

***ARCATA LAND COMPANY  
CULTIVATION PROJECT  
AIR QUALITY & GREENHOUSE  
GAS EMISSIONS ASSESSMENT***

***Humboldt County, California***

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## Introduction

The purpose of this report is to address air quality and greenhouse gas (GHG) emissions impacts associated with the proposed development of Arcata Land Company's commercial cannabis cultivation project on 38 acres located between 27<sup>th</sup> Street and Foster Avenue, west of the City of Arcata, in an unincorporated area of Humboldt County, California ("Project"). The air quality impacts and GHG emissions associated with the project would be from the construction and operation of a new administrative office and planting building, utility rooms, full sun and mixed light hoop-house structures, employee parking lot, septic system leach fields, security fencing, and storm water management features (e.g., detention basin). Air pollutant and GHG emissions associated with the project were predicted using appropriate computer models. In addition, the potential odor impacts to nearby residents were evaluated. This analysis addresses those issues following the guidance provided by the North Coast Unified Air Quality Management District (NCUAQMD).<sup>1</sup>

## Project Description

The project site has a long history of heavy industrial and agricultural use and is currently used for agriculture. Approximately 287,500 square feet (sf) of existing greenhouses are used to grow flowers, while the open fields have been used to grow both flowers and mixed row crops. It is adjacent to an existing, permitted cultivation, processing, manufacturing, and distribution site. The project proposes to merge portions of three parcels, grade the site using sand stockpiled on an adjacent parcel under common ownership, construct, and operate:

- A new administrative office, planting building, and two attached utility buildings with an aggregate square feet (sf) of 67,330.
- 193 hoop house-style greenhouses totaling approximately 726,530 sf of new hoop structures, and one million sf total (287,500 sf of hoop houses currently exist).
  - Of the one million total sf of operating hoop houses proposed, approximately 75% will operate as "full sun" (i.e., no artificial light) and the remainder, 25%, will operate in mixed light (i.e., sunlight and artificial light).
- A new 22,725 sf asphalt/concrete parking lot with 66 total spaces.
- New security fencing, on-site aggregate-based access roadways, and concrete pathways.
- Two new stormwater detention basins.
- New septic, pump tank, and leach fields.

## Setting

The project is in Humboldt County, which is in the North Coast Air Basin, which includes all of Humboldt, Del Norte, Trinity, and Mendocino counties, as well as a portion of Sonoma County. Ambient air quality standards have been established at both the State and federal level. The area is listed as "attainment" or "unclassified" for all the federal and state ambient air quality standards except for the state 24-hour particulate (PM<sub>10</sub>) standard in Humboldt County only. The District has not exceeded the federal annual standard for particulate matter during the last five-year period.

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<sup>1</sup> North Coast Unified Air Quality Management District website, *Planning & CEQA*, September 2020. <http://www.ncuaqmd.org>

## Air Pollutants of Concern

High ozone levels are caused by the cumulative emissions of reactive organic gases (ROG) and nitrogen oxides (NO<sub>x</sub>) and aggravate respiratory and cardiovascular diseases, reduce lung function, and increase coughing and chest discomfort. These precursor pollutants react under certain meteorological conditions to form high ozone levels. Controlling the emissions of these precursor pollutants is the focus of the North Coast's attempts to maintain ozone levels below federal and state standards.

Particulate matter is another problematic air pollutant in the area. Particulate matter is assessed and measured in terms of respirable particulate matter or particles that have a diameter of 10 micrometers or less (PM<sub>10</sub>) and fine particulate matter where particles have a diameter of 2.5 micrometers or less (PM<sub>2.5</sub>). Elevated concentrations of PM<sub>10</sub> and PM<sub>2.5</sub> are the result of both region-wide (or cumulative) emissions and localized emissions. High particulate matter levels aggravate respiratory and cardiovascular diseases, reduce lung function, increase mortality (e.g., lung cancer), and result in reduced lung function growth in children.

## Regulatory Agencies

CARB has adopted and implemented several regulations for stationary and mobile sources to reduce emissions of diesel particulate matter (DPM). Several of these regulatory programs affect medium and heavy-duty diesel trucks that represent the bulk of DPM emissions from California highways. These regulations include the solid waste collection vehicle (SWCV) rule, in-use public and utility fleets, and the heavy-duty diesel truck and bus regulations. In 2008, CARB approved a new regulation to reduce emissions of DPM and NO<sub>x</sub> from existing on-road heavy-duty diesel fueled vehicles.<sup>2</sup> The regulation requires affected vehicles to meet specific performance requirements between 2014 and 2023, with all affected diesel vehicles required to have 2010 model-year engines or equivalent by 2023. These requirements are phased in over the compliance period and depend on the model year of the vehicle.

The NCUAQMD is the agency tasked with managing air quality in the region. At the State level, the CARB (a part of the California Environmental Protection Agency [EPA]) oversees regional air district activities and regulates air quality at the State level. The NCUAQMD has not published California Environmental Quality Act (CEQA) Air Quality Guidelines. However, when applicable, the NCUAQMD follows environmental review procedures and guidelines as outlined in their Rules & Regulations, Appendix A, *Procedures for Environmental Impact Review*.<sup>3</sup>

NCUAQMD has established rules for the control of air pollutants within their district. The rules most applicable to this project include:

- *Regulation 1, Rule 102 – Required Permits*. The project plans on installing boilers which may be subject to new source review rules and regulations and could require an air permit.
- *Regulation 1, Rule 104 – Prohibitions*. Section D outlines the rules for compliance with fugitive dust control.

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<sup>2</sup> Available online: <http://www.arb.ca.gov/msprog/onrdiesel/onrdiesel.htm>. Accessed: November 21, 2014.

<sup>3</sup> North Coast Air Quality Management District. 2015. *Appendix A Procedures for Environmental Impact Review*. September.

- *Regulation 1, Rule 110 – New Source Review (NSR) And Prevention of Significant Deterioration (PSD)*. Section provides the Best Available Control Technology (BACT) significance thresholds applied for CEQA analysis purposes.

### *Humboldt 21<sup>st</sup> Century – General Plan*

Humboldt County updated its General Plan in October 2017 and included an Air Quality Element (Chapter 15) to it. The following goals, policies, and actions are applicable to the proposed project:

#### Applicable Goals

- AQ-G1      *Improved Air Quality*. Air quality that meets state and federal ambient air quality standards.
- AQ-G2      *Particulate Emissions*. Successful attainment of California Ambient Air Quality Standards for particulate matter.
- AQ-G2      *Other Criteria Pollutants*. Maintain attainment of Ambient Air Quality Standards for ozone and other criteria pollutants which may be subject to tightening standards.

#### Applicable Policies

- AQ-P4      *Construction and Grading Dust Control*. Dust control practices on construction and grading sites shall achieve compliance with NCUAQMD fugitive dust emission standards.
- AQ-P5      *Air Quality Impacts from New Development*. During environmental review of discretionary permits, reduce emissions of air pollutants from new commercial and industrial development by requiring feasible mitigation measures to achieve the standards of the NCUAQMD.
- AQ-P6      *Buffering Land Uses*. During environmental review of discretionary commercial and industrial projects, consider the use of buffers between new sources of emissions and adjacent land uses to minimize exposure to air pollution.

#### Applicable Standards

- AQ-S1      *Construction and Grading Dust Control*. Ground disturbing construction and grading shall employ fugitive dust control strategies to prevent visible emissions from exceeding NCUAQMD regulations and prevent public nuisance.
- AQ-S3      *Evaluate Air Quality Impacts*. During environmental review of discretionary projects, evaluate new commercial and industrial sources of emissions using analytical methods and significance criteria used, or recommended by, the NCUAQMD.



AQ-S4 *Buffering Land Uses.* When considering buffers between new commercial and industrial sources of emissions and adjacent land uses follow the California Air Resources Board’s Air Quality and Land Use Handbook: A Community Health Perspective and NCUAQMD recommendations.

#### Implementation Measures

AQ-IM2 *North Coast Air Quality Management Permitting Coordination.* The County shall maintain efficient and timely procedures for project referral to the North Coast Air Quality Management District for review and consultation.

#### *Humboldt County Code Regulating Commercial Cannabis Activities*

In 2018, Humboldt County amended their code regulating to commercial cannabis activities.<sup>4</sup> As part of the amendment process, and as required by CEQA, the county prepared an environmental impact report (EIR). The Draft EIR (DEIR) contained an analysis of air quality that found construction-generated emissions of criteria air pollutants and precursors from cannabis cultivation projects would be less than significant. Thus, the short-term construction generated emissions would not exceed NCUAQMD’s recommended daily emissions threshold for PM<sub>10</sub>.<sup>5</sup>

The DEIR did find that long-term operation of commercial cannabis cultivation in the County would result in significant PM<sub>10</sub> emissions during the harvest season, primarily from vehicle travel on unpaved roadways. However, the DEIR found there was no feasible mitigation measure available to address this impact. Routine watering of roadways, the use of dust suppressants, and paving of roadways were considered as mitigation measures. It is important to note that harvest season lasts approximately four to six weeks and annual emissions of PM<sub>10</sub> from an individual cultivation operation are below significance thresholds.

#### Significance Thresholds

NCUAQMD has not formally adopted significance thresholds and instead recommends using the Best Available Control Technology (BACT) emission rate thresholds for stationary sources as defined and listed in the NCUAQMD Regulation I, Rule 110, *New Source Review And Prevention of Significant Deterioration*, Section E (Requirements), Item 1 (Best Available Control Technology [BACT]). These rates are summarized in Table 1.

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<sup>4</sup> Ordinance No. 2599, Board of Supervisors, County of Humboldt, State of California. May 2018. <https://humboldt.gov/DocumentCenter/View/63734/Ord-No-2599-CCLUO-inland-certified-copy-PDF>

<sup>5</sup> Humboldt County, 2017. Draft Environmental Impact Report for the Amendments to Humboldt County Code Regulating Commercial Cannabis Activities, SCH#2017042022. September. <https://humboldt.gov/2308/Cannabis-EIR>

**Table 1. NCUAQMD BACT Significance Thresholds**

<b>Criteria Air Pollutant</b>	<b>Daily Emissions (lbs./day)</b>	<b>Annual Emissions (tons/year)</b>
CO	500	100
Fluorides	15	3
Hydrogen sulfide	50	10
Lead	3.2	0.6
NOx	50	40
PM <sub>10</sub>	80	15
PM <sub>2.5</sub>	50	10
ROG	50	40
Reduced sulfur compounds	50	10
Sulfur oxides	80	40
Sulfuric acid mist	35	7
Total Reduced sulfur compounds	50	10

### **AIR QUALITY IMPACTS AND MITIGATION MEASURES**

**Impact: Conflict with or obstruct implementation of the applicable air quality plan?**

NCUAQMD is one of three air districts responsible for overseeing compliance with State and Federal laws, regulations, and programs within the North Coast Air Basin. NCUAQMD includes Del Norte, Humboldt, and Trinity Counties. NCUAQMD is listed as "attainment" or "unclassified" for all the federal and state ambient air quality standards except for the state 24-hour PM<sub>10</sub> standard in Humboldt County only. In 1995, NCUAQMD provided a study to identify the major contributors of PM<sub>10</sub>, which were summarized in the *Particulate Matter PM<sub>10</sub> Attainment Plan*. PM<sub>10</sub> emissions in Humboldt County are generated by a variety of sources and the PM<sub>10</sub> Attainment Plan includes control strategies that are intended to achieve attainment of the state's air quality standard. Control strategies include transportation control measures such as encouraging the use of public transit and replacing the diesel powered bus fleet with natural gas fueled models, encouraging car-pooling and bicycle commuting, removal or repair of vehicles with inefficient emission control systems, and traffic flow improvements that reduce idling and VMT. Land use control measures encourage mixed use or more dense development. The PM<sub>10</sub> Attainment Plan also includes measures that limit residential burning as well as various measures to encourage the installation of EPA certified woodstoves.

The proposed project would not conflict with the PM<sub>10</sub> Attainment Plan since the construction and operation of the project would have emissions below the BACT thresholds. Additionally, the project is required to comply with the rules and regulations established by the NCUAQMD as previously described. This project is consistent with the County's General Plan and was found to be less than significant by the DEIR for the Amendments to the Humboldt County Code Regulating Commercial Cannabis Activities. Thus, the project is not required to incorporate the control strategies listed in the PM<sub>10</sub> Attainment Plan.

**Impact: Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable State or federal ambient air quality standard?**

As previously described, Humboldt County is considered a non-attainment area for the 24-hour PM<sub>10</sub> standard under the California Clean Air Act. The area is in attainment or “unclassified” for all other criteria pollutants. In order to maintain ambient air quality in the County, NCUAQMD uses their BACT thresholds of significance for the applicable air pollutants and their precursors. Criteria pollutant thresholds include O<sub>3</sub> precursor pollutants (ROG and NO<sub>x</sub>), PM<sub>10</sub>, and PM<sub>2.5</sub>, which apply to both the construction and operation of the proposed project.

Construction Period Emissions

The California Emissions Estimator Model (CalEEMod) Version 2016.3.2 was used to estimate emissions from on-site construction activity, construction vehicle trips, and evaporative emissions. The project land use types and size, and anticipated construction schedule were input to CalEEMod using the information provided by the applicant or using CalEEMod default values in the absence of information. The CARB Emission FACTors 2017 (EMFAC2017) model was used to predict emissions from construction traffic, which includes worker travel, vendor trucks and haul trucks.<sup>6</sup> The model output from CalEEMod along with construction inputs are included as *Attachment 1* and EMFAC2017 vehicle emissions modeling outputs are included in *Attachment 2*.

*Land Use Inputs*

The proposed project land uses were modeled with two separate CalEEMod runs; one for each construction stage as follows:

- Stage 1
  - 67,330 sf entered as “Industrial- General Light Industry” on 38.2 acres.
  - 66 parking stalls and 22,725 sf entered as “Parking – Parking Lot”
- Stage 2
  - 726,530 sf (new hoop structures) entered as “Industrial – Unrefrigerated Warehouse- No Rail” on 16.7 acres.

Stage 1 includes the construction of the utility buildings, administration building, employee parking lot, and site grading/improvements needed for Stage 2. Stage 2 includes the assembly of the new hoop-style greenhouse structures. A land use type of Industrial – Unrefrigerated Warehouse was selected as it most closely represents the open space provided by the greenhouses and the industrial nature of the project.

*Construction Inputs*

CalEEMod computes annual emissions for construction that are based on the project type, size and acreage. The model provides emission estimates for both on-site and off-site construction activities. On-site activities are primarily made up of construction equipment emissions, while off-

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<sup>6</sup> See CARB’s EMFAC2017 Web Database at <https://www.arb.ca.gov/emfac/2017/>

site activity includes worker, hauling, and vendor traffic. The construction build-out scenario for Stage 1, including equipment list and schedule, were based on CalEEMod defaults for a project of this type and size. Stage 2 build-out scenario equipment list and schedule are based on the information provided by the applicant that was approved by the applicant.

CalEEMod defaults were used for Stage 1 equipment quantities, average hours of equipment use per day, and work schedule for each phase with the client-provided construction start date of January 2021. Stage 2 equipment quantities and average hours of equipment use per day were provided by the applicant with the anticipated start date of September 2021. The default construction schedule produced for Stage 1 was approximately 11 months, or 238 construction workdays while Stage 2 was estimated to be 3 months, or 63 construction workdays. The first full year of site operation would be 2022.

### *Construction Truck Traffic Emissions*

Construction would produce traffic in the form of worker trips and truck traffic. The traffic-related emissions are based on worker and vendor trip estimates produced by CalEEMod and haul trips that were estimated for importing sand to the site for the base of the hoop houses. Concrete and asphalt truck trips were estimated using the project plans provided by the applicant. CalEEMod provides daily estimates of worker and vendor trips for each applicable phase. The total trips for those were computed by multiplying the daily trip rate by the number of days in that phase. Haul trips for sand import were estimated using CalEEMod defaults for trips per cubic yard (CY) of material. The project will import 35,000 CY of sand material to the site from an adjacent parcel. The square feet for each of the existing structures on site was provided by the applicant. The number of concrete and asphalt total round haul trips were estimated using the project plans provided by the applicant to estimate material volumes and an assumed 10 cubic yards (CY) per material delivery for the project. Concrete/asphalt deliveries were converted to total one-way trips by assuming two trips per delivery.

The latest version of the CalEEMod model is based on the older version of the CARB EMFAC2014 motor vehicle emission factor model. This model has been superseded by the EMFAC2017 model. However, CalEEMod has not been updated to include EMFAC2017. The construction traffic information was combined with EMFAC2017 motor vehicle emissions factors. EMFAC2017 provides aggregate emission rates in grams per mile for each vehicle type. The construction traffic vehicle mix for this study was based on CalEEMod default assumptions, where worker trips are assumed to be comprised of light-duty autos (EMFAC category LDA) and light duty trucks (EMFAC category LDT1 and LDT2). Vendor trips are comprised of delivery and large trucks (EMFAC category MHDT and HHDT) and haul trips, including cement trucks, are comprised of large trucks (EMFAC category HHDT). Travel distances are based on CalEEMod default lengths, which, for Humboldt County, are 16.8 miles for worker travel, 6.6 miles for vendor trips. Since CalEEMod does not address cement or asphalt trucks, these were treated as vendor travel distances. Each trip was assumed to include an idle time of 5 minutes and emissions associated with vehicle starts were also included. EMFAC2017 emission rates for Humboldt County were used from the appropriate calendar year (2021 for Stage 1 work and 2022 for Stage 2 work). Table 2 provides the traffic inputs that were combined with the EMFAC2017 emission factors to compute vehicle emissions.

**Table 2. Construction Traffic Data Used for EMFAC2017 Model Runs**

Stage 1 CalEEMod Run/Land Uses and Construction Phase	Trips by Trip Type			Notes
	Total Worker	Total Vendor	Total Haul	
Vehicle mix	62.4% LDA 9.1% LDT1 28.6% LDT2	28.1% MHDT 71.9% HHDT	100% HHDT	
Trip Length (miles)	16.8	6.6	6.6 Concrete/Asphalt 1 Grading (Sand)	5 Minute Truck Idle Time
Site Preparation	150	-	-	CalEEMod Default
Grading	600	-	4,375	35,000 CY Sand Import
Trenching	375	-	-	CalEEMod Default
Building Construction	7,80	3,000	500	250 Concrete Deliveries
Architectural Coating	80	-	-	CalEEMod Default
Paving	150	-	56	28 Asphalt Deliveries
Stage 2 CalEEMod Run/Land Uses and Construction Phase	Total Worker	Total Vendor	Total Haul	
Vehicle mix	63.0% LDA 8.8% LDT1 28.2% LDT2	27.5% MHDT 72.5% HHDT	100% HHDT	
Trip Length (miles)	16.8	6.6	NA	5 Minute Truck Idle Time
Hoop House Construction	19,215	7,497	-	
Architectural Coating	61	-	-	

Summary of Computed Construction Period Emissions

Annual emissions were predicted using CalEEMod and EMFAC2017. Average daily emissions were computed by dividing the total construction emissions each year by the number of construction days in that year; 238 in 2021 and 63 in 2022. Table 3 shows daily construction emissions of ROG, NO<sub>x</sub>, PM<sub>10</sub> exhaust, and PM<sub>2.5</sub> exhaust estimated during construction of the project. As indicated in Table 3, predicted construction period emissions would not exceed the NCUAQMD BACT significance thresholds.

**Table 3. Construction Period Emissions - Unmitigated**

Scenario	ROG	NO <sub>x</sub>	PM <sub>10</sub> Exhaust	PM <sub>2.5</sub> Exhaust
2021 Construction Emissions (tons)	1.34 tons	4.03 tons	0.21 tons	0.18 tons
<i>BACT Thresholds (tons per year)</i>	<i>40 tons</i>	<i>40 tons</i>	<i>15 tons</i>	<i>10 tons</i>
<b>Exceed Threshold?</b>	No	No	No	No
2021 Daily Construction Emissions (pounds)	8.91 lbs./day	26.76 lbs./day	1.41 lbs./day	1.20 lbs./day
<i>BACT Thresholds (pounds per day)</i>	<i>50 lbs./day</i>	<i>50 lbs./day</i>	<i>80 lbs./day</i>	<i>50 lbs./day</i>
<b>Exceed Threshold?</b>	No	No	No	No

Construction activities, particularly during site preparation and grading, would temporarily generate fugitive dust in the form of PM<sub>10</sub> and PM<sub>2.5</sub>. Sources of fugitive dust would include

disturbed soils at the construction site and trucks carrying uncovered loads of sand. In addition, unless properly controlled, vehicles entering and leaving the site would have the potential to deposit track out material on local streets, which could be an additional source of airborne dust after it dries. These impacts are less-than-significant if NCUAQMD Rule 104, Section D (Fugitive Dust Emissions) are followed. The rule requires best management practices be implemented to reduce these emissions. These include:

- a. Covering open bodied trucks when used for transporting materials likely to give rise to airborne dust.
- b. Installation and use of hoods, fans, and fabric filters to enclose and vent the handling of dusty materials. Containment methods can be employed during sandblasting and other similar operations.
- c. Conduct agricultural practices in such a manner as to minimize the creation of airborne dust.
- d. The use of water or chemicals for control of dust in the demolition of existing buildings or structures, construction operations, the grading of roads or the clearing of land.
- e. The application of asphalt, oil, water or suitable chemicals on dirt roads, materials stockpiles, and other surfaces which can give rise to airborne dusts.
- f. The paving of roadways and their maintenance in a clean condition.
- g. The prompt removal of earth or other track out material from paved streets onto which earth or other material has been transported by trucking or earth moving equipment, erosion by water, or other means.

The project is required to follow Rule 104 during construction and operation of the site which will reduce fugitive dust (i.e., PM<sub>10</sub> and PM<sub>2.5</sub>) emissions. Specifically, using water twice daily to control dust from on-site construction operations including during grading and excavation, and limiting the speed of vehicles onsite to 15 miles per hour or less will reduce PM<sub>10</sub> and PM<sub>2.5</sub> emissions by approximately 55%.<sup>7</sup>

### Operational Period Emissions

Operational air emissions from the project would be generated primarily from autos driven by employees and by delivery vehicles. Evaporative emissions from architectural coatings and maintenance products (classified as consumer products) are typical emissions from the type of administrative/office building planned for the site. However, the hoop-style greenhouses are not expected to have emissions from architectural coatings. The project includes the installation and operation of three natural gas boilers rated at 1 million British thermal units per hour (MMBTU/hr) for temperature control within the hoop houses. CalEEMod was used to estimate emissions from operation of the proposed project assuming full build-out.

### *Land Uses*

The project land uses were input to CalEEMod as described above for the construction period modeling.

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<sup>7</sup> Estimated using CalEEMod.

### *Model Year*

Emissions associated with vehicle travel depend on the year of analysis because emission control technology requirements are phased-in over time. Therefore, the earlier the year analyzed in the model, the higher the emission rates utilized by CalEEMod. The earliest full year of operation would be 2022 if construction begins in January of 2021. Emissions associated with operation later than 2022 would be lower than those estimated for 2022.

### *Trip Generation Rates*

CalEEMod allows the user to enter specific vehicle trip generation rates. Therefore, the project-specific weekday trip generation rate of 232 was used based on the Institute of Transportation Engineers “General Light Industry” Land Use (Code 110) as provided by the applicant’s traffic consultant.<sup>8</sup> To account for the seasonal nature of the employees, trips were assumed to occur seven months out of the year. Thus, the adjusted trip rate was 135 trips per weekday on an annual basis to estimate annual operating emissions. Default trip lengths and trip types specified by CalEEMod for each input land use were used for the emissions estimates.

### *EMFAC2017 Adjustment*

As previously described, the vehicle emission factors and fleet mix used in CalEEMod are based on EMFAC2014, which is an older CARB emission model for on-road and off-road mobile sources. Since the release of CalEEMod Version 2016.3.2, a new emission model has been produced by CARB. EMFAC2017 became available for use in March 2018 and approved by the EPA in August 2019. It includes the latest data on California’s car and truck fleets and travel activity. Additionally, CARB has recently released EMFAC off-model adjustment factors to account for the Safer Affordable Efficient (SAFE) Vehicle Rule Part one.<sup>9</sup> The SAFE vehicle Rule Part One revoked California’s authority to set its own GHG emission standards and set zero emission vehicle mandates in California. As a result of this ruling, mobile criteria pollutant emissions would increase for light-duty vehicles. Therefore, the CalEEMod vehicle emission factors and fleet mix were updated with the emission rates and fleet mix from EMFAC2017, which were adjusted with the CARB EMFAC off-model adjustment factors. On-road emission rates for Humboldt County, calendar year 2023 were used. More details about the updates in emissions calculation methodologies and data are available in the EMFAC2017 Technical Support documents.<sup>10</sup>

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<sup>8</sup> Trip rates provided by W-Trans via memo to the County of Humboldt; *Traffic Impact Study Assumptions for the Arcata Land Company Commercial Cannabis Project*, July 7, 2020.

<sup>9</sup> California Air Resource Board, 2019. *EMFAC Off-Model Adjustment Factors to Account for the SAFE Vehicle Rule Part One*. November 2019 and June 26, 2020. Web:

[https://ww3.arb.ca.gov/msei/emfac\\_off\\_model\\_adjustment\\_factors\\_final\\_draft.pdf](https://ww3.arb.ca.gov/msei/emfac_off_model_adjustment_factors_final_draft.pdf) and <https://content.govdelivery.com/accounts/CARB/bulletins/292af9a>

<sup>10</sup> See CARB 2018: <https://ww2.arb.ca.gov/our-work/programs/mobile-source-emissions-inventory/road-documentation/msei-modeling-tools-emfac>

## *Energy*

CalEEMod defaults for energy use were used for the operation of the new administration/office building, which include the 2016 Title 24 Building Standards. However, the energy use associated with the operation of the mixed light hoop-style greenhouses was estimated using the results of a 2018 energy use survey conducted by the Northwest Power and Conservation Council.<sup>11</sup> The memo provides provides a listing of the grow site types and their electricity consumption rates. Mixed-light facilities averaged 27 kilowatt hours (kWh) per sf of canopy for lighting. Full sun hoop structures do not require energy for lighting. Thus, the annual energy consumption from the mixed light hoop houses proposed by the project is estimated at 6,750,000 kWh (or 6,750 MWh). Based on the total square footage of the new hoop houses proposed by the project (726,530 sf), an energy use factor of 9.29 kWhr/sf/year was input into CalEEMod to account for the project's energy use during operation.

Emissions related to natural gas usage by the mixed-light cultivation project was estimated using Appendix B of the Humboldt County Commercial Cannabis DEIR.<sup>12</sup> For the purposes of this analysis, the project is estimated to use 0.34 KBTU/sf/year.

GHG emissions modeling includes indirect emissions from electricity production and consumption. CalEEMod has a default emission factor of 641.3 pounds of CO<sub>2</sub> per megawatt of electricity produced, which is based on Pacific Gas and Electric's (PG&E) 2008 emissions rate. However, PG&E published in 2019 emissions rates for 2010 through 2017, which showed the emission rate for delivered electricity had been reduced to 210 pounds CO<sub>2</sub> per megawatt of electricity delivered in the year 2017.<sup>13</sup> This intensity factor was used in the model and it was assumed that all powered was supplied by PG&E. It is noted that the current Humboldt County Code Regulating Commercial Cannabis Activities requires cultivation projects receive 100% of their electricity from renewable sources. However, this was not accounted for in the analysis.

## *Project Boilers*

The project will include the installation and operation of three boilers rated at approximately 1 MMBTU/hr. Based on information provided by the applicant, the boilers are only need during a portion of the growing season, approximately 175 days per year. Thus, the three boilers were input into CalEEMod and emissions estimated using default emissions factors and operation of five hours per day for 175 days per year.

## *Other Inputs*

It is anticipated the building will generate less than 42 tons per year of solid waste sent offsite to a landfill per year. The outdoor and mixed-light cultivation spaces (hoop-style greenhouses) are

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<sup>11</sup> Northwest Power and Conservation Council, 2018. Memorandum: Cannabis Production impact on Load (Results of Survey), June 5, 2018.

<sup>12</sup> DEIR and its Appendices available at <https://humboldt.gov/2308/Cannabis-EIR>

<sup>13</sup> PG&E, 2019. *Corporate Responsibility and Sustainability Report*. Web: [http://www.pgecorp.com/corp\\_responsibility/reports/2019/assets/PGE\\_CRSR\\_2019.pdf](http://www.pgecorp.com/corp_responsibility/reports/2019/assets/PGE_CRSR_2019.pdf)



anticipated to generate less than a ton of waste sent to the landfill, as all the plant waste generated will be composted and reused onsite.

Water will be supplied to the development using an on-site well and a pump, which is accounted for in the default energy use for the administration/office building. Wastewater from indoor use will be treated using a new septic system with on-site leach fields developed as part of the project. Thus, the project will not use municipal sources of water or municipal treatment of wastewater. Most water use would be for cultivation that does not require wastewater treatment.

### *Existing Uses*

The 38 acres proposed for the project is currently used to grow flowers and other row crops. Therefore, no existing land use model was included.

### Summary of Computed Operational Period Emissions

Annual emissions were predicted using CalEEMod and daily emissions were estimating assuming 365 days of operation for the administration/office building and 213 days of operation per year for the greenhouses. Table 4 shows average daily emissions of ROG, NO<sub>x</sub>, total PM<sub>10</sub>, and total PM<sub>2.5</sub> during operation of the project. The operational period emissions would not exceed the NCUAQMD BACT thresholds.

**Table 4. Operational Period Emissions**

<b>Scenario</b>	<b>ROG</b>	<b>NO<sub>x</sub></b>	<b>PM<sub>10</sub></b>	<b>PM<sub>2.5</sub></b>
2022 Project Operational Emissions ( <i>tons/year</i> )	0.5 tons	0.3 tons	0.2 tons	0.1 tons
2022 Existing Site Operational Emissions ( <i>tons/year</i> )	0.0 tons	0.0 tons	0.0 tons	0.0 tons
Net Annual Emissions ( <i>tons/year</i> )	0.5 tons	0.3 tons	0.2 tons	0.1 tons
<i>BACT Thresholds (tons /year)</i>	<i>40 tons</i>	<i>40 tons</i>	<i>15 tons</i>	<i>10 tons</i>
<b><i>Exceed Threshold?</i></b>	No	No	No	No
2022 Project Operational Emissions ( <i>lbs./day</i> ) <sup>1</sup>	3.4 lbs.	4.2 lbs.	2.5 lbs.	0.8 lbs.
<i>BACT Thresholds (lbs./day)</i>	<i>50 lbs.</i>	<i>50 lbs.</i>	<i>80 lbs.</i>	<i>50 lbs.</i>
<b><i>Exceed Threshold?</i></b>	No	No	No	No

Notes: <sup>1</sup> Assumes 365-day operation for Stage 1 and 213 days of operation for Stage 2.

### **Impact: Create objectionable odors affecting a substantial number of people?**

There is the potential for odors from both construction and operation of the project. During construction, the project would generate localized emissions of diesel exhaust during construction equipment operation and truck activity. These emissions may be noticeable from time to time by adjacent receptors. However, they would be localized and are not likely to adversely affect people off-site by resulting in confirmed odor complaints. The project’s construction activities would not include any sources of significant odors that would cause complaints from surrounding uses.

The cultivation of cannabis is a potential source of odors. The odor of cannabis could be described by some as an offensive skunk-like smell. This odor is produced by terpenes, which are volatile

unsaturated hydrocarbons found in the oils of various plants. Naturally, these oils are most present late in the budding cycle and at harvest and processing. Without proper controls, greenhouse cultivation can lead to a buildup of these odors because of the reduced ventilation, heat and humidity conditions created within the facilities. Generally, the larger the size of the canopy area, the greater the potential for odor to be evident to off-site receptors. To reduce odors, the exhaust air from these facilities is often controlled and treated. In this case, control means to ventilate greenhouse exhaust air through activated carbon filters that are changed on a regular basis.

