

APPENDIX C

AIR QUALITY & GREENHOUSE GASES EMISSIONS REPORT

MEMORANDUM

DATE: February 5, 2019

To: Morris "Bud" Keeney

FROM: Cara Carlucci, Planner
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SUBJECT: Air Quality and Greenhouse Gas Analysis for the Creekside Estates Subdivision Project

AIR QUALITY ANALYSIS

This analysis has been prepared using the methodologies and assumptions recommended by the Butte County Air Quality Management District (BCAQMD) and the *CEQA Guidelines*. In keeping with these guidelines, this report describes existing air quality and the potential effects of the project on air quality, including an assessment of criteria pollutant emissions and an assessment of the project's greenhouse gas emissions. Mitigation measures to reduce potentially significant air quality impacts are identified, where appropriate.

Air Quality Setting

The project site is located within the Sacramento Valley Air Basin (SVAB) and is within the jurisdiction of the Butte County Air Quality Management District (BCAQMD). This analysis has been performed using the guidelines for assessing air quality impacts located within BCAQMD's 2014 CEQA Air Quality Handbook.¹ Within the BCAQMD, ambient air quality standards for ozone, carbon monoxide (CO), nitrogen dioxide (NO₂), sulfur dioxide (SO₂), particulate matter (PM₁₀, PM_{2.5}), and lead (Pb) have been set by both the State of California (State) and the federal government. The State has also set standards for sulfate and visibility. The BCAQMD is under State non-attainment status for ozone and particulate matter (PM₁₀, PM_{2.5}) standards. The BCAQMD is classified as non-attainment for the federal ozone 8-hour standard and non-attainment for the federal PM_{2.5} standard.

¹ Butte County Air Quality Management District. 2014. CEQA Air Quality Handbook. October 23.

Table 1: Ambient Air Quality at the East Avenue - Chico, Monitoring Station Monitoring Station

| Pollutant | Standard | 2015 | 2016 | 2017 |
|--|---|-------|-------|-------|
| Carbon Monoxide (CO) | | | | |
| Maximum 1-hour concentration (ppm) | | 1.6 | 1.7 | 1.9 |
| Number of days exceeded: | State: > 20 ppm | 0 | 0 | 0 |
| | Federal: > 35 ppm | 0 | 0 | 0 |
| Maximum 8-hour concentration (ppm) | | 1.3 | 1.4 | 1.4 |
| Number of days exceeded: | State: > 9 ppm | 0 | 0 | 0 |
| | Federal: > 9 ppm | 0 | 0 | 0 |
| Ozone (O₃) | | | | |
| Maximum 1-hour concentration (ppm) | | 0.080 | 0.080 | 0.076 |
| Number of days exceeded: | State: > 0.09 ppm | 0 | 0 | 0 |
| Maximum 8-hour concentration (ppm) | | 0.069 | 0.074 | 0.070 |
| Number of days exceeded: | State: > 0.07 ppm | 0 | 1 | 0 |
| | Federal: > 0.08 ppm | 0 | 1 | 0 |
| Coarse Particulates (PM₁₀) | | | | |
| Maximum 24-hour concentration ($\mu\text{g}/\text{m}^3$) | | 67.8 | 58.1 | 101.4 |
| Number of days exceeded: | State: > 50 $\mu\text{g}/\text{m}^3$ | 8 | 8 | 14 |
| | Federal: > 150 $\mu\text{g}/\text{m}^3$ | 0 | 0 | 0 |
| Annual arithmetic average concentration ($\mu\text{g}/\text{m}^3$) | | 21.6 | 20.8 | 22.8 |
| Exceeded for the year: | State: > 20 $\mu\text{g}/\text{m}^3$ | Yes | Yes | Yes |
| | Federal: > 50 $\mu\text{g}/\text{m}^3$ | No | No | No |
| Fine Particulates (PM_{2.5}) | | | | |
| Maximum 24-hour concentration ($\mu\text{g}/\text{m}^3$) | | 39.0 | 45.9 | 47.0 |
| Number of days exceeded: | Federal: > 35 $\mu\text{g}/\text{m}^3$ | 2 | 1 | 2 |
| Annual arithmetic average concentration ($\mu\text{g}/\text{m}^3$) | | 9.1 | 7.6 | 9.0 |
| Exceeded for the year: | State: > 12 $\mu\text{g}/\text{m}^3$ | No | No | No |
| | Federal: > 12 $\mu\text{g}/\text{m}^3$ | No | No | No |
| Nitrogen Dioxide (NO₂) | | | | |
| Maximum 1-hour concentration (ppm) | | 0.041 | 0.032 | 0.038 |
| Number of days exceeded: | State: > 0.250 ppm | 0 | 0 | 0 |
| Annual arithmetic average concentration (ppm) | | 0.006 | 0.006 | 0.006 |
| Exceeded for the year: | Federal: > 0.053 ppm | No | No | No |
| Sulfur Dioxide (SO₂) | | | | |
| Maximum 1-hour concentration (ppm) | | ND | ND | ND |
| Number of days exceeded: | State: > 0.25 ppm | ND | ND | ND |
| Maximum 3-hour concentration (ppm) | | ND | ND | ND |
| Number of days exceeded: | Federal: > 0.50 ppm | ND | ND | ND |
| Maximum 24-hour concentration (ppm) | | ND | ND | ND |
| Number of days exceeded: | State: > 0.04 ppm | ND | ND | ND |
| | Federal: > 0.14 ppm | ND | ND | ND |
| Annual arithmetic average concentration (ppm) | | ND | ND | ND |
| Exceeded for the year: | Federal: > 0.030 ppm | ND | ND | ND |

ppm = parts per million

$\mu\text{g}/\text{m}^3$ = micrograms per cubic meter

ND = No data. There was insufficient (or no) data to determine the value.

Source: CARB, 2017 and USEPA, 2017.

Pollutant monitoring results shown in Table 1 for the years 2015 to 2017 at the nearest ambient air quality monitoring station in Chico on East Avenue, indicate that air quality in the region has generally been moderate. As indicated in the monitoring results, one violation of the State and federal 8-hour ozone standard was recorded in 2016. PM_{2.5} levels exceeded the federal standard once in 2016 and twice in 2015 and 2017. In addition, PM₁₀ levels exceeded the federal standard 8 times in 2015 and 2016 and 14 times in 2017. No exceedances of the federal or State CO and NO₂ standards were recorded in this area during the 3-year period. Also, no data for SO₂ within Butte County were available for analysis.

Air Quality Impact Analysis

Clean Air Plan Consistency Analysis

An air quality plan describes air pollution control strategies to be implemented by a city, county, or region classified as a non-attainment area. The main purpose of an air quality plan is to bring an area into compliance with the requirements of federal and State air quality standards. To bring the region into attainment, the BCAQMD together with other Northern Sacramento Air Districts, have developed the Northern Sacramento Valley Planning Area 2015 Triennial Air Quality Attainment Plan (2015 Plan), assesses the progress made in implementing the previous triennial update and proposes modifications to the strategies necessary to attain the California Ambient Air Quality Standards (CAAQS) by the earliest practicable date. The 2015 Plan includes an assessment of progress towards achieving the control measure commitments in the previous Triennial Plan, a summary of the last three years of ozone data, a comparison of the expected versus actual emission reductions for each measure committed to in the previous Triennial Plan, updated control measure commitments, and updated growth rates of population, industry, and vehicle related emissions.

The air quality plans use the assumption and projections of local planning agencies to determine control strategies for regional compliance status. Since the plans are based on local general plans, projects that are deemed consistent with the applicable general plan are usually found to be consistent with the air quality plans. The proposed project would develop 46 new single family homes on approximately 1-acre lots, which would be consistent with the Butte County General Plan land use designation of Very Low Density Residential (VLDR) for the site. Additionally, the proposed project would not conflict with any of the control measures designed to bring the region into attainment; therefore the proposed project would not conflict with or obstruct implementation of the applicable air quality plan.

Criteria Pollutant Analysis

Air pollutant emissions associated with the proposed project would occur over the short term in association with construction activities such grading and vehicle/equipment use. Long-term emissions would result from vehicle trips to and from the project site. The discussion below describes potential air quality violations that could occur as a result of construction equipment exhaust emissions, fugitive dust, and long-term operational emissions.

Construction Equipment Exhaust Emissions. Construction period emissions would result from implementation of the proposed project in the form of organic gas emissions. Solvents in adhesives, non-water based paints, thinners, some insulating materials and caulking materials would evaporate

into the atmosphere and would participate in the photochemical reaction that creates urban ozone. Asphalt used in paving is also a source of organic gases for a short time after its application.

During construction, various diesel-powered vehicles and equipment would be in use. In 1998, the California Air Resources Board (CARB) identified particulate matter from diesel-fueled engines as a toxic air contaminant (TAC). The CARB has completed a risk management process that identified potential cancer risks for a range of activities using diesel-fueled engines.²

Health risks from TACs are a function of both concentration and duration of exposure. Unlike the above types of sources, construction diesel emissions are temporary, affecting an area for a period of days or perhaps weeks. Additionally, construction-related sources are mobile and transient in nature, and the emissions occur within the project site. Because of its short duration, health risks from construction emissions of diesel particulate would be a less-than-significant impact.

Construction emissions associated with the proposed project were estimated using the California Emissions Estimator Model version 2016.3.2 (CalEEMod). Results of the model are shown in Table 2.

Table 2: Project Construction Emissions

| Project Construction | ROG | NO _x | Exhaust PM _{2.5} | Fugitive Dust PM _{2.5} | Total PM _{2.5} | Exhaust PM ₁₀ | Fugitive Dust PM ₁₀ | Total PM ₁₀ |
|--|-----------|-----------------|---------------------------|---------------------------------|-------------------------|--------------------------|--------------------------------|------------------------|
| Maximum Daily Exhaust Emissions (pounds per day) | 47.3 | 54.7 | 2.2 | 10.0 | 12.2 | 2.4 | 18.2 | 20.6 |
| BCAQMD Thresholds (pounds per day) | 137.0 | 137.0 | NA | NA | 80.0 | NA | NA | 80.0 |
| Exceed Threshold? | No | No | NA | NA | No | NA | NA | No |
| Annual Exhaust Emissions (tons per year) | 1.3 | 3.0 | 0.1 | 0.2 | 0.4 | 0.2 | 0.5 | 0.7 |
| BCAQMD Thresholds (tons per year) | 4.5 | 4.5 | NA | NA | NA | NA | NA | NA |
| Exceed Threshold? | No | No | NA | NA | NA | NA | NA | NA |

NA = Not Applicable, the BCAQMD does not have a threshold.

Source: LSA (January 2019).

As shown in Table 2, the project would not exceed the thresholds established by the BCAQMD for any criteria pollutant.

Construction Fugitive Dust. Dust would affect local air quality at various times during construction of the proposed project. Construction activities would result in increased dustfall and locally elevated levels of particulates downwind of construction activity. Construction dust has the potential to create a nuisance at nearby properties. Emissions of particulate matter and fugitive dust

² California Air Resources Board (CARB), 2000. *Risk Reduction Plan to Reduce Particulate Matter Emissions from Diesel-Fueled Engines and Vehicles*, October.

are regulated by the BCAQMD under District Rule 200 “Nuisance” and District Rule 205 “Fugitive Dust Emissions.” Specifically, emissions must be prevented from creating a nuisance to surrounding properties and fugitive dust emissions must be prevented from being airborne beyond the property line. Construction activities on the site would be subject to District Rule 200 and 205.

Emissions of particulate matter or visible emissions are regulated by the BCAQMD under District Rule 201 “Visible Emissions.” Specifically, visible emissions from stationary diesel-powered equipment are not allowed to exceed 40 percent opacity for more than three minutes in any one hour. Construction activities on the site would also be subject to District Rule 201.

Butte County is a non-attainment area for PM emissions. Therefore, implementation of the following mitigation measure would reduce construction related impacts to a less-than-significant level.

Mitigation Measure AIR-1: Consistent with the guidance from the BCAQMD, the project applicant shall implement the following measures during construction of the project.

- All on- and off-road diesel equipment shall not idle for more than five minutes. Signs shall be posted in the designated queuing areas and/or job sites to remind drivers and operators of the five minute idling limit.
- Idling, staging and queuing of diesel equipment within 1,000 feet of sensitive receptors is prohibited.
- All construction equipment shall be maintained in proper tune according to the manufacturer’s specifications. Equipment must be checked by a certified mechanic and determined to be running in proper condition before the start of work.
- Install diesel particulate filters or implement other CARB-verified diesel emission control strategies.
- To the extent feasible, truck trips shall be scheduled during non-peak hours to reduce peak hour emissions.
- Reduce the amount of the disturbed area where possible.
- Use of water trucks or sprinkler systems in sufficient quantities to prevent airborne dust from leaving the site. An adequate water supply source must be identified. Increased watering frequency would be required whenever wind speeds exceed 15 mph. Reclaimed (non-potable) water should be used whenever possible.
- All dirt stockpile areas should be sprayed daily as needed, covered, or a District approved alternative method will be used.

- Permanent dust control measures identified in the approved project revegetation and landscape plans should be implemented as soon as possible following completion of any soil disturbing activities.
- Exposed ground areas that will be reworked at dates greater than one month after initial grading should be sown with a fast-germinating non-invasive grass seed and watered until vegetation is established.
- All disturbed soil areas not subject to re-vegetation should be stabilized using approved chemical soil binders, jute netting, or other methods approved in advance by the BCAQMD.
- All roadways, driveways, sidewalks, etc. to be paved should be completed as soon as possible. In addition, building pads should be laid as soon as possible after grading unless seeding or soil binders are used.
- Vehicle speed for all construction vehicles shall not exceed 15 mph on any unpaved surface at the construction site.
- All trucks hauling dirt, sand, soil, or other loose materials are to be covered or should maintain at least two feet of freeboard (minimum vertical distance between top of load and top of trailer) in accordance with local regulations.
- Install wheel washers where vehicles enter and exit unpaved roads onto streets, or wash off trucks and equipment leaving the site.
- Sweep streets at the end of each day if visible soil material is carried onto adjacent paved roads. Water sweepers with reclaimed water should be used where feasible.
- Post a sign in a prominent location visible to the public with the telephone numbers of the contractor and BCAQMD for any questions or concerns about dust from the project.

Long-Term Emissions. Long-term air emission impacts would be those associated with changes in permanent usage of the project site. Mobile source emissions would result from vehicle trips associated with the proposed project. CalEEMod was used to calculate long-term mobile source emissions. This analysis was conducted using the land use code “Single Family Residential” in CalEEMod.

The BCAQMD has established a significance threshold for ozone precursors, ROG and NO_x at 25 pounds per day and PM₁₀ and PM_{2.5} at 80 pounds per day. The emissions from the proposed project are shown in Table 3. Under Rule 207 of the BCAQMD, wood burning fireplaces are prohibited and therefore, are not included in the analysis. The CalEEMod output is provided in Appendix A. As shown in Table 3, the long-term emissions generated by the proposed project are not anticipated to

exceed the BCAQMD's thresholds, and therefore the project would have a less-than-significant impact on local and regional air quality.

Table 3: Operational Emissions in Pounds Per Day

| | ROG | NO _x | PM ₁₀ | PM _{2.5} |
|--------------------------------|------------|-----------------|------------------|-------------------|
| Area Source Emissions | 2.7 | 0.8 | 0.1 | 0.1 |
| Energy Source Emissions | 0.0 | 0.3 | 0.0 | 0.0 |
| Mobile Source Emissions | 1.2 | 7.4 | 2.9 | 0.8 |
| Total Project Emissions | 3.9 | 8.5 | 3.0 | 0.9 |
| BCAQMD Significance Threshold | 25 | 25 | 80 | 80 |
| Exceed? | No | No | No | No |

Source: LSA (January 2019).

The BCAQMD recommends that all projects provide some design or operational features which reduce overall air emissions. The proposed project would prewire all homes for solar, which would contribute to an overall reduction in energy emissions for residences of the proposed project. The proposed project would also provide sidewalks and bike lanes along Durham-Dayton Highway, which would contribute to an overall reduction in vehicle miles traveled for residents of the proposed project. These project amenities are consistent with the standard measures recommended by the BCAQMD.

Substantial Pollutant Concentration Analysis

The BCAQMD limits public exposure to toxic air contaminants (TACs) through a number of programs including implementation of the Air Toxics "Hot Spots" (AB2588) Program, implementation of the federal Title III program, and other rules aimed at specific types of sources known to emit high levels of TACs.

The CARB has identified high volume freeways, distribution centers, rail yards, ports, refineries and gasoline dispensing facilities has sources of substantial pollutant concentrations. The proposed project is not located within 500 feet of a high volume freeway or within the vicinity of these other sources of air pollutants.

The CARB has also identified smoke emitted through agricultural burning (the open burning of vegetative materials produced from commercial growing and harvesting crops or raising fowl or animals) as a source of particulate matter pollution. As a source of pollution, smoke from agricultural burning in high concentrations can pose a serious threat to human respiratory systems. Sensitive groups that are most susceptible to the impacts of particulate pollution include people with heart or lung disease, older adults (who may have undiagnosed heart or lung disease), and children. Although, it is expected that the residential use of the proposed project will not involve agricultural burning, there is potential for agricultural burning on adjacent agricultural-zoned properties. Agricultural burning is regulated by the local, State and federal fire protection agencies and the BCAQMD. The CARB determines permissive burn days and the number of acres allocated for agricultural and open burning based on meteorological and air quality factors. When conditions have been met, the CARB authorizes burning in the Sacramento Valley Air Basin.

The Sacramento Valley Basinwide Air Pollution Control Council, compromised of nine air districts, develops an annual burn plan for the valley, subject to CARB approval. For the purposes of protecting public health, the burn plan specifies requirements for determining agricultural burn hours and days, basinwide acreage allocations, proportionate with weather conditions and air quality levels.

Additionally, the BCAQMD, through district Rule 300: Open Burning Requirements regulates agricultural burning and requires that agricultural growers obtain an Air Quality Burn Permit for agricultural burning. Burning is allowed only on permissive burn days, when forecasted weather conditions create enough air movement to permit good smoke dispersal, thereby minimizing smoke concentrations that could impact sensitive receptors. Therefore, smoke from agricultural burning would not expose future residents of the project site to substantial pollutant concentrations.

Construction of the proposed project may expose surrounding sensitive receptors to airborne particulates, as well as a small quantity of construction equipment pollutants (i.e., usually diesel-fueled vehicles and equipment). However, construction contractors would be required to implement Mitigation Measure AIR-1 described above. With implementation of this mitigation measure, project construction pollutant emissions would be below the BCAQMD significance thresholds. Once the project is constructed, the project would not be a source of substantial pollutant emissions. Therefore, sensitive receptors would not be exposed to substantial pollutant concentrations during project construction and operation, and potential impacts would be considered less than significant.

Naturally Occurring Asbestos

Naturally occurring asbestos (NOA) has been identified by the CARB as a toxic air contaminant. Serpentine and ultramafic rocks, which may contain NOA, are found in certain mountainous areas of Butte County. NOA can take the form of long, thin separable fibers; there is no health threat if asbestos fibers in the soil remain undisturbed and do not become airborne. However, natural weathering or human disturbance can break NOA down into microscopic fibers that are easily suspended in the air. When airborne, fibers may be inhaled, irritate tissues and resist the body's natural defenses. Asbestos can cause cancers of the lung and the lining of internal organs, as well as asbestosis and other diseases that inhibit lung function.³

The BCAQMD has identified areas in Butte County where NOA may be present. According to maps contained on the BCAQMD website, the project site is not located within an area known to contain naturally occurring asbestos.⁴ In addition, the demolition of existing buildings may expose asbestos used in building materials; however, the project would not involve any demolition or renovation as no current development exists on the project site. Therefore, the potential risk for naturally occurring asbestos during project construction is small and would not be significant.

³ Butte County Air Quality Management District. 2014. op. cit.

⁴ Geographical Information Center at CSU Chico, 2018. *Naturally Occurring Asbestos Areas*. December. Website: https://bcaqmd.org/wp-content/uploads/Naturally_Occuring_Asbestos_Map_Butte_8.5x11.pdf

Odor Impacts

During project construction, some odors may be present due to diesel exhaust. However, these odors would be temporary and limited to the construction period. The proposed project would not include any activities or operations that would generate objectionable odors and once operational, the project would not be a source of odors. Therefore, the proposed project would not create objectionable odors affecting a substantial number of people. This impact would be less than significant.

GREENHOUSE GAS ANALYSIS

This analysis has been prepared using the methodologies and assumptions recommended by the BCAQMD and the *CEQA Guidelines*. This report provides background information on greenhouse gas emissions, an analysis of potential greenhouse gas emissions generated by the project, and an analysis of the project's consistency with plans adopted for the purpose of reducing greenhouse gas emissions. Mitigation measures to reduce potentially significant air quality impacts are identified, where appropriate.

Background

Global climate change is the observed increase in the average temperature of the Earth's atmosphere and oceans in recent decades. The Earth's average near-surface atmospheric temperature rose $0.6 \pm 0.2^\circ$ Celsius ($^\circ\text{C}$) or $1.1 \pm 0.4^\circ$ Fahrenheit ($^\circ\text{F}$) in the 20th century. The prevailing scientific opinion on climate change is that most of the warming observed over the last 50 years is attributable to human activities. The increased amounts of carbon dioxide (CO_2) and other greenhouse gases are the primary causes of the human-induced component of warming. Greenhouse gases are released by the burning of fossil fuels, land clearing, agriculture, and other activities, and lead to an increase in the greenhouse effect.⁵

Greenhouse gases are present in the atmosphere naturally, are released by natural sources, or are formed from secondary reactions taking place in the atmosphere. The gases that are widely seen as the principal contributors to human-induced global climate change are:

- Carbon dioxide (CO_2)
- Methane (CH_4)
- Nitrous oxide (N_2O)
- Hydrofluorocarbons (HFCs)

⁵ The temperature on Earth is regulated by a system commonly known as the "greenhouse effect." Just as the glass in a greenhouse lets heat from sunlight in and reduces the heat escaping, greenhouse gases like carbon dioxide, methane, and nitrous oxide in the atmosphere keep the Earth at a relatively even temperature. Without the greenhouse effect, the Earth would be a frozen globe; thus, although an excess of greenhouse gas results in global warming, the *naturally occurring* greenhouse effect is necessary to keep our planet at a comfortable temperature.

- Perfluorocarbons (PFCs)
- Sulfur Hexafluoride (SF₆)

Over the last 200 years, humans have caused substantial quantities of greenhouse gases to be released into the atmosphere. These extra emissions are increasing greenhouse gas concentrations in the atmosphere, and enhancing the natural greenhouse effect, which is believed to be causing global warming. While manmade greenhouse gases include naturally-occurring greenhouse gases such as CO₂, methane, and N₂O, some gases, like HFCs, PFCs, and SF₆ are completely new to the atmosphere.

Certain gases, such as water vapor, are short-lived in the atmosphere. Others remain in the atmosphere for significant periods of time, contributing to climate change in the long term. Water vapor is excluded from the list of greenhouse gases above because it is short-lived in the atmosphere and its atmospheric concentrations are largely determined by natural processes, such as oceanic evaporation. For the purposes of this air quality analysis, the term “greenhouse gases” will refer collectively to the six gases listed above only.

These gases vary considerably in terms of Global Warming Potential (GWP), which is a concept developed to compare the ability of each greenhouse gas to trap heat in the atmosphere relative to another gas. The global warming potential is based on several factors, including the relative effectiveness of a gas to absorb infrared radiation and length of time that the gas remains in the atmosphere (“atmospheric lifetime”). The GWP of each gas is measured relative to carbon dioxide, the most abundant greenhouse gas; the definition of GWP for a particular greenhouse gas is the ratio of heat trapped by one unit mass of the greenhouse gas to the ratio of heat trapped by one unit mass of CO₂ over a specified time period. Greenhouse gas emissions are typically measured in terms of pounds or tons of “CO₂ equivalents” (CO₂e).

Greenhouse Gas Emissions Analysis

Greenhouse gas emissions estimates for the proposed project are discussed below. Estimation of greenhouse gas emissions in the future does not account for all changes in technology that may reduce such emissions; therefore, the estimates are based on past performance and represent a scenario that is believed to be worse than that which is likely to be encountered (after energy-efficient technologies have been implemented). Greenhouse gas emissions associated with implementation of the proposed project would occur over the short term from construction activities, consisting primarily of emissions from equipment exhaust. There would also be long-term regional emissions associated with vehicular traffic, energy consumption, water conveyance and treatment (reflected in electricity usage and associated emissions) and waste generation.

Construction Emissions

Construction activities associated with the proposed project would produce combustion emissions from various sources. During construction, greenhouse gases would be emitted through the operation of construction equipment and from worker and builder supply vendor vehicles, each of which typically use fossil-based fuels to operate. The combustion of fossil-based fuels creates greenhouse gases such as CO₂, CH₄, and N₂O. Furthermore, CH₄ is emitted during the fueling of

heavy equipment. Exhaust emissions from on-site construction activities would vary daily as construction activity levels change.

The BCAQMD does not have an adopted threshold of significance for construction-related greenhouse gas emissions. However, lead agencies are encouraged to quantify and disclose greenhouse gas emissions that would occur during construction. Using CalEEMod, it is estimated that construction of the proposed project would generate approximately 1,407.3 metric tons of CO₂e. When considered over the 4-year construction period, construction emissions would be approximately 351.8 metric tons of CO₂e per year. In addition, when considered over the 30-year life of the project, the amortized construction emissions would be approximately 46.9 metric tons of CO₂e per year. Implementation of Mitigation Measure AIR-1 would reduce greenhouse gas emissions by reducing the amount of construction vehicle idling and by requiring the use of properly maintained equipment.

