# APPENDIX D

CalEEMod

EMC PLANNING GROUP INC.
A LAND USE PLANNING & DESIGN FIRM

301 Lighthouse Avenue Suite C Monterey California 93940
Tel 831·649·1799 Fax 831·649·8399 www.emcplanning.com

**To:** **Polaris Kinison Brown, Project Manager**

**From:** **Sally Rideout, Principal Planner, Tanya Kalaskar, Assistant Planner**

**Cc:** **File**

**Date:** **October 25, 2017**

---

**Re:** **Paraiso Springs Resort Project – Air Quality and Greenhouse Gas (GHG) Emissions Assessment**

---

## Project Description

The proposed project is the construction and operation of the Paraiso Springs Spa Resort on approximately 235.93 acres in South Monterey County, California. The property is the site of the former Paraiso Hot Springs Resort. The property is improved with a number of unoccupied structures: 15 cabins, a changing room, a recreation room, indoor and outdoor baths, six mobile homes, a lodge, a workshop, a yurt compound, and several small outbuildings. Existing sources of emissions on the site consist of a caretaker's residence. The proposed project includes demolition of all existing structures on the site and development of a 103-unit hotel and conference facility, 60 condominium timeshare units, 17 single-family timeshare units, day spa, retail, wine tasting and real estate office, a spa and fitness center with putting greens, basketball and tennis courts, pool, activity center and racquetball courts, visitor center, surface parking lots, wastewater treatment plant, and other related infrastructure. The proposed project would provide 360 jobs associated with overall facility management and operations. Off-site emissions would be generated by construction of roadway infrastructure improvements. The project site is located within the North Central Coast Air Basin, which is within the jurisdiction of the Monterey Bay Air Resources District (air district). A revised EIR is being prepared by the County of Monterey for the proposed project pursuant to the California Environmental Quality Act (CEQA).

## Scope of Assessment

This assessment provides an estimate of the proposed project's criteria air pollutant and greenhouse gas (GHG) emissions using the California Emissions Estimator Model (CalEEMod) Version 2016.3.2 software, a modeling platform recommended by the California Air Resources Board and accepted by the California Air Resources Board (CARB) and the air district. Model results are attached to this memorandum. For modeling purposes, data inputs to the model take into account the type and size of proposed uses utilizing CalEEMod default land uses based on the size metrics provided by the applicant and trip generation information from the project traffic report (Hatch Mott MacDonald 2017).

### Emissions Model

The CalEEMod software utilizes emissions models USEPA AP-42 emission factors, CARB vehicle emission models studies and studies commissioned by other California agencies such as the California Energy Commission and CalRecycle. The CalEEMod platform allows calculations of both construction and operational criteria pollutant and GHG emissions from land use projects. The model also calculates indirect emissions from processes "downstream" of the project under evaluation such as GHG emissions from energy use, solid waste disposal, vegetation planting and/or removal, and water use. CalEEMod also estimates changes in carbon sequestration potential due to changes in land use such as converting vegetation to built or paved surfaces, and from planting new trees.

### Existing and Proposed Operational Emissions Sources

The size and type of proposed sources of criteria air pollutant and GHG emissions on the project site and their respective CalEEMod land use default categories are presented in Table 1, Project Characteristics.

**Table 1 Project Characteristics[1]**

| Emissions Sources | CalEEMod Land Use Category[2] | Size[3] | Footprint[4] |
|---|---|---|---|
| Existing Residential (to be removed) | Single-family Residential | 1 dwelling unit | - |
| Hotel and Conference Amenities | Hotel | 103-rooms. 170,978 | 3.93 |
| Institute/Visitor Center | | | |
| Hamlet/Shops/Services | | | |
| Condominium Timeshare | Condo/Townhouse | 60 units | 2.21 |
| Villa Timeshare | Single Family Housing | 17 units | 0.63 |
| Health and Fitness Center | Health Club | 51,090 | 1.17 |
| Parking lots[5] | Parking/Surface Parking Lot | 342 spaces | 3.08 |
| Roadways (onsite) | Parking/Other Asphalt Surfaces | 447,797 | 10.28 |
| Roadway Improvements (offsite) | | | |
| Patios, Courtyards, Sidewalks, etc | Parking/Other Non Asphalt Surfaces | 260,800 | 5.99 |
| Landscaping[6] | Parking/Other Non-Asphalt Surfaces | - | 23.80 |

SOURCES: BREEZE Software 2017, EMC Planning Group 2017.
NOTES:
1. Amounts may vary due to rounding.
2. See model default land use category descriptions for arena and commercial uses in the discussion of assumptions later in this document.
3. In square feet unless otherwise noted.
4. In acres unless otherwise noted.
5. Includes access aisles.
6. Landscaping is not a source of substantial emissions or sequestration potential but is included to capture construction emissions associated with development of the entire site.

## Methodology

Unless otherwise noted, model inputs are based upon the information provided by the applicant regarding the proposed activities. Construction and operational GHG emissions estimates are derived for two modeling scenarios: baseline (existing sources) and proposed project. The proposed project model estimates unmitigated and mitigated emissions. The mitigated emissions reflect reductions that would occur through compliance with standard construction and operational emissions mitigation, and applicant-proposed reduction measures. Changes in sequestration potential are also calculated based on changes to existing natural plant communities and from the planting of new trees proposed by the applicant.