Humboldt County has established ordinances addressing cannabis cultivation operations.<sup>14</sup> The latest ordinance requires property setbacks and prohibits the burning of excess plant material associated with the cultivation and processing of commercial cannabis. It also requires cultivation within enclosed structures to be mechanically ventilated with a carbon filter or other feature to prevent the odor from escaping the structure.

The Humboldt County Commercial Cannabis DEIR found that cannabis-related odors would result in a significant and unavoidable impact, despite the use of setback, odor prevention equipment, and prohibition on burning plant materials.

#### **Mitigation Measure AQ-1: Implement Odor Control Plan**

To ensure adequate odor control, the applicant should develop a detailed odor control plan that includes:

- A description of the odor abatement system and procedures for ongoing maintenance of the system.
- A designated staff member to receive, document, and follow-up on odor complaints.
- Procedures to document and respond to any odor complaints that include:
  - A contact name and phone number to report odor complaints.
  - The source or cause of any odor complaints.
  - Action(s) taken to mitigate the odors.

Complaint records should be for a minimum of five years from the date the complaint is received and be provided to the County or NCUAQMD upon request.

#### Conclusions

Unmitigated construction activities would not result in exceedances of the NCUAQMD BACT thresholds for ROG, NO<sub>x</sub>, PM<sub>10</sub>, or PM<sub>2.5</sub>. Nor would the operation of the proposed project result in exceedances of the NCUAQMD BACT thresholds for ROG, NO<sub>x</sub>, PM<sub>10</sub>, or PM<sub>2.5</sub>. Operation of the project would result in odor impacts, but they can be managed using required odor control, setbacks, and implementation of an odor control plan.

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<sup>14</sup> Ordinance No. 2559, Board of Supervisors, County of Humboldt, State of California

## GREENHOUSE GAS EMISSIONS

### Setting

Gases that trap heat in the atmosphere, GHGs, regulate the earth's temperature. This phenomenon, known as the greenhouse effect, is responsible for maintaining a habitable climate. The most common GHGs are carbon dioxide (CO<sub>2</sub>) and water vapor but there are also several others, most importantly methane (CH<sub>4</sub>), nitrous oxide (N<sub>2</sub>O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF<sub>6</sub>). These are released into the earth's atmosphere through a variety of natural processes and human activities. Sources of GHGs are generally as follows:

- CO<sub>2</sub>, CH<sub>4</sub>, and N<sub>2</sub>O are byproducts of fossil fuel combustion.
- N<sub>2</sub>O is associated with agricultural operations such as fertilization of crops.
- CH<sub>4</sub> is commonly created by off-gassing from agricultural practices (e.g., keeping livestock) and landfill operations.
- Chlorofluorocarbons (CFCs) were widely used as refrigerants, propellants, and cleaning solvents but their production has been stopped by international treaty.
- HFCs are now used as a substitute for CFCs in refrigeration and cooling.
- PFCs and sulfur hexafluoride emissions are commonly created by industries such as aluminum production and semi-conductor manufacturing.

Each GHG has its own potency and effect upon the earth's energy balance. This is expressed in terms of a global warming potential (GWP), with CO<sub>2</sub> being assigned a value of 1 and sulfur hexafluoride being several orders of magnitude stronger. In GHG emission inventories, the weight of each gas is multiplied by its GWP and is measured in units of CO<sub>2</sub> equivalents (CO<sub>2</sub>e).

An expanding body of scientific research supports the theory that global climate change is currently affecting changes in weather patterns, average sea level, ocean acidification, chemical reaction rates, and precipitation rates, and that it will increasingly do so in the future. The climate and several naturally occurring resources within California are adversely affected by the global warming trend. Increased precipitation and sea level rise will increase coastal flooding, saltwater intrusion, and degradation of wetlands. Mass migration and/or loss of plant and animal species could also occur. Potential effects of global climate change that could adversely affect human health include more extreme heat waves and heat-related stress; an increase in climate-sensitive diseases; more frequent and intense natural disasters such as flooding, hurricanes and drought; and increased levels of air pollution.

### Recent Regulatory Actions for GHG Emissions

#### *Executive Order S-3-05 – California GHG Reduction Targets*

Executive Order (EO) S-3-05 was signed by Governor Arnold Schwarzenegger in 2005 to set GHG emission reduction targets for California. The three targets established by this EO are as follows: (1) reduce California's GHG emissions to 2000 levels by 2010, (2) reduce California's GHG emissions to 1990 levels by 2020, and (3) reduce California's GHG emissions by 80 percent below 1990 levels by 2050.

## *Assembly Bill 32 – California Global Warming Solutions Act (2006)*

Assembly Bill (AB) 32, the Global Warming Solutions Act of 2006, codified the State’s GHG emissions target by directing CARB to reduce the State’s global warming emissions to 1990 levels by 2020. AB 32 was signed and passed into law by Governor Schwarzenegger on September 27, 2006. Since that time, the CARB, CEC, California Public Utilities Commission (CPUC), and Building Standards Commission have all been developing regulations that will help meet the goals of AB 32 and Executive Order S-3-05, which has a target of reducing GHG emissions 80 percent below 1990 levels.

A Scoping Plan for AB 32 was adopted by CARB in December 2008. It contains the State’s main strategies to reduce GHGs from business-as-usual emissions projected in 2020 back down to 1990 levels. Business-as-usual (BAU) is the projected emissions in 2020, including increases in emissions caused by growth, without any GHG reduction measures. The Scoping Plan has a range of GHG reduction actions, including direct regulations, alternative compliance mechanisms, monetary and non-monetary incentives, voluntary actions, and market-based mechanisms such as a cap-and-trade system.

As directed by AB 32, CARB has also approved a statewide GHG emissions limit. On December 6, 2007, CARB staff resolved an amount of 427 million metric tons (MMT) of CO<sub>2</sub>e as the total statewide GHG 1990 emissions level and 2020 emissions limit. The limit is a cumulative statewide limit, not a sector- or facility-specific limit. CARB updated the future 2020 BAU annual emissions forecast, due to the economic downturn, to 545 MMT of CO<sub>2</sub>e. Two GHG emissions reduction measures currently enacted that were not previously included in the 2008 Scoping Plan baseline inventory were included, further reducing the baseline inventory to 507 MMT of CO<sub>2</sub>e. Thus, an estimated reduction of 80 MMT of CO<sub>2</sub>e is necessary to reduce statewide emissions to meet the AB 32 target by 2020.

### *Executive Order B-30-15 & Senate Bill 32 GHG Reduction Targets – 2030 GHG Reduction Target*

In April 2015, Governor Brown signed EO B-30-15, which extended the goals of AB 32, setting a greenhouse gas emissions target at 40 percent of 1990 levels by 2030. On September 8, 2016, Governor Brown signed Senate Bill (SB) 32, which legislatively established the GHG reduction target of 40 percent of 1990 levels by 2030. In November 2017, CARB issued *California’s 2017 Climate Change Scoping Plan*.<sup>15</sup> While the State is on track to exceed the AB 32 scoping plan 2020 targets, this plan is an update to reflect the enacted SB 32 reduction target.

SB 32 was passed in 2016, which codified a 2030 GHG emissions reduction target of 40 percent below 1990 levels. CARB is currently working on a second update to the Scoping Plan to reflect the 2030 target set by Executive Order B-30-15 and codified by SB 32. The proposed Scoping Plan Update was published on January 20, 2017 as directed by SB 32 companion legislation AB 197. The mid-term 2030 target is considered critical by CARB on the path to obtaining an even deeper GHG emissions target of 80 percent below 1990 levels by 2050, as directed in Executive Order S-3-05. The Scoping Plan outlines the suite of policy measures, regulations, planning efforts,

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<sup>15</sup> California Air Resource Board, 2017. *California’s 2017 Climate Change Scoping Plan: The Strategy for Achieving California’s 2030 Greenhouse Gas Targets*. November. Web: [https://ww2.arb.ca.gov/sites/default/files/classic/cc/scopingplan/scoping\\_plan\\_2017.pdf](https://ww2.arb.ca.gov/sites/default/files/classic/cc/scopingplan/scoping_plan_2017.pdf)

and investments in clean technologies and infrastructure, providing a blueprint to continue driving down GHG emissions and obtain the statewide goals.

The new Scoping Plan establishes a strategy that will reduce GHG emissions in California to meet the 2030 target (note that the AB 32 Scoping Plan only addressed 2020 targets and a long-term goal). Key features of this plan are:

- Cap and Trade program places a firm limit on 80 percent of the State’s emissions;
- Achieving a 50-percent Renewable Portfolio Standard by 2030 (currently at about 29 percent statewide);
- Increase energy efficiency in existing buildings;
- Develop fuels with an 18-percent reduction in carbon intensity;
- Develop more high-density, transit-oriented housing;
- Develop walkable and bikeable communities;
- Greatly increase the number of electric vehicles on the road and reduce oil demand in half;
- Increase zero-emissions transit so that 100 percent of new buses are zero emissions;
- Reduce freight-related emissions by transitioning to zero emissions where feasible and near-zero emissions with renewable fuels everywhere else; and
- Reduce “super pollutants” by reducing methane and hydrofluorocarbons or HFCs by 40 percent.

In the updated Scoping Plan, CARB recommends statewide targets of no more than 6 metric tons CO<sub>2</sub>e per capita (statewide) by 2030 and no more than 2 metric tons CO<sub>2</sub>e per capita by 2050. The statewide per capita targets account for all emissions sectors in the State, statewide population forecasts, and the statewide reductions necessary to achieve the 2030 statewide target under SB 32 and the longer-term State emissions reduction goal of 80 percent below 1990 levels by 2050.

#### *Executive Order B-55-18 – Carbon Neutrality*

In 2018, a new statewide goal was established to achieve carbon neutrality as soon as possible, but no later than 2045, and to maintain net negative emissions thereafter. CARB and other relevant state agencies are tasked with establishing sequestration targets and create policies/programs that would meet this goal.

#### *Senate Bill 375 – California's Regional Transportation and Land Use Planning Efforts (2008)*

California enacted legislation (SB 375) to expand the efforts of AB 32 by controlling indirect GHG emissions caused by urban sprawl. SB 375 provides incentives for local governments and applicants to implement new conscientiously planned growth patterns. This includes incentives for creating attractive, walkable, and sustainable communities and revitalizing existing communities. The legislation also allows applicants to bypass certain environmental reviews under CEQA if they build projects consistent with the new sustainable community strategies. Development of more alternative transportation options that would reduce vehicle trips and miles traveled, along with traffic congestion, would be encouraged. SB 375 enhances CARB’s ability to reach the AB 32 goals by directing the agency in developing regional GHG emission reduction targets to be achieved from the transportation sector for 2020 and 2035. CARB works with the metropolitan

planning organizations (e.g. Association of Bay Area Governments [ABAG] and Metropolitan Transportation Commission [MTC]) to align their regional transportation, housing, and land use plans to reduce vehicle miles traveled and demonstrate the region's ability to attain its GHG reduction targets. A similar process is used to reduce transportation emissions of ozone precursor pollutants in the Bay Area.

### *Senate Bill 350 - Renewable Portfolio Standards*

In September 2015, the California Legislature passed SB 350, which increases the states Renewables Portfolio Standard (RPS) for content of electrical generation from the 33 percent target for 2020 to a 50 percent renewables target by 2030.

### *Senate Bill 100 – Current Renewable Portfolio Standards*

In September 2018, SB 100 was signed by Governor Brown to revise California's RPS program goals, furthering California's focus on using renewable energy and carbon-free power sources for its energy needs. The bill would require all California utilities to supply a specific percentage of their retail sales from renewable resources by certain target years. By December 31, 2024, 44 percent of the retail sales would need to be from renewable energy sources, by December 31, 2026 the target would be 40 percent, by December 31, 2017 the target would be 52 percent, and by December 31, 2030 the target would be 60 percent. By December 31, 2045, all California utilities would be required to supply retail electricity that is 100 percent carbon-free and sourced from eligible renewable energy resource to all California end-use customers.

### *California Building Standards Code – Title 24 Part 11 & Part 6*

The California Green Building Standards Code (CALGreen Code) is part of the California Building Standards Code under Title 24, Part 11.<sup>16</sup> The CALGreen Code encourages sustainable construction standards that involve planning/design, energy efficiency, water efficiency resource efficiency, and environmental quality. These green building standard codes are mandatory statewide and are applicable to residential and non-residential developments. The most recent CALGreen Code (2019 California Building Standard Code) was effective as of January 1, 2020.

The California Building Energy Efficiency Standards (California Energy Code) is under Title 24, Part 6 and is overseen by the California Energy Commission (CEC). This code includes design requirements to conserve energy in new residential and non-residential developments, while being cost effective for homeowners. This Energy Code is enforced and verified by cities during the planning and building permit process. The current energy efficiency standards (2019 Energy Code) replaced the 2016 Energy Code as of January 1, 2020. Under the 2019 standards, single-family homes are predicted to be 53 percent more efficient than homes built under the 2016 standard due more stringent energy-efficiency standards and mandatory installation of solar photovoltaic systems. For nonresidential developments, it is predicted that these buildings will use 30 percent less energy due to lightening upgrades.<sup>17</sup>

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<sup>16</sup> See: <https://www.dgs.ca.gov/BSC/Resources/Page-Content/Building-Standards-Commission-Resources-List-Folder/CALGreen#:~:text=CALGreen%20is%20the%20first%2Din,to%201990%20levels%20by%202020.>

<sup>17</sup> See: [https://www.energy.ca.gov/sites/default/files/2020-03/Title\\_24\\_2019\\_Building\\_Standards\\_FAQ\\_ada.pdf](https://www.energy.ca.gov/sites/default/files/2020-03/Title_24_2019_Building_Standards_FAQ_ada.pdf)

## Federal and Statewide GHG Emissions

The U.S. EPA reported that in 2018, total gross nationwide GHG emissions were 6,676.6 million metric tons (MMT) carbon dioxide equivalent (CO<sub>2</sub>e).<sup>18</sup> These emissions were lower than peak levels of 7,416 MMT that were emitted in 2007. CARB updates the statewide GHG emission inventory on an annual basis where the latest inventory includes 2000 through 2017 emissions.<sup>19</sup> In 2017, GHG emissions from statewide emitting activities were 424 MMT. The 2017 emissions have decreased by 14 percent since peak levels in 2004 and are 7 MMT below the 1990 emissions level and the State's 2020 GHG limit. Per capita GHG emissions in California have dropped from a 2001 peak of 14.1 MT per person to 10.7 MT per person in 2017.

## Humboldt County

### *Humboldt 21<sup>st</sup> Century – General Plan*

Humboldt County updated its General Plan in October 2017 and included an Air Quality Element (Chapter 15) to it. The following goals, policies, and actions are applicable to the GHG Emissions attributed to the proposed project:

#### Applicable Goals

AQ-G4      *Greenhouse Gas Emissions.* Successful mitigation of greenhouse gas emissions associated with this Plan to levels of non-significance as established by the Global Warming Solutions Act and subsequent implementation of legislation and regulations.

#### Applicable Policies

AQ-P9      *County Climate Action Plan.* Through public input and review, develop and implement a multi-jurisdictional Climate Action Plan to achieve reductions in greenhouse gas emissions consistent with the state Global Warming Solutions Act and subsequent implementing legislation and regulations.

AQ-P11     *Review of Projects for Greenhouse Gas Emission Reductions.* The County shall evaluate the GHG emissions of new large scale residential, commercial and industrial projects for compliance with state regulations and require feasible mitigation measures to minimize GHG emissions.

AQ-P14     *Solar Electric System Capacity.* Encourage and provide incentives to increase solar-electric capacity in residential, commercial, and industrial sectors.

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<sup>18</sup> United States Environmental Protection Agency, 2020. *Inventory of U.S. Greenhouse Gas Emissions and Sinks 1990-2018*. April. Web: <https://www.epa.gov/sites/production/files/2020-04/documents/us-ghg-inventory-2020-main-text.pdf>

<sup>19</sup> CARB. 2019. *2019 Edition, California Greenhouse Gas Emission Inventory: 2000 – 2017*. Web: [https://ww3.arb.ca.gov/cc/inventory/pubs/reports/2000\\_2017/ghg\\_inventory\\_trends\\_00-17.pdf](https://ww3.arb.ca.gov/cc/inventory/pubs/reports/2000_2017/ghg_inventory_trends_00-17.pdf)

AQ-P15 *Energy Efficient Building Design.* Encourage and provide incentives for construction of buildings and energy saving measures beyond Title 24 requirements for residential and commercial projects.

#### Applicable Standards

AQ-S2 *Evaluate Greenhouse Gas Emission Impacts.* During environmental review of large scale residential, commercial and industrial projects, include an assessment of the project's GHG emissions and require feasible mitigation consistent with best practices documented by the California Air Pollution Control Officers Association in their 2008 white paper "CEQA & Climate Change" or successor documents.

#### Implementation Measures

AQ-IM3 *County-wide Climate Action Plan.* Develop and implement a Climate Action Plan that effectively mitigates the carbon emissions attributable to this Plan, consistent with the requirements of the state Global Warming Solutions Act and subsequent implementing legislation and regulations.

AQ-IM6 *Review of Greenhouse Gas Emissions Impacts of New Development.* Modify the Zoning and Subdivision Ordinances to assess GHG emissions of discretionary large scale residential, commercial and industrial projects, and require feasible mitigation.

#### *Humboldt County Climate Action Plan*

Humboldt County is in the process of developing a regional Climate Action Plan (CAP) along with the Redwood Coast Energy Authority (RCEA) and the cities of Arcata, Eureka, Blue Lake, Ferndale, Fortuna, Rio Dell and Trinidad. Together, these local governments are working to develop strategies to reduce emissions throughout the region. In support of the CAP's development, the RCEA conducted an inventory of GHG emissions in Humboldt County for the year 2015. Total county-wide GHG emissions in 2015 were estimated to be 822,509 MT of CO<sub>2</sub>e, with 51% coming from mobile source fuel combustion and 23% coming from livestock. Electricity consumption accounted for less than 10% of GHG emissions in the county.<sup>20</sup> Based on the 2015 GHG inventory, the county has proposed GHG targets to the level specified in EO B-30-15; 40% below 1990 levels by 2030 and 60% below 1990 levels. These targets incorporate the statewide targets to reach 50% renewable electricity by 2025 and the local RCEA goal to source 100% of the county's electricity from renewable sources by 2025.

#### *Humboldt County Code Regulating Commercial Cannabis Activities*

In 2018, Humboldt County amended their code regulating commercial cannabis activities. As part of the amendment process, and as required by CEQA, the county prepared an environmental impact report (EIR). The Draft EIR (DEIR) contained an analysis of air quality and GHG emissions

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<sup>20</sup> From Emissions Inventory Overview Presentation and forecast results. Access on September 16, 2020. Website: <https://humboldt.gov/DocumentCenter/View/79805/PowerPoint-Presentation?bidId=>



that found construction and operation of commercial cannabis cultivation operations permitted under the county's ordinance regulating such activities would be less than significant. The ordinance includes a renewable energy requirement for all permitted commercial cannabis operations. As a result, the DEIR did not establish any Mitigation Measures for GHG emissions.

#### NCUAQMD Significance Thresholds

The NCUAQMD has not established any GHG significance thresholds for CEQA purposes, nor has Humboldt County. In 2011, the NCUAQMD adopted Rule 111 (Federal Permitting Requirements for Sources of Greenhouse Gases) to establish a threshold above which New Source Review and federal Title V permitting applies, and to establish federally enforceable limits on potential to emit GHGs for stationary sources. However, Rule 111 are requirements for stationary sources and should not be used as a threshold of significance for CEQA evaluations.

Since there are no applicable thresholds for projects in the Air District or Humboldt County, the NCUAQMD recommends the use of thresholds and guidance provided by other air districts in the State such as the Bay Area Air Quality Management District (BAAQMD). The BAAQMD has developed project screening criteria to provide lead agencies and project applicants with a conservative indication of whether a project could result in potentially significant impacts related to greenhouse gas emissions. Projects below the applicable screening criteria would not exceed the 1,100 metric tons (MT) of CO<sub>2</sub>e/yr GHG threshold established by the BAAQMD for land use projects, other than permitted stationary sources. The BAAQMD has not established a screening threshold for this type of project as it is primarily agricultural. Therefore, the BAAQMD threshold of 1,100 metric tons per year was chosen as the significance threshold for this analysis.

**Impact:           Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?**

GHG emissions associated with proposed project would occur over the short-term from construction activities, consisting primarily of emissions from equipment exhaust, worker and vendor trips, and material haul trips. There would also be long-term operational emissions associated with vehicular traffic within the project vicinity, energy and water usage, solid waste disposal, and operation of the proposed boilers. Emissions for the proposed project are discussed below and were analyzed using the significance threshold of 1,100 MT CO<sub>2</sub>e/year.

#### CalEEMod Modeling

CalEEMod was used to predict GHG emissions from operation of the site assuming full build-out of the project. The project land use types and size and other project-specific information were input to the model, as described above within the operational period emissions. CalEEMod output is included in *Attachment 1*.

#### Construction Emissions

GHG emissions associated with construction were computed to be 717 MT of CO<sub>2</sub>e. These are the emissions from on-site operation of construction equipment, vendor and hauling truck trips, and worker trips. Neither the County nor NCUAQMD have an adopted threshold of significance for

construction related GHG emissions, however, emissions are being quantified and disclosed for informational purposes. The incorporation of best management practices to reduce GHG emissions during construction are recommended where feasible and applicable.

### Operational Emissions

The CalEEMod model, along with the project vehicle trip generation rate, was used to estimate daily emissions associated with operation of the proposed project. As shown in Table 5, the net annual emissions resulting from operation of the proposed project are predicted to be 1,031 MT of CO<sub>2e</sub> in 2022 and 1,000 MT of CO<sub>2e</sub> in 2030. Thus, the project would not exceed the 1,100 MT CO<sub>2e</sub>/year threshold in either 2022 or 2030.

**Table 5. Annual Project GHG Emissions (CO<sub>2e</sub>) in Metric Tons**

Source Category	Proposed Project (MT CO <sub>2e</sub> /yr)	
	2022	2030
Area	0	0
Energy Consumption	705	705
Mobile	164	133
Solid Waste Generation	21	21
Water Usage	0	0
Stationary (Boilers)	141	141
Total Emissions (MT CO <sub>2e</sub> /yr)	1,031	1,000
<b>Significance Threshold</b>	<b>1,100 MT CO<sub>2e</sub>/year</b>	
<i>Exceed threshold?</i>	<i>No</i>	<i>No</i>

**Impact: Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?**

The proposed project would not conflict or otherwise interfere with the statewide GHG reduction measures identified in CARB’s Scoping Plan. For example, proposed buildings would be constructed in conformance with CALGreen and the Title 24 Building Code, which requires high-efficiency water fixtures and water-efficient irrigation systems. The project would also be subject to Humboldt County’s Commercial Cultivation, Processing, Manufacturing, and Distribution ordinance, which requires the use of renewable energy sources.

### Conclusions

The proposed project would not generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment. Neither the County nor NCUAQMD have adopted threshold of significance for GHG emissions. However, using the BAAQMD significance threshold for GHG emissions, the project would not be considered significant. Additionally, the EIR for the Humboldt County Code Regulating Commercial Cannabis Activities found construction and operation of commercial cannabis cultivation operations permitted under the County’s ordinance would be less than significant.

## **Supporting Documentation**

*Attachment 1* includes the CalEEMod modeling assumptions and output for project construction and operational criteria air pollutant and GHG emissions.

*Attachment 2* includes the EMFAC2017 emissions modeling. The input files for these calculations are voluminous and are available upon request in digital format.

## **Attachment 1: CalEEMod Modeling Output**

Arcata Land Co. Cultivation Project - Phase1 - Humboldt County, Annual

**Arcata Land Co. Cultivation Project - Phase1  
Humboldt County, Annual**

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	67.33	1000sqft	38.20	67,330.00	0
Parking Lot	66.00	Space	0.00	26,400.00	0

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Rural	<b>Wind Speed (m/s)</b>	2.2	<b>Precipitation Freq (Days)</b>	103
<b>Climate Zone</b>	1			<b>Operational Year</b>	2022
<b>Utility Company</b>	Pacific Gas & Electric Company				
<b>CO2 Intensity (lb/MW hr)</b>	210	<b>CH4 Intensity (lb/MW hr)</b>	0.029	<b>N2O Intensity (lb/MW hr)</b>	0.006

**1.3 User Entered Comments & Non-Default Data**

Project Characteristics - Curent Intensity Factor

Land Use - Phase 1 = New Admin Buildings and infrastructure

Construction Phase - Based on CalEEMod defaults for buildings (67,332 sf) and site (38.2 ac). Assume no demo given existing greenhouse structures will be used and the remaining land is undeveloped

Off-road Equipment - CalEEMod Default

Off-road Equipment - CalEEMod Default

Off-road Equipment - No Demo

Off-road Equipment - Per Equipment Input Assumptions Provided

Off-road Equipment - CalEEMod Default



tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
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tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
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tblConstEquipMitigation	Tier	No Change	Tier 3
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tblConstructionPhase	NumDays	740.00	200.00
tblConstructionPhase	NumDays	50.00	1.00
tblConstructionPhase	NumDays	55.00	10.00

tblFleetMix	HHD	0.05	0.03
tblFleetMix	HHD	0.05	0.03
tblFleetMix	LDA	0.49	0.46
tblFleetMix	LDA	0.49	0.46
tblFleetMix	LDT1	0.05	0.06
tblFleetMix	LDT1	0.05	0.06
tblFleetMix	LDT2	0.21	0.21
tblFleetMix	LDT2	0.21	0.21
tblFleetMix	LHD1	0.04	0.05
tblFleetMix	LHD1	0.04	0.05
tblFleetMix	LHD2	6.6740e-003	0.01
tblFleetMix	LHD2	6.6740e-003	0.01
tblFleetMix	MCY	5.5530e-003	5.8570e-003
tblFleetMix	MCY	5.5530e-003	5.8570e-003
tblFleetMix	MDV	0.13	0.15
tblFleetMix	MDV	0.13	0.15
tblFleetMix	MH	8.4600e-004	9.9500e-004
tblFleetMix	MH	8.4600e-004	9.9500e-004
tblFleetMix	MHD	0.01	0.01
tblFleetMix	MHD	0.01	0.01
tblFleetMix	OBUS	3.3980e-003	1.6330e-003
tblFleetMix	OBUS	3.3980e-003	1.6330e-003
tblFleetMix	SBUS	1.5050e-003	1.3900e-003
tblFleetMix	SBUS	1.5050e-003	1.3900e-003
tblFleetMix	UBUS	1.5290e-003	6.2900e-004
tblFleetMix	UBUS	1.5290e-003	6.2900e-004
tblGrading	AcresOfGrading	150.00	38.20
tblGrading	MaterialImported	0.00	35,000.00
tblLandUse	LotAcreage	1.55	38.20
tblLandUse	LotAcreage	0.59	0.00



tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	UsageHours	8.00	4.00
tblOffRoadEquipment	UsageHours	8.00	4.00
tblProjectCharacteristics	CO2IntensityFactor	641.35	210
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblSolidWaste	SolidWasteGenerationRate	83.49	41.74
tblStationaryBoilersUse	AnnualHeatInput	0.00	878.50
tblStationaryBoilersUse	AnnualHeatInput	0.00	878.50
tblStationaryBoilersUse	BoilerRatingValue	0.00	1.00
tblStationaryBoilersUse	BoilerRatingValue	0.00	1.00
tblStationaryBoilersUse	DailyHeatInput	0.00	5.02
tblStationaryBoilersUse	DailyHeatInput	0.00	5.02
tblStationaryBoilersUse	NumberOfEquipment	0.00	2.00
tblStationaryBoilersUse	NumberOfEquipment	0.00	1.00
tblTripsAndVMT	HaulingTripNumber	4,375.00	0.00
tblTripsAndVMT	VendorTripNumber	15.00	0.00
tblTripsAndVMT	WorkerTripNumber	5.00	0.00
tblTripsAndVMT	WorkerTripNumber	13.00	0.00
tblTripsAndVMT	WorkerTripNumber	5.00	0.00
tblTripsAndVMT	WorkerTripNumber	39.00	0.00
tblTripsAndVMT	WorkerTripNumber	15.00	0.00
tblTripsAndVMT	WorkerTripNumber	8.00	0.00
tblVehicleEF	HHD	0.71	0.02

tblVehicleEF	HHD	7.9030e-003	3.4340e-003
tblVehicleEF	HHD	0.25	0.00
tblVehicleEF	HHD	2.94	7.28
tblVehicleEF	HHD	0.76	0.34
tblVehicleEF	HHD	3.19	2.7810e-003
tblVehicleEF	HHD	5,022.83	1,320.66
tblVehicleEF	HHD	1,603.74	1,457.69
tblVehicleEF	HHD	7.67	0.04
tblVehicleEF	HHD	22.18	7.02
tblVehicleEF	HHD	4.24	4.07
tblVehicleEF	HHD	20.19	2.19
tblVehicleEF	HHD	0.05	4.7960e-003
tblVehicleEF	HHD	0.06	0.06
tblVehicleEF	HHD	0.03	0.04
tblVehicleEF	HHD	0.03	0.04
tblVehicleEF	HHD	1.0300e-004	1.0000e-006
tblVehicleEF	HHD	0.04	4.5890e-003
tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	8.6340e-003	8.7620e-003
tblVehicleEF	HHD	0.02	0.04
tblVehicleEF	HHD	9.5000e-005	1.0000e-006
tblVehicleEF	HHD	1.0400e-004	3.0000e-006
tblVehicleEF	HHD	8.9210e-003	2.3100e-004
tblVehicleEF	HHD	0.82	0.53
tblVehicleEF	HHD	5.8000e-005	1.0000e-006
tblVehicleEF	HHD	0.14	0.07
tblVehicleEF	HHD	1.3480e-003	2.2410e-003
tblVehicleEF	HHD	0.18	1.0000e-006
tblVehicleEF	HHD	0.05	0.01
tblVehicleEF	HHD	0.02	0.01

tblVehicleEF	HHD	1.3300e-004	0.00
tblVehicleEF	HHD	1.0400e-004	3.0000e-006
tblVehicleEF	HHD	8.9210e-003	2.3100e-004
tblVehicleEF	HHD	0.93	0.60
tblVehicleEF	HHD	5.8000e-005	1.0000e-006
tblVehicleEF	HHD	0.16	0.08
tblVehicleEF	HHD	1.3480e-003	2.2410e-003
tblVehicleEF	HHD	0.20	1.0000e-006
tblVehicleEF	LDA	7.2250e-003	3.4380e-003
tblVehicleEF	LDA	0.01	0.07
tblVehicleEF	LDA	0.77	0.77
tblVehicleEF	LDA	2.21	2.62
tblVehicleEF	LDA	253.94	263.32
tblVehicleEF	LDA	58.94	55.90
tblVehicleEF	LDA	0.09	0.06
tblVehicleEF	LDA	0.15	0.23
tblVehicleEF	LDA	2.0540e-003	1.8050e-003
tblVehicleEF	LDA	2.4540e-003	2.0550e-003
tblVehicleEF	LDA	1.9010e-003	1.6710e-003
tblVehicleEF	LDA	2.2560e-003	1.8890e-003
tblVehicleEF	LDA	0.03	0.05
tblVehicleEF	LDA	0.15	0.16
tblVehicleEF	LDA	0.03	0.04
tblVehicleEF	LDA	0.02	0.01
tblVehicleEF	LDA	0.05	0.31
tblVehicleEF	LDA	0.14	0.32
tblVehicleEF	LDA	2.5460e-003	1.5100e-004
tblVehicleEF	LDA	6.2800e-004	0.00
tblVehicleEF	LDA	0.03	0.05
tblVehicleEF	LDA	0.15	0.16