Project Emissions

The BCAQMD recommends the use of the California Emissions Estimator Model (CalEEMod) for calculating greenhouse gas emissions. This model was used to calculate the greenhouse gas emissions associated with the project and the results are shown in Table 4. Motor vehicle emissions are the largest source of greenhouse gas emissions at approximately 75 percent of the total. Combined energy use is the next largest category at 13 percent of CO₂e emissions. Area source emissions are approximately 8 percent of CO₂e emissions. Solid waste and water are approximately 3 percent and 1 percent of the total emissions respectively. Additional calculation details are provided in Appendix A.

Table 4: Greenhouse Gas Emissions (Metric Tons Per Year)

| Emissions Source | Operational Emissions | | | | |
|-------------------------------|-----------------------|-----------------|------------------|-------------------|------------------|
| | CO ₂ | CH ₄ | N ₂ O | CO ₂ e | Percent of Total |
| Area Source Emissions | 67.0 | 0.0 | 0.0 | 67.5 | 8 |
| Energy Source Emissions | 118.3 | 0.0 | 0.0 | 119.1 | 13 |
| Mobile Source Emissions | 647.5 | 0.0 | 0.0 | 648.6 | 75 |
| Waste Source Emissions | 9.6 | 0.6 | 0.0 | 23.9 | 3 |
| Water Source Emissions | 4.4 | 0.1 | 0.0 | 7.5 | 1 |
| Total Annual Emissions | | | | 866.5 | 100 |

Source: LSA (January 2019).

The proposed project would generate up to 866.5 tons of CO₂e per year of emissions, as shown in Table 4. The BCAQMD has not established a numeric threshold for greenhouse gas emissions. The proposed project would prewire all homes for solar. Additionally, the project would implement the energy efficiency measures required under the Cal Green program (Title 24) and the green building policies required by the County. The project would also provide pedestrian and bicycle paths, which would contribute to an overall reduction in greenhouse gas emissions by minimizing vehicle miles traveled. As a result, the impact of the proposed project would not contribute substantial greenhouse gas emissions.

Consistency with Greenhouse Gas Reduction Plans

Plans policies and regulations applicable to the proposed project related to greenhouse gases are described in this section.

Federal Regulations. The United States has historically had a voluntary approach to reducing greenhouse gas emissions. However, on April 2, 2007, the United States Supreme Court ruled that the United States Environmental Protection Agency (USEPA) has the authority to regulate CO₂ emissions under the federal Clean Air Act. While there currently are no adopted federal regulations for the control or reduction of greenhouse gas emissions, the USEPA commenced several actions in 2009 to implement a regulatory approach to global climate change.

This includes the 2009 USEPA final rule for mandatory reporting of greenhouse gases from large greenhouse gas emission sources in the United States. Additionally, the USEPA Administrator signed an endangerment finding action in 2009 under the Clean Air Act, finding that six greenhouse gases (CO₂, CH₄, N₂O, HFCs, PFCs, SF₆) constitute a threat to public health and welfare, and that the combined emissions from motor vehicles cause and contribute to global climate change, leading to national greenhouse gas emission standards.

State Regulations. The CARB is the lead agency for implementing climate change regulations in the State. Since its formation, the CARB has worked with the public, the business sector, and local governments to find solutions to California's air pollution problems. Key efforts by the State are described below.

State Regulations. California's major initiative for reducing greenhouse gas emissions is Assembly Bill (AB) 32, passed by the State legislature on August 31, 2006. This effort aims at reducing greenhouse gas emissions to 1990 levels by 2020. The CARB has established the level of greenhouse gas emissions in 1990 at 427 million metric tons (MMT) CO₂e. The emissions target of 427 MMT requires the reduction of 169 MMT from the State's projected business-as-usual 2020 emissions of 596 MMT. AB 32 requires the CARB to prepare a Scoping Plan that outlines the main State strategies for meeting the 2020 deadline and to reduce greenhouse gases that contribute to global climate change. The Scoping Plan was approved by the CARB on December 11, 2008, and contains the main strategies California will implement to achieve the reduction of approximately 169 MMT of CO₂e, or approximately 30 percent, from the State's projected 2020 emission level of 596 MMT of CO₂e under a business-as-usual scenario (this is a reduction of 42 MMT CO₂e, or almost 10 percent from 2002-2004 average emissions). The Scoping Plan also includes CARB-recommended greenhouse gas reductions for each emissions sector of the State's greenhouse gas inventory. The Scoping Plan calls for the largest reductions in greenhouse gas emissions to be achieved by implementing the following measures and standards:

- Improved emissions standards for light-duty vehicles (estimated reductions of 31.7 MMT CO₂e);
- The Low-Carbon Fuel Standard (15.0 MMT CO₂e);

- Energy efficiency measures in buildings and appliances and the widespread development of combined heat and power systems (26.3 MMT CO₂e); and
- A renewable portfolio standard for electricity production (21.3 MMT CO₂e).

The Scoping Plan identifies 18 emission reduction measures that address cap-and-trade programs, vehicle gas standards, energy efficiency, low carbon fuel standards, renewable energy, regional transportation-related greenhouse gas targets, vehicle efficiency measures, goods movement, solar roof programs, industrial emissions, high speed rail, green building strategies, recycling, sustainable forests, water, and air. The measures would result in a total reduction of 174 MMT CO₂e by 2020.

On August 24, 2011, the CARB unanimously approved both the new supplemental assessment and reapproved its Scoping Plan, which provides the overall roadmap and rule measures to carry out AB 32. The CARB also approved a more robust CEQA equivalent document supporting the supplemental analysis of the cap-and-trade program. The cap-and-trade took effect on January 1, 2012, with an enforceable compliance obligation that began January 1, 2013.

The CARB approved the First Update to the Climate Change Scoping Plan on May 22, 2014. The First Update identifies opportunities to leverage existing and new funds to further drive greenhouse gas emission reductions through strategic planning and targeted low carbon investments. The First Update defines CARB climate change priorities until 2020, and also sets the groundwork to reach long-term goals set forth in Executive Orders S-3-05 and B-16-2012. The Update highlights California's progress toward meeting the "near-term" 2020 greenhouse gas emission reduction goals as defined in the initial Scoping Plan. It also evaluates how to align the State's "longer-term" greenhouse gas reduction strategies with other State policy priorities for water, waste, natural resources, clean energy, transportation, and land use. CARB released a second update to the Scoping Plan, the 2017 Scoping Plan,⁶ to reflect the 2030 target set by Executive Order B-30-15 and codified by Senate Bill (SB) 32.

Senate Bill 375 (2008). Signed into law on October 1, 2008, SB 375 supplements greenhouse gas reductions from new vehicle technology and fuel standards with reductions from more efficient land use patterns and improved transportation. Under the law, the CARB approved greenhouse gas reduction targets in February 2011 for California's 18 federally designated regional planning bodies, known as Metropolitan Planning Organizations (MPOs). The CARB may update the targets every 4 years and must update them every 8 years. MPOs in turn must demonstrate how their plans, policies and transportation investments meet the targets set by the CARB through Sustainable Community Strategies (SCS). The SCS are included with the Regional Transportation Plan (RTP), a report required by State law. However, if an MPO finds that their SCS will not meet the greenhouse gas reduction target, they may prepare an Alternative Planning Strategy (APS). The APS identifies the impediments to achieving the targets.

⁶ California Air Resources Board. 2017. *California's 2017 Climate Change Scoping Plan*. November.

Executive Order B-30-15 (2015). Governor Jerry Brown signed Executive Order B-30-15 on April 29, 2015, which added the immediate target of:

- Greenhouse gas emissions should be reduced to 40 percent below 1990 levels by 2030.

All State agencies with jurisdiction over sources of greenhouse gas emissions were directed to implement measures to achieve reductions of greenhouse gas emissions to meet the 2030 and 2050 targets. CARB was directed to update the AB 32 Scoping Plan to reflect the 2030 target, and therefore, is moving forward with the update process. The mid-term target is critical to help frame the suite of policy measures, regulations, planning efforts, and investments in clean technologies and infrastructure needed to continue reducing emissions.

Senate Bill 350 (2015) Clean Energy and Pollution Reduction Act. Senate Bill 350 (SB 350), signed by Governor Jerry Brown on October 7, 2015, updates and enhances AB 32 by introducing the following set of objectives in clean energy, clean air, and pollution reduction for 2030:

- Raise California's renewable portfolio standard from 33 percent to 50 percent; and
- Increasing energy efficiency in buildings by 50 percent by the year 2030.

The 50 percent renewable energy standard will be implemented by the California Public Utilities Commission for the private utilities and by the California Energy Commission for municipal utilities. Each utility must submit a procurement plan showing it will purchase clean energy to displace other non-renewable resources. The 50 percent increase in energy efficiency in buildings must be achieved through the use of existing energy efficiency retrofit funding and regulatory tools already available to state energy agencies under existing law. The addition made by this legislation requires state energy agencies to plan for, and implement those programs in a manner that achieves the energy efficiency target.

Senate Bill 32, California Global Warming Solutions Act of 2016, and Assembly Bill 197. In summer 2016 the Legislature passed, and the Governor signed, SB 32, and AB 197. SB 32 affirms the importance of addressing climate change by codifying into statute the greenhouse gas emissions reductions target of at least 40 percent below 1990 levels by 2030 contained in Governor Brown's April 2015 Executive Order B-30-15. SB 32 builds on AB 32 and keeps us on the path toward achieving the State's 2050 objective of reducing emissions to 80 percent below 1990 levels, consistent with an Intergovernmental Panel on Climate Change (IPCC) analysis of the emissions trajectory that would stabilize atmospheric greenhouse gas concentrations at 450 parts per million CO₂e and reduce the likelihood of catastrophic impacts from climate change.

The companion bill to SB 32, AB 197, provides additional direction to CARB related to the adoption of strategies to reduce greenhouse gas emissions. Additional direction in AB 197 meant to provide easier public access to air emissions data that are collected by CARB was posted in December 2016.

Senate Bill 100. On September 10, 2018, Governor Brown signed SB 100, which raises California's RPS requirements to 60 percent by 2030, with interim targets, and 100 percent by 2045. The bill also establishes a state policy that eligible renewable energy resources and zero-carbon resources supply 100 percent of all retail sales of electricity to California end-use customers and 100 percent of electricity procured to serve all state agencies by December 31, 2045. Under the bill, the state cannot increase carbon emissions elsewhere in the western grid or allow resource shuffling to achieve the 100 percent carbon-free electricity target.

Executive Order B-55-18. Executive Order B-55-18, signed September 10, 2018, sets a goal "to achieve carbon neutrality as soon as possible, and no later than 2045, and achieve and maintain net negative emissions thereafter." Executive Order B-55-18 directs CARB to work with relevant state agencies to ensure future Scoping Plans identify and recommend measures to achieve the carbon neutrality goal. The goal of carbon neutrality by 2045 is in addition to other statewide goals, meaning not only should emissions be reduced to 80 percent below 1990 levels by 2050, but that, by no later than 2045, the remaining emissions be offset by equivalent net removals of CO₂e from the atmosphere, including through sequestration in forests, soils, and other natural landscapes.

Butte County Association of Governments (BCAG). As discussed above, in September 2008 Governor Schwarzenegger signed SB 375. Under SB 375, BCAG, as the region's Metropolitan Planning Organization, has been designated to develop the area's Sustainable Communities Strategy (SCS). The SCS will include a regional land use plan and transportation network that accommodates the region's projected housing need while reducing greenhouse gas emissions.

Butte County General Plan. The Butte County 2030 General Plan's Conservation and Open Space Element has several Goals and Policies related to the reduction of greenhouse gas emissions. Policies related to the proposed project include the following:

- *COS-P1.3:* New development should use recycled-content construction materials.
- *COS-P1.4:* New development should provide above-ground and natural storm water facilities and use building designs and materials that promote groundwater recharge.
- *COS-P1.5:* New development should have street systems that support the use of Neighborhood Electric Vehicles (NEV).
- *COS-P2.2:* New development shall comply with Green Building Standards adopted by the California Building Standards Commission at the time of building permit application, including requirements about low- or no-toxicity building materials.
- *COS-P2.4:* All new subdivisions and developments should meet green planning standards such as LEED for Neighborhood Design.
- *COSP4.3:* New development shall meet the guidelines of the California Energy Star New Homes Program and demonstrate detailed energy conservation measures.

- *COS-P4.4:* New site and structure designs shall maximize energy efficiency.

Project Impacts. As discussed in the BCAQMD's CEQA Air Quality Handbook, if a project is implementing the measures stipulated by its Climate Action Plan or the goals and policies of its General Plan, the lead agency may determine that it will have a less-than-significant impact on global climate change. If a Climate Action Plan and/or General Plan goals and policies are not adopted for jurisdictions within Butte County, the BCAQMD recommends that lead agencies evaluate the project's total greenhouse gas emissions according to the goals of AB 32 and the AB 32 Scoping Plan or those of other jurisdictions. As noted above, the Butte County 2030 General Plan's Conservation and Open Space Element has several Goals and Policies related to the reduction of greenhouse gas emissions. Therefore, the following analysis evaluates the project's consistency with the AB 32 Scoping Plan and applicable Butte County General Plan policies.

Climate Change Scoping Plan Consistency. The Scoping Plan has a range of greenhouse gas reduction actions, which include direct regulations, alternative compliance mechanisms, monetary and non-monetary incentives, voluntary actions, market-based mechanisms such as a cap-and-trade system, and an AB 32 implementation fee to fund the program.

In addition, SB 32 affirms the importance of addressing climate change by codifying into statute the greenhouse gas emissions reductions target of at least 40 percent below 1990 levels by 2030 contained in Executive Order B-30-15. SB 32 builds on AB 32 and keeps us on the path toward achieving the State's 2050 objective of reducing emissions to 80 percent below 1990 levels, consistent with an IPCC analysis of the emissions trajectory that would stabilize atmospheric greenhouse gas concentrations at 450 parts per million CO₂e and reduce the likelihood of catastrophic impacts from climate change.

The companion bill to SB 32, AB 197, provides additional direction to CARB on the following areas related to the adoption of strategies to reduce greenhouse gas emissions. Additional direction in AB 197 meant to provide easier public access to air emissions data that are collected by CARB was posted in December 2016. The measures applicable to the proposed project include energy efficiency measures, water conservation and efficiency measures, and transportation and motor vehicle measures, as discussed below.

Energy efficient measures are intended to maximize energy efficiency building and appliance standards, pursue additional efficiency efforts including new technologies and new policy and implementation mechanisms, and pursue comparable investment in energy efficiency from all retail providers of electricity in California. In addition, these measures are designed to expand the use of green building practices to reduce the carbon footprint of California's new and existing inventory of buildings. As discussed above, the proposed project would prewire all homes for solar, which would contribute to an overall reduction in energy emissions for residences of the proposed project. The project would also be required to comply with the latest Title 24 of the California Code of Regulations, established by the California Energy Commission (CEC), regarding energy conservation and green building standards. Therefore, the proposed project would comply with applicable energy measures.

Water conservation and efficiency measures are intended to continue efficiency programs and use cleaner energy sources to move and treat water. Increasing the efficiency of water transport and reducing water use would reduce greenhouse gas emissions. As discussed above, the project would be required to comply with the latest Title 24 of the California Code of Regulations, which includes a variety of different measures, including reduction of wastewater and water use. In addition, the proposed project would comply with the California Model Water Efficient Landscape Ordinance. Therefore, the proposed project would not conflict with any of the water conservation and efficiency measures.

The goal of transportation and motor vehicle measures is to develop regional greenhouse gas emissions reduction targets for passenger vehicles. Specific regional emission targets for transportation emissions would not directly apply to the proposed project. However, vehicles traveling to the project site would comply with the Pavley II (LEV III) Advanced Clean Cars Program. The second phase of Pavley standards will reduce greenhouse gas emissions from new cars by 34 percent from 2016 levels by 2025, resulting in a 3 percent decrease in average vehicle emissions for all vehicles by 2020. In addition, the proposed project would provide sidewalks and bike lanes along Durham-Dayton Highway, which would contribute to an overall reduction in vehicle miles traveled for residents of the proposed project. Therefore, the proposed project would not conflict with the identified transportation and motor vehicle measures.

As described above, the proposed project would not conflict with applicable Statewide action measures. Therefore, the proposed project would be consistent with State mandates, including AB 32, to reduce greenhouse gas emissions.

Butte County General Plan Consistency. The Conservation and Open Space Element of the General Plan was adopted for the purpose of reducing greenhouse gas emissions. To be consistent with the General Plan, the project applicant shall implement the following mitigation measure.

Mitigation Measure GCC-1: The project applicant shall incorporate the following measures into project design and construction:

- Construction of the proposed project shall utilize recycled-content construction materials to the extent feasible;
- Project design shall comply with the Green Building Standards adopted by the California Standards Commission at the time of building permit application, including requirements about low-or no-toxicity building materials;
- Project design shall provide above-ground and natural storm water facilities and building designs and materials that promote groundwater recharge;
- Internal project site street systems shall be designed to support the use of Neighborhood Electric Vehicles (NEV);
- The project shall meet all appropriate green planning standards; and

- The project design shall maximize energy efficiency and meet the guidelines of the California Energy Star New Homes Program and demonstrate detailed energy conservation measures.

Implementation of Mitigation Measure GCC-1 would ensure that the project is consistent with the Butte County General Plan. Additionally, the project would comply with all applicable permit and planning requirements in place or adopted by the Butte County and the Butte County Air Pollution Control District for the purpose of reducing greenhouse gas emissions. Therefore, with implementation of Mitigation Measure GCC-1, the proposed project would not conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases.

Attachment: CalEEMod Output Sheets

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1.0 Project Characteristics**1.1 Land Usage**

| Land Uses | Size | Metric | Lot Acreage | Floor Surface Area | Population |
|-----------------------|-------|---------------|-------------|--------------------|------------|
| Single Family Housing | 46.00 | Dwelling Unit | 49.40 | 82,800.00 | 132 |

1.2 Other Project Characteristics

| | | | | | |
|----------------------------|--------------------------------|----------------------------|-------|----------------------------|-------|
| Urbanization | Urban | Wind Speed (m/s) | 2.2 | Precipitation Freq (Days) | 71 |
| Climate Zone | 3 | | | Operational Year | 2023 |
| Utility Company | Pacific Gas & Electric Company | | | | |
| CO2 Intensity (lb/MWhr) | 328.8 | CH4 Intensity (lb/MWhr) | 0.029 | N2O Intensity (lb/MWhr) | 0.006 |

1.3 User Entered Comments & Non-Default Data

Project Characteristics - CO2 intensity based on 5-year average (2016-2020), PG&E, 2015

Land Use - The proposed project would include the construction of 46 new single family homes on approximately 1-acre lots.

Construction Phase - Default construction schedule

Mobile Land Use Mitigation -

Area Mitigation - No wood burning fireplaces per BCAQMD Rule 207

Energy Mitigation - Homes will be prewired for solar

| Table Name | Column Name | Default Value | New Value |
|---------------------------|--------------------|---------------|-----------|
| tblLandUse | LotAcreage | 14.94 | 49.40 |
| tblProjectCharacteristics | CO2IntensityFactor | 641.35 | 328.8 |

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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 | | | | | |
| 2019 | 0.2836 | 3.0027 | 1.8153 | 3.2600e-003 | 0.5376 | 0.1428 | 0.6804 | 0.2486 | 0.1318 | 0.3804 | 0.0000 | 292.6870 | 292.6870 | 0.0867 | 0.0000 | 294.8537 |
| 2020 | 0.3208 | 2.9735 | 2.5090 | 4.3700e-003 | 0.1950 | 0.1592 | 0.3542 | 0.0559 | 0.1492 | 0.2052 | 0.0000 | 380.3479 | 380.3479 | 0.0905 | 0.0000 | 382.6114 |
| 2021 | 0.2628 | 2.3756 | 2.2774 | 3.9600e-003 | 0.0264 | 0.1256 | 0.1520 | 7.1700e-003 | 0.1181 | 0.1252 | 0.0000 | 344.0966 | 344.0966 | 0.0757 | 0.0000 | 345.9886 |
| 2022 | 0.2291 | 2.0723 | 2.2107 | 3.8800e-003 | 0.0257 | 0.1032 | 0.1288 | 6.9600e-003 | 0.0970 | 0.1039 | 0.0000 | 336.9633 | 336.9633 | 0.0755 | 0.0000 | 338.8516 |
| 2023 | 1.3202 | 0.2155 | 0.3173 | 5.1000e-004 | 3.1500e-003 | 0.0109 | 0.0141 | 8.4000e-004 | 0.0102 | 0.0110 | 0.0000 | 44.6677 | 44.6677 | 0.0119 | 0.0000 | 44.9640 |
| Maximum | 1.3202 | 3.0027 | 2.5090 | 4.3700e-003 | 0.5376 | 0.1592 | 0.6804 | 0.2486 | 0.1492 | 0.3804 | 0.0000 | 380.3479 | 380.3479 | 0.0905 | 0.0000 | 382.6114 |

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2.1 Overall Construction**Mitigated Construction**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---------|---------|--------|--------|-------------|---------------|--------------|------------|----------------|---------------|-------------|----------|-----------|-----------|--------|--------|----------|
| Year | tons/yr | | | | | | | | | | MT/yr | | | | | |
| 2019 | 0.2836 | 3.0027 | 1.8153 | 3.2600e-003 | 0.5376 | 0.1428 | 0.6804 | 0.2486 | 0.1318 | 0.3804 | 0.0000 | 292.6866 | 292.6866 | 0.0867 | 0.0000 | 294.8534 |
| 2020 | 0.3208 | 2.9735 | 2.5090 | 4.3700e-003 | 0.1950 | 0.1592 | 0.3542 | 0.0559 | 0.1492 | 0.2052 | 0.0000 | 380.3475 | 380.3475 | 0.0905 | 0.0000 | 382.6110 |
| 2021 | 0.2628 | 2.3756 | 2.2774 | 3.9600e-003 | 0.0264 | 0.1256 | 0.1520 | 7.1700e-003 | 0.1181 | 0.1252 | 0.0000 | 344.0963 | 344.0963 | 0.0757 | 0.0000 | 345.9882 |
| 2022 | 0.2291 | 2.0723 | 2.2107 | 3.8800e-003 | 0.0257 | 0.1032 | 0.1288 | 6.9600e-003 | 0.0970 | 0.1039 | 0.0000 | 336.9629 | 336.9629 | 0.0755 | 0.0000 | 338.8512 |
| 2023 | 1.3202 | 0.2155 | 0.3173 | 5.1000e-004 | 3.1500e-003 | 0.0109 | 0.0141 | 8.4000e-004 | 0.0102 | 0.0110 | 0.0000 | 44.6676 | 44.6676 | 0.0119 | 0.0000 | 44.9639 |
| Maximum | 1.3202 | 3.0027 | 2.5090 | 4.3700e-003 | 0.5376 | 0.1592 | 0.6804 | 0.2486 | 0.1492 | 0.3804 | 0.0000 | 380.3475 | 380.3475 | 0.0905 | 0.0000 | 382.6110 |

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

| Quarter | Start Date | End Date | Maximum Unmitigated ROG + NOX (tons/quarter) | Maximum Mitigated ROG + NOX (tons/quarter) |
|---------|------------|------------|--|--|
| 1 | 7-1-2019 | 9-30-2019 | 1.3889 | 1.3889 |
| 2 | 10-1-2019 | 12-31-2019 | 1.8958 | 1.8958 |
| 3 | 1-1-2020 | 3-31-2020 | 1.0857 | 1.0857 |
| 4 | 4-1-2020 | 6-30-2020 | 0.7240 | 0.7240 |
| 5 | 7-1-2020 | 9-30-2020 | 0.7319 | 0.7319 |
| 6 | 10-1-2020 | 12-31-2020 | 0.7330 | 0.7330 |

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| | | | | |
|----|-----------|------------|--------|--------|
| 7 | 1-1-2021 | 3-31-2021 | 0.6504 | 0.6504 |
| 8 | 4-1-2021 | 6-30-2021 | 0.6568 | 0.6568 |
| 9 | 7-1-2021 | 9-30-2021 | 0.6640 | 0.6640 |
| 10 | 10-1-2021 | 12-31-2021 | 0.6649 | 0.6649 |
| 11 | 1-1-2022 | 3-31-2022 | 0.5838 | 0.5838 |
| 12 | 4-1-2022 | 6-30-2022 | 0.5896 | 0.5896 |
| 13 | 7-1-2022 | 9-30-2022 | 0.5961 | 0.5961 |
| 14 | 10-1-2022 | 12-31-2022 | 0.5369 | 0.5369 |
| 15 | 1-1-2023 | 3-31-2023 | 0.9241 | 0.9241 |
| 16 | 4-1-2023 | 6-30-2023 | 0.6078 | 0.6078 |
| | | Highest | 1.8958 | 1.8958 |

2.2 Overall Operational**Unmitigated Operational**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e | |
|----------|-------------|--------|--------|-------------|---------------|--------------|-------------|----------------|---------------|-------------|----------|-----------|-----------|-------------|-------------|----------|--|
| Category | tons/yr | | | | | | | | | | | MT/yr | | | | | |
| Area | 5.8491 | 0.1067 | 6.9647 | 0.0120 | | 0.9298 | 0.9298 | | 0.9298 | 0.9298 | 88.0964 | 35.4223 | 123.5187 | 0.0795 | 6.9400e-003 | 127.5717 | |
| Energy | 6.4900e-003 | 0.0554 | 0.0236 | 3.5000e-004 | | 4.4800e-003 | 4.4800e-003 | | 4.4800e-003 | 4.4800e-003 | 0.0000 | 124.2826 | 124.2826 | 6.5300e-003 | 2.2700e-003 | 125.1234 | |
| Mobile | 0.1724 | 1.2634 | 1.9120 | 7.0600e-003 | 0.4770 | 5.7900e-003 | 0.4828 | 0.1284 | 5.4400e-003 | 0.1338 | 0.0000 | 653.0964 | 653.0964 | 0.0439 | 0.0000 | 654.1931 | |
| Waste | | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 9.6461 | 0.0000 | 9.6461 | 0.5701 | 0.0000 | 23.8979 | |
| Water | | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.9508 | 3.4050 | 4.3558 | 0.0980 | 2.3700e-003 | 7.5105 | |
| Total | 6.0280 | 1.4255 | 8.9002 | 0.0194 | 0.4770 | 0.9401 | 1.4171 | 0.1284 | 0.9397 | 1.0681 | 98.6934 | 816.2063 | 914.8997 | 0.7979 | 0.0116 | 938.2966 | |

