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MEMORANDUM

To:	Michael Baron, El Dorado Irrigation District
From:	Ian McIntire, Dudek
Subject:	Air Quality and Greenhouse Gas Emissions Sections and Calculations for Administrative Draft Initial Study / Mitigated Negative Declaration EID Wastewater Collection Facility Relocation/Project Number CUP19-0005 APN: 118-020-10-100
Attachment	Appendix A – CalEEMod 2016.3.2 Modeling and Estimated Emissions
Date:	August 2, 2019

Dudek is pleased to submit this air quality and greenhouse gas (GHG) emissions evaluation to assist El Dorado Irrigation District (EID) in satisfying El Dorado County application requirements for EID's proposed Wastewater Collection Facility Relocation/Project (Project) located at 4625 Latrobe Road in El Dorado County (County), California.

This memorandum estimates criteria air pollutant and GHG emissions from construction and operation of the proposed project and evaluates potential air quality and GHG emissions impacts resulting from project implementation. The project is located within the Mountain Counties Air Basin (MCAB) and is within the jurisdictional boundaries of the El Dorado County Air Quality Management District (EDCAQMD), which has jurisdiction over El Dorado County. CalEEMod Version 2016.3.2 was used to estimate air quality and greenhouse gas (GHG) emissions.

The analysis in this memorandum is prepared similar to the format of an Initial Study / Mitigated Negative Declaration to provide for the analysis to be easily integrated into the CEQA document, The analysis is appropriate to support CEQA significance determinations for the significance of air quality and greenhouse gas emissions impacts that would result from construction and operation of the Project.

1 GENERAL ANALYSIS AND METHODOLOGY

Criteria air pollutants are defined as pollutants for which the federal and state governments have established ambient air quality standards, or criteria, for outdoor concentrations to protect public health. Criteria air pollutants that are evaluated include volatile organic compounds (VOCs, also

referred to as reactive organic gases (ROGs)), oxides of nitrogen (NO_x), carbon monoxide (CO), sulfur oxides (SO_x), particulate matter with an aerodynamic diameter less than or equal to 10 microns in size (PM_{10}), and particulate matter with an aerodynamic diameter less than or equal to 2.5 microns in size ($PM_{2.5}$). VOCs and NO_x are important because they are precursors to ozone (O_3) formation. Criteria air pollutant emissions from construction activities is typically associated with operation of off-road construction equipment, on-road hauling and vendor (material delivery) trucks, and worker vehicle trips. Operational emission sources for the Project would typically include mobile (vehicle) sources related to maintenance and operation, area sources associated with use of consumer products, as well as energy use associated with facility operations (power generation).

Greenhouse gases (GHGs) are gases that absorb infrared radiation in the atmosphere. The greenhouse effect is a natural process that contributes to regulating the Earth's temperature. Global climate change concerns are focused on whether human activities are leading to an enhancement of the greenhouse effect. Principal GHGs include carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), O_3, and water vapor. If the atmospheric concentrations of GHGs rise, the average temperature of the lower atmosphere will gradually increase. Globally, climate change has the potential to impact numerous environmental resources though uncertain impacts related to future air temperatures and precipitation patterns. Although climate change is driven by global atmospheric conditions, climate change impacts are felt locally. Climate change is already affecting California: average temperatures have increased, leading to more extreme hot days and fewer cold nights; shifts in the water cycle have been observed, with less winter precipitation falling as snow, and both snowmelt and rainwater running off earlier in the year; sea levels have risen; and wildland fires are becoming more frequent and intense due to dry seasons that start earlier and end later (CAT 2010).

The effect each GHG has on climate change is measured as a combination of the mass of its emissions and the potential of a gas or aerosol to trap heat in the atmosphere, known as its global warming potential (GWP), which varies among GHGs. Total GHG emissions are expressed as a function of how much warming would be caused by the same mass of CO_2. Thus, GHG emissions are typically measured in terms of pounds or tons of CO_2 equivalent (CO_2e).[1]

Global climate change is a cumulative impact; a project participates in this potential impact through its incremental contribution combined with the cumulative increase of all other sources of GHGs (CAT 2010). This approach is consistent with the *Final Statement of Reasons for*

[1] The CO_2E for a gas is derived by multiplying the mass of the gas by the associated GWP, such that metric tons of CO_2E = (metric tons of a GHG) × (GWP of the GHG). CalEEMod assumes that the GWP for CH_4 is 25, which means that emissions of 1 metric ton of CH_4 are equivalent to emissions of 25 metric tons of CO_2, and the GWP for N_2O is 298, based on the Intergovernmental Panel on Climate Change (IPCC) Fourth Assessment Report.

Regulatory Action for amendments to the CEQA Guidelines, which confirms that an environmental impact report or other environmental document must analyze the incremental contribution of a project to GHG levels and determine whether those emissions are cumulatively considerable (CNRA 2009).

GHG emissions associated with construction of the Project were estimated for the following emission sources: operation of off-road construction equipment, on-road hauling and vendor trucks, and worker vehicles. GHG emission sources associated with operation of the Project were evaluated for energy use (generation of electricity consumed by the Project), water supply, area sources, and Project-generated vehicle traffic.

2 AIR QUALITY ASSESSMENT

2.1 Thresholds of Significance

The State of California has developed guidelines to address the significance of air quality impacts based on Appendix G of the CEQA Guidelines (14 CCR 15000 et seq.), which provides guidance that a Project would have a significant environmental impact if it would:

- Conflict with or obstruct the implementation of the applicable air quality plan (AQP)
- Result in a cumulatively considerable new increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or state ambient air quality standard
- Expose sensitive receptors to substantial pollutant concentrations
- Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people

In addition, Appendix G of the CEQA Guidelines indicates that where available, the significance criteria established by the applicable air quality management district may be relied upon to determine whether a project would have a significant impact on air quality. The EDCAQMD has adopted thresholds to address the significance of air quality impacts resulting from a Project. These thresholds are identified in Table 1. According to the EDCAQMD, if ROG and NO_x are less than significant during construction, then exhaust CO and PM_{10} are also considered to be less than significant. During operation, if ROG and NO_x are less than significant, then exhaust CO, nitrogen dioxide (NO_2), sulfur dioxide (SO_2), and PM_{10} would also be considered less than significant.

Table 1
EDCAQMD Air Quality Significance Thresholds

Pollutant	Construction	Operation
Criteria Pollutants Mass Daily Thresholds		
ROG	82 lbs/day	82 lbs/day
NO_x	82 lbs/day	82 lbs/day

Source: EDCAQMD 2002.
Notes:
Construction Screening: If ROG and NO_x are less than significant during construction, then exhaust CO and PM_{10} would also be less than significant.
Operational Screening: If ROG and NO_x are less than significant during operation, then exhaust CO, NO_2, SO_2, and PM_{10} would also be less than significant.
EDCAQMD = El Dorado County Air Quality Management District; lb/day = pounds per day; ROG = Reactive Organic Gases; NOx = nitrogen oxides.

2.2 Impact Analysis

2.2.1 Would the Project Conflict With or Obstruct Implementation of the Applicable Air Quality Plan?

The MCAB is currently non-attainment for ozone (O_3) (state and federal ambient standards) and particulate matter (PM_{10}) (state ambient standard). While an air quality plan exists for ozone, none currently exists for particulate matter. The Sacramento Regional 2008 NAAQS (National Ambient Air Quality Standards) 8-Hour Ozone Attainment Plan and Reasonable Further Progress Plan (Ozone Attainment Plan) was developed for application within the Sacramento region, including the MCAB portion of El Dorado County (SMAQMD 2017). If a Project can demonstrate consistency with the Ozone Attainment Plan for ROG and NO_x emissions, it would be determined that it would not have a significant cumulative impact with respect to ozone.

Projects within the MCAB portion of the County must demonstrate Ozone Attainment Plan consistency with the following four indicators:

1. The project does not require a change in the existing land use designation (e.g., a general plan amendment or rezone), or projected emissions of ROG and NOx from a project are equal to or less than the emissions anticipated for the site if development occurred under the existing land use designation;
2. The project does not exceed the "project alone" significance criteria;
3. The lead agency for the project requires the project to implement any applicable emission reduction measures contained in and/or derived from SMAQMD's Ozone Attainment Plan; and

4. The project complies with all applicable district rules and regulations.

The first way to assess project compliance with the Ozone Attainment Plan is to ensure that the population density and land use are consistent with the growth assumptions used in the plans for the MCAB. The Project includes no uses that would generate a long-term increase in population or vehicle miles traveled and does not propose additional land for development or require a change in land use designations applied to the Project site. The Project, as proposed, would result in no long-term increase in population or vehicle miles traveled in the region. Further, the Project would not directly induce substantial population growth in the area because no new housing is proposed as part of the Project. Therefore, the Project would be consistent with the regional growth forecasts and would not conflict with or exceed the assumptions of the Ozone Attainment Plan.

The second criterion assesses a project's contribution to existing air quality violations. Criteria air pollutant emissions associated with construction of the Project were estimated using CalEEMod Version 2016.3.2 for the following emission sources: operation of off-road construction equipment, on-road vendor (material delivery) trucks, and worker vehicles. Project operational emissions sources evaluated include mobile (vehicle) sources, area sources such as consumer products, and energy use. As discussed in b) below, it was determined that the Project would not contribute to an air quality violation because construction and operational emissions would not exceed the EDCAQMD thresholds of significance for ROG or NO_x emissions.

The third criterion is compliance with control measures in the Ozone Attainment Plan. Most of the control strategies in the Ozone Attainment Plan include measures in the categories of transportation and stationary sources. The non-regulatory control measures include; on-road and off-road mobile incentive programs, and an emerging/voluntary urban forest development program. These are followed by the regulatory control measures, which include; indirect source rules and a variety of stationary and area-wide source control measures (CARB 2008). The California Air Resources Board's (CARB's) strategy for reducing mobile source emissions includes the following: new engine standards, reducing emissions from in-use fleet, requiring the use of cleaner fuels, supporting the use of alternative fuels, and pursuing long-term advanced technology measures. The Project would result in no conflict with CARB's strategy for controlling mobile source emissions. In addition, the Project would be required to adhere to EDCAQMD Rule 215 – Architectural Coatings, which restricts the VOC content of coatings.

The final criterion is compliance with EDCAQMD rules and regulations. EID would implement the Project in compliance with all applicable EDCAQMD rules. The EDCAQMD has adopted rules designed specifically to address a variety of air quality impacts through measures that construction and operational related air quality emissions. Rules designed to control air pollutant emissions and which may be applicable to the Project include.

- Rule 210 related to the discharge of air contaminants
- Rule 215 related to application of architectural coatings.
- Rule 223 related to fugitive dust
- Rule 223-1 related to fugitive dust from construction and disturbed areas
- Rule 223-2 related to asbestos
- Rule 224 relates to application of cutback or emulsified asphalt for paving.
- Rule 300 relates to the regulating of the burning of wastes that result from land development clearing.
- Rules 501 and 523 relates to the review of new sources of air pollution and the orderly review of the modification and operation of existing sources.

In summary, the Project does not conflict with the growth assumptions for the region, does not exceed the EDCAQMD significance thresholds, would be consistent with all control measures of the Ozone Attainment Plan, and would comply with applicable EDCAQMD rules. The Project would not conflict with or obstruct implementation of an applicable air quality plan and would therefore result in **less than significant** impact associated with conflict or obstruction of an applicable air quality plan.

2.2.2 Would the Project result in a cumulatively considerable new increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or state ambient air quality standard?

Non-attainment pollutants of concern include O_3 and PM_{10}. If a project exceeds the identified thresholds of significance, its emissions would result in significant adverse air quality impacts to the region's existing air quality conditions. The following discussion evaluates the potential for the Project's construction and operational emissions to result in a considerable contribution to the region's cumulative air quality impact.

Construction

Construction of the Project would result in the addition of pollutants to the local air shed caused by soil disturbance, fugitive dust emissions, and combustion pollutants from on-site construction equipment, as well as from off-site trucks hauling construction materials. Construction emissions can vary substantially from day to day, depending on the level of activity, the specific type of operation, and for dust, the prevailing weather conditions. Therefore, such emission levels can only be estimated, with a corresponding uncertainty in precise ambient air quality impacts. Fugitive dust (PM_{10} and $PM_{2.5}$) emissions would primarily result from earthwork activities. NO_x and CO emissions would primarily result from the use of construction equipment and motor vehicles.

Construction of the Project is anticipated to occur over a 12-month period. For the purpose of this analysis, construction activities were assumed to begin in early 2020 and would be completed by late-2020. Construction scenario assumptions, including phasing, equipment mix, and vehicle trips, were based on information provided by EID and CalEEMod generated default values. Complete detailed construction assumptions are included in Appendix A.

The Project would comply with all applicable EDCAQMD rules and regulations for construction including the following:

- Rule 210 related to the discharge of air contaminants
- Rule 215 related to application of architectural coatings
- Rule 223 related to fugitive dust
- Rule 223-1 related to construction related fugitive dust

Rule 224 relates to application of cutback or emulsified asphalt for paving.Table 2 presents the estimated maximum unmitigated daily construction emissions generated during construction of the Project in each year. The values shown are the maximum winter daily emissions (i.e., worst-case) results from CalEEMod. Further details of the emissions calculations are provided in Appendix A.