tblVehicleEF	LDA	0.03	0.04
tblVehicleEF	LDA	0.03	0.02
tblVehicleEF	LDA	0.05	0.31
tblVehicleEF	LDA	0.15	0.35
tblVehicleEF	LDT1	0.04	0.01
tblVehicleEF	LDT1	0.05	0.14
tblVehicleEF	LDT1	3.65	2.16
tblVehicleEF	LDT1	9.72	3.21
tblVehicleEF	LDT1	332.81	327.43
tblVehicleEF	LDT1	76.29	72.61
tblVehicleEF	LDT1	0.50	0.24
tblVehicleEF	LDT1	0.55	0.45
tblVehicleEF	LDT1	4.6170e-003	3.0020e-003
tblVehicleEF	LDT1	5.4720e-003	3.6710e-003
tblVehicleEF	LDT1	4.2610e-003	2.7650e-003
tblVehicleEF	LDT1	5.0340e-003	3.3760e-003
tblVehicleEF	LDT1	0.17	0.16
tblVehicleEF	LDT1	0.65	0.46
tblVehicleEF	LDT1	0.13	0.13
tblVehicleEF	LDT1	0.10	0.05
tblVehicleEF	LDT1	0.51	1.91
tblVehicleEF	LDT1	0.67	0.75
tblVehicleEF	LDT1	3.3830e-003	3.2390e-003
tblVehicleEF	LDT1	9.3600e-004	0.00
tblVehicleEF	LDT1	0.17	0.16
tblVehicleEF	LDT1	0.65	0.46
tblVehicleEF	LDT1	0.13	0.13
tblVehicleEF	LDT1	0.15	0.08
tblVehicleEF	LDT1	0.51	1.91
tblVehicleEF	LDT1	0.74	0.83

tblVehicleEF	LDT2	0.01	6.6010e-003
tblVehicleEF	LDT2	0.02	0.11
tblVehicleEF	LDT2	1.36	1.30
tblVehicleEF	LDT2	4.11	3.54
tblVehicleEF	LDT2	368.83	351.36
tblVehicleEF	LDT2	85.94	77.67
tblVehicleEF	LDT2	0.22	0.17
tblVehicleEF	LDT2	0.40	0.46
tblVehicleEF	LDT2	1.9030e-003	1.7750e-003
tblVehicleEF	LDT2	2.6000e-003	2.2280e-003
tblVehicleEF	LDT2	1.7510e-003	1.6350e-003
tblVehicleEF	LDT2	2.3910e-003	2.0490e-003
tblVehicleEF	LDT2	0.06	0.09
tblVehicleEF	LDT2	0.25	0.26
tblVehicleEF	LDT2	0.06	0.08
tblVehicleEF	LDT2	0.03	0.03
tblVehicleEF	LDT2	0.18	1.10
tblVehicleEF	LDT2	0.27	0.55
tblVehicleEF	LDT2	3.7040e-003	0.01
tblVehicleEF	LDT2	9.3100e-004	1.3400e-004
tblVehicleEF	LDT2	0.06	0.09
tblVehicleEF	LDT2	0.25	0.26
tblVehicleEF	LDT2	0.06	0.08
tblVehicleEF	LDT2	0.05	0.04
tblVehicleEF	LDT2	0.18	1.10
tblVehicleEF	LDT2	0.30	0.61
tblVehicleEF	LHD1	4.8740e-003	3.2610e-003
tblVehicleEF	LHD1	0.04	0.02
tblVehicleEF	LHD1	0.03	0.01
tblVehicleEF	LHD1	0.14	0.14

tblVehicleEF	LHD1	2.17	1.66
tblVehicleEF	LHD1	3.42	0.90
tblVehicleEF	LHD1	9.86	10.10
tblVehicleEF	LHD1	677.50	737.27
tblVehicleEF	LHD1	21.84	7.60
tblVehicleEF	LHD1	0.12	0.12
tblVehicleEF	LHD1	3.86	2.92
tblVehicleEF	LHD1	1.06	0.22
tblVehicleEF	LHD1	1.3960e-003	1.3920e-003
tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	0.04	0.03
tblVehicleEF	LHD1	1.0180e-003	2.4900e-004
tblVehicleEF	LHD1	1.3350e-003	1.3310e-003
tblVehicleEF	LHD1	2.6590e-003	2.6600e-003
tblVehicleEF	LHD1	0.03	0.03
tblVehicleEF	LHD1	9.3600e-004	2.2900e-004
tblVehicleEF	LHD1	2.1370e-003	1.7480e-003
tblVehicleEF	LHD1	0.13	0.11
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	1.0690e-003	8.7200e-004
tblVehicleEF	LHD1	0.25	0.20
tblVehicleEF	LHD1	0.62	1.02
tblVehicleEF	LHD1	0.34	0.07
tblVehicleEF	LHD1	6.6180e-003	7.1250e-003
tblVehicleEF	LHD1	2.8300e-004	7.5000e-005
tblVehicleEF	LHD1	2.1370e-003	1.7480e-003
tblVehicleEF	LHD1	0.13	0.11
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	1.0690e-003	8.7200e-004
tblVehicleEF	LHD1	0.31	0.25

tblVehicleEF	LHD1	0.62	1.02
tblVehicleEF	LHD1	0.37	0.07
tblVehicleEF	LHD2	2.7860e-003	1.8190e-003
tblVehicleEF	LHD2	0.01	8.5920e-003
tblVehicleEF	LHD2	6.8350e-003	4.8190e-003
tblVehicleEF	LHD2	0.11	0.10
tblVehicleEF	LHD2	0.94	0.87
tblVehicleEF	LHD2	0.98	0.35
tblVehicleEF	LHD2	15.92	16.37
tblVehicleEF	LHD2	704.69	730.40
tblVehicleEF	LHD2	14.45	3.94
tblVehicleEF	LHD2	0.15	0.16
tblVehicleEF	LHD2	2.28	1.86
tblVehicleEF	LHD2	0.44	0.10
tblVehicleEF	LHD2	1.6660e-003	1.8140e-003
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	0.03	0.03
tblVehicleEF	LHD2	2.5000e-004	7.0000e-005
tblVehicleEF	LHD2	1.5940e-003	1.7350e-003
tblVehicleEF	LHD2	2.8050e-003	2.8460e-003
tblVehicleEF	LHD2	0.03	0.03
tblVehicleEF	LHD2	2.3000e-004	6.5000e-005
tblVehicleEF	LHD2	5.1900e-004	5.0600e-004
tblVehicleEF	LHD2	0.03	0.03
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	2.8400e-004	2.6400e-004
tblVehicleEF	LHD2	0.16	0.15
tblVehicleEF	LHD2	0.10	0.26
tblVehicleEF	LHD2	0.09	0.02
tblVehicleEF	LHD2	1.5400e-004	1.5500e-004

tblVehicleEF	LHD2	6.8100e-003	6.9850e-003
tblVehicleEF	LHD2	1.6300e-004	3.9000e-005
tblVehicleEF	LHD2	5.1900e-004	5.0600e-004
tblVehicleEF	LHD2	0.03	0.03
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	2.8400e-004	2.6400e-004
tblVehicleEF	LHD2	0.19	0.18
tblVehicleEF	LHD2	0.10	0.26
tblVehicleEF	LHD2	0.10	0.03
tblVehicleEF	MCY	0.42	0.35
tblVehicleEF	MCY	0.19	0.29
tblVehicleEF	MCY	24.20	23.43
tblVehicleEF	MCY	10.74	9.55
tblVehicleEF	MCY	164.72	215.60
tblVehicleEF	MCY	49.91	66.28
tblVehicleEF	MCY	1.25	1.24
tblVehicleEF	MCY	0.34	0.28
tblVehicleEF	MCY	1.9640e-003	1.9020e-003
tblVehicleEF	MCY	4.8830e-003	3.7820e-003
tblVehicleEF	MCY	1.8500e-003	1.7880e-003
tblVehicleEF	MCY	4.6350e-003	3.5830e-003
tblVehicleEF	MCY	0.70	1.33
tblVehicleEF	MCY	1.03	0.94
tblVehicleEF	MCY	0.43	0.80
tblVehicleEF	MCY	2.56	2.51
tblVehicleEF	MCY	1.25	2.92
tblVehicleEF	MCY	2.62	2.29
tblVehicleEF	MCY	2.1140e-003	2.1340e-003
tblVehicleEF	MCY	7.5300e-004	6.5600e-004
tblVehicleEF	MCY	0.70	1.33



tblVehicleEF	MCY	1.03	0.94
tblVehicleEF	MCY	0.43	0.80
tblVehicleEF	MCY	3.07	3.02
tblVehicleEF	MCY	1.25	2.92
tblVehicleEF	MCY	2.85	2.49
tblVehicleEF	MDV	0.02	6.3920e-003
tblVehicleEF	MDV	0.04	0.12
tblVehicleEF	MDV	2.04	1.22
tblVehicleEF	MDV	7.57	4.27
tblVehicleEF	MDV	492.76	424.31
tblVehicleEF	MDV	113.18	91.66
tblVehicleEF	MDV	0.40	0.16
tblVehicleEF	MDV	0.76	0.50
tblVehicleEF	MDV	2.2220e-003	1.8530e-003
tblVehicleEF	MDV	3.2370e-003	2.4820e-003
tblVehicleEF	MDV	2.0520e-003	1.7150e-003
tblVehicleEF	MDV	2.9770e-003	2.2830e-003
tblVehicleEF	MDV	0.09	0.09
tblVehicleEF	MDV	0.37	0.27
tblVehicleEF	MDV	0.08	0.09
tblVehicleEF	MDV	0.06	0.03
tblVehicleEF	MDV	0.29	1.11
tblVehicleEF	MDV	0.57	0.64
tblVehicleEF	MDV	4.9490e-003	4.1650e-003
tblVehicleEF	MDV	1.2670e-003	9.0100e-004
tblVehicleEF	MDV	0.09	0.09
tblVehicleEF	MDV	0.37	0.27
tblVehicleEF	MDV	0.08	0.09
tblVehicleEF	MDV	0.09	0.04
tblVehicleEF	MDV	0.29	1.11

tblVehicleEF	MDV	0.62	0.70
tblVehicleEF	MH	0.13	0.02
tblVehicleEF	MH	0.06	0.03
tblVehicleEF	MH	8.83	3.07
tblVehicleEF	MH	13.45	2.73
tblVehicleEF	MH	1,238.23	1,579.01
tblVehicleEF	MH	59.34	19.28
tblVehicleEF	MH	3.02	2.62
tblVehicleEF	MH	1.82	0.23
tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	0.05	0.05
tblVehicleEF	MH	2.0900e-003	3.7000e-004
tblVehicleEF	MH	3.2380e-003	3.3230e-003
tblVehicleEF	MH	0.05	0.05
tblVehicleEF	MH	1.9220e-003	3.4100e-004
tblVehicleEF	MH	1.27	0.87
tblVehicleEF	MH	0.16	0.11
tblVehicleEF	MH	0.44	0.31
tblVehicleEF	MH	0.35	0.16
tblVehicleEF	MH	0.06	3.24
tblVehicleEF	MH	0.77	0.12
tblVehicleEF	MH	0.01	0.02
tblVehicleEF	MH	8.2900e-004	1.9100e-004
tblVehicleEF	MH	1.27	0.87
tblVehicleEF	MH	0.16	0.11
tblVehicleEF	MH	0.44	0.31
tblVehicleEF	MH	0.50	0.22
tblVehicleEF	MH	0.06	3.24
tblVehicleEF	MH	0.85	0.13
tblVehicleEF	MHD	0.02	4.5020e-003

tblVehicleEF	MHD	0.01	7.9310e-003
tblVehicleEF	MHD	0.10	0.01
tblVehicleEF	MHD	0.53	0.43
tblVehicleEF	MHD	0.74	0.74
tblVehicleEF	MHD	9.90	1.91
tblVehicleEF	MHD	159.35	75.71
tblVehicleEF	MHD	1,224.87	1,191.74
tblVehicleEF	MHD	53.09	13.54
tblVehicleEF	MHD	0.97	0.66
tblVehicleEF	MHD	2.57	2.77
tblVehicleEF	MHD	12.59	1.13
tblVehicleEF	MHD	8.0550e-003	1.6500e-003
tblVehicleEF	MHD	0.02	0.04
tblVehicleEF	MHD	1.1580e-003	2.2400e-004
tblVehicleEF	MHD	7.7070e-003	1.5790e-003
tblVehicleEF	MHD	0.02	0.04
tblVehicleEF	MHD	1.0650e-003	2.0600e-004
tblVehicleEF	MHD	1.1540e-003	7.3600e-004
tblVehicleEF	MHD	0.08	0.05
tblVehicleEF	MHD	0.05	0.02
tblVehicleEF	MHD	5.9800e-004	3.7700e-004
tblVehicleEF	MHD	0.11	0.11
tblVehicleEF	MHD	0.07	0.39
tblVehicleEF	MHD	0.64	0.09
tblVehicleEF	MHD	1.5320e-003	7.1900e-004
tblVehicleEF	MHD	0.01	0.01
tblVehicleEF	MHD	7.0600e-004	1.3400e-004
tblVehicleEF	MHD	1.1540e-003	7.3600e-004
tblVehicleEF	MHD	0.08	0.05
tblVehicleEF	MHD	0.07	0.03

tblVehicleEF	MHD	5.9800e-004	3.7700e-004
tblVehicleEF	MHD	0.13	0.13
tblVehicleEF	MHD	0.07	0.39
tblVehicleEF	MHD	0.70	0.09
tblVehicleEF	OBUS	0.02	7.6730e-003
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	0.05	0.03
tblVehicleEF	OBUS	0.31	0.55
tblVehicleEF	OBUS	0.74	1.20
tblVehicleEF	OBUS	8.69	3.02
tblVehicleEF	OBUS	170.92	87.93
tblVehicleEF	OBUS	1,296.14	1,405.82
tblVehicleEF	OBUS	61.10	19.95
tblVehicleEF	OBUS	0.78	0.42
tblVehicleEF	OBUS	1.95	1.81
tblVehicleEF	OBUS	5.56	0.86
tblVehicleEF	OBUS	1.6600e-004	7.2000e-004
tblVehicleEF	OBUS	7.3830e-003	0.02
tblVehicleEF	OBUS	6.7000e-004	1.9600e-004
tblVehicleEF	OBUS	1.5800e-004	6.8900e-004
tblVehicleEF	OBUS	7.0550e-003	0.02
tblVehicleEF	OBUS	6.1600e-004	1.8100e-004
tblVehicleEF	OBUS	1.3560e-003	1.6890e-003
tblVehicleEF	OBUS	0.03	0.04
tblVehicleEF	OBUS	0.05	0.05
tblVehicleEF	OBUS	6.2100e-004	7.3300e-004
tblVehicleEF	OBUS	0.09	0.09
tblVehicleEF	OBUS	0.06	0.63
tblVehicleEF	OBUS	0.56	0.14
tblVehicleEF	OBUS	1.6420e-003	8.3700e-004

tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	7.6500e-004	1.9700e-004
tblVehicleEF	OBUS	1.3560e-003	1.6890e-003
tblVehicleEF	OBUS	0.03	0.04
tblVehicleEF	OBUS	0.06	0.07
tblVehicleEF	OBUS	6.2100e-004	7.3300e-004
tblVehicleEF	OBUS	0.10	0.11
tblVehicleEF	OBUS	0.06	0.63
tblVehicleEF	OBUS	0.61	0.16
tblVehicleEF	SBUS	1.01	0.01
tblVehicleEF	SBUS	9.8520e-003	0.01
tblVehicleEF	SBUS	0.10	2.1640e-003
tblVehicleEF	SBUS	4.09	0.85
tblVehicleEF	SBUS	0.58	0.90
tblVehicleEF	SBUS	4.30	0.39
tblVehicleEF	SBUS	1,374.41	328.70
tblVehicleEF	SBUS	1,204.46	1,138.41
tblVehicleEF	SBUS	22.44	1.32
tblVehicleEF	SBUS	13.96	3.85
tblVehicleEF	SBUS	5.54	7.46
tblVehicleEF	SBUS	17.49	0.65
tblVehicleEF	SBUS	0.01	5.1270e-003
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	0.03	0.04
tblVehicleEF	SBUS	2.1800e-004	1.9000e-005
tblVehicleEF	SBUS	0.01	4.9050e-003
tblVehicleEF	SBUS	2.8590e-003	2.9190e-003
tblVehicleEF	SBUS	0.03	0.04
tblVehicleEF	SBUS	2.0000e-004	1.7000e-005
tblVehicleEF	SBUS	1.4580e-003	2.2900e-004

tblVehicleEF	SBUS	0.02	4.3900e-003
tblVehicleEF	SBUS	0.51	0.08
tblVehicleEF	SBUS	6.3900e-004	9.2000e-005
tblVehicleEF	SBUS	0.12	0.14
tblVehicleEF	SBUS	0.01	0.03
tblVehicleEF	SBUS	0.23	0.01
tblVehicleEF	SBUS	0.01	3.1110e-003
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	2.9900e-004	1.3000e-005
tblVehicleEF	SBUS	1.4580e-003	2.2900e-004
tblVehicleEF	SBUS	0.02	4.3900e-003
tblVehicleEF	SBUS	0.72	0.10
tblVehicleEF	SBUS	6.3900e-004	9.2000e-005
tblVehicleEF	SBUS	0.14	0.16
tblVehicleEF	SBUS	0.01	0.03
tblVehicleEF	SBUS	0.26	0.01
tblVehicleEF	UBUS	0.13	2.84
tblVehicleEF	UBUS	0.08	0.02
tblVehicleEF	UBUS	4.51	21.64
tblVehicleEF	UBUS	14.09	1.13
tblVehicleEF	UBUS	2,046.25	1,708.44
tblVehicleEF	UBUS	137.44	11.78
tblVehicleEF	UBUS	7.17	0.66
tblVehicleEF	UBUS	13.66	0.12
tblVehicleEF	UBUS	0.53	0.09
tblVehicleEF	UBUS	0.01	0.03
tblVehicleEF	UBUS	0.13	3.8290e-003
tblVehicleEF	UBUS	8.3200e-004	6.1000e-005
tblVehicleEF	UBUS	0.23	0.04
tblVehicleEF	UBUS	3.0000e-003	6.3580e-003

tblVehicleEF	UBUS	0.12	3.6570e-003
tblVehicleEF	UBUS	7.6500e-004	5.7000e-005
tblVehicleEF	UBUS	3.5000e-003	5.6700e-004
tblVehicleEF	UBUS	0.08	0.01
tblVehicleEF	UBUS	2.0260e-003	3.6000e-004
tblVehicleEF	UBUS	0.44	0.04
tblVehicleEF	UBUS	0.02	0.08
tblVehicleEF	UBUS	1.13	0.07
tblVehicleEF	UBUS	0.02	7.5040e-003
tblVehicleEF	UBUS	1.6300e-003	1.1700e-004
tblVehicleEF	UBUS	3.5000e-003	5.6700e-004
tblVehicleEF	UBUS	0.08	0.01
tblVehicleEF	UBUS	2.0260e-003	3.6000e-004
tblVehicleEF	UBUS	0.61	2.90
tblVehicleEF	UBUS	0.02	0.08
tblVehicleEF	UBUS	1.23	0.08
tblVehicleTrips	ST_TR	1.32	0.73
tblVehicleTrips	SU_TR	0.68	0.21
tblVehicleTrips	WD_TR	6.97	2.01
tblWater	AerobicPercent	87.46	0.00
tblWater	AerobicPercent	87.46	0.00
tblWater	AnaDigestCombDigestGasPercent	100.00	0.00
tblWater	AnaDigestCombDigestGasPercent	100.00	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	ElectricityIntensityFactorForWastewaterTreatment	1,911.00	0.00
tblWater	ElectricityIntensityFactorForWastewaterTreatment	1,911.00	0.00
tblWater	ElectricityIntensityFactorToDistribute	1,272.00	0.00
tblWater	ElectricityIntensityFactorToDistribute	1,272.00	0.00
tblWater	ElectricityIntensityFactorToSupply	2,117.00	0.00

tblWater	ElectricityIntensityFactorToSupply	2,117.00	0.00
tblWater	ElectricityIntensityFactorToTreat	111.00	0.00
tblWater	ElectricityIntensityFactorToTreat	111.00	0.00
tblWater	IndoorWaterUseRate	15,570,062.50	0.00
tblWater	SepticTankPercent	10.33	100.00
tblWater	SepticTankPercent	10.33	100.00

## 2.0 Emissions Summary

### 2.1 Overall Construction

#### Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	1.2489	3.3394	2.7783	4.8500e-003	0.1803	0.1660	0.3463	0.0894	0.1547	0.2440	0.0000	421.5136	421.5136	0.1170	0.0000	424.4378
<b>Maximum</b>	<b>1.2489</b>	<b>3.3394</b>	<b>2.7783</b>	<b>4.8500e-003</b>	<b>0.1803</b>	<b>0.1660</b>	<b>0.3463</b>	<b>0.0894</b>	<b>0.1547</b>	<b>0.2440</b>	<b>0.0000</b>	<b>421.5136</b>	<b>421.5136</b>	<b>0.1170</b>	<b>0.0000</b>	<b>424.4378</b>

#### Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	1.0740	2.7243	3.0001	4.8500e-003	0.0811	0.0484	0.1296	0.0402	0.0459	0.0861	0.0000	421.5131	421.5131	0.1170	0.0000	424.4373
<b>Maximum</b>	<b>1.0740</b>	<b>2.7243</b>	<b>3.0001</b>	<b>4.8500e-003</b>	<b>0.0811</b>	<b>0.0484</b>	<b>0.1296</b>	<b>0.0402</b>	<b>0.0459</b>	<b>0.0861</b>	<b>0.0000</b>	<b>421.5131</b>	<b>421.5131</b>	<b>0.1170</b>	<b>0.0000</b>	<b>424.4373</b>



	ROG	NOx	CO	SO2	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	14.00	18.42	-7.98	0.00	55.00	70.83	62.59	55.00	70.31	64.71	0.00	0.00	0.00	0.00	0.00	0.00

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	1-4-2021	4-3-2021	1.2168	0.9450
2	4-4-2021	7-3-2021	1.4923	1.1973
3	7-4-2021	9-30-2021	0.6145	0.4736
		Highest	1.4923	1.1973

## 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	0.3560	1.0000e-005	1.2300e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.3800e-003	2.3800e-003	1.0000e-005	0.0000	2.5400e-003
Energy	1.2700e-003	0.0116	9.7300e-003	7.0000e-005		8.8000e-004	8.8000e-004		8.8000e-004	8.8000e-004	0.0000	40.9412	40.9412	4.1500e-003	1.0400e-003	41.3552
Mobile	0.0882	0.2325	0.6824	1.9700e-003	0.1486	2.5300e-003	0.1511	0.0400	2.3900e-003	0.0424	0.0000	163.7673	163.7673	7.1900e-003	0.0000	163.9471
Stationary	7.1100e-003	0.0316	0.1266	7.8000e-004		9.8200e-003	9.8200e-003		9.8200e-003	9.8200e-003	0.0000	140.6427	140.6427	2.7000e-003	0.0000	140.7101
Waste						0.0000	0.0000		0.0000	0.0000	8.4728	0.0000	8.4728	0.5007	0.0000	20.9911
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>0.4525</b>	<b>0.2757</b>	<b>0.8200</b>	<b>2.8200e-003</b>	<b>0.1486</b>	<b>0.0132</b>	<b>0.1618</b>	<b>0.0400</b>	<b>0.0131</b>	<b>0.0531</b>	<b>8.4728</b>	<b>345.3536</b>	<b>353.8265</b>	<b>0.5148</b>	<b>1.0400e-003</b>	<b>367.0061</b>

### 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	0.3560	1.0000e-005	1.2300e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.3800e-003	2.3800e-003	1.0000e-005	0.0000	2.5400e-003
Energy	1.2700e-003	0.0116	9.7300e-003	7.0000e-005		8.8000e-004	8.8000e-004		8.8000e-004	8.8000e-004	0.0000	40.9412	40.9412	4.1500e-003	1.0400e-003	41.3552
Mobile	0.0882	0.2325	0.6824	1.9700e-003	0.1486	2.5300e-003	0.1511	0.0400	2.3900e-003	0.0424	0.0000	163.7673	163.7673	7.1900e-003	0.0000	163.9471
Stationary	7.1100e-003	0.0316	0.1266	7.8000e-004		9.8200e-003	9.8200e-003		9.8200e-003	9.8200e-003	0.0000	140.6427	140.6427	2.7000e-003	0.0000	140.7101
Waste						0.0000	0.0000		0.0000	0.0000	8.4728	0.0000	8.4728	0.5007	0.0000	20.9911
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>0.4525</b>	<b>0.2757</b>	<b>0.8200</b>	<b>2.8200e-003</b>	<b>0.1486</b>	<b>0.0132</b>	<b>0.1618</b>	<b>0.0400</b>	<b>0.0131</b>	<b>0.0531</b>	<b>8.4728</b>	<b>345.3536</b>	<b>353.8265</b>	<b>0.5148</b>	<b>1.0400e-003</b>	<b>367.0061</b>

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

### 3.0 Construction Detail

#### Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/4/2021	1/4/2021	5	1	
2	Site Preparation	Site Preparation	1/4/2021	2/12/2021	5	30	
3	Grading	Grading	2/12/2021	5/27/2021	5	75	
4	Trenching	Trenching	2/12/2021	5/27/2021	5	75	
5	Building Construction	Building Construction	2/12/2021	11/18/2021	5	200	
6	Paving	Paving	5/27/2021	6/9/2021	5	10	
7	Architectural Coating	Architectural Coating	11/18/2021	12/1/2021	5	10	

**Acres of Grading (Site Preparation Phase): 0**

**Acres of Grading (Grading Phase): 38.2**

**Acres of Paving: 0**

**Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 100,995; Non-Residential Outdoor: 33,665; Striped Parking Area:**

**OffRoad Equipment**

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	0	8.00	81	0.73
Demolition	Excavators	0	8.00	158	0.38
Demolition	Rubber Tired Dozers	0	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	1	4.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Excavators	1	8.00	158	0.38
Grading	Graders	0	8.00	187	0.41
Grading	Rubber Tired Dozers	1	4.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Skid Steer Loaders	1	8.00	65	0.37
Grading	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Trenching	Excavators	1	8.00	158	0.38
Trenching	Rubber Tired Dozers	1	4.00	247	0.40
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
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48



**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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**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	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**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
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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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

### 3.3 Site Preparation - 2021

#### Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
	Fugitive Dust					0.0452	0.0000	0.0452	0.0248	0.0000	0.0248	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0107	0.1107	0.0642	1.1000e-004		5.6700e-003	5.6700e-003		5.2200e-003	5.2200e-003	0.0000	9.7238	9.7238	3.1400e-003	0.0000	9.8024
<b>Total</b>	<b>0.0107</b>	<b>0.1107</b>	<b>0.0642</b>	<b>1.1000e-004</b>	<b>0.0452</b>	<b>5.6700e-003</b>	<b>0.0508</b>	<b>0.0248</b>	<b>5.2200e-003</b>	<b>0.0301</b>	<b>0.0000</b>	<b>9.7238</b>	<b>9.7238</b>	<b>3.1400e-003</b>	<b>0.0000</b>	<b>9.8024</b>

#### 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
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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

<b>Total</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>
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**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					0.0203	0.0000	0.0203	0.0112	0.0000	0.0112	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.7100e-003	0.0563	0.0691	1.1000e-004		4.5000e-004	4.5000e-004		4.5000e-004	4.5000e-004	0.0000	9.7238	9.7238	3.1400e-003	0.0000	9.8024
<b>Total</b>	<b>2.7100e-003</b>	<b>0.0563</b>	<b>0.0691</b>	<b>1.1000e-004</b>	<b>0.0203</b>	<b>4.5000e-004</b>	<b>0.0208</b>	<b>0.0112</b>	<b>4.5000e-004</b>	<b>0.0116</b>	<b>0.0000</b>	<b>9.7238</b>	<b>9.7238</b>	<b>3.1400e-003</b>	<b>0.0000</b>	<b>9.8024</b>

**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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**3.4 Grading - 2021**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1352	0.0000	0.1352	0.0646	0.0000	0.0646	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1008	1.1268	0.7759	1.5700e-003		0.0467	0.0467		0.0429	0.0429	0.0000	137.7749	137.7749	0.0446	0.0000	138.8889
<b>Total</b>	<b>0.1008</b>	<b>1.1268</b>	<b>0.7759</b>	<b>1.5700e-003</b>	<b>0.1352</b>	<b>0.0467</b>	<b>0.1818</b>	<b>0.0646</b>	<b>0.0429</b>	<b>0.1075</b>	<b>0.0000</b>	<b>137.7749</b>	<b>137.7749</b>	<b>0.0446</b>	<b>0.0000</b>	<b>138.8889</b>

**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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**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					0.0608	0.0000	0.0608	0.0291	0.0000	0.0291	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0803	1.0142	0.8161	1.5700e-003		0.0328	0.0328		0.0303	0.0303	0.0000	137.7748	137.7748	0.0446	0.0000	138.8887
<b>Total</b>	<b>0.0803</b>	<b>1.0142</b>	<b>0.8161</b>	<b>1.5700e-003</b>	<b>0.0608</b>	<b>0.0328</b>	<b>0.0936</b>	<b>0.0291</b>	<b>0.0303</b>	<b>0.0593</b>	<b>0.0000</b>	<b>137.7748</b>	<b>137.7748</b>	<b>0.0446</b>	<b>0.0000</b>	<b>138.8887</b>

**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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**3.5 Trenching - 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	0.0282	0.2865	0.1984	3.5000e-004		0.0139	0.0139		0.0128	0.0128	0.0000	31.0893	31.0893	0.0101	0.0000	31.3406
<b>Total</b>	<b>0.0282</b>	<b>0.2865</b>	<b>0.1984</b>	<b>3.5000e-004</b>		<b>0.0139</b>	<b>0.0139</b>		<b>0.0128</b>	<b>0.0128</b>	<b>0.0000</b>	<b>31.0893</b>	<b>31.0893</b>	<b>0.0101</b>	<b>0.0000</b>	<b>31.3406</b>

**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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**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	8.6900e-003	0.1679	0.2319	3.5000e-004		1.1000e-003	1.1000e-003		1.1000e-003	1.1000e-003	0.0000	31.0892	31.0892	0.0101	0.0000	31.3406
<b>Total</b>	<b>8.6900e-003</b>	<b>0.1679</b>	<b>0.2319</b>	<b>3.5000e-004</b>		<b>1.1000e-003</b>	<b>1.1000e-003</b>		<b>1.1000e-003</b>	<b>1.1000e-003</b>	<b>0.0000</b>	<b>31.0892</b>	<b>31.0892</b>	<b>0.0101</b>	<b>0.0000</b>	<b>31.3406</b>

**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
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<b>Total</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>
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**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	0.0674	1.4226	1.7874	2.6900e-003		0.0136	0.0136		0.0136	0.0136	0.0000	231.6370	231.6370	0.0559	0.0000	233.0341
<b>Total</b>	<b>0.0674</b>	<b>1.4226</b>	<b>1.7874</b>	<b>2.6900e-003</b>		<b>0.0136</b>	<b>0.0136</b>		<b>0.0136</b>	<b>0.0136</b>	<b>0.0000</b>	<b>231.6370</b>	<b>231.6370</b>	<b>0.0559</b>	<b>0.0000</b>	<b>233.0341</b>

**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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**3.7 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	6.2800e-003	0.0646	0.0733	1.1000e-004		3.3900e-003	3.3900e-003		3.1200e-003	3.1200e-003	0.0000	10.0117	10.0117	3.2400e-003	0.0000	10.0927
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>6.2800e-003</b>	<b>0.0646</b>	<b>0.0733</b>	<b>1.1000e-004</b>		<b>3.3900e-003</b>	<b>3.3900e-003</b>		<b>3.1200e-003</b>	<b>3.1200e-003</b>	<b>0.0000</b>	<b>10.0117</b>	<b>10.0117</b>	<b>3.2400e-003</b>	<b>0.0000</b>	<b>10.0927</b>