## Assumptions

Unless otherwise noted, data inputs for the project model are based on the following primary assumptions:

1. The assumed operational date for the proposed project is 2028.
2. Construction emissions, and operational mobile-source and area-source emissions were estimated using the following CalEEMod default land use subtypes:
    a. Emissions generated by the health and fitness center uses are assumed to be generally similar to emissions that would be generated by the CalEEMod default land use subtype "Health Club", which is defined as privately-owned facilities that primarily focus on individual fitness or training. Typically they provide exercise classes; weightlifting, fitness and gymnastics equipment; spas; locker rooms; and small restaurants or snack bars. Trip generation rates are based on information provided in the traffic report (Hatch Mott MacDonald 2017).
    b. Emissions generated by the proposed 103-unit hotel with convention amenities, the "hamlet", and "institute" uses are assumed to be generally similar to emissions that would be generated by the CalEEMod default land use subtype "Hotel", which is defined as places of lodging that provide sleeping accommodations and supporting facilities such as restaurants; cocktail lounges; meeting and banquet rooms or convention facilities; limited recreational facilities and other retail and service shops. Trip generation rates are adjusted based on information provided in the traffic report (Hatch Mott MacDonald 2017).
    c. Emissions generated by the proposed 60 condominium timeshare units are assumed to be similar to emissions that would be generated by the CalEEMod default land use subtype "Condo/Townhouse, with trip generation rates adjusted based on information provided in the traffic report (Hatch Mott MacDonald 2017).
    d. Emissions generated by the 17 "villa" single-family timeshare units are assumed to be generally similar to emissions that would be generated by the CalEEMod default land use subtype "Single Family Housing", with trip generation rates adjusted based on information provided in the traffic report (Hatch Mott MacDonald 2017).

e. Emissions from the proposed parking lot are assumed to be generally similar to emissions that would be generated by the CalEEMod default land use subtype "Parking Lot", which is defined as a surface parking lot typically covered with asphalt.

f. Emissions from internal and off-site paved roadways and access routes are assumed to be generally similar to emissions that would be generated by the CalEEMod default land use subtype "Other Asphalt Surfaces", which is described as an asphalt area not used as a parking lot.

g. Emissions from sidewalks, patios, equipment pads, or other non-asphalt impervious surfaces, and landscaping are assumed to be generally similar to emissions that would be generated by the CalEEMod default land use subtype "Non-Asphalt Surfaces" which includes sidewalks, courtyards, patios, equipment pads, loading dock areas, etc., not composed of asphalt.

3. The model's default $CO_2$ intensity factor of 641 pounds/megawatt hour is adjusted to 290 pounds/megawatt hour to reflect Pacific Gas & Electric projections the carbon intensity of its energy mix in 2020, which is the projection closest to the project's operational year. The intensity factor has been falling, in significant part due to the increasing percentage of Pacific Gas & Electric's energy portfolio obtained from renewable energy. Emissions intensity data is from Pacific Gas & Electric's Greenhouse Gas Factors: Guidance for PG&E Customers, dated November 2015.

4. Off-site roadway pavement widening along a 1.4-mile segment of Paraiso Springs Road is included in the model. Assuming an average four-foot-wide increase from 16 feet wide to an average width of 20 feet over the segment, approximately 29,960 square feet would be added to the roadway.

## Modeling Scenarios

### *Baseline*

The baseline for criteria air pollutant emissions that affect air quality are already quantified in air quality management plans. CalEEMod default values for baseline conditions assume new development on a vacant site. The site currently supports one residence, which is the only source of baseline GHG emissions.

### *Proposed Project*

The modeling scenario for unmitigated and mitigated emissions of operational criteria air pollutants and greenhouse gases includes adjustments for compliance with standard

conditions of approval and/or mitigation commonly required by various agencies in Monterey County. Model adjustments are made for county requirements to use of water conserving indoor water fixtures, compliance with required air district best management practices for the control of fugitive dust during construction, the air district's prohibition of wood-burning stoves/fireplaces, and air district recommendations for the use of low volatile organic compound (VOC)-emitting solvents, paints and other coatings.

### *Applicant-Proposed Emissions Reductions*

The applicants provided a list of GHG reduction measures (identified in the EIR) that are included in the project description. Not all of the proposed measures are quantifiable using the model. The model was adjusted to account for the following applicant-proposed emissions reduction measures, which can be calculated "in-model":

1. Utilize energy star appliances (Title 24 plug in appliances) in 77 timeshare units;
2. Use solar photovoltaic system to generate 20 percent of on-site energy needs;
3. Light-emitting diode (LED) lighting will be used outdoors (Note: assume 20 percent LED use);
4. Neighborhood Electric Vehicle (NEV) network on-site;
5. Employee shuttle: 196 (90 percent)of 218 estimated total employees eligible (Hatch Mott MacDonald 2017, Exhibit 6D);
6. Use reclaimed water for 100 percent of outdoor uses;
7. Install low-flow indoor water fixtures in all buildings;
8. Use electric landscaping equipment;
9. Install water efficient landscapes; and
10. Implement on-site recycling program and divert 50 percent (assumed) wastes from landfill disposal.

