Annual VMT |
| City Park | 53.11 | 53.11 | 53.11 | 188,841 | 188,841 |
| Total | 53.11 | 53.11 | 53.11 | 188,841 | 188,841 |

## 4.3 Trip Type Information

| | Miles | | | Trip % | | |
|---|---|---|---|---|---|---|
| Land Use | 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 |
| City Park | 12.60 | 15.40 | 9.60 | 33.00 | 48.00 | 19.00 |

# 5.0 Energy Detail

## 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 | 0.00 | 0.00 | 0.00 | 0.00 | | 0.00 | 0.00 | | 0.00 | 0.00 | | 0.00 | | 0.00 | 0.00 | 0.00 |
| NaturalGas Unmitigated | 0.00 | 0.00 | 0.00 | 0.00 | | 0.00 | 0.00 | | 0.00 | 0.00 | | 0.00 | | 0.00 | 0.00 | 0.00 |
| **Total** | **NA** | **NA** | **NA** | **NA** | **NA** | **NA** | **NA** | **NA** | **NA** | **NA** | **NA** | **NA** | **NA** | **NA** | **NA** | **NA** |

## 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 | lb/day | | | | | | | | | | lb/day | | | | | |
| City Park | 0 | 0.00 | 0.00 | 0.00 | 0.00 | | 0.00 | 0.00 | | 0.00 | 0.00 | | 0.00 | | 0.00 | 0.00 | 0.00 |
| **Total** | | **0.00** | **0.00** | **0.00** | **0.00** | | **0.00** | **0.00** | | **0.00** | **0.00** | | **0.00** | | **0.00** | **0.00** | **0.00** |

## 5.2 Energy by Land Use - NaturalGas

**Mitigated**

| | 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 | lb/day | | | | | | | | | | lb/day | | | | | |
| City Park | 0 | 0.00 | 0.00 | 0.00 | 0.00 | | 0.00 | 0.00 | | 0.00 | 0.00 | | 0.00 | | 0.00 | 0.00 | 0.00 |
| **Total** | | **0.00** | **0.00** | **0.00** | **0.00** | | **0.00** | **0.00** | | **0.00** | **0.00** | | **0.00** | | **0.00** | **0.00** | **0.00** |

# 6.0 Area Detail

## 6.1 Mitigation Measures Area

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Mitigated | 0.00 | 0.00 | 0.00 | 0.00 | | 0.00 | 0.00 | | 0.00 | 0.00 | | 0.00 | | 0.00 | | 0.00 |
| Unmitigated | 0.00 | 0.00 | 0.00 | 0.00 | | 0.00 | 0.00 | | 0.00 | 0.00 | | 0.00 | | 0.00 | | 0.00 |
| **Total** | **NA** | **NA** | **NA** | **NA** | **NA** | **NA** | **NA** | **NA** | **NA** | **NA** | **NA** | **NA** | **NA** | **NA** | **NA** | **NA** |

## 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 | 0.00 | | | | | 0.00 | 0.00 | | 0.00 | 0.00 | | | | | | 0.00 |
| Consumer Products | 0.00 | | | | | 0.00 | 0.00 | | 0.00 | 0.00 | | | | | | 0.00 |
| Landscaping | 0.00 | 0.00 | 0.00 | 0.00 | | 0.00 | 0.00 | | 0.00 | 0.00 | | 0.00 | | 0.00 | | 0.00 |
| **Total** | **0.00** | **0.00** | **0.00** | **0.00** | | **0.00** | **0.00** | | **0.00** | **0.00** | | **0.00** | | **0.00** | | **0.00** |

### 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 | 0.00 | | | | | 0.00 | 0.00 | | 0.00 | 0.00 | | | | | | 0.00 |
| Consumer Products | 0.00 | | | | | 0.00 | 0.00 | | 0.00 | 0.00 | | | | | | 0.00 |
| Landscaping | 0.00 | 0.00 | 0.00 | 0.00 | | 0.00 | 0.00 | | 0.00 | 0.00 | | 0.00 | | 0.00 | | 0.00 |
| **Total** | **0.00** | **0.00** | **0.00** | **0.00** | | **0.00** | **0.00** | | **0.00** | **0.00** | | **0.00** | | **0.00** | | **0.00** |