Table 2
Maximum Daily Unmitigated Construction Emissions

Year	ROG	NO_x
	Pounds per Day	
2020	7.75	20.24
EDCAQMD Threshold	*82*	*82*
Threshold exceeded?	No	No

Source: See Appendix A for detailed results.
Notes:
ROG = reactive organic gases; NO_x = oxides of nitrogen
The values shown are the maximum winter daily emissions results from CalEEMod.

As shown in Table 2, ROG and NO_x emissions during construction would not exceed the EDCAQMD significance thresholds; therefore the Project would have a less than significant impact. According to the EDCAQMD guidance, if ROG and NO_x are less than significant during construction, then CO and PM_{10} are also assumed to be less than significant. Although, the EDCAQMD does not have quantitative significance thresholds specifically for PM_{10} and $PM_{2.5}$ emissions, EDCAQMD's Rule 223-1 applies to the proposed project and would require implementation of best management practices (BMPs) to control fugitive dust during construction of the proposed project. BMPs that would be required by Rule 223-1 to control emissions of fugitive dust include the following:

1. Stabilize backfill material when not actively handling, stabilize backfill material during handling, and stabilize soil at completion of activity.
2. Maintain stability of soil through pre-watering of site prior to clearing and grubbing, stabilize soil during clearing and grubbing activities, and stabilize soil immediately after clearing and grubbing activities.
3. Use sweeping and water spray to clear forms or use vacuum system to clear forms.
4. Stabilize disturbed soil throughout the construction site and between structures.
5. Pre-apply water and re-apply as necessary to maintain soils in a damp condition and to ensure that visible emissions to not exceed 50 feet or beyond property line in any direction and stabilize soils once earth-moving activities are complete.
6. Stabilize or adequately wet material while loading to reduce fugitive dust emissions, maintain at least 6 inches of freeboard on haul vehicles traveling offsite, stabilize or adequately wet material while transporting to reduce fugitive dust emissions, and stabilize material while unloading.
7. Stabilize staging areas during use at project completion.

8. Stabilize or maintain adequate moisture on all off-road traffic and parking areas, stabilize or maintain adequate moisture on all haul routes, and direct construction traffic over established haul routes.
9. Stabilize surface soils where trencher or excavator and support equipment will operate.
10. Pre-water material prior to loading or apply water as loader bucket is being emptied.
11. Stabilize soils to meet the applicable performance standards and limit vehicular travel to established unpaved roads and unpaved parking lots.
12. In instances where vacant lots are 0.10 acre or larger and have a cumulative area of 500 square feet or more, implement measures to prevent motor vehicle and/or off-road vehicle trespassing, parking and access.

In addition to the above BMPs, a Fugitive Dust Control Plan would be required for submittal to the EDCAQMD prior to the start of any construction activity for which a grading permit is required. Implementation of the required fugitive dust control measures would ensure air quality and fugitive dust-related impacts associated with construction would remain **less than significant**.

Operation

Operation of the proposed project would generate criteria pollutant emissions from mobile sources (vehicular traffic), area sources (consumer products, architectural coatings, and landscaping equipment), and energy sources (electrical consumption). Notably, heavy trucks and other equipment would travel on unpaved surfaces (gravel) within the eastern portion of the project site to deliver and load materials. Since vehicles would be operated over unpaved surfaces, Rule 223-1, discussed under *Construction,* above, would apply to operation of the proposed project to ensure control of fugitive dust emissions during project operation. As required by Rule 223-1, measures to ensure dust control during project operation would be identified in a Fugitive Dust Control Plan approved by the EDCAQMD. Implementation of BMPs identified in the approved Fugitive Dust Control Plan would include appropriate measures, as identified under *Construction,* above, to ensure that dust emissions remain in compliance with EDCAQMD rules and that impacts from fugitive dust emissions would be less than significant.

In addition, the Project would comply with all applicable EDCAQMD rules and regulations during operation including the following:

- Rule 300 relates to the regulating of the burning of wastes that result from land development clearing.
- Rules 501 and 523 relates to the review of new sources of air pollution and the orderly review of the modification and operation of existing sources.

CalEEMod was used to estimate daily emissions from project-related operational sources. Table 3 summarizes the operational emissions criteria pollutants that would be generated from the Project. Operational emissions were then compared to the EDCAQMD operational thresholds.

Table 3
Maximum Daily Unmitigated Operational Emissions

Year	ROG	NO_x
	Pounds per Day	
Area	0.18	<0.01
Energy	<0.01	0.01
Mobile	0.26	1.13
Total	**0.44**	**1.14**
EDCAQMD Threshold	*82*	*82*
Threshold exceeded?	No	No

Source: See Appendix A for detailed results.
Notes:
ROG = reactive organic gases; NO_x = oxides of nitrogen
The values shown are the maximum winter daily emissions results from CalEEMod.

As indicated in Table 3, operational emissions of ROG and NO_x would not exceed the EDCAQMD significance thresholds resulting from development of the Project. EDCAQMD has provided guidance that projects that would not exceed significance thresholds for ROG and NO_x would also remain below significance thresholds for CO and PM_{10} emissions. Since the Project would comply with Rule 223-1 and would generate emissions of criteria pollutants below thresholds established by EDCAQMD, impacts from criteria air pollutant emissions generated during operation of the Project would be **less than significant**.

2.2.3 Would the Project expose sensitive receptors to substantial pollutant concentrations?

Air quality varies as a direct function of the amount of pollutants emitted into the atmosphere, the size and topography of the air basin, and the prevailing meteorological conditions. Air quality problems arise when the rate of pollutant emissions exceeds the rate of dispersion. Reduced visibility, eye irritation, and adverse health impacts upon those persons termed

"sensitive receptors" are the most serious hazards of existing air quality conditions. Some land uses are considered more sensitive to changes in air quality than others, depending on the population groups and the activities involved. People most likely to be affected by air pollution, include children, the elderly, athletes, and people with cardiovascular and chronic respiratory diseases. Sensitive receptors include residences, schools, playgrounds, child-care centers, athletic facilities, long-term health-care facilities, rehabilitation centers, convalescent centers, and retirement homes. The discussion below reviews the significance of emissions within the context of potential impacts to sensitive receptors. Sensitive receptors in the vicinity of the Project include homes south of the Project site.

Toxic Air Contaminants

The greatest potential for toxic air contaminants (TACs) during construction would be DPM emissions from heavy equipment operations and heavy-duty trucks during construction of the proposed project, and the associated health impacts to sensitive receptors. Emissions of TACs are normally localized and not region-wide. EDCAQMD considers implementation of "project alone" mitigation requirements, and compliance with all applicable emission limits and mitigation measures required by EPA, CARB, EDCAQMD rules and regulations, and local ordinances sufficient for a finding of less than significant related to TACs. As discussed previously, the project would result in a less than significant impact pertaining to PM_{10} emissions. Moreover, total construction of the proposed project would occur within an approximate 12-month period which equates to approximately 3% of the total 30-year analysis exposure period for residential receptors, after which project-related TAC emissions would cease. The Project would not require the extensive use of heavy-duty construction equipment, which is subject to CARB's Airborne Toxic Control Measures for in-use diesel construction equipment to reduce DPM emissions, and it would not involve extensive use of diesel trucks.

While it is expected that operation of the Project would not result in any non-permitted direct emissions (e.g., those from a point source such as diesel generators), if any are proposed, the Project would be required to comply with EDCAQMD protocol and comply with Rules 501 and 523 which regulates new sources of air pollution. In addition, the Project would not result in substantial diesel vehicle trips (i.e., delivery trucks). Therefore, the Project would not result in exposure of sensitive receptors in the vicinity of the Project site to substantial TAC concentrations due to either construction or operation and impacts would be **less than significant**.

Health Effects of Criteria Air Pollutants

Construction of the Project would generate criteria air pollutant emissions; however, the Project would not exceed the EDCAQMD emission thresholds and construction and operations activities would be carried out in compliance with applicable EDCAQMD rules. The MCAB is a nonattainment area for O_3 and PM_{10}, under the NAAQS and/or California Ambient Air Quality Standards (CAAQS).

ROG and NO_x are precursors to O_3, for which the MCAB is designated as nonattainment with respect to the NAAQS and CAAQS. Thus, existing O_3 levels in the MCAB are at unhealthy levels during certain periods. The health effects associated with O_3 are generally associated with reduced lung function. Because the Project involves construction or operational activities that would not result in ROG or NO_x emissions that would exceed the EDCAQMD thresholds, the Project is not anticipated to substantially contribute to regional O_3 concentrations and the associated health impacts.

CO, PM_{10}, and other pollutants are evaluated for significance by comparison against the NAAQS and CAAQS. A Project would be considered significant if it is projected to cause a violation of any NAAQS and/or CAAQS. The MCAB portion of El Dorado County is classified as attainment (or unclassified) for all NAAQS and CAAQS for CO, $PM_{2.5}$, NO_2, SO_2, sulfates, lead, and H_2S, and is classified as nonattainment for the state 24-hour PM_{10} standard.

Emissions of CO, PM_{10}, and other pollutants generated from operation of the Project would be considered significant if:

1. The Project's contribution by itself would cause a violation of the AAQS, or
2. The Project's contribution plus the background level would result in a violation of the AAQS and either
    a. A sensitive receptor is located within a quarter-mile of the Project, or
    b. The Project's contribution exceeds 5% of the AAQS

The EDCAQMD considers projects that fall below the significance levels for ROG and NO_x emissions to also fall below significance thresholds for CO, NO_2, PM_{10}, and SO_2. As discussed in 2.2.2 above, Project ROG and NOx emission would be below the thresholds of significance during construction and operations. Therefore, Project emissions of CO, NO_2, PM_{10}, and SO_2 are assumed to be less than significant in accordance with EDCAQMD guidance for impact evaluation. Additionally, construction and operation of

the Project would comply with Rule 223-1, which would ensure control of fugitive dust emissions as discussed in 2.2.2, above.

The EDCAQMD considers lead, sulfates, and H_2S to be less than significant except from industrial sources that result in these pollutants being directly emitted. The Project would not include these sources and thus any potential emissions of lead, sulfates, and H_2S would be less than significant.

Visibility impacts are controlled through state and federal regulatory programs that govern vehicle emissions and through mitigation required for O_3 precursors and particulate matter. Due to these regulatory controls, EDCAQMD assumes that visibility impacts from projects in the MCAB portion of the County are less than significant.

Therefore, health effects associated with emissions of criteria air pollutants related to the Project would be **less than significant**.

2.2.4 Would the Project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

It is possible that odors could be released during construction activities associated with the Project. Diesel exhaust and reactive organic compounds would be emitted during construction activities from vehicle exhaust and other construction activities. However, emissions would disperse rapidly from the area where the construction activities would be located, and thus would not reach an objectionable level at the nearest sensitive receptors. The potential release of odors associated with construction equipment would be minor, temporary, and unlikely to impact people other than construction personnel in the immediate construction area; therefore, impacts are considered **less than significant**.

Common sources of odors include wastewater treatment plants, landfills, transfer stations, composting facilities, refineries, chemical plants, and food processing plants (EDCAQMD 2002). The Project includes construction of administrative and equipment buildings, resurfacing of areas for on-site vehicle circulation and parking, and operations support materials and equipment staging areas. Typical odors generated from operation of the Project would be limited to vehicle exhaust from employees traveling to and from the Project site, use of equipment, and through the operation of the onsite fueling station. To the extent that the Project could produce odors from operational activities, such odors would be localized within the Project site. The proposed project would result in no change in the operation of existing wastewater treatment facilities at the treatment plant. Therefore, impacts resulting from project operations would be **less than significant**.

3 GREENHOUSE GAS EMISSIONS ASSESSMENT

3.1 Thresholds of Significance

3.1.1 CEQA Guidelines

The California Natural Resources Agency adopted amendments to the CEQA Guidelines on December 30, 2009, which became effective on March 18, 2010. With respect to GHG emissions, the amended CEQA Guidelines state in Section 15064.4(a) that lead agencies should "make a good faith effort, to the extent possible on scientific and factual data, to describe, calculate or estimate" GHG emissions. The CEQA Guidelines note that an agency may identify emissions by either selecting a "model or methodology" to quantify the emissions or by relying on "qualitative analysis or other performance based standards" (14 CCR 15064.4(a)). Section 15064.4(b) states that the lead agency should consider the following when assessing the significance of impacts from GHG emissions on the environment:

- The extent a project may increase or reduce GHG emissions as compared to the existing environmental setting.
- Whether a project emissions exceed a threshold of significance that the lead agency determines applies to the Project.
- The extent to which a project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of GHG emissions (14 CCR 15064.4(b)).

In addition, Section 15064.7(c) of the CEQA Guidelines specifies that "[w]hen adopting thresholds of significance, a lead agency may consider thresholds of significance previously adopted or recommended by other public agencies, or recommended by experts, provided the decision of the lead agency to adopt such thresholds is supported by substantial evidence." Accordingly, the CEQA Guidelines do not prescribe specific methodologies for performing an assessment, establish specific thresholds of significance, or mandate specific mitigation measures. Rather, the CEQA Guidelines emphasize the lead agency's discretion to determine the appropriate methodologies and thresholds of significance that are consistent with the manner in which other impact areas are handled in CEQA (CNRA 2009).