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2.2 Overall Operational**Mitigated Operational**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e | |
|--------------|---------------|---------------|---------------|--------------------|---------------|---------------|---------------|----------------|---------------|---------------|----------------|-----------------|-----------------|---------------|--------------------|-----------------|--|
| Category | tons/yr | | | | | | | | | | | MT/yr | | | | | |
| Area | 0.4699 | 0.0614 | 0.3661 | 3.8000e-004 | | 6.5300e-003 | 6.5300e-003 | | 6.5300e-003 | 6.5300e-003 | 0.0000 | 67.0434 | 67.0434 | 1.8100e-003 | 1.2200e-003 | 67.4520 | |
| Energy | 6.4900e-003 | 0.0554 | 0.0236 | 3.5000e-004 | | 4.4800e-003 | 4.4800e-003 | | 4.4800e-003 | 4.4800e-003 | 0.0000 | 118.2723 | 118.2723 | 6.0000e-003 | 2.1600e-003 | 119.0672 | |
| Mobile | 0.1717 | 1.2575 | 1.8971 | 7.0000e-003 | 0.4722 | 5.7300e-003 | 0.4780 | 0.1271 | 5.3900e-003 | 0.1325 | 0.0000 | 647.5147 | 647.5147 | 0.0437 | 0.0000 | 648.6070 | |
| Waste | | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 9.6461 | 0.0000 | 9.6461 | 0.5701 | 0.0000 | 23.8979 | |
| Water | | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.9508 | 3.4050 | 4.3558 | 0.0980 | 2.3700e-003 | 7.5105 | |
| Total | 0.6481 | 1.3743 | 2.2868 | 7.7300e-003 | 0.4722 | 0.0167 | 0.4890 | 0.1271 | 0.0164 | 0.1435 | 10.5970 | 836.2354 | 846.8323 | 0.7195 | 5.7500e-003 | 866.5345 | |

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N2O | CO2e |
|-------------------|-------|------|-------|-------|---------------|--------------|------------|----------------|---------------|-------------|----------|----------|-----------|------|-------|------|
| Percent Reduction | 89.25 | 3.60 | 74.31 | 60.09 | 1.00 | 98.22 | 65.49 | 1.00 | 98.25 | 86.57 | 89.26 | -2.45 | 7.44 | 9.82 | 50.35 | 7.65 |

3.0 Construction Detail**Construction Phase**

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| Phase Number | Phase Name | Phase Type | Start Date | End Date | Num Days Week | Num Days | Phase Description |
|--------------|-----------------------|-----------------------|------------|------------|---------------|----------|-------------------|
| 1 | Demolition | Demolition | 7/1/2019 | 9/6/2019 | 5 | 50 | |
| 2 | Site Preparation | Site Preparation | 9/7/2019 | 10/18/2019 | 5 | 30 | |
| 3 | Grading | Grading | 10/19/2019 | 1/31/2020 | 5 | 75 | |
| 4 | Building Construction | Building Construction | 2/1/2020 | 12/2/2022 | 5 | 740 | |
| 5 | Paving | Paving | 12/3/2022 | 2/17/2023 | 5 | 55 | |
| 6 | Architectural Coating | Architectural Coating | 2/18/2023 | 5/5/2023 | 5 | 55 | |

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 187.5

Acres of Paving: 0

Residential Indoor: 167,670; Residential Outdoor: 55,890; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

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| Phase Name | Offroad Equipment Type | Amount | Usage Hours | Horse Power | Load Factor |
|-----------------------|---------------------------|--------|-------------|-------------|-------------|
| Demolition | Concrete/Industrial Saws | 1 | 8.00 | 81 | 0.73 |
| Demolition | Excavators | 3 | 8.00 | 158 | 0.38 |
| Demolition | Rubber Tired Dozers | 2 | 8.00 | 247 | 0.40 |
| Site Preparation | Rubber Tired Dozers | 3 | 8.00 | 247 | 0.40 |
| Site Preparation | Tractors/Loaders/Backhoes | 4 | 8.00 | 97 | 0.37 |
| Grading | Excavators | 2 | 8.00 | 158 | 0.38 |
| Grading | Graders | 1 | 8.00 | 187 | 0.41 |
| Grading | Rubber Tired Dozers | 1 | 8.00 | 247 | 0.40 |
| Grading | Scrapers | 2 | 8.00 | 367 | 0.48 |
| Grading | Tractors/Loaders/Backhoes | 2 | 8.00 | 97 | 0.37 |
| Building Construction | Cranes | 1 | 7.00 | 231 | 0.29 |
| Building Construction | Forklifts | 3 | 8.00 | 89 | 0.20 |
| Building Construction | Generator Sets | 1 | 8.00 | 84 | 0.74 |
| Building Construction | Tractors/Loaders/Backhoes | 3 | 7.00 | 97 | 0.37 |
| Building Construction | Welders | 1 | 8.00 | 46 | 0.45 |
| Paving | Pavers | 2 | 8.00 | 130 | 0.42 |
| Paving | Paving Equipment | 2 | 8.00 | 132 | 0.36 |
| Paving | Rollers | 2 | 8.00 | 80 | 0.38 |
| Architectural Coating | Air Compressors | 1 | 6.00 | 78 | 0.48 |

Trips and VMT

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| Phase Name | Offroad Equipment Count | Worker Trip Number | Vendor Trip Number | Hauling Trip Number | Worker Trip Length | Vendor Trip Length | Hauling Trip Length | Worker Vehicle Class | Vendor Vehicle Class | Hauling Vehicle Class |
|-----------------------|-------------------------|--------------------|--------------------|---------------------|--------------------|--------------------|---------------------|----------------------|----------------------|-----------------------|
| Demolition | 6 | 15.00 | 0.00 | 0.00 | 12.54 | 10.52 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Site Preparation | 7 | 18.00 | 0.00 | 0.00 | 12.54 | 10.52 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Grading | 8 | 20.00 | 0.00 | 0.00 | 12.54 | 10.52 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Building Construction | 9 | 17.00 | 5.00 | 0.00 | 12.54 | 10.52 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Paving | 6 | 15.00 | 0.00 | 0.00 | 12.54 | 10.52 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Architectural Coating | 1 | 3.00 | 0.00 | 0.00 | 12.54 | 10.52 | 20.00 | LD_Mix | HDT_Mix | HHDT |

3.1 Mitigation Measures Construction**3.2 Demolition - 2019****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 | 0.0878 | 0.8946 | 0.5515 | 9.7000e-004 | | 0.0449 | 0.0449 | | 0.0417 | 0.0417 | 0.0000 | 86.5658 | 86.5658 | 0.0241 | 0.0000 | 87.1679 |
| Total | 0.0878 | 0.8946 | 0.5515 | 9.7000e-004 | | 0.0449 | 0.0449 | | 0.0417 | 0.0417 | 0.0000 | 86.5658 | 86.5658 | 0.0241 | 0.0000 | 87.1679 |

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3.2 Demolition - 2019**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 | 2.4400e-003 | 2.2500e-003 | 0.0209 | 4.0000e-005 | 3.4300e-003 | 3.0000e-005 | 3.4600e-003 | 9.1000e-004 | 3.0000e-005 | 9.4000e-004 | 0.0000 | 3.2333 | 3.2333 | 1.8000e-004 | 0.0000 | 3.2377 | |
| Total | 2.4400e-003 | 2.2500e-003 | 0.0209 | 4.0000e-005 | 3.4300e-003 | 3.0000e-005 | 3.4600e-003 | 9.1000e-004 | 3.0000e-005 | 9.4000e-004 | 0.0000 | 3.2333 | 3.2333 | 1.8000e-004 | 0.0000 | 3.2377 | |

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 | 0.0878 | 0.8946 | 0.5515 | 9.7000e-004 | | 0.0449 | 0.0449 | | 0.0417 | 0.0417 | 0.0000 | 86.5657 | 86.5657 | 0.0241 | 0.0000 | 87.1678 | |
| Total | 0.0878 | 0.8946 | 0.5515 | 9.7000e-004 | | 0.0449 | 0.0449 | | 0.0417 | 0.0417 | 0.0000 | 86.5657 | 86.5657 | 0.0241 | 0.0000 | 87.1678 | |

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3.2 Demolition - 2019**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 | 2.4400e-003 | 2.2500e-003 | 0.0209 | 4.0000e-005 | 3.4300e-003 | 3.0000e-005 | 3.4600e-003 | 9.1000e-004 | 3.0000e-005 | 9.4000e-004 | 0.0000 | 3.2333 | 3.2333 | 1.8000e-004 | 0.0000 | 3.2377 | |
| Total | 2.4400e-003 | 2.2500e-003 | 0.0209 | 4.0000e-005 | 3.4300e-003 | 3.0000e-005 | 3.4600e-003 | 9.1000e-004 | 3.0000e-005 | 9.4000e-004 | 0.0000 | 3.2333 | 3.2333 | 1.8000e-004 | 0.0000 | 3.2377 | |

3.3 Site Preparation - 2019**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 | | | | | 0.2710 | 0.0000 | 0.2710 | 0.1490 | 0.0000 | 0.1490 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 0.0650 | 0.6836 | 0.3310 | 5.7000e-004 | | 0.0359 | 0.0359 | | 0.0330 | 0.0330 | 0.0000 | 51.2530 | 51.2530 | 0.0162 | 0.0000 | 51.6584 |
| Total | 0.0650 | 0.6836 | 0.3310 | 5.7000e-004 | 0.2710 | 0.0359 | 0.3069 | 0.1490 | 0.0330 | 0.1820 | 0.0000 | 51.2530 | 51.2530 | 0.0162 | 0.0000 | 51.6584 |

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3.3 Site Preparation - 2019**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 | 1.7500e-003 | 1.6200e-003 | 0.0151 | 3.0000e-005 | 2.4700e-003 | 2.0000e-005 | 2.4900e-003 | 6.6000e-004 | 2.0000e-005 | 6.8000e-004 | 0.0000 | 2.3280 | 2.3280 | 1.3000e-004 | 0.0000 | 2.3312 | |
| Total | 1.7500e-003 | 1.6200e-003 | 0.0151 | 3.0000e-005 | 2.4700e-003 | 2.0000e-005 | 2.4900e-003 | 6.6000e-004 | 2.0000e-005 | 6.8000e-004 | 0.0000 | 2.3280 | 2.3280 | 1.3000e-004 | 0.0000 | 2.3312 | |

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 | | | | | 0.2710 | 0.0000 | 0.2710 | 0.1490 | 0.0000 | 0.1490 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | |
| Off-Road | 0.0650 | 0.6836 | 0.3309 | 5.7000e-004 | | 0.0359 | 0.0359 | | 0.0330 | 0.0330 | 0.0000 | 51.2530 | 51.2530 | 0.0162 | 0.0000 | 51.6584 | |
| Total | 0.0650 | 0.6836 | 0.3309 | 5.7000e-004 | 0.2710 | 0.0359 | 0.3069 | 0.1490 | 0.0330 | 0.1820 | 0.0000 | 51.2530 | 51.2530 | 0.0162 | 0.0000 | 51.6584 | |

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3.3 Site Preparation - 2019**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 | 1.7500e-003 | 1.6200e-003 | 0.0151 | 3.0000e-005 | 2.4700e-003 | 2.0000e-005 | 2.4900e-003 | 6.6000e-004 | 2.0000e-005 | 6.8000e-004 | 0.0000 | 2.3280 | 2.3280 | 1.3000e-004 | 0.0000 | 2.3312 | |
| Total | 1.7500e-003 | 1.6200e-003 | 0.0151 | 3.0000e-005 | 2.4700e-003 | 2.0000e-005 | 2.4900e-003 | 6.6000e-004 | 2.0000e-005 | 6.8000e-004 | 0.0000 | 2.3280 | 2.3280 | 1.3000e-004 | 0.0000 | 2.3312 | |

3.4 Grading - 2019**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 | | | | | 0.2560 | 0.0000 | 0.2560 | 0.0968 | 0.0000 | 0.0968 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 0.1232 | 1.4175 | 0.8678 | 1.6100e-003 | | 0.0620 | 0.0620 | | 0.0570 | 0.0570 | 0.0000 | 144.8234 | 144.8234 | 0.0458 | 0.0000 | 145.9690 |
| Total | 0.1232 | 1.4175 | 0.8678 | 1.6100e-003 | 0.2560 | 0.0620 | 0.3180 | 0.0968 | 0.0570 | 0.1538 | 0.0000 | 144.8234 | 144.8234 | 0.0458 | 0.0000 | 145.9690 |

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3.4 Grading - 2019**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 | 3.3800e-003 | 3.1200e-003 | 0.0290 | 5.0000e-005 | 4.7500e-003 | 4.0000e-005 | 4.7900e-003 | 1.2600e-003 | 4.0000e-005 | 1.3000e-003 | 0.0000 | 4.4835 | 4.4835 | 2.5000e-004 | 0.0000 | 4.4896 | |
| Total | 3.3800e-003 | 3.1200e-003 | 0.0290 | 5.0000e-005 | 4.7500e-003 | 4.0000e-005 | 4.7900e-003 | 1.2600e-003 | 4.0000e-005 | 1.3000e-003 | 0.0000 | 4.4835 | 4.4835 | 2.5000e-004 | 0.0000 | 4.4896 | |

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 | | | | | 0.2560 | 0.0000 | 0.2560 | 0.0968 | 0.0000 | 0.0968 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | |
| Off-Road | 0.1232 | 1.4175 | 0.8678 | 1.6100e-003 | | 0.0620 | 0.0620 | | 0.0570 | 0.0570 | 0.0000 | 144.8233 | 144.8233 | 0.0458 | 0.0000 | 145.9688 | |
| Total | 0.1232 | 1.4175 | 0.8678 | 1.6100e-003 | 0.2560 | 0.0620 | 0.3180 | 0.0968 | 0.0570 | 0.1538 | 0.0000 | 144.8233 | 144.8233 | 0.0458 | 0.0000 | 145.9688 | |

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3.4 Grading - 2019**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 | 3.3800e-003 | 3.1200e-003 | 0.0290 | 5.0000e-005 | 4.7500e-003 | 4.0000e-005 | 4.7900e-003 | 1.2600e-003 | 4.0000e-005 | 1.3000e-003 | 0.0000 | 4.4835 | 4.4835 | 2.5000e-004 | 0.0000 | 4.4896 | |
| Total | 3.3800e-003 | 3.1200e-003 | 0.0290 | 5.0000e-005 | 4.7500e-003 | 4.0000e-005 | 4.7900e-003 | 1.2600e-003 | 4.0000e-005 | 1.3000e-003 | 0.0000 | 4.4835 | 4.4835 | 2.5000e-004 | 0.0000 | 4.4896 | |

3.4 Grading - 2020**Unmitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---------------|---------|--------|--------|-------------|---------------|--------------|------------|----------------|---------------|-------------|----------|-----------|-----------|--------|--------|---------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Fugitive Dust | | | | | 0.1687 | 0.0000 | 0.1687 | 0.0488 | 0.0000 | 0.0488 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 0.0512 | 0.5773 | 0.3675 | 7.1000e-004 | | 0.0250 | 0.0250 | | 0.0230 | 0.0230 | 0.0000 | 62.6569 | 62.6569 | 0.0203 | 0.0000 | 63.1636 |
| Total | 0.0512 | 0.5773 | 0.3675 | 7.1000e-004 | 0.1687 | 0.0250 | 0.1937 | 0.0488 | 0.0230 | 0.0718 | 0.0000 | 62.6569 | 62.6569 | 0.0203 | 0.0000 | 63.1636 |

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3.4 Grading - 2020**Unmitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e | |
|----------|-------------|-------------|--------|-------------|---------------|--------------|-------------|----------------|---------------|-------------|----------|-----------|-----------|-------------|--------|--------|--|
| Category | tons/yr | | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | |
| Worker | 1.3400e-003 | 1.2100e-003 | 0.0112 | 2.0000e-005 | 2.1000e-003 | 2.0000e-005 | 2.1200e-003 | 5.6000e-004 | 2.0000e-005 | 5.8000e-004 | 0.0000 | 1.9238 | 1.9238 | 9.0000e-005 | 0.0000 | 1.9261 | |
| Total | 1.3400e-003 | 1.2100e-003 | 0.0112 | 2.0000e-005 | 2.1000e-003 | 2.0000e-005 | 2.1200e-003 | 5.6000e-004 | 2.0000e-005 | 5.8000e-004 | 0.0000 | 1.9238 | 1.9238 | 9.0000e-005 | 0.0000 | 1.9261 | |

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 | | | | | 0.1687 | 0.0000 | 0.1687 | 0.0488 | 0.0000 | 0.0488 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | |
| Off-Road | 0.0512 | 0.5773 | 0.3675 | 7.1000e-004 | | 0.0250 | 0.0250 | | 0.0230 | 0.0230 | 0.0000 | 62.6569 | 62.6569 | 0.0203 | 0.0000 | 63.1635 | |
| Total | 0.0512 | 0.5773 | 0.3675 | 7.1000e-004 | 0.1687 | 0.0250 | 0.1937 | 0.0488 | 0.0230 | 0.0718 | 0.0000 | 62.6569 | 62.6569 | 0.0203 | 0.0000 | 63.1635 | |

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3.4 Grading - 2020**Mitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e | |
|----------|-------------|-------------|--------|-------------|---------------|--------------|-------------|----------------|---------------|-------------|----------|-----------|-----------|-------------|--------|--------|--|
| Category | tons/yr | | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | |
| Worker | 1.3400e-003 | 1.2100e-003 | 0.0112 | 2.0000e-005 | 2.1000e-003 | 2.0000e-005 | 2.1200e-003 | 5.6000e-004 | 2.0000e-005 | 5.8000e-004 | 0.0000 | 1.9238 | 1.9238 | 9.0000e-005 | 0.0000 | 1.9261 | |
| Total | 1.3400e-003 | 1.2100e-003 | 0.0112 | 2.0000e-005 | 2.1000e-003 | 2.0000e-005 | 2.1200e-003 | 5.6000e-004 | 2.0000e-005 | 5.8000e-004 | 0.0000 | 1.9238 | 1.9238 | 9.0000e-005 | 0.0000 | 1.9261 | |

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 | 0.2533 | 2.2927 | 2.0134 | 3.2200e-003 | | 0.1335 | 0.1335 | | 0.1255 | 0.1255 | 0.0000 | 276.7739 | 276.7739 | 0.0675 | 0.0000 | 278.4620 | |
| Total | 0.2533 | 2.2927 | 2.0134 | 3.2200e-003 | | 0.1335 | 0.1335 | | 0.1255 | 0.1255 | 0.0000 | 276.7739 | 276.7739 | 0.0675 | 0.0000 | 278.4620 | |

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3.5 Building Construction - 2020**Unmitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e | |
|----------|---------------|---------------|---------------|--------------------|---------------|--------------------|---------------|--------------------|--------------------|--------------------|---------------|----------------|----------------|--------------------|---------------|----------------|--|
| Category | tons/yr | | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | |
| Vendor | 3.2100e-003 | 0.0917 | 0.0183 | 2.3000e-004 | 5.6300e-003 | 5.8000e-004 | 6.2100e-003 | 1.6300e-003 | 5.6000e-004 | 2.1800e-003 | 0.0000 | 22.0008 | 22.0008 | 1.8400e-003 | 0.0000 | 22.0469 | |
| Worker | 0.0118 | 0.0107 | 0.0986 | 1.9000e-004 | 0.0186 | 1.5000e-004 | 0.0187 | 4.9400e-003 | 1.4000e-004 | 5.0800e-003 | 0.0000 | 16.9924 | 16.9924 | 8.2000e-004 | 0.0000 | 17.0128 | |
| Total | 0.0150 | 0.1023 | 0.1169 | 4.2000e-004 | 0.0242 | 7.3000e-004 | 0.0249 | 6.5700e-003 | 7.0000e-004 | 7.2600e-003 | 0.0000 | 38.9932 | 38.9932 | 2.6600e-003 | 0.0000 | 39.0597 | |

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 | 0.2533 | 2.2927 | 2.0134 | 3.2200e-003 | | 0.1335 | 0.1335 | | 0.1255 | 0.1255 | 0.0000 | 276.7736 | 276.7736 | 0.0675 | 0.0000 | 278.4617 | |
| Total | 0.2533 | 2.2927 | 2.0134 | 3.2200e-003 | | 0.1335 | 0.1335 | | 0.1255 | 0.1255 | 0.0000 | 276.7736 | 276.7736 | 0.0675 | 0.0000 | 278.4617 | |

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3.5 Building Construction - 2020**Mitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e | |
|----------|-------------|--------|--------|-------------|---------------|--------------|-------------|----------------|---------------|-------------|----------|-----------|-----------|-------------|--------|---------|--|
| Category | tons/yr | | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | |
| Vendor | 3.2100e-003 | 0.0917 | 0.0183 | 2.3000e-004 | 5.6300e-003 | 5.8000e-004 | 6.2100e-003 | 1.6300e-003 | 5.6000e-004 | 2.1800e-003 | 0.0000 | 22.0008 | 22.0008 | 1.8400e-003 | 0.0000 | 22.0469 | |
| Worker | 0.0118 | 0.0107 | 0.0986 | 1.9000e-004 | 0.0186 | 1.5000e-004 | 0.0187 | 4.9400e-003 | 1.4000e-004 | 5.0800e-003 | 0.0000 | 16.9924 | 16.9924 | 8.2000e-004 | 0.0000 | 17.0128 | |
| Total | 0.0150 | 0.1023 | 0.1169 | 4.2000e-004 | 0.0242 | 7.3000e-004 | 0.0249 | 6.5700e-003 | 7.0000e-004 | 7.2600e-003 | 0.0000 | 38.9932 | 38.9932 | 2.6600e-003 | 0.0000 | 39.0597 | |

3.5 Building Construction - 2021**Unmitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e | |
|----------|---------|--------|--------|-------------|---------------|--------------|------------|----------------|---------------|-------------|----------|-----------|-----------|--------|--------|----------|--|
| Category | tons/yr | | | | | | | | | | | MT/yr | | | | | |
| Off-Road | 0.2481 | 2.2749 | 2.1631 | 3.5100e-003 | | 0.1251 | 0.1251 | | 0.1176 | 0.1176 | 0.0000 | 302.2867 | 302.2867 | 0.0729 | 0.0000 | 304.1099 | |
| Total | 0.2481 | 2.2749 | 2.1631 | 3.5100e-003 | | 0.1251 | 0.1251 | | 0.1176 | 0.1176 | 0.0000 | 302.2867 | 302.2867 | 0.0729 | 0.0000 | 304.1099 | |

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3.5 Building Construction - 2021**Unmitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e | |
|----------|---------------|---------------|---------------|--------------------|---------------|--------------------|---------------|--------------------|--------------------|--------------------|---------------|----------------|----------------|--------------------|---------------|----------------|--|
| Category | tons/yr | | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | |
| Vendor | 2.8300e-003 | 0.0903 | 0.0171 | 2.5000e-004 | 6.1500e-003 | 3.2000e-004 | 6.4600e-003 | 1.7800e-003 | 3.0000e-004 | 2.0800e-003 | 0.0000 | 23.8346 | 23.8346 | 1.9500e-003 | 0.0000 | 23.8835 | |
| Worker | 0.0119 | 0.0104 | 0.0972 | 2.0000e-004 | 0.0203 | 1.6000e-004 | 0.0204 | 5.3900e-003 | 1.5000e-004 | 5.5400e-003 | 0.0000 | 17.9754 | 17.9754 | 7.9000e-004 | 0.0000 | 17.9952 | |
| Total | 0.0147 | 0.1007 | 0.1143 | 4.5000e-004 | 0.0264 | 4.8000e-004 | 0.0269 | 7.1700e-003 | 4.5000e-004 | 7.6200e-003 | 0.0000 | 41.8100 | 41.8100 | 2.7400e-003 | 0.0000 | 41.8787 | |

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 | 0.2481 | 2.2749 | 2.1631 | 3.5100e-003 | | 0.1251 | 0.1251 | | 0.1176 | 0.1176 | 0.0000 | 302.2863 | 302.2863 | 0.0729 | 0.0000 | 304.1095 | |
| Total | 0.2481 | 2.2749 | 2.1631 | 3.5100e-003 | | 0.1251 | 0.1251 | | 0.1176 | 0.1176 | 0.0000 | 302.2863 | 302.2863 | 0.0729 | 0.0000 | 304.1095 | |