## Operational Emissions Data Inputs

Operational emissions estimates are modeled for baseline and proposed conditions. Each air district (or county) assigns average trip lengths for various land uses in urban and rural settings, which are incorporated into the CalEEMod defaults. Since the model's default trip length values for this air district are the same regardless of a project's location within the tri-

county area, the model defaults were set to "rural" and the jurisdictional authority parameters are based on Monterey County information.

The model trip generation rates are adjusted per the average daily trips at project buildout identified in the traffic impact report (Hatch Mott MacDonald 2017, Exhibit 6D). According to the report, the trip generation rates are not adjusted to minimize the amount of short-distance convenience trips such as lunch hour restaurant clientele or short-term visits off-site from guests staying at the facility due to its remote location and the presence of on-site amenities (page 6).

## Construction Emissions Data Inputs

The CalEEMod program models construction GHG emissions associated with land use development projects and allows for the input of project-specific construction information including phasing and equipment information, if known. Unmitigated and mitigated construction modeling results are attached to this memorandum. For informational purposes, the mitigated results reflect compliance with the air district's dust control best management practices during construction that require watering of exposed areas twice daily and limit vehicle speeds on the construct site to 15 mph.

CalEEMod default construction parameters allow estimates of short-term construction GHG emissions based upon empirical data collected and analyzed by CARB, and use of the model's default construction emissions data is accepted by the air district. The applicant has provided preliminary estimates of the numbers and types of equipment that would be used during construction. However, given the project's anticipated operational date of 2028, it is very likely that the preliminary lists of construction equipment could change prior to or during construction as the project moves forward. Therefore, the model defaults were utilized for construction equipment, consistent with the air district's guidance for modeling construction GHG emissions. The air district also recommends amortizing total short term GHG construction emissions volume over a 30-year time period to yield an annual volume. Information on off-site improvements (refer to Table 1), disposal of demolition spoils and cut and fill estimates are taken from the Paraiso Springs Resort EIR project description. The hauling trip length default is set at 20 miles.

## Carbon Sequestration Potential Data Inputs

CalEEMod also estimates a one-time only change in sequestration potential resulting from changes in natural communities, and also calculates a carbon "offset" based upon the

number of net new trees proposed, averaged over a 20-year growth cycle. Based on information provided in the EIR Table 3.3-4, Existing Vegetation Types and Proposed Impacts within the Project Site, a loss of sequestration potential was modeled for the conversion of approximately 37.3 acres of natural communities (grassland, scrub, eucalyptus, hardwood forest, oak woodland, and riparian). Approximately 191 trees are proposed for removal. According to the preliminary landscape plans (Hill Glazier Architects/EDSA 2005) 779 new trees would be planted on the site. An estimate of the carbon sequestration potential of a net total of 588 trees is included in the assessment.

# Results

Criteria air pollutant emissions results are reported in pounds per day. GHG construction and operational emissions model results are reported on an annual basis in metric tons of carbon dioxide equivalent ($CO_2e$). Detailed model results for criteria pollutant (winter) and annual baseline and project GHG emissions are included as attachments to this assessment.

## Operational Criteria Pollutant Emissions

Emissions of criteria pollutants are typically greater during the winter months in the North Central Coast Air Basin; therefore, only winter emissions are reported in this assessment. Unmitigated operational criteria pollutant emissions resulting from project operations are summarized in Table 2, Unmitigated Operational Criteria Pollutant Winter Emissions (Pounds per Day).

**Table 2 Unmitigated Operational Criteria Pollutant Winter Emissions (Pounds per Day)**

| Emissions | Reactive Organic Gases (ROG) | Nitrogen Oxides ($NO_x$) | Suspended Particulate Matter ($PM_{10}$) | Carbon Monoxide (CO) |
|---|---|---|---|---|
| Unmitigated | 22.36 | 9.47 | 7.9 | 39.07 |

SOURCE: CalEEMod Results Winter Emissions, EMC Planning Group 2017
NOTE: Results may vary due to rounding.

## GHG Emissions

### *Baseline Emissions*

The existing residence generates 23.50 MT $CO_2e$ per year.

### *Construction Emissions*

Construction activity would generate a total estimated 12,717.02 MT $CO_2e$ of GHG emissions. When averaged over a thirty-year operational lifetime, the annual amortized emissions equal 423.90 MT $CO_2e$ per year. This amount is added to the annual operational emissions volume to derive a total annual emissions volume.

### *Operational Emissions*

The model results for unmitigated and mitigated annual GHG emissions generated by the proposed project are attached to this memorandum. The proposed project would generate 2,041.95unmitigated MT $CO_2e$ per year.

The projected unmitigated emissions estimates are summarized in Table 3, Annual Unmitigated Operational GHG Emissions.