**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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**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	2.8000e-003	0.0565	0.0865	1.1000e-004		4.6000e-004	4.6000e-004		4.6000e-004	4.6000e-004	0.0000	10.0117	10.0117	3.2400e-003	0.0000	10.0927
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>2.8000e-003</b>	<b>0.0565</b>	<b>0.0865</b>	<b>1.1000e-004</b>		<b>4.6000e-004</b>	<b>4.6000e-004</b>		<b>4.6000e-004</b>	<b>4.6000e-004</b>	<b>0.0000</b>	<b>10.0117</b>	<b>10.0117</b>	<b>3.2400e-003</b>	<b>0.0000</b>	<b>10.0927</b>

**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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**3.8 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	0.9119					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.0900e-003	7.6300e-003	9.0900e-003	1.0000e-005		4.7000e-004	4.7000e-004		4.7000e-004	4.7000e-004	0.0000	1.2766	1.2766	9.0000e-005	0.0000	1.2788
<b>Total</b>	<b>0.9129</b>	<b>7.6300e-003</b>	<b>9.0900e-003</b>	<b>1.0000e-005</b>		<b>4.7000e-004</b>	<b>4.7000e-004</b>		<b>4.7000e-004</b>	<b>4.7000e-004</b>	<b>0.0000</b>	<b>1.2766</b>	<b>1.2766</b>	<b>9.0000e-005</b>	<b>0.0000</b>	<b>1.2788</b>

**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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**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	0.9119					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.0000e-004	6.7800e-003	9.1600e-003	1.0000e-005		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005	0.0000	1.2766	1.2766	9.0000e-005	0.0000	1.2788
<b>Total</b>	<b>0.9122</b>	<b>6.7800e-003</b>	<b>9.1600e-003</b>	<b>1.0000e-005</b>		<b>7.0000e-005</b>	<b>7.0000e-005</b>		<b>7.0000e-005</b>	<b>7.0000e-005</b>	<b>0.0000</b>	<b>1.2766</b>	<b>1.2766</b>	<b>9.0000e-005</b>	<b>0.0000</b>	<b>1.2788</b>

**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
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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
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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

#### 4.0 Operational Detail - Mobile

#### 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	0.0882	0.2325	0.6824	1.9700e-003	0.1486	2.5300e-003	0.1511	0.0400	2.3900e-003	0.0424	0.0000	163.7673	163.7673	7.1900e-003	0.0000	163.9471
Unmitigated	0.0882	0.2325	0.6824	1.9700e-003	0.1486	2.5300e-003	0.1511	0.0400	2.3900e-003	0.0424	0.0000	163.7673	163.7673	7.1900e-003	0.0000	163.9471

#### 4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	135.33	49.15	14.14	408,400	408,400
Parking Lot	0.00	0.00	0.00		
<b>Total</b>	<b>135.33</b>	<b>49.15</b>	<b>14.14</b>	<b>408,400</b>	<b>408,400</b>

#### 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-	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Light Industry	14.70	6.60	6.60	59.00	28.00	13.00	92	5	3
Parking Lot	14.70	6.60	6.60	0.00	0.00	0.00	0	0	0

#### 4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Light Industry	0.461849	0.064347	0.206426	0.150450	0.053725	0.011671	0.011264	0.029765	0.001633	0.000629	0.005857	0.001390	0.000995
Parking Lot	0.461849	0.064347	0.206426	0.150450	0.053725	0.011671	0.011264	0.029765	0.001633	0.000629	0.005857	0.001390	0.000995

#### 5.0 Energy Detail

Historical Energy Use: N

#### 5.1 Mitigation Measures Energy

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	28.3298	28.3298	3.9100e-003	8.1000e-004	28.6689
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	28.3298	28.3298	3.9100e-003	8.1000e-004	28.6689
NaturalGas Mitigated	1.2700e-003	0.0116	9.7300e-003	7.0000e-005		8.8000e-004	8.8000e-004		8.8000e-004	8.8000e-004	0.0000	12.6114	12.6114	2.4000e-004	2.3000e-004	12.6863
NaturalGas Unmitigated	1.2700e-003	0.0116	9.7300e-003	7.0000e-005		8.8000e-004	8.8000e-004		8.8000e-004	8.8000e-004	0.0000	12.6114	12.6114	2.4000e-004	2.3000e-004	12.6863

#### 5.2 Energy by Land Use - NaturalGas

##### Unmitigated

	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 Light Industry	236328	1.2700e-003	0.0116	9.7300e-003	7.0000e-005		8.8000e-004	8.8000e-004		8.8000e-004	8.8000e-004	0.0000	12.6114	12.6114	2.4000e-004	2.3000e-004	12.6863
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>1.2700e-003</b>	<b>0.0116</b>	<b>9.7300e-003</b>	<b>7.0000e-005</b>		<b>8.8000e-004</b>	<b>8.8000e-004</b>		<b>8.8000e-004</b>	<b>8.8000e-004</b>	<b>0.0000</b>	<b>12.6114</b>	<b>12.6114</b>	<b>2.4000e-004</b>	<b>2.3000e-004</b>	<b>12.6863</b>

**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 Light Industry	236328	1.2700e-003	0.0116	9.7300e-003	7.0000e-005		8.8000e-004	8.8000e-004		8.8000e-004	8.8000e-004	0.0000	12.6114	12.6114	2.4000e-004	2.3000e-004	12.6863
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>1.2700e-003</b>	<b>0.0116</b>	<b>9.7300e-003</b>	<b>7.0000e-005</b>		<b>8.8000e-004</b>	<b>8.8000e-004</b>		<b>8.8000e-004</b>	<b>8.8000e-004</b>	<b>0.0000</b>	<b>12.6114</b>	<b>12.6114</b>	<b>2.4000e-004</b>	<b>2.3000e-004</b>	<b>12.6863</b>

**5.3 Energy by Land Use - Electricity**

**Unmitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	288172	27.4497	3.7900e-003	7.8000e-004	27.7782
Parking Lot	9240	0.8802	1.2000e-004	3.0000e-005	0.8907

Total		28.3298	3.9100e-003	8.1000e-004	28.6689
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**Mitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	288172	27.4497	3.7900e-003	7.8000e-004	27.7782
Parking Lot	9240	0.8802	1.2000e-004	3.0000e-005	0.8907
<b>Total</b>		<b>28.3298</b>	<b>3.9100e-003</b>	<b>8.1000e-004</b>	<b>28.6689</b>

**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	0.3560	1.0000e-005	1.2300e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.3800e-003	2.3800e-003	1.0000e-005	0.0000	2.5400e-003
Unmitigated	0.3560	1.0000e-005	1.2300e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.3800e-003	2.3800e-003	1.0000e-005	0.0000	2.5400e-003

**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	0.0912					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.2647					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.1000e-004	1.0000e-005	1.2300e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.3800e-003	2.3800e-003	1.0000e-005	0.0000	2.5400e-003
<b>Total</b>	<b>0.3560</b>	<b>1.0000e-005</b>	<b>1.2300e-003</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>2.3800e-003</b>	<b>2.3800e-003</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>2.5400e-003</b>

## 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	0.0912					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.2647					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.1000e-004	1.0000e-005	1.2300e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.3800e-003	2.3800e-003	1.0000e-005	0.0000	2.5400e-003
<b>Total</b>	<b>0.3560</b>	<b>1.0000e-005</b>	<b>1.2300e-003</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>2.3800e-003</b>	<b>2.3800e-003</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>2.5400e-003</b>

## 7.0 Water Detail

### 7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

## 7.2 Water by Land Use

### Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

### Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			

General Light Industry	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

## 8.0 Waste Detail

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### 8.1 Mitigation Measures Waste

#### Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	8.4728	0.5007	0.0000	20.9911
Unmitigated	8.4728	0.5007	0.0000	20.9911

### 8.2 Waste by Land Use

#### Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
	tons	MT/yr			
General Light Industry	41.74	8.4728	0.5007	0.0000	20.9911
Parking Lot	0	0.0000	0.0000	0.0000	0.0000

<b>Total</b>		<b>8.4728</b>	<b>0.5007</b>	<b>0.0000</b>	<b>20.9911</b>
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**Mitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	41.74	8.4728	0.5007	0.0000	20.9911
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>8.4728</b>	<b>0.5007</b>	<b>0.0000</b>	<b>20.9911</b>

**9.0 Operational Offroad**

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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**10.0 Stationary Equipment**

**Fire Pumps and Emergency Generators**

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

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
Boiler	2	5.02	878.5	1.004	CNG
Boiler	1	5.02	878.5	1.004	CNG

**User Defined Equipment**

Equipment Type	Number
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## 10.1 Stationary Sources

### Unmitigated/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
Equipment Type	tons/yr										MT/yr					
Boiler - CNG (0 - 2 MMBTU)	7.1100e-003	0.0316	0.1266	7.8000e-004		9.8200e-003	9.8200e-003		9.8200e-003	9.8200e-003	0.0000	140.6427	140.6427	2.7000e-003	0.0000	140.7101
<b>Total</b>	<b>7.1100e-003</b>	<b>0.0316</b>	<b>0.1266</b>	<b>7.8000e-004</b>		<b>9.8200e-003</b>	<b>9.8200e-003</b>		<b>9.8200e-003</b>	<b>9.8200e-003</b>	<b>0.0000</b>	<b>140.6427</b>	<b>140.6427</b>	<b>2.7000e-003</b>	<b>0.0000</b>	<b>140.7101</b>

## 11.0 Vegetation

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Arcata Land Co. Cultivation Project - Phase2 - Humboldt County, Annual

**Arcata Land Co. Cultivation Project - Phase2  
Humboldt County, Annual**

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Unrefrigerated Warehouse-No Rail	726.53	1000sqft	16.70	726,530.00	0

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Rural	<b>Wind Speed (m/s)</b>	2.2	<b>Precipitation Freq (Days)</b>	103
<b>Climate Zone</b>	1	<b>Operational Year</b>		2022	
<b>Utility Company</b>	Pacific Gas & Electric Company				
<b>CO2 Intensity (lb/MW hr)</b>	210	<b>CH4 Intensity (lb/MW hr)</b>	0.029	<b>N2O Intensity (lb/MW hr)</b>	0.006

**1.3 User Entered Comments & Non-Default Data**

Project Characteristics - Curent Intensity Factor

Land Use - Per Phase 2, project Description = Hoop Structures

Construction Phase - Assume no demo. Site prep and grading done in Phase 1. Phase 2 is Hoop houses only, 30 work days to construct, no coatings.

Off-road Equipment -

Off-road Equipment - Per Equipment Asumptions provided, 1.5. Assume only Hoop Houses will be constructed

Off-road Equipment - No Demo

Off-road Equipment - All grading was done in Phase 1

Off-road Equipment - Paving was Phase 1

Off-road Equipment - All site prep was phase 1

Off-road Equipment - Per Equipment Assumptions Provided

Trips and VMT - No phases other than Hoop House Construction and related interior work

Demolition - No Demolition

Grading - Material Imported as Part of Phase 1. No grading in Phase 2

Architectural Coating - Sqft of hoop houses = 726,530, no coatings needed

Vehicle Trips - Based on 239 trips per day and 377,592 sq ft; info provided by the client

Vehicle Emission Factors - From EMFAC2017 for Humbolt Co 2022

Vehicle Emission Factors -

Vehicle Emission Factors -

Consumer Products - Hoop Houses would not have ROG emissions from the "General Category"

Area Coating - Hoop green houses will not operate like selected land use, no Arch Coatings

Energy Use - Calculated using info provided by client; NW Council Study

Water And Wastewater - Assume all water is used by plants, no indoor use

Solid Waste - All plant material will be composted.

Construction Off-road Equipment Mitigation - T3L3 Equipment Mitigation with Dust BMPs

Stationary Sources - Process Boilers - Per the list of operating equipment provided and Manufacturer's Specs

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	363,265.00	0.00
tblArchitecturalCoating	ConstArea_Nonresidential_Interior	1,089,795.00	0.00
tblAreaCoating	Area_Nonresidential_Exterior	363265	0
tblAreaCoating	Area_Nonresidential_Interior	1089795	0
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00

tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstructionPhase	NumDays	20.00	1.00
tblConstructionPhase	NumDays	10.00	1.00
tblConstructionPhase	NumDays	30.00	1.00
tblConstructionPhase	NumDays	300.00	63.00
tblConstructionPhase	NumDays	20.00	1.00
tblConstructionPhase	NumDays	20.00	1.00
tblConsumerProducts	ROG_EF	2.14E-05	0
tblEnergyUse	NT24E	0.00	9.29
tblEnergyUse	NT24NG	0.00	0.34
tblFleetMix	HHD	0.05	0.03
tblFleetMix	LDA	0.49	0.46
tblFleetMix	LDT1	0.05	0.06
tblFleetMix	LDT2	0.21	0.21
tblFleetMix	LHD1	0.04	0.05
tblFleetMix	LHD2	6.6740e-003	0.01
tblFleetMix	MCY	5.5530e-003	5.8566e-003
tblFleetMix	MDV	0.13	0.15
tblFleetMix	MH	8.4600e-004	9.9489e-004
tblFleetMix	MHD	0.01	0.01
tblFleetMix	OBUS	3.3980e-003	1.6326e-003
tblFleetMix	SBUS	1.5050e-003	1.3904e-003
tblFleetMix	UBUS	1.5290e-003	6.2950e-004
tblGrading	AcresOfGrading	2.00	0.00
tblLandUse	LotAcreage	16.68	16.70
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00



tblProjectCharacteristics	CO2IntensityFactor	641.35	210
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblSolidWaste	SolidWasteGenerationRate	682.94	0.50
tblStationaryBoilersUse	AnnualHeatInput	0.00	1,004.00
tblStationaryBoilersUse	AnnualHeatInput	0.00	1,004.00
tblStationaryBoilersUse	BoilerRatingValue	0.00	1.00
tblStationaryBoilersUse	BoilerRatingValue	0.00	1.00
tblStationaryBoilersUse	DailyHeatInput	0.00	5.02
tblStationaryBoilersUse	DailyHeatInput	0.00	5.02
tblStationaryBoilersUse	NumberOfEquipment	0.00	2.00
tblStationaryBoilersUse	NumberOfEquipment	0.00	1.00
tblTripsAndVMT	VendorTripNumber	119.00	0.00
tblTripsAndVMT	WorkerTripNumber	5.00	0.00
tblTripsAndVMT	WorkerTripNumber	305.00	0.00
tblTripsAndVMT	WorkerTripNumber	61.00	0.00
tblVehicleEF	HHD	0.71	0.02
tblVehicleEF	HHD	7.9030e-003	3.4340e-003
tblVehicleEF	HHD	0.25	0.00
tblVehicleEF	HHD	2.94	7.28
tblVehicleEF	HHD	0.76	0.34
tblVehicleEF	HHD	3.19	2.7810e-003
tblVehicleEF	HHD	5,022.83	1,320.66
tblVehicleEF	HHD	1,603.74	1,457.69
tblVehicleEF	HHD	7.67	0.04
tblVehicleEF	HHD	22.18	7.02
tblVehicleEF	HHD	4.24	4.07
tblVehicleEF	HHD	20.19	2.19
tblVehicleEF	HHD	0.05	4.7960e-003
tblVehicleEF	HHD	0.06	0.06
tblVehicleEF	HHD	0.03	0.04

tblVehicleEF	HHD	0.03	0.04
tblVehicleEF	HHD	1.0300e-004	1.0000e-006
tblVehicleEF	HHD	0.04	4.5890e-003
tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	8.6340e-003	8.7620e-003
tblVehicleEF	HHD	0.02	0.04
tblVehicleEF	HHD	9.5000e-005	1.0000e-006
tblVehicleEF	HHD	1.0400e-004	3.0000e-006
tblVehicleEF	HHD	8.9210e-003	2.3100e-004
tblVehicleEF	HHD	0.82	0.53
tblVehicleEF	HHD	5.8000e-005	1.0000e-006
tblVehicleEF	HHD	0.14	0.07
tblVehicleEF	HHD	1.3480e-003	2.2410e-003
tblVehicleEF	HHD	0.18	1.0000e-006
tblVehicleEF	HHD	0.05	0.01
tblVehicleEF	HHD	0.02	0.01
tblVehicleEF	HHD	1.3300e-004	0.00
tblVehicleEF	HHD	1.0400e-004	3.0000e-006
tblVehicleEF	HHD	8.9210e-003	2.3100e-004
tblVehicleEF	HHD	0.93	0.60
tblVehicleEF	HHD	5.8000e-005	1.0000e-006
tblVehicleEF	HHD	0.16	0.08
tblVehicleEF	HHD	1.3480e-003	2.2410e-003
tblVehicleEF	HHD	0.20	1.0000e-006
tblVehicleEF	LDA	7.2250e-003	3.4380e-003
tblVehicleEF	LDA	0.01	0.07
tblVehicleEF	LDA	0.77	0.77
tblVehicleEF	LDA	2.21	2.62
tblVehicleEF	LDA	253.94	263.32
tblVehicleEF	LDA	58.94	55.90

tblVehicleEF	LDA	0.09	0.06
tblVehicleEF	LDA	0.15	0.23
tblVehicleEF	LDA	2.0540e-003	1.8050e-003
tblVehicleEF	LDA	2.4540e-003	2.0550e-003
tblVehicleEF	LDA	1.9010e-003	1.6710e-003
tblVehicleEF	LDA	2.2560e-003	1.8890e-003
tblVehicleEF	LDA	0.03	0.05
tblVehicleEF	LDA	0.15	0.16
tblVehicleEF	LDA	0.03	0.04
tblVehicleEF	LDA	0.02	0.01
tblVehicleEF	LDA	0.05	0.31
tblVehicleEF	LDA	0.14	0.32
tblVehicleEF	LDA	2.5460e-003	1.5100e-004
tblVehicleEF	LDA	6.2800e-004	0.00
tblVehicleEF	LDA	0.03	0.05
tblVehicleEF	LDA	0.15	0.16
tblVehicleEF	LDA	0.03	0.04
tblVehicleEF	LDA	0.03	0.02
tblVehicleEF	LDA	0.05	0.31
tblVehicleEF	LDA	0.15	0.35
tblVehicleEF	LDT1	0.04	0.01
tblVehicleEF	LDT1	0.05	0.14
tblVehicleEF	LDT1	3.65	2.16
tblVehicleEF	LDT1	9.72	3.21
tblVehicleEF	LDT1	332.81	327.43
tblVehicleEF	LDT1	76.29	72.61
tblVehicleEF	LDT1	0.50	0.24
tblVehicleEF	LDT1	0.55	0.45
tblVehicleEF	LDT1	4.6170e-003	3.0020e-003
tblVehicleEF	LDT1	5.4720e-003	3.6710e-003

tblVehicleEF	LDT1	4.2610e-003	2.7650e-003
tblVehicleEF	LDT1	5.0340e-003	3.3760e-003
tblVehicleEF	LDT1	0.17	0.16
tblVehicleEF	LDT1	0.65	0.46
tblVehicleEF	LDT1	0.13	0.13
tblVehicleEF	LDT1	0.10	0.05
tblVehicleEF	LDT1	0.51	1.91
tblVehicleEF	LDT1	0.67	0.75
tblVehicleEF	LDT1	3.3830e-003	3.2390e-003
tblVehicleEF	LDT1	9.3600e-004	0.00
tblVehicleEF	LDT1	0.17	0.16
tblVehicleEF	LDT1	0.65	0.46
tblVehicleEF	LDT1	0.13	0.13
tblVehicleEF	LDT1	0.15	0.08
tblVehicleEF	LDT1	0.51	1.91
tblVehicleEF	LDT1	0.74	0.83
tblVehicleEF	LDT2	0.01	6.6010e-003
tblVehicleEF	LDT2	0.02	0.11
tblVehicleEF	LDT2	1.36	1.30
tblVehicleEF	LDT2	4.11	3.54
tblVehicleEF	LDT2	368.83	351.36
tblVehicleEF	LDT2	85.94	77.67
tblVehicleEF	LDT2	0.22	0.17
tblVehicleEF	LDT2	0.40	0.46
tblVehicleEF	LDT2	1.9030e-003	1.7750e-003
tblVehicleEF	LDT2	2.6000e-003	2.2280e-003
tblVehicleEF	LDT2	1.7510e-003	1.6350e-003
tblVehicleEF	LDT2	2.3910e-003	2.0490e-003
tblVehicleEF	LDT2	0.06	0.09
tblVehicleEF	LDT2	0.25	0.26



tblVehicleEF	LDT2	0.06	0.08
tblVehicleEF	LDT2	0.03	0.03
tblVehicleEF	LDT2	0.18	1.10
tblVehicleEF	LDT2	0.27	0.55
tblVehicleEF	LDT2	3.7040e-003	0.01
tblVehicleEF	LDT2	9.3100e-004	1.3400e-004
tblVehicleEF	LDT2	0.06	0.09
tblVehicleEF	LDT2	0.25	0.26
tblVehicleEF	LDT2	0.06	0.08
tblVehicleEF	LDT2	0.05	0.04
tblVehicleEF	LDT2	0.18	1.10
tblVehicleEF	LDT2	0.30	0.61
tblVehicleEF	LHD1	4.8740e-003	3.2610e-003
tblVehicleEF	LHD1	0.04	0.02
tblVehicleEF	LHD1	0.03	0.01
tblVehicleEF	LHD1	0.14	0.14
tblVehicleEF	LHD1	2.17	1.66
tblVehicleEF	LHD1	3.42	0.90
tblVehicleEF	LHD1	9.86	10.10
tblVehicleEF	LHD1	677.50	737.27
tblVehicleEF	LHD1	21.84	7.60
tblVehicleEF	LHD1	0.12	0.12
tblVehicleEF	LHD1	3.86	2.92
tblVehicleEF	LHD1	1.06	0.22
tblVehicleEF	LHD1	1.3960e-003	1.3920e-003
tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	0.04	0.03
tblVehicleEF	LHD1	1.0180e-003	2.4900e-004
tblVehicleEF	LHD1	1.3350e-003	1.3310e-003
tblVehicleEF	LHD1	2.6590e-003	2.6600e-003

tblVehicleEF	LHD1	0.03	0.03
tblVehicleEF	LHD1	9.3600e-004	2.2900e-004
tblVehicleEF	LHD1	2.1370e-003	1.7480e-003
tblVehicleEF	LHD1	0.13	0.11
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	1.0690e-003	8.7200e-004
tblVehicleEF	LHD1	0.25	0.20
tblVehicleEF	LHD1	0.62	1.02
tblVehicleEF	LHD1	0.34	0.07
tblVehicleEF	LHD1	6.6180e-003	7.1250e-003
tblVehicleEF	LHD1	2.8300e-004	7.5000e-005
tblVehicleEF	LHD1	2.1370e-003	1.7480e-003
tblVehicleEF	LHD1	0.13	0.11
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	1.0690e-003	8.7200e-004
tblVehicleEF	LHD1	0.31	0.25
tblVehicleEF	LHD1	0.62	1.02
tblVehicleEF	LHD1	0.37	0.07
tblVehicleEF	LHD2	2.7860e-003	1.8190e-003
tblVehicleEF	LHD2	0.01	8.5920e-003
tblVehicleEF	LHD2	6.8350e-003	4.8190e-003
tblVehicleEF	LHD2	0.11	0.10
tblVehicleEF	LHD2	0.94	0.87
tblVehicleEF	LHD2	0.98	0.35
tblVehicleEF	LHD2	15.92	16.37
tblVehicleEF	LHD2	704.69	730.40
tblVehicleEF	LHD2	14.45	3.94
tblVehicleEF	LHD2	0.15	0.16
tblVehicleEF	LHD2	2.28	1.86
tblVehicleEF	LHD2	0.44	0.10

tblVehicleEF	LHD2	1.6660e-003	1.8140e-003
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	0.03	0.03
tblVehicleEF	LHD2	2.5000e-004	7.0000e-005
tblVehicleEF	LHD2	1.5940e-003	1.7350e-003
tblVehicleEF	LHD2	2.8050e-003	2.8460e-003
tblVehicleEF	LHD2	0.03	0.03
tblVehicleEF	LHD2	2.3000e-004	6.5000e-005
tblVehicleEF	LHD2	5.1900e-004	5.0600e-004
tblVehicleEF	LHD2	0.03	0.03
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	2.8400e-004	2.6400e-004
tblVehicleEF	LHD2	0.16	0.15
tblVehicleEF	LHD2	0.10	0.26
tblVehicleEF	LHD2	0.09	0.02
tblVehicleEF	LHD2	1.5400e-004	1.5500e-004
tblVehicleEF	LHD2	6.8100e-003	6.9850e-003
tblVehicleEF	LHD2	1.6300e-004	3.9000e-005
tblVehicleEF	LHD2	5.1900e-004	5.0600e-004
tblVehicleEF	LHD2	0.03	0.03
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	2.8400e-004	2.6400e-004
tblVehicleEF	LHD2	0.19	0.18
tblVehicleEF	LHD2	0.10	0.26
tblVehicleEF	LHD2	0.10	0.03
tblVehicleEF	MCY	0.42	0.35
tblVehicleEF	MCY	0.19	0.29
tblVehicleEF	MCY	24.20	23.43
tblVehicleEF	MCY	10.74	9.55
tblVehicleEF	MCY	164.72	215.60

tblVehicleEF	MCY	49.91	66.28
tblVehicleEF	MCY	1.25	1.24
tblVehicleEF	MCY	0.34	0.28
tblVehicleEF	MCY	1.9640e-003	1.9020e-003
tblVehicleEF	MCY	4.8830e-003	3.7820e-003
tblVehicleEF	MCY	1.8500e-003	1.7880e-003
tblVehicleEF	MCY	4.6350e-003	3.5830e-003
tblVehicleEF	MCY	0.70	1.33
tblVehicleEF	MCY	1.03	0.94
tblVehicleEF	MCY	0.43	0.80
tblVehicleEF	MCY	2.56	2.51
tblVehicleEF	MCY	1.25	2.92
tblVehicleEF	MCY	2.62	2.29
tblVehicleEF	MCY	2.1140e-003	2.1340e-003
tblVehicleEF	MCY	7.5300e-004	6.5600e-004
tblVehicleEF	MCY	0.70	1.33
tblVehicleEF	MCY	1.03	0.94
tblVehicleEF	MCY	0.43	0.80
tblVehicleEF	MCY	3.07	3.02
tblVehicleEF	MCY	1.25	2.92
tblVehicleEF	MCY	2.85	2.49
tblVehicleEF	MDV	0.02	6.3920e-003
tblVehicleEF	MDV	0.04	0.12
tblVehicleEF	MDV	2.04	1.22
tblVehicleEF	MDV	7.57	4.27
tblVehicleEF	MDV	492.76	424.31
tblVehicleEF	MDV	113.18	91.66
tblVehicleEF	MDV	0.40	0.16
tblVehicleEF	MDV	0.76	0.50
tblVehicleEF	MDV	2.2220e-003	1.8530e-003

tblVehicleEF	MDV	3.2370e-003	2.4820e-003
tblVehicleEF	MDV	2.0520e-003	1.7150e-003
tblVehicleEF	MDV	2.9770e-003	2.2830e-003
tblVehicleEF	MDV	0.09	0.09
tblVehicleEF	MDV	0.37	0.27
tblVehicleEF	MDV	0.08	0.09
tblVehicleEF	MDV	0.06	0.03
tblVehicleEF	MDV	0.29	1.11
tblVehicleEF	MDV	0.57	0.64
tblVehicleEF	MDV	4.9490e-003	4.1650e-003
tblVehicleEF	MDV	1.2670e-003	9.0100e-004
tblVehicleEF	MDV	0.09	0.09
tblVehicleEF	MDV	0.37	0.27
tblVehicleEF	MDV	0.08	0.09
tblVehicleEF	MDV	0.09	0.04
tblVehicleEF	MDV	0.29	1.11
tblVehicleEF	MDV	0.62	0.70
tblVehicleEF	MH	0.13	0.02
tblVehicleEF	MH	0.06	0.03
tblVehicleEF	MH	8.83	3.07
tblVehicleEF	MH	13.45	2.73
tblVehicleEF	MH	1,238.23	1,579.01
tblVehicleEF	MH	59.34	19.28
tblVehicleEF	MH	3.02	2.62
tblVehicleEF	MH	1.82	0.23
tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	0.05	0.05
tblVehicleEF	MH	2.0900e-003	3.7000e-004
tblVehicleEF	MH	3.2380e-003	3.3230e-003
tblVehicleEF	MH	0.05	0.05

tblVehicleEF	MH	1.9220e-003	3.4100e-004
tblVehicleEF	MH	1.27	0.87
tblVehicleEF	MH	0.16	0.11
tblVehicleEF	MH	0.44	0.31
tblVehicleEF	MH	0.35	0.16
tblVehicleEF	MH	0.06	3.24
tblVehicleEF	MH	0.77	0.12
tblVehicleEF	MH	0.01	0.02
tblVehicleEF	MH	8.2900e-004	1.9100e-004
tblVehicleEF	MH	1.27	0.87
tblVehicleEF	MH	0.16	0.11
tblVehicleEF	MH	0.44	0.31
tblVehicleEF	MH	0.50	0.22
tblVehicleEF	MH	0.06	3.24
tblVehicleEF	MH	0.85	0.13
tblVehicleEF	MHD	0.02	4.5020e-003
tblVehicleEF	MHD	0.01	7.9310e-003
tblVehicleEF	MHD	0.10	0.01
tblVehicleEF	MHD	0.53	0.43
tblVehicleEF	MHD	0.74	0.74
tblVehicleEF	MHD	9.90	1.91
tblVehicleEF	MHD	159.35	75.71
tblVehicleEF	MHD	1,224.87	1,191.74
tblVehicleEF	MHD	53.09	13.54
tblVehicleEF	MHD	0.97	0.66
tblVehicleEF	MHD	2.57	2.77
tblVehicleEF	MHD	12.59	1.13
tblVehicleEF	MHD	8.0550e-003	1.6500e-003
tblVehicleEF	MHD	0.02	0.04
tblVehicleEF	MHD	1.1580e-003	2.2400e-004

tblVehicleEF	MHD	7.7070e-003	1.5790e-003
tblVehicleEF	MHD	0.02	0.04
tblVehicleEF	MHD	1.0650e-003	2.0600e-004
tblVehicleEF	MHD	1.1540e-003	7.3600e-004
tblVehicleEF	MHD	0.08	0.05
tblVehicleEF	MHD	0.05	0.02
tblVehicleEF	MHD	5.9800e-004	3.7700e-004
tblVehicleEF	MHD	0.11	0.11
tblVehicleEF	MHD	0.07	0.39
tblVehicleEF	MHD	0.64	0.09
tblVehicleEF	MHD	1.5320e-003	7.1900e-004
tblVehicleEF	MHD	0.01	0.01
tblVehicleEF	MHD	7.0600e-004	1.3400e-004
tblVehicleEF	MHD	1.1540e-003	7.3600e-004
tblVehicleEF	MHD	0.08	0.05
tblVehicleEF	MHD	0.07	0.03
tblVehicleEF	MHD	5.9800e-004	3.7700e-004
tblVehicleEF	MHD	0.13	0.13
tblVehicleEF	MHD	0.07	0.39
tblVehicleEF	MHD	0.70	0.09
tblVehicleEF	OBUS	0.02	7.6730e-003
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	0.05	0.03
tblVehicleEF	OBUS	0.31	0.55
tblVehicleEF	OBUS	0.74	1.20
tblVehicleEF	OBUS	8.69	3.02
tblVehicleEF	OBUS	170.92	87.93
tblVehicleEF	OBUS	1,296.14	1,405.82
tblVehicleEF	OBUS	61.10	19.95
tblVehicleEF	OBUS	0.78	0.42