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3.5 Building Construction - 2021**Mitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e | |
|----------|-------------|--------|--------|-------------|---------------|--------------|-------------|----------------|---------------|-------------|----------|-----------|-----------|-------------|--------|---------|--|
| Category | tons/yr | | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | |
| Vendor | 2.8300e-003 | 0.0903 | 0.0171 | 2.5000e-004 | 6.1500e-003 | 3.2000e-004 | 6.4600e-003 | 1.7800e-003 | 3.0000e-004 | 2.0800e-003 | 0.0000 | 23.8346 | 23.8346 | 1.9500e-003 | 0.0000 | 23.8835 | |
| Worker | 0.0119 | 0.0104 | 0.0972 | 2.0000e-004 | 0.0203 | 1.6000e-004 | 0.0204 | 5.3900e-003 | 1.5000e-004 | 5.5400e-003 | 0.0000 | 17.9754 | 17.9754 | 7.9000e-004 | 0.0000 | 17.9952 | |
| Total | 0.0147 | 0.1007 | 0.1143 | 4.5000e-004 | 0.0264 | 4.8000e-004 | 0.0269 | 7.1700e-003 | 4.5000e-004 | 7.6200e-003 | 0.0000 | 41.8100 | 41.8100 | 2.7400e-003 | 0.0000 | 41.8787 | |

3.5 Building Construction - 2022**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 | 0.2048 | 1.8739 | 1.9636 | 3.2300e-003 | | 0.0971 | 0.0971 | | 0.0913 | 0.0913 | 0.0000 | 278.0703 | 278.0703 | 0.0666 | 0.0000 | 279.7357 | |
| Total | 0.2048 | 1.8739 | 1.9636 | 3.2300e-003 | | 0.0971 | 0.0971 | | 0.0913 | 0.0913 | 0.0000 | 278.0703 | 278.0703 | 0.0666 | 0.0000 | 279.7357 | |

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3.5 Building Construction - 2022**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 | 2.4100e-003 | 0.0780 | 0.0144 | 2.3000e-004 | 5.6500e-003 | 2.5000e-004 | 5.9000e-003 | 1.6300e-003 | 2.4000e-004 | 1.8800e-003 | 0.0000 | 21.7373 | 21.7373 | 1.7400e-003 | 0.0000 | 21.7807 | |
| Worker | 0.0102 | 8.5400e-003 | 0.0810 | 1.8000e-004 | 0.0186 | 1.4000e-004 | 0.0188 | 4.9600e-003 | 1.3000e-004 | 5.0900e-003 | 0.0000 | 15.9550 | 15.9550 | 6.5000e-004 | 0.0000 | 15.9713 | |
| Total | 0.0126 | 0.0865 | 0.0954 | 4.1000e-004 | 0.0243 | 3.9000e-004 | 0.0247 | 6.5900e-003 | 3.7000e-004 | 6.9700e-003 | 0.0000 | 37.6923 | 37.6923 | 2.3900e-003 | 0.0000 | 37.7520 | |

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 | 0.2048 | 1.8739 | 1.9636 | 3.2300e-003 | | 0.0971 | 0.0971 | | 0.0913 | 0.0913 | 0.0000 | 278.0700 | 278.0700 | 0.0666 | 0.0000 | 279.7354 | |
| Total | 0.2048 | 1.8739 | 1.9636 | 3.2300e-003 | | 0.0971 | 0.0971 | | 0.0913 | 0.0913 | 0.0000 | 278.0700 | 278.0700 | 0.0666 | 0.0000 | 279.7354 | |

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3.5 Building Construction - 2022**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 | 2.4100e-003 | 0.0780 | 0.0144 | 2.3000e-004 | 5.6500e-003 | 2.5000e-004 | 5.9000e-003 | 1.6300e-003 | 2.4000e-004 | 1.8800e-003 | 0.0000 | 21.7373 | 21.7373 | 1.7400e-003 | 0.0000 | 21.7807 | |
| Worker | 0.0102 | 8.5400e-003 | 0.0810 | 1.8000e-004 | 0.0186 | 1.4000e-004 | 0.0188 | 4.9600e-003 | 1.3000e-004 | 5.0900e-003 | 0.0000 | 15.9550 | 15.9550 | 6.5000e-004 | 0.0000 | 15.9713 | |
| Total | 0.0126 | 0.0865 | 0.0954 | 4.1000e-004 | 0.0243 | 3.9000e-004 | 0.0247 | 6.5900e-003 | 3.7000e-004 | 6.9700e-003 | 0.0000 | 37.6923 | 37.6923 | 2.3900e-003 | 0.0000 | 37.7520 | |

3.6 Paving - 2022**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 | 0.0110 | 0.1113 | 0.1458 | 2.3000e-004 | | 5.6800e-003 | 5.6800e-003 | | 5.2200e-003 | 5.2200e-003 | 0.0000 | 20.0276 | 20.0276 | 6.4800e-003 | 0.0000 | 20.1895 | |
| Paving | 0.0000 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | |
| Total | 0.0110 | 0.1113 | 0.1458 | 2.3000e-004 | | 5.6800e-003 | 5.6800e-003 | | 5.2200e-003 | 5.2200e-003 | 0.0000 | 20.0276 | 20.0276 | 6.4800e-003 | 0.0000 | 20.1895 | |

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3.6 Paving - 2022**Unmitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e | |
|----------|-------------|-------------|-------------|-------------|---------------|--------------|-------------|----------------|---------------|-------------|----------|-----------|-----------|-------------|--------|--------|--|
| Category | tons/yr | | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | |
| Worker | 7.5000e-004 | 6.3000e-004 | 5.9600e-003 | 1.0000e-005 | 1.3700e-003 | 1.0000e-005 | 1.3800e-003 | 3.6000e-004 | 1.0000e-005 | 3.7000e-004 | 0.0000 | 1.1732 | 1.1732 | 5.0000e-005 | 0.0000 | 1.1744 | |
| Total | 7.5000e-004 | 6.3000e-004 | 5.9600e-003 | 1.0000e-005 | 1.3700e-003 | 1.0000e-005 | 1.3800e-003 | 3.6000e-004 | 1.0000e-005 | 3.7000e-004 | 0.0000 | 1.1732 | 1.1732 | 5.0000e-005 | 0.0000 | 1.1744 | |

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 | 0.0110 | 0.1113 | 0.1458 | 2.3000e-004 | | | 5.6800e-003 | 5.6800e-003 | | 5.2200e-003 | 5.2200e-003 | 0.0000 | 20.0275 | 20.0275 | 6.4800e-003 | 0.0000 | 20.1895 |
| Paving | 0.0000 | | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Total | 0.0110 | 0.1113 | 0.1458 | 2.3000e-004 | | | 5.6800e-003 | 5.6800e-003 | | 5.2200e-003 | 5.2200e-003 | 0.0000 | 20.0275 | 20.0275 | 6.4800e-003 | 0.0000 | 20.1895 |

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3.6 Paving - 2022**Mitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e | |
|----------|-------------|-------------|-------------|-------------|---------------|--------------|-------------|----------------|---------------|-------------|----------|-----------|-----------|-------------|--------|--------|--|
| Category | tons/yr | | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | |
| Worker | 7.5000e-004 | 6.3000e-004 | 5.9600e-003 | 1.0000e-005 | 1.3700e-003 | 1.0000e-005 | 1.3800e-003 | 3.6000e-004 | 1.0000e-005 | 3.7000e-004 | 0.0000 | 1.1732 | 1.1732 | 5.0000e-005 | 0.0000 | 1.1744 | |
| Total | 7.5000e-004 | 6.3000e-004 | 5.9600e-003 | 1.0000e-005 | 1.3700e-003 | 1.0000e-005 | 1.3800e-003 | 3.6000e-004 | 1.0000e-005 | 3.7000e-004 | 0.0000 | 1.1732 | 1.1732 | 5.0000e-005 | 0.0000 | 1.1744 | |

3.6 Paving - 2023**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 | 0.0181 | 0.1784 | 0.2552 | 4.0000e-004 | | 8.9300e-003 | 8.9300e-003 | | 8.2100e-003 | 8.2100e-003 | 0.0000 | 35.0470 | 35.0470 | 0.0113 | 0.0000 | 35.3304 | |
| Paving | 0.0000 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | |
| Total | 0.0181 | 0.1784 | 0.2552 | 4.0000e-004 | | 8.9300e-003 | 8.9300e-003 | | 8.2100e-003 | 8.2100e-003 | 0.0000 | 35.0470 | 35.0470 | 0.0113 | 0.0000 | 35.3304 | |

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3.6 Paving - 2023**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 | 1.2100e-003 | 9.8000e-004 | 9.3500e-003 | 2.0000e-005 | 2.4000e-003 | 2.0000e-005 | 2.4200e-003 | 6.4000e-004 | 2.0000e-005 | 6.5000e-004 | 0.0000 | 1.9777 | 1.9777 | 7.0000e-005 | 0.0000 | 1.9795 | |
| Total | 1.2100e-003 | 9.8000e-004 | 9.3500e-003 | 2.0000e-005 | 2.4000e-003 | 2.0000e-005 | 2.4200e-003 | 6.4000e-004 | 2.0000e-005 | 6.5000e-004 | 0.0000 | 1.9777 | 1.9777 | 7.0000e-005 | 0.0000 | 1.9795 | |

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 | 0.0181 | 0.1784 | 0.2552 | 4.0000e-004 | | 8.9300e-003 | 8.9300e-003 | | 8.2100e-003 | 8.2100e-003 | 0.0000 | 35.0470 | 35.0470 | 0.0113 | 0.0000 | 35.3304 | |
| Paving | 0.0000 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | |
| Total | 0.0181 | 0.1784 | 0.2552 | 4.0000e-004 | | 8.9300e-003 | 8.9300e-003 | | 8.2100e-003 | 8.2100e-003 | 0.0000 | 35.0470 | 35.0470 | 0.0113 | 0.0000 | 35.3304 | |

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3.6 Paving - 2023**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 | 1.2100e-003 | 9.8000e-004 | 9.3500e-003 | 2.0000e-005 | 2.4000e-003 | 2.0000e-005 | 2.4200e-003 | 6.4000e-004 | 2.0000e-005 | 6.5000e-004 | 0.0000 | 1.9777 | 1.9777 | 7.0000e-005 | 0.0000 | 1.9795 | |
| Total | 1.2100e-003 | 9.8000e-004 | 9.3500e-003 | 2.0000e-005 | 2.4000e-003 | 2.0000e-005 | 2.4200e-003 | 6.4000e-004 | 2.0000e-005 | 6.5000e-004 | 0.0000 | 1.9777 | 1.9777 | 7.0000e-005 | 0.0000 | 1.9795 | |

3.7 Architectural Coating - 2023**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 | 1.2953 | | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | |
| Off-Road | 5.2700e-003 | 0.0358 | 0.0498 | 8.0000e-005 | | 1.9500e-003 | 1.9500e-003 | | 1.9500e-003 | 1.9500e-003 | 0.0000 | 7.0215 | 7.0215 | 4.2000e-004 | 0.0000 | 7.0320 | |
| Total | 1.3005 | 0.0358 | 0.0498 | 8.0000e-005 | | 1.9500e-003 | 1.9500e-003 | | 1.9500e-003 | 1.9500e-003 | 0.0000 | 7.0215 | 7.0215 | 4.2000e-004 | 0.0000 | 7.0320 | |

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3.7 Architectural Coating - 2023**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 | 3.8000e-004 | 3.1000e-004 | 2.9400e-003 | 1.0000e-005 | 7.5000e-004 | 1.0000e-005 | 7.6000e-004 | 2.0000e-004 | 1.0000e-005 | 2.1000e-004 | 0.0000 | 0.6216 | 0.6216 | 2.0000e-005 | 0.0000 | 0.6221 | |
| Total | 3.8000e-004 | 3.1000e-004 | 2.9400e-003 | 1.0000e-005 | 7.5000e-004 | 1.0000e-005 | 7.6000e-004 | 2.0000e-004 | 1.0000e-005 | 2.1000e-004 | 0.0000 | 0.6216 | 0.6216 | 2.0000e-005 | 0.0000 | 0.6221 | |

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 | 1.2953 | | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | |
| Off-Road | 5.2700e-003 | 0.0358 | 0.0498 | 8.0000e-005 | | 1.9500e-003 | 1.9500e-003 | | 1.9500e-003 | 1.9500e-003 | 0.0000 | 7.0214 | 7.0214 | 4.2000e-004 | 0.0000 | 7.0319 | |
| Total | 1.3005 | 0.0358 | 0.0498 | 8.0000e-005 | | 1.9500e-003 | 1.9500e-003 | | 1.9500e-003 | 1.9500e-003 | 0.0000 | 7.0214 | 7.0214 | 4.2000e-004 | 0.0000 | 7.0319 | |

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3.7 Architectural Coating - 2023**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 | 3.8000e-004 | 3.1000e-004 | 2.9400e-003 | 1.0000e-005 | 7.5000e-004 | 1.0000e-005 | 7.6000e-004 | 2.0000e-004 | 1.0000e-005 | 2.1000e-004 | 0.0000 | 0.6216 | 0.6216 | 2.0000e-005 | 0.0000 | 0.6221 | |
| Total | 3.8000e-004 | 3.1000e-004 | 2.9400e-003 | 1.0000e-005 | 7.5000e-004 | 1.0000e-005 | 7.6000e-004 | 2.0000e-004 | 1.0000e-005 | 2.1000e-004 | 0.0000 | 0.6216 | 0.6216 | 2.0000e-005 | 0.0000 | 0.6221 | |

4.0 Operational Detail - Mobile**4.1 Mitigation Measures Mobile**

Improve Pedestrian Network

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| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e | |
|-------------|---------|--------|--------|-------------|---------------|--------------|------------|----------------|---------------|-------------|----------|-----------|-----------|--------|--------|----------|--|
| Category | tons/yr | | | | | | | | | | | MT/yr | | | | | |
| Mitigated | 0.1717 | 1.2575 | 1.8971 | 7.0000e-003 | 0.4722 | 5.7300e-003 | 0.4780 | 0.1271 | 5.3900e-003 | 0.1325 | 0.0000 | 647.5147 | 647.5147 | 0.0437 | 0.0000 | 648.6070 | |
| Unmitigated | 0.1724 | 1.2634 | 1.9120 | 7.0600e-003 | 0.4770 | 5.7900e-003 | 0.4828 | 0.1284 | 5.4400e-003 | 0.1338 | 0.0000 | 653.0964 | 653.0964 | 0.0439 | 0.0000 | 654.1931 | |

4.2 Trip Summary Information

| Land Use | Average Daily Trip Rate | | | Unmitigated | | Mitigated | |
|-----------------------|-------------------------|----------|--------|-------------|------------|------------|------------|
| | Weekday | Saturday | Sunday | Annual VMT | Annual VMT | Annual VMT | Annual VMT |
| Single Family Housing | 437.92 | 455.86 | 396.52 | 1,275,473 | 1,262,718 | 1,262,718 | 1,262,718 |
| Total | 437.92 | 455.86 | 396.52 | 1,275,473 | 1,262,718 | 1,262,718 | 1,262,718 |

4.3 Trip Type Information

| Land Use | Miles | | | Trip % | | | Trip Purpose % | | |
|-----------------------|------------|------------|-------------|------------|------------|-------------|----------------|----------|---------|
| | H-W or C-W | H-S or C-C | H-O or C-NW | H-W or C-W | H-S or C-C | H-O or C-NW | Primary | Diverted | Pass-by |
| Single Family Housing | 12.54 | 7.22 | 7.22 | 35.00 | 17.00 | 48.00 | 86 | 11 | 3 |

4.4 Fleet Mix

| Land Use | LDA | LDT1 | LDT2 | MDV | LHD1 | LHD2 | MHD | HHD | OBUS | UBUS | MCY | SBUS | MH |
|-----------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| Single Family Housing | 0.536621 | 0.031900 | 0.176387 | 0.109893 | 0.028679 | 0.005751 | 0.018192 | 0.081833 | 0.001567 | 0.001354 | 0.005498 | 0.001215 | 0.001111 |

5.0 Energy Detail

Historical Energy Use: N

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5.1 Mitigation Measures Energy

Percent of Electricity Use Generated with Renewable 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 | 54.0927 | 54.0927 | 4.7700e-003 | 9.9000e-004 | 54.5061 |
| Electricity Unmitigated | | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 60.1030 | 60.1030 | 5.3000e-003 | 1.1000e-003 | 60.5624 |
| NaturalGas Mitigated | 6.4900e-003 | 0.0554 | 0.0236 | 3.5000e-004 | | 4.4800e-003 | 4.4800e-003 | | 4.4800e-003 | 4.4800e-003 | 0.0000 | 64.1796 | 64.1796 | 1.2300e-003 | 1.1800e-003 | 64.5610 |
| NaturalGas Unmitigated | 6.4900e-003 | 0.0554 | 0.0236 | 3.5000e-004 | | 4.4800e-003 | 4.4800e-003 | | 4.4800e-003 | 4.4800e-003 | 0.0000 | 64.1796 | 64.1796 | 1.2300e-003 | 1.1800e-003 | 64.5610 |

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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 | | | | | |
| Single Family Housing | 1.20268e+006 | 6.4900e-003 | 0.0554 | 0.0236 | 3.5000e-004 | | 4.4800e-003 | 4.4800e-003 | | 4.4800e-003 | 4.4800e-003 | 0.0000 | 64.1796 | 64.1796 | 1.2300e-003 | 1.1800e-003 | 64.5610 |
| Total | | 6.4900e-003 | 0.0554 | 0.0236 | 3.5000e-004 | | 4.4800e-003 | 4.4800e-003 | | 4.4800e-003 | 4.4800e-003 | 0.0000 | 64.1796 | 64.1796 | 1.2300e-003 | 1.1800e-003 | 64.5610 |

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 | | | | | |
| Single Family Housing | 1.20268e+006 | 6.4900e-003 | 0.0554 | 0.0236 | 3.5000e-004 | | 4.4800e-003 | 4.4800e-003 | | 4.4800e-003 | 4.4800e-003 | 0.0000 | 64.1796 | 64.1796 | 1.2300e-003 | 1.1800e-003 | 64.5610 |
| Total | | 6.4900e-003 | 0.0554 | 0.0236 | 3.5000e-004 | | 4.4800e-003 | 4.4800e-003 | | 4.4800e-003 | 4.4800e-003 | 0.0000 | 64.1796 | 64.1796 | 1.2300e-003 | 1.1800e-003 | 64.5610 |

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5.3 Energy by Land Use - Electricity**Unmitigated**

| | Electricity Use | Total CO2 | CH4 | N2O | CO2e |
|-----------------------|-----------------|----------------|--------------------|--------------------|----------------|
| Land Use | kWh/yr | MT/yr | | | |
| Single Family Housing | 402994 | 60.1030 | 5.3000e-003 | 1.1000e-003 | 60.5624 |
| Total | | 60.1030 | 5.3000e-003 | 1.1000e-003 | 60.5624 |

Mitigated

| | Electricity Use | Total CO2 | CH4 | N2O | CO2e |
|-----------------------|-----------------|----------------|--------------------|--------------------|----------------|
| Land Use | kWh/yr | MT/yr | | | |
| Single Family Housing | 362695 | 54.0927 | 4.7700e-003 | 9.9000e-004 | 54.5061 |
| Total | | 54.0927 | 4.7700e-003 | 9.9000e-004 | 54.5061 |

6.0 Area Detail**6.1 Mitigation Measures Area**

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Use only Natural Gas Hearths

| | ROG | NOx | CO | SO2 | Fugitive 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 | 0.4699 | 0.0614 | 0.3661 | 3.8000e-004 | | 6.5300e-003 | 6.5300e-003 | | 6.5300e-003 | 6.5300e-003 | 0.0000 | 67.0434 | 67.0434 | 1.8100e-003 | 1.2200e-003 | 67.4520 | |
| Unmitigated | 5.8491 | 0.1067 | 6.9647 | 0.0120 | | 0.9298 | 0.9298 | | 0.9298 | 0.9298 | 88.0964 | 35.4223 | 123.5187 | 0.0795 | 6.9400e-003 | 127.5717 | |

6.2 Area by SubCategory

Unmitigated

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e | |
|-----------------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|----------------|----------------|-----------------|---------------|--------------------|-----------------|--|
| SubCategory | tons/yr | | | | | | | | | | | MT/yr | | | | | |
| Architectural Coating | 0.1295 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | |
| Consumer Products | 0.3234 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | |
| Hearth | 5.3859 | 0.1028 | 6.6230 | 0.0120 | | 0.9279 | 0.9279 | | 0.9279 | 0.9279 | 88.0964 | 34.8644 | 122.9608 | 0.0789 | 6.9400e-003 | 127.0003 | |
| Landscaping | 0.0103 | 3.9400e-003 | 0.3416 | 2.0000e-005 | | 1.8900e-003 | 1.8900e-003 | | 1.8900e-003 | 1.8900e-003 | 0.0000 | 0.5579 | 0.5579 | 5.4000e-004 | 0.0000 | 0.5713 | |
| Total | 5.8491 | 0.1067 | 6.9647 | 0.0120 | | 0.9298 | 0.9298 | | 0.9298 | 0.9298 | 88.0964 | 35.4223 | 123.5187 | 0.0795 | 6.9400e-003 | 127.5717 | |

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6.2 Area by SubCategory**Mitigated**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|-----------------------|---------------|---------------|---------------|--------------------|---------------|--------------------|--------------------|----------------|--------------------|--------------------|---------------|----------------|----------------|--------------------|--------------------|----------------|
| SubCategory | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Architectural Coating | 0.1295 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Consumer Products | 0.3234 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Hearth | 6.7200e-003 | 0.0574 | 0.0244 | 3.7000e-004 | | 4.6400e-003 | 4.6400e-003 | | 4.6400e-003 | 4.6400e-003 | 0.0000 | 66.4855 | 66.4855 | 1.2700e-003 | 1.2200e-003 | 66.8806 |
| Landscaping | 0.0103 | 3.9400e-003 | 0.3416 | 2.0000e-005 | | 1.8900e-003 | 1.8900e-003 | | 1.8900e-003 | 1.8900e-003 | 0.0000 | 0.5579 | 0.5579 | 5.4000e-004 | 0.0000 | 0.5713 |
| Total | 0.4699 | 0.0614 | 0.3661 | 3.9000e-004 | | 6.5300e-003 | 6.5300e-003 | | 6.5300e-003 | 6.5300e-003 | 0.0000 | 67.0434 | 67.0434 | 1.8100e-003 | 1.2200e-003 | 67.4520 |

7.0 Water Detail**7.1 Mitigation Measures Water**

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| | Total CO2 | CH4 | N2O | CO2e |
|-------------|-----------|--------|-------------|--------|
| Category | MT/yr | | | |
| Mitigated | 4.3558 | 0.0980 | 2.3700e-003 | 7.5105 |
| Unmitigated | 4.3558 | 0.0980 | 2.3700e-003 | 7.5105 |

7.2 Water by Land Use**Unmitigated**

| | Indoor/Out door Use | Total CO2 | CH4 | N2O | CO2e |
|-----------------------|---------------------|-----------|--------|-------------|--------|
| Land Use | Mgal | MT/yr | | | |
| Single Family Housing | 2.99709 / 1.88947 | 4.3558 | 0.0980 | 2.3700e-003 | 7.5105 |
| Total | | 4.3558 | 0.0980 | 2.3700e-003 | 7.5105 |

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7.2 Water by Land Use**Mitigated**

| | Indoor/Out door Use | Total CO2 | CH4 | N2O | CO2e |
|--------------------------|------------------------|---------------|---------------|-------------------------|---------------|
| Land Use | Mgal | MT/yr | | | |
| Single Family Housing | 2.99709 / 1.88947 | 4.3558 | 0.0980 | 2.3700e- 003 | 7.5105 |
| Total | | 4.3558 | 0.0980 | 2.3700e- 003 | 7.5105 |

8.0 Waste Detail**8.1 Mitigation Measures Waste****Category/Year**

| | Total CO2 | CH4 | N2O | CO2e |
|-------------|-----------|--------|--------|---------|
| | MT/yr | | | |
| Mitigated | 9.6461 | 0.5701 | 0.0000 | 23.8979 |
| Unmitigated | 9.6461 | 0.5701 | 0.0000 | 23.8979 |

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8.2 Waste by Land Use**Unmitigated**

| | Waste Disposed | Total CO2 | CH4 | N2O | CO2e |
|-----------------------|----------------|---------------|---------------|---------------|----------------|
| Land Use | tons | MT/yr | | | |
| Single Family Housing | 47.52 | 9.6461 | 0.5701 | 0.0000 | 23.8979 |
| Total | | 9.6461 | 0.5701 | 0.0000 | 23.8979 |

Mitigated

| | Waste Disposed | Total CO2 | CH4 | N2O | CO2e |
|-----------------------|----------------|---------------|---------------|---------------|----------------|
| Land Use | tons | MT/yr | | | |
| Single Family Housing | 47.52 | 9.6461 | 0.5701 | 0.0000 | 23.8979 |
| Total | | 9.6461 | 0.5701 | 0.0000 | 23.8979 |

9.0 Operational Offroad

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

Creekside Estates Subdivision - Butte County AQMD Air District, Annual

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

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

11.0 Vegetation

Creekside Estates Subdivision - Butte County AQMD Air District, Summer

Creekside Estates Subdivision
Butte County AQMD Air District, Summer

1.0 Project Characteristics**1.1 Land Usage**

| Land Uses | Size | Metric | Lot Acreage | Floor Surface Area | Population |
|-----------------------|-------|---------------|-------------|--------------------|------------|
| Single Family Housing | 46.00 | Dwelling Unit | 49.40 | 82,800.00 | 132 |

1.2 Other Project Characteristics

| | | | | | |
|----------------------------|--------------------------------|----------------------------|-------|----------------------------|-------|
| Urbanization | Urban | Wind Speed (m/s) | 2.2 | Precipitation Freq (Days) | 71 |
| Climate Zone | 3 | | | Operational Year | 2023 |
| Utility Company | Pacific Gas & Electric Company | | | | |
| CO2 Intensity (lb/MWhr) | 328.8 | CH4 Intensity (lb/MWhr) | 0.029 | N2O Intensity (lb/MWhr) | 0.006 |
| | | | | | |

1.3 User Entered Comments & Non-Default Data

Project Characteristics - CO2 intensity based on 5-year average (2016-2020), PG&E, 2015

Land Use - The proposed project would include the construction of 46 new single family homes on approximately 1-acre lots.