**Table 3 Annual Unmitigated Operational GHG Emissions[1,2]**

| Emissions Sources | Bio $CO_2$ | NBio $CO_2$ | $CH_4$ | $N_2O$ | $CO_2e$ |
|---|---|---|---|---|---|
| Area | 8.26 | 9.76 | 0.01 | <0.01 | 18.51 |
| Energy | 0.00 | 853.63 | 0.04 | 0.02 | 859.49 |
| Mobile | 0.00 | 938.85 | 0.04 | 0.00 | 939.81 |
| Waste | 80.54 | 0.00 | 4.76 | 0.00 | 199.53 |
| Water | 3.38 | 10.02 | 0.35 | <0.01 | 24.61 |
| Total | 92.18 | 1,812.26 | 5.20 | 0.03 | 2,041.95 |

SOURCE: CalEEMod Annual Results (Proposed Project), EMC Planning Group 2017
NOTE:
1. Results may vary due to rounding.
2. Reported in metric tonnes (MT) per year.

### *Carbon Sequestration Potential*

Model results indicating the change in carbon sequestration potential on the site is shown in the model results in Section 2.3, Vegetation. The loss of sequestration potential from the

proposed change from natural plant communities to improved and landscaped areas would outweigh the estimated sequestration potential gained by the number of proposed net new trees on the site. The model estimates a loss in sequestration potential equal to 937.45 MT $CO_2e$ over the lifetime of the project. Averaged over a thirty-year lifetime, the equivalent annual loss of sequestration potential is 31.25 MT $CO_2e$ per year. For ease of reporting this amount is added to the project's annual operational GHG emissions.

## GHG Emissions Attributable to the Proposed Project

### *Unmitigated GHG Emissions*

The total unmitigated GHG emissions that would be attributable to the proposed project consist of amortized construction emissions and the amortized annual loss of carbon sequestration potential added to the operational emissions, less emissions from the existing use. The net unmitigated GHG emissions attributable to the proposed project are presented in Table 4, Summary of Unmitigated GHG Emissions Attributable to the Project (MT $CO_2e$ per Year).

**Table 4 Summary of Unmitigated GHG Emissions Attributable to the Project (MT $CO_2e$ per Year)[1]**

| Annual Operations[2] | Amortized Construction | Annual Project Emissions[3] | Existing Emissions[4] | Sequestration Potential (change) | Net Emissions |
|---|---|---|---|---|---|
| 2,041.95 | 423.90 | 2,465.85 | <23.50> | 31.25 | 2,473.60 |

SOURCE: CalEEMod Results, EMC Planning Group 2017
NOTES:
1. Results may vary due to rounding.
2. Annual MT $CO_2e$ (See Table 2) – includes standard mitigations.
3. Annual construction and operational emissions.
4. <Brackets> indicate deductions.

As shown by Table 4, the net unmitigated operational GHG emissions volume attributable to the proposed project is 2,437.60 MT $CO_2e$ per year.

## Applicant-Proposed GHG Emissions Reductions Measures

Model results showing the reductions in emissions from implementation of the applicant–proposed emissions reduction measures are attached to this assessment. Mitigated results include model adjustments for compliance with Monterey County standards for low flow water fixtures and with the air district restrictions on wood-burning appliances. Operational GHG emissions generated by the proposed project with implementation of applicant-

proposed emissions measures are summarized in Table 5, Operational GHG Emissions With Applicant-proposed Emissions Reduction Measures.

**Table 5 Operational GHG Emissions With Applicant-proposed Emissions Reduction Measures[1,2]**

| Emissions Sources | Bio $CO_2$ | NBio $CO_2$ | $CH_4$ | $N_2O$ | $CO_2e$ |
|---|---|---|---|---|---|
| Area[3] | 0.00 | 13.53 | <0.01 | <0.01 | 13.63 |
| Energy[4] | 0.00 | 779.66 | 0.03 | 0.02 | 784.88 |
| Mobile[5] | 0.00 | 926.90 | 0.04 | 0.00 | 927.85 |
| Waste[6] | 40.27 | 0.00 | 2.38 | 0.00 | 99.77 |
| Water[7] | 2.70 | 6.20 | 0.28 | <0.01 | 17.86 |
| Total | 42.97 | 1,726.29 | 2.73 | 0.02 | 1,843.98 |

SOURCE: CalEEMod Annual Results (Proposed Project), EMC Planning Group 2017
NOTE:
1. Results may vary due to rounding.
2. Annual emissions: MT per year.
3. Results reflect minor co-benefit of emissions reductions from compliance with air district prohibitions on wood-burning appliances, and account for use of low VOC solvents and paints, and the use of electric landscaping equipment.
4. Includes renewable energy sources (solar) for on-site power generation (20 percent of energy needs), and the use of LED lighting for 20 percent of lighting needs, use of energy start appliances and energy used for on-site water treatment.
5. Includes employee vanpool/shuttle program and on-site NEV program.
6. Reflects assumed increased waste diversion rate.
7. Includes use of water conserving indoor fixtures and energy star appliances, use of water-efficient landscapes and use of reclaimed water.