3.1.2 Local Guidance

EDCAQMD

California has 35 Air Pollution Control Districts (APCD) and Air Quality Management Districts (AQMDs), many of which are currently addressing climate change issues by developing

significance thresholds, performance standards, and mitigation measures. At this time, there are no adopted quantitative federal or state guidelines for GHG emission impacts. EDCAQMD was part of the committee of air districts in the Sacramento Region involved in the development of GHG thresholds of 1,100 metric tons (MT) of CO_2e per year for the construction phase of projects or the operational phase of land use development projects, or 10,000 MT CO_2e per year from the operation of stationary sources. If the significance thresholds are exceeded, then the Project may have a cumulatively considerable contribution to a significant cumulative environmental impact, and all feasible mitigation is required. (SMAQMD 2014, 2019).

3.2 Impact Analysis

3.2.1 Would the Project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

Construction

Construction of the Project would result in GHG emissions that are primarily associated with use of off-road construction equipment and on road construction and worker vehicles. CalEEMod was used to calculate the annual GHG emissions based on the construction scenario described in Section 3.3, Air Quality. Modeling assumed that construction would occur over a 12-month period beginning in 2020. On-site sources of GHG emissions include off-road equipment and off-site sources include vendor (delivery) trucks and worker vehicles. Emissions from on-site and off-site sources are combined for the purposes of this analysis and are presented below in Table 3.

Table 3
Estimated Annual Construction GHG Emissions

Year	CO_2	CH_4	N_2O	CO_2e
	Metric Tons per Year			
2020	176.60	0.05	0.00	177.36

Source: See Appendix A for detailed results.
Notes: MT = metric tons; CO_2 = carbon dioxide; CH_4 = methane; N_2O = nitrous oxide; CO_2e = carbon dioxide equivalent.

As shown in Table 8, the Project's estimated annual GHG emissions would total approximately 177 MT CO_2e, which is well below the EDCAQMD recommended threshold of 1,100 MT CO_2e per year. Therefore, GHG emissions generated by construction activities for the Project would have a **less than significant** impact.

Operation

Following the completion of construction activities, the proposed project would generate GHG emissions from mobile sources (vehicle trips), area sources (landscaping equipment), energy sources (natural gas and electricity consumption), solid waste generation, water supply, and wastewater treatment. The estimated annual operational project-generated GHG emissions from these sources are shown in Table 4.

Table 4
Estimated Annual Operational GHG Emissions

Project Emission Source	CO_2	CH_4	N_2O	CO_2e
	Metric Tons per Year			
Area	<0.01	0.00	0.00	<0.01
Energy	9.52	<0.01	<0.01	9.59
Mobile	79.85	<0.01	0.00	79.94
Solid Waste	1.69	0.10	0.00	4.19
Water Supply and Wastewater	1.36	0.04	<0.01	2.67
Total	**92.42**	**0.14**	**<0.01**	**96.39**
			EDCAQMD GHG Threshold	*1,100*
			Significant (Yes or No)?	*No*

Source: See Appendix A for detailed results.
Notes: MT = metric tons; CO_2 = carbon dioxide; CH_4 = methane; N_2O = nitrous oxide; CO_2e = carbon dioxide equivalent.

Table 4 indicates that the GHG emissions associated with operation of the Project would be below EDCAQMD's GHG threshold of 1,100 MT CO_2e per year. Therefore, the Project would not generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment and this would represent a cumulatively **less than significant** GHG impact.

3.2.2 Would the Project conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

The Scoping Plan, approved by CARB on December 12, 2008, provides a framework for actions to reduce California's GHG emissions and requires CARB and other state agencies to adopt regulations and other initiatives to reduce GHGs. As such, the Scoping Plan is not directly applicable to specific Projects. Relatedly, in the Final Statement of Reasons for the Amendments to the CEQA Guidelines, the California Natural Resources Agency observed that "[t]he [Scoping Plan] may not be appropriate for use in determining the significance of individual Projects because it is conceptual at this stage and relies on the future development of regulations to implement the strategies identified in the Scoping Plan" (CNRA 2009). Under the Scoping Plan, however, there are several state regulatory measures aimed at the identification and reduction of GHG emissions. CARB and other state agencies have adopted many of the measures identified in the

Scoping Plan. Most of these measures focus on area source emissions (e.g., energy usage, high GWP GHGs in consumer products) and changes to the vehicle fleet (i.e., hybrid, electric, and more fuel-efficient vehicles) and associated fuels (e.g., Low Carbon Fuel Standard), among others which may not be directly applicable to the Project.

In regards to consistency with Executive Order (EO) B-30-15 (goal of reducing GHG emissions to 40% below 1990 levels by 2030) and EO S-3-05 (goal of reducing GHG emissions to 80% below 1990 levels by 2050), there are no established protocols or thresholds of significance for that future year analysis. However, CARB forecasts that compliance with the current Scoping Plan puts the state on a trajectory of meeting these long-term GHG goals, although the specific path to compliance is unknown (CARB 2014). The Project would not conflict with GHG emission reduction measures in the Scoping Plan and would not conflict with the state's trajectory toward future GHG reductions. In addition, since the specific path to compliance for the state in regards to the long-term goals will likely require development of technology or other changes that are not currently known or available, specific additional mitigation measures for the Project would be speculative and cannot be identified at this time. The Project's consistency would assist in meeting the County's contribution to GHG emission reduction targets in California. With respect to future GHG targets under the EOs, CARB has also made clear its legal interpretation that it has the requisite authority to adopt whatever regulations are necessary, beyond the AB 32 horizon year of 2020, to meet EO S-3-05's 80% reduction target in 2050. This legal interpretation by an expert agency provides evidence that future regulations will be adopted to continue the state on its trajectory toward meeting these future GHG targets.

Finally, the Project would not exceed the EDCAQMD threshold of 1,100 MT CO_2e per year during construction or operations. Because the Project would not exceed the threshold, this analysis provides support for the conclusion that the Project would not conflict with EO S-3-05's GHG reduction goals for California. Therefore, this impact would be less than significant.

As such, the Project would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs, and no mitigation is required. This impact would be **less than significant**

4 REFERENCES

14 CCR 15064.4. Determining the Significance of Impacts from Greenhouse Gas Emissions.

CARB (California Air Resources Board). 2008. *Off-Road Compression-Ignition (Diesel) Engines and Equipment*. September 8, 2008. Accessed December 2016. https://www.arb.ca.gov/msprog/offroad/orcomp/regulations.htm.

CARB. 2014. *First Update to the Climate Change Scoping Plan Building on the Framework Pursuant to AB 32 – The California Global Warming Solutions Act of 2006*. May 2014. Accessed August 2014. http://www.arb.ca.gov/cc/scopingplan/2013_update/first_update_climate_change_scoping_plan.pdf.

CAT (Climate Action Team). 2010. *Climate Action Team Biennial Report*. Sacramento, California: California Environmental Protection Agency, California Climate Action Team. April 2010. http://www.energy.ca.gov/2010publications/CAT-1000-2010-004/CAT-1000-2010-004.PDF.

CNRA (California Natural Resources Agency). 2009. *Final Statement of Reasons for Regulatory Action: Amendments to the State CEQA Guidelines Addressing Analysis and Mitigation of Greenhouse Gas Emissions Pursuant to SB97*. December 2009. http://resources.ca.gov/ceqa/docs/Final_Statement_of_Reasons.pdf.

EDCAQMD (El Dorado County Air Quality Management District). 2002. Guide to Air Quality Assessment – Determining Significance of Air Quality Impacts Under the California Environmental Quality Act.

SMAQMD (Sacramento Metropolitan Air Quality Management District). 2014. *Justification for Greenhouse Gas Emissions Thresholds of Significance*. September 2014.

SMAQMD. 2017. Sacramento Regional 2008 NAAQS 8-Hour Ozone Attainment and Reasonable Further Progress Plan. July 24, 2017. http://www.airquality.org/ProgramCoordination/Documents/Sac%20Regional%202008%20NAAQS%20Attainment%20and%20RFP%20Plan.pdf.

SMAQMD. 2019. *Guide to Air Quality Assessment in Sacramento County*. CEQA Guide Update. December 2009, with updates in 2010, 2011, 2013, 2014, 2015, 2016, and 2019. http://airquality.org/ceqa/ceqaguideupdate.shtml.

APPENDIX A

CalEEMod 2016.3.2 Modeling and Estimated Emissions

CalEEMod Version: CalEEMod.2016.3.2

Date: 3/21/2019 9:15 AM

EID WWCF Relocation Project
Mountain Counties Air Basin, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	1.50	1000sqft	0.03	1,500.00	0
General Light Industry	5.60	1000sqft	0.13	5,600.00	0
Parking Lot	80.00	Space	0.72	32,000.00	0

1.2 Other Project Characteristics

Urbanization	Rural	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	8
Climate Zone	14			**Operational Year**	2021
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	294	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - EID Wastewater Treatment Plant Expansion. El Dorado County (Mountain Counties Air Basin). Adjusted CO2 per PG&E 2018 Corporate Responsibility and Sustainability Report.
Land Use - Proposed Project includes construction of 3 buildings totaling 7,100 SF and an additional 80 parking stalls (22 standard and 58 oversized).

Construction Phase - Construction would occur over 12 months.

Off-road Equipment - Default equipment

Off-road Equipment - Default equipment

Off-road Equipment - Default equipment

Off-road Equipment - Default equipment

Off-road Equipment - Default equipment.

Off-road Equipment - Default equipment.

Grading - Assumed soil balanced.

Trips and VMT - Rounded up trips and assumed 1 vendor truck during grading (water truck).

Vehicle Trips - Updated per traffic analysis.

Construction Off-road Equipment Mitigation - Water twice daily.

Water Mitigation - 20% indoor/outdoor reduction in water assumed for CALGreen compliance.

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	5.00	10.00
tblConstructionPhase	NumDays	100.00	210.00
tblConstructionPhase	NumDays	2.00	15.00
tblConstructionPhase	NumDays	5.00	10.00
tblConstructionPhase	NumDays	1.00	15.00
tblConstructionPhase	PhaseEndDate	6/19/2020	12/29/2020
tblConstructionPhase	PhaseEndDate	6/5/2020	12/15/2020
tblConstructionPhase	PhaseEndDate	1/17/2020	2/11/2020
tblConstructionPhase	PhaseEndDate	6/12/2020	2/25/2020
tblConstructionPhase	PhaseEndDate	1/15/2020	1/21/2020
tblConstructionPhase	PhaseStartDate	6/13/2020	12/16/2020
tblConstructionPhase	PhaseStartDate	1/18/2020	2/26/2020
tblConstructionPhase	PhaseStartDate	1/16/2020	1/22/2020
tblConstructionPhase	PhaseStartDate	6/6/2020	2/12/2020
tblConstructionPhase	PhaseStartDate	1/15/2020	1/1/2020
tblGrading	AcresOfGrading	5.63	3.75
tblGrading	AcresOfGrading	18.75	12.50
tblOffRoadEquipment	OffRoadEquipmentType		Graders
tblOffRoadEquipment	OffRoadEquipmentType		Excavators
tblOffRoadEquipment	OffRoadEquipmentType		Scrapers
tblOffRoadEquipment	OffRoadEquipmentType		Rubber Tired Dozers

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	UsageHours	7.00	6.00
tblOffRoadEquipment	UsageHours	7.00	6.00
tblOffRoadEquipment	UsageHours	7.00	6.00
tblOffRoadEquipment	UsageHours	1.00	6.00
tblProjectCharacteristics	CO2IntensityFactor	641.35	294
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	WorkerTripNumber	3.00	4.00
tblTripsAndVMT	WorkerTripNumber	13.00	10.00
tblTripsAndVMT	WorkerTripNumber	13.00	14.00
tblVehicleTrips	ST_TR	1.32	0.00
tblVehicleTrips	ST_TR	2.46	12.49
tblVehicleTrips	SU_TR	0.68	0.00
tblVehicleTrips	SU_TR	1.05	5.33
tblVehicleTrips	WD_TR	6.97	0.00
tblVehicleTrips	WD_TR	11.03	56.00

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					
2020	0.1780	1.3359	1.1228	1.9900e-003	0.0706	0.0699	0.1405	0.0271	0.0645	0.0916	0.0000	176.6009	176.6009	0.0454	0.0000	177.7362
Maximum	**0.1780**	**1.3359**	**1.1228**	**1.9900e-003**	**0.0706**	**0.0699**	**0.1405**	**0.0271**	**0.0645**	**0.0916**	**0.0000**	**176.6009**	**176.6009**	**0.0454**	**0.0000**	**177.7362**