## 7.0 Water Detail

### 7.1 Mitigation Measures Water

## 8.0 Waste Detail

### 8.1 Mitigation Measures Waste

## 9.0 Vegetation

# Super Creek Quarry Expansion

**South Coast AQMD Air District, Annual**

## 1.0 Project Characteristics

### 1.1 Land Usage

| Land Uses | Size | Metric |
|---|---|---|
| City Park | 33.4 | Acre |

### 1.2 Other Project Characteristics

| | | | | | |
|---|---|---|---|---|---|
| **Urbanization** | Rural | **Wind Speed (m/s)** | 2.2 | **Utility Company** | Southern California Edison |
| **Climate Zone** | 15 | **Precipitation Freq (Days)** | 31 | | |

### 1.3 User Entered Comments

Project Characteristics -

Land Use - Includes 21 acres of undisturbed areas

Construction Phase - Schedule of operations and reclamation

Off-road Equipment - Super Creek Quarry equipment list (2012)

Off-road Equipment - Super Creek Quarry equipment list

Off-road Equipment - Super Creek Quarry equipment list (2012)

Trips and VMT - 8 haul truck trips to a stock yard 3.5 miles from quarry site.

On-road Fugitive Dust - Unpaved haul road will be used for access to this quarry.

Grading - Total active mining area.

Road Dust -

Water And Wastewater - Water is imported to the quarry via 4,000 gallon water trucks from local wells.

Solid Waste - Solid waste generation is negligible.

Construction Off-road Equipment Mitigation - Water is used onsite for dust suppression activities.

## 2.0 Emissions Summary

### 2.1 Overall Construction

**Unmitigated Construction**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Year | tons/yr | | | | | | | | | | MT/yr | | | | | |
| 2013 | 1.39 | 10.90 | 5.77 | 0.01 | 540.11 | 0.54 | 540.66 | 54.60 | 0.54 | 55.14 | 0.00 | 1,275.32 | 1,275.32 | 0.11 | 0.00 | 1,277.70 |
| 2014 | 1.84 | 14.04 | 7.85 | 0.02 | 757.50 | 0.69 | 758.19 | 76.29 | 0.69 | 76.98 | 0.00 | 1,789.11 | 1,789.11 | 0.15 | 0.00 | 1,792.24 |
| **Total** | **3.23** | **24.94** | **13.62** | **0.03** | **1,297.61** | **1.23** | **1,298.85** | **130.89** | **1.23** | **132.12** | **0.00** | **3,064.43** | **3,064.43** | **0.26** | **0.00** | **3,069.94** |

## 2.1 Overall Construction

### Mitigated Construction

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Year | tons/yr | | | | | | | | | | MT/yr | | | | | |
| 2013 | 1.39 | 10.90 | 5.77 | 0.01 | 318.26 | 0.54 | 318.80 | 31.98 | 0.54 | 32.52 | 0.00 | 1,275.32 | 1,275.32 | 0.11 | 0.00 | 1,277.70 |
| 2014 | 1.84 | 14.04 | 7.85 | 0.02 | 446.48 | 0.69 | 447.17 | 44.75 | 0.69 | 45.44 | 0.00 | 1,789.11 | 1,789.11 | 0.15 | 0.00 | 1,792.24 |
| **Total** | **3.23** | **24.94** | **13.62** | **0.03** | **764.74** | **1.23** | **765.97** | **76.73** | **1.23** | **77.96** | **0.00** | **3,064.43** | **3,064.43** | **0.26** | **0.00** | **3,069.94** |

## 2.2 Overall Operational

### Unmitigated Operational

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Area | 0.00 | 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 |
| Energy | 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 |
| Mobile | 0.06 | 0.16 | 0.63 | 0.00 | 0.10 | 0.01 | 0.11 | 0.00 | 0.01 | 0.01 | 0.00 | 94.60 | 94.60 | 0.00 | 0.00 | 94.70 |
| Waste | | | | | | 0.00 | 0.00 | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Water | | | | | | 0.00 | 0.00 | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| **Total** | **0.06** | **0.16** | **0.63** | **0.00** | **0.10** | **0.01** | **0.11** | **0.00** | **0.01** | **0.01** | **0.00** | **94.60** | **94.60** | **0.00** | **0.00** | **94.70** |