With implementation of the identified applicant-proposed emissions reduction measures, the proposed project would be responsible for operational GHG emissions on the order of 1,843.98 MT $CO_2e$ per year. This represents a reduction of 197.97 MT $CO_2e$ between unmitigated (Table 3) and mitigated (Table 5) operational GHG emissions generated by the proposed project (2,041.95-1,843.98), and the total mitigated GHG emissions attributable to the project would be 2,239.63 MT $CO_2e$ per year (2,437.60 -197.97).

## Sources

1. BREEZE Software. A Division of Trinity Consultants. *California Emissions Estimator (CalEEMod) Version 2016.3.2*. October 2017. Available online at: http://www.aqmd.gov/caleemod.htm

2. BREEZE Software. A Division of Trinity Consultants. *CalEEMod User's Guide (Version 2016.3.1)*. September 2016. Available online at: http://www.aqmd.gov/caleemod/guide.htm

3. Monterey Bay Air Resources District (MBARD), 2008. *CEQA Air Quality Guidelines*. Available online at: http://mbard.org

4. Monterey Bay Air Resources District (MBARD), 2016. *Guidelines for Implementing the California Environmental Quality Act*. Available online at: http://mbard.org

5. Pacific Gas & Electric. Greenhouse Gas Factors: Guidance for PG&E Customers. November 2015. Accessed online October 24, 2017 at: https://www.pge.com/includes/docs/pdfs/shared/environment/calculator/pge_ghg_emission_factor_info_sheet.pdf

6. Hill Glazier Architects/EDSA. July 2005. *Paraiso Springs Resort Planting Plan*. Soledad CA.

7. Hatch Mott MacDonald. 2011. *Paraiso Springs Resort Monterey County, California Traffic Analysis Report.*

8. EMC Planning Group. 2017 Administrative Draft Revised EIR Paraiso Springs Resort, Soledad CA.

# Parasio Springs Resort Project Existing Residential Emissions

**Monterey Bay Unified APCD Air District, Annual**

## 1.0 Project Characteristics

### 1.1 Land Usage

| Land Uses | Size | Metric | Lot Acreage | Floor Surface Area | Population |
|---|---|---|---|---|---|
| Single Family Housing | 1.00 | Dwelling Unit | 0.32 | 1,800.00 | 3 |

### 1.2 Other Project Characteristics

| | | | | | |
|---|---|---|---|---|---|
| **Urbanization** | Rural | **Wind Speed (m/s)** | 2.8 | **Precipitation Freq (Days)** | 53 |
| **Climate Zone** | 4 | | | **Operational Year** | 2019 |
| **Utility Company** | Pacific Gas & Electric Company | | | | |
| **CO2 Intensity (lb/MWhr)** | 641.35 | **CH4 Intensity (lb/MWhr)** | 0.029 | **N2O Intensity (lb/MWhr)** | 0.006 |

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

Single-family

| Table Name | Column Name | Default Value | New Value |
|---|---|---|---|
| tblProjectCharacteristics | UrbanizationLevel | Urban | Rural |

## 2.0 Operational Emissions

**Unmitigated Operational**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Area | 0.0398 | 9.9000e-004 | 0.0534 | 9.0000e-005 | | 6.2100e-003 | 6.2100e-003 | | 6.2100e-003 | 6.2100e-003 | 0.6159 | 0.4501 | 1.0659 | 1.0000e-003 | 4.0000e-005 | 1.1040 |
| Energy | 1.9000e-004 | 1.6600e-003 | 7.0000e-004 | 1.0000e-005 | | 1.3000e-004 | 1.3000e-004 | | 1.3000e-004 | 1.3000e-004 | 0.0000 | 4.4373 | 4.4373 | 1.5000e-004 | 6.0000e-005 | 4.4586 |
| Mobile | 5.5600e-003 | 0.0298 | 0.0723 | 1.9000e-004 | 0.0134 | 2.7000e-004 | 0.0137 | 3.6000e-003 | 2.5000e-004 | 3.8500e-003 | 0.0000 | 17.0181 | 17.0181 | 9.6000e-004 | 0.0000 | 17.0421 |
| Waste | | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.2680 | 0.0000 | 0.2680 | 0.0158 | 0.0000 | 0.6638 |
| Water | | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0207 | 0.1444 | 0.1651 | 2.1300e-003 | 5.0000e-005 | 0.2336 |
| **Total** | **0.0455** | **0.0325** | **0.1264** | **2.9000e-004** | **0.0134** | **6.6100e-003** | **0.0200** | **3.6000e-003** | **6.5900e-003** | **0.0102** | **0.9045** | **22.0499** | **22.9544** | **0.0201** | **1.5000e-004** | **23.5022** |