tblVehicleEF	OBUS	1.95	1.81
tblVehicleEF	OBUS	5.56	0.86
tblVehicleEF	OBUS	1.6600e-004	7.2000e-004
tblVehicleEF	OBUS	7.3830e-003	0.02
tblVehicleEF	OBUS	6.7000e-004	1.9600e-004
tblVehicleEF	OBUS	1.5800e-004	6.8900e-004
tblVehicleEF	OBUS	7.0550e-003	0.02
tblVehicleEF	OBUS	6.1600e-004	1.8100e-004
tblVehicleEF	OBUS	1.3560e-003	1.6890e-003
tblVehicleEF	OBUS	0.03	0.04
tblVehicleEF	OBUS	0.05	0.05
tblVehicleEF	OBUS	6.2100e-004	7.3300e-004
tblVehicleEF	OBUS	0.09	0.09
tblVehicleEF	OBUS	0.06	0.63
tblVehicleEF	OBUS	0.56	0.14
tblVehicleEF	OBUS	1.6420e-003	8.3700e-004
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	7.6500e-004	1.9700e-004
tblVehicleEF	OBUS	1.3560e-003	1.6890e-003
tblVehicleEF	OBUS	0.03	0.04
tblVehicleEF	OBUS	0.06	0.07
tblVehicleEF	OBUS	6.2100e-004	7.3300e-004
tblVehicleEF	OBUS	0.10	0.11
tblVehicleEF	OBUS	0.06	0.63
tblVehicleEF	OBUS	0.61	0.16
tblVehicleEF	SBUS	1.01	0.01
tblVehicleEF	SBUS	9.8520e-003	0.01
tblVehicleEF	SBUS	0.10	2.1640e-003
tblVehicleEF	SBUS	4.09	0.85
tblVehicleEF	SBUS	0.58	0.90



tblVehicleEF	SBUS	4.30	0.39
tblVehicleEF	SBUS	1,374.41	328.70
tblVehicleEF	SBUS	1,204.46	1,138.41
tblVehicleEF	SBUS	22.44	1.32
tblVehicleEF	SBUS	13.96	3.85
tblVehicleEF	SBUS	5.54	7.46
tblVehicleEF	SBUS	17.49	0.65
tblVehicleEF	SBUS	0.01	5.1270e-003
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	0.03	0.04
tblVehicleEF	SBUS	2.1800e-004	1.9000e-005
tblVehicleEF	SBUS	0.01	4.9050e-003
tblVehicleEF	SBUS	2.8590e-003	2.9190e-003
tblVehicleEF	SBUS	0.03	0.04
tblVehicleEF	SBUS	2.0000e-004	1.7000e-005
tblVehicleEF	SBUS	1.4580e-003	2.2900e-004
tblVehicleEF	SBUS	0.02	4.3900e-003
tblVehicleEF	SBUS	0.51	0.08
tblVehicleEF	SBUS	6.3900e-004	9.2000e-005
tblVehicleEF	SBUS	0.12	0.14
tblVehicleEF	SBUS	0.01	0.03
tblVehicleEF	SBUS	0.23	0.01
tblVehicleEF	SBUS	0.01	3.1110e-003
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	2.9900e-004	1.3000e-005
tblVehicleEF	SBUS	1.4580e-003	2.2900e-004
tblVehicleEF	SBUS	0.02	4.3900e-003
tblVehicleEF	SBUS	0.72	0.10
tblVehicleEF	SBUS	6.3900e-004	9.2000e-005
tblVehicleEF	SBUS	0.14	0.16

tblVehicleEF	SBUS	0.01	0.03
tblVehicleEF	SBUS	0.26	0.01
tblVehicleEF	UBUS	0.13	2.84
tblVehicleEF	UBUS	0.08	0.02
tblVehicleEF	UBUS	4.51	21.64
tblVehicleEF	UBUS	14.09	1.13
tblVehicleEF	UBUS	2,046.25	1,708.44
tblVehicleEF	UBUS	137.44	11.78
tblVehicleEF	UBUS	7.17	0.66
tblVehicleEF	UBUS	13.66	0.12
tblVehicleEF	UBUS	0.53	0.09
tblVehicleEF	UBUS	0.01	0.03
tblVehicleEF	UBUS	0.13	3.8290e-003
tblVehicleEF	UBUS	8.3200e-004	6.1000e-005
tblVehicleEF	UBUS	0.23	0.04
tblVehicleEF	UBUS	3.0000e-003	6.3580e-003
tblVehicleEF	UBUS	0.12	3.6570e-003
tblVehicleEF	UBUS	7.6500e-004	5.7000e-005
tblVehicleEF	UBUS	3.5000e-003	5.6700e-004
tblVehicleEF	UBUS	0.08	0.01
tblVehicleEF	UBUS	2.0260e-003	3.6000e-004
tblVehicleEF	UBUS	0.44	0.04
tblVehicleEF	UBUS	0.02	0.08
tblVehicleEF	UBUS	1.13	0.07
tblVehicleEF	UBUS	0.02	7.5040e-003
tblVehicleEF	UBUS	1.6300e-003	1.1700e-004
tblVehicleEF	UBUS	3.5000e-003	5.6700e-004
tblVehicleEF	UBUS	0.08	0.01
tblVehicleEF	UBUS	2.0260e-003	3.6000e-004
tblVehicleEF	UBUS	0.61	2.90

tblVehicleEF	UBUS	0.02	0.08
tblVehicleEF	UBUS	1.23	0.08
tblVehicleTrips	ST_TR	1.68	0.07
tblVehicleTrips	SU_TR	1.68	0.02
tblVehicleTrips	WD_TR	1.68	0.19
tblWater	AerobicPercent	87.46	0.00
tblWater	AnaDigestCombDigestGasPercent	100.00	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	IndoorWaterUseRate	168,010,062.50	0.00
tblWater	SepticTankPercent	10.33	100.00

## 2.0 Emissions Summary

### 2.1 Overall Construction

#### Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	0.0155	0.1456	0.1643	2.8000e-004	0.0000	7.7100e-003	7.7100e-003	0.0000	7.5200e-003	7.5200e-003	0.0000	24.2389	24.2389	2.9600e-003	0.0000	24.3129
Maximum	0.0155	0.1456	0.1643	2.8000e-004	0.0000	7.7100e-003	7.7100e-003	0.0000	7.5200e-003	7.5200e-003	0.0000	24.2389	24.2389	2.9600e-003	0.0000	24.3129

#### Mitigated Construction

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

Year	tons/yr										MT/yr					
2021	6.5000e-003	0.1379	0.1787	2.8000e-004	0.0000	1.7500e-003	1.7500e-003	0.0000	1.7200e-003	1.7200e-003	0.0000	24.2389	24.2389	2.9600e-003	0.0000	24.3128
<b>Maximum</b>	<b>6.5000e-003</b>	<b>0.1379</b>	<b>0.1787</b>	<b>2.8000e-004</b>	<b>0.0000</b>	<b>1.7500e-003</b>	<b>1.7500e-003</b>	<b>0.0000</b>	<b>1.7200e-003</b>	<b>1.7200e-003</b>	<b>0.0000</b>	<b>24.2389</b>	<b>24.2389</b>	<b>2.9600e-003</b>	<b>0.0000</b>	<b>24.3128</b>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
<b>Percent Reduction</b>	<b>58.12</b>	<b>5.30</b>	<b>-8.79</b>	<b>0.00</b>	<b>0.00</b>	<b>77.30</b>	<b>77.30</b>	<b>0.00</b>	<b>77.13</b>	<b>77.13</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
		<b>Highest</b>		

## 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
<b>Category</b>	<b>tons/yr</b>										<b>MT/yr</b>					
Area	6.2000e-004	6.0000e-005	6.6900e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.0130	0.0130	3.0000e-005	0.0000	0.0138
Energy	1.3300e-003	0.0121	0.0102	7.0000e-005		9.2000e-004	9.2000e-004		9.2000e-004	9.2000e-004	0.0000	656.1491	656.1491	0.0890	0.0186	663.9216
Mobile	0.0900	0.2374	0.6969	2.0100e-003	0.1517	2.5800e-003	0.1543	0.0408	2.4400e-003	0.0433	0.0000	167.2275	167.2275	7.3500e-003	0.0000	167.4112
Stationary	8.1200e-003	0.0361	0.1447	8.9000e-004		0.0112	0.0112		0.0112	0.0112	0.0000	160.7345	160.7345	3.0800e-003	0.0000	160.8116
Waste						0.0000	0.0000		0.0000	0.0000	0.1015	0.0000	0.1015	6.0000e-003	0.0000	0.2515
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>0.1001</b>	<b>0.2858</b>	<b>0.8584</b>	<b>2.9700e-003</b>	<b>0.1517</b>	<b>0.0147</b>	<b>0.1665</b>	<b>0.0408</b>	<b>0.0146</b>	<b>0.0554</b>	<b>0.1015</b>	<b>984.1241</b>	<b>984.2256</b>	<b>0.1055</b>	<b>0.0186</b>	<b>992.4096</b>

**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	6.2000e-004	6.0000e-005	6.6900e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.0130	0.0130	3.0000e-005	0.0000	0.0138
Energy	1.3300e-003	0.0121	0.0102	7.0000e-005		9.2000e-004	9.2000e-004		9.2000e-004	9.2000e-004	0.0000	656.1491	656.1491	0.0890	0.0186	663.9216
Mobile	0.0900	0.2374	0.6969	2.0100e-003	0.1517	2.5800e-003	0.1543	0.0408	2.4400e-003	0.0433	0.0000	167.2275	167.2275	7.3500e-003	0.0000	167.4112
Stationary	8.1200e-003	0.0361	0.1447	8.9000e-004		0.0112	0.0112		0.0112	0.0112	0.0000	160.7345	160.7345	3.0800e-003	0.0000	160.8116
Waste						0.0000	0.0000		0.0000	0.0000	0.1015	0.0000	0.1015	6.0000e-003	0.0000	0.2515
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>0.1001</b>	<b>0.2858</b>	<b>0.8584</b>	<b>2.9700e-003</b>	<b>0.1517</b>	<b>0.0147</b>	<b>0.1665</b>	<b>0.0408</b>	<b>0.0146</b>	<b>0.0554</b>	<b>0.1015</b>	<b>984.1241</b>	<b>984.2256</b>	<b>0.1055</b>	<b>0.0186</b>	<b>992.4096</b>

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

**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	9/1/2021	9/1/2021	5	1	
2	Site Preparation	Site Preparation	9/1/2021	9/1/2021	5	1	
3	Grading	Grading	9/1/2021	9/1/2021	5	1	
4	Building Construction	Building Construction	9/1/2021	11/26/2021	5	63	
5	Paving	Paving	9/1/2021	9/1/2021	5	1	
6	Architectural Coating	Architectural Coating	11/26/2021	11/26/2021	5	1	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

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

**OffRoad Equipment**

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	0	0.00	81	0.73
Demolition	Excavators	0	0.00	158	0.38
Demolition	Rubber Tired Dozers	0	0.00	247	0.40
Site Preparation	Rubber Tired Dozers	0	0.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	0	0.00	97	0.37
Grading	Excavators	0	0.00	158	0.38
Grading	Graders	0	0.00	187	0.41
Grading	Rubber Tired Dozers	0	0.00	247	0.40
Grading	Tractors/Loaders/Backhoes	0	0.00	97	0.37
Building Construction	Cranes	0	0.00	231	0.29
Building Construction	Forklifts	1	4.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Skid Steer Loaders	1	4.00	65	0.37
Building Construction	Tractors/Loaders/Backhoes	0	0.00	97	0.37
Building Construction	Welders	0	0.00	46	0.45
Paving	Cement and Mortar Mixers	0	0.00	9	0.56
Paving	Pavers	0	0.00	130	0.42
Paving	Paving Equipment	0	0.00	132	0.36
Paving	Rollers	0	0.00	80	0.38
Paving	Tractors/Loaders/Backhoes	0	0.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48
Grading	Scrapers	2	8.00	367	0.48

**Trips and VMT**

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	0	0.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	0	0.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Grading	2	0.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	3	0.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Paving	0	0.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	0.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT

**3.1 Mitigation Measures Construction**

- Use Cleaner Engines for Construction Equipment
- Use DPF for Construction Equipment
- Water Exposed Area
- Reduce Vehicle Speed on Unpaved Roads

**3.2 Demolition - 2021**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**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	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**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					





**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					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**3.4 Grading - 2021**

**Unmitigated Construction On-Site**



Off-Road	9.3000e-004	0.0107	7.0000e-003	2.0000e-005		4.2000e-004	4.2000e-004		3.8000e-004	3.8000e-004	0.0000	1.3317	1.3317	4.3000e-004	0.0000	1.3424
<b>Total</b>	<b>9.3000e-004</b>	<b>0.0107</b>	<b>7.0000e-003</b>	<b>2.0000e-005</b>	<b>0.0000</b>	<b>4.2000e-004</b>	<b>4.2000e-004</b>	<b>0.0000</b>	<b>3.8000e-004</b>	<b>3.8000e-004</b>	<b>0.0000</b>	<b>1.3317</b>	<b>1.3317</b>	<b>4.3000e-004</b>	<b>0.0000</b>	<b>1.3424</b>

**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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**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	0.0145	0.1341	0.1564	2.6000e-004		7.2500e-003	7.2500e-003		7.0900e-003	7.0900e-003	0.0000	22.7796	22.7796	2.5200e-003	0.0000	22.8425
<b>Total</b>	<b>0.0145</b>	<b>0.1341</b>	<b>0.1564</b>	<b>2.6000e-004</b>		<b>7.2500e-003</b>	<b>7.2500e-003</b>		<b>7.0900e-003</b>	<b>7.0900e-003</b>	<b>0.0000</b>	<b>22.7796</b>	<b>22.7796</b>	<b>2.5200e-003</b>	<b>0.0000</b>	<b>22.8425</b>

**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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**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	5.5400e-003	0.1265	0.1708	2.6000e-004		1.3300e-003	1.3300e-003		1.3300e-003	1.3300e-003	0.0000	22.7796	22.7796	2.5200e-003	0.0000	22.8425
<b>Total</b>	<b>5.5400e-003</b>	<b>0.1265</b>	<b>0.1708</b>	<b>2.6000e-004</b>		<b>1.3300e-003</b>	<b>1.3300e-003</b>		<b>1.3300e-003</b>	<b>1.3300e-003</b>	<b>0.0000</b>	<b>22.7796</b>	<b>22.7796</b>	<b>2.5200e-003</b>	<b>0.0000</b>	<b>22.8425</b>

**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					



**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	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**3.7 Architectural Coating - 2021**

**Unmitigated Construction On-Site**





Off-Road	3.0000e-005	6.8000e-004	9.2000e-004	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	0.1277	0.1277	1.0000e-005	0.0000	0.1279
<b>Total</b>	<b>3.0000e-005</b>	<b>6.8000e-004</b>	<b>9.2000e-004</b>	<b>0.0000</b>		<b>1.0000e-005</b>	<b>1.0000e-005</b>		<b>1.0000e-005</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>0.1277</b>	<b>0.1277</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>0.1279</b>

### 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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

## 4.0 Operational Detail - Mobile

### 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	0.0900	0.2374	0.6969	2.0100e-003	0.1517	2.5800e-003	0.1543	0.0408	2.4400e-003	0.0433	0.0000	167.2275	167.2275	7.3500e-003	0.0000	167.4112
Unmitigated	0.0900	0.2374	0.6969	2.0100e-003	0.1517	2.5800e-003	0.1543	0.0408	2.4400e-003	0.0433	0.0000	167.2275	167.2275	7.3500e-003	0.0000	167.4112

## 4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Unrefrigerated Warehouse-No Rail	138.04	50.86	14.53	417,029	417,029
Total	138.04	50.86	14.53	417,029	417,029

## 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-	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Unrefrigerated Warehouse-No Rail	14.70	6.60	6.60	59.00	0.00	41.00	92	5	3

## 4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Unrefrigerated Warehouse-No Rail	0.461849	0.064347	0.206426	0.150450	0.053725	0.011671	0.011264	0.029765	0.001633	0.000629	0.005857	0.001390	0.000995

## 5.0 Energy Detail

Historical Energy Use: N

## 5.1 Mitigation Measures Energy

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	642.9672	642.9672	0.0888	0.0184	650.6614
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	642.9672	642.9672	0.0888	0.0184	650.6614

NaturalGas Mitigated	1.3300e-003	0.0121	0.0102	7.0000e-005		9.2000e-004	9.2000e-004		9.2000e-004	9.2000e-004	0.0000	13.1819	13.1819	2.5000e-004	2.4000e-004	13.2603
NaturalGas Unmitigated	1.3300e-003	0.0121	0.0102	7.0000e-005		9.2000e-004	9.2000e-004		9.2000e-004	9.2000e-004	0.0000	13.1819	13.1819	2.5000e-004	2.4000e-004	13.2603

## 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					
Unrefrigerated Warehouse-No	247020	1.3300e-003	0.0121	0.0102	7.0000e-005		9.2000e-004	9.2000e-004		9.2000e-004	9.2000e-004	0.0000	13.1819	13.1819	2.5000e-004	2.4000e-004	13.2603
<b>Total</b>		<b>1.3300e-003</b>	<b>0.0121</b>	<b>0.0102</b>	<b>7.0000e-005</b>		<b>9.2000e-004</b>	<b>9.2000e-004</b>		<b>9.2000e-004</b>	<b>9.2000e-004</b>	<b>0.0000</b>	<b>13.1819</b>	<b>13.1819</b>	<b>2.5000e-004</b>	<b>2.4000e-004</b>	<b>13.2603</b>

### 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/yr	tons/yr										MT/yr					
Unrefrigerated Warehouse-No	247020	1.3300e-003	0.0121	0.0102	7.0000e-005		9.2000e-004	9.2000e-004		9.2000e-004	9.2000e-004	0.0000	13.1819	13.1819	2.5000e-004	2.4000e-004	13.2603
<b>Total</b>		<b>1.3300e-003</b>	<b>0.0121</b>	<b>0.0102</b>	<b>7.0000e-005</b>		<b>9.2000e-004</b>	<b>9.2000e-004</b>		<b>9.2000e-004</b>	<b>9.2000e-004</b>	<b>0.0000</b>	<b>13.1819</b>	<b>13.1819</b>	<b>2.5000e-004</b>	<b>2.4000e-004</b>	<b>13.2603</b>

## 5.3 Energy by Land Use - Electricity

### Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Unrefrigerated Warehouse-No	6.75e+006	642.9672	0.0888	0.0184	650.6614
<b>Total</b>		<b>642.9672</b>	<b>0.0888</b>	<b>0.0184</b>	<b>650.6614</b>

**Mitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Unrefrigerated Warehouse-No	6.75e+006	642.9672	0.0888	0.0184	650.6614
<b>Total</b>		<b>642.9672</b>	<b>0.0888</b>	<b>0.0184</b>	<b>650.6614</b>

**6.0 Area Detail**

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**6.1 Mitigation Measures Area**



Landscaping	6.2000e-004	6.0000e-005	6.6900e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.0130	0.0130	3.0000e-005	0.0000	0.0138
<b>Total</b>	<b>6.2000e-004</b>	<b>6.0000e-005</b>	<b>6.6900e-003</b>	<b>0.0000</b>		<b>2.0000e-005</b>	<b>2.0000e-005</b>		<b>2.0000e-005</b>	<b>2.0000e-005</b>	<b>0.0000</b>	<b>0.0130</b>	<b>0.0130</b>	<b>3.0000e-005</b>	<b>0.0000</b>	<b>0.0138</b>

## 7.0 Water Detail

### 7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

### 7.2 Water by Land Use

#### Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Unrefrigerated Warehouse-No	0 / 0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

## Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Unrefrigerated Warehouse-No	0 / 0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

## 8.0 Waste Detail

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### 8.1 Mitigation Measures Waste

#### Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.1015	6.0000e-003	0.0000	0.2515
Unmitigated	0.1015	6.0000e-003	0.0000	0.2515

### 8.2 Waste by Land Use

#### Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Unrefrigerated Warehouse-No	0.5	0.1015	6.0000e-003	0.0000	0.2515
<b>Total</b>		<b>0.1015</b>	<b>6.0000e-003</b>	<b>0.0000</b>	<b>0.2515</b>

### Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Unrefrigerated Warehouse-No	0.5	0.1015	6.0000e-003	0.0000	0.2515
<b>Total</b>		<b>0.1015</b>	<b>6.0000e-003</b>	<b>0.0000</b>	<b>0.2515</b>

## 9.0 Operational Offroad

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Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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## 10.0 Stationary Equipment

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### Fire Pumps and Emergency Generators

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

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
Boiler	2	5.02	1004	1.004	CNG
Boiler	1	5.02	1004	1.004	CNG

**User Defined Equipment**

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

**10.1 Stationary Sources**

**Unmitigated/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
Equipment Type	tons/yr										MT/yr					
Boiler - CNG (0 - 2 MMBTU)	8.1200e-003	0.0361	0.1447	8.9000e-004		0.0112	0.0112		0.0112	0.0112	0.0000	160.7345	160.7345	3.0800e-003	0.0000	160.8116
<b>Total</b>	<b>8.1200e-003</b>	<b>0.0361</b>	<b>0.1447</b>	<b>8.9000e-004</b>		<b>0.0112</b>	<b>0.0112</b>		<b>0.0112</b>	<b>0.0112</b>	<b>0.0000</b>	<b>160.7345</b>	<b>160.7345</b>	<b>3.0800e-003</b>	<b>0.0000</b>	<b>160.8116</b>

**11.0 Vegetation**

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Arcata Land Co. Cultivation Project - Phase1 - Humboldt County, Annual

**Arcata Land Co. Cultivation Project - Phase1  
Humboldt County, Annual**

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	67.33	1000sqft	38.20	67,330.00	0
Parking Lot	66.00	Space	0.00	22,725.00	0

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Rural	<b>Wind Speed (m/s)</b>	2.2	<b>Precipitation Freq (Days)</b>	103
<b>Climate Zone</b>	1			<b>Operational Year</b>	2030
<b>Utility Company</b>	Pacific Gas & Electric Company				
<b>CO2 Intensity (lb/MWhr)</b>	210	<b>CH4 Intensity (lb/MWhr)</b>	0.029	<b>N2O Intensity (lb/MWhr)</b>	0.006

**1.3 User Entered Comments & Non-Default Data**

Project Characteristics - Curent Intensity Factor

Land Use - Phase 1 = New Admin Buildings and infrastructure

Construction Phase - Based on CalEEMod defaults for buildings (67,332 sf) and site (38.2 ac). Assume no demo given existing greenhouse structures will be used and the remaining land is undeveloped

Off-road Equipment - CalEEMod Default

Off-road Equipment - CalEEMod Default

Off-road Equipment - No Demo

Off-road Equipment - Per Equipment Input Assumptions Provided

Off-road Equipment - CalEEMod Default

Off-road Equipment - Dumptrucks included in Haul trips

Off-road Equipment - Per Equipment Assumptions Provided

Trips and VMT - Based on 90,000 CY sand sourced 1 mile from site. Concrete and asphalt = vendor trips w/ amounts based off of plans provided

Demolition - No Demolition

Grading - Per project description, 90,000 CY of sand to elevate and prep the ground

Architectural Coating - Size of Parking area

Vehicle Trips - Based on 135 trips per day (232\*(7/12)) and 67,332 building sq ft; infor provided by the client

Vehicle Emission Factors - From EMFAC2017 for Humbolt Co 2030

Vehicle Emission Factors -

Vehicle Emission Factors -

Area Coating - sq ft of parking lot

Energy Use -

Water And Wastewater - The project will have it's own leach fields for SS, water supplied by on-site well with pupm included in energy use

Construction Off-road Equipment Mitigation - T3L3 Equipment Mitigation with Dust BMPs

Stationary Sources - Process Boilers - Per the list of operating equipment provided and Manufacturer's Specs

Solid Waste - Assume half of GLI default

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Parking	1,364.00	22,725.00
tblAreaCoating	Area_Parking	1364	22725
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	55.00	10.00
tblConstructionPhase	NumDays	740.00	200.00
tblConstructionPhase	NumDays	50.00	1.00
tblConstructionPhase	NumDays	55.00	10.00
tblFleetMix	HHD	0.05	0.03
tblFleetMix	HHD	0.05	0.03
tblFleetMix	LDA	0.54	0.53
tblFleetMix	LDA	0.54	0.53
tblFleetMix	LDT1	0.03	0.06
tblFleetMix	LDT1	0.03	0.06

tblFleetMix	LDT2	0.21	0.20
tblFleetMix	LDT2	0.21	0.20
tblFleetMix	LHD1	0.02	0.03
tblFleetMix	LHD1	0.02	0.03
tblFleetMix	LHD2	3.7140e-003	7.5690e-003
tblFleetMix	LHD2	3.7140e-003	7.5690e-003
tblFleetMix	MCY	4.4000e-003	4.7070e-003
tblFleetMix	MCY	4.4000e-003	4.7070e-003
tblFleetMix	MDV	0.12	0.13
tblFleetMix	MDV	0.12	0.13
tblFleetMix	MH	4.6600e-004	6.8300e-004
tblFleetMix	MH	4.6600e-004	6.8300e-004
tblFleetMix	MHD	0.01	9.0980e-003
tblFleetMix	MHD	0.01	9.0980e-003
tblFleetMix	OBUS	3.9810e-003	1.8970e-003
tblFleetMix	OBUS	3.9810e-003	1.8970e-003
tblFleetMix	SBUS	1.4210e-003	1.3340e-003
tblFleetMix	SBUS	1.4210e-003	1.3340e-003
tblFleetMix	UBUS	1.0170e-003	6.2500e-004
tblFleetMix	UBUS	1.0170e-003	6.2500e-004
tblGrading	AcresOfGrading	150.00	0.00
tblLandUse	LandUseSquareFeet	26,400.00	22,725.00
tblLandUse	LotAcreage	1.55	38.20
tblLandUse	LotAcreage	0.59	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	UsageHours	8.00	4.00
tblOffRoadEquipment	UsageHours	8.00	4.00
tblProjectCharacteristics	CO2IntensityFactor	641.35	210
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblSolidWaste	SolidWasteGenerationRate	83.49	41.74
tblStationaryBoilersUse	AnnualHeatInput	0.00	878.50
tblStationaryBoilersUse	AnnualHeatInput	0.00	878.50
tblStationaryBoilersUse	BoilerRatingValue	0.00	1.00
tblStationaryBoilersUse	BoilerRatingValue	0.00	1.00
tblStationaryBoilersUse	DailyHeatInput	0.00	5.02
tblStationaryBoilersUse	DailyHeatInput	0.00	5.02
tblStationaryBoilersUse	NumberOfEquipment	0.00	2.00
tblStationaryBoilersUse	NumberOfEquipment	0.00	1.00
tblTripsAndVMT	VendorTripNumber	15.00	0.00
tblTripsAndVMT	WorkerTripNumber	5.00	0.00
tblTripsAndVMT	WorkerTripNumber	13.00	0.00
tblTripsAndVMT	WorkerTripNumber	5.00	0.00
tblTripsAndVMT	WorkerTripNumber	38.00	0.00
tblTripsAndVMT	WorkerTripNumber	15.00	0.00
tblTripsAndVMT	WorkerTripNumber	8.00	0.00
tblVehicleEF	HHD	0.48	0.03
tblVehicleEF	HHD	4.7110e-003	1.3170e-003
tblVehicleEF	HHD	0.12	0.00
tblVehicleEF	HHD	1.73	8.38
tblVehicleEF	HHD	0.62	0.23
tblVehicleEF	HHD	2.41	3.7310e-003
tblVehicleEF	HHD	4,873.72	1,232.62
tblVehicleEF	HHD	1,497.15	1,169.42

tblVehicleEF	HHD	5.98	0.03
tblVehicleEF	HHD	14.85	6.97
tblVehicleEF	HHD	1.94	2.63
tblVehicleEF	HHD	20.19	2.51
tblVehicleEF	HHD	5.6470e-003	3.0210e-003
tblVehicleEF	HHD	0.06	0.06
tblVehicleEF	HHD	0.03	0.04
tblVehicleEF	HHD	7.7080e-003	0.03
tblVehicleEF	HHD	6.1000e-005	0.00
tblVehicleEF	HHD	5.4030e-003	2.8910e-003
tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	8.6720e-003	8.8130e-003
tblVehicleEF	HHD	7.3740e-003	0.03
tblVehicleEF	HHD	5.6000e-005	0.00
tblVehicleEF	HHD	6.4000e-005	1.0000e-006
tblVehicleEF	HHD	5.0060e-003	4.4000e-005
tblVehicleEF	HHD	0.46	0.57
tblVehicleEF	HHD	4.1000e-005	0.00
tblVehicleEF	HHD	0.09	0.03
tblVehicleEF	HHD	7.3200e-004	3.6700e-004
tblVehicleEF	HHD	0.07	1.0000e-006
tblVehicleEF	HHD	0.05	0.01
tblVehicleEF	HHD	0.01	0.01
tblVehicleEF	HHD	1.0000e-004	0.00
tblVehicleEF	HHD	6.4000e-005	1.0000e-006
tblVehicleEF	HHD	5.0060e-003	4.4000e-005
tblVehicleEF	HHD	0.53	0.65
tblVehicleEF	HHD	4.1000e-005	0.00
tblVehicleEF	HHD	0.10	0.03
tblVehicleEF	HHD	7.3200e-004	3.6700e-004

tbIVehicleEF	HHD	0.08	1.0000e-006
tbIVehicleEF	LDA	3.2770e-003	1.2630e-003
tbIVehicleEF	LDA	3.7870e-003	0.04
tbIVehicleEF	LDA	0.46	0.44
tbIVehicleEF	LDA	1.09	1.97
tbIVehicleEF	LDA	190.90	221.37
tbIVehicleEF	LDA	44.71	46.82
tbIVehicleEF	LDA	0.04	0.03
tbIVehicleEF	LDA	0.06	0.15
tbIVehicleEF	LDA	1.3420e-003	1.0710e-003
tbIVehicleEF	LDA	2.0020e-003	1.3870e-003
tbIVehicleEF	LDA	1.2360e-003	9.8600e-004
tbIVehicleEF	LDA	1.8400e-003	1.2750e-003
tbIVehicleEF	LDA	0.02	0.03
tbIVehicleEF	LDA	0.09	0.09
tbIVehicleEF	LDA	0.02	0.02
tbIVehicleEF	LDA	8.2160e-003	4.6790e-003
tbIVehicleEF	LDA	0.04	0.22
tbIVehicleEF	LDA	0.05	0.15
tbIVehicleEF	LDA	1.9120e-003	1.3000e-004
tbIVehicleEF	LDA	4.6500e-004	0.00
tbIVehicleEF	LDA	0.02	0.03
tbIVehicleEF	LDA	0.09	0.09
tbIVehicleEF	LDA	0.02	0.02
tbIVehicleEF	LDA	0.01	6.7860e-003
tbIVehicleEF	LDA	0.04	0.22
tbIVehicleEF	LDA	0.06	0.16
tbIVehicleEF	LDT1	0.02	4.1200e-003
tbIVehicleEF	LDT1	0.02	0.07
tbIVehicleEF	LDT1	1.59	0.92

tbIVehicleEF	LDT1	4.82	2.38
tbIVehicleEF	LDT1	261.75	281.66
tbIVehicleEF	LDT1	62.41	62.24
tbIVehicleEF	LDT1	0.22	0.09
tbIVehicleEF	LDT1	0.29	0.25
tbIVehicleEF	LDT1	2.3840e-003	1.4880e-003
tbIVehicleEF	LDT1	3.3270e-003	2.0070e-003
tbIVehicleEF	LDT1	2.1920e-003	1.3690e-003
tbIVehicleEF	LDT1	3.0590e-003	1.8450e-003
tbIVehicleEF	LDT1	0.12	0.09
tbIVehicleEF	LDT1	0.43	0.27
tbIVehicleEF	LDT1	0.10	0.08
tbIVehicleEF	LDT1	0.04	0.02
tbIVehicleEF	LDT1	0.33	1.12
tbIVehicleEF	LDT1	0.32	0.34
tbIVehicleEF	LDT1	2.6390e-003	3.3310e-003
tbIVehicleEF	LDT1	7.0900e-004	0.00
tbIVehicleEF	LDT1	0.12	0.09
tbIVehicleEF	LDT1	0.43	0.27
tbIVehicleEF	LDT1	0.10	0.08
tbIVehicleEF	LDT1	0.06	0.03
tbIVehicleEF	LDT1	0.33	1.12
tbIVehicleEF	LDT1	0.35	0.38
tbIVehicleEF	LDT2	6.6240e-003	2.9780e-003
tbIVehicleEF	LDT2	8.6550e-003	0.06
tbIVehicleEF	LDT2	0.80	0.74
tbIVehicleEF	LDT2	2.15	2.82
tbIVehicleEF	LDT2	291.57	293.39
tbIVehicleEF	LDT2	69.12	65.09
tbIVehicleEF	LDT2	0.11	0.07