Construction Phase - Default construction schedule

Mobile Land Use Mitigation -

Area Mitigation - No wood burning fireplaces per BCAQMD Rule 207

Energy Mitigation - Homes will be prewired for solar

| Table Name | Column Name | Default Value | New Value |
|---------------------------|--------------------|---------------|-----------|
| tblLandUse | LotAcreage | 14.94 | 49.40 |
| tblProjectCharacteristics | CO2IntensityFactor | 641.35 | 328.8 |

Creekside Estates Subdivision - Butte County AQMD Air District, Summer

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 | | | | | |
| 2019 | 4.8900 | 54.6291 | 34.7010 | 0.0641 | 18.2379 | 2.3918 | 20.6297 | 9.9762 | 2.2005 | 12.1767 | 0.0000 | 6,351.027 7 | 6,351.027 7 | 1.9546 | 0.0000 | 6,399.891 4 |
| 2020 | 4.5853 | 50.2930 | 33.1129 | 0.0641 | 8.8641 | 2.1754 | 11.0395 | 3.6471 | 2.0014 | 5.6485 | 0.0000 | 6,210.616 1 | 6,210.616 1 | 1.9525 | 0.0000 | 6,259.429 4 |
| 2021 | 2.0283 | 18.1810 | 17.5860 | 0.0306 | 0.2109 | 0.9622 | 1.1731 | 0.0570 | 0.9047 | 0.9617 | 0.0000 | 2,925.495 7 | 2,925.495 7 | 0.6393 | 0.0000 | 2,941.478 4 |
| 2022 | 1.8244 | 16.3166 | 17.2813 | 0.0305 | 0.2109 | 0.8123 | 1.0232 | 0.0570 | 0.7642 | 0.8213 | 0.0000 | 2,918.970 7 | 2,918.970 7 | 0.7200 | 0.0000 | 2,934.817 4 |
| 2023 | 47.3078 | 10.2428 | 15.2238 | 0.0242 | 0.1431 | 0.5112 | 0.6543 | 0.0379 | 0.4703 | 0.5082 | 0.0000 | 2,345.923 2 | 2,345.923 2 | 0.7193 | 0.0000 | 2,363.905 1 |
| Maximum | 47.3078 | 54.6291 | 34.7010 | 0.0641 | 18.2379 | 2.3918 | 20.6297 | 9.9762 | 2.2005 | 12.1767 | 0.0000 | 6,351.027 7 | 6,351.027 7 | 1.9546 | 0.0000 | 6,399.891 4 |

Creekside Estates Subdivision - Butte County AQMD Air District, Summer

2.1 Overall Construction (Maximum Daily Emission)

Mitigated Construction

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e | | | |
|---------|---------|---------|---------|--------|---------------|--------------|------------|----------------|---------------|-------------|----------|-----------|-----------|-----------|-----|--------|--------|-----------|---|
| Year | lb/day | | | | | | | | | | lb/day | | | | | | | | |
| 2019 | 4.8900 | 54.6291 | 34.7010 | 0.0641 | 18.2379 | 2.3918 | 20.6297 | 9.9762 | 2.2005 | 12.1767 | 0.0000 | 6,351.027 | 7 | 6,351.027 | 7 | 1.9546 | 0.0000 | 6,399.891 | 4 |
| 2020 | 4.5853 | 50.2930 | 33.1129 | 0.0641 | 8.8641 | 2.1754 | 11.0395 | 3.6471 | 2.0014 | 5.6485 | 0.0000 | 6,210.616 | 1 | 6,210.616 | 1 | 1.9525 | 0.0000 | 6,259.429 | 4 |
| 2021 | 2.0283 | 18.1810 | 17.5860 | 0.0306 | 0.2109 | 0.9622 | 1.1731 | 0.0570 | 0.9047 | 0.9617 | 0.0000 | 2,925.495 | 7 | 2,925.495 | 7 | 0.6393 | 0.0000 | 2,941.478 | 4 |
| 2022 | 1.8244 | 16.3166 | 17.2813 | 0.0305 | 0.2109 | 0.8123 | 1.0232 | 0.0570 | 0.7642 | 0.8213 | 0.0000 | 2,918.970 | 7 | 2,918.970 | 7 | 0.7200 | 0.0000 | 2,934.817 | 4 |
| 2023 | 47.3078 | 10.2428 | 15.2238 | 0.0242 | 0.1431 | 0.5112 | 0.6543 | 0.0379 | 0.4703 | 0.5082 | 0.0000 | 2,345.923 | 2 | 2,345.923 | 2 | 0.7193 | 0.0000 | 2,363.905 | 1 |
| Maximum | 47.3078 | 54.6291 | 34.7010 | 0.0641 | 18.2379 | 2.3918 | 20.6297 | 9.9762 | 2.2005 | 12.1767 | 0.0000 | 6,351.027 | 7 | 6,351.027 | 7 | 1.9546 | 0.0000 | 6,399.891 | 4 |

Creekside Estates Subdivision - Butte County AQMD Air District, Summer

2.2 Overall Operational**Unmitigated Operational**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e | |
|--------------|----------------|---------------|-----------------|---------------|---------------|----------------|----------------|----------------|----------------|----------------|------------------------|------------------------|------------------------|---------------|---------------|------------------------|--|
| Category | lb/day | | | | | | | | | | | lb/day | | | | | |
| Area | 74.4081 | 1.4138 | 92.1031 | 0.1595 | | 12.3932 | 12.3932 | | 12.3932 | 12.3932 | 1,294.795 8 | 519.2518 | 1,814.047 6 | 1.1664 | 0.1019 | 1,873.583 1 | |
| Energy | 0.0355 | 0.3037 | 0.1292 | 1.9400e-003 | | 0.0246 | 0.0246 | | 0.0246 | 0.0246 | | 387.6490 | 387.6490 | 7.4300e-003 | 7.1100e-003 | 389.9526 | |
| Mobile | 1.2490 | 7.0993 | 12.4394 | 0.0435 | 2.8675 | 0.0333 | 2.9008 | 0.7689 | 0.0313 | 0.8001 | | 4,424.179 5 | 4,424.179 5 | 0.2784 | | 4,431.139 0 | |
| Total | 75.6926 | 8.8168 | 104.6717 | 0.2049 | 2.8675 | 12.4510 | 15.3185 | 0.7689 | 12.4490 | 13.2179 | 1,294.795 8 | 5,331.080 2 | 6,625.876 0 | 1.4522 | 0.1091 | 6,694.674 7 | |

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 | 2.6856 | 0.8092 | 4.1216 | 5.0900e-003 | | 0.0829 | 0.0829 | | 0.0829 | 0.0829 | 0.0000 | 984.0033 | 984.0033 | 0.0253 | 0.0179 | 989.9744 | |
| Energy | 0.0355 | 0.3037 | 0.1292 | 1.9400e-003 | | 0.0246 | 0.0246 | | 0.0246 | 0.0246 | | 387.6490 | 387.6490 | 7.4300e-003 | 7.1100e-003 | 389.9526 | |
| Mobile | 1.2448 | 7.0674 | 12.3352 | 0.0431 | 2.8388 | 0.0330 | 2.8718 | 0.7612 | 0.0310 | 0.7922 | | 4,386.295 6 | 4,386.295 6 | 0.2772 | | 4,393.225 0 | |
| Total | 3.9659 | 8.1803 | 16.5861 | 0.0501 | 2.8388 | 0.1404 | 2.9793 | 0.7612 | 0.1384 | 0.8996 | 0.0000 | 5,757.947 9 | 5,757.947 9 | 0.3099 | 0.0250 | 5,773.152 0 | |

Creekside Estates Subdivision - Butte County AQMD Air District, Summer

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N20 | CO2e |
|-------------------|-------|------|-------|-------|---------------|--------------|------------|----------------|---------------|-------------|----------|----------|-----------|-------|-------|-------|
| Percent Reduction | 94.76 | 7.22 | 84.15 | 75.54 | 1.00 | 98.87 | 80.55 | 1.00 | 98.89 | 93.19 | 100.00 | -8.01 | 13.10 | 78.66 | 77.06 | 13.77 |

3.0 Construction Detail

Construction Phase

| Phase Number | Phase Name | Phase Type | Start Date | End Date | Num Days Week | Num Days | Phase Description |
|--------------|-----------------------|-----------------------|------------|------------|---------------|----------|-------------------|
| 1 | Demolition | Demolition | 7/1/2019 | 9/6/2019 | 5 | 50 | |
| 2 | Site Preparation | Site Preparation | 9/7/2019 | 10/18/2019 | 5 | 30 | |
| 3 | Grading | Grading | 10/19/2019 | 1/31/2020 | 5 | 75 | |
| 4 | Building Construction | Building Construction | 2/1/2020 | 12/2/2022 | 5 | 740 | |
| 5 | Paving | Paving | 12/3/2022 | 2/17/2023 | 5 | 55 | |
| 6 | Architectural Coating | Architectural Coating | 2/18/2023 | 5/5/2023 | 5 | 55 | |

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 187.5

Acres of Paving: 0

Residential Indoor: 167,670; Residential Outdoor: 55,890; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Creekside Estates Subdivision - Butte County AQMD Air District, Summer

| Phase Name | Offroad Equipment Type | Amount | Usage Hours | Horse Power | Load Factor |
|-----------------------|---------------------------|--------|-------------|-------------|-------------|
| Demolition | Concrete/Industrial Saws | 1 | 8.00 | 81 | 0.73 |
| Demolition | Excavators | 3 | 8.00 | 158 | 0.38 |
| Demolition | Rubber Tired Dozers | 2 | 8.00 | 247 | 0.40 |
| Site Preparation | Rubber Tired Dozers | 3 | 8.00 | 247 | 0.40 |
| Site Preparation | Tractors/Loaders/Backhoes | 4 | 8.00 | 97 | 0.37 |
| Grading | Excavators | 2 | 8.00 | 158 | 0.38 |
| Grading | Graders | 1 | 8.00 | 187 | 0.41 |
| Grading | Rubber Tired Dozers | 1 | 8.00 | 247 | 0.40 |
| Grading | Scrapers | 2 | 8.00 | 367 | 0.48 |
| Grading | Tractors/Loaders/Backhoes | 2 | 8.00 | 97 | 0.37 |
| Building Construction | Cranes | 1 | 7.00 | 231 | 0.29 |
| Building Construction | Forklifts | 3 | 8.00 | 89 | 0.20 |
| Building Construction | Generator Sets | 1 | 8.00 | 84 | 0.74 |
| Building Construction | Tractors/Loaders/Backhoes | 3 | 7.00 | 97 | 0.37 |
| Building Construction | Welders | 1 | 8.00 | 46 | 0.45 |
| Paving | Pavers | 2 | 8.00 | 130 | 0.42 |
| Paving | Paving Equipment | 2 | 8.00 | 132 | 0.36 |
| Paving | Rollers | 2 | 8.00 | 80 | 0.38 |
| Architectural Coating | Air Compressors | 1 | 6.00 | 78 | 0.48 |

Trips and VMT

Creekside Estates Subdivision - Butte County AQMD Air District, Summer

| Phase Name | Offroad Equipment Count | Worker Trip Number | Vendor Trip Number | Hauling Trip Number | Worker Trip Length | Vendor Trip Length | Hauling Trip Length | Worker Vehicle Class | Vendor Vehicle Class | Hauling Vehicle Class |
|-----------------------|-------------------------|--------------------|--------------------|---------------------|--------------------|--------------------|---------------------|----------------------|----------------------|-----------------------|
| Demolition | 6 | 15.00 | 0.00 | 0.00 | 12.54 | 10.52 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Site Preparation | 7 | 18.00 | 0.00 | 0.00 | 12.54 | 10.52 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Grading | 8 | 20.00 | 0.00 | 0.00 | 12.54 | 10.52 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Building Construction | 9 | 17.00 | 5.00 | 0.00 | 12.54 | 10.52 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Paving | 6 | 15.00 | 0.00 | 0.00 | 12.54 | 10.52 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Architectural Coating | 1 | 3.00 | 0.00 | 0.00 | 12.54 | 10.52 | 20.00 | LD_Mix | HDT_Mix | HHDT |

3.1 Mitigation Measures Construction**3.2 Demolition - 2019****Unmitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|----------|--------|---------|---------|--------|---------------|--------------|------------|----------------|---------------|-------------|----------------|----------------|-----------|-----|----------------|------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Off-Road | 3.5134 | 35.7830 | 22.0600 | 0.0388 | | 1.7949 | 1.7949 | | 1.6697 | 1.6697 | 3,816.899 4 | 3,816.899 4 | 1.0618 | | 3,843.445 1 | |
| Total | 3.5134 | 35.7830 | 22.0600 | 0.0388 | | 1.7949 | 1.7949 | | 1.6697 | 1.6697 | 3,816.899 4 | 3,816.899 4 | 1.0618 | | 3,843.445 1 | |

Creekside Estates Subdivision - Butte County AQMD Air District, Summer

3.2 Demolition - 2019**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 | 0.1133 | 0.0817 | 0.9932 | 1.6000e-003 | 0.1431 | 1.2000e-003 | 0.1443 | 0.0379 | 1.1100e-003 | 0.0391 | | 158.2562 | 158.2562 | 8.9300e-003 | | 158.4795 | |
| Total | 0.1133 | 0.0817 | 0.9932 | 1.6000e-003 | 0.1431 | 1.2000e-003 | 0.1443 | 0.0379 | 1.1100e-003 | 0.0391 | | 158.2562 | 158.2562 | 8.9300e-003 | | 158.4795 | |

Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e | |
|----------|--------|---------|---------|--------|---------------|--------------|------------|----------------|---------------|-------------|----------|------------|------------|--------|-----|------------|--|
| Category | lb/day | | | | | | | | | | | lb/day | | | | | |
| Off-Road | 3.5134 | 35.7830 | 22.0600 | 0.0388 | | 1.7949 | 1.7949 | | 1.6697 | 1.6697 | 0.0000 | 3,816.8994 | 3,816.8994 | 1.0618 | | 3,843.4451 | |
| Total | 3.5134 | 35.7830 | 22.0600 | 0.0388 | | 1.7949 | 1.7949 | | 1.6697 | 1.6697 | 0.0000 | 3,816.8994 | 3,816.8994 | 1.0618 | | 3,843.4451 | |

Creekside Estates Subdivision - Butte County AQMD Air District, Summer

3.2 Demolition - 2019**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 | 0.1133 | 0.0817 | 0.9932 | 1.6000e-003 | 0.1431 | 1.2000e-003 | 0.1443 | 0.0379 | 1.1100e-003 | 0.0391 | | 158.2562 | 158.2562 | 8.9300e-003 | | 158.4795 | |
| Total | 0.1133 | 0.0817 | 0.9932 | 1.6000e-003 | 0.1431 | 1.2000e-003 | 0.1443 | 0.0379 | 1.1100e-003 | 0.0391 | | 158.2562 | 158.2562 | 8.9300e-003 | | 158.4795 | |

3.3 Site Preparation - 2019**Unmitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---------------|--------|---------|---------|--------|---------------|--------------|------------|----------------|---------------|-------------|----------|------------|------------|--------|-----|------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Fugitive Dust | | | | | 18.0663 | 0.0000 | 18.0663 | 9.9307 | 0.0000 | 9.9307 | | 0.0000 | | | | 0.0000 |
| Off-Road | 4.3350 | 45.5727 | 22.0630 | 0.0380 | | 2.3904 | 2.3904 | | 2.1991 | 2.1991 | | 3,766.4529 | 3,766.4529 | 1.1917 | | 3,796.2445 |
| Total | 4.3350 | 45.5727 | 22.0630 | 0.0380 | 18.0663 | 2.3904 | 20.4566 | 9.9307 | 2.1991 | 12.1298 | | 3,766.4529 | 3,766.4529 | 1.1917 | | 3,796.2445 |

Creekside Estates Subdivision - Butte County AQMD Air District, Summer

3.3 Site Preparation - 2019**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 | 0.0000 | 0.0000 | |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | |
| Worker | 0.1360 | 0.0981 | 1.1918 | 1.9200e-003 | 0.1717 | 1.4400e-003 | 0.1731 | 0.0455 | 1.3300e-003 | 0.0469 | 189.9074 | 189.9074 | 0.0107 | | | 190.1754 | |
| Total | 0.1360 | 0.0981 | 1.1918 | 1.9200e-003 | 0.1717 | 1.4400e-003 | 0.1731 | 0.0455 | 1.3300e-003 | 0.0469 | | 189.9074 | 189.9074 | 0.0107 | | 190.1754 | |

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 | | | | | 18.0663 | 0.0000 | 18.0663 | 9.9307 | 0.0000 | 9.9307 | 0.0000 | 0.0000 | | | | 0.0000 |
| Off-Road | 4.3350 | 45.5727 | 22.0630 | 0.0380 | | 2.3904 | 2.3904 | | 2.1991 | 2.1991 | 0.0000 | 3,766.4529 | 3,766.4529 | 1.1917 | | 3,796.2445 |
| Total | 4.3350 | 45.5727 | 22.0630 | 0.0380 | 18.0663 | 2.3904 | 20.4566 | 9.9307 | 2.1991 | 12.1298 | 0.0000 | 3,766.4529 | 3,766.4529 | 1.1917 | | 3,796.2445 |

Creekside Estates Subdivision - Butte County AQMD Air District, Summer

3.3 Site Preparation - 2019**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 | 0.1360 | 0.0981 | 1.1918 | 1.9200e-003 | 0.1717 | 1.4400e-003 | 0.1731 | 0.0455 | 1.3300e-003 | 0.0469 | | 189.9074 | 189.9074 | 0.0107 | | 190.1754 | |
| Total | 0.1360 | 0.0981 | 1.1918 | 1.9200e-003 | 0.1717 | 1.4400e-003 | 0.1731 | 0.0455 | 1.3300e-003 | 0.0469 | | 189.9074 | 189.9074 | 0.0107 | | 190.1754 | |

3.4 Grading - 2019**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 | | | | | 8.6733 | 0.0000 | 8.6733 | 3.5965 | 0.0000 | 3.5965 | | 0.0000 | | | | 0.0000 |
| Off-Road | 4.7389 | 54.5202 | 33.3768 | 0.0620 | | 2.3827 | 2.3827 | | 2.1920 | 2.1920 | | 6,140.0195 | 6,140.0195 | 1.9426 | | 6,188.5854 |
| Total | 4.7389 | 54.5202 | 33.3768 | 0.0620 | 8.6733 | 2.3827 | 11.0560 | 3.5965 | 2.1920 | 5.7885 | | 6,140.0195 | 6,140.0195 | 1.9426 | | 6,188.5854 |

Creekside Estates Subdivision - Butte County AQMD Air District, Summer

3.4 Grading - 2019**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 | 0.1511 | 0.1090 | 1.3242 | 2.1300e-003 | 0.1907 | 1.6000e-003 | 0.1923 | 0.0506 | 1.4800e-003 | 0.0521 | | | 211.0082 | 211.0082 | 0.0119 | 211.3060 | |
| Total | 0.1511 | 0.1090 | 1.3242 | 2.1300e-003 | 0.1907 | 1.6000e-003 | 0.1923 | 0.0506 | 1.4800e-003 | 0.0521 | | | 211.0082 | 211.0082 | 0.0119 | 211.3060 | |

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 | | | | | 8.6733 | 0.0000 | 8.6733 | 3.5965 | 0.0000 | 3.5965 | | | 0.0000 | | | 0.0000 | |
| Off-Road | 4.7389 | 54.5202 | 33.3768 | 0.0620 | | 2.3827 | 2.3827 | | 2.1920 | 2.1920 | 0.0000 | 6,140.0195 | 6,140.0195 | 1.9426 | | 6,188.5854 | |
| Total | 4.7389 | 54.5202 | 33.3768 | 0.0620 | 8.6733 | 2.3827 | 11.0560 | 3.5965 | 2.1920 | 5.7885 | 0.0000 | 6,140.0195 | 6,140.0195 | 1.9426 | | 6,188.5854 | |

Creekside Estates Subdivision - Butte County AQMD Air District, Summer

3.4 Grading - 2019**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 | 0.1511 | 0.1090 | 1.3242 | 2.1300e-003 | 0.1907 | 1.6000e-003 | 0.1923 | 0.0506 | 1.4800e-003 | 0.0521 | | | 211.0082 | 211.0082 | 0.0119 | | 211.3060 |
| Total | 0.1511 | 0.1090 | 1.3242 | 2.1300e-003 | 0.1907 | 1.6000e-003 | 0.1923 | 0.0506 | 1.4800e-003 | 0.0521 | | | 211.0082 | 211.0082 | 0.0119 | | 211.3060 |

3.4 Grading - 2020**Unmitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e | |
|---------------|--------|---------|---------|--------|---------------|--------------|------------|----------------|---------------|-------------|----------|-----------|------------|------------|--------|--------|------------|
| Category | lb/day | | | | | | | | | | | lb/day | | | | | |
| Fugitive Dust | | | | | 8.6733 | 0.0000 | 8.6733 | 3.5965 | 0.0000 | 3.5965 | | | 0.0000 | | | 0.0000 | |
| Off-Road | 4.4501 | 50.1975 | 31.9583 | 0.0620 | | 2.1739 | 2.1739 | | 2.0000 | 2.0000 | | | 6,005.8653 | 6,005.8653 | 1.9424 | | 6,054.4257 |
| Total | 4.4501 | 50.1975 | 31.9583 | 0.0620 | 8.6733 | 2.1739 | 10.8472 | 3.5965 | 2.0000 | 5.5965 | | | 6,005.8653 | 6,005.8653 | 1.9424 | | 6,054.4257 |

Creekside Estates Subdivision - Butte County AQMD Air District, Summer

3.4 Grading - 2020**Unmitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e | |
|----------|--------|--------|--------|-------------|---------------|--------------|------------|----------------|---------------|-------------|----------|-----------|-----------|--------|-----|----------|--|
| Category | lb/day | | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | |
| Worker | 0.1352 | 0.0955 | 1.1546 | 2.0600e-003 | 0.1907 | 1.5100e-003 | 0.1922 | 0.0506 | 1.3900e-003 | 0.0520 | | 204.7509 | 204.7509 | 0.0101 | | 205.0037 | |
| Total | 0.1352 | 0.0955 | 1.1546 | 2.0600e-003 | 0.1907 | 1.5100e-003 | 0.1922 | 0.0506 | 1.3900e-003 | 0.0520 | | 204.7509 | 204.7509 | 0.0101 | | 205.0037 | |

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 | | | | | 8.6733 | 0.0000 | 8.6733 | 3.5965 | 0.0000 | 3.5965 | | 0.0000 | | | | 0.0000 |
| Off-Road | 4.4501 | 50.1975 | 31.9583 | 0.0620 | | 2.1739 | 2.1739 | | 2.0000 | 2.0000 | 0.0000 | 6,005.8653 | 6,005.8653 | 1.9424 | | 6,054.4257 |
| Total | 4.4501 | 50.1975 | 31.9583 | 0.0620 | 8.6733 | 2.1739 | 10.8472 | 3.5965 | 2.0000 | 5.5965 | 0.0000 | 6,005.8653 | 6,005.8653 | 1.9424 | | 6,054.4257 |

Creekside Estates Subdivision - Butte County AQMD Air District, Summer

3.4 Grading - 2020**Mitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e | |
|----------|--------|--------|--------|-------------|---------------|--------------|------------|----------------|---------------|-------------|----------|-----------|-----------|--------|--------|----------|--|
| Category | lb/day | | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | |
| Worker | 0.1352 | 0.0955 | 1.1546 | 2.0600e-003 | 0.1907 | 1.5100e-003 | 0.1922 | 0.0506 | 1.3900e-003 | 0.0520 | 204.7509 | 204.7509 | 0.0101 | | | 205.0037 | |
| Total | 0.1352 | 0.0955 | 1.1546 | 2.0600e-003 | 0.1907 | 1.5100e-003 | 0.1922 | 0.0506 | 1.3900e-003 | 0.0520 | | 204.7509 | 204.7509 | 0.0101 | | 205.0037 | |

3.5 Building Construction - 2020**Unmitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e | |
|----------|--------|---------|---------|--------|---------------|--------------|------------|----------------|---------------|-------------|----------------|----------------|-----------|-----|-----|----------------|--|
| Category | lb/day | | | | | | | | | | | lb/day | | | | | |
| Off-Road | 2.1198 | 19.1860 | 16.8485 | 0.0269 | | 1.1171 | 1.1171 | | 1.0503 | 1.0503 | 2,553.063 1 | 2,553.063 1 | 0.6229 | | | 2,568.634 5 | |
| Total | 2.1198 | 19.1860 | 16.8485 | 0.0269 | | 1.1171 | 1.1171 | | 1.0503 | 1.0503 | 2,553.063 1 | 2,553.063 1 | 0.6229 | | | 2,568.634 5 | |

Creekside Estates Subdivision - Butte County AQMD Air District, Summer

3.5 Building Construction - 2020**Unmitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e | |
|----------|--------|--------|--------|-------------|---------------|--------------|------------|----------------|---------------|-------------|----------|-----------|-------------|----------|--------|----------|--|
| Category | lb/day | | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | |
| Vendor | 0.0266 | 0.7478 | 0.1439 | 1.9600e-003 | 0.0488 | 4.8300e-003 | 0.0536 | 0.0140 | 4.6200e-003 | 0.0187 | 205.1440 | 205.1440 | 0.0162 | 205.5477 | | | |
| Worker | 0.1149 | 0.0811 | 0.9814 | 1.7500e-003 | 0.1621 | 1.2800e-003 | 0.1634 | 0.0430 | 1.1800e-003 | 0.0442 | 174.0382 | 174.0382 | 8.6000e-003 | 174.2531 | | | |
| Total | 0.1415 | 0.8289 | 1.1253 | 3.7100e-003 | 0.2109 | 6.1100e-003 | 0.2170 | 0.0570 | 5.8000e-003 | 0.0628 | | 379.1822 | 379.1822 | 0.0248 | | 379.8008 | |

Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e | |
|----------|--------|---------|---------|--------|---------------|--------------|------------|----------------|---------------|-------------|----------|------------|------------|--------|-----|------------|--|
| Category | lb/day | | | | | | | | | | | lb/day | | | | | |
| Off-Road | 2.1198 | 19.1860 | 16.8485 | 0.0269 | | 1.1171 | 1.1171 | | 1.0503 | 1.0503 | 0.0000 | 2,553.0631 | 2,553.0631 | 0.6229 | | 2,568.6345 | |
| Total | 2.1198 | 19.1860 | 16.8485 | 0.0269 | | 1.1171 | 1.1171 | | 1.0503 | 1.0503 | 0.0000 | 2,553.0631 | 2,553.0631 | 0.6229 | | 2,568.6345 | |

Creekside Estates Subdivision - Butte County AQMD Air District, Summer

3.5 Building Construction - 2020**Mitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e | |
|----------|--------|--------|--------|-------------|---------------|--------------|------------|----------------|---------------|-------------|----------|-----------|-------------|----------|--------|----------|--|
| Category | lb/day | | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | |
| Vendor | 0.0266 | 0.7478 | 0.1439 | 1.9600e-003 | 0.0488 | 4.8300e-003 | 0.0536 | 0.0140 | 4.6200e-003 | 0.0187 | 205.1440 | 205.1440 | 0.0162 | 205.5477 | | | |
| Worker | 0.1149 | 0.0811 | 0.9814 | 1.7500e-003 | 0.1621 | 1.2800e-003 | 0.1634 | 0.0430 | 1.1800e-003 | 0.0442 | 174.0382 | 174.0382 | 8.6000e-003 | 174.2531 | | | |
| Total | 0.1415 | 0.8289 | 1.1253 | 3.7100e-003 | 0.2109 | 6.1100e-003 | 0.2170 | 0.0570 | 5.8000e-003 | 0.0628 | | 379.1822 | 379.1822 | 0.0248 | | 379.8008 | |

3.5 Building Construction - 2021**Unmitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e | |
|----------|--------|---------|---------|--------|---------------|--------------|------------|----------------|---------------|-------------|----------------|----------------|-----------|-----|----------------|------|--|
| Category | lb/day | | | | | | | | | | | lb/day | | | | | |
| Off-Road | 1.9009 | 17.4321 | 16.5752 | 0.0269 | | 0.9586 | 0.9586 | | 0.9013 | 0.9013 | 2,553.363 9 | 2,553.363 9 | 0.6160 | | 2,568.764 3 | | |
| Total | 1.9009 | 17.4321 | 16.5752 | 0.0269 | | 0.9586 | 0.9586 | | 0.9013 | 0.9013 | 2,553.363 9 | 2,553.363 9 | 0.6160 | | 2,568.764 3 | | |

Creekside Estates Subdivision - Butte County AQMD Air District, Summer

3.5 Building Construction - 2021**Unmitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e | |
|----------|--------|--------|--------|-------------|---------------|--------------|------------|----------------|---------------|-------------|----------|-----------|-------------|----------|--------|----------|--|
| Category | lb/day | | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | |
| Vendor | 0.0214 | 0.6766 | 0.1225 | 1.9500e-003 | 0.0488 | 2.3900e-003 | 0.0512 | 0.0140 | 2.2900e-003 | 0.0163 | 203.5294 | 203.5294 | 0.0156 | 203.9204 | | | |
| Worker | 0.1060 | 0.0723 | 0.8883 | 1.7000e-003 | 0.1621 | 1.2300e-003 | 0.1634 | 0.0430 | 1.1300e-003 | 0.0441 | 168.6023 | 168.6023 | 7.6600e-003 | 168.7938 | | | |
| Total | 0.1274 | 0.7489 | 1.0108 | 3.6500e-003 | 0.2109 | 3.6200e-003 | 0.2145 | 0.0570 | 3.4200e-003 | 0.0605 | | 372.1318 | 372.1318 | 0.0233 | | 372.7142 | |

Mitigated Construction On-Site

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

Creekside Estates Subdivision - Butte County AQMD Air District, Summer

3.5 Building Construction - 2021**Mitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e | |
|----------|--------|--------|--------|-------------|---------------|--------------|------------|----------------|---------------|-------------|----------|-----------|-------------|----------|--------|----------|--|
| Category | lb/day | | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | |
| Vendor | 0.0214 | 0.6766 | 0.1225 | 1.9500e-003 | 0.0488 | 2.3900e-003 | 0.0512 | 0.0140 | 2.2900e-003 | 0.0163 | 203.5294 | 203.5294 | 0.0156 | 203.9204 | | | |
| Worker | 0.1060 | 0.0723 | 0.8883 | 1.7000e-003 | 0.1621 | 1.2300e-003 | 0.1634 | 0.0430 | 1.1300e-003 | 0.0441 | 168.6023 | 168.6023 | 7.6600e-003 | 168.7938 | | | |
| Total | 0.1274 | 0.7489 | 1.0108 | 3.6500e-003 | 0.2109 | 3.6200e-003 | 0.2145 | 0.0570 | 3.4200e-003 | 0.0605 | | 372.1318 | 372.1318 | 0.0233 | | 372.7142 | |

3.5 Building Construction - 2022**Unmitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e | |
|----------|--------|---------|---------|--------|---------------|--------------|------------|----------------|---------------|-------------|----------------|----------------|-----------|-----|----------------|------|--|
| Category | lb/day | | | | | | | | | | | lb/day | | | | | |
| Off-Road | 1.7062 | 15.6156 | 16.3634 | 0.0269 | | 0.8090 | 0.8090 | | 0.7612 | 0.7612 | 2,554.333 6 | 2,554.333 6 | 0.6120 | | 2,569.632 2 | | |
| Total | 1.7062 | 15.6156 | 16.3634 | 0.0269 | | 0.8090 | 0.8090 | | 0.7612 | 0.7612 | 2,554.333 6 | 2,554.333 6 | 0.6120 | | 2,569.632 2 | | |

Creekside Estates Subdivision - Butte County AQMD Air District, Summer

3.5 Building Construction - 2022**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 | 0.0000 | 0.0000 | |
| Vendor | 0.0198 | 0.6362 | 0.1118 | 1.9300e-003 | 0.0488 | 2.0700e-003 | 0.0509 | 0.0140 | 1.9800e-003 | 0.0160 | 201.8850 | 201.8850 | 0.0151 | 202.2626 | | | |
| Worker | 0.0984 | 0.0648 | 0.8061 | 1.6400e-003 | 0.1621 | 1.1800e-003 | 0.1633 | 0.0430 | 1.0900e-003 | 0.0441 | 162.7521 | 162.7521 | 6.8200e-003 | 162.9226 | | | |
| Total | 0.1182 | 0.7010 | 0.9179 | 3.5700e-003 | 0.2109 | 3.2500e-003 | 0.2142 | 0.0570 | 3.0700e-003 | 0.0601 | | 364.6371 | 364.6371 | 0.0219 | | 365.1852 | |

Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e | |
|----------|---------------|----------------|----------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|---------------|-------------------|-------------------|---------------|-----|-------------------|--|
| Category | lb/day | | | | | | | | | | | lb/day | | | | | |
| Off-Road | 1.7062 | 15.6156 | 16.3634 | 0.0269 | | 0.8090 | 0.8090 | | 0.7612 | 0.7612 | 0.0000 | 2,554.3336 | 2,554.3336 | 0.6120 | | 2,569.6322 | |
| Total | 1.7062 | 15.6156 | 16.3634 | 0.0269 | | 0.8090 | 0.8090 | | 0.7612 | 0.7612 | 0.0000 | 2,554.3336 | 2,554.3336 | 0.6120 | | 2,569.6322 | |

Creekside Estates Subdivision - Butte County AQMD Air District, Summer

3.5 Building Construction - 2022**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 | 0.0198 | 0.6362 | 0.1118 | 1.9300e-003 | 0.0488 | 2.0700e-003 | 0.0509 | 0.0140 | 1.9800e-003 | 0.0160 | | | 201.8850 | 201.8850 | 0.0151 | 202.2626 | |
| Worker | 0.0984 | 0.0648 | 0.8061 | 1.6400e-003 | 0.1621 | 1.1800e-003 | 0.1633 | 0.0430 | 1.0900e-003 | 0.0441 | | | 162.7521 | 162.7521 | 6.8200e-003 | 162.9226 | |
| Total | 0.1182 | 0.7010 | 0.9179 | 3.5700e-003 | 0.2109 | 3.2500e-003 | 0.2142 | 0.0570 | 3.0700e-003 | 0.0601 | | | 364.6371 | 364.6371 | 0.0219 | 365.1852 | |

3.6 Paving - 2022**Unmitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e | |
|----------|--------|---------|---------|--------|---------------|--------------|------------|----------------|---------------|-------------|----------|----------------|----------------|--------|-----|----------------|--|
| Category | lb/day | | | | | | | | | | | lb/day | | | | | |
| Off-Road | 1.1028 | 11.1249 | 14.5805 | 0.0228 | | 0.5679 | 0.5679 | | 0.5225 | 0.5225 | | 2,207.660 3 | 2,207.660 3 | 0.7140 | | 2,225.510 4 | |
| Paving | 0.0000 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 | |
| Total | 1.1028 | 11.1249 | 14.5805 | 0.0228 | | 0.5679 | 0.5679 | | 0.5225 | 0.5225 | | 2,207.660 3 | 2,207.660 3 | 0.7140 | | 2,225.510 4 | |

Creekside Estates Subdivision - Butte County AQMD Air District, Summer

3.6 Paving - 2022**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 | 0.0868 | 0.0572 | 0.7113 | 1.4400e-003 | 0.1431 | 1.0400e-003 | 0.1441 | 0.0379 | 9.6000e-004 | 0.0389 | | | 143.6048 | 143.6048 | 6.0200e-003 | 143.7552 | |
| Total | 0.0868 | 0.0572 | 0.7113 | 1.4400e-003 | 0.1431 | 1.0400e-003 | 0.1441 | 0.0379 | 9.6000e-004 | 0.0389 | | | 143.6048 | 143.6048 | 6.0200e-003 | 143.7552 | |

Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e | |
|----------|---------------|----------------|----------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|---------------|------------------------|------------------------|---------------|-----|------------------------|--|
| Category | lb/day | | | | | | | | | | | lb/day | | | | | |
| Off-Road | 1.1028 | 11.1249 | 14.5805 | 0.0228 | | 0.5679 | 0.5679 | | 0.5225 | 0.5225 | 0.0000 | 2,207.660 3 | 2,207.660 3 | 0.7140 | | 2,225.510 4 | |
| Paving | 0.0000 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 | |
| Total | 1.1028 | 11.1249 | 14.5805 | 0.0228 | | 0.5679 | 0.5679 | | 0.5225 | 0.5225 | 0.0000 | 2,207.660 3 | 2,207.660 3 | 0.7140 | | 2,225.510 4 | |

Creekside Estates Subdivision - Butte County AQMD Air District, Summer

3.6 Paving - 2022**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 | 0.0868 | 0.0572 | 0.7113 | 1.4400e-003 | 0.1431 | 1.0400e-003 | 0.1441 | 0.0379 | 9.6000e-004 | 0.0389 | | | 143.6048 | 143.6048 | 6.0200e-003 | 143.7552 | |
| Total | 0.0868 | 0.0572 | 0.7113 | 1.4400e-003 | 0.1431 | 1.0400e-003 | 0.1441 | 0.0379 | 9.6000e-004 | 0.0389 | | | 143.6048 | 143.6048 | 6.0200e-003 | 143.7552 | |

3.6 Paving - 2023**Unmitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e | |
|----------|--------|---------|---------|--------|---------------|--------------|------------|----------------|---------------|-------------|----------|-----------|-----------|-----------|--------|-----------|--|
| Category | lb/day | | | | | | | | | | | lb/day | | | | | |
| Off-Road | 1.0327 | 10.1917 | 14.5842 | 0.0228 | | 0.5102 | 0.5102 | | 0.4694 | 0.4694 | | 1 | 2,207.584 | 2,207.584 | 0.7140 | 2,225.433 | |
| Paving | 0.0000 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 | |
| Total | 1.0327 | 10.1917 | 14.5842 | 0.0228 | | 0.5102 | 0.5102 | | 0.4694 | 0.4694 | | 1 | 2,207.584 | 2,207.584 | 0.7140 | 2,225.433 | |

Creekside Estates Subdivision - Butte County AQMD Air District, Summer

3.6 Paving - 2023**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 | 0.0804 | 0.0511 | 0.6395 | 1.3900e-003 | 0.1431 | 1.0000e-003 | 0.1441 | 0.0379 | 9.2000e-004 | 0.0389 | | | 138.3391 | 138.3391 | 5.3000e-003 | 138.4715 | |
| Total | 0.0804 | 0.0511 | 0.6395 | 1.3900e-003 | 0.1431 | 1.0000e-003 | 0.1441 | 0.0379 | 9.2000e-004 | 0.0389 | | | 138.3391 | 138.3391 | 5.3000e-003 | 138.4715 | |

Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e | |
|--------------|---------------|----------------|----------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|----------|---------------|-------------------|-------------------|---------------|--------|-------------------|
| Category | lb/day | | | | | | | | | | | lb/day | | | | | |
| Off-Road | 1.0327 | 10.1917 | 14.5842 | 0.0228 | | 0.5102 | 0.5102 | | 0.4694 | 0.4694 | | 0.0000 | 2,207.5841 | 2,207.5841 | 0.7140 | | 2,225.4336 |
| Paving | 0.0000 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 | |
| Total | 1.0327 | 10.1917 | 14.5842 | 0.0228 | | 0.5102 | 0.5102 | | 0.4694 | 0.4694 | | 0.0000 | 2,207.5841 | 2,207.5841 | 0.7140 | | 2,225.4336 |

Creekside Estates Subdivision - Butte County AQMD Air District, Summer

3.6 Paving - 2023**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 | 0.0804 | 0.0511 | 0.6395 | 1.3900e-003 | 0.1431 | 1.0000e-003 | 0.1441 | 0.0379 | 9.2000e-004 | 0.0389 | | | 138.3391 | 138.3391 | 5.3000e-003 | 138.4715 | |
| Total | 0.0804 | 0.0511 | 0.6395 | 1.3900e-003 | 0.1431 | 1.0000e-003 | 0.1441 | 0.0379 | 9.2000e-004 | 0.0389 | | | 138.3391 | 138.3391 | 5.3000e-003 | 138.4715 | |

3.7 Architectural Coating - 2023**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 | 47.1000 | | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | 0.0000 | |
| Off-Road | 0.1917 | 1.3030 | 1.8111 | 2.9700e-003 | | 0.0708 | 0.0708 | | 0.0708 | 0.0708 | | | 281.4481 | 281.4481 | 0.0168 | 281.8690 | |
| Total | 47.2917 | 1.3030 | 1.8111 | 2.9700e-003 | | 0.0708 | 0.0708 | | 0.0708 | 0.0708 | | | 281.4481 | 281.4481 | 0.0168 | 281.8690 | |

Creekside Estates Subdivision - Butte County AQMD Air District, Summer

3.7 Architectural Coating - 2023**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 | 0.0161 | 0.0102 | 0.1279 | 2.8000e-004 | 0.0286 | 2.0000e-004 | 0.0288 | 7.5900e-003 | 1.8000e-004 | 7.7700e-003 | | 27.6678 | 27.6678 | 1.0600e-003 | | 27.6943 | |
| Total | 0.0161 | 0.0102 | 0.1279 | 2.8000e-004 | 0.0286 | 2.0000e-004 | 0.0288 | 7.5900e-003 | 1.8000e-004 | 7.7700e-003 | | 27.6678 | 27.6678 | 1.0600e-003 | | 27.6943 | |

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 | 47.1000 | | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | | | 0.0000 | |
| Off-Road | 0.1917 | 1.3030 | 1.8111 | 2.9700e-003 | | 0.0708 | 0.0708 | | 0.0708 | 0.0708 | 0.0000 | 281.4481 | 281.4481 | 0.0168 | | 281.8690 | |
| Total | 47.2917 | 1.3030 | 1.8111 | 2.9700e-003 | | 0.0708 | 0.0708 | | 0.0708 | 0.0708 | 0.0000 | 281.4481 | 281.4481 | 0.0168 | | 281.8690 | |

Creekside Estates Subdivision - Butte County AQMD Air District, Summer

3.7 Architectural Coating - 2023**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 | 0.0000 | 0.0000 | |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | |
| Worker | 0.0161 | 0.0102 | 0.1279 | 2.8000e-004 | 0.0286 | 2.0000e-004 | 0.0288 | 7.5900e-003 | 1.8000e-004 | 7.7700e-003 | 27.6678 | 27.6678 | 1.0600e-003 | | | 27.6943 | |
| Total | 0.0161 | 0.0102 | 0.1279 | 2.8000e-004 | 0.0286 | 2.0000e-004 | 0.0288 | 7.5900e-003 | 1.8000e-004 | 7.7700e-003 | | 27.6678 | 27.6678 | 1.0600e-003 | | 27.6943 | |

4.0 Operational Detail - Mobile**4.1 Mitigation Measures Mobile**

Improve Pedestrian Network

Creekside Estates Subdivision - Butte County AQMD Air District, Summer

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e | |
|-------------|--------|--------|---------|--------|---------------|--------------|------------|----------------|---------------|-------------|----------------|----------------|-----------|-----|-----|----------------|--|
| Category | lb/day | | | | | | | | | | | lb/day | | | | | |
| Mitigated | 1.2448 | 7.0674 | 12.3352 | 0.0431 | 2.8388 | 0.0330 | 2.8718 | 0.7612 | 0.0310 | 0.7922 | 4,386.295 6 | 4,386.295 6 | 0.2772 | | | 4,393.225 0 | |
| Unmitigated | 1.2490 | 7.0993 | 12.4394 | 0.0435 | 2.8675 | 0.0333 | 2.9008 | 0.7689 | 0.0313 | 0.8001 | 4,424.179 5 | 4,424.179 5 | 0.2784 | | | 4,431.139 0 | |

4.2 Trip Summary Information

| Land Use | Average Daily Trip Rate | | | Unmitigated | | Mitigated | |
|-----------------------|-------------------------|----------|--------|-------------|------------|------------|------------|
| | Weekday | Saturday | Sunday | Annual VMT | Annual VMT | Annual VMT | Annual VMT |
| Single Family Housing | 437.92 | 455.86 | 396.52 | 1,275,473 | | 1,262,718 | |
| Total | 437.92 | 455.86 | 396.52 | 1,275,473 | | 1,262,718 | |

4.3 Trip Type Information

| Land Use | Miles | | | Trip % | | | Trip Purpose % | | |
|-----------------------|------------|------------|-------------|------------|------------|-------------|----------------|----------|---------|
| | H-W or C-W | H-S or C-C | H-O or C-NW | H-W or C-W | H-S or C-C | H-O or C-NW | Primary | Diverted | Pass-by |
| Single Family Housing | 12.54 | 7.22 | 7.22 | 35.00 | 17.00 | 48.00 | 86 | 11 | 3 |

4.4 Fleet Mix

| Land Use | LDA | LDT1 | LDT2 | MDV | LHD1 | LHD2 | MHD | HHD | OBUS | UBUS | MCY | SBUS | MH |
|-----------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| Single Family Housing | 0.536621 | 0.031900 | 0.176387 | 0.109893 | 0.028679 | 0.005751 | 0.018192 | 0.081833 | 0.001567 | 0.001354 | 0.005498 | 0.001215 | 0.001111 |

5.0 Energy Detail

Historical Energy Use: N

Creekside Estates Subdivision - Butte County AQMD Air District, Summer

5.1 Mitigation Measures Energy

Percent of Electricity Use Generated with Renewable Energy

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|------------------------|--------|--------|--------|-------------|---------------|--------------|------------|----------------|---------------|-------------|----------|-----------|-----------|-------------|-------------|----------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| NaturalGas Mitigated | 0.0355 | 0.3037 | 0.1292 | 1.9400e-003 | | | 0.0246 | 0.0246 | | 0.0246 | 0.0246 | 387.6490 | 387.6490 | 7.4300e-003 | 7.1100e-003 | 389.9526 |
| NaturalGas Unmitigated | 0.0355 | 0.3037 | 0.1292 | 1.9400e-003 | | | 0.0246 | 0.0246 | | 0.0246 | 0.0246 | 387.6490 | 387.6490 | 7.4300e-003 | 7.1100e-003 | 389.9526 |

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 | | | | | |
| Single Family Housing | 3295.02 | 0.0355 | 0.3037 | 0.1292 | 1.9400e-003 | | | 0.0246 | 0.0246 | | 0.0246 | 0.0246 | 387.6490 | 387.6490 | 7.4300e-003 | 7.1100e-003 | 389.9526 |
| Total | | 0.0355 | 0.3037 | 0.1292 | 1.9400e-003 | | | 0.0246 | 0.0246 | | 0.0246 | 0.0246 | 387.6490 | 387.6490 | 7.4300e-003 | 7.1100e-003 | 389.9526 |

Creekside Estates Subdivision - Butte County AQMD Air District, Summer

5.2 Energy by Land Use - NaturalGas**Mitigated**

| | NaturalGas Use | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|-----------------------|----------------|---------------|---------------|---------------|--------------------|---------------|---------------|---------------|----------------|---------------|---------------|----------|-----------------|-----------------|--------------------|--------------------|-----------------|
| Land Use | kBTU/yr | lb/day | | | | | | | | | | lb/day | | | | | |
| Single Family Housing | 3.29502 | 0.0355 | 0.3037 | 0.1292 | 1.9400e-003 | | 0.0246 | 0.0246 | | 0.0246 | 0.0246 | 387.6490 | 387.6490 | 7.4300e-003 | 7.1100e-003 | 389.9526 | |
| Total | | 0.0355 | 0.3037 | 0.1292 | 1.9400e-003 | | 0.0246 | 0.0246 | | 0.0246 | 0.0246 | | 387.6490 | 387.6490 | 7.4300e-003 | 7.1100e-003 | 389.9526 |

6.0 Area Detail**6.1 Mitigation Measures Area**

Use only Natural Gas Hearths

Creekside Estates Subdivision - Butte County AQMD Air District, Summer

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e | |
|-------------|---------|--------|---------|-------------|---------------|--------------|------------|----------------|---------------|-------------|------------|-----------|------------|--------|--------|------------|--|
| Category | lb/day | | | | | | | | | | | lb/day | | | | | |
| Mitigated | 2.6856 | 0.8092 | 4.1216 | 5.0900e-003 | | 0.0829 | 0.0829 | | 0.0829 | 0.0829 | 0.0000 | 984.0033 | 984.0033 | 0.0253 | 0.0179 | 989.9744 | |
| Unmitigated | 74.4081 | 1.4138 | 92.1031 | 0.1595 | | 12.3932 | 12.3932 | | 12.3932 | 12.3932 | 1,294.7958 | 519.2518 | 1,814.0476 | 1.1664 | 0.1019 | 1,873.5831 | |

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 | 0.7097 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Consumer Products | 1.7719 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Hearth | 71.8121 | 1.3701 | 88.3072 | 0.1593 | | 12.3722 | 12.3722 | | 12.3722 | 12.3722 | 1,294.7958 | 512.4184 | 1,807.2142 | 1.1598 | 0.1019 | 1,866.5855 |
| Landscaping | 0.1144 | 0.0438 | 3.7959 | 2.0000e-004 | | 0.0210 | 0.0210 | | 0.0210 | 0.0210 | | 6.8334 | 6.8334 | 6.5700e-003 | | 6.9977 |
| Total | 74.4081 | 1.4138 | 92.1031 | 0.1595 | | 12.3932 | 12.3932 | | 12.3932 | 12.3932 | 1,294.7958 | 519.2518 | 1,814.0476 | 1.1663 | 0.1019 | 1,873.5831 |

Creekside Estates Subdivision - Butte County AQMD Air District, Summer

6.2 Area by SubCategory**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 | 0.7097 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Consumer Products | 1.7719 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Hearth | 0.0896 | 0.7655 | 0.3257 | 4.8900e-003 | | 0.0619 | 0.0619 | | 0.0619 | 0.0619 | 0.0000 | 977.1699 | 977.1699 | 0.0187 | 0.0179 | 982.9767 |
| Landscaping | 0.1144 | 0.0438 | 3.7959 | 2.0000e-004 | | 0.0210 | 0.0210 | | 0.0210 | 0.0210 | | 6.8334 | 6.8334 | 6.5700e-003 | | 6.9977 |
| Total | 2.6856 | 0.8092 | 4.1216 | 5.0900e-003 | | 0.0829 | 0.0829 | | 0.0829 | 0.0829 | 0.0000 | 984.0033 | 984.0033 | 0.0253 | 0.0179 | 989.9744 |

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

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

10.0 Stationary Equipment

Creekside Estates Subdivision - Butte County AQMD Air District, Summer

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

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

11.0 Vegetation

Creekside Estates Subdivision - Butte County AQMD Air District, Winter

Creekside Estates Subdivision
Butte County AQMD Air District, Winter

1.0 Project Characteristics**1.1 Land Usage**

| Land Uses | Size | Metric | Lot Acreage | Floor Surface Area | Population |
|-----------------------|-------|---------------|-------------|--------------------|------------|
| Single Family Housing | 46.00 | Dwelling Unit | 49.40 | 82,800.00 | 132 |

1.2 Other Project Characteristics

| | | | | | |
|----------------------------|--------------------------------|----------------------------|-------|----------------------------|-------|
| Urbanization | Urban | Wind Speed (m/s) | 2.2 | Precipitation Freq (Days) | 71 |
| Climate Zone | 3 | | | Operational Year | 2023 |
| Utility Company | Pacific Gas & Electric Company | | | | |
| CO2 Intensity (lb/MWhr) | 328.8 | CH4 Intensity (lb/MWhr) | 0.029 | N2O Intensity (lb/MWhr) | 0.006 |

1.3 User Entered Comments & Non-Default Data

Project Characteristics - CO2 intensity based on 5-year average (2016-2020), PG&E, 2015

Land Use - The proposed project would include the construction of 46 new single family homes on approximately 1-acre lots.