# Paraiso Springs Spa and Resort Proposed Project Applicant Mitigations

**Monterey County, Annual**

## 1.0 Project Characteristics

### 1.1 Land Usage

| Land Uses | Size | Metric | Lot Acreage | Floor Surface Area | Population |
|---|---|---|---|---|---|
| Other Asphalt Surfaces | 298.10 | 1000sqft | 6.84 | 298,100.00 | 0 |
| Other Asphalt Surfaces | 3.44 | Acre | 3.44 | 149,846.40 | 0 |
| Other Non-Asphalt Surfaces | 260.80 | 1000sqft | 5.99 | 260,800.00 | 0 |
| Other Non-Asphalt Surfaces | 23.80 | Acre | 23.80 | 1,036,728.00 | 0 |
| Parking Lot | 342.00 | Space | 3.08 | 136,800.00 | 0 |
| Health Club | 51.09 | 1000sqft | 1.17 | 51,090.00 | 0 |
| Hotel | 103.00 | Room | 3.93 | 170,978.00 | 0 |
| Condo/Townhouse | 60.00 | Dwelling Unit | 2.21 | 60,000.00 | 0 |
| Single Family Housing | 17.00 | Dwelling Unit | 0.64 | 46,495.00 | 49 |

### 1.2 Other Project Characteristics

| | | | | | |
|---|---|---|---|---|---|
| **Urbanization** | Rural | **Wind Speed (m/s)** | 3.6 | **Precipitation Freq (Days)** | 55 |
| **Climate Zone** | 4 | | | **Operational Year** | 2029 |
| **Utility Company** | Pacific Gas & Electric Company | | | | |
| **CO2 Intensity (lb/MWhr)** | 290 | **CH4 Intensity (lb/MWhr)** | 0.029 | **N2O Intensity (lb/MWhr)** | 0.006 |

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

Project Characteristics - CO2 Intensity factor adjusted per PG&E Projections for 2020

Land Use - Floor area and footprints from EIR Project description Table 2.2
Inferred footprints for SFD timeshare units structural acreage only

Demolition -

Vehicle Trips - Adjusted to reflect HMM TIA Exhibit 6D Trip Generation for Hotel and single-family
health club trips assumed to be internal per TIA
60 condo timeshares identified as Recreational Homes in TIA3.16

Land Use Change - Includes Scrub

Sequestration - 779 new trees per Landscape Plan HGL2.1 (2005)
191 proposed for removal
At least 588 net new trees

Construction Off-road Equipment Mitigation -

Mobile Land Use Mitigation -

Mobile Commute Mitigation - Per Hatch Mott MacDonald TIA

Area Mitigation - Includes MBARD recommendations for hearths and architectural coatings

Energy Mitigation -
Fans assumed to be similar to cooktops with vents

Water Mitigation - Compliant with County regs for low-flow water fixtures
Compliant with State MWELO - See water budget worksheet

Waste Mitigation - Assumed 50 percent diversion

Stationary Sources - Emergency Generators and Fire Pumps -

Grading -

Energy Use -

| Table Name | Column Name | Default Value | New Value |
|---|---|---|---|
| tblAreaMitigation | UseLowVOCPaintParkingCheck | False | True |
| tblConstDustMitigation | WaterUnpavedRoadVehicleSpeed | 0 | 15 |
| tblLandUse | LandUseSquareFeet | 149,556.00 | 170,978.00 |
| tblLandUse | LandUseSquareFeet | 30,600.00 | 46,495.00 |
| tblLandUse | LotAcreage | 3.43 | 3.93 |
| tblLandUse | LotAcreage | 3.75 | 2.21 |
| tblLandUse | LotAcreage | 5.52 | 0.64 |
| tblLandUse | Population | 172.00 | 0.00 |
| tblProjectCharacteristics | CO2IntensityFactor | 641.35 | 290 |

| tblProjectCharacteristics | UrbanizationLevel | Urban | Rural |
|---|---|---|---|
| tblSequestration | NumberOfNewTrees | 0.00 | 588.00 |
| tblVehicleTrips | ST_TR | 5.67 | 3.16 |
| tblVehicleTrips | ST_TR | 20.87 | 0.00 |
| tblVehicleTrips | ST_TR | 8.19 | 6.13 |
| tblVehicleTrips | ST_TR | 9.91 | 9.57 |
| tblVehicleTrips | SU_TR | 4.84 | 3.16 |
| tblVehicleTrips | SU_TR | 26.73 | 0.00 |
| tblVehicleTrips | SU_TR | 5.95 | 6.13 |
| tblVehicleTrips | SU_TR | 8.62 | 9.57 |
| tblVehicleTrips | WD_TR | 5.81 | 3.16 |
| tblVehicleTrips | WD_TR | 32.93 | 0.00 |
| tblVehicleTrips | WD_TR | 8.17 | 6.13 |
| tblVehicleTrips | WD_TR | 9.52 | 9.57 |