tbIVehicleEF	LDT2	0.18	0.27
tbIVehicleEF	LDT2	1.4960e-003	1.2280e-003
tbIVehicleEF	LDT2	2.1990e-003	1.5820e-003
tbIVehicleEF	LDT2	1.3760e-003	1.1310e-003
tbIVehicleEF	LDT2	2.0220e-003	1.4550e-003
tbIVehicleEF	LDT2	0.05	0.07
tbIVehicleEF	LDT2	0.18	0.20
tbIVehicleEF	LDT2	0.05	0.07
tbIVehicleEF	LDT2	0.02	0.01
tbIVehicleEF	LDT2	0.15	0.90
tbIVehicleEF	LDT2	0.12	0.31
tbIVehicleEF	LDT2	2.9230e-003	0.01
tbIVehicleEF	LDT2	7.2800e-004	1.3600e-004
tbIVehicleEF	LDT2	0.05	0.07
tbIVehicleEF	LDT2	0.18	0.20
tbIVehicleEF	LDT2	0.05	0.07
tbIVehicleEF	LDT2	0.02	0.02
tbIVehicleEF	LDT2	0.15	0.90
tbIVehicleEF	LDT2	0.13	0.33
tbIVehicleEF	LHD1	5.2190e-003	3.5200e-003
tbIVehicleEF	LHD1	0.02	0.01
tbIVehicleEF	LHD1	0.02	0.01
tbIVehicleEF	LHD1	0.14	0.15
tbIVehicleEF	LHD1	1.48	1.11
tbIVehicleEF	LHD1	2.82	0.95
tbIVehicleEF	LHD1	9.56	9.45
tbIVehicleEF	LHD1	677.06	722.72
tbIVehicleEF	LHD1	24.85	8.62
tbIVehicleEF	LHD1	0.11	0.10
tbIVehicleEF	LHD1	2.77	1.68

tbIVehicleEF	LHD1	1.11	0.23
tbIVehicleEF	LHD1	1.1400e-003	1.1690e-003
tbIVehicleEF	LHD1	0.01	0.01
tbIVehicleEF	LHD1	0.03	0.02
tbIVehicleEF	LHD1	8.7400e-004	2.4400e-004
tbIVehicleEF	LHD1	1.0910e-003	1.1180e-003
tbIVehicleEF	LHD1	2.6040e-003	2.5650e-003
tbIVehicleEF	LHD1	0.03	0.02
tbIVehicleEF	LHD1	8.0400e-004	2.2400e-004
tbIVehicleEF	LHD1	2.3880e-003	1.8940e-003
tbIVehicleEF	LHD1	0.16	0.12
tbIVehicleEF	LHD1	0.02	0.02
tbIVehicleEF	LHD1	1.3200e-003	1.0050e-003
tbIVehicleEF	LHD1	0.19	0.14
tbIVehicleEF	LHD1	0.87	1.34
tbIVehicleEF	LHD1	0.30	0.06
tbIVehicleEF	LHD1	9.5000e-005	9.1000e-005
tbIVehicleEF	LHD1	6.6220e-003	7.0150e-003
tbIVehicleEF	LHD1	3.0200e-004	8.5000e-005
tbIVehicleEF	LHD1	2.3880e-003	1.8940e-003
tbIVehicleEF	LHD1	0.16	0.12
tbIVehicleEF	LHD1	0.02	0.02
tbIVehicleEF	LHD1	1.3200e-003	1.0050e-003
tbIVehicleEF	LHD1	0.23	0.17
tbIVehicleEF	LHD1	0.87	1.34
tbIVehicleEF	LHD1	0.33	0.07
tbIVehicleEF	LHD2	2.6710e-003	1.7400e-003
tbIVehicleEF	LHD2	6.9820e-003	6.9230e-003
tbIVehicleEF	LHD2	4.2420e-003	3.4730e-003
tbIVehicleEF	LHD2	0.12	0.11

tbIVehicleEF	LHD2	0.65	0.74
tbIVehicleEF	LHD2	0.86	0.30
tbIVehicleEF	LHD2	14.91	15.48
tbIVehicleEF	LHD2	682.07	690.91
tbIVehicleEF	LHD2	17.00	3.91
tbIVehicleEF	LHD2	0.11	0.14
tbIVehicleEF	LHD2	0.88	1.17
tbIVehicleEF	LHD2	0.33	0.09
tbIVehicleEF	LHD2	1.3670e-003	1.8000e-003
tbIVehicleEF	LHD2	0.01	0.01
tbIVehicleEF	LHD2	0.02	0.02
tbIVehicleEF	LHD2	2.6700e-004	6.0000e-005
tbIVehicleEF	LHD2	1.3080e-003	1.7220e-003
tbIVehicleEF	LHD2	2.7580e-003	2.8150e-003
tbIVehicleEF	LHD2	0.02	0.02
tbIVehicleEF	LHD2	2.4500e-004	5.5000e-005
tbIVehicleEF	LHD2	4.6100e-004	4.2400e-004
tbIVehicleEF	LHD2	0.02	0.02
tbIVehicleEF	LHD2	0.01	0.01
tbIVehicleEF	LHD2	2.8500e-004	2.5600e-004
tbIVehicleEF	LHD2	0.12	0.13
tbIVehicleEF	LHD2	0.09	0.20
tbIVehicleEF	LHD2	0.06	0.02
tbIVehicleEF	LHD2	1.4500e-004	1.4700e-004
tbIVehicleEF	LHD2	6.6080e-003	6.6180e-003
tbIVehicleEF	LHD2	1.8500e-004	3.9000e-005
tbIVehicleEF	LHD2	4.6100e-004	4.2400e-004
tbIVehicleEF	LHD2	0.02	0.02
tbIVehicleEF	LHD2	0.02	0.02
tbIVehicleEF	LHD2	2.8500e-004	2.5600e-004

tblVehicleEF	LHD2	0.14	0.15
tblVehicleEF	LHD2	0.09	0.20
tblVehicleEF	LHD2	0.06	0.02
tblVehicleEF	MCY	0.45	0.34
tblVehicleEF	MCY	0.18	0.28
tblVehicleEF	MCY	20.87	20.48
tblVehicleEF	MCY	11.01	9.82
tblVehicleEF	MCY	168.72	214.07
tblVehicleEF	MCY	47.01	64.06
tblVehicleEF	MCY	1.21	1.21
tblVehicleEF	MCY	0.33	0.28
tblVehicleEF	MCY	1.9200e-003	1.9360e-003
tblVehicleEF	MCY	2.8960e-003	2.4930e-003
tblVehicleEF	MCY	1.7950e-003	1.8090e-003
tblVehicleEF	MCY	2.7240e-003	2.3420e-003
tblVehicleEF	MCY	0.70	1.35
tblVehicleEF	MCY	0.88	0.84
tblVehicleEF	MCY	0.41	0.79
tblVehicleEF	MCY	2.34	2.32
tblVehicleEF	MCY	0.83	1.77
tblVehicleEF	MCY	2.45	2.16
tblVehicleEF	MCY	2.0960e-003	2.1180e-003
tblVehicleEF	MCY	7.2300e-004	6.3400e-004
tblVehicleEF	MCY	0.70	1.35
tblVehicleEF	MCY	0.88	0.84
tblVehicleEF	MCY	0.41	0.79
tblVehicleEF	MCY	2.88	2.86
tblVehicleEF	MCY	0.83	1.77
tblVehicleEF	MCY	2.67	2.35
tblVehicleEF	MDV	0.01	2.6420e-003

tbIVehicleEF	MDV	0.02	0.07
tbIVehicleEF	MDV	1.26	0.66
tbIVehicleEF	MDV	4.89	2.93
tbIVehicleEF	MDV	402.47	354.25
tbIVehicleEF	MDV	96.36	76.98
tbIVehicleEF	MDV	0.24	0.06
tbIVehicleEF	MDV	0.47	0.29
tbIVehicleEF	MDV	1.7090e-003	1.2720e-003
tbIVehicleEF	MDV	2.6450e-003	1.7330e-003
tbIVehicleEF	MDV	1.5750e-003	1.1760e-003
tbIVehicleEF	MDV	2.4320e-003	1.5930e-003
tbIVehicleEF	MDV	0.10	0.09
tbIVehicleEF	MDV	0.36	0.24
tbIVehicleEF	MDV	0.09	0.09
tbIVehicleEF	MDV	0.03	0.01
tbIVehicleEF	MDV	0.31	1.01
tbIVehicleEF	MDV	0.34	0.37
tbIVehicleEF	MDV	4.0350e-003	3.2700e-003
tbIVehicleEF	MDV	1.0500e-003	7.1200e-004
tbIVehicleEF	MDV	0.10	0.09
tbIVehicleEF	MDV	0.36	0.24
tbIVehicleEF	MDV	0.09	0.09
tbIVehicleEF	MDV	0.05	0.02
tbIVehicleEF	MDV	0.31	1.01
tbIVehicleEF	MDV	0.37	0.40
tbIVehicleEF	MH	0.03	8.4020e-003
tbIVehicleEF	MH	0.03	0.02
tbIVehicleEF	MH	1.56	0.64
tbIVehicleEF	MH	6.75	1.77
tbIVehicleEF	MH	1,202.12	1,387.10

tblVehicleEF	MH	56.36	14.88
tblVehicleEF	MH	1.68	1.96
tblVehicleEF	MH	1.28	0.23
tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	0.03	0.04
tblVehicleEF	MH	1.1230e-003	2.0900e-004
tblVehicleEF	MH	3.2430e-003	3.3580e-003
tblVehicleEF	MH	0.03	0.04
tblVehicleEF	MH	1.0330e-003	1.9200e-004
tblVehicleEF	MH	0.77	0.45
tblVehicleEF	MH	0.10	0.06
tblVehicleEF	MH	0.29	0.18
tblVehicleEF	MH	0.10	0.07
tblVehicleEF	MH	0.04	1.46
tblVehicleEF	MH	0.43	0.08
tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	6.8300e-004	1.4700e-004
tblVehicleEF	MH	0.77	0.45
tblVehicleEF	MH	0.10	0.06
tblVehicleEF	MH	0.29	0.18
tblVehicleEF	MH	0.13	0.09
tblVehicleEF	MH	0.04	1.46
tblVehicleEF	MH	0.47	0.09
tblVehicleEF	MHD	0.02	5.4830e-003
tblVehicleEF	MHD	4.3300e-003	2.0110e-003
tblVehicleEF	MHD	0.06	0.01
tblVehicleEF	MHD	0.39	0.46
tblVehicleEF	MHD	0.35	0.24
tblVehicleEF	MHD	5.05	1.51
tblVehicleEF	MHD	157.91	56.10

tbIVehicleEF	MHD	1,192.36	1,084.92
tbIVehicleEF	MHD	49.96	13.74
tbIVehicleEF	MHD	0.50	0.33
tbIVehicleEF	MHD	1.60	1.70
tbIVehicleEF	MHD	12.28	1.37
tbIVehicleEF	MHD	1.8100e-004	2.8600e-004
tbIVehicleEF	MHD	5.3670e-003	0.01
tbIVehicleEF	MHD	6.5500e-004	1.6500e-004
tbIVehicleEF	MHD	1.7300e-004	2.7400e-004
tbIVehicleEF	MHD	5.1290e-003	9.5790e-003
tbIVehicleEF	MHD	6.0200e-004	1.5100e-004
tbIVehicleEF	MHD	7.1600e-004	5.2700e-004
tbIVehicleEF	MHD	0.06	0.04
tbIVehicleEF	MHD	0.03	0.02
tbIVehicleEF	MHD	4.4600e-004	3.2400e-004
tbIVehicleEF	MHD	0.05	0.02
tbIVehicleEF	MHD	0.05	0.29
tbIVehicleEF	MHD	0.34	0.07
tbIVehicleEF	MHD	1.5180e-003	5.3400e-004
tbIVehicleEF	MHD	0.01	0.01
tbIVehicleEF	MHD	5.8900e-004	1.3600e-004
tbIVehicleEF	MHD	7.1600e-004	5.2700e-004
tbIVehicleEF	MHD	0.06	0.04
tbIVehicleEF	MHD	0.04	0.03
tbIVehicleEF	MHD	4.4600e-004	3.2400e-004
tbIVehicleEF	MHD	0.06	0.03
tbIVehicleEF	MHD	0.05	0.29
tbIVehicleEF	MHD	0.37	0.08
tbIVehicleEF	OBUS	0.01	6.1160e-003
tbIVehicleEF	OBUS	4.1550e-003	2.9820e-003

tbIVehicleEF	OBUS	0.04	0.02
tbIVehicleEF	OBUS	0.25	0.64
tbIVehicleEF	OBUS	0.35	0.40
tbIVehicleEF	OBUS	5.46	1.98
tbIVehicleEF	OBUS	225.91	98.90
tbIVehicleEF	OBUS	1,249.83	1,108.21
tbIVehicleEF	OBUS	51.07	13.64
tbIVehicleEF	OBUS	0.55	0.45
tbIVehicleEF	OBUS	1.18	1.55
tbIVehicleEF	OBUS	7.33	1.26
tbIVehicleEF	OBUS	4.9000e-005	1.4700e-004
tbIVehicleEF	OBUS	3.2550e-003	7.2950e-003
tbIVehicleEF	OBUS	6.8300e-004	1.5100e-004
tbIVehicleEF	OBUS	4.7000e-005	1.4100e-004
tbIVehicleEF	OBUS	3.1070e-003	6.9700e-003
tbIVehicleEF	OBUS	6.2800e-004	1.3900e-004
tbIVehicleEF	OBUS	1.2470e-003	1.4980e-003
tbIVehicleEF	OBUS	0.03	0.03
tbIVehicleEF	OBUS	0.04	0.05
tbIVehicleEF	OBUS	5.9200e-004	6.8400e-004
tbIVehicleEF	OBUS	0.05	0.02
tbIVehicleEF	OBUS	0.04	0.57
tbIVehicleEF	OBUS	0.36	0.09
tbIVehicleEF	OBUS	2.1650e-003	9.3900e-004
tbIVehicleEF	OBUS	0.01	0.01
tbIVehicleEF	OBUS	6.0700e-004	1.3500e-004
tbIVehicleEF	OBUS	1.2470e-003	1.4980e-003
tbIVehicleEF	OBUS	0.03	0.03
tbIVehicleEF	OBUS	0.05	0.06
tbIVehicleEF	OBUS	5.9200e-004	6.8400e-004



tblVehicleEF	OBUS	0.06	0.03
tblVehicleEF	OBUS	0.04	0.57
tblVehicleEF	OBUS	0.40	0.10
tblVehicleEF	SBUS	1.01	0.02
tblVehicleEF	SBUS	4.5570e-003	6.2770e-003
tblVehicleEF	SBUS	0.07	2.4280e-003
tblVehicleEF	SBUS	3.96	1.24
tblVehicleEF	SBUS	0.34	0.57
tblVehicleEF	SBUS	3.06	0.37
tblVehicleEF	SBUS	1,315.11	309.97
tblVehicleEF	SBUS	1,183.41	1,019.86
tblVehicleEF	SBUS	22.66	1.52
tblVehicleEF	SBUS	7.54	2.82
tblVehicleEF	SBUS	2.57	4.29
tblVehicleEF	SBUS	17.28	1.21
tblVehicleEF	SBUS	3.9850e-003	2.1580e-003
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	0.01	0.03
tblVehicleEF	SBUS	2.7100e-004	2.3000e-005
tblVehicleEF	SBUS	3.8130e-003	2.0640e-003
tblVehicleEF	SBUS	2.8640e-003	2.8910e-003
tblVehicleEF	SBUS	0.01	0.03
tblVehicleEF	SBUS	2.4900e-004	2.1000e-005
tblVehicleEF	SBUS	1.6470e-003	1.9400e-004
tblVehicleEF	SBUS	0.02	3.9890e-003
tblVehicleEF	SBUS	0.50	0.10
tblVehicleEF	SBUS	8.1500e-004	9.4000e-005
tblVehicleEF	SBUS	0.08	0.09
tblVehicleEF	SBUS	0.01	0.03
tblVehicleEF	SBUS	0.18	0.01

tblVehicleEF	SBUS	0.01	2.9360e-003
tblVehicleEF	SBUS	0.01	9.6730e-003
tblVehicleEF	SBUS	2.8000e-004	1.5000e-005
tblVehicleEF	SBUS	1.6470e-003	1.9400e-004
tblVehicleEF	SBUS	0.02	3.9890e-003
tblVehicleEF	SBUS	0.71	0.14
tblVehicleEF	SBUS	8.1500e-004	9.4000e-005
tblVehicleEF	SBUS	0.09	0.10
tblVehicleEF	SBUS	0.01	0.03
tblVehicleEF	SBUS	0.20	0.02
tblVehicleEF	UBUS	0.20	1.73
tblVehicleEF	UBUS	0.08	0.02
tblVehicleEF	UBUS	3.57	13.04
tblVehicleEF	UBUS	13.13	1.13
tblVehicleEF	UBUS	1,931.82	1,554.15
tblVehicleEF	UBUS	145.03	10.27
tblVehicleEF	UBUS	3.86	0.57
tblVehicleEF	UBUS	12.85	0.11
tblVehicleEF	UBUS	0.50	0.09
tblVehicleEF	UBUS	0.01	0.03
tblVehicleEF	UBUS	0.06	4.2840e-003
tblVehicleEF	UBUS	1.2140e-003	1.1900e-004
tblVehicleEF	UBUS	0.21	0.04
tblVehicleEF	UBUS	3.0000e-003	6.3580e-003
tblVehicleEF	UBUS	0.06	4.0870e-003
tblVehicleEF	UBUS	1.1170e-003	1.0900e-004
tblVehicleEF	UBUS	3.7570e-003	3.3900e-004
tblVehicleEF	UBUS	0.08	6.1100e-003
tblVehicleEF	UBUS	2.2270e-003	2.0600e-004
tblVehicleEF	UBUS	0.25	0.03

tblVehicleEF	UBUS	0.02	0.04
tblVehicleEF	UBUS	1.12	0.07
tblVehicleEF	UBUS	0.02	9.4660e-003
tblVehicleEF	UBUS	1.6910e-003	1.0200e-004
tblVehicleEF	UBUS	3.7570e-003	3.3900e-004
tblVehicleEF	UBUS	0.08	6.1100e-003
tblVehicleEF	UBUS	2.2270e-003	2.0600e-004
tblVehicleEF	UBUS	0.48	1.77
tblVehicleEF	UBUS	0.02	0.04
tblVehicleEF	UBUS	1.23	0.07
tblVehicleTrips	ST_TR	1.32	0.73
tblVehicleTrips	SU_TR	0.68	0.21
tblVehicleTrips	WD_TR	6.97	2.01
tblWater	AerobicPercent	87.46	0.00
tblWater	AerobicPercent	87.46	0.00
tblWater	AnaDigestCombDigestGasPercent	100.00	0.00
tblWater	AnaDigestCombDigestGasPercent	100.00	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	ElectricityIntensityFactorForWastewaterTreatment	1,911.00	0.00
tblWater	ElectricityIntensityFactorForWastewaterTreatment	1,911.00	0.00
tblWater	ElectricityIntensityFactorToDistribute	1,272.00	0.00
tblWater	ElectricityIntensityFactorToDistribute	1,272.00	0.00
tblWater	ElectricityIntensityFactorToSupply	2,117.00	0.00
tblWater	ElectricityIntensityFactorToSupply	2,117.00	0.00
tblWater	ElectricityIntensityFactorToTreat	111.00	0.00
tblWater	ElectricityIntensityFactorToTreat	111.00	0.00
tblWater	IndoorWaterUseRate	15,570,062.50	0.00
tblWater	SepticTankPercent	10.33	100.00
tblWater	SepticTankPercent	10.33	100.00

## 2.0 Emissions Summary

### 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	0.3557	1.0000e-005	1.2200e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.3800e-003	2.3800e-003	1.0000e-005	0.0000	2.5400e-003
Energy	1.2700e-003	0.0116	9.7300e-003	7.0000e-005		8.8000e-004	8.8000e-004		8.8000e-004	8.8000e-004	0.0000	40.8187	40.8187	4.1400e-003	1.0400e-003	41.2312
Mobile	0.0550	0.1189	0.4076	1.6000e-003	0.1481	1.3700e-003	0.1495	0.0398	1.2900e-003	0.0411	0.0000	133.0656	133.0656	3.8400e-003	0.0000	133.1616
Stationary	7.1100e-003	0.0316	0.1266	7.8000e-004		9.8200e-003	9.8200e-003		9.8200e-003	9.8200e-003	0.0000	140.6427	140.6427	2.7000e-003	0.0000	140.7101
Waste						0.0000	0.0000		0.0000	0.0000	8.4728	0.0000	8.4728	0.5007	0.0000	20.9911
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>0.4191</b>	<b>0.1621</b>	<b>0.5452</b>	<b>2.4500e-003</b>	<b>0.1481</b>	<b>0.0121</b>	<b>0.1602</b>	<b>0.0398</b>	<b>0.0120</b>	<b>0.0518</b>	<b>8.4728</b>	<b>314.5294</b>	<b>323.0022</b>	<b>0.5114</b>	<b>1.0400e-003</b>	<b>336.0965</b>

#### 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	0.3557	1.0000e-005	1.2200e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.3800e-003	2.3800e-003	1.0000e-005	0.0000	2.5400e-003
Energy	1.2700e-003	0.0116	9.7300e-003	7.0000e-005		8.8000e-004	8.8000e-004		8.8000e-004	8.8000e-004	0.0000	40.8187	40.8187	4.1400e-003	1.0400e-003	41.2312

Mobile	0.0550	0.1189	0.4076	1.6000e-003	0.1481	1.3700e-003	0.1495	0.0398	1.2900e-003	0.0411	0.0000	133.0656	133.0656	3.8400e-003	0.0000	133.1616
Stationary	7.1100e-003	0.0316	0.1266	7.8000e-004		9.8200e-003	9.8200e-003		9.8200e-003	9.8200e-003	0.0000	140.6427	140.6427	2.7000e-003	0.0000	140.7101
Waste						0.0000	0.0000		0.0000	0.0000	8.4728	0.0000	8.4728	0.5007	0.0000	20.9911
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>0.4191</b>	<b>0.1621</b>	<b>0.5452</b>	<b>2.4500e-003</b>	<b>0.1481</b>	<b>0.0121</b>	<b>0.1602</b>	<b>0.0398</b>	<b>0.0120</b>	<b>0.0518</b>	<b>8.4728</b>	<b>314.5294</b>	<b>323.0022</b>	<b>0.5114</b>	<b>1.0400e-003</b>	<b>336.0965</b>

	ROG	NOx	CO	SO2	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

## 4.0 Operational Detail - Mobile

### 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	0.0550	0.1189	0.4076	1.6000e-003	0.1481	1.3700e-003	0.1495	0.0398	1.2900e-003	0.0411	0.0000	133.0656	133.0656	3.8400e-003	0.0000	133.1616
Unmitigated	0.0550	0.1189	0.4076	1.6000e-003	0.1481	1.3700e-003	0.1495	0.0398	1.2900e-003	0.0411	0.0000	133.0656	133.0656	3.8400e-003	0.0000	133.1616

### 4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	135.33	49.34	14.46	408,682	408,682

Parking Lot	0.00	0.00	0.00		
Total	135.33	49.34	14.46	408,682	408,682

### 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-	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Light Industry	14.70	6.60	6.60	59.00	28.00	13.00	92	5	3
Parking Lot	14.70	6.60	6.60	0.00	0.00	0.00	0	0	0

### 4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Light Industry	0.526188	0.057164	0.197493	0.130043	0.032642	0.007569	0.009098	0.030557	0.001897	0.000625	0.004707	0.001334	0.000683
Parking Lot	0.526188	0.057164	0.197493	0.130043	0.032642	0.007569	0.009098	0.030557	0.001897	0.000625	0.004707	0.001334	0.000683

### 5.0 Energy Detail

Historical Energy Use: N

### 5.1 Mitigation Measures Energy

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	28.2073	28.2073	3.9000e-003	8.1000e-004	28.5449
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	28.2073	28.2073	3.9000e-003	8.1000e-004	28.5449
NaturalGas Mitigated	1.2700e-003	0.0116	9.7300e-003	7.0000e-005		8.8000e-004	8.8000e-004		8.8000e-004	8.8000e-004	0.0000	12.6114	12.6114	2.4000e-004	2.3000e-004	12.6863
NaturalGas Unmitigated	1.2700e-003	0.0116	9.7300e-003	7.0000e-005		8.8000e-004	8.8000e-004		8.8000e-004	8.8000e-004	0.0000	12.6114	12.6114	2.4000e-004	2.3000e-004	12.6863

## 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 Light Industry	236328	1.2700e-003	0.0116	9.7300e-003	7.0000e-005		8.8000e-004	8.8000e-004		8.8000e-004	8.8000e-004	0.0000	12.6114	12.6114	2.4000e-004	2.3000e-004	12.6863
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>1.2700e-003</b>	<b>0.0116</b>	<b>9.7300e-003</b>	<b>7.0000e-005</b>		<b>8.8000e-004</b>	<b>8.8000e-004</b>		<b>8.8000e-004</b>	<b>8.8000e-004</b>	<b>0.0000</b>	<b>12.6114</b>	<b>12.6114</b>	<b>2.4000e-004</b>	<b>2.3000e-004</b>	<b>12.6863</b>

### 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/yr	tons/yr										MT/yr					
General Light Industry	236328	1.2700e-003	0.0116	9.7300e-003	7.0000e-005		8.8000e-004	8.8000e-004		8.8000e-004	8.8000e-004	0.0000	12.6114	12.6114	2.4000e-004	2.3000e-004	12.6863
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>1.2700e-003</b>	<b>0.0116</b>	<b>9.7300e-003</b>	<b>7.0000e-005</b>		<b>8.8000e-004</b>	<b>8.8000e-004</b>		<b>8.8000e-004</b>	<b>8.8000e-004</b>	<b>0.0000</b>	<b>12.6114</b>	<b>12.6114</b>	<b>2.4000e-004</b>	<b>2.3000e-004</b>	<b>12.6863</b>

## 5.3 Energy by Land Use - Electricity

### Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
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Land Use	kWh/yr	MT/yr			
General Light Industry	288172	27.4497	3.7900e-003	7.8000e-004	27.7782
Parking Lot	7953.75	0.7576	1.0000e-004	2.0000e-005	0.7667
<b>Total</b>		<b>28.2073</b>	<b>3.8900e-003</b>	<b>8.0000e-004</b>	<b>28.5449</b>

**Mitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	288172	27.4497	3.7900e-003	7.8000e-004	27.7782
Parking Lot	7953.75	0.7576	1.0000e-004	2.0000e-005	0.7667
<b>Total</b>		<b>28.2073</b>	<b>3.8900e-003</b>	<b>8.0000e-004</b>	<b>28.5449</b>

**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	0.3557	1.0000e-005	1.2200e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.3800e-003	2.3800e-003	1.0000e-005	0.0000	2.5400e-003



Unmitigated	0.3557	1.0000e-005	1.2200e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.3800e-003	2.3800e-003	1.0000e-005	0.0000	2.5400e-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	0.0912					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.2644					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.1000e-004	1.0000e-005	1.2200e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.3800e-003	2.3800e-003	1.0000e-005	0.0000	2.5400e-003
<b>Total</b>	<b>0.3557</b>	<b>1.0000e-005</b>	<b>1.2200e-003</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>2.3800e-003</b>	<b>2.3800e-003</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>2.5400e-003</b>

### 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	0.0912					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.2644					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.1000e-004	1.0000e-005	1.2200e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.3800e-003	2.3800e-003	1.0000e-005	0.0000	2.5400e-003
<b>Total</b>	<b>0.3557</b>	<b>1.0000e-005</b>	<b>1.2200e-003</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>2.3800e-003</b>	<b>2.3800e-003</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>2.5400e-003</b>

## 7.0 Water Detail

## 7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

## 7.2 Water by Land Use

### Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

### Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

## 8.0 Waste Detail

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### 8.1 Mitigation Measures Waste

#### Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	8.4728	0.5007	0.0000	20.9911
Unmitigated	8.4728	0.5007	0.0000	20.9911

### 8.2 Waste by Land Use

#### Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			

General Light Industry	41.74	8.4728	0.5007	0.0000	20.9911
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>8.4728</b>	<b>0.5007</b>	<b>0.0000</b>	<b>20.9911</b>

**Mitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	41.74	8.4728	0.5007	0.0000	20.9911
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>8.4728</b>	<b>0.5007</b>	<b>0.0000</b>	<b>20.9911</b>

**9.0 Operational Offroad**

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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**10.0 Stationary Equipment**

**Fire Pumps and Emergency Generators**

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

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
Boiler	2	5.02	878.5	1.004	CNG
Boiler	1	5.02	878.5	1.004	CNG

## User Defined Equipment

Equipment Type	Number
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### 10.1 Stationary Sources

#### Unmitigated/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
Equipment Type	tons/yr										M1/yr					
Boiler - CNG (0 - 2 MMBTU)	7.1100e-003	0.0316	0.1266	7.8000e-004		9.8200e-003	9.8200e-003		9.8200e-003	9.8200e-003	0.0000	140.6427	140.6427	2.7000e-003	0.0000	140.7101
<b>Total</b>	<b>7.1100e-003</b>	<b>0.0316</b>	<b>0.1266</b>	<b>7.8000e-004</b>		<b>9.8200e-003</b>	<b>9.8200e-003</b>		<b>9.8200e-003</b>	<b>9.8200e-003</b>	<b>0.0000</b>	<b>140.6427</b>	<b>140.6427</b>	<b>2.7000e-003</b>	<b>0.0000</b>	<b>140.7101</b>

### 11.0 Vegetation

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Arcata Land Co. Cultivation Project - Phase2 - Humboldt County, Annual

**Arcata Land Co. Cultivation Project - Phase2  
Humboldt County, Annual**

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Unrefrigerated Warehouse-No Rail	726.53	1000sqft	16.70	726,530.00	0

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Rural	<b>Wind Speed (m/s)</b>	2.2	<b>Precipitation Freq (Days)</b>	103
<b>Climate Zone</b>	1	<b>Operational Year</b>		2030	
<b>Utility Company</b>	Pacific Gas & Electric Company				
<b>CO2 Intensity (lb/MW hr)</b>	210	<b>CH4 Intensity (lb/MW hr)</b>	0.029	<b>N2O Intensity (lb/MW hr)</b>	0.006

**1.3 User Entered Comments & Non-Default Data**

Project Characteristics - Curent Intensity Factor

Land Use - Per Phase 2, project Description = Hoop Structures

Construction Phase - Assume no demo. Site prep and grading done in Phase 1. Phase 2 is Hoop houses only, 30 work days to construct, no coatings.

Off-road Equipment -

Off-road Equipment - Per Equipment Asumptions provided, 1.5. Assume only Hoop Houses will be constructed

Off-road Equipment - No Demo

Off-road Equipment - All grading was done in Phase 1

Off-road Equipment - Paving was Phase 1

Off-road Equipment - All site prep was phase 1

Off-road Equipment - Per Equipment Assumptions Provided

Trips and VMT - No phases other than Hoop House Construction and related interior work

Demolition - No Demolition

Grading - Material Imported as Part of Phase 1. No grading in Phase 2

Architectural Coating - Sqft of hoop houses = 726,530, no coatings needed

Vehicle Trips - Based on 239 trips per day and 377,592 sq ft; info provided by the client

Vehicle Emission Factors - From EMFAC2017 for Humbolt Co 2030

Vehicle Emission Factors -

Vehicle Emission Factors -

Area Coating - Hoop green houses will not operate like selected land use, no Arch Coatings

Energy Use - Calculated using info provided by client, based on NW Council Study.