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					
2020	0.1780	1.3359	1.1228	1.9900e-003	0.0473	0.0699	0.1171	0.0164	0.0645	0.0808	0.0000	176.6007	176.6007	0.0454	0.0000	177.7360
Maximum	**0.1780**	**1.3359**	**1.1228**	**1.9900e-003**	**0.0473**	**0.0699**	**0.1171**	**0.0164**	**0.0645**	**0.0808**	**0.0000**	**176.6007**	**176.6007**	**0.0454**	**0.0000**	**177.7360**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**33.08**	**0.00**	**16.63**	**39.69**	**0.00**	**11.75**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0336	1.0000e-005	8.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.5600e-003	1.5600e-003	0.0000	0.0000	1.6600e-003
Energy	2.6000e-004	2.4000e-003	2.0200e-003	1.0000e-005		1.8000e-004	1.8000e-004		1.8000e-004	1.8000e-004	0.0000	9.5153	9.5153	7.3000e-004	1.9000e-004	9.5898
Mobile	0.0303	0.1538	0.3472	8.7000e-004	0.0679	9.8000e-004	0.0689	0.0182	9.2000e-004	0.0191	0.0000	79.8452	79.8452	3.7900e-003	0.0000	79.9399
Waste						0.0000	0.0000		0.0000	0.0000	1.6929	0.0000	1.6929	0.1001	0.0000	4.1942
Water						0.0000	0.0000		0.0000	0.0000	0.4954	1.2031	1.6985	0.0510	1.2300e-003	3.3390
Total	**0.0641**	**0.1562**	**0.3500**	**8.8000e-004**	**0.0679**	**1.1600e-003**	**0.0691**	**0.0182**	**1.1000e-003**	**0.0193**	**2.1884**	**90.5651**	**92.7535**	**0.1556**	**1.4200e-003**	**97.0645**

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	0.0336	1.0000e-005	8.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.5600e-003	1.5600e-003	0.0000	0.0000	1.6600e-003
Energy	2.6000e-004	2.4000e-003	2.0200e-003	1.0000e-005		1.8000e-004	1.8000e-004		1.8000e-004	1.8000e-004	0.0000	9.5153	9.5153	7.3000e-004	1.9000e-004	9.5898
Mobile	0.0303	0.1538	0.3472	8.7000e-004	0.0679	9.8000e-004	0.0689	0.0182	9.2000e-004	0.0191	0.0000	79.8452	79.8452	3.7900e-003	0.0000	79.9399
Waste						0.0000	0.0000		0.0000	0.0000	1.6929	0.0000	1.6929	0.1001	0.0000	4.1942
Water						0.0000	0.0000		0.0000	0.0000	0.3963	0.9625	1.3588	0.0408	9.8000e-004	2.6712
Total	**0.0641**	**0.1562**	**0.3500**	**8.8000e-004**	**0.0679**	**1.1600e-003**	**0.0691**	**0.0182**	**1.1000e-003**	**0.0193**	**2.0893**	**90.3245**	**92.4138**	**0.1454**	**1.1700e-003**	**96.3967**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**4.53**	**0.27**	**0.37**	**6.56**	**17.61**	**0.69**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	1/1/2020	1/21/2020	5	15	
2	Grading	Grading	1/22/2020	2/11/2020	5	15	
3	Paving	Paving	2/12/2020	2/25/2020	5	10	
4	Building Construction	Building Construction	2/26/2020	12/15/2020	5	210	
5	Architectural Coating	Architectural Coating	12/16/2020	12/29/2020	5	10	

Acres of Grading (Site Preparation Phase): 12.5

Acres of Grading (Grading Phase): 3.75

Acres of Paving: 0.72

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 10,650; Non-Residential Outdoor: 3,550; Striped Parking Area:

OffRoad Equipment

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

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
Architectural Coating	1	4.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	5	16.00	6.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Grading	5	10.00	2.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Paving	5	14.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	3	8.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 Site Preparation - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					6.6300e-003	0.0000	6.6300e-003	7.2000e-004	0.0000	7.2000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0107	0.1293	0.0727	1.6000e-004		5.0900e-003	5.0900e-003		4.6900e-003	4.6900e-003	0.0000	13.9054	13.9054	4.5000e-003	0.0000	14.0179
Total	**0.0107**	**0.1293**	**0.0727**	**1.6000e-004**	**6.6300e-003**	**5.0900e-003**	**0.0117**	**7.2000e-004**	**4.6900e-003**	**5.4100e-003**	**0.0000**	**13.9054**	**13.9054**	**4.5000e-003**	**0.0000**	**14.0179**

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	5.3000e-004	4.2000e-004	3.8600e-003	1.0000e-005	7.6000e-004	1.0000e-005	7.7000e-004	2.0000e-004	1.0000e-005	2.1000e-004	0.0000	0.6513	0.6513	3.0000e-005	0.0000	0.6521
Total	**5.3000e-004**	**4.2000e-004**	**3.8600e-003**	**1.0000e-005**	**7.6000e-004**	**1.0000e-005**	**7.7000e-004**	**2.0000e-004**	**1.0000e-005**	**2.1000e-004**	**0.0000**	**0.6513**	**0.6513**	**3.0000e-005**	**0.0000**	**0.6521**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.9800e-003	0.0000	2.9800e-003	3.2000e-004	0.0000	3.2000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0107	0.1293	0.0727	1.6000e-004		5.0900e-003	5.0900e-003		4.6900e-003	4.6900e-003	0.0000	13.9054	13.9054	4.5000e-003	0.0000	14.0179
Total	**0.0107**	**0.1293**	**0.0727**	**1.6000e-004**	**2.9800e-003**	**5.0900e-003**	**8.0700e-003**	**3.2000e-004**	**4.6900e-003**	**5.0100e-003**	**0.0000**	**13.9054**	**13.9054**	**4.5000e-003**	**0.0000**	**14.0179**

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	5.3000e-004	4.2000e-004	3.8600e-003	1.0000e-005	7.6000e-004	1.0000e-005	7.7000e-004	2.0000e-004	1.0000e-005	2.1000e-004	0.0000	0.6513	0.6513	3.0000e-005	0.0000	0.6521
Total	**5.3000e-004**	**4.2000e-004**	**3.8600e-003**	**1.0000e-005**	**7.6000e-004**	**1.0000e-005**	**7.7000e-004**	**2.0000e-004**	**1.0000e-005**	**2.1000e-004**	**0.0000**	**0.6513**	**0.6513**	**3.0000e-005**	**0.0000**	**0.6521**

3.3 Grading - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0359	0.0000	0.0359	0.0188	0.0000	0.0188	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0144	0.1495	0.0923	1.8000e-004		7.1500e-003	7.1500e-003		6.7000e-003	6.7000e-003	0.0000	15.6209	15.6209	4.0000e-003	0.0000	15.7210
Total	**0.0144**	**0.1495**	**0.0923**	**1.8000e-004**	**0.0359**	**7.1500e-003**	**0.0430**	**0.0188**	**6.7000e-003**	**0.0255**	**0.0000**	**15.6209**	**15.6209**	**4.0000e-003**	**0.0000**	**15.7210**

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	7.0000e-005	1.7900e-003	5.0000e-004	0.0000	9.0000e-005	1.0000e-005	1.0000e-004	3.0000e-005	1.0000e-005	4.0000e-005	0.0000	0.3785	0.3785	2.0000e-005	0.0000	0.3789
Worker	6.7000e-004	5.2000e-004	4.8200e-003	1.0000e-005	9.5000e-004	1.0000e-005	9.6000e-004	2.5000e-004	1.0000e-005	2.6000e-004	0.0000	0.8141	0.8141	4.0000e-005	0.0000	0.8151
Total	**7.4000e-004**	**2.3100e-003**	**5.3200e-003**	**1.0000e-005**	**1.0400e-003**	**2.0000e-005**	**1.0600e-003**	**2.8000e-004**	**2.0000e-005**	**3.0000e-004**	**0.0000**	**1.1926**	**1.1926**	**6.0000e-005**	**0.0000**	**1.1940**

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					0.0161	0.0000	0.0161	8.4800e-003	0.0000	8.4800e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0144	0.1495	0.0923	1.8000e-004		7.1500e-003	7.1500e-003		6.7000e-003	6.7000e-003	0.0000	15.6209	15.6209	4.0000e-003	0.0000	15.7209
Total	**0.0144**	**0.1495**	**0.0923**	**1.8000e-004**	**0.0161**	**7.1500e-003**	**0.0233**	**8.4800e-003**	**6.7000e-003**	**0.0152**	**0.0000**	**15.6209**	**15.6209**	**4.0000e-003**	**0.0000**	**15.7209**

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	7.0000e-005	1.7900e-003	5.0000e-004	0.0000	9.0000e-005	1.0000e-005	1.0000e-004	3.0000e-005	1.0000e-005	4.0000e-005	0.0000	0.3785	0.3785	2.0000e-005	0.0000	0.3789
Worker	6.7000e-004	5.2000e-004	4.8200e-003	1.0000e-005	9.5000e-004	1.0000e-005	9.6000e-004	2.5000e-004	1.0000e-005	2.6000e-004	0.0000	0.8141	0.8141	4.0000e-005	0.0000	0.8151
Total	**7.4000e-004**	**2.3100e-003**	**5.3200e-003**	**1.0000e-005**	**1.0400e-003**	**2.0000e-005**	**1.0600e-003**	**2.8000e-004**	**2.0000e-005**	**3.0000e-004**	**0.0000**	**1.1926**	**1.1926**	**6.0000e-005**	**0.0000**	**1.1940**

3.4 Paving - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	2.9900e-003	0.0290	0.0288	4.0000e-005		1.6200e-003	1.6200e-003		1.5000e-003	1.5000e-003	0.0000	3.7800	3.7800	1.1500e-003	0.0000	3.8087
Paving	9.4000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**3.9300e-003**	**0.0290**	**0.0288**	**4.0000e-005**		**1.6200e-003**	**1.6200e-003**		**1.5000e-003**	**1.5000e-003**	**0.0000**	**3.7800**	**3.7800**	**1.1500e-003**	**0.0000**	**3.8087**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.2000e-004	4.9000e-004	4.5000e-003	1.0000e-005	8.9000e-004	1.0000e-005	9.0000e-004	2.4000e-004	1.0000e-005	2.4000e-004	0.0000	0.7598	0.7598	4.0000e-005	0.0000	0.7607
Total	**6.2000e-004**	**4.9000e-004**	**4.5000e-003**	**1.0000e-005**	**8.9000e-004**	**1.0000e-005**	**9.0000e-004**	**2.4000e-004**	**1.0000e-005**	**2.4000e-004**	**0.0000**	**0.7598**	**0.7598**	**4.0000e-005**	**0.0000**	**0.7607**

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	2.9900e-003	0.0290	0.0288	4.0000e-005		1.6200e-003	1.6200e-003		1.5000e-003	1.5000e-003	0.0000	3.7800	3.7800	1.1500e-003	0.0000	3.8087
Paving	9.4000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**3.9300e-003**	**0.0290**	**0.0288**	**4.0000e-005**		**1.6200e-003**	**1.6200e-003**		**1.5000e-003**	**1.5000e-003**	**0.0000**	**3.7800**	**3.7800**	**1.1500e-003**	**0.0000**	**3.8087**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.2000e-004	4.9000e-004	4.5000e-003	1.0000e-005	8.9000e-004	1.0000e-005	9.0000e-004	2.4000e-004	1.0000e-005	2.4000e-004	0.0000	0.7598	0.7598	4.0000e-005	0.0000	0.7607
Total	**6.2000e-004**	**4.9000e-004**	**4.5000e-003**	**1.0000e-005**	**8.9000e-004**	**1.0000e-005**	**9.0000e-004**	**2.4000e-004**	**1.0000e-005**	**2.4000e-004**	**0.0000**	**0.7598**	**0.7598**	**4.0000e-005**	**0.0000**	**0.7607**

3.5 Building Construction - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0905	0.9295	0.7757	1.2000e-003		0.0549	0.0549		0.0505	0.0505	0.0000	105.0635	105.0635	0.0340	0.0000	105.9130
Total	**0.0905**	**0.9295**	**0.7757**	**1.2000e-003**		**0.0549**	**0.0549**		**0.0505**	**0.0505**	**0.0000**	**105.0635**	**105.0635**	**0.0340**	**0.0000**	**105.9130**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.8400e-003	0.0751	0.0212	1.7000e-004	3.8400e-003	3.8000e-004	4.2300e-003	1.1100e-003	3.7000e-004	1.4700e-003	0.0000	15.8980	15.8980	6.6000e-004	0.0000	15.9146
Worker	0.0150	0.0117	0.1080	2.0000e-004	0.0214	1.7000e-004	0.0215	5.6700e-003	1.6000e-004	5.8200e-003	0.0000	18.2356	18.2356	8.9000e-004	0.0000	18.2578
Total	**0.0178**	**0.0869**	**0.1292**	**3.7000e-004**	**0.0252**	**5.5000e-004**	**0.0258**	**6.7800e-003**	**5.3000e-004**	**7.2900e-003**	**0.0000**	**34.1336**	**34.1336**	**1.5500e-003**	**0.0000**	**34.1724**

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	0.0905	0.9295	0.7757	1.2000e-003		0.0549	0.0549		0.0505	0.0505	0.0000	105.0634	105.0634	0.0340	0.0000	105.9129
Total	**0.0905**	**0.9295**	**0.7757**	**1.2000e-003**		**0.0549**	**0.0549**		**0.0505**	**0.0505**	**0.0000**	**105.0634**	**105.0634**	**0.0340**	**0.0000**	**105.9129**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.8400e-003	0.0751	0.0212	1.7000e-004	3.8400e-003	3.8000e-004	4.2300e-003	1.1100e-003	3.7000e-004	1.4700e-003	0.0000	15.8980	15.8980	6.6000e-004	0.0000	15.9146
Worker	0.0150	0.0117	0.1080	2.0000e-004	0.0214	1.7000e-004	0.0215	5.6700e-003	1.6000e-004	5.8200e-003	0.0000	18.2356	18.2356	8.9000e-004	0.0000	18.2578
Total	**0.0178**	**0.0869**	**0.1292**	**3.7000e-004**	**0.0252**	**5.5000e-004**	**0.0258**	**6.7800e-003**	**5.3000e-004**	**7.2900e-003**	**0.0000**	**34.1336**	**34.1336**	**1.5500e-003**	**0.0000**	**34.1724**