## 2.2 Overall Operational

**Mitigated Operational**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Area | 0.00 | 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 |
| Energy | 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 |
| Mobile | 0.06 | 0.16 | 0.63 | 0.00 | 0.10 | 0.01 | 0.11 | 0.00 | 0.01 | 0.01 | 0.00 | 94.60 | 94.60 | 0.00 | 0.00 | 94.70 |
| Waste | | | | | | 0.00 | 0.00 | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Water | | | | | | 0.00 | 0.00 | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| **Total** | **0.06** | **0.16** | **0.63** | **0.00** | **0.10** | **0.01** | **0.11** | **0.00** | **0.01** | **0.01** | **0.00** | **94.60** | **94.60** | **0.00** | **0.00** | **94.70** |

# 3.0 Construction Detail

## 3.1 Mitigation Measures Construction

Water Exposed Area

Water Unpaved Roads

## 3.2 Excavations - 2013

### 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 | | | | | 0.02 | 0.00 | 0.02 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Off-Road | 0.41 | 2.75 | 1.90 | 0.00 | | 0.21 | 0.21 | | 0.21 | 0.21 | 0.00 | 268.77 | 268.77 | 0.03 | 0.00 | 269.47 |
| **Total** | **0.41** | **2.75** | **1.90** | **0.00** | **0.02** | **0.21** | **0.23** | **0.00** | **0.21** | **0.21** | **0.00** | **268.77** | **268.77** | **0.03** | **0.00** | **269.47** |

### 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 | 0.01 | 0.06 | 0.05 | 0.00 | 538.46 | 0.00 | 538.46 | 53.73 | 0.00 | 53.73 | 0.00 | 6.78 | 6.78 | 0.00 | 0.00 | 6.79 |
| Vendor | 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 |
| Worker | 0.01 | 0.01 | 0.09 | 0.00 | 0.02 | 0.00 | 0.02 | 0.00 | 0.00 | 0.00 | 0.00 | 14.54 | 14.54 | 0.00 | 0.00 | 14.56 |
| **Total** | **0.02** | **0.07** | **0.14** | **0.00** | **538.48** | **0.00** | **538.48** | **53.73** | **0.00** | **53.73** | **0.00** | **21.32** | **21.32** | **0.00** | **0.00** | **21.35** |

## 3.2 Excavations - 2013

### 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 | | | | | 0.01 | 0.00 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Off-Road | 0.41 | 2.75 | 1.90 | 0.00 | | 0.21 | 0.21 | | 0.21 | 0.21 | 0.00 | 268.77 | 268.77 | 0.03 | 0.00 | 269.47 |
| **Total** | **0.41** | **2.75** | **1.90** | **0.00** | **0.01** | **0.21** | **0.22** | **0.00** | **0.21** | **0.21** | **0.00** | **268.77** | **268.77** | **0.03** | **0.00** | **269.47** |

### 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 | 0.01 | 0.06 | 0.05 | 0.00 | 317.58 | 0.00 | 317.58 | 31.64 | 0.00 | 31.64 | 0.00 | 6.78 | 6.78 | 0.00 | 0.00 | 6.79 |
| Vendor | 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 |
| Worker | 0.01 | 0.01 | 0.09 | 0.00 | 0.02 | 0.00 | 0.02 | 0.00 | 0.00 | 0.00 | 0.00 | 14.54 | 14.54 | 0.00 | 0.00 | 14.56 |
| **Total** | **0.02** | **0.07** | **0.14** | **0.00** | **317.60** | **0.00** | **317.60** | **31.64** | **0.00** | **31.64** | **0.00** | **21.32** | **21.32** | **0.00** | **0.00** | **21.35** |

## 3.2 Excavations - 2014

### 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 | | | | | 0.02 | 0.00 | 0.02 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Off-Road | 0.54 | 3.61 | 2.65 | 0.00 | | 0.26 | 0.26 | | 0.26 | 0.26 | 0.00 | 377.26 | 377.26 | 0.04 | 0.00 | 378.18 |
| **Total** | **0.54** | **3.61** | **2.65** | **0.00** | **0.02** | **0.26** | **0.28** | **0.00** | **0.26** | **0.26** | **0.00** | **377.26** | **377.26** | **0.04** | **0.00** | **378.18** |