Water And Wastewater - Assume all water is used by plants, no indoor use

Solid Waste - Assume the greenhouses will generate half ton of waste to landfill, rest will be composted on-site

Construction Off-road Equipment Mitigation - T3L3 Equipment Mitigation with Dust BMPs

Stationary Sources - Process Boilers - Per the list of operating equipment provided and Manufacturer's Specs

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_Nonresidential_Exterior	363265	0
tblAreaCoating	Area_Nonresidential_Interior	1089795	0
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblEnergyUse	NT24E	0.00	9.29
tblEnergyUse	NT24NG	0.00	0.34
tblFleetMix	HHD	0.05	0.03
tblFleetMix	LDA	0.54	0.53
tblFleetMix	LDT1	0.03	0.06
tblFleetMix	LDT2	0.21	0.20
tblFleetMix	LHD1	0.02	0.03
tblFleetMix	LHD2	3.7140e-003	7.5690e-003
tblFleetMix	MCY	4.4000e-003	4.7070e-003
tblFleetMix	MDV	0.12	0.13
tblFleetMix	MH	4.6600e-004	6.8300e-004

tblFleetMix	MHD	0.01	9.0980e-003
tblFleetMix	OBUS	3.9810e-003	1.8970e-003
tblFleetMix	SBUS	1.4210e-003	1.3340e-003
tblFleetMix	UBUS	1.0170e-003	6.2500e-004
tblGrading	AcresOfGrading	60.00	0.00
tblLandUse	LotAcreage	16.68	16.70
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	7.00	0.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	8.00	4.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	8.00	0.00



tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	7.00	0.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblProjectCharacteristics	CO2IntensityFactor	641.35	210
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblSolidWaste	SolidWasteGenerationRate	682.94	0.50
tblStationaryBoilersUse	AnnualHeatInput	0.00	878.50
tblStationaryBoilersUse	AnnualHeatInput	0.00	878.50
tblStationaryBoilersUse	BoilerRatingValue	0.00	1.00
tblStationaryBoilersUse	BoilerRatingValue	0.00	1.00
tblStationaryBoilersUse	DailyHeatInput	0.00	5.02
tblStationaryBoilersUse	DailyHeatInput	0.00	5.02
tblStationaryBoilersUse	NumberOfEquipment	0.00	2.00
tblStationaryBoilersUse	NumberOfEquipment	0.00	1.00
tblTripsAndVMT	VendorTripNumber	119.00	0.00
tblTripsAndVMT	WorkerTripNumber	5.00	0.00
tblTripsAndVMT	WorkerTripNumber	305.00	0.00
tblTripsAndVMT	WorkerTripNumber	61.00	0.00
tblVehicleEF	HHD	0.48	0.03
tblVehicleEF	HHD	4.7110e-003	1.3170e-003
tblVehicleEF	HHD	0.12	0.00
tblVehicleEF	HHD	1.73	8.38
tblVehicleEF	HHD	0.62	0.23
tblVehicleEF	HHD	2.41	3.7310e-003
tblVehicleEF	HHD	4,873.72	1,232.62

tblVehicleEF	HHD	1,497.15	1,169.42
tblVehicleEF	HHD	5.98	0.03
tblVehicleEF	HHD	14.85	6.97
tblVehicleEF	HHD	1.94	2.63
tblVehicleEF	HHD	20.19	2.51
tblVehicleEF	HHD	5.6470e-003	3.0210e-003
tblVehicleEF	HHD	0.06	0.06
tblVehicleEF	HHD	0.03	0.04
tblVehicleEF	HHD	7.7080e-003	0.03
tblVehicleEF	HHD	6.1000e-005	0.00
tblVehicleEF	HHD	5.4030e-003	2.8910e-003
tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	8.6720e-003	8.8130e-003
tblVehicleEF	HHD	7.3740e-003	0.03
tblVehicleEF	HHD	5.6000e-005	0.00
tblVehicleEF	HHD	6.4000e-005	1.0000e-006
tblVehicleEF	HHD	5.0060e-003	4.4000e-005
tblVehicleEF	HHD	0.46	0.57
tblVehicleEF	HHD	4.1000e-005	0.00
tblVehicleEF	HHD	0.09	0.03
tblVehicleEF	HHD	7.3200e-004	3.6700e-004
tblVehicleEF	HHD	0.07	1.0000e-006
tblVehicleEF	HHD	0.05	0.01
tblVehicleEF	HHD	0.01	0.01
tblVehicleEF	HHD	1.0000e-004	0.00
tblVehicleEF	HHD	6.4000e-005	1.0000e-006
tblVehicleEF	HHD	5.0060e-003	4.4000e-005
tblVehicleEF	HHD	0.53	0.65
tblVehicleEF	HHD	4.1000e-005	0.00
tblVehicleEF	HHD	0.10	0.03

tblVehicleEF	HHD	7.3200e-004	3.6700e-004
tblVehicleEF	HHD	0.08	1.0000e-006
tblVehicleEF	LDA	3.2770e-003	1.2630e-003
tblVehicleEF	LDA	3.7870e-003	0.04
tblVehicleEF	LDA	0.46	0.44
tblVehicleEF	LDA	1.09	1.97
tblVehicleEF	LDA	190.90	221.37
tblVehicleEF	LDA	44.71	46.82
tblVehicleEF	LDA	0.04	0.03
tblVehicleEF	LDA	0.06	0.15
tblVehicleEF	LDA	1.3420e-003	1.0710e-003
tblVehicleEF	LDA	2.0020e-003	1.3870e-003
tblVehicleEF	LDA	1.2360e-003	9.8600e-004
tblVehicleEF	LDA	1.8400e-003	1.2750e-003
tblVehicleEF	LDA	0.02	0.03
tblVehicleEF	LDA	0.09	0.09
tblVehicleEF	LDA	0.02	0.02
tblVehicleEF	LDA	8.2160e-003	4.6790e-003
tblVehicleEF	LDA	0.04	0.22
tblVehicleEF	LDA	0.05	0.15
tblVehicleEF	LDA	1.9120e-003	1.3000e-004
tblVehicleEF	LDA	4.6500e-004	0.00
tblVehicleEF	LDA	0.02	0.03
tblVehicleEF	LDA	0.09	0.09
tblVehicleEF	LDA	0.02	0.02
tblVehicleEF	LDA	0.01	6.7860e-003
tblVehicleEF	LDA	0.04	0.22
tblVehicleEF	LDA	0.06	0.16
tblVehicleEF	LDT1	0.02	4.1200e-003
tblVehicleEF	LDT1	0.02	0.07

tblVehicleEF	LDT1	1.59	0.92
tblVehicleEF	LDT1	4.82	2.38
tblVehicleEF	LDT1	261.75	281.66
tblVehicleEF	LDT1	62.41	62.24
tblVehicleEF	LDT1	0.22	0.09
tblVehicleEF	LDT1	0.29	0.25
tblVehicleEF	LDT1	2.3840e-003	1.4880e-003
tblVehicleEF	LDT1	3.3270e-003	2.0070e-003
tblVehicleEF	LDT1	2.1920e-003	1.3690e-003
tblVehicleEF	LDT1	3.0590e-003	1.8450e-003
tblVehicleEF	LDT1	0.12	0.09
tblVehicleEF	LDT1	0.43	0.27
tblVehicleEF	LDT1	0.10	0.08
tblVehicleEF	LDT1	0.04	0.02
tblVehicleEF	LDT1	0.33	1.12
tblVehicleEF	LDT1	0.32	0.34
tblVehicleEF	LDT1	2.6390e-003	3.3310e-003
tblVehicleEF	LDT1	7.0900e-004	0.00
tblVehicleEF	LDT1	0.12	0.09
tblVehicleEF	LDT1	0.43	0.27
tblVehicleEF	LDT1	0.10	0.08
tblVehicleEF	LDT1	0.06	0.03
tblVehicleEF	LDT1	0.33	1.12
tblVehicleEF	LDT1	0.35	0.38
tblVehicleEF	LDT2	6.6240e-003	2.9780e-003
tblVehicleEF	LDT2	8.6550e-003	0.06
tblVehicleEF	LDT2	0.80	0.74
tblVehicleEF	LDT2	2.15	2.82
tblVehicleEF	LDT2	291.57	293.39
tblVehicleEF	LDT2	69.12	65.09

tblVehicleEF	LDT2	0.11	0.07
tblVehicleEF	LDT2	0.18	0.27
tblVehicleEF	LDT2	1.4960e-003	1.2280e-003
tblVehicleEF	LDT2	2.1990e-003	1.5820e-003
tblVehicleEF	LDT2	1.3760e-003	1.1310e-003
tblVehicleEF	LDT2	2.0220e-003	1.4550e-003
tblVehicleEF	LDT2	0.05	0.07
tblVehicleEF	LDT2	0.18	0.20
tblVehicleEF	LDT2	0.05	0.07
tblVehicleEF	LDT2	0.02	0.01
tblVehicleEF	LDT2	0.15	0.90
tblVehicleEF	LDT2	0.12	0.31
tblVehicleEF	LDT2	2.9230e-003	0.01
tblVehicleEF	LDT2	7.2800e-004	1.3600e-004
tblVehicleEF	LDT2	0.05	0.07
tblVehicleEF	LDT2	0.18	0.20
tblVehicleEF	LDT2	0.05	0.07
tblVehicleEF	LDT2	0.02	0.02
tblVehicleEF	LDT2	0.15	0.90
tblVehicleEF	LDT2	0.13	0.33
tblVehicleEF	LHD1	5.2190e-003	3.5200e-003
tblVehicleEF	LHD1	0.02	0.01
tblVehicleEF	LHD1	0.02	0.01
tblVehicleEF	LHD1	0.14	0.15
tblVehicleEF	LHD1	1.48	1.11
tblVehicleEF	LHD1	2.82	0.95
tblVehicleEF	LHD1	9.56	9.45
tblVehicleEF	LHD1	677.06	722.72
tblVehicleEF	LHD1	24.85	8.62
tblVehicleEF	LHD1	0.11	0.10

tblVehicleEF	LHD1	2.77	1.68
tblVehicleEF	LHD1	1.11	0.23
tblVehicleEF	LHD1	1.1400e-003	1.1690e-003
tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	0.03	0.02
tblVehicleEF	LHD1	8.7400e-004	2.4400e-004
tblVehicleEF	LHD1	1.0910e-003	1.1180e-003
tblVehicleEF	LHD1	2.6040e-003	2.5650e-003
tblVehicleEF	LHD1	0.03	0.02
tblVehicleEF	LHD1	8.0400e-004	2.2400e-004
tblVehicleEF	LHD1	2.3880e-003	1.8940e-003
tblVehicleEF	LHD1	0.16	0.12
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	1.3200e-003	1.0050e-003
tblVehicleEF	LHD1	0.19	0.14
tblVehicleEF	LHD1	0.87	1.34
tblVehicleEF	LHD1	0.30	0.06
tblVehicleEF	LHD1	9.5000e-005	9.1000e-005
tblVehicleEF	LHD1	6.6220e-003	7.0150e-003
tblVehicleEF	LHD1	3.0200e-004	8.5000e-005
tblVehicleEF	LHD1	2.3880e-003	1.8940e-003
tblVehicleEF	LHD1	0.16	0.12
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	1.3200e-003	1.0050e-003
tblVehicleEF	LHD1	0.23	0.17
tblVehicleEF	LHD1	0.87	1.34
tblVehicleEF	LHD1	0.33	0.07
tblVehicleEF	LHD2	2.6710e-003	1.7400e-003
tblVehicleEF	LHD2	6.9820e-003	6.9230e-003
tblVehicleEF	LHD2	4.2420e-003	3.4730e-003

tblVehicleEF	LHD2	0.12	0.11
tblVehicleEF	LHD2	0.65	0.74
tblVehicleEF	LHD2	0.86	0.30
tblVehicleEF	LHD2	14.91	15.48
tblVehicleEF	LHD2	682.07	690.91
tblVehicleEF	LHD2	17.00	3.91
tblVehicleEF	LHD2	0.11	0.14
tblVehicleEF	LHD2	0.88	1.17
tblVehicleEF	LHD2	0.33	0.09
tblVehicleEF	LHD2	1.3670e-003	1.8000e-003
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	2.6700e-004	6.0000e-005
tblVehicleEF	LHD2	1.3080e-003	1.7220e-003
tblVehicleEF	LHD2	2.7580e-003	2.8150e-003
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	2.4500e-004	5.5000e-005
tblVehicleEF	LHD2	4.6100e-004	4.2400e-004
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	2.8500e-004	2.5600e-004
tblVehicleEF	LHD2	0.12	0.13
tblVehicleEF	LHD2	0.09	0.20
tblVehicleEF	LHD2	0.06	0.02
tblVehicleEF	LHD2	1.4500e-004	1.4700e-004
tblVehicleEF	LHD2	6.6080e-003	6.6180e-003
tblVehicleEF	LHD2	1.8500e-004	3.9000e-005
tblVehicleEF	LHD2	4.6100e-004	4.2400e-004
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	0.02	0.02

tblVehicleEF	LHD2	2.8500e-004	2.5600e-004
tblVehicleEF	LHD2	0.14	0.15
tblVehicleEF	LHD2	0.09	0.20
tblVehicleEF	LHD2	0.06	0.02
tblVehicleEF	MCY	0.45	0.34
tblVehicleEF	MCY	0.18	0.28
tblVehicleEF	MCY	20.87	20.48
tblVehicleEF	MCY	11.01	9.82
tblVehicleEF	MCY	168.72	214.07
tblVehicleEF	MCY	47.01	64.06
tblVehicleEF	MCY	1.21	1.21
tblVehicleEF	MCY	0.33	0.28
tblVehicleEF	MCY	1.9200e-003	1.9360e-003
tblVehicleEF	MCY	2.8960e-003	2.4930e-003
tblVehicleEF	MCY	1.7950e-003	1.8090e-003
tblVehicleEF	MCY	2.7240e-003	2.3420e-003
tblVehicleEF	MCY	0.70	1.35
tblVehicleEF	MCY	0.88	0.84
tblVehicleEF	MCY	0.41	0.79
tblVehicleEF	MCY	2.34	2.32
tblVehicleEF	MCY	0.83	1.77
tblVehicleEF	MCY	2.45	2.16
tblVehicleEF	MCY	2.0960e-003	2.1180e-003
tblVehicleEF	MCY	7.2300e-004	6.3400e-004
tblVehicleEF	MCY	0.70	1.35
tblVehicleEF	MCY	0.88	0.84
tblVehicleEF	MCY	0.41	0.79
tblVehicleEF	MCY	2.88	2.86
tblVehicleEF	MCY	0.83	1.77
tblVehicleEF	MCY	2.67	2.35



tblVehicleEF	MDV	0.01	2.6420e-003
tblVehicleEF	MDV	0.02	0.07
tblVehicleEF	MDV	1.26	0.66
tblVehicleEF	MDV	4.89	2.93
tblVehicleEF	MDV	402.47	354.25
tblVehicleEF	MDV	96.36	76.98
tblVehicleEF	MDV	0.24	0.06
tblVehicleEF	MDV	0.47	0.29
tblVehicleEF	MDV	1.7090e-003	1.2720e-003
tblVehicleEF	MDV	2.6450e-003	1.7330e-003
tblVehicleEF	MDV	1.5750e-003	1.1760e-003
tblVehicleEF	MDV	2.4320e-003	1.5930e-003
tblVehicleEF	MDV	0.10	0.09
tblVehicleEF	MDV	0.36	0.24
tblVehicleEF	MDV	0.09	0.09
tblVehicleEF	MDV	0.03	0.01
tblVehicleEF	MDV	0.31	1.01
tblVehicleEF	MDV	0.34	0.37
tblVehicleEF	MDV	4.0350e-003	3.2700e-003
tblVehicleEF	MDV	1.0500e-003	7.1200e-004
tblVehicleEF	MDV	0.10	0.09
tblVehicleEF	MDV	0.36	0.24
tblVehicleEF	MDV	0.09	0.09
tblVehicleEF	MDV	0.05	0.02
tblVehicleEF	MDV	0.31	1.01
tblVehicleEF	MDV	0.37	0.40
tblVehicleEF	MH	0.03	8.4020e-003
tblVehicleEF	MH	0.03	0.02
tblVehicleEF	MH	1.56	0.64
tblVehicleEF	MH	6.75	1.77

tblVehicleEF	MH	1,202.12	1,387.10
tblVehicleEF	MH	56.36	14.88
tblVehicleEF	MH	1.68	1.96
tblVehicleEF	MH	1.28	0.23
tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	0.03	0.04
tblVehicleEF	MH	1.1230e-003	2.0900e-004
tblVehicleEF	MH	3.2430e-003	3.3580e-003
tblVehicleEF	MH	0.03	0.04
tblVehicleEF	MH	1.0330e-003	1.9200e-004
tblVehicleEF	MH	0.77	0.45
tblVehicleEF	MH	0.10	0.06
tblVehicleEF	MH	0.29	0.18
tblVehicleEF	MH	0.10	0.07
tblVehicleEF	MH	0.04	1.46
tblVehicleEF	MH	0.43	0.08
tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	6.8300e-004	1.4700e-004
tblVehicleEF	MH	0.77	0.45
tblVehicleEF	MH	0.10	0.06
tblVehicleEF	MH	0.29	0.18
tblVehicleEF	MH	0.13	0.09
tblVehicleEF	MH	0.04	1.46
tblVehicleEF	MH	0.47	0.09
tblVehicleEF	MHD	0.02	5.4830e-003
tblVehicleEF	MHD	4.3300e-003	2.0110e-003
tblVehicleEF	MHD	0.06	0.01
tblVehicleEF	MHD	0.39	0.46
tblVehicleEF	MHD	0.35	0.24
tblVehicleEF	MHD	5.05	1.51

tblVehicleEF	MHD	157.91	56.10
tblVehicleEF	MHD	1,192.36	1,084.92
tblVehicleEF	MHD	49.96	13.74
tblVehicleEF	MHD	0.50	0.33
tblVehicleEF	MHD	1.60	1.70
tblVehicleEF	MHD	12.28	1.37
tblVehicleEF	MHD	1.8100e-004	2.8600e-004
tblVehicleEF	MHD	5.3670e-003	0.01
tblVehicleEF	MHD	6.5500e-004	1.6500e-004
tblVehicleEF	MHD	1.7300e-004	2.7400e-004
tblVehicleEF	MHD	5.1290e-003	9.5790e-003
tblVehicleEF	MHD	6.0200e-004	1.5100e-004
tblVehicleEF	MHD	7.1600e-004	5.2700e-004
tblVehicleEF	MHD	0.06	0.04
tblVehicleEF	MHD	0.03	0.02
tblVehicleEF	MHD	4.4600e-004	3.2400e-004
tblVehicleEF	MHD	0.05	0.02
tblVehicleEF	MHD	0.05	0.29
tblVehicleEF	MHD	0.34	0.07
tblVehicleEF	MHD	1.5180e-003	5.3400e-004
tblVehicleEF	MHD	0.01	0.01
tblVehicleEF	MHD	5.8900e-004	1.3600e-004
tblVehicleEF	MHD	7.1600e-004	5.2700e-004
tblVehicleEF	MHD	0.06	0.04
tblVehicleEF	MHD	0.04	0.03
tblVehicleEF	MHD	4.4600e-004	3.2400e-004
tblVehicleEF	MHD	0.06	0.03
tblVehicleEF	MHD	0.05	0.29
tblVehicleEF	MHD	0.37	0.08
tblVehicleEF	OBUS	0.01	6.1160e-003

tblVehicleEF	OBUS	4.1550e-003	2.9820e-003
tblVehicleEF	OBUS	0.04	0.02
tblVehicleEF	OBUS	0.25	0.64
tblVehicleEF	OBUS	0.35	0.40
tblVehicleEF	OBUS	5.46	1.98
tblVehicleEF	OBUS	225.91	98.90
tblVehicleEF	OBUS	1,249.83	1,108.21
tblVehicleEF	OBUS	51.07	13.64
tblVehicleEF	OBUS	0.55	0.45
tblVehicleEF	OBUS	1.18	1.55
tblVehicleEF	OBUS	7.33	1.26
tblVehicleEF	OBUS	4.9000e-005	1.4700e-004
tblVehicleEF	OBUS	3.2550e-003	7.2950e-003
tblVehicleEF	OBUS	6.8300e-004	1.5100e-004
tblVehicleEF	OBUS	4.7000e-005	1.4100e-004
tblVehicleEF	OBUS	3.1070e-003	6.9700e-003
tblVehicleEF	OBUS	6.2800e-004	1.3900e-004
tblVehicleEF	OBUS	1.2470e-003	1.4980e-003
tblVehicleEF	OBUS	0.03	0.03
tblVehicleEF	OBUS	0.04	0.05
tblVehicleEF	OBUS	5.9200e-004	6.8400e-004
tblVehicleEF	OBUS	0.05	0.02
tblVehicleEF	OBUS	0.04	0.57
tblVehicleEF	OBUS	0.36	0.09
tblVehicleEF	OBUS	2.1650e-003	9.3900e-004
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	6.0700e-004	1.3500e-004
tblVehicleEF	OBUS	1.2470e-003	1.4980e-003
tblVehicleEF	OBUS	0.03	0.03
tblVehicleEF	OBUS	0.05	0.06

tblVehicleEF	OBUS	5.9200e-004	6.8400e-004
tblVehicleEF	OBUS	0.06	0.03
tblVehicleEF	OBUS	0.04	0.57
tblVehicleEF	OBUS	0.40	0.10
tblVehicleEF	SBUS	1.01	0.02
tblVehicleEF	SBUS	4.5570e-003	6.2770e-003
tblVehicleEF	SBUS	0.07	2.4280e-003
tblVehicleEF	SBUS	3.96	1.24
tblVehicleEF	SBUS	0.34	0.57
tblVehicleEF	SBUS	3.06	0.37
tblVehicleEF	SBUS	1,315.11	309.97
tblVehicleEF	SBUS	1,183.41	1,019.86
tblVehicleEF	SBUS	22.66	1.52
tblVehicleEF	SBUS	7.54	2.82
tblVehicleEF	SBUS	2.57	4.29
tblVehicleEF	SBUS	17.28	1.21
tblVehicleEF	SBUS	3.9850e-003	2.1580e-003
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	0.01	0.03
tblVehicleEF	SBUS	2.7100e-004	2.3000e-005
tblVehicleEF	SBUS	3.8130e-003	2.0640e-003
tblVehicleEF	SBUS	2.8640e-003	2.8910e-003
tblVehicleEF	SBUS	0.01	0.03
tblVehicleEF	SBUS	2.4900e-004	2.1000e-005
tblVehicleEF	SBUS	1.6470e-003	1.9400e-004
tblVehicleEF	SBUS	0.02	3.9890e-003
tblVehicleEF	SBUS	0.50	0.10
tblVehicleEF	SBUS	8.1500e-004	9.4000e-005
tblVehicleEF	SBUS	0.08	0.09
tblVehicleEF	SBUS	0.01	0.03

tblVehicleEF	SBUS	0.18	0.01
tblVehicleEF	SBUS	0.01	2.9360e-003
tblVehicleEF	SBUS	0.01	9.6730e-003
tblVehicleEF	SBUS	2.8000e-004	1.5000e-005
tblVehicleEF	SBUS	1.6470e-003	1.9400e-004
tblVehicleEF	SBUS	0.02	3.9890e-003
tblVehicleEF	SBUS	0.71	0.14
tblVehicleEF	SBUS	8.1500e-004	9.4000e-005
tblVehicleEF	SBUS	0.09	0.10
tblVehicleEF	SBUS	0.01	0.03
tblVehicleEF	SBUS	0.20	0.02
tblVehicleEF	UBUS	0.20	1.73
tblVehicleEF	UBUS	0.08	0.02
tblVehicleEF	UBUS	3.57	13.04
tblVehicleEF	UBUS	13.13	1.13
tblVehicleEF	UBUS	1,931.82	1,554.15
tblVehicleEF	UBUS	145.03	10.27
tblVehicleEF	UBUS	3.86	0.57
tblVehicleEF	UBUS	12.85	0.11
tblVehicleEF	UBUS	0.50	0.09
tblVehicleEF	UBUS	0.01	0.03
tblVehicleEF	UBUS	0.06	4.2840e-003
tblVehicleEF	UBUS	1.2140e-003	1.1900e-004
tblVehicleEF	UBUS	0.21	0.04
tblVehicleEF	UBUS	3.0000e-003	6.3580e-003
tblVehicleEF	UBUS	0.06	4.0870e-003
tblVehicleEF	UBUS	1.1170e-003	1.0900e-004
tblVehicleEF	UBUS	3.7570e-003	3.3900e-004
tblVehicleEF	UBUS	0.08	6.1100e-003
tblVehicleEF	UBUS	2.2270e-003	2.0600e-004

tblVehicleEF	UBUS	0.25	0.03
tblVehicleEF	UBUS	0.02	0.04
tblVehicleEF	UBUS	1.12	0.07
tblVehicleEF	UBUS	0.02	9.4660e-003
tblVehicleEF	UBUS	1.6910e-003	1.0200e-004
tblVehicleEF	UBUS	3.7570e-003	3.3900e-004
tblVehicleEF	UBUS	0.08	6.1100e-003
tblVehicleEF	UBUS	2.2270e-003	2.0600e-004
tblVehicleEF	UBUS	0.48	1.77
tblVehicleEF	UBUS	0.02	0.04
tblVehicleEF	UBUS	1.23	0.07
tblVehicleTrips	ST_TR	1.68	0.07
tblVehicleTrips	SU_TR	1.68	0.02
tblVehicleTrips	WD_TR	1.68	0.19
tblWater	AerobicPercent	87.46	0.00
tblWater	AnaDigestCombDigestGasPercent	100.00	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	IndoorWaterUseRate	168,010,062.50	0.00
tblWater	SepticTankPercent	10.33	100.00

## 2.0 Emissions Summary

### 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	2.8381	6.0000e-005	6.6400e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.0130	0.0130	3.0000e-005	0.0000	0.0138

Energy	1.3300e-003	0.0121	0.0102	7.0000e-005		9.2000e-004	9.2000e-004		9.2000e-004	9.2000e-004	0.0000	656.1491	656.1491	0.0890	0.0186	663.9216
Mobile	0.0562	0.1213	0.4160	1.6300e-003	0.1511	1.4000e-003	0.1526	0.0406	1.3200e-003	0.0419	0.0000	135.7834	135.7834	3.9200e-003	0.0000	135.8814
Stationary	7.1100e-003	0.0316	0.1266	7.8000e-004		9.8200e-003	9.8200e-003		9.8200e-003	9.8200e-003	0.0000	140.6427	140.6427	2.7000e-003	0.0000	140.7101
Waste						0.0000	0.0000		0.0000	0.0000	0.1015	0.0000	0.1015	6.0000e-003	0.0000	0.2515
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>2.9027</b>	<b>0.1651</b>	<b>0.5594</b>	<b>2.4800e-003</b>	<b>0.1511</b>	<b>0.0122</b>	<b>0.1633</b>	<b>0.0406</b>	<b>0.0121</b>	<b>0.0527</b>	<b>0.1015</b>	<b>932.5882</b>	<b>932.6897</b>	<b>0.1017</b>	<b>0.0186</b>	<b>940.7784</b>

### 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	2.8381	6.0000e-005	6.6400e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.0130	0.0130	3.0000e-005	0.0000	0.0138
Energy	1.3300e-003	0.0121	0.0102	7.0000e-005		9.2000e-004	9.2000e-004		9.2000e-004	9.2000e-004	0.0000	656.1491	656.1491	0.0890	0.0186	663.9216
Mobile	0.0562	0.1213	0.4160	1.6300e-003	0.1511	1.4000e-003	0.1526	0.0406	1.3200e-003	0.0419	0.0000	135.7834	135.7834	3.9200e-003	0.0000	135.8814
Stationary	7.1100e-003	0.0316	0.1266	7.8000e-004		9.8200e-003	9.8200e-003		9.8200e-003	9.8200e-003	0.0000	140.6427	140.6427	2.7000e-003	0.0000	140.7101
Waste						0.0000	0.0000		0.0000	0.0000	0.1015	0.0000	0.1015	6.0000e-003	0.0000	0.2515
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>2.9027</b>	<b>0.1651</b>	<b>0.5594</b>	<b>2.4800e-003</b>	<b>0.1511</b>	<b>0.0122</b>	<b>0.1633</b>	<b>0.0406</b>	<b>0.0121</b>	<b>0.0527</b>	<b>0.1015</b>	<b>932.5882</b>	<b>932.6897</b>	<b>0.1017</b>	<b>0.0186</b>	<b>940.7784</b>

	ROG	NOx	CO	SO2	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

### 4.0 Operational Detail - Mobile



## 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	0.0562	0.1213	0.4160	1.6300e-003	0.1511	1.4000e-003	0.1526	0.0406	1.3200e-003	0.0419	0.0000	135.7834	135.7834	3.9200e-003	0.0000	135.8814
Unmitigated	0.0562	0.1213	0.4160	1.6300e-003	0.1511	1.4000e-003	0.1526	0.0406	1.3200e-003	0.0419	0.0000	135.7834	135.7834	3.9200e-003	0.0000	135.8814

## 4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Unrefrigerated Warehouse-No Rail	138.04	50.86	14.53	417,029	417,029
Total	138.04	50.86	14.53	417,029	417,029

## 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
Unrefrigerated Warehouse-No Rail	14.70	6.60	6.60	59.00	0.00	41.00	92	5	3

## 4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Unrefrigerated Warehouse-No Rail	0.526188	0.057164	0.197493	0.130043	0.032642	0.007569	0.009098	0.030557	0.001897	0.000625	0.004707	0.001334	0.000683

## 5.0 Energy Detail

Historical Energy Use: N

## 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	642.9672	642.9672	0.0888	0.0184	650.6614
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	642.9672	642.9672	0.0888	0.0184	650.6614
NaturalGas Mitigated	1.3300e-003	0.0121	0.0102	7.0000e-005		9.2000e-004	9.2000e-004		9.2000e-004	9.2000e-004	0.0000	13.1819	13.1819	2.5000e-004	2.4000e-004	13.2603
NaturalGas Unmitigated	1.3300e-003	0.0121	0.0102	7.0000e-005		9.2000e-004	9.2000e-004		9.2000e-004	9.2000e-004	0.0000	13.1819	13.1819	2.5000e-004	2.4000e-004	13.2603

## 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					
Unrefrigerated Warehouse-No Fuel	247020	1.3300e-003	0.0121	0.0102	7.0000e-005		9.2000e-004	9.2000e-004		9.2000e-004	9.2000e-004	0.0000	13.1819	13.1819	2.5000e-004	2.4000e-004	13.2603
<b>Total</b>		<b>1.3300e-003</b>	<b>0.0121</b>	<b>0.0102</b>	<b>7.0000e-005</b>		<b>9.2000e-004</b>	<b>9.2000e-004</b>		<b>9.2000e-004</b>	<b>9.2000e-004</b>	<b>0.0000</b>	<b>13.1819</b>	<b>13.1819</b>	<b>2.5000e-004</b>	<b>2.4000e-004</b>	<b>13.2603</b>

### 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					
Unrefrigerated Warehouse-No	247020	1.3300e-003	0.0121	0.0102	7.0000e-005		9.2000e-004	9.2000e-004		9.2000e-004	9.2000e-004	0.0000	13.1819	13.1819	2.5000e-004	2.4000e-004	13.2603
<b>Total</b>		<b>1.3300e-003</b>	<b>0.0121</b>	<b>0.0102</b>	<b>7.0000e-005</b>		<b>9.2000e-004</b>	<b>9.2000e-004</b>		<b>9.2000e-004</b>	<b>9.2000e-004</b>	<b>0.0000</b>	<b>13.1819</b>	<b>13.1819</b>	<b>2.5000e-004</b>	<b>2.4000e-004</b>	<b>13.2603</b>

### 5.3 Energy by Land Use - Electricity

#### Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Unrefrigerated Warehouse-No	6.75e+006	642.9672	0.0888	0.0184	650.6614
<b>Total</b>		<b>642.9672</b>	<b>0.0888</b>	<b>0.0184</b>	<b>650.6614</b>

#### Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Unrefrigerated Warehouse-No	6.75e+006	642.9672	0.0888	0.0184	650.6614
<b>Total</b>		<b>642.9672</b>	<b>0.0888</b>	<b>0.0184</b>	<b>650.6614</b>

## 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	2.8381	6.0000e-005	6.6400e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.0130	0.0130	3.0000e-005	0.0000	0.0138
Unmitigated	2.8381	6.0000e-005	6.6400e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.0130	0.0130	3.0000e-005	0.0000	0.0138

### 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	2.8375					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	6.1000e-004	6.0000e-005	6.6400e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.0130	0.0130	3.0000e-005	0.0000	0.0138
<b>Total</b>	<b>2.8381</b>	<b>6.0000e-005</b>	<b>6.6400e-003</b>	<b>0.0000</b>		<b>2.0000e-005</b>	<b>2.0000e-005</b>		<b>2.0000e-005</b>	<b>2.0000e-005</b>	<b>0.0000</b>	<b>0.0130</b>	<b>0.0130</b>	<b>3.0000e-005</b>	<b>0.0000</b>	<b>0.0138</b>

**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	2.8375					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	6.1000e-004	6.0000e-005	6.6400e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.0130	0.0130	3.0000e-005	0.0000	0.0138
<b>Total</b>	<b>2.8381</b>	<b>6.0000e-005</b>	<b>6.6400e-003</b>	<b>0.0000</b>		<b>2.0000e-005</b>	<b>2.0000e-005</b>		<b>2.0000e-005</b>	<b>2.0000e-005</b>	<b>0.0000</b>	<b>0.0130</b>	<b>0.0130</b>	<b>3.0000e-005</b>	<b>0.0000</b>	<b>0.0138</b>

**7.0 Water Detail**

**7.1 Mitigation Measures Water**

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

**7.2 Water by Land Use**

**Unmitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Unrefrigerated Warehouse-No	0 / 0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**Mitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Unrefrigerated Warehouse-No	0 / 0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**8.0 Waste Detail**

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**8.1 Mitigation Measures Waste**

**Category/Year**

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.1015	6.0000e-003	0.0000	0.2515
Unmitigated	0.1015	6.0000e-003	0.0000	0.2515

## 8.2 Waste by Land Use

### Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Unrefrigerated Warehouse-No	0.5	0.1015	6.0000e-003	0.0000	0.2515
<b>Total</b>		<b>0.1015</b>	<b>6.0000e-003</b>	<b>0.0000</b>	<b>0.2515</b>

### Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Unrefrigerated Warehouse-No	0.5	0.1015	6.0000e-003	0.0000	0.2515
<b>Total</b>		<b>0.1015</b>	<b>6.0000e-003</b>	<b>0.0000</b>	<b>0.2515</b>

## 9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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## 10.0 Stationary Equipment

### Fire Pumps and Emergency Generators

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

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
Boiler	2	5.02	878.5	1.004	CNG
Boiler	1	5.02	878.5	1.004	CNG

### User Defined Equipment

Equipment Type	Number
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## 10.1 Stationary Sources

### Unmitigated/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
Equipment Type	tons/yr										MT/yr					
Boiler - CNG (0 - 2 MMBTU)	7.1100e-003	0.0316	0.1266	7.8000e-004		9.8200e-003	9.8200e-003		9.8200e-003	9.8200e-003	0.0000	140.6427	140.6427	2.7000e-003	0.0000	140.7101
<b>Total</b>	<b>7.1100e-003</b>	<b>0.0316</b>	<b>0.1266</b>	<b>7.8000e-004</b>		<b>9.8200e-003</b>	<b>9.8200e-003</b>		<b>9.8200e-003</b>	<b>9.8200e-003</b>	<b>0.0000</b>	<b>140.6427</b>	<b>140.6427</b>	<b>2.7000e-003</b>	<b>0.0000</b>	<b>140.7101</b>



## 11.0 Vegetation

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## **Attachment 2: EMFAC2017 Calculations**

**CalEEMod EMFAC2017 Fleet Mix Input - 2021**

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FleetMixLandUseSubType	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
	0.451903	0.065643	0.207148	0.153542	0.057401	0.012341	0.011624	0.029683	0.001599	0.00063	0.006035	0.001397	0.001054

## CalEEMod EMFAC2017 Emission Factors Input - 2021

Season	EmissionType	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
A	CH4_IDLEX	0	0	0	0	0.003234	0.001835	0.004349	0.024584552	0.008158	0	0	0.011131	0
A	CH4_RUNEX	0.004075	0.013213	0.007324	0.007555	0.017179	0.008965	0.013104	0.005632286	0.015612	3.935736	0.357285	0.010714	0.027973
A	CH4_STREX	0.073451	0.147006	0.114792	0.128889	0.012915	0.005011	0.014545	1.95809E-07	0.026415	0.018542	0.293792	0.002047	0.026108
A	CO_IDLEX	0	0	0	0	0.13813	0.104108	0.421814	6.824785133	0.560681	0	0	0.80657	0
A	CO_RUNEX	0.866148	2.414102	1.420634	1.421479	1.716174	0.892639	1.050602	0.480633666	1.558493	19.37869	23.89389	0.925382	3.589206
A	CO_STREX	2.715605	3.341081	3.659194	4.551562	0.909025	0.364211	1.930788	0.001525325	3.153653	1.129307	9.526722	0.383035	2.883427
A	CO2_NBIO_IDLEX	0	0	0	0	10.14663	16.41607	78.06557	1285.921442	89.19256	0	0	329.1029	0
A	CO2_NBIO_RUNEX	270.5492	333.866	360.2116	433.7737	736.8671	733.1433	1217.811	1500.609848	1461.671	1748.193	215.8254	1150.409	1599.499
A	CO2_NBIO_STREX	57.45823	74.04301	79.54914	94.05602	7.518444	3.973186	13.25419	0.036041698	20.64999	12.25654	66.48316	1.263654	19.89426
A	NOX_IDLEX	0	0	0	0	0.126719	0.163337	0.770784	6.952748551	0.562461	0	0	3.934003	0
A	NOX_RUNEX	0.076086	0.272807	0.185476	0.181946	3.063616	1.941407	3.727619	4.72202442	2.338395	2.206358	1.245411	7.8025	2.702615
A	NOX_STREX	0.249579	0.485899	0.496302	0.536428	0.216041	0.102168	0.935148	1.9903937	0.745064	0.135381	0.284135	0.59691	0.233023
A	PM10_IDLEX	0	0	0	0	0.001414	0.001814	0.002523	0.011602472	0.002199	0	0	0.005599	0
A	PM10_PMBW	0.03675	0.03675	0.03675	0.03675	0.07644	0.08918	0.13034	0.060054116	0.13034	0.090129	0.01176	0.7448	0.13034
A	PM10_PMTW	0.008	0.008	0.008	0.008	0.010679	0.011394	0.012	0.035013767	0.012	0.025431	0.004	0.011698	0.013266
A	PM10_RUNEX	0.001944	0.003267	0.001861	0.001953	0.030567	0.026321	0.07952	0.064127619	0.044674	0.00478	0.001906	0.047637	0.054837
A	PM10_STREX	0.002174	0.003952	0.002334	0.002667	0.000254	7.62E-05	0.000239	7.18451E-07	0.0002	3.53E-05	0.004003	1.76E-05	0.0004
A	PM25_IDLEX	0	0	0	0	0.001353	0.001736	0.002413	0.011100554	0.002104	0	0	0.005356	0
A	PM25_PMBW	0.01575	0.01575	0.01575	0.01575	0.03276	0.03822	0.05586	0.025737478	0.05586	0.038627	0.00504	0.3192	0.05586
A	PM25_PMTW	0.002	0.002	0.002	0.002	0.00267	0.002848	0.003	0.008753442	0.003	0.006358	0.001	0.002925	0.003317
A	PM25_RUNEX	0.0018	0.00301	0.001714	0.001809	0.029201	0.025168	0.07607	0.06135347	0.042726	0.00457	0.001794	0.045568	0.05239
A	PM25_STREX	0.002	0.003634	0.002146	0.002457	0.000233	7.01E-05	0.00022	6.60589E-07	0.000184	3.25E-05	0.003796	1.62E-05	0.000368
A	ROG_DIURN	0.05074	0.169239	0.087649	0.09335	0.001736	0.00053	0.000794	3.23177E-06	0.001661	0.000733	1.314124	0.000218	0.926945
A	ROG_HTSK	0.171232	0.485649	0.265898	0.2795	0.104832	0.031336	0.052502	0.000261229	0.036018	0.014675	0.944954	0.004132	0.11393
A	ROG_IDLEX	0	0	0	0	0.017076	0.012688	0.025865	0.529298673	0.058548	0	0	0.072826	0
A	ROG_RESTL	0.044638	0.135401	0.078697	0.086033	0.000856	0.00027	0.000398	1.41104E-06	0.000713	0.000472	0.788952	8.62E-05	0.323113
A	ROG_RUNEX	0.017711	0.061668	0.032897	0.036412	0.208502	0.157504	0.21046	0.120824932	0.162009	0.059218	2.540316	0.140485	0.175515
A	ROG_RUNLS	0.326585	2.010095	1.116991	1.114735	0.979571	0.27708	0.405449	0.002577081	0.617351	0.103221	3.033578	0.030134	3.390656
A	ROG_STREX	0.355549	0.822425	0.596977	0.698866	0.069223	0.025553	0.085719	1.02099E-06	0.148759	0.079996	2.301167	0.012917	0.124114
A	SO2_IDLEX	0	0	0	0	9.73E-05	0.000156	0.000741	0.012148748	0.000849	0	0	0.003114	0
A	SO2_RUNEX	0.000151	0.003192	0.01163	0.004276	0.007118	0.00701	0.01163	0.014177196	0.014131	0.007065	0.002136	0.010899	0.015679
A	SO2_STREX	0	0	0.000131	0.000929	7.44E-05	3.93E-05	0.000131	3.56662E-07	0.000204	0.000121	0.000658	1.25E-05	0.000197
A	TOG_DIURN	0.05074	0.169239	0.087649	0.09335	0.001736	0.00053	0.000794	3.23177E-06	0.001661	0.000733	1.314124	0.000218	0.926945
A	TOG_HTSK	0.171232	0.485649	0.265898	0.2795	0.104832	0.031336	0.052502	0.000261229	0.036018	0.014675	0.944954	0.004132	0.11393
A	TOG_IDLEX	0	0	0	0	0.023166	0.016214	0.034555	0.602566249	0.075093	0	0	0.097846	0
A	TOG_RESTL	0.044638	0.135401	0.078697	0.086033	0.000856	0.00027	0.000398	1.41104E-06	0.000713	0.000472	0.788952	8.62E-05	0.323113
A	TOG_RUNEX	0.025629	0.089816	0.047907	0.05126	0.254083	0.182523	0.246922	0.137595954	0.201288	4.020133	3.050213	0.168825	0.239004
A	TOG_RUNLS	0.326585	2.010095	1.116991	1.114735	0.979571	0.27708	0.405449	0.002577081	0.617351	0.103221	3.033578	0.030134	3.390656
A	TOG_STREX	0.389277	0.900442	0.65361	0.764995	0.07579	0.027977	0.093851	1.11785E-06	0.162873	0.087585	2.501497	0.014143	0.135889

**CalEEMod Construction Inputs - Phase 1**

Phase	CalEEMod	CalEEMod	Total	Total	CalEEMod	Worker Trip	Vendor Trip	Hauling Trip	Worker Vehicle	Vendor Vehicle	Hauling Vehicle	Worker VMT	Vendor VMT	Hauling VMT
	WORKER	VENDOR	Worker	Vendor	HAULING									
	TRIPS	TRIPS	Trips	Trips	TRIPS*	Length	Length	Length	Class	Class	Class			
Demolition	0	-	-	-	0	16.8	6.6	20	LD_Mix	HDT_Mix	HHDT	-	-	-
Site Preparation	5	150	-	-	0	16.8	6.6	20	LD_Mix	HDT_Mix	HHDT	2,520	-	-
Grading	8	600	-	-	4375	16.8	6.6	1	LD_Mix	HDT_Mix	HHDT	10,080	-	4,375
Building Construction	39	15	7,800	3,000	500	16.8	6.6	6.6	LD_Mix	HDT_Mix	HHDT	131,040	19,800	3,300
Trenching	5	375	-	-	0	16.8	6.6	20	LD_Mix	HDT_Mix	HHDT	6,300	-	-
Paving	15	150	-	-	56	16.8	6.6	6.6	LD_Mix	HDT_Mix	HHDT	2,520	-	370
Architectural Coating	8	80	-	-	0	16.8	6.6	20	LD_Mix	HDT_Mix	HHDT	1,344	-	-

\*Hauling based on assumption using the proposed square footage of the project

**Number of Days Per Year**

2021	1/4/21	12/1/21	332	
			332	<b>238 Total Workdays</b>

Phase	Start Date	End Date	Days/Week	Workdays
Demolition	1/4/2021	1/4/2021	5	1
Site Preparation	1/4/2021	2/12/2021	5	30
Grading	2/12/2021	5/27/2021	5	75
Building Construction	2/12/2021	11/18/2021	5	200
Trenching	2/12/2021	5/27/2021	5	75
Paving	5/27/2021	6/9/2021	5	10
Architectural Coating	11/18/2021	12/1/2021	5	10

**CalEEMod Construction Inputs**

Phase	CalEEMod	CalEEMod	Total	Total	CalEEMod	Worker Trip	Vendor Trip	Hauling Trip	Worker Vehicle	Vendor Vehicle	Hauling Vehicle	Worker VMT	Vendor VMT	Hauling VMT
	WORKER TRIPS	VENDOR TRIPS	Worker Trips	Vendor Trips	HAULING TRIPS*									
Demolition	0	-	-	-	0	16.8	6.6	20	LD_Mix	HDT_Mix	HHDT	-	-	-
Site Preparation	0	-	-	-	0	16.8	6.6	20	LD_Mix	HDT_Mix	HHDT	-	-	-
Grading	0	-	-	-	0	16.8	6.6	20	LD_Mix	HDT_Mix	HHDT	-	-	-
Building Construction	305	119	19,215	7,497	0	16.8	6.6	20	LD_Mix	HDT_Mix	HHDT	322,812	49,480	-
Paving	0	-	-	-	0	16.8	6.6	20	LD_Mix	HDT_Mix	HHDT	-	-	-
Architectural Coating	61	-	61	-	0	16.8	6.6	20	LD_Mix	HDT_Mix	HHDT	1,025	-	-

\*Hauling based on assumption using the proposed square footage of the project

**Number of Days Per Year**

2022	9/1/21	11/26/21	87
			87

**63 Total Workdays**

Phase	Start Date	End Date	Days/Week	Workdays
Demolition	9/1/2021	9/1/2021	5	1
Site Preparation	9/1/2021	9/1/2021	5	1
Grading	9/1/2021	9/1/2021	5	1
Building Construction	9/1/2021	11/26/2021	5	63
Paving	9/1/2021	9/1/2021	5	1
Architectural Coating	9/1/2021	9/1/2021	5	1

**Summary of Construction Traffic Emissions (EMFAC2017)**

CATEGORY	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	NBio- CO2
	<i>Grams</i>										
Hauling	3595.98	82085.43	37527.0425	173.957	2405.34	1337.88	3743.2	361.93	825.77	1187.70	18412862.34
Vendor	4520.77	108675.14	29394.5	293.446	5920.20	3528.57	9448.8	890.80	2141.65	3032.45	30985719.54
Worker	18040.88	22378.66	207008.9	570.568	45987.40	7218.28	53205.7	6919.64	3040.01	9959.66	47033122.63
Total (g)	26157.63	213139.236	273930.436	1037.970849	54312.9314	12084.73008	66397.6615	8172.370514	6007.433992	14179.80451	96431704.52
Total (lbs)	57.67	469.89	603.91	2.29	119.74	26.6	146.38	18.02	13.24	31.26	212595.5172
Total (tons)	0.0288	0.235	0.302	0.001	0.060	0.0133	0.0732	0.0090	0.007	0.016	106.30
Total (MT)											96.43

  

YEAR	<i>Tons</i>										
2021	0.0288	0.2349	0.3020	0.0011	0.0599	0.0133	0.0732	0.0090	0.0066	0.0156	96.4317

**Summary of Construction Traffic Emissions (EMFAC2017)**

CATEGORY	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	NBio- CO2
	<i>Grams</i>										
Hauling	0.00	0.00	0	0.000	0.00	0.00	0.0	0.00	0.00	0.00	0
Vendor	8131.91	237663.51	66751.2	718.671	14794.58	7393.89	22188.5	2226.11	3994.62	6220.74	75880701.59
Worker	34850.18	41147.67	393364.0	1162.857	96827.20	15150.93	111978.1	14569.42	6356.90	20926.32	96353735.02
Total (g)	42982.09	278811.1765	460115.198	1881.528047	111621.783	22544.82015	134166.603	16795.53183	10351.52357	27147.0554	172234436.6
Total (lbs)	94.76	614.67	1014.38	4.15	246.08	49.7	295.79	37.03	22.82	59.85	379711.9352
Total (tons)	0.0474	0.307	0.507	0.002	0.123	0.0249	0.1479	0.0185	0.011	0.030	189.86
Total (MT)											172.23

  

YEAR	<i>Tons</i>										
2021	0.0474	0.3073	0.5072	0.0021	0.1230	0.0249	0.1479	0.0185	0.0114	0.0299	172.2344



**CalEEMod EMFAC2017 Fleet Mix Input - 2022**

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FleetMixLandUseSubType	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
	0.461849	0.064347	0.206426	0.15045	0.053725	0.011671	0.011264	0.029765	0.001633	0.000629	0.005857	0.00139	0.000995

## CalEEMod EMFAC2017 Emission Factors Input - 2022

Season	EmissionType	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
A	CH4_IDLEX	0	0	0	0	0.003261	0.001819	0.004502	0.0245006	0.007673	0	0	0.012038	0
A	CH4_RUNEX	0.003438	0.011726	0.006601	0.006392	0.016524	0.008592	0.007931	0.003433918	0.010897	2.842436	0.354325	0.010347	0.024793
A	CH4_STREX	0.066758	0.136016	0.10761	0.119767	0.012763	0.004819	0.014713	1.98442E-07	0.025289	0.016303	0.291881	0.002164	0.025281
A	CO_IDLEX	0	0	0	0	0.13926	0.104131	0.427371	7.280650695	0.55342	0	0	0.853414	0
A	CO_RUNEX	0.768016	2.16212	1.299864	1.215862	1.660618	0.867419	0.740382	0.341956696	1.1994	21.63626	23.42503	0.904809	3.071555
A	CO_STREX	2.61631	3.207686	3.543894	4.266037	0.904855	0.351322	1.90753	0.002780989	3.021883	1.128859	9.549275	0.388486	2.72874
A	CO2_NBIO_IDLEX	0	0	0	0	10.10221	16.36548	75.71234	1320.657355	87.92835	0	0	328.6991	0
A	CO2_NBIO_RUNEX	263.3227	327.4271	351.3574	424.3077	737.2723	730.4001	1191.74	1457.685091	1405.82	1708.439	215.6018	1138.415	1579.014
A	CO2_NBIO_STREX	55.90106	72.61474	77.67106	91.66109	7.599218	3.938598	13.53639	0.035897342	19.95054	11.77848	66.28158	1.318275	19.28094
A	NOX_IDLEX	0	0	0	0	0.124564	0.161437	0.660671	7.020604795	0.420261	0	0	3.848892	0
A	NOX_RUNEX	0.064249	0.241276	0.165503	0.156226	2.922604	1.856652	2.770068	4.074924794	1.808467	0.656261	1.241154	7.463867	2.619187
A	NOX_STREX	0.230001	0.452977	0.46131	0.495154	0.218025	0.100946	1.127109	2.187422321	0.86429	0.12021	0.284589	0.652741	0.231963
A	PM10_IDLEX	0	0	0	0	0.001392	0.001814	0.00165	0.004795989	0.00072	0	0	0.005127	0
A	PM10_PMBW	0.03675	0.03675	0.03675	0.03675	0.07644	0.08918	0.13034	0.060115497	0.13034	0.090129	0.01176	0.7448	0.13034
A	PM10_PMTW	0.008	0.008	0.008	0.008	0.010642	0.011383	0.012	0.035049124	0.012	0.025431	0.004	0.011677	0.013293
A	PM10_RUNEX	0.001805	0.003002	0.001775	0.001853	0.029695	0.026243	0.039749	0.041074196	0.017891	0.003829	0.001902	0.044902	0.054063
A	PM10_STREX	0.002055	0.003671	0.002228	0.002482	0.000249	7.04E-05	0.000224	6.58588E-07	0.000196	6.14E-05	0.003782	1.86E-05	0.00037
A	PM25_IDLEX	0	0	0	0	0.001331	0.001735	0.001579	0.004588517	0.000689	0	0	0.004905	0
A	PM25_PMBW	0.01575	0.01575	0.01575	0.01575	0.03276	0.03822	0.05586	0.025763785	0.05586	0.038627	0.00504	0.3192	0.05586
A	PM25_PMTW	0.002	0.002	0.002	0.002	0.00266	0.002846	0.003	0.008762281	0.003	0.006358	0.001	0.002919	0.003323
A	PM25_RUNEX	0.001671	0.002765	0.001635	0.001715	0.028367	0.025094	0.03802	0.039297327	0.017102	0.003657	0.001788	0.042951	0.051655
A	PM25_STREX	0.001889	0.003376	0.002049	0.002283	0.000229	6.48E-05	0.000206	6.05547E-07	0.000181	5.65E-05	0.003583	1.71E-05	0.000341
A	ROG_DIURN	0.046184	0.160927	0.086287	0.09207	0.001748	0.000506	0.000736	2.87951E-06	0.001689	0.000567	1.327351	0.000229	0.871375
A	ROG_HTSK	0.157028	0.463202	0.26022	0.274145	0.106387	0.029991	0.050093	0.000231364	0.03674	0.010972	0.94104	0.00439	0.108109
A	ROG_IDLEX	0	0	0	0	0.017083	0.012594	0.02459	0.527491189	0.051219	0	0	0.076027	0
A	ROG_RESTL	0.041169	0.130568	0.078784	0.086272	0.000872	0.000264	0.000377	1.26175E-06	0.000733	0.00036	0.797929	9.15E-05	0.307549
A	ROG_RUNEX	0.014705	0.054499	0.029468	0.028956	0.202199	0.154759	0.10907	0.073508235	0.08681	0.0436	2.510256	0.135148	0.159325
A	ROG_RUNLS	0.305583	1.906643	1.098204	1.107781	1.015117	0.264967	0.387401	0.002241385	0.63103	0.07632	2.915455	0.031223	3.237465
A	ROG_STREX	0.317232	0.754991	0.554747	0.641322	0.068477	0.024472	0.085456	1.03409E-06	0.142445	0.069706	2.285981	0.013594	0.118201
A	SO2_IDLEX	0	0	0	0	9.69E-05	0.000155	0.000719	0.012476916	0.000837	0	0	0.003111	0
A	SO2_RUNEX	0.000151	0.003239	0.011389	0.004165	0.007125	0.006985	0.011389	0.013771684	0.013571	0.007504	0.002134	0.010787	0.015474
A	SO2_STREX	0	0	0.000134	0.000901	7.52E-05	3.9E-05	0.000134	3.55233E-07	0.000197	0.000117	0.000656	1.3E-05	0.000191
A	TOG_DIURN	0.046184	0.160927	0.086287	0.09207	0.001748	0.000506	0.000736	2.87951E-06	0.001689	0.000567	1.327351	0.000229	0.871375
A	TOG_HTSK	0.157028	0.463202	0.26022	0.274145	0.106387	0.029991	0.050093	0.000231364	0.03674	0.010972	0.94104	0.00439	0.108109
A	TOG_IDLEX	0	0	0	0	0.023193	0.016076	0.033342	0.600508565	0.066529	0	0	0.102771	0
A	TOG_RESTL	0.041169	0.130568	0.078784	0.086272	0.000872	0.000264	0.000377	1.26175E-06	0.000733	0.00036	0.797929	9.15E-05	0.307549
A	TOG_RUNEX	0.02128	0.079401	0.04292	0.041945	0.246049	0.178822	0.130395	0.083726312	0.113186	2.904336	3.024095	0.162487	0.215271
A	TOG_RUNLS	0.305583	1.906643	1.098204	1.107781	1.015117	0.264967	0.387401	0.002241385	0.63103	0.07632	2.915455	0.031223	3.237465
A	TOG_STREX	0.347326	0.826613	0.607376	0.702145	0.074973	0.026793	0.093563	1.1322E-06	0.15596	0.076319	2.485219	0.014884	0.129415

**CalEEMod EMFAC2017 Fleet Mix Input - 2030**

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FleetMixLandUseSubType	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
	0.526188	0.057164	0.197493	0.130043	0.032642	0.007569	0.009098	0.030557	0.001897	0.000625	0.004707	0.001334	0.000683

## CalEEMod EMFAC2017 Emission Factors Input - 2030

Season	EmissionType	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
A	CH4_IDLEX	0	0	0	0	0.00352	0.00174	0.005483	0.026555176	0.006116	0	0	0.018447	0
A	CH4_RUNEX	0.001263	0.00412	0.002978	0.002642	0.010895	0.006923	0.002011	0.001317066	0.002982	1.731661	0.335561	0.006277	0.008402
A	CH4_STREX	0.035273	0.067068	0.063398	0.070609	0.011376	0.003473	0.013737	1.92916E-07	0.016589	0.015702	0.276441	0.002428	0.019916
A	CO_IDLEX	0	0	0	0	0.153508	0.106962	0.463534	8.384680949	0.639972	0	0	1.243644	0
A	CO_RUNEX	0.438076	0.922254	0.736692	0.660132	1.11033	0.743535	0.235442	0.234047981	0.40004	13.0438	20.47743	0.569411	0.63535
A	CO_STREX	1.97013	2.377296	2.824156	2.93263	0.95067	0.303683	1.509374	0.003731323	1.975092	1.12563	9.820631	0.365081	1.774785
A	CO2_NBIO_IDLEX	0	0	0	0	9.445536	15.47755	56.1043	1232.621919	98.89886	0	0	309.9715	0
A	CO2_NBIO_RUNEX	221.37	281.6554	293.39	354.2499	722.722	690.9053	1084.917	1169.417538	1108.206	1554.155	214.0724	1019.86	1387.098
A	CO2_NBIO_STREX	46.81964	62.24348	65.09248	76.97882	8.620862	3.913688	13.74164	0.030772645	13.63977	10.26667	64.05586	1.517994	14.88239
A	NOX_IDLEX	0	0	0	0	0.098048	0.138733	0.327073	6.970961111	0.451168	0	0	2.816357	0
A	NOX_RUNEX	0.025974	0.085962	0.071127	0.061341	1.676771	1.17454	1.700839	2.631443213	1.54992	0.566163	1.210373	4.29458	1.957686
A	NOX_STREX	0.145487	0.25451	0.265784	0.2913	0.228019	0.088989	1.365337	2.512553674	1.264433	0.11026	0.28249	1.208848	0.226342
A	PM10_IDLEX	0	0	0	0	0.001169	0.0018	0.000286	0.003021305	0.000147	0	0	0.002158	0
A	PM10_PMBW	0.03675	0.03675	0.03675	0.03675	0.07644	0.08918	0.13034	0.060472403	0.13034	0.090129	0.01176	0.7448	0.13034
A	PM10_PMTW	0.008	0.008	0.008	0.008	0.010259	0.011259	0.012	0.035253409	0.012	0.025431	0.004	0.011564	0.013433
A	PM10_RUNEX	0.001071	0.001488	0.001228	0.001272	0.02008	0.023667	0.010024	0.027224457	0.007295	0.004284	0.001936	0.027172	0.041778
A	PM10_STREX	0.001387	0.002007	0.001582	0.001733	0.000244	5.98E-05	0.000165	3.61368E-07	0.000151	0.000119	0.002493	2.33E-05	0.000209
A	PM25_IDLEX	0	0	0	0	0.001118	0.001722	0.000274	0.002890605	0.000141	0	0	0.002064	0
A	PM25_PMBW	0.01575	0.01575	0.01575	0.01575	0.03276	0.03822	0.05586	0.025916745	0.05586	0.038627	0.00504	0.3192	0.05586
A	PM25_PMTW	0.002	0.002	0.002	0.002	0.002565	0.002815	0.003	0.008813353	0.003	0.006358	0.001	0.002891	0.003358
A	PM25_RUNEX	0.000986	0.001369	0.001131	0.001176	0.019164	0.022629	0.009579	0.026046719	0.00697	0.004087	0.001809	0.025989	0.039932
A	PM25_STREX	0.001275	0.001845	0.001455	0.001593	0.000224	5.5E-05	0.000151	3.32264E-07	0.000139	0.000109	0.002342	2.14E-05	0.000192
A	ROG_DIURN	0.025313	0.093176	0.0731	0.089387	0.001894	0.000424	0.000527	6.63543E-07	0.001498	0.000339	1.349936	0.000194	0.452483
A	ROG_HTSK	0.090809	0.272007	0.203532	0.235299	0.121852	0.024361	0.039753	4.42959E-05	0.033575	0.00611	0.839851	0.003989	0.058226
A	ROG_IDLEX	0	0	0	0	0.017066	0.011996	0.024142	0.571725648	0.048044	0	0	0.100411	0
A	ROG_RESTL	0.023973	0.083514	0.073113	0.088313	0.001005	0.000256	0.000324	3.72606E-07	0.000684	0.000206	0.788966	9.44E-05	0.180865
A	ROG_RUNEX	0.004679	0.018211	0.012582	0.011477	0.139699	0.134847	0.020875	0.027800354	0.022182	0.027518	2.319862	0.08599	0.072669
A	ROG_RUNLS	0.222786	1.118331	0.903224	1.011437	1.33781	0.197459	0.285778	0.00036705	0.572361	0.037185	1.766218	0.026477	1.459024
A	ROG_STREX	0.150236	0.342599	0.305411	0.365547	0.060786	0.016818	0.071545	1.00315E-06	0.093594	0.065906	2.158292	0.014721	0.081833
A	SO2_IDLEX	0	0	0	0	9.09E-05	0.000147	0.000534	0.011645201	0.000939	0	0	0.002936	0
A	SO2_RUNEX	0.00013	0.003331	0.010407	0.00327	0.007015	0.006618	0.010407	0.011048434	0.010608	0.009466	0.002118	0.009673	0.013571
A	SO2_STREX	0	0	0.000136	0.000712	8.53E-05	3.87E-05	0.000136	3.0452E-07	0.000135	0.000102	0.000634	1.5E-05	0.000147
A	TOG_DIURN	0.025313	0.093176	0.0731	0.089387	0.001894	0.000424	0.000527	6.63543E-07	0.001498	0.000339	1.349936	0.000194	0.452483
A	TOG_HTSK	0.090809	0.272007	0.203532	0.235299	0.121852	0.024361	0.039753	4.42959E-05	0.033575	0.00611	0.839851	0.003989	0.058226
A	TOG_IDLEX	0	0	0	0	0.023383	0.015243	0.033969	0.65086613	0.060774	0	0	0.139196	0
A	TOG_RESTL	0.023973	0.083514	0.073113	0.088313	0.001005	0.000256	0.000324	3.72606E-07	0.000684	0.000206	0.788966	9.44E-05	0.180865
A	TOG_RUNEX	0.006786	0.02657	0.018312	0.016595	0.16802	0.154573	0.025712	0.031694784	0.029376	1.77046	2.857117	0.102726	0.090214
A	TOG_RUNLS	0.222786	1.118331	0.903224	1.011437	1.33781	0.197459	0.285778	0.00036705	0.572361	0.037185	1.766218	0.026477	1.459024
A	TOG_STREX	0.16449	0.375103	0.334387	0.400228	0.066553	0.018413	0.078333	1.09832E-06	0.102474	0.072159	2.348258	0.016118	0.089596