3.6 Architectural Coating - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.0374					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.2100e-003	8.4200e-003	9.1600e-003	1.0000e-005		5.5000e-004	5.5000e-004		5.5000e-004	5.5000e-004	0.0000	1.2766	1.2766	1.0000e-004	0.0000	1.2791
Total	**0.0386**	**8.4200e-003**	**9.1600e-003**	**1.0000e-005**		**5.5000e-004**	**5.5000e-004**		**5.5000e-004**	**5.5000e-004**	**0.0000**	**1.2766**	**1.2766**	**1.0000e-004**	**0.0000**	**1.2791**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.8000e-004	1.4000e-004	1.2900e-003	0.0000	2.5000e-004	0.0000	2.6000e-004	7.0000e-005	0.0000	7.0000e-005	0.0000	0.2171	0.2171	1.0000e-005	0.0000	0.2174
Total	**1.8000e-004**	**1.4000e-004**	**1.2900e-003**	**0.0000**	**2.5000e-004**	**0.0000**	**2.6000e-004**	**7.0000e-005**	**0.0000**	**7.0000e-005**	**0.0000**	**0.2171**	**0.2171**	**1.0000e-005**	**0.0000**	**0.2174**

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	0.0374					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.2100e-003	8.4200e-003	9.1600e-003	1.0000e-005		5.5000e-004	5.5000e-004		5.5000e-004	5.5000e-004	0.0000	1.2766	1.2766	1.0000e-004	0.0000	1.2791
Total	**0.0386**	**8.4200e-003**	**9.1600e-003**	**1.0000e-005**		**5.5000e-004**	**5.5000e-004**		**5.5000e-004**	**5.5000e-004**	**0.0000**	**1.2766**	**1.2766**	**1.0000e-004**	**0.0000**	**1.2791**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.8000e-004	1.4000e-004	1.2900e-003	0.0000	2.5000e-004	0.0000	2.6000e-004	7.0000e-005	0.0000	7.0000e-005	0.0000	0.2171	0.2171	1.0000e-005	0.0000	0.2174
Total	**1.8000e-004**	**1.4000e-004**	**1.2900e-003**	**0.0000**	**2.5000e-004**	**0.0000**	**2.6000e-004**	**7.0000e-005**	**0.0000**	**7.0000e-005**	**0.0000**	**0.2171**	**0.2171**	**1.0000e-005**	**0.0000**	**0.2174**

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	0.0303	0.1538	0.3472	8.7000e-004	0.0679	9.8000e-004	0.0689	0.0182	9.2000e-004	0.0191	0.0000	79.8452	79.8452	3.7900e-003	0.0000	79.9399
Unmitigated	0.0303	0.1538	0.3472	8.7000e-004	0.0679	9.8000e-004	0.0689	0.0182	9.2000e-004	0.0191	0.0000	79.8452	79.8452	3.7900e-003	0.0000	79.9399

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	0.00	0.00	0.00		
General Office Building	84.00	18.74	8.00	176,192	176,192
Parking Lot	0.00	0.00	0.00		
Total	84.00	18.74	8.00	176,192	176,192

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	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
General Office Building	14.70	6.60	6.60	33.00	48.00	19.00	77	19	4
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	0.496489	0.042083	0.213419	0.137078	0.037361	0.007049	0.015401	0.039247	0.001850	0.001110	0.006299	0.000870	0.001744
General Office Building	0.496489	0.042083	0.213419	0.137078	0.037361	0.007049	0.015401	0.039247	0.001850	0.001110	0.006299	0.000870	0.001744
Parking Lot	0.496489	0.042083	0.213419	0.137078	0.037361	0.007049	0.015401	0.039247	0.001850	0.001110	0.006299	0.000870	0.001744

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	6.9023	6.9023	6.8000e-004	1.4000e-004	6.9613
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	6.9023	6.9023	6.8000e-004	1.4000e-004	6.9613
NaturalGas Mitigated	2.6000e-004	2.4000e-003	2.0200e-003	1.0000e-005		1.8000e-004	1.8000e-004		1.8000e-004	1.8000e-004	0.0000	2.6130	2.6130	5.0000e-005	5.0000e-005	2.6285
NaturalGas Unmitigated	2.6000e-004	2.4000e-003	2.0200e-003	1.0000e-005		1.8000e-004	1.8000e-004		1.8000e-004	1.8000e-004	0.0000	2.6130	2.6130	5.0000e-005	5.0000e-005	2.6285

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	19656	1.1000e-004	9.6000e-004	8.1000e-004	1.0000e-005		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005	0.0000	1.0489	1.0489	2.0000e-005	2.0000e-005	1.0552
General Office Building	29310	1.6000e-004	1.4400e-003	1.2100e-003	1.0000e-005		1.1000e-004	1.1000e-004		1.1000e-004	1.1000e-004	0.0000	1.5641	1.5641	3.0000e-005	3.0000e-005	1.5734
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
Total		**2.7000e-004**	**2.4000e-003**	**2.0200e-003**	**2.0000e-005**		**1.8000e-004**	**1.8000e-004**		**1.8000e-004**	**1.8000e-004**	**0.0000**	**2.6130**	**2.6130**	**5.0000e-005**	**5.0000e-005**	**2.6285**

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	19656	1.1000e-004	9.6000e-004	8.1000e-004	1.0000e-005		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005	0.0000	1.0489	1.0489	2.0000e-005	2.0000e-005	1.0552
General Office Building	29310	1.6000e-004	1.4400e-003	1.2100e-003	1.0000e-005		1.1000e-004	1.1000e-004		1.1000e-004	1.1000e-004	0.0000	1.5641	1.5641	3.0000e-005	3.0000e-005	1.5734
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
Total		**2.7000e-004**	**2.4000e-003**	**2.0200e-003**	**2.0000e-005**		**1.8000e-004**	**1.8000e-004**		**1.8000e-004**	**1.8000e-004**	**0.0000**	**2.6130**	**2.6130**	**5.0000e-005**	**5.0000e-005**	**2.6285**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	23968	3.1963	3.2000e-004	7.0000e-005	3.2236
General Office Building	16590	2.2124	2.2000e-004	5.0000e-005	2.2313
Parking Lot	11200	1.4936	1.5000e-004	3.0000e-005	1.5064
Total		**6.9023**	**6.9000e-004**	**1.5000e-004**	**6.9613**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	23968	3.1963	3.2000e-004	7.0000e-005	3.2236
General Office Building	16590	2.2124	2.2000e-004	5.0000e-005	2.2313
Parking Lot	11200	1.4936	1.5000e-004	3.0000e-005	1.5064
Total		**6.9023**	**6.9000e-004**	**1.5000e-004**	**6.9613**

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	0.0336	1.0000e-005	8.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.5600e-003	1.5600e-003	0.0000	0.0000	1.6600e-003
Unmitigated	0.0336	1.0000e-005	8.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.5600e-003	1.5600e-003	0.0000	0.0000	1.6600e-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	3.7400e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0298					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	8.0000e-005	1.0000e-005	8.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.5600e-003	1.5600e-003	0.0000	0.0000	1.6600e-003
Total	**0.0336**	**1.0000e-005**	**8.0000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**1.5600e-003**	**1.5600e-003**	**0.0000**	**0.0000**	**1.6600e-003**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	3.7400e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0298					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	8.0000e-005	1.0000e-005	8.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.5600e-003	1.5600e-003	0.0000	0.0000	1.6600e-003
Total	**0.0336**	**1.0000e-005**	**8.0000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**1.5600e-003**	**1.5600e-003**	**0.0000**	**0.0000**	**1.6600e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	1.3588	0.0408	9.8000e-004	2.6712
Unmitigated	1.6985	0.0510	1.2300e-003	3.3390

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	1.295 / 0	1.3453	0.0423	1.0200e-003	2.7052
General Office Building	0.266601 / 0.1634	0.3532	8.7100e-003	2.1000e-004	0.6338
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**1.6985**	**0.0510**	**1.2300e-003**	**3.3390**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	1.036 / 0	1.0762	0.0338	8.1000e-004	2.1641
General Office Building	0.21328 / 0.13072	0.2826	6.9700e-003	1.7000e-004	0.5071
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**1.3588**	**0.0408**	**9.8000e-004**	**2.6712**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	1.6929	0.1001	0.0000	4.1942
Unmitigated	1.6929	0.1001	0.0000	4.1942

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	6.94	1.4088	0.0833	0.0000	3.4901
General Office Building	1.4	0.2842	0.0168	0.0000	0.7041
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**1.6930**	**0.1001**	**0.0000**	**4.1942**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	6.94	1.4088	0.0833	0.0000	3.4901
General Office Building	1.4	0.2842	0.0168	0.0000	0.7041
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**1.6930**	**0.1001**	**0.0000**	**4.1942**

CalEEMod Version: CalEEMod.2016.3.2

Date: 3/21/2019 9:17 AM

EID WWCF Relocation Project
Mountain Counties Air Basin, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	1.50	1000sqft	0.03	1,500.00	0
General Light Industry	5.60	1000sqft	0.13	5,600.00	0
Parking Lot	80.00	Space	0.72	32,000.00	0

1.2 Other Project Characteristics

Urbanization	Rural	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	8
Climate Zone	14			**Operational Year**	2021
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	294	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - EID Wastewater Treatment Plant Expansion. El Dorado County (Mountain Counties Air Basin). Adjusted CO2 per PG&E 2018 Corporate Responsibility and Sustainability Report.
Land Use - Proposed Project includes construction of 3 buildings totaling 7,100 SF and an additional 80 parking stalls (22 standard and 58 oversized).

Construction Phase - Construction would occur over 12 months.

Off-road Equipment - Default equipment

Off-road Equipment - Default equipment

Off-road Equipment - Default equipment

Off-road Equipment - Default equipment

Off-road Equipment - Default equipment.

Off-road Equipment - Default equipment.

Grading - Assumed soil balanced.

Trips and VMT - Rounded up trips and assumed 1 vendor truck during grading (water truck).

Vehicle Trips - Updated per traffic analysis.

Construction Off-road Equipment Mitigation - Water twice daily.

Water Mitigation - 20% indoor/outdoor reduction in water assumed for CALGreen compliance.

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	5.00	10.00
tblConstructionPhase	NumDays	100.00	210.00
tblConstructionPhase	NumDays	2.00	15.00
tblConstructionPhase	NumDays	5.00	10.00
tblConstructionPhase	NumDays	1.00	15.00
tblConstructionPhase	PhaseEndDate	6/19/2020	12/29/2020
tblConstructionPhase	PhaseEndDate	6/5/2020	12/15/2020
tblConstructionPhase	PhaseEndDate	1/17/2020	2/11/2020
tblConstructionPhase	PhaseEndDate	6/12/2020	2/25/2020
tblConstructionPhase	PhaseEndDate	1/15/2020	1/21/2020
tblConstructionPhase	PhaseStartDate	6/13/2020	12/16/2020
tblConstructionPhase	PhaseStartDate	1/18/2020	2/26/2020
tblConstructionPhase	PhaseStartDate	1/16/2020	1/22/2020
tblConstructionPhase	PhaseStartDate	6/6/2020	2/12/2020
tblConstructionPhase	PhaseStartDate	1/15/2020	1/1/2020
tblGrading	AcresOfGrading	5.63	3.75
tblGrading	AcresOfGrading	18.75	12.50
tblOffRoadEquipment	OffRoadEquipmentType		Graders
tblOffRoadEquipment	OffRoadEquipmentType		Excavators
tblOffRoadEquipment	OffRoadEquipmentType		Scrapers
tblOffRoadEquipment	OffRoadEquipmentType		Rubber Tired Dozers