### 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 | 0.01 | 0.08 | 0.06 | 0.00 | 755.82 | 0.00 | 755.83 | 75.42 | 0.00 | 75.42 | 0.00 | 9.57 | 9.57 | 0.00 | 0.00 | 9.58 |
| Vendor | 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 |
| Worker | 0.01 | 0.01 | 0.12 | 0.00 | 0.03 | 0.00 | 0.03 | 0.00 | 0.00 | 0.00 | 0.00 | 20.05 | 20.05 | 0.00 | 0.00 | 20.08 |
| **Total** | **0.02** | **0.09** | **0.18** | **0.00** | **755.85** | **0.00** | **755.86** | **75.42** | **0.00** | **75.42** | **0.00** | **29.62** | **29.62** | **0.00** | **0.00** | **29.66** |

## 3.2 Excavations - 2014

### 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 | | | | | 0.01 | 0.00 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Off-Road | 0.54 | 3.61 | 2.65 | 0.00 | | 0.26 | 0.26 | | 0.26 | 0.26 | 0.00 | 377.26 | 377.26 | 0.04 | 0.00 | 378.18 |
| **Total** | **0.54** | **3.61** | **2.65** | **0.00** | **0.01** | **0.26** | **0.27** | **0.00** | **0.26** | **0.26** | **0.00** | **377.26** | **377.26** | **0.04** | **0.00** | **378.18** |

### 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 | 0.01 | 0.08 | 0.06 | 0.00 | 445.78 | 0.00 | 445.78 | 44.41 | 0.00 | 44.41 | 0.00 | 9.57 | 9.57 | 0.00 | 0.00 | 9.58 |
| Vendor | 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 |
| Worker | 0.01 | 0.01 | 0.12 | 0.00 | 0.03 | 0.00 | 0.03 | 0.00 | 0.00 | 0.00 | 0.00 | 20.05 | 20.05 | 0.00 | 0.00 | 20.08 |
| **Total** | **0.02** | **0.09** | **0.18** | **0.00** | **445.81** | **0.00** | **445.81** | **44.41** | **0.00** | **44.41** | **0.00** | **29.62** | **29.62** | **0.00** | **0.00** | **29.66** |

## 3.3 Reclamation - 2013

### 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 | | | | | 1.58 | 0.00 | 1.58 | 0.87 | 0.00 | 0.87 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Off-Road | 0.95 | 8.06 | 3.55 | 0.01 | | 0.33 | 0.33 | | 0.33 | 0.33 | 0.00 | 956.94 | 956.94 | 0.08 | 0.00 | 958.56 |
| **Total** | **0.95** | **8.06** | **3.55** | **0.01** | **1.58** | **0.33** | **1.91** | **0.87** | **0.33** | **1.20** | **0.00** | **956.94** | **956.94** | **0.08** | **0.00** | **958.56** |

### 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 | 0.00 | 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 |
| Vendor | 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 |
| Worker | 0.02 | 0.02 | 0.18 | 0.00 | 0.04 | 0.00 | 0.04 | 0.00 | 0.00 | 0.00 | 0.00 | 28.28 | 28.28 | 0.00 | 0.00 | 28.31 |
| **Total** | **0.02** | **0.02** | **0.18** | **0.00** | **0.04** | **0.00** | **0.04** | **0.00** | **0.00** | **0.00** | **0.00** | **28.28** | **28.28** | **0.00** | **0.00** | **28.31** |

## 3.3 Reclamation - 2013

### 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 | | | | | 0.62 | 0.00 | 0.62 | 0.34 | 0.00 | 0.34 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Off-Road | 0.95 | 8.06 | 3.55 | 0.01 | | 0.33 | 0.33 | | 0.33 | 0.33 | 0.00 | 956.94 | 956.94 | 0.08 | 0.00 | 958.56 |
| **Total** | **0.95** | **8.06** | **3.55** | **0.01** | **0.62** | **0.33** | **0.95** | **0.34** | **0.33** | **0.67** | **0.00** | **956.94** | **956.94** | **0.08** | **0.00** | **958.56** |

### 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 | 0.00 | 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 |
| Vendor | 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 |
| Worker | 0.02 | 0.02 | 0.18 | 0.00 | 0.04 | 0.00 | 0.04 | 0.00 | 0.00 | 0.00 | 0.00 | 28.28 | 28.28 | 0.00 | 0.00 | 28.31 |
| **Total** | **0.02** | **0.02** | **0.18** | **0.00** | **0.04** | **0.00** | **0.04** | **0.00** | **0.00** | **0.00** | **0.00** | **28.28** | **28.28** | **0.00** | **0.00** | **28.31** |