## 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 | | | | | |
| 2018 | 0.3361 | 3.5515 | 2.0402 | 3.6100e-003 | 0.6578 | 0.1736 | 0.8314 | 0.2883 | 0.1605 | 0.4488 | 0.0000 | 328.2319 | 328.2319 | 0.0926 | 0.0000 | 330.5478 |
| 2019 | 1.1775 | 8.8966 | 9.4222 | 0.0257 | 1.6704 | 0.2486 | 1.9190 | 0.4847 | 0.2324 | 0.7172 | 0.0000 | 2,354.2510 | 2,354.2510 | 0.2111 | 0.0000 | 2,359.5276 |
| 2020 | 1.2216 | 8.7320 | 10.1469 | 0.0314 | 1.7853 | 0.1880 | 1.9733 | 0.4810 | 0.1770 | 0.6580 | 0.0000 | 2,886.3190 | 2,886.3190 | 0.1898 | 0.0000 | 2,891.0638 |
| 2021 | 1.0983 | 7.9456 | 9.3158 | 0.0307 | 1.7786 | 0.1524 | 1.9310 | 0.4792 | 0.1433 | 0.6225 | 0.0000 | 2,818.6240 | 2,818.6240 | 0.1795 | 0.0000 | 2,823.1119 |
| 2022 | 1.0063 | 7.3524 | 8.6210 | 0.0299 | 1.7718 | 0.1300 | 1.9018 | 0.4774 | 0.1223 | 0.5997 | 0.0000 | 2,750.3766 | 2,750.3766 | 0.1711 | 0.0000 | 2,754.6542 |

| | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2023 | 2.2933 | 3.7184 | 4.9397 | 0.0167 | 0.9847 | 0.0776 | 1.0622 | 0.2651 | 0.0726 | 0.3377 | 0.0000 | 1,528.7329 | 1,528.7329 | 0.1074 | 0.0000 | 1,531.4176 |
| 2024 | 0.8806 | 0.0243 | 0.1081 | 3.0000e-004 | 0.0289 | 9.8000e-004 | 0.0299 | 7.6800e-003 | 9.6000e-004 | 8.6400e-003 | 0.0000 | 26.6796 | 26.6796 | 9.0000e-004 | 0.0000 | 26.7022 |
| **Maximum** | **2.2933** | **8.8966** | **10.1469** | **0.0314** | **1.7853** | **0.2486** | **1.9733** | **0.4847** | **0.2324** | **0.7172** | **0.0000** | **2,886.3190** | **2,886.3190** | **0.2111** | **0.0000** | **2,891.0638** |

## 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 | | | | | |
| 2018 | 0.3361 | 3.5515 | 2.0402 | 3.6100e-003 | 0.3052 | 0.1736 | 0.4789 | 0.1322 | 0.1605 | 0.2927 | 0.0000 | 328.2315 | 328.2315 | 0.0926 | 0.0000 | 330.5474 |
| 2019 | 1.1775 | 8.8966 | 9.4222 | 0.0257 | 1.4760 | 0.2486 | 1.7246 | 0.4133 | 0.2324 | 0.6457 | 0.0000 | 2,354.2505 | 2,354.2505 | 0.2111 | 0.0000 | 2,359.5271 |
| 2020 | 1.2216 | 8.7320 | 10.1469 | 0.0314 | 1.7853 | 0.1880 | 1.9733 | 0.4810 | 0.1770 | 0.6580 | 0.0000 | 2,886.3187 | 2,886.3187 | 0.1898 | 0.0000 | 2,891.0634 |
| 2021 | 1.0983 | 7.9456 | 9.3158 | 0.0307 | 1.7786 | 0.1524 | 1.9310 | 0.4792 | 0.1433 | 0.6225 | 0.0000 | 2,818.6237 | 2,818.6237 | 0.1795 | 0.0000 | 2,823.1115 |
| 2022 | 1.0063 | 7.3524 | 8.6210 | 0.0299 | 1.7718 | 0.1300 | 1.9018 | 0.4774 | 0.1223 | 0.5997 | 0.0000 | 2,750.3763 | 2,750.3763 | 0.1711 | 0.0000 | 2,754.6539 |
| 2023 | 2.2933 | 3.7184 | 4.9397 | 0.0167 | 0.9847 | 0.0776 | 1.0622 | 0.2651 | 0.0726 | 0.3377 | 0.0000 | 1,528.7327 | 1,528.7327 | 0.1074 | 0.0000 | 1,531.4173 |
| 2024 | 0.8806 | 0.0243 | 0.1081 | 3.0000e-004 | 0.0289 | 9.8000e-004 | 0.0299 | 7.6800e-003 | 9.6000e-004 | 8.6400e-003 | 0.0000 | 26.6796 | 26.6796 | 9.0000e-004 | 0.0000 | 26.7022 |
| **Maximum** | **2.2933** | **8.8966** | **10.1469** | **0.0314** | **1.7853** | **0.2486** | **1.9733** | **0.4810** | **0.2324** | **0.6580** | **0.0000** | **2,886.3187** | **2,886.3187** | **0.2111** | **0.0000** | **2,891.0634** |