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	UsageHours	7.00	6.00
tblOffRoadEquipment	UsageHours	7.00	6.00
tblOffRoadEquipment	UsageHours	7.00	6.00
tblOffRoadEquipment	UsageHours	1.00	6.00
tblProjectCharacteristics	CO2IntensityFactor	641.35	294
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	WorkerTripNumber	3.00	4.00
tblTripsAndVMT	WorkerTripNumber	13.00	10.00
tblTripsAndVMT	WorkerTripNumber	13.00	14.00
tblVehicleTrips	ST_TR	1.32	0.00
tblVehicleTrips	ST_TR	2.46	12.49
tblVehicleTrips	SU_TR	0.68	0.00
tblVehicleTrips	SU_TR	1.05	5.33
tblVehicleTrips	WD_TR	6.97	0.00
tblVehicleTrips	WD_TR	11.03	56.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2020	7.7514	20.2243	13.0707	0.0257	4.9217	0.9558	5.8774	2.5487	0.8952	3.4439	0.0000	2,481.7280	2,481.7280	0.6660	0.0000	2,496.6502
Maximum	**7.7514**	**20.2243**	**13.0707**	**0.0257**	**4.9217**	**0.9558**	**5.8774**	**2.5487**	**0.8952**	**3.4439**	**0.0000**	**2,481.7280**	**2,481.7280**	**0.6660**	**0.0000**	**2,496.6502**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2020	7.7514	20.2243	13.0707	0.0257	2.2917	0.9558	3.2475	1.1675	0.8952	2.0627	0.0000	2,481.7280	2,481.7280	0.6660	0.0000	2,496.6502
Maximum	**7.7514**	**20.2243**	**13.0707**	**0.0257**	**2.2917**	**0.9558**	**3.2475**	**1.1675**	**0.8952**	**2.0627**	**0.0000**	**2,481.7280**	**2,481.7280**	**0.6660**	**0.0000**	**2,496.6502**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**53.44**	**0.00**	**44.75**	**54.19**	**0.00**	**40.11**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.1846	8.0000e-005	8.9300e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005		0.0191	0.0191	5.0000e-005		0.0203
Energy	1.4500e-003	0.0132	0.0111	8.0000e-005		1.0000e-003	1.0000e-003		1.0000e-003	1.0000e-003		15.7828	15.7828	3.0000e-004	2.9000e-004	15.8765
Mobile	0.2576	1.0577	2.5647	6.6800e-003	0.4936	7.0300e-003	0.5006	0.1321	6.6200e-003	0.1387		673.9672	673.9672	0.0305		674.7308
Total	**0.4436**	**1.0710**	**2.5847**	**6.7600e-003**	**0.4936**	**8.0600e-003**	**0.5016**	**0.1321**	**7.6500e-003**	**0.1397**		**689.7691**	**689.7691**	**0.0309**	**2.9000e-004**	**690.6277**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.1846	8.0000e-005	8.9300e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005		0.0191	0.0191	5.0000e-005		0.0203
Energy	1.4500e-003	0.0132	0.0111	8.0000e-005		1.0000e-003	1.0000e-003		1.0000e-003	1.0000e-003		15.7828	15.7828	3.0000e-004	2.9000e-004	15.8765
Mobile	0.2576	1.0577	2.5647	6.6800e-003	0.4936	7.0300e-003	0.5006	0.1321	6.6200e-003	0.1387		673.9672	673.9672	0.0305		674.7308
Total	**0.4436**	**1.0710**	**2.5847**	**6.7600e-003**	**0.4936**	**8.0600e-003**	**0.5016**	**0.1321**	**7.6500e-003**	**0.1397**		**689.7691**	**689.7691**	**0.0309**	**2.9000e-004**	**690.6277**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	1/1/2020	1/21/2020	5	15	
2	Grading	Grading	1/22/2020	2/11/2020	5	15	
3	Paving	Paving	2/12/2020	2/25/2020	5	10	
4	Building Construction	Building Construction	2/26/2020	12/15/2020	5	210	
5	Architectural Coating	Architectural Coating	12/16/2020	12/29/2020	5	10	

Acres of Grading (Site Preparation Phase): 12.5

Acres of Grading (Grading Phase): 3.75

Acres of Paving: 0.72

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 10,650; Non-Residential Outdoor: 3,550; Striped Parking Area:

OffRoad Equipment

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

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
Architectural Coating	1	4.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	5	16.00	6.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Grading	5	10.00	2.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Paving	5	14.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	3	8.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 Site Preparation - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.8838	0.0000	0.8838	0.0954	0.0000	0.0954			0.0000			0.0000
Off-Road	1.4300	17.2448	9.6881	0.0211		0.6791	0.6791		0.6248	0.6248		2,043.7485	2,043.7485	0.6610		2,060.2733
Total	**1.4300**	**17.2448**	**9.6881**	**0.0211**	**0.8838**	**0.6791**	**1.5629**	**0.0954**	**0.6248**	**0.7202**		**2,043.7485**	**2,043.7485**	**0.6610**		**2,060.2733**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0751	0.0475	0.5624	1.0400e-003	0.1022	8.0000e-004	0.1030	0.0271	7.4000e-004	0.0278		103.5443	103.5443	5.0400e-003		103.6703
Total	**0.0751**	**0.0475**	**0.5624**	**1.0400e-003**	**0.1022**	**8.0000e-004**	**0.1030**	**0.0271**	**7.4000e-004**	**0.0278**		**103.5443**	**103.5443**	**5.0400e-003**		**103.6703**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.3977	0.0000	0.3977	0.0429	0.0000	0.0429			0.0000			0.0000
Off-Road	1.4300	17.2448	9.6881	0.0211		0.6791	0.6791		0.6248	0.6248	0.0000	2,043.7485	2,043.7485	0.6610		2,060.2733
Total	**1.4300**	**17.2448**	**9.6881**	**0.0211**	**0.3977**	**0.6791**	**1.0768**	**0.0429**	**0.6248**	**0.6677**	**0.0000**	**2,043.7485**	**2,043.7485**	**0.6610**		**2,060.2733**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0751	0.0475	0.5624	1.0400e-003	0.1022	8.0000e-004	0.1030	0.0271	7.4000e-004	0.0278		103.5443	103.5443	5.0400e-003		103.6703
Total	**0.0751**	**0.0475**	**0.5624**	**1.0400e-003**	**0.1022**	**8.0000e-004**	**0.1030**	**0.0271**	**7.4000e-004**	**0.0278**		**103.5443**	**103.5443**	**5.0400e-003**		**103.6703**

3.3 Grading - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					4.7817	0.0000	4.7817	2.5113	0.0000	2.5113			0.0000			0.0000
Off-Road	1.9255	19.9303	12.3067	0.0238		0.9535	0.9535		0.8931	0.8931		2,295.8757	2,295.8757	0.5884		2,310.5856
Total	**1.9255**	**19.9303**	**12.3067**	**0.0238**	**4.7817**	**0.9535**	**5.7352**	**2.5113**	**0.8931**	**3.4044**		**2,295.8757**	**2,295.8757**	**0.5884**		**2,310.5856**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	8.7700e-003	0.2346	0.0610	5.4000e-004	0.0122	1.2100e-003	0.0135	3.5200e-003	1.1500e-003	4.6800e-003		56.4218	56.4218	2.1900e-003		56.4766
Worker	0.0939	0.0594	0.7030	1.3000e-003	0.1277	1.0000e-003	0.1287	0.0339	9.3000e-004	0.0348		129.4304	129.4304	6.3000e-003		129.5879
Total	**0.1027**	**0.2940**	**0.7640**	**1.8400e-003**	**0.1400**	**2.2100e-003**	**0.1422**	**0.0374**	**2.0800e-003**	**0.0395**		**185.8522**	**185.8522**	**8.4900e-003**		**186.0646**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.1518	0.0000	2.1518	1.1301	0.0000	1.1301			0.0000			0.0000
Off-Road	1.9255	19.9303	12.3067	0.0238		0.9535	0.9535		0.8931	0.8931	0.0000	2,295.8757	2,295.8757	0.5884		2,310.5856
Total	**1.9255**	**19.9303**	**12.3067**	**0.0238**	**2.1518**	**0.9535**	**3.1053**	**1.1301**	**0.8931**	**2.0232**	**0.0000**	**2,295.8757**	**2,295.8757**	**0.5884**		**2,310.5856**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	8.7700e-003	0.2346	0.0610	5.4000e-004	0.0122	1.2100e-003	0.0135	3.5200e-003	1.1500e-003	4.6800e-003		56.4218	56.4218	2.1900e-003		56.4766
Worker	0.0939	0.0594	0.7030	1.3000e-003	0.1277	1.0000e-003	0.1287	0.0339	9.3000e-004	0.0348		129.4304	129.4304	6.3000e-003		129.5879
Total	**0.1027**	**0.2940**	**0.7640**	**1.8400e-003**	**0.1400**	**2.2100e-003**	**0.1422**	**0.0374**	**2.0800e-003**	**0.0395**		**185.8522**	**185.8522**	**8.4900e-003**		**186.0646**

3.4 Paving - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.5984	5.7997	5.7662	8.8900e-003		0.3233	0.3233		0.2991	0.2991		833.3548	833.3548	0.2529		839.6769
Paving	0.1886					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.7870**	**5.7997**	**5.7662**	**8.8900e-003**		**0.3233**	**0.3233**		**0.2991**	**0.2991**		**833.3548**	**833.3548**	**0.2529**		**839.6769**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1315	0.0831	0.9842	1.8200e-003	0.1788	1.4100e-003	0.1802	0.0474	1.3000e-003	0.0487		181.2026	181.2026	8.8200e-003		181.4231
Total	**0.1315**	**0.0831**	**0.9842**	**1.8200e-003**	**0.1788**	**1.4100e-003**	**0.1802**	**0.0474**	**1.3000e-003**	**0.0487**		**181.2026**	**181.2026**	**8.8200e-003**		**181.4231**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.5984	5.7997	5.7662	8.8900e-003		0.3233	0.3233		0.2991	0.2991	0.0000	833.3548	833.3548	0.2529		839.6768
Paving	0.1886					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.7870**	**5.7997**	**5.7662**	**8.8900e-003**		**0.3233**	**0.3233**		**0.2991**	**0.2991**	**0.0000**	**833.3548**	**833.3548**	**0.2529**		**839.6768**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1315	0.0831	0.9842	1.8200e-003	0.1788	1.4100e-003	0.1802	0.0474	1.3000e-003	0.0487		181.2026	181.2026	8.8200e-003		181.4231
Total	**0.1315**	**0.0831**	**0.9842**	**1.8200e-003**	**0.1788**	**1.4100e-003**	**0.1802**	**0.0474**	**1.3000e-003**	**0.0487**		**181.2026**	**181.2026**	**8.8200e-003**		**181.4231**

3.5 Building Construction - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8617	8.8523	7.3875	0.0114		0.5224	0.5224		0.4806	0.4806		1,102.9781	1,102.9781	0.3567		1,111.8962
Total	**0.8617**	**8.8523**	**7.3875**	**0.0114**		**0.5224**	**0.5224**		**0.4806**	**0.4806**		**1,102.9781**	**1,102.9781**	**0.3567**		**1,111.8962**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0263	0.7038	0.1831	1.6200e-003	0.0367	3.6200e-003	0.0404	0.0106	3.4600e-003	0.0140		169.2655	169.2655	6.5800e-003		169.4299
Worker	0.1503	0.0950	1.1247	2.0900e-003	0.2044	1.6100e-003	0.2060	0.0542	1.4800e-003	0.0557		207.0887	207.0887	0.0101		207.3407
Total	**0.1766**	**0.7989**	**1.3078**	**3.7100e-003**	**0.2411**	**5.2300e-003**	**0.2463**	**0.0648**	**4.9400e-003**	**0.0697**		**376.3541**	**376.3541**	**0.0167**		**376.7706**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8617	8.8523	7.3875	0.0114		0.5224	0.5224		0.4806	0.4806	0.0000	1,102.9781	1,102.9781	0.3567		1,111.8962
Total	**0.8617**	**8.8523**	**7.3875**	**0.0114**		**0.5224**	**0.5224**		**0.4806**	**0.4806**	**0.0000**	**1,102.9781**	**1,102.9781**	**0.3567**		**1,111.8962**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0263	0.7038	0.1831	1.6200e-003	0.0367	3.6200e-003	0.0404	0.0106	3.4600e-003	0.0140		169.2655	169.2655	6.5800e-003		169.4299
Worker	0.1503	0.0950	1.1247	2.0900e-003	0.2044	1.6100e-003	0.2060	0.0542	1.4800e-003	0.0557		207.0887	207.0887	0.0101		207.3407
Total	**0.1766**	**0.7989**	**1.3078**	**3.7100e-003**	**0.2411**	**5.2300e-003**	**0.2463**	**0.0648**	**4.9400e-003**	**0.0697**		**376.3541**	**376.3541**	**0.0167**		**376.7706**

3.6 Architectural Coating - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	7.4716					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2422	1.6838	1.8314	2.9700e-003		0.1109	0.1109		0.1109	0.1109		281.4481	281.4481	0.0218		281.9928
Total	**7.7138**	**1.6838**	**1.8314**	**2.9700e-003**		**0.1109**	**0.1109**		**0.1109**	**0.1109**		**281.4481**	**281.4481**	**0.0218**		**281.9928**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0376	0.0238	0.2812	5.2000e-004	0.0511	4.0000e-004	0.0515	0.0136	3.7000e-004	0.0139		51.7722	51.7722	2.5200e-003		51.8352
Total	**0.0376**	**0.0238**	**0.2812**	**5.2000e-004**	**0.0511**	**4.0000e-004**	**0.0515**	**0.0136**	**3.7000e-004**	**0.0139**		**51.7722**	**51.7722**	**2.5200e-003**		**51.8352**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	7.4716					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2422	1.6838	1.8314	2.9700e-003		0.1109	0.1109		0.1109	0.1109	0.0000	281.4481	281.4481	0.0218		281.9928
Total	**7.7138**	**1.6838**	**1.8314**	**2.9700e-003**		**0.1109**	**0.1109**		**0.1109**	**0.1109**	**0.0000**	**281.4481**	**281.4481**	**0.0218**		**281.9928**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0376	0.0238	0.2812	5.2000e-004	0.0511	4.0000e-004	0.0515	0.0136	3.7000e-004	0.0139		51.7722	51.7722	2.5200e-003		51.8352
Total	**0.0376**	**0.0238**	**0.2812**	**5.2000e-004**	**0.0511**	**4.0000e-004**	**0.0515**	**0.0136**	**3.7000e-004**	**0.0139**		**51.7722**	**51.7722**	**2.5200e-003**		**51.8352**