## 3.3 Reclamation - 2014

### 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 | | | | | 1.58 | 0.00 | 1.58 | 0.87 | 0.00 | 0.87 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Off-Road | 1.26 | 10.31 | 4.78 | 0.01 | | 0.42 | 0.42 | | 0.42 | 0.42 | 0.00 | 1,343.23 | 1,343.23 | 0.10 | 0.00 | 1,345.38 |
| **Total** | **1.26** | **10.31** | **4.78** | **0.01** | **1.58** | **0.42** | **2.00** | **0.87** | **0.42** | **1.29** | **0.00** | **1,343.23** | **1,343.23** | **0.10** | **0.00** | **1,345.38** |

### 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 | 0.00 | 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 |
| Vendor | 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 |
| Worker | 0.02 | 0.02 | 0.23 | 0.00 | 0.05 | 0.00 | 0.05 | 0.00 | 0.00 | 0.00 | 0.00 | 38.99 | 38.99 | 0.00 | 0.00 | 39.03 |
| **Total** | **0.02** | **0.02** | **0.23** | **0.00** | **0.05** | **0.00** | **0.05** | **0.00** | **0.00** | **0.00** | **0.00** | **38.99** | **38.99** | **0.00** | **0.00** | **39.03** |

## 3.3 Reclamation - 2014

### 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 | | | | | 0.62 | 0.00 | 0.62 | 0.34 | 0.00 | 0.34 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Off-Road | 1.26 | 10.31 | 4.78 | 0.01 | | 0.42 | 0.42 | | 0.42 | 0.42 | 0.00 | 1,343.23 | 1,343.23 | 0.10 | 0.00 | 1,345.38 |
| **Total** | **1.26** | **10.31** | **4.78** | **0.01** | **0.62** | **0.42** | **1.04** | **0.34** | **0.42** | **0.76** | **0.00** | **1,343.23** | **1,343.23** | **0.10** | **0.00** | **1,345.38** |

### 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 | 0.00 | 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 |
| Vendor | 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 |
| Worker | 0.02 | 0.02 | 0.23 | 0.00 | 0.05 | 0.00 | 0.05 | 0.00 | 0.00 | 0.00 | 0.00 | 38.99 | 38.99 | 0.00 | 0.00 | 39.03 |
| **Total** | **0.02** | **0.02** | **0.23** | **0.00** | **0.05** | **0.00** | **0.05** | **0.00** | **0.00** | **0.00** | **0.00** | **38.99** | **38.99** | **0.00** | **0.00** | **39.03** |

# 4.0 Mobile Detail

## 4.1 Mitigation Measures Mobile

| | ROG | NOx | CO | SO2 | 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 | 0.06 | 0.16 | 0.63 | 0.00 | 0.10 | 0.01 | 0.11 | 0.00 | 0.01 | 0.01 | 0.00 | 94.60 | 94.60 | 0.00 | 0.00 | 94.70 |
| Unmitigated | 0.06 | 0.16 | 0.63 | 0.00 | 0.10 | 0.01 | 0.11 | 0.00 | 0.01 | 0.01 | 0.00 | 94.60 | 94.60 | 0.00 | 0.00 | 94.70 |
| **Total** | **NA** | **NA** | **NA** | **NA** | **NA** | **NA** | **NA** | **NA** | **NA** | **NA** | **NA** | **NA** | **NA** | **NA** | **NA** | **NA** |

## 4.2 Trip Summary Information

| | Average Daily Trip Rate | | | Unmitigated | Mitigated |
|---|---|---|---|---|---|
| Land Use | Weekday | Saturday | Sunday | Annual VMT | Annual VMT |
| City Park | 53.11 | 53.11 | 53.11 | 188,841 | 188,841 |
| Total | 53.11 | 53.11 | 53.11 | 188,841 | 188,841 |

## 4.3 Trip Type Information

| | Miles | | | Trip % | | |
|---|---|---|---|---|---|---|
| Land Use | 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 |
| City Park | 12.60 | 15.40 | 9.60 | 33.00 | 48.00 | 19.00 |