Construction Phase - Default construction schedule

Mobile Land Use Mitigation -

Area Mitigation - No wood burning fireplaces per BCAQMD Rule 207

Energy Mitigation - Homes will be prewired for solar

| Table Name | Column Name | Default Value | New Value |
|---------------------------|--------------------|---------------|-----------|
| tblLandUse | LotAcreage | 14.94 | 49.40 |
| tblProjectCharacteristics | CO2IntensityFactor | 641.35 | 328.8 |

Creekside Estates Subdivision - Butte County AQMD Air District, Winter

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 | | | | | |
| 2019 | 4.8767 | 54.6552 | 34.5014 | 0.0639 | 18.2379 | 2.3918 | 20.6297 | 9.9762 | 2.2005 | 12.1767 | 0.0000 | 6,323.999 9 | 6,323.999 9 | 1.9530 | 0.0000 | 6,372.825 4 |
| 2020 | 4.5732 | 50.3156 | 32.9305 | 0.0638 | 8.8641 | 2.1754 | 11.0395 | 3.6471 | 2.0014 | 5.6485 | 0.0000 | 6,184.335 9 | 6,184.335 9 | 1.9511 | 0.0000 | 6,233.114 3 |
| 2021 | 2.0199 | 18.2152 | 17.4626 | 0.0303 | 0.2109 | 0.9623 | 1.1732 | 0.0570 | 0.9048 | 0.9618 | 0.0000 | 2,898.595 6 | 2,898.595 6 | 0.6403 | 0.0000 | 2,914.603 1 |
| 2022 | 1.8168 | 16.3466 | 17.1672 | 0.0302 | 0.2109 | 0.8124 | 1.0233 | 0.0570 | 0.7643 | 0.8214 | 0.0000 | 2,892.801 9 | 2,892.801 9 | 0.7192 | 0.0000 | 2,908.675 2 |
| 2023 | 47.3064 | 10.2547 | 15.1153 | 0.0240 | 0.1431 | 0.5112 | 0.6543 | 0.0379 | 0.4703 | 0.5082 | 0.0000 | 2,328.140 6 | 2,328.140 6 | 0.7185 | 0.0000 | 2,346.103 6 |
| Maximum | 47.3064 | 54.6552 | 34.5014 | 0.0639 | 18.2379 | 2.3918 | 20.6297 | 9.9762 | 2.2005 | 12.1767 | 0.0000 | 6,323.999 9 | 6,323.999 9 | 1.9530 | 0.0000 | 6,372.825 4 |

Creekside Estates Subdivision - Butte County AQMD Air District, Winter

2.1 Overall Construction (Maximum Daily Emission)

Mitigated Construction

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e | |
|---------|---------|---------|---------|--------|---------------|--------------|------------|----------------|---------------|-------------|----------|-----------|-----------|--------|--------|-----------|--|
| Year | lb/day | | | | | | | | | | lb/day | | | | | | |
| 2019 | 4.8767 | 54.6552 | 34.5014 | 0.0639 | 18.2379 | 2.3918 | 20.6297 | 9.9762 | 2.2005 | 12.1767 | 0.0000 | 6,323.999 | 6,323.999 | 1.9530 | 0.0000 | 6,372.825 | |
| 2020 | 4.5732 | 50.3156 | 32.9305 | 0.0638 | 8.8641 | 2.1754 | 11.0395 | 3.6471 | 2.0014 | 5.6485 | 0.0000 | 6,184.335 | 6,184.335 | 1.9511 | 0.0000 | 6,233.114 | |
| 2021 | 2.0199 | 18.2152 | 17.4626 | 0.0303 | 0.2109 | 0.9623 | 1.1732 | 0.0570 | 0.9048 | 0.9618 | 0.0000 | 2,898.595 | 2,898.595 | 0.6403 | 0.0000 | 2,914.603 | |
| 2022 | 1.8168 | 16.3466 | 17.1672 | 0.0302 | 0.2109 | 0.8124 | 1.0233 | 0.0570 | 0.7643 | 0.8214 | 0.0000 | 2,892.801 | 2,892.801 | 0.7192 | 0.0000 | 2,908.675 | |
| 2023 | 47.3064 | 10.2547 | 15.1153 | 0.0240 | 0.1431 | 0.5112 | 0.6543 | 0.0379 | 0.4703 | 0.5082 | 0.0000 | 2,328.140 | 2,328.140 | 0.7185 | 0.0000 | 2,346.103 | |
| Maximum | 47.3064 | 54.6552 | 34.5014 | 0.0639 | 18.2379 | 2.3918 | 20.6297 | 9.9762 | 2.2005 | 12.1767 | 0.0000 | 6,323.999 | 6,323.999 | 1.9530 | 0.0000 | 6,372.825 | |

Creekside Estates Subdivision - Butte County AQMD Air District, Winter

2.2 Overall Operational**Unmitigated Operational**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e | |
|--------------|----------------|---------------|-----------------|---------------|---------------|----------------|----------------|----------------|----------------|----------------|------------------------|------------------------|------------------------|---------------|---------------|------------------------|--|
| Category | lb/day | | | | | | | | | | | lb/day | | | | | |
| Area | 74.4081 | 1.4138 | 92.1031 | 0.1595 | | 12.3932 | 12.3932 | | 12.3932 | 12.3932 | 1,294.795 8 | 519.2518 | 1,814.047 6 | 1.1664 | 0.1019 | 1,873.583 1 | |
| Energy | 0.0355 | 0.3037 | 0.1292 | 1.9400e-003 | | 0.0246 | 0.0246 | | 0.0246 | 0.0246 | | 387.6490 | 387.6490 | 7.4300e-003 | 7.1100e-003 | 389.9526 | |
| Mobile | 0.9370 | 7.4047 | 11.3544 | 0.0396 | 2.8675 | 0.0336 | 2.9011 | 0.7689 | 0.0315 | 0.8004 | | 4,040.750 0 | 4,040.750 0 | 0.2914 | | 4,048.033 9 | |
| Total | 75.3806 | 9.1222 | 103.5867 | 0.2011 | 2.8675 | 12.4513 | 15.3188 | 0.7689 | 12.4493 | 13.2182 | 1,294.795 8 | 4,947.650 7 | 6,242.446 5 | 1.4651 | 0.1091 | 6,311.569 7 | |

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 | 2.6856 | 0.8092 | 4.1216 | 5.0900e-003 | | 0.0829 | 0.0829 | | 0.0829 | 0.0829 | 0.0000 | 984.0033 | 984.0033 | 0.0253 | 0.0179 | 989.9744 | |
| Energy | 0.0355 | 0.3037 | 0.1292 | 1.9400e-003 | | 0.0246 | 0.0246 | | 0.0246 | 0.0246 | | 387.6490 | 387.6490 | 7.4300e-003 | 7.1100e-003 | 389.9526 | |
| Mobile | 0.9331 | 7.3689 | 11.2716 | 0.0393 | 2.8388 | 0.0333 | 2.8721 | 0.7612 | 0.0312 | 0.7924 | | 4,005.938 2 | 4,005.938 2 | 0.2903 | | 4,013.195 2 | |
| Total | 3.6542 | 8.4818 | 15.5224 | 0.0463 | 2.8388 | 0.1407 | 2.9795 | 0.7612 | 0.1387 | 0.8999 | 0.0000 | 5,377.590 5 | 5,377.590 5 | 0.3230 | 0.0250 | 5,393.122 2 | |

Creekside Estates Subdivision - Butte County AQMD Air District, Winter

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N20 | CO2e |
|-------------------|-------|------|-------|-------|---------------|--------------|------------|----------------|---------------|-------------|----------|----------|-----------|-------|-------|-------|
| Percent Reduction | 95.15 | 7.02 | 85.02 | 76.96 | 1.00 | 98.87 | 80.55 | 1.00 | 98.89 | 93.19 | 100.00 | -8.69 | 13.85 | 77.95 | 77.06 | 14.55 |

3.0 Construction Detail

Construction Phase

| Phase Number | Phase Name | Phase Type | Start Date | End Date | Num Days Week | Num Days | Phase Description |
|--------------|-----------------------|-----------------------|------------|------------|---------------|----------|-------------------|
| 1 | Demolition | Demolition | 7/1/2019 | 9/6/2019 | 5 | 50 | |
| 2 | Site Preparation | Site Preparation | 9/7/2019 | 10/18/2019 | 5 | 30 | |
| 3 | Grading | Grading | 10/19/2019 | 1/31/2020 | 5 | 75 | |
| 4 | Building Construction | Building Construction | 2/1/2020 | 12/2/2022 | 5 | 740 | |
| 5 | Paving | Paving | 12/3/2022 | 2/17/2023 | 5 | 55 | |
| 6 | Architectural Coating | Architectural Coating | 2/18/2023 | 5/5/2023 | 5 | 55 | |

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 187.5

Acres of Paving: 0

Residential Indoor: 167,670; Residential Outdoor: 55,890; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Creekside Estates Subdivision - Butte County AQMD Air District, Winter

| Phase Name | Offroad Equipment Type | Amount | Usage Hours | Horse Power | Load Factor |
|-----------------------|---------------------------|--------|-------------|-------------|-------------|
| Demolition | Concrete/Industrial Saws | 1 | 8.00 | 81 | 0.73 |
| Demolition | Excavators | 3 | 8.00 | 158 | 0.38 |
| Demolition | Rubber Tired Dozers | 2 | 8.00 | 247 | 0.40 |
| Site Preparation | Rubber Tired Dozers | 3 | 8.00 | 247 | 0.40 |
| Site Preparation | Tractors/Loaders/Backhoes | 4 | 8.00 | 97 | 0.37 |
| Grading | Excavators | 2 | 8.00 | 158 | 0.38 |
| Grading | Graders | 1 | 8.00 | 187 | 0.41 |
| Grading | Rubber Tired Dozers | 1 | 8.00 | 247 | 0.40 |
| Grading | Scrapers | 2 | 8.00 | 367 | 0.48 |
| Grading | Tractors/Loaders/Backhoes | 2 | 8.00 | 97 | 0.37 |
| Building Construction | Cranes | 1 | 7.00 | 231 | 0.29 |
| Building Construction | Forklifts | 3 | 8.00 | 89 | 0.20 |
| Building Construction | Generator Sets | 1 | 8.00 | 84 | 0.74 |
| Building Construction | Tractors/Loaders/Backhoes | 3 | 7.00 | 97 | 0.37 |
| Building Construction | Welders | 1 | 8.00 | 46 | 0.45 |
| Paving | Pavers | 2 | 8.00 | 130 | 0.42 |
| Paving | Paving Equipment | 2 | 8.00 | 132 | 0.36 |
| Paving | Rollers | 2 | 8.00 | 80 | 0.38 |
| Architectural Coating | Air Compressors | 1 | 6.00 | 78 | 0.48 |

Trips and VMT

Creekside Estates Subdivision - Butte County AQMD Air District, Winter

| Phase Name | Offroad Equipment Count | Worker Trip Number | Vendor Trip Number | Hauling Trip Number | Worker Trip Length | Vendor Trip Length | Hauling Trip Length | Worker Vehicle Class | Vendor Vehicle Class | Hauling Vehicle Class |
|-----------------------|-------------------------|--------------------|--------------------|---------------------|--------------------|--------------------|---------------------|----------------------|----------------------|-----------------------|
| Demolition | 6 | 15.00 | 0.00 | 0.00 | 12.54 | 10.52 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Site Preparation | 7 | 18.00 | 0.00 | 0.00 | 12.54 | 10.52 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Grading | 8 | 20.00 | 0.00 | 0.00 | 12.54 | 10.52 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Building Construction | 9 | 17.00 | 5.00 | 0.00 | 12.54 | 10.52 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Paving | 6 | 15.00 | 0.00 | 0.00 | 12.54 | 10.52 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Architectural Coating | 1 | 3.00 | 0.00 | 0.00 | 12.54 | 10.52 | 20.00 | LD_Mix | HDT_Mix | HHDT |

3.1 Mitigation Measures Construction**3.2 Demolition - 2019****Unmitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|----------|--------|---------|---------|--------|---------------|--------------|------------|----------------|---------------|-------------|----------------|----------------|-----------|-----|----------------|------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Off-Road | 3.5134 | 35.7830 | 22.0600 | 0.0388 | | 1.7949 | 1.7949 | | 1.6697 | 1.6697 | 3,816.899 4 | 3,816.899 4 | 1.0618 | | 3,843.445 1 | |
| Total | 3.5134 | 35.7830 | 22.0600 | 0.0388 | | 1.7949 | 1.7949 | | 1.6697 | 1.6697 | 3,816.899 4 | 3,816.899 4 | 1.0618 | | 3,843.445 1 | |

Creekside Estates Subdivision - Butte County AQMD Air District, Winter

3.2 Demolition - 2019**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 | 0.1033 | 0.1012 | 0.8435 | 1.3900e-003 | 0.1431 | 1.2000e-003 | 0.1443 | 0.0379 | 1.1100e-003 | 0.0391 | | 137.9853 | 137.9853 | 7.7900e-003 | | 138.1800 | |
| Total | 0.1033 | 0.1012 | 0.8435 | 1.3900e-003 | 0.1431 | 1.2000e-003 | 0.1443 | 0.0379 | 1.1100e-003 | 0.0391 | | 137.9853 | 137.9853 | 7.7900e-003 | | 138.1800 | |

Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e | |
|----------|--------|---------|---------|--------|---------------|--------------|------------|----------------|---------------|-------------|----------|------------|------------|--------|-----|------------|--|
| Category | lb/day | | | | | | | | | | | lb/day | | | | | |
| Off-Road | 3.5134 | 35.7830 | 22.0600 | 0.0388 | | 1.7949 | 1.7949 | | 1.6697 | 1.6697 | 0.0000 | 3,816.8994 | 3,816.8994 | 1.0618 | | 3,843.4451 | |
| Total | 3.5134 | 35.7830 | 22.0600 | 0.0388 | | 1.7949 | 1.7949 | | 1.6697 | 1.6697 | 0.0000 | 3,816.8994 | 3,816.8994 | 1.0618 | | 3,843.4451 | |

Creekside Estates Subdivision - Butte County AQMD Air District, Winter

3.2 Demolition - 2019**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 | 0.1033 | 0.1012 | 0.8435 | 1.3900e-003 | 0.1431 | 1.2000e-003 | 0.1443 | 0.0379 | 1.1100e-003 | 0.0391 | | 137.9853 | 137.9853 | 7.7900e-003 | | 138.1800 | |
| Total | 0.1033 | 0.1012 | 0.8435 | 1.3900e-003 | 0.1431 | 1.2000e-003 | 0.1443 | 0.0379 | 1.1100e-003 | 0.0391 | | 137.9853 | 137.9853 | 7.7900e-003 | | 138.1800 | |

3.3 Site Preparation - 2019**Unmitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---------------|--------|---------|---------|--------|---------------|--------------|------------|----------------|---------------|-------------|----------|------------|------------|--------|-----|------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Fugitive Dust | | | | | 18.0663 | 0.0000 | 18.0663 | 9.9307 | 0.0000 | 9.9307 | | 0.0000 | | | | 0.0000 |
| Off-Road | 4.3350 | 45.5727 | 22.0630 | 0.0380 | | 2.3904 | 2.3904 | | 2.1991 | 2.1991 | | 3,766.4529 | 3,766.4529 | 1.1917 | | 3,796.2445 |
| Total | 4.3350 | 45.5727 | 22.0630 | 0.0380 | 18.0663 | 2.3904 | 20.4566 | 9.9307 | 2.1991 | 12.1298 | | 3,766.4529 | 3,766.4529 | 1.1917 | | 3,796.2445 |

Creekside Estates Subdivision - Butte County AQMD Air District, Winter

3.3 Site Preparation - 2019**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 | 0.1240 | 0.1215 | 1.0121 | 1.6700e-003 | 0.1717 | 1.4400e-003 | 0.1731 | 0.0455 | 1.3300e-003 | 0.0469 | | 165.5824 | 165.5824 | 9.3400e-003 | | 165.8160 | |
| Total | 0.1240 | 0.1215 | 1.0121 | 1.6700e-003 | 0.1717 | 1.4400e-003 | 0.1731 | 0.0455 | 1.3300e-003 | 0.0469 | | 165.5824 | 165.5824 | 9.3400e-003 | | 165.8160 | |

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 | | | | | 18.0663 | 0.0000 | 18.0663 | 9.9307 | 0.0000 | 9.9307 | | 0.0000 | | | | 0.0000 |
| Off-Road | 4.3350 | 45.5727 | 22.0630 | 0.0380 | | 2.3904 | 2.3904 | | 2.1991 | 2.1991 | 0.0000 | 3,766.4529 | 3,766.4529 | 1.1917 | | 3,796.2445 |
| Total | 4.3350 | 45.5727 | 22.0630 | 0.0380 | 18.0663 | 2.3904 | 20.4566 | 9.9307 | 2.1991 | 12.1298 | 0.0000 | 3,766.4529 | 3,766.4529 | 1.1917 | | 3,796.2445 |

Creekside Estates Subdivision - Butte County AQMD Air District, Winter

3.3 Site Preparation - 2019**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 | 0.1240 | 0.1215 | 1.0121 | 1.6700e-003 | 0.1717 | 1.4400e-003 | 0.1731 | 0.0455 | 1.3300e-003 | 0.0469 | | 165.5824 | 165.5824 | 9.3400e-003 | | 165.8160 | |
| Total | 0.1240 | 0.1215 | 1.0121 | 1.6700e-003 | 0.1717 | 1.4400e-003 | 0.1731 | 0.0455 | 1.3300e-003 | 0.0469 | | 165.5824 | 165.5824 | 9.3400e-003 | | 165.8160 | |

3.4 Grading - 2019**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 | | | | | 8.6733 | 0.0000 | 8.6733 | 3.5965 | 0.0000 | 3.5965 | | 0.0000 | | | | 0.0000 |
| Off-Road | 4.7389 | 54.5202 | 33.3768 | 0.0620 | | 2.3827 | 2.3827 | | 2.1920 | 2.1920 | | 6,140.0195 | 6,140.0195 | 1.9426 | | 6,188.5854 |
| Total | 4.7389 | 54.5202 | 33.3768 | 0.0620 | 8.6733 | 2.3827 | 11.0560 | 3.5965 | 2.1920 | 5.7885 | | 6,140.0195 | 6,140.0195 | 1.9426 | | 6,188.5854 |

Creekside Estates Subdivision - Butte County AQMD Air District, Winter

3.4 Grading - 2019**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 | 0.1378 | 0.1350 | 1.1246 | 1.8600e-003 | 0.1907 | 1.6000e-003 | 0.1923 | 0.0506 | 1.4800e-003 | 0.0521 | | 183.9804 | 183.9804 | 0.0104 | | 184.2399 | |
| Total | 0.1378 | 0.1350 | 1.1246 | 1.8600e-003 | 0.1907 | 1.6000e-003 | 0.1923 | 0.0506 | 1.4800e-003 | 0.0521 | | 183.9804 | 183.9804 | 0.0104 | | 184.2399 | |

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 | | | | | 8.6733 | 0.0000 | 8.6733 | 3.5965 | 0.0000 | 3.5965 | | 0.0000 | | | | 0.0000 |
| Off-Road | 4.7389 | 54.5202 | 33.3768 | 0.0620 | | 2.3827 | 2.3827 | | 2.1920 | 2.1920 | 0.0000 | 6,140.0195 | 6,140.0195 | 1.9426 | | 6,188.5854 |
| Total | 4.7389 | 54.5202 | 33.3768 | 0.0620 | 8.6733 | 2.3827 | 11.0560 | 3.5965 | 2.1920 | 5.7885 | 0.0000 | 6,140.0195 | 6,140.0195 | 1.9426 | | 6,188.5854 |

Creekside Estates Subdivision - Butte County AQMD Air District, Winter

3.4 Grading - 2019**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 | 0.1378 | 0.1350 | 1.1246 | 1.8600e-003 | 0.1907 | 1.6000e-003 | 0.1923 | 0.0506 | 1.4800e-003 | 0.0521 | | 183.9804 | 183.9804 | 0.0104 | | 184.2399 | |
| Total | 0.1378 | 0.1350 | 1.1246 | 1.8600e-003 | 0.1907 | 1.6000e-003 | 0.1923 | 0.0506 | 1.4800e-003 | 0.0521 | | 183.9804 | 183.9804 | 0.0104 | | 184.2399 | |

3.4 Grading - 2020**Unmitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e | |
|---------------|--------|---------|---------|--------|---------------|--------------|------------|----------------|---------------|-------------|----------|------------|------------|--------|-----|------------|--|
| Category | lb/day | | | | | | | | | | | lb/day | | | | | |
| Fugitive Dust | | | | | 8.6733 | 0.0000 | 8.6733 | 3.5965 | 0.0000 | 3.5965 | | 0.0000 | | | | 0.0000 | |
| Off-Road | 4.4501 | 50.1975 | 31.9583 | 0.0620 | | 2.1739 | 2.1739 | | 2.0000 | 2.0000 | | 6,005.8653 | 6,005.8653 | 1.9424 | | 6,054.4257 | |
| Total | 4.4501 | 50.1975 | 31.9583 | 0.0620 | 8.6733 | 2.1739 | 10.8472 | 3.5965 | 2.0000 | 5.5965 | | 6,005.8653 | 6,005.8653 | 1.9424 | | 6,054.4257 | |

Creekside Estates Subdivision - Butte County AQMD Air District, Winter

3.4 Grading - 2020**Unmitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e | |
|----------|--------|--------|--------|-------------|---------------|--------------|------------|----------------|---------------|-------------|----------|-----------|-------------|-------------|----------|----------|--|
| Category | lb/day | | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | |
| Worker | 0.1231 | 0.1181 | 0.9722 | 1.8000e-003 | 0.1907 | 1.5100e-003 | 0.1922 | 0.0506 | 1.3900e-003 | 0.0520 | 178.4706 | 178.4706 | 8.7200e-003 | | 178.6886 | | |
| Total | 0.1231 | 0.1181 | 0.9722 | 1.8000e-003 | 0.1907 | 1.5100e-003 | 0.1922 | 0.0506 | 1.3900e-003 | 0.0520 | | 178.4706 | 178.4706 | 8.7200e-003 | | 178.6886 | |

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 | | | | | 8.6733 | 0.0000 | 8.6733 | 3.5965 | 0.0000 | 3.5965 | 0.0000 | 0.0000 | | 0.0000 | | 0.0000 | |
| Off-Road | 4.4501 | 50.1975 | 31.9583 | 0.0620 | | 2.1739 | 2.1739 | | 2.0000 | 2.0000 | 0.0000 | 6,005.8653 | 6,005.8653 | 1.9424 | | 6,054.4257 | |
| Total | 4.4501 | 50.1975 | 31.9583 | 0.0620 | 8.6733 | 2.1739 | 10.8472 | 3.5965 | 2.0000 | 5.5965 | 0.0000 | 6,005.8653 | 6,005.8653 | 1.9424 | | 6,054.4257 | |

Creekside Estates Subdivision - Butte County AQMD Air District, Winter

3.4 Grading - 2020**Mitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e | |
|----------|--------|--------|--------|-------------|---------------|--------------|------------|----------------|---------------|-------------|----------|-----------|-------------|-------------|----------|----------|--|
| Category | lb/day | | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | |
| Worker | 0.1231 | 0.1181 | 0.9722 | 1.8000e-003 | 0.1907 | 1.5100e-003 | 0.1922 | 0.0506 | 1.3900e-003 | 0.0520 | 178.4706 | 178.4706 | 8.7200e-003 | | 178.6886 | | |
| Total | 0.1231 | 0.1181 | 0.9722 | 1.8000e-003 | 0.1907 | 1.5100e-003 | 0.1922 | 0.0506 | 1.3900e-003 | 0.0520 | | 178.4706 | 178.4706 | 8.7200e-003 | | 178.6886 | |

3.5 Building Construction - 2020**Unmitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e | |
|----------|--------|---------|---------|--------|---------------|--------------|------------|----------------|---------------|-------------|----------------|----------------|-----------|-----|----------------|------|--|
| Category | lb/day | | | | | | | | | | | lb/day | | | | | |
| Off-Road | 2.1198 | 19.1860 | 16.8485 | 0.0269 | | 1.1171 | 1.1171 | | 1.0503 | 1.0503 | 2,553.063 1 | 2,553.063 1 | 0.6229 | | 2,568.634 5 | | |
| Total | 2.1198 | 19.1860 | 16.8485 | 0.0269 | | 1.1171 | 1.1171 | | 1.0503 | 1.0503 | 2,553.063 1 | 2,553.063 1 | 0.6229 | | 2,568.634 5 | | |