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	lb/day										lb/day					
Mitigated	0.2576	1.0577	2.5647	6.6800e-003	0.4936	7.0300e-003	0.5006	0.1321	6.6200e-003	0.1387		673.9672	673.9672	0.0305		674.7308
Unmitigated	0.2576	1.0577	2.5647	6.6800e-003	0.4936	7.0300e-003	0.5006	0.1321	6.6200e-003	0.1387		673.9672	673.9672	0.0305		674.7308

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	0.00	0.00	0.00		
General Office Building	84.00	18.74	8.00	176,192	176,192
Parking Lot	0.00	0.00	0.00		
Total	84.00	18.74	8.00	176,192	176,192

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	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
General Office Building	14.70	6.60	6.60	33.00	48.00	19.00	77	19	4
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	0.496489	0.042083	0.213419	0.137078	0.037361	0.007049	0.015401	0.039247	0.001850	0.001110	0.006299	0.000870	0.001744
General Office Building	0.496489	0.042083	0.213419	0.137078	0.037361	0.007049	0.015401	0.039247	0.001850	0.001110	0.006299	0.000870	0.001744
Parking Lot	0.496489	0.042083	0.213419	0.137078	0.037361	0.007049	0.015401	0.039247	0.001850	0.001110	0.006299	0.000870	0.001744

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	lb/day										lb/day					
NaturalGas Mitigated	1.4500e-003	0.0132	0.0111	8.0000e-005		1.0000e-003	1.0000e-003		1.0000e-003	1.0000e-003		15.7828	15.7828	3.0000e-004	2.9000e-004	15.8765
NaturalGas Unmitigated	1.4500e-003	0.0132	0.0111	8.0000e-005		1.0000e-003	1.0000e-003		1.0000e-003	1.0000e-003		15.7828	15.7828	3.0000e-004	2.9000e-004	15.8765

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Light Industry	53.8521	5.8000e-004	5.2800e-003	4.4300e-003	3.0000e-005		4.0000e-004	4.0000e-004		4.0000e-004	4.0000e-004		6.3355	6.3355	1.2000e-004	1.2000e-004	6.3732
General Office Building	80.3014	8.7000e-004	7.8700e-003	6.6100e-003	5.0000e-005		6.0000e-004	6.0000e-004		6.0000e-004	6.0000e-004		9.4472	9.4472	1.8000e-004	1.7000e-004	9.5034
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
Total		**1.4500e-003**	**0.0132**	**0.0110**	**8.0000e-005**		**1.0000e-003**	**1.0000e-003**		**1.0000e-003**	**1.0000e-003**		**15.7828**	**15.7828**	**3.0000e-004**	**2.9000e-004**	**15.8765**

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	lb/day										lb/day					
General Light Industry	0.0538521	5.8000e-004	5.2800e-003	4.4300e-003	3.0000e-005		4.0000e-004	4.0000e-004		4.0000e-004	4.0000e-004		6.3355	6.3355	1.2000e-004	1.2000e-004	6.3732
General Office Building	0.0803014	8.7000e-004	7.8700e-003	6.6100e-003	5.0000e-005		6.0000e-004	6.0000e-004		6.0000e-004	6.0000e-004		9.4472	9.4472	1.8000e-004	1.7000e-004	9.5034
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
Total		**1.4500e-003**	**0.0132**	**0.0110**	**8.0000e-005**		**1.0000e-003**	**1.0000e-003**		**1.0000e-003**	**1.0000e-003**		**15.7828**	**15.7828**	**3.0000e-004**	**2.9000e-004**	**15.8765**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.1846	8.0000e-005	8.9300e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005		0.0191	0.0191	5.0000e-005		0.0203
Unmitigated	0.1846	8.0000e-005	8.9300e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005		0.0191	0.0191	5.0000e-005		0.0203

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0205					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.1633					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	8.3000e-004	8.0000e-005	8.9300e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005		0.0191	0.0191	5.0000e-005		0.0203
Total	**0.1846**	**8.0000e-005**	**8.9300e-003**	**0.0000**		**3.0000e-005**	**3.0000e-005**		**3.0000e-005**	**3.0000e-005**		**0.0191**	**0.0191**	**5.0000e-005**		**0.0203**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0205					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.1633					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	8.3000e-004	8.0000e-005	8.9300e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005		0.0191	0.0191	5.0000e-005		0.0203
Total	**0.1846**	**8.0000e-005**	**8.9300e-003**	**0.0000**		**3.0000e-005**	**3.0000e-005**		**3.0000e-005**	**3.0000e-005**		**0.0191**	**0.0191**	**5.0000e-005**		**0.0203**

CalEEMod Version: CalEEMod.2016.3.2

Date: 3/21/2019 9:18 AM

EID WWCF Relocation Project
Mountain Counties Air Basin, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	1.50	1000sqft	0.03	1,500.00	0
General Light Industry	5.60	1000sqft	0.13	5,600.00	0
Parking Lot	80.00	Space	0.72	32,000.00	0

1.2 Other Project Characteristics

Urbanization	Rural	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	8
Climate Zone	14			**Operational Year**	2021
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	294	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - EID Wastewater Treatment Plant Expansion. El Dorado County (Mountain Counties Air Basin). Adjusted CO2 per PG&E 2018 Corporate Responsibility and Sustainability Report.
Land Use - Proposed Project includes construction of 3 buildings totaling 7,100 SF and an additional 80 parking stalls (22 standard and 58 oversized).

Construction Phase - Construction would occur over 12 months.

Off-road Equipment - Default equipment

Off-road Equipment - Default equipment

Off-road Equipment - Default equipment

Off-road Equipment - Default equipment

Off-road Equipment - Default equipment.

Off-road Equipment - Default equipment.

Grading - Assumed soil balanced.

Trips and VMT - Rounded up trips and assumed 1 vendor truck during grading (water truck).

Vehicle Trips - Updated per traffic analysis.

Construction Off-road Equipment Mitigation - Water twice daily.

Water Mitigation - 20% indoor/outdoor reduction in water assumed for CALGreen compliance.

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	5.00	10.00
tblConstructionPhase	NumDays	100.00	210.00
tblConstructionPhase	NumDays	2.00	15.00
tblConstructionPhase	NumDays	5.00	10.00
tblConstructionPhase	NumDays	1.00	15.00
tblConstructionPhase	PhaseEndDate	6/19/2020	12/29/2020
tblConstructionPhase	PhaseEndDate	6/5/2020	12/15/2020
tblConstructionPhase	PhaseEndDate	1/17/2020	2/11/2020
tblConstructionPhase	PhaseEndDate	6/12/2020	2/25/2020
tblConstructionPhase	PhaseEndDate	1/15/2020	1/21/2020
tblConstructionPhase	PhaseStartDate	6/13/2020	12/16/2020
tblConstructionPhase	PhaseStartDate	1/18/2020	2/26/2020
tblConstructionPhase	PhaseStartDate	1/16/2020	1/22/2020
tblConstructionPhase	PhaseStartDate	6/6/2020	2/12/2020
tblConstructionPhase	PhaseStartDate	1/15/2020	1/1/2020
tblGrading	AcresOfGrading	5.63	3.75
tblGrading	AcresOfGrading	18.75	12.50
tblOffRoadEquipment	OffRoadEquipmentType		Graders
tblOffRoadEquipment	OffRoadEquipmentType		Excavators
tblOffRoadEquipment	OffRoadEquipmentType		Scrapers
tblOffRoadEquipment	OffRoadEquipmentType		Rubber Tired Dozers

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	UsageHours	7.00	6.00
tblOffRoadEquipment	UsageHours	7.00	6.00
tblOffRoadEquipment	UsageHours	7.00	6.00
tblOffRoadEquipment	UsageHours	1.00	6.00
tblProjectCharacteristics	CO2IntensityFactor	641.35	294
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	WorkerTripNumber	3.00	4.00
tblTripsAndVMT	WorkerTripNumber	13.00	10.00
tblTripsAndVMT	WorkerTripNumber	13.00	14.00
tblVehicleTrips	ST_TR	1.32	0.00
tblVehicleTrips	ST_TR	2.46	12.49
tblVehicleTrips	SU_TR	0.68	0.00
tblVehicleTrips	SU_TR	1.05	5.33
tblVehicleTrips	WD_TR	6.97	0.00
tblVehicleTrips	WD_TR	11.03	56.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2020	7.7538	20.2438	13.0299	0.0255	4.9217	0.9558	5.8774	2.5487	0.8952	3.4439	0.0000	2,467.7407	2,467.7407	0.6656	0.0000	2,482.6574
Maximum	**7.7538**	**20.2438**	**13.0299**	**0.0255**	**4.9217**	**0.9558**	**5.8774**	**2.5487**	**0.8952**	**3.4439**	**0.0000**	**2,467.7407**	**2,467.7407**	**0.6656**	**0.0000**	**2,482.6574**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2020	7.7538	20.2438	13.0299	0.0255	2.2917	0.9558	3.2475	1.1675	0.8952	2.0627	0.0000	2,467.7407	2,467.7407	0.6656	0.0000	2,482.6574
Maximum	**7.7538**	**20.2438**	**13.0299**	**0.0255**	**2.2917**	**0.9558**	**3.2475**	**1.1675**	**0.8952**	**2.0627**	**0.0000**	**2,467.7407**	**2,467.7407**	**0.6656**	**0.0000**	**2,482.6574**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**53.44**	**0.00**	**44.75**	**54.19**	**0.00**	**40.11**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.1846	8.0000e-005	8.9300e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005		0.0191	0.0191	5.0000e-005		0.0203
Energy	1.4500e-003	0.0132	0.0111	8.0000e-005		1.0000e-003	1.0000e-003		1.0000e-003	1.0000e-003		15.7828	15.7828	3.0000e-004	2.9000e-004	15.8765
Mobile	0.2166	1.1338	2.6138	6.2000e-003	0.4936	7.1100e-003	0.5007	0.1321	6.6900e-003	0.1388		625.5839	625.5839	0.0309		626.3563
Total	**0.4026**	**1.1470**	**2.6338**	**6.2800e-003**	**0.4936**	**8.1400e-003**	**0.5017**	**0.1321**	**7.7200e-003**	**0.1398**		**641.3857**	**641.3857**	**0.0313**	**2.9000e-004**	**642.2532**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.1846	8.0000e-005	8.9300e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005		0.0191	0.0191	5.0000e-005		0.0203
Energy	1.4500e-003	0.0132	0.0111	8.0000e-005		1.0000e-003	1.0000e-003		1.0000e-003	1.0000e-003		15.7828	15.7828	3.0000e-004	2.9000e-004	15.8765
Mobile	0.2166	1.1338	2.6138	6.2000e-003	0.4936	7.1100e-003	0.5007	0.1321	6.6900e-003	0.1388		625.5839	625.5839	0.0309		626.3563
Total	**0.4026**	**1.1470**	**2.6338**	**6.2800e-003**	**0.4936**	**8.1400e-003**	**0.5017**	**0.1321**	**7.7200e-003**	**0.1398**		**641.3857**	**641.3857**	**0.0313**	**2.9000e-004**	**642.2532**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	1/1/2020	1/21/2020	5	15	
2	Grading	Grading	1/22/2020	2/11/2020	5	15	
3	Paving	Paving	2/12/2020	2/25/2020	5	10	
4	Building Construction	Building Construction	2/26/2020	12/15/2020	5	210	
5	Architectural Coating	Architectural Coating	12/16/2020	12/29/2020	5	10	

Acres of Grading (Site Preparation Phase): 12.5

Acres of Grading (Grading Phase): 3.75

Acres of Paving: 0.72

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 10,650; Non-Residential Outdoor: 3,550; Striped Parking Area:

OffRoad Equipment

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

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
Architectural Coating	1	4.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	5	16.00	6.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Grading	5	10.00	2.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Paving	5	14.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	3	8.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 Site Preparation - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.8838	0.0000	0.8838	0.0954	0.0000	0.0954			0.0000			0.0000
Off-Road	1.4300	17.2448	9.6881	0.0211		0.6791	0.6791		0.6248	0.6248		2,043.7485	2,043.7485	0.6610		2,060.2733
Total	**1.4300**	**17.2448**	**9.6881**	**0.0211**	**0.8838**	**0.6791**	**1.5629**	**0.0954**	**0.6248**	**0.7202**		**2,043.7485**	**2,043.7485**	**0.6610**		**2,060.2733**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0801	0.0609	0.5201	9.5000e-004	0.1022	8.0000e-004	0.1030	0.0271	7.4000e-004	0.0278		93.8552	93.8552	4.6500e-003		93.9715
Total	**0.0801**	**0.0609**	**0.5201**	**9.5000e-004**	**0.1022**	**8.0000e-004**	**0.1030**	**0.0271**	**7.4000e-004**	**0.0278**		**93.8552**	**93.8552**	**4.6500e-003**		**93.9715**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.3977	0.0000	0.3977	0.0429	0.0000	0.0429			0.0000			0.0000
Off-Road	1.4300	17.2448	9.6881	0.0211		0.6791	0.6791		0.6248	0.6248	0.0000	2,043.7485	2,043.7485	0.6610		2,060.2733
Total	**1.4300**	**17.2448**	**9.6881**	**0.0211**	**0.3977**	**0.6791**	**1.0768**	**0.0429**	**0.6248**	**0.6677**	**0.0000**	**2,043.7485**	**2,043.7485**	**0.6610**		**2,060.2733**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0801	0.0609	0.5201	9.5000e-004	0.1022	8.0000e-004	0.1030	0.0271	7.4000e-004	0.0278		93.8552	93.8552	4.6500e-003		93.9715
Total	**0.0801**	**0.0609**	**0.5201**	**9.5000e-004**	**0.1022**	**8.0000e-004**	**0.1030**	**0.0271**	**7.4000e-004**	**0.0278**		**93.8552**	**93.8552**	**4.6500e-003**		**93.9715**