# 5.0 Energy Detail

## 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 | | | | | | 0.00 | 0.00 | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Electricity Unmitigated | | | | | | 0.00 | 0.00 | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| NaturalGas Mitigated | 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 |
| NaturalGas Unmitigated | 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 |
| **Total** | **NA** | **NA** | **NA** | **NA** | **NA** | **NA** | **NA** | **NA** | **NA** | **NA** | **NA** | **NA** | **NA** | **NA** | **NA** | **NA** |

## 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 | tons/yr | | | | | | | | | | MT/yr | | | | | |
| City Park | 0 | 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 |
| **Total** | | **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** |

## 5.2 Energy by Land Use - NaturalGas

**Mitigated**

| | 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 | tons/yr | | | | | | | | | | MT/yr | | | | | |
| City Park | 0 | 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 |
| **Total** | | **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** |

## 5.3 Energy by Land Use - Electricity

**Unmitigated**

| | Electricity Use | ROG | NOx | CO | SO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|
| Land Use | kWh | tons/yr | | | | MT/yr | | | |
| City Park | 0 | | | | | 0.00 | 0.00 | 0.00 | 0.00 |
| **Total** | | | | | | **0.00** | **0.00** | **0.00** | **0.00** |

### 5.3 Energy by Land Use - Electricity

**Mitigated**

| | Electricity Use | ROG | NOx | CO | SO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|
| Land Use | kWh | tons/yr | | | | MT/yr | | | |
| City Park | 0 | | | | | 0.00 | 0.00 | 0.00 | 0.00 |
| **Total** | | | | | | **0.00** | **0.00** | **0.00** | **0.00** |

## 6.0 Area Detail

### 6.1 Mitigation Measures Area

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Mitigated | 0.00 | 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 |
| Unmitigated | 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 |
| **Total** | **NA** | **NA** | **NA** | **NA** | **NA** | **NA** | **NA** | **NA** | **NA** | **NA** | **NA** | **NA** | **NA** | **NA** | **NA** | **NA** |

## 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 | 0.00 | | | | | 0.00 | 0.00 | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Consumer Products | 0.00 | | | | | 0.00 | 0.00 | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Landscaping | 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 |
| **Total** | **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** |

### 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 | 0.00 | | | | | 0.00 | 0.00 | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Consumer Products | 0.00 | | | | | 0.00 | 0.00 | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Landscaping | 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 |
| **Total** | **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** |

## 7.0 Water Detail

## 7.1 Mitigation Measures Water

| | ROG | NOx | CO | SO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | MT/yr | | | |
| Mitigated | | | | | 0.00 | 0.00 | 0.00 | 0.00 |
| Unmitigated | | | | | 0.00 | 0.00 | 0.00 | 0.00 |
| **Total** | **NA** | **NA** | **NA** | **NA** | **NA** | **NA** | **NA** | **NA** |

## 7.2 Water by Land Use

**Unmitigated**

| | Indoor/Outdoor Use | ROG | NOx | CO | SO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|
| Land Use | Mgal | tons/yr | | | | MT/yr | | | |
| City Park | 0 / 0 | | | | | 0.00 | 0.00 | 0.00 | 0.00 |
| **Total** | | | | | | **0.00** | **0.00** | **0.00** | **0.00** |

### 7.2 Water by Land Use

**Mitigated**

| | Indoor/Outdoor Use | ROG | NOx | CO | SO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|
| Land Use | Mgal | tons/yr | | | | MT/yr | | | |
| City Park | 0 / 0 | | | | | 0.00 | 0.00 | 0.00 | 0.00 |
| **Total** | | | | | | **0.00** | **0.00** | **0.00** | **0.00** |

## 8.0 Waste Detail

### 8.1 Mitigation Measures Waste

**Category/Year**

| | ROG | NOx | CO | SO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|
| | tons/yr | | | | MT/yr | | | |
| Mitigated | | | | | 0.00 | 0.00 | 0.00 | 0.00 |
| Unmitigated | | | | | 0.00 | 0.00 | 0.00 | 0.00 |
| **Total** | **NA** | **NA** | **NA** | **NA** | **NA** | **NA** | **NA** | **NA** |