Creekside Estates Subdivision - Butte County AQMD Air District, Winter

3.5 Building Construction - 2020**Unmitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e | |
|----------|--------|--------|--------|-------------|---------------|--------------|------------|----------------|---------------|-------------|----------|-----------|-------------|----------|--------|----------|--|
| Category | lb/day | | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | |
| Vendor | 0.0276 | 0.7698 | 0.1661 | 1.9100e-003 | 0.0488 | 4.9200e-003 | 0.0537 | 0.0140 | 4.7100e-003 | 0.0188 | 199.9052 | 199.9052 | 0.0182 | 200.3606 | | | |
| Worker | 0.1046 | 0.1004 | 0.8264 | 1.5300e-003 | 0.1621 | 1.2800e-003 | 0.1634 | 0.0430 | 1.1800e-003 | 0.0442 | 151.7001 | 151.7001 | 7.4100e-003 | 151.8853 | | | |
| Total | 0.1323 | 0.8701 | 0.9925 | 3.4400e-003 | 0.2109 | 6.2000e-003 | 0.2171 | 0.0570 | 5.8900e-003 | 0.0629 | | 351.6053 | 351.6053 | 0.0256 | | 352.2460 | |

Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e | |
|----------|--------|---------|---------|--------|---------------|--------------|------------|----------------|---------------|-------------|----------|------------|------------|--------|-----|------------|--|
| Category | lb/day | | | | | | | | | | | lb/day | | | | | |
| Off-Road | 2.1198 | 19.1860 | 16.8485 | 0.0269 | | 1.1171 | 1.1171 | | 1.0503 | 1.0503 | 0.0000 | 2,553.0631 | 2,553.0631 | 0.6229 | | 2,568.6345 | |
| Total | 2.1198 | 19.1860 | 16.8485 | 0.0269 | | 1.1171 | 1.1171 | | 1.0503 | 1.0503 | 0.0000 | 2,553.0631 | 2,553.0631 | 0.6229 | | 2,568.6345 | |

Creekside Estates Subdivision - Butte County AQMD Air District, Winter

3.5 Building Construction - 2020**Mitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e | |
|----------|--------|--------|--------|-------------|---------------|--------------|------------|----------------|---------------|-------------|----------|-----------|-------------|----------|--------|--------|--|
| Category | lb/day | | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | |
| Vendor | 0.0276 | 0.7698 | 0.1661 | 1.9100e-003 | 0.0488 | 4.9200e-003 | 0.0537 | 0.0140 | 4.7100e-003 | 0.0188 | 199.9052 | 199.9052 | 0.0182 | 200.3606 | | | |
| Worker | 0.1046 | 0.1004 | 0.8264 | 1.5300e-003 | 0.1621 | 1.2800e-003 | 0.1634 | 0.0430 | 1.1800e-003 | 0.0442 | 151.7001 | 151.7001 | 7.4100e-003 | 151.8853 | | | |
| Total | 0.1323 | 0.8701 | 0.9925 | 3.4400e-003 | 0.2109 | 6.2000e-003 | 0.2171 | 0.0570 | 5.8900e-003 | 0.0629 | 351.6053 | 351.6053 | 0.0256 | 352.2460 | | | |

3.5 Building Construction - 2021**Unmitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e | |
|----------|--------|---------|---------|--------|---------------|--------------|------------|----------------|---------------|-------------|----------------|----------------|-----------|----------------|-----|------|--|
| Category | lb/day | | | | | | | | | | | lb/day | | | | | |
| Off-Road | 1.9009 | 17.4321 | 16.5752 | 0.0269 | | 0.9586 | 0.9586 | | 0.9013 | 0.9013 | 2,553.363 9 | 2,553.363 9 | 0.6160 | 2,568.764 3 | | | |
| Total | 1.9009 | 17.4321 | 16.5752 | 0.0269 | | 0.9586 | 0.9586 | | 0.9013 | 0.9013 | 2,553.363 9 | 2,553.363 9 | 0.6160 | 2,568.764 3 | | | |

Creekside Estates Subdivision - Butte County AQMD Air District, Winter

3.5 Building Construction - 2021**Unmitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e | |
|----------|--------|--------|--------|-------------|---------------|--------------|------------|----------------|---------------|-------------|----------|-----------|-------------|----------|--------|----------|--|
| Category | lb/day | | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | |
| Vendor | 0.0224 | 0.6937 | 0.1430 | 1.9000e-003 | 0.0488 | 2.4700e-003 | 0.0513 | 0.0140 | 2.3600e-003 | 0.0164 | 198.2873 | 198.2873 | 0.0177 | 198.7297 | | | |
| Worker | 0.0966 | 0.0894 | 0.7444 | 1.4800e-003 | 0.1621 | 1.2300e-003 | 0.1634 | 0.0430 | 1.1300e-003 | 0.0441 | 146.9444 | 146.9444 | 6.5900e-003 | 147.1092 | | | |
| Total | 0.1190 | 0.7831 | 0.8874 | 3.3800e-003 | 0.2109 | 3.7000e-003 | 0.2146 | 0.0570 | 3.4900e-003 | 0.0605 | | 345.2317 | 345.2317 | 0.0243 | | 345.8388 | |

Mitigated Construction On-Site

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

Creekside Estates Subdivision - Butte County AQMD Air District, Winter

3.5 Building Construction - 2021**Mitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e | |
|----------|--------|--------|--------|-------------|---------------|--------------|------------|----------------|---------------|-------------|----------|-----------|-------------|----------|--------|----------|--|
| Category | lb/day | | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | |
| Vendor | 0.0224 | 0.6937 | 0.1430 | 1.9000e-003 | 0.0488 | 2.4700e-003 | 0.0513 | 0.0140 | 2.3600e-003 | 0.0164 | 198.2873 | 198.2873 | 0.0177 | 198.7297 | | | |
| Worker | 0.0966 | 0.0894 | 0.7444 | 1.4800e-003 | 0.1621 | 1.2300e-003 | 0.1634 | 0.0430 | 1.1300e-003 | 0.0441 | 146.9444 | 146.9444 | 6.5900e-003 | 147.1092 | | | |
| Total | 0.1190 | 0.7831 | 0.8874 | 3.3800e-003 | 0.2109 | 3.7000e-003 | 0.2146 | 0.0570 | 3.4900e-003 | 0.0605 | | 345.2317 | 345.2317 | 0.0243 | | 345.8388 | |

3.5 Building Construction - 2022**Unmitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e | |
|----------|--------|---------|---------|--------|---------------|--------------|------------|----------------|---------------|-------------|----------------|----------------|-----------|-----|----------------|------|--|
| Category | lb/day | | | | | | | | | | | lb/day | | | | | |
| Off-Road | 1.7062 | 15.6156 | 16.3634 | 0.0269 | | 0.8090 | 0.8090 | | 0.7612 | 0.7612 | 2,554.333 6 | 2,554.333 6 | 0.6120 | | 2,569.632 2 | | |
| Total | 1.7062 | 15.6156 | 16.3634 | 0.0269 | | 0.8090 | 0.8090 | | 0.7612 | 0.7612 | 2,554.333 6 | 2,554.333 6 | 0.6120 | | 2,569.632 2 | | |

Creekside Estates Subdivision - Butte County AQMD Air District, Winter

3.5 Building Construction - 2022**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 | 0.0000 | 0.0000 | |
| Vendor | 0.0207 | 0.6508 | 0.1309 | 1.8800e-003 | 0.0488 | 2.1500e-003 | 0.0509 | 0.0140 | 2.0600e-003 | 0.0161 | 196.6289 | 196.6289 | 0.0171 | | | 197.0572 | |
| Worker | 0.0898 | 0.0801 | 0.6730 | 1.4300e-003 | 0.1621 | 1.1800e-003 | 0.1633 | 0.0430 | 1.0900e-003 | 0.0441 | 141.8394 | 141.8394 | 5.8600e-003 | | | 141.9859 | |
| Total | 0.1105 | 0.7309 | 0.8038 | 3.3100e-003 | 0.2109 | 3.3300e-003 | 0.2142 | 0.0570 | 3.1500e-003 | 0.0602 | | 338.4683 | 338.4683 | 0.0230 | | 339.0430 | |

Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e | |
|--------------|---------------|----------------|----------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|---------------|-------------------|-------------------|---------------|-----|-------------------|--|
| Category | lb/day | | | | | | | | | | | lb/day | | | | | |
| Off-Road | 1.7062 | 15.6156 | 16.3634 | 0.0269 | | 0.8090 | 0.8090 | | 0.7612 | 0.7612 | 0.0000 | 2,554.3336 | 2,554.3336 | 0.6120 | | 2,569.6322 | |
| Total | 1.7062 | 15.6156 | 16.3634 | 0.0269 | | 0.8090 | 0.8090 | | 0.7612 | 0.7612 | 0.0000 | 2,554.3336 | 2,554.3336 | 0.6120 | | 2,569.6322 | |

Creekside Estates Subdivision - Butte County AQMD Air District, Winter

3.5 Building Construction - 2022**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 | 0.0207 | 0.6508 | 0.1309 | 1.8800e-003 | 0.0488 | 2.1500e-003 | 0.0509 | 0.0140 | 2.0600e-003 | 0.0161 | | 196.6289 | 196.6289 | 0.0171 | | 197.0572 | |
| Worker | 0.0898 | 0.0801 | 0.6730 | 1.4300e-003 | 0.1621 | 1.1800e-003 | 0.1633 | 0.0430 | 1.0900e-003 | 0.0441 | | 141.8394 | 141.8394 | 5.8600e-003 | | 141.9859 | |
| Total | 0.1105 | 0.7309 | 0.8038 | 3.3100e-003 | 0.2109 | 3.3300e-003 | 0.2142 | 0.0570 | 3.1500e-003 | 0.0602 | | 338.4683 | 338.4683 | 0.0230 | | 339.0430 | |

3.6 Paving - 2022**Unmitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e | |
|----------|--------|---------|---------|--------|---------------|--------------|------------|----------------|---------------|-------------|----------|----------------|----------------|--------|-----|----------------|--|
| Category | lb/day | | | | | | | | | | | lb/day | | | | | |
| Off-Road | 1.1028 | 11.1249 | 14.5805 | 0.0228 | | 0.5679 | 0.5679 | | 0.5225 | 0.5225 | | 2,207.660 3 | 2,207.660 3 | 0.7140 | | 2,225.510 4 | |
| Paving | 0.0000 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 | |
| Total | 1.1028 | 11.1249 | 14.5805 | 0.0228 | | 0.5679 | 0.5679 | | 0.5225 | 0.5225 | | 2,207.660 3 | 2,207.660 3 | 0.7140 | | 2,225.510 4 | |

Creekside Estates Subdivision - Butte County AQMD Air District, Winter

3.6 Paving - 2022**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 | 0.0792 | 0.0707 | 0.5938 | 1.2600e-003 | 0.1431 | 1.0400e-003 | 0.1441 | 0.0379 | 9.6000e-004 | 0.0389 | | 125.1524 | 125.1524 | 5.1700e-003 | | 125.2816 | |
| Total | 0.0792 | 0.0707 | 0.5938 | 1.2600e-003 | 0.1431 | 1.0400e-003 | 0.1441 | 0.0379 | 9.6000e-004 | 0.0389 | | 125.1524 | 125.1524 | 5.1700e-003 | | 125.2816 | |

Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e | |
|--------------|---------------|----------------|----------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|---------------|------------------------|------------------------|---------------|-----|------------------------|--|
| Category | lb/day | | | | | | | | | | | lb/day | | | | | |
| Off-Road | 1.1028 | 11.1249 | 14.5805 | 0.0228 | | 0.5679 | 0.5679 | | 0.5225 | 0.5225 | 0.0000 | 2,207.660 3 | 2,207.660 3 | 0.7140 | | 2,225.510 4 | |
| Paving | 0.0000 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 | |
| Total | 1.1028 | 11.1249 | 14.5805 | 0.0228 | | 0.5679 | 0.5679 | | 0.5225 | 0.5225 | 0.0000 | 2,207.660 3 | 2,207.660 3 | 0.7140 | | 2,225.510 4 | |

Creekside Estates Subdivision - Butte County AQMD Air District, Winter

3.6 Paving - 2022**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 | 0.0792 | 0.0707 | 0.5938 | 1.2600e-003 | 0.1431 | 1.0400e-003 | 0.1441 | 0.0379 | 9.6000e-004 | 0.0389 | | 125.1524 | 125.1524 | 5.1700e-003 | | 125.2816 | |
| Total | 0.0792 | 0.0707 | 0.5938 | 1.2600e-003 | 0.1431 | 1.0400e-003 | 0.1441 | 0.0379 | 9.6000e-004 | 0.0389 | | 125.1524 | 125.1524 | 5.1700e-003 | | 125.2816 | |

3.6 Paving - 2023**Unmitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e | |
|----------|--------|---------|---------|--------|---------------|--------------|------------|----------------|---------------|-------------|----------|----------------|----------------|--------|-----|----------------|--|
| Category | lb/day | | | | | | | | | | | lb/day | | | | | |
| Off-Road | 1.0327 | 10.1917 | 14.5842 | 0.0228 | | 0.5102 | 0.5102 | | 0.4694 | 0.4694 | | 2,207.584 1 | 2,207.584 1 | 0.7140 | | 2,225.433 6 | |
| Paving | 0.0000 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 | |
| Total | 1.0327 | 10.1917 | 14.5842 | 0.0228 | | 0.5102 | 0.5102 | | 0.4694 | 0.4694 | | 2,207.584 1 | 2,207.584 1 | 0.7140 | | 2,225.433 6 | |

Creekside Estates Subdivision - Butte County AQMD Air District, Winter

3.6 Paving - 2023**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 | 0.0736 | 0.0630 | 0.5311 | 1.2100e-003 | 0.1431 | 1.0000e-003 | 0.1441 | 0.0379 | 9.2000e-004 | 0.0389 | | 120.5565 | 120.5565 | 4.5400e-003 | | 120.6700 | |
| Total | 0.0736 | 0.0630 | 0.5311 | 1.2100e-003 | 0.1431 | 1.0000e-003 | 0.1441 | 0.0379 | 9.2000e-004 | 0.0389 | | 120.5565 | 120.5565 | 4.5400e-003 | | 120.6700 | |

Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e | |
|--------------|---------------|----------------|----------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|----------|---------------|-------------------|-------------------|---------------|--------|-------------------|
| Category | lb/day | | | | | | | | | | | lb/day | | | | | |
| Off-Road | 1.0327 | 10.1917 | 14.5842 | 0.0228 | | 0.5102 | 0.5102 | | 0.4694 | 0.4694 | | 0.0000 | 2,207.5841 | 2,207.5841 | 0.7140 | | 2,225.4336 |
| Paving | 0.0000 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 | |
| Total | 1.0327 | 10.1917 | 14.5842 | 0.0228 | | 0.5102 | 0.5102 | | 0.4694 | 0.4694 | | 0.0000 | 2,207.5841 | 2,207.5841 | 0.7140 | | 2,225.4336 |

Creekside Estates Subdivision - Butte County AQMD Air District, Winter

3.6 Paving - 2023**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 | 0.0736 | 0.0630 | 0.5311 | 1.2100e-003 | 0.1431 | 1.0000e-003 | 0.1441 | 0.0379 | 9.2000e-004 | 0.0389 | | 120.5565 | 120.5565 | 4.5400e-003 | | 120.6700 | |
| Total | 0.0736 | 0.0630 | 0.5311 | 1.2100e-003 | 0.1431 | 1.0000e-003 | 0.1441 | 0.0379 | 9.2000e-004 | 0.0389 | | 120.5565 | 120.5565 | 4.5400e-003 | | 120.6700 | |

3.7 Architectural Coating - 2023**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 | 47.1000 | | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | | | 0.0000 | |
| Off-Road | 0.1917 | 1.3030 | 1.8111 | 2.9700e-003 | | 0.0708 | 0.0708 | | 0.0708 | 0.0708 | | 281.4481 | 281.4481 | 0.0168 | | 281.8690 | |
| Total | 47.2917 | 1.3030 | 1.8111 | 2.9700e-003 | | 0.0708 | 0.0708 | | 0.0708 | 0.0708 | | 281.4481 | 281.4481 | 0.0168 | | 281.8690 | |

Creekside Estates Subdivision - Butte County AQMD Air District, Winter

3.7 Architectural Coating - 2023**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 | 0.0147 | 0.0126 | 0.1062 | 2.4000e-004 | 0.0286 | 2.0000e-004 | 0.0288 | 7.5900e-003 | 1.8000e-004 | 7.7700e-003 | | | 24.1113 | 24.1113 | 9.1000e-004 | 24.1340 | |
| Total | 0.0147 | 0.0126 | 0.1062 | 2.4000e-004 | 0.0286 | 2.0000e-004 | 0.0288 | 7.5900e-003 | 1.8000e-004 | 7.7700e-003 | | | 24.1113 | 24.1113 | 9.1000e-004 | 24.1340 | |

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 | 47.1000 | | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | 0.0000 | |
| Off-Road | 0.1917 | 1.3030 | 1.8111 | 2.9700e-003 | | 0.0708 | 0.0708 | | 0.0708 | 0.0708 | 0.0000 | 281.4481 | 281.4481 | 0.0168 | | 281.8690 | |
| Total | 47.2917 | 1.3030 | 1.8111 | 2.9700e-003 | | 0.0708 | 0.0708 | | 0.0708 | 0.0708 | 0.0000 | 281.4481 | 281.4481 | 0.0168 | | 281.8690 | |

Creekside Estates Subdivision - Butte County AQMD Air District, Winter

3.7 Architectural Coating - 2023**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 | 0.0000 | 0.0000 | |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | |
| Worker | 0.0147 | 0.0126 | 0.1062 | 2.4000e-004 | 0.0286 | 2.0000e-004 | 0.0288 | 7.5900e-003 | 1.8000e-004 | 7.7700e-003 | 24.1113 | 24.1113 | 9.1000e-004 | 24.1340 | | | |
| Total | 0.0147 | 0.0126 | 0.1062 | 2.4000e-004 | 0.0286 | 2.0000e-004 | 0.0288 | 7.5900e-003 | 1.8000e-004 | 7.7700e-003 | 24.1113 | 24.1113 | 9.1000e-004 | | | 24.1340 | |

4.0 Operational Detail - Mobile**4.1 Mitigation Measures Mobile**

Improve Pedestrian Network

Creekside Estates Subdivision - Butte County AQMD Air District, Winter

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e | |
|-------------|--------|--------|---------|--------|---------------|--------------|------------|----------------|---------------|-------------|----------------|----------------|-----------|-----|----------------|------|--|
| Category | lb/day | | | | | | | | | | | lb/day | | | | | |
| Mitigated | 0.9331 | 7.3689 | 11.2716 | 0.0393 | 2.8388 | 0.0333 | 2.8721 | 0.7612 | 0.0312 | 0.7924 | 4,005.938 2 | 4,005.938 2 | 0.2903 | | 4,013.195 2 | | |
| Unmitigated | 0.9370 | 7.4047 | 11.3544 | 0.0396 | 2.8675 | 0.0336 | 2.9011 | 0.7689 | 0.0315 | 0.8004 | 4,040.750 0 | 4,040.750 0 | 0.2914 | | 4,048.033 9 | | |

4.2 Trip Summary Information

| Land Use | Average Daily Trip Rate | | | Unmitigated | | Mitigated | |
|-----------------------|-------------------------|----------|--------|-------------|------------|------------|------------|
| | Weekday | Saturday | Sunday | Annual VMT | Annual VMT | Annual VMT | Annual VMT |
| Single Family Housing | 437.92 | 455.86 | 396.52 | 1,275,473 | | 1,262,718 | |
| Total | 437.92 | 455.86 | 396.52 | 1,275,473 | | 1,262,718 | |

4.3 Trip Type Information

| Land Use | Miles | | | Trip % | | | Trip Purpose % | | |
|-----------------------|------------|------------|-------------|------------|------------|-------------|----------------|----------|---------|
| | H-W or C-W | H-S or C-C | H-O or C-NW | H-W or C-W | H-S or C-C | H-O or C-NW | Primary | Diverted | Pass-by |
| Single Family Housing | 12.54 | 7.22 | 7.22 | 35.00 | 17.00 | 48.00 | 86 | 11 | 3 |

4.4 Fleet Mix

| Land Use | LDA | LDT1 | LDT2 | MDV | LHD1 | LHD2 | MHD | HHD | OBUS | UBUS | MCY | SBUS | MH |
|-----------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| Single Family Housing | 0.536621 | 0.031900 | 0.176387 | 0.109893 | 0.028679 | 0.005751 | 0.018192 | 0.081833 | 0.001567 | 0.001354 | 0.005498 | 0.001215 | 0.001111 |

5.0 Energy Detail

Historical Energy Use: N

Creekside Estates Subdivision - Butte County AQMD Air District, Winter

5.1 Mitigation Measures Energy

Percent of Electricity Use Generated with Renewable Energy

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|------------------------|--------|--------|--------|-------------|---------------|--------------|------------|----------------|---------------|-------------|----------|-----------|-----------|-------------|-------------|----------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| NaturalGas Mitigated | 0.0355 | 0.3037 | 0.1292 | 1.9400e-003 | | | 0.0246 | 0.0246 | | 0.0246 | 0.0246 | 387.6490 | 387.6490 | 7.4300e-003 | 7.1100e-003 | 389.9526 |
| NaturalGas Unmitigated | 0.0355 | 0.3037 | 0.1292 | 1.9400e-003 | | | 0.0246 | 0.0246 | | 0.0246 | 0.0246 | 387.6490 | 387.6490 | 7.4300e-003 | 7.1100e-003 | 389.9526 |

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 | | | | | |
| Single Family Housing | 3295.02 | 0.0355 | 0.3037 | 0.1292 | 1.9400e-003 | | | 0.0246 | 0.0246 | | 0.0246 | 0.0246 | 387.6490 | 387.6490 | 7.4300e-003 | 7.1100e-003 | 389.9526 |
| Total | | 0.0355 | 0.3037 | 0.1292 | 1.9400e-003 | | | 0.0246 | 0.0246 | | 0.0246 | 0.0246 | 387.6490 | 387.6490 | 7.4300e-003 | 7.1100e-003 | 389.9526 |

Creekside Estates Subdivision - Butte County AQMD Air District, Winter

5.2 Energy by Land Use - NaturalGas**Mitigated**

| | NaturalGas Use | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|-----------------------|----------------|---------------|---------------|---------------|--------------------|---------------|---------------|---------------|----------------|---------------|---------------|----------|-----------------|-----------------|--------------------|--------------------|-----------------|
| Land Use | kBTU/yr | lb/day | | | | | | | | | | lb/day | | | | | |
| Single Family Housing | 3.29502 | 0.0355 | 0.3037 | 0.1292 | 1.9400e-003 | | 0.0246 | 0.0246 | | 0.0246 | 0.0246 | 387.6490 | 387.6490 | 7.4300e-003 | 7.1100e-003 | 389.9526 | |
| Total | | 0.0355 | 0.3037 | 0.1292 | 1.9400e-003 | | 0.0246 | 0.0246 | | 0.0246 | 0.0246 | | 387.6490 | 387.6490 | 7.4300e-003 | 7.1100e-003 | 389.9526 |

6.0 Area Detail**6.1 Mitigation Measures Area**

Use only Natural Gas Hearths

Creekside Estates Subdivision - Butte County AQMD Air District, Winter

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e | |
|-------------|---------|--------|---------|-------------|---------------|--------------|------------|----------------|---------------|-------------|------------|-----------|------------|--------|--------|------------|--|
| Category | lb/day | | | | | | | | | | | lb/day | | | | | |
| Mitigated | 2.6856 | 0.8092 | 4.1216 | 5.0900e-003 | | 0.0829 | 0.0829 | | 0.0829 | 0.0829 | 0.0000 | 984.0033 | 984.0033 | 0.0253 | 0.0179 | 989.9744 | |
| Unmitigated | 74.4081 | 1.4138 | 92.1031 | 0.1595 | | 12.3932 | 12.3932 | | 12.3932 | 12.3932 | 1,294.7958 | 519.2518 | 1,814.0476 | 1.1664 | 0.1019 | 1,873.5831 | |

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 | 0.7097 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Consumer Products | 1.7719 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Hearth | 71.8121 | 1.3701 | 88.3072 | 0.1593 | | 12.3722 | 12.3722 | | 12.3722 | 12.3722 | 1,294.7958 | 512.4184 | 1,807.2142 | 1.1598 | 0.1019 | 1,866.5855 |
| Landscaping | 0.1144 | 0.0438 | 3.7959 | 2.0000e-004 | | 0.0210 | 0.0210 | | 0.0210 | 0.0210 | | 6.8334 | 6.8334 | 6.5700e-003 | | 6.9977 |
| Total | 74.4081 | 1.4138 | 92.1031 | 0.1595 | | 12.3932 | 12.3932 | | 12.3932 | 12.3932 | 1,294.7958 | 519.2518 | 1,814.0476 | 1.1663 | 0.1019 | 1,873.5831 |

Creekside Estates Subdivision - Butte County AQMD Air District, Winter

6.2 Area by SubCategory**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 | 0.7097 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Consumer Products | 1.7719 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Hearth | 0.0896 | 0.7655 | 0.3257 | 4.8900e-003 | | 0.0619 | 0.0619 | | 0.0619 | 0.0619 | 0.0000 | 977.1699 | 977.1699 | 0.0187 | 0.0179 | 982.9767 |
| Landscaping | 0.1144 | 0.0438 | 3.7959 | 2.0000e-004 | | 0.0210 | 0.0210 | | 0.0210 | 0.0210 | | 6.8334 | 6.8334 | 6.5700e-003 | | 6.9977 |
| Total | 2.6856 | 0.8092 | 4.1216 | 5.0900e-003 | | 0.0829 | 0.0829 | | 0.0829 | 0.0829 | 0.0000 | 984.0033 | 984.0033 | 0.0253 | 0.0179 | 989.9744 |

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

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

10.0 Stationary Equipment

Creekside Estates Subdivision - Butte County AQMD Air District, Winter

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

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

11.0 Vegetation