3.3 Grading - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					4.7817	0.0000	4.7817	2.5113	0.0000	2.5113			0.0000			0.0000
Off-Road	1.9255	19.9303	12.3067	0.0238		0.9535	0.9535		0.8931	0.8931		2,295.8757	2,295.8757	0.5884		2,310.5856
Total	**1.9255**	**19.9303**	**12.3067**	**0.0238**	**4.7817**	**0.9535**	**5.7352**	**2.5113**	**0.8931**	**3.4044**		**2,295.8757**	**2,295.8757**	**0.5884**		**2,310.5856**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	9.3600e-003	0.2375	0.0730	5.2000e-004	0.0122	1.2400e-003	0.0135	3.5200e-003	1.1800e-003	4.7100e-003		54.5459	54.5459	2.4600e-003		54.6074
Worker	0.1001	0.0761	0.6501	1.1800e-003	0.1277	1.0000e-003	0.1287	0.0339	9.3000e-004	0.0348		117.3190	117.3190	5.8100e-003		117.4643
Total	**0.1094**	**0.3135**	**0.7232**	**1.7000e-003**	**0.1400**	**2.2400e-003**	**0.1422**	**0.0374**	**2.1100e-003**	**0.0395**		**171.8649**	**171.8649**	**8.2700e-003**		**172.0718**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.1518	0.0000	2.1518	1.1301	0.0000	1.1301			0.0000			0.0000
Off-Road	1.9255	19.9303	12.3067	0.0238		0.9535	0.9535		0.8931	0.8931	0.0000	2,295.8757	2,295.8757	0.5884		2,310.5856
Total	**1.9255**	**19.9303**	**12.3067**	**0.0238**	**2.1518**	**0.9535**	**3.1053**	**1.1301**	**0.8931**	**2.0232**	**0.0000**	**2,295.8757**	**2,295.8757**	**0.5884**		**2,310.5856**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	9.3600e-003	0.2375	0.0730	5.2000e-004	0.0122	1.2400e-003	0.0135	3.5200e-003	1.1800e-003	4.7100e-003		54.5459	54.5459	2.4600e-003		54.6074
Worker	0.1001	0.0761	0.6501	1.1800e-003	0.1277	1.0000e-003	0.1287	0.0339	9.3000e-004	0.0348		117.3190	117.3190	5.8100e-003		117.4643
Total	**0.1094**	**0.3135**	**0.7232**	**1.7000e-003**	**0.1400**	**2.2400e-003**	**0.1422**	**0.0374**	**2.1100e-003**	**0.0395**		**171.8649**	**171.8649**	**8.2700e-003**		**172.0718**

3.4 Paving - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.5984	5.7997	5.7662	8.8900e-003		0.3233	0.3233		0.2991	0.2991		833.3548	833.3548	0.2529		839.6769
Paving	0.1886					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.7870**	**5.7997**	**5.7662**	**8.8900e-003**		**0.3233**	**0.3233**		**0.2991**	**0.2991**		**833.3548**	**833.3548**	**0.2529**		**839.6769**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1401	0.1065	0.9102	1.6500e-003	0.1788	1.4100e-003	0.1802	0.0474	1.3000e-003	0.0487		164.2466	164.2466	8.1400e-003		164.4501
Total	**0.1401**	**0.1065**	**0.9102**	**1.6500e-003**	**0.1788**	**1.4100e-003**	**0.1802**	**0.0474**	**1.3000e-003**	**0.0487**		**164.2466**	**164.2466**	**8.1400e-003**		**164.4501**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.5984	5.7997	5.7662	8.8900e-003		0.3233	0.3233		0.2991	0.2991	0.0000	833.3548	833.3548	0.2529		839.6768
Paving	0.1886					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.7870**	**5.7997**	**5.7662**	**8.8900e-003**		**0.3233**	**0.3233**		**0.2991**	**0.2991**	**0.0000**	**833.3548**	**833.3548**	**0.2529**		**839.6768**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1401	0.1065	0.9102	1.6500e-003	0.1788	1.4100e-003	0.1802	0.0474	1.3000e-003	0.0487		164.2466	164.2466	8.1400e-003		164.4501
Total	**0.1401**	**0.1065**	**0.9102**	**1.6500e-003**	**0.1788**	**1.4100e-003**	**0.1802**	**0.0474**	**1.3000e-003**	**0.0487**		**164.2466**	**164.2466**	**8.1400e-003**		**164.4501**

3.5 Building Construction - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8617	8.8523	7.3875	0.0114		0.5224	0.5224		0.4806	0.4806		1,102.9781	1,102.9781	0.3567		1,111.8962
Total	**0.8617**	**8.8523**	**7.3875**	**0.0114**		**0.5224**	**0.5224**		**0.4806**	**0.4806**		**1,102.9781**	**1,102.9781**	**0.3567**		**1,111.8962**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0281	0.7124	0.2191	1.5700e-003	0.0367	3.7100e-003	0.0404	0.0106	3.5500e-003	0.0141		163.6377	163.6377	7.3800e-003		163.8223
Worker	0.1601	0.1217	1.0402	1.8900e-003	0.2044	1.6100e-003	0.2060	0.0542	1.4800e-003	0.0557		187.7105	187.7105	9.3000e-003		187.9429
Total	**0.1882**	**0.8341**	**1.2593**	**3.4600e-003**	**0.2411**	**5.3200e-003**	**0.2464**	**0.0648**	**5.0300e-003**	**0.0698**		**351.3482**	**351.3482**	**0.0167**		**351.7652**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8617	8.8523	7.3875	0.0114		0.5224	0.5224		0.4806	0.4806	0.0000	1,102.9781	1,102.9781	0.3567		1,111.8962
Total	**0.8617**	**8.8523**	**7.3875**	**0.0114**		**0.5224**	**0.5224**		**0.4806**	**0.4806**	**0.0000**	**1,102.9781**	**1,102.9781**	**0.3567**		**1,111.8962**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0281	0.7124	0.2191	1.5700e-003	0.0367	3.7100e-003	0.0404	0.0106	3.5500e-003	0.0141		163.6377	163.6377	7.3800e-003		163.8223
Worker	0.1601	0.1217	1.0402	1.8900e-003	0.2044	1.6100e-003	0.2060	0.0542	1.4800e-003	0.0557		187.7105	187.7105	9.3000e-003		187.9429
Total	**0.1882**	**0.8341**	**1.2593**	**3.4600e-003**	**0.2411**	**5.3200e-003**	**0.2464**	**0.0648**	**5.0300e-003**	**0.0698**		**351.3482**	**351.3482**	**0.0167**		**351.7652**

3.6 Architectural Coating - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	7.4716					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2422	1.6838	1.8314	2.9700e-003		0.1109	0.1109		0.1109	0.1109		281.4481	281.4481	0.0218		281.9928
Total	**7.7138**	**1.6838**	**1.8314**	**2.9700e-003**		**0.1109**	**0.1109**		**0.1109**	**0.1109**		**281.4481**	**281.4481**	**0.0218**		**281.9928**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0400	0.0304	0.2600	4.7000e-004	0.0511	4.0000e-004	0.0515	0.0136	3.7000e-004	0.0139		46.9276	46.9276	2.3200e-003		46.9857
Total	**0.0400**	**0.0304**	**0.2600**	**4.7000e-004**	**0.0511**	**4.0000e-004**	**0.0515**	**0.0136**	**3.7000e-004**	**0.0139**		**46.9276**	**46.9276**	**2.3200e-003**		**46.9857**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	7.4716					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2422	1.6838	1.8314	2.9700e-003		0.1109	0.1109		0.1109	0.1109	0.0000	281.4481	281.4481	0.0218		281.9928
Total	**7.7138**	**1.6838**	**1.8314**	**2.9700e-003**		**0.1109**	**0.1109**		**0.1109**	**0.1109**	**0.0000**	**281.4481**	**281.4481**	**0.0218**		**281.9928**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0400	0.0304	0.2600	4.7000e-004	0.0511	4.0000e-004	0.0515	0.0136	3.7000e-004	0.0139		46.9276	46.9276	2.3200e-003		46.9857
Total	**0.0400**	**0.0304**	**0.2600**	**4.7000e-004**	**0.0511**	**4.0000e-004**	**0.0515**	**0.0136**	**3.7000e-004**	**0.0139**		**46.9276**	**46.9276**	**2.3200e-003**		**46.9857**

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	lb/day										lb/day					
Mitigated	0.2166	1.1338	2.6138	6.2000e-003	0.4936	7.1100e-003	0.5007	0.1321	6.6900e-003	0.1388		625.5839	625.5839	0.0309		626.3563
Unmitigated	0.2166	1.1338	2.6138	6.2000e-003	0.4936	7.1100e-003	0.5007	0.1321	6.6900e-003	0.1388		625.5839	625.5839	0.0309		626.3563

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	0.00	0.00	0.00		
General Office Building	84.00	18.74	8.00	176,192	176,192
Parking Lot	0.00	0.00	0.00		
Total	84.00	18.74	8.00	176,192	176,192

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	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
General Office Building	14.70	6.60	6.60	33.00	48.00	19.00	77	19	4
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	0.496489	0.042083	0.213419	0.137078	0.037361	0.007049	0.015401	0.039247	0.001850	0.001110	0.006299	0.000870	0.001744
General Office Building	0.496489	0.042083	0.213419	0.137078	0.037361	0.007049	0.015401	0.039247	0.001850	0.001110	0.006299	0.000870	0.001744
Parking Lot	0.496489	0.042083	0.213419	0.137078	0.037361	0.007049	0.015401	0.039247	0.001850	0.001110	0.006299	0.000870	0.001744

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	lb/day										lb/day					
NaturalGas Mitigated	1.4500e-003	0.0132	0.0111	8.0000e-005		1.0000e-003	1.0000e-003		1.0000e-003	1.0000e-003		15.7828	15.7828	3.0000e-004	2.9000e-004	15.8765
NaturalGas Unmitigated	1.4500e-003	0.0132	0.0111	8.0000e-005		1.0000e-003	1.0000e-003		1.0000e-003	1.0000e-003		15.7828	15.7828	3.0000e-004	2.9000e-004	15.8765

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Light Industry	53.8521	5.8000e-004	5.2800e-003	4.4300e-003	3.0000e-005		4.0000e-004	4.0000e-004		4.0000e-004	4.0000e-004		6.3355	6.3355	1.2000e-004	1.2000e-004	6.3732
General Office Building	80.3014	8.7000e-004	7.8700e-003	6.6100e-003	5.0000e-005		6.0000e-004	6.0000e-004		6.0000e-004	6.0000e-004		9.4472	9.4472	1.8000e-004	1.7000e-004	9.5034
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
Total		**1.4500e-003**	**0.0132**	**0.0110**	**8.0000e-005**		**1.0000e-003**	**1.0000e-003**		**1.0000e-003**	**1.0000e-003**		**15.7828**	**15.7828**	**3.0000e-004**	**2.9000e-004**	**15.8765**

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	lb/day										lb/day					
General Light Industry	0.0538521	5.8000e-004	5.2800e-003	4.4300e-003	3.0000e-005		4.0000e-004	4.0000e-004		4.0000e-004	4.0000e-004		6.3355	6.3355	1.2000e-004	1.2000e-004	6.3732
General Office Building	0.0803014	8.7000e-004	7.8700e-003	6.6100e-003	5.0000e-005		6.0000e-004	6.0000e-004		6.0000e-004	6.0000e-004		9.4472	9.4472	1.8000e-004	1.7000e-004	9.5034
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
Total		**1.4500e-003**	**0.0132**	**0.0110**	**8.0000e-005**		**1.0000e-003**	**1.0000e-003**		**1.0000e-003**	**1.0000e-003**		**15.7828**	**15.7828**	**3.0000e-004**	**2.9000e-004**	**15.8765**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.1846	8.0000e-005	8.9300e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005		0.0191	0.0191	5.0000e-005		0.0203
Unmitigated	0.1846	8.0000e-005	8.9300e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005		0.0191	0.0191	5.0000e-005		0.0203

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0205					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.1633					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	8.3000e-004	8.0000e-005	8.9300e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005		0.0191	0.0191	5.0000e-005		0.0203
Total	**0.1846**	**8.0000e-005**	**8.9300e-003**	**0.0000**		**3.0000e-005**	**3.0000e-005**		**3.0000e-005**	**3.0000e-005**		**0.0191**	**0.0191**	**5.0000e-005**		**0.0203**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0205					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.1633					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	8.3000e-004	8.0000e-005	8.9300e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005		0.0191	0.0191	5.0000e-005		0.0203
Total	**0.1846**	**8.0000e-005**	**8.9300e-003**	**0.0000**		**3.0000e-005**	**3.0000e-005**		**3.0000e-005**	**3.0000e-005**		**0.0191**	**0.0191**	**5.0000e-005**		**0.0203**