## 8.2 Waste by Land Use

**Unmitigated**

| | Waste Disposed | ROG | NOx | CO | SO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|
| Land Use | tons | tons/yr | | | | MT/yr | | | |
| City Park | 0 | | | | | 0.00 | 0.00 | 0.00 | 0.00 |
| **Total** | | | | | | **0.00** | **0.00** | **0.00** | **0.00** |

**Mitigated**

| | Waste Disposed | ROG | NOx | CO | SO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|
| Land Use | tons | tons/yr | | | | MT/yr | | | |
| City Park | 0 | | | | | 0.00 | 0.00 | 0.00 | 0.00 |
| **Total** | | | | | | **0.00** | **0.00** | **0.00** | **0.00** |

# 9.0 Vegetation

Emission Calculation Methodology and sources:

CalEEMod was used to calcualte overal operational emissions. However, CalEEMod results show unrealistically high fugitive emissions (PM10 and PM2.5) as a result of hauling activities. For that reason, to accurately model the fugitive emissions associated with hauling activities on unpaved roads, this study uses EPA's AP 42 Section 13.2.2 Unpaved Roads to calculate fugitive emissions. According to AP 42, for vehicles traveling on unpaved surfaces at industrial sites, emissions are estimated from equation 1a. Calculations of fugitive PM10 and PM2.5 are provided in the following pages of this Appendix.

**Fugutive Dust for Unpaved Roads (AP42 Chapter 13)**

E = k * (s/12) ^ a * (W/3) ^ b

| | | | |
|---|---|---|---|
| E: Emission per VMT (lb/VMT) = | 0.018248141 | | |
| k: Correction factor = | 1.5 | | |
| S: Silt content (%) = | 10% | | |
| W: Mean Vehicle Weight (tons) = | 2.4 | | |
| a: Correction factor = | 0.9 | | |
| b: Correction factor = | 0.45 | | |
| Haul Distance (roundtrip miles/truck) = | 7 | | |
| # of Trucks/day = | 8 | | |
| work days/year = | 262 | | |
| PM10 Emissions (lb/year) = | 267.74 | 1.02 | (lb/day) |
| PM10 Emissions (tons/year) = | 0.13 | | |

*Source : AP42 Chapter 13.2.2*

**Fugutive Dust for Unpaved Roads (AP42 Chapter 13)**

E = k * (s/12) ^ a * (W/3) ^ b

| | | | |
|---|---|---|---|
| E: Emission per VMT (lb/VMT) = | 0.001825 | | |
| k: Correction factor = | 0.15 | | |
| S: Silt content (%) = | 10% | | |
| W: Mean Vehicle Weight (tons) = | 2.4 | | |
| a: Correction factor = | 0.9 | | |
| b: Correction factor = | 0.45 | | |
| Haul Distance (roundtrip miles/truck) = | 7 | | |
| # of Trucks/day = | 8 | | |
| work days/year = | 262 | | |
| PM2.5 Emissions (lb/year) = | 26.77 | 0.10 | (lb/day) |
| PM2.5 Emissions (tons/year) = | 0.01 | | |

*Source : AP42 Chapter 13.2.2*

**Summary of CalEEMod Results and AP 42 Calcs**

**Maximum Emissions (tons/yr)**

| ROG | Nox | CO | SO2 | PM10 | PM2.5 |
|---|---|---|---|---|---|
| 1.84 | 14.04 | 7.85 | 0.02 | 1.52 | 1.03 |

**Maximum Emissions (lb/day)**

| ROG | Nox | CO | SO2 | PM10 | PM2.5 |
|---|---|---|---|---|---|
| 25.58 | 200.02 | 106.19 | 0.24 | 16.86 | 12.64 |

**Impact Analysis (NEPA/CEQA)**

**Federal Thresholds (tons/yr)**

| ROG | Nox | CO | SO2 | PM10 | PM2.5 |
|---|---|---|---|---|---|
| 100 | 100 | 100 | 100 | 100 | 100 |
| No Impact | No Impact | No Impact | No Impact | No Impact | No Impact |

**SCAQMD Thresholds Operation (lb/day)**

| ROG | Nox | CO | SO2 | PM10 | PM2.5 |
|---|---|---|---|---|---|
| 55 | 55 | 550 | 150 | 150 | 55 |
| No Impact | Impact | No Impact | No Impact | No Impact | No Impact |