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N20 | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Percent Reduction** | **0.00** | **0.00** | **0.00** | **0.00** | **6.30** | **0.00** | **5.67** | **9.16** | **0.00** | **6.71** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** |

| Quarter | Start Date | End Date | Maximum Unmitigated ROG + NOX (tons/quarter) | Maximum Mitigated ROG + NOX (tons/quarter) |
|---|---|---|---|---|
| 1 | 6-4-2018 | 9-3-2018 | 1.4036 | 1.4036 |
| 2 | 9-4-2018 | 12-3-2018 | 1.8411 | 1.8411 |
| 3 | 12-4-2018 | 3-3-2019 | 1.9683 | 1.9683 |

| | | | | |
|---|---|---|---|---|
| **4** | **3-4-2019** | **6-3-2019** | 2.4299 | 2.4299 |
| **5** | **6-4-2019** | **9-3-2019** | 2.6946 | 2.6946 |
| **6** | **9-4-2019** | **12-3-2019** | 2.7308 | 2.7308 |
| **7** | **12-4-2019** | **3-3-2020** | 2.5842 | 2.5842 |
| **8** | **3-4-2020** | **6-3-2020** | 2.4783 | 2.4783 |
| **9** | **6-4-2020** | **9-3-2020** | 2.4538 | 2.4538 |
| **10** | **9-4-2020** | **12-3-2020** | 2.4831 | 2.4831 |
| **11** | **12-4-2020** | **3-3-2021** | 2.3283 | 2.3283 |
| **12** | **3-4-2021** | **6-3-2021** | 2.2618 | 2.2618 |
| **13** | **6-4-2021** | **9-3-2021** | 2.2406 | 2.2406 |
| **14** | **9-4-2021** | **12-3-2021** | 2.2647 | 2.2647 |
| **15** | **12-4-2021** | **3-3-2022** | 2.1469 | 2.1469 |
| **16** | **3-4-2022** | **6-3-2022** | 2.0993 | 2.0993 |
| **17** | **6-4-2022** | **9-3-2022** | 2.0804 | 2.0804 |
| **18** | **9-4-2022** | **12-3-2022** | 2.1009 | 2.1009 |
| **19** | **12-4-2022** | **3-3-2023** | 1.9016 | 1.9016 |
| **20** | **3-4-2023** | **6-3-2023** | 1.8165 | 1.8165 |
| **21** | **6-4-2023** | **9-3-2023** | 0.9101 | 0.9101 |
| **22** | **9-4-2023** | **12-3-2023** | 1.3428 | 1.3428 |
| **23** | **12-4-2023** | **3-3-2024** | 1.5834 | 1.5834 |
| | | **Highest** | 2.7308 | 2.7308 |

## 2.2 Overall Operational

### Unmitigated Operational

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Area | 2.1568 | 0.0233 | 1.4096 | 1.2000e-003 | | 0.0897 | 0.0897 | | 0.0897 | 0.0897 | 8.2587 | 9.7597 | 18.0184 | 0.0114 | 7.0000e-004 | 18.5115 |

| | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Energy | 0.0568 | 0.5120 | 0.3992 | 3.1000e-003 | | 0.0393 | 0.0393 | | 0.0393 | 0.0393 | 0.0000 | 853.6248 | 853.6248 | 0.0399 | 0.0163 | 859.4901 |
| Mobile | 0.2467 | 1.1154 | 2.7215 | 0.0102 | 0.9724 | 7.3100e-003 | 0.9797 | 0.2609 | 6.8000e-003 | 0.2677 | 0.0000 | 938.8471 | 938.8471 | 0.0385 | 0.0000 | 939.8093 |
| Waste | | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 80.5387 | 0.0000 | 80.5387 | 4.7597 | 0.0000 | 199.5312 |
| Water | | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 3.3792 | 10.0237 | 13.4029 | 0.3481 | 8.4000e-003 | 24.6087 |
| **Total** | **2.4604** | **1.6506** | **4.5302** | **0.0145** | **0.9724** | **0.1363** | **1.1086** | **0.2609** | **0.1358** | **0.3967** | **92.1766** | **1,812.2553** | **1,904.4319** | **5.1976** | **0.0254** | **2,041.9508** |

**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 | 1.5872 | 0.0183 | 0.6253 | 1.0000e-004 | | 4.2000e-003 | 4.2000e-003 | | 4.2000e-003 | 4.2000e-003 | 0.0000 | 13.5326 | 13.5326 | 1.1200e-003 | 2.3000e-004 | 13.6294 |
| Energy | 0.0568 | 0.5120 | 0.3992 | 3.1000e-003 | | 0.0393 | 0.0393 | | 0.0393 | 0.0393 | 0.0000 | 779.6567 | 779.6567 | 0.0325 | 0.0148 | 784.8811 |
| Mobile | 0.2453 | 1.1083 | 2.6923 | 0.0101 | 0.9589 | 7.2200e-003 | 0.9661 | 0.2573 | 6.7100e-003 | 0.2640 | 0.0000 | 926.8946 | 926.8946 | 0.0381 | 0.0000 | 927.8467 |
| Waste | | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 40.2694 | 0.0000 | 40.2694 | 2.3799 | 0.0000 | 99.7656 |
| Water | | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 2.7033 | 6.2026 | 8.9060 | 0.2783 | 6.6800e-003 | 17.8548 |
| **Total** | **1.8893** | **1.6386** | **3.7168** | **0.0133** | **0.9589** | **0.0507** | **1.0096** | **0.2573** | **0.0502** | **0.3075** | **42.9727** | **1,726.2866** | **1,769.2592** | **2.7298** | **0.0217** | **1,843.9776** |

| | ROG | NOx | 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** | **23.21** | **0.73** | **17.96** | **8.48** | **1.39** | **62.80** | **8.93** | **1.39** | **63.04** | **22.48** | **53.38** | **4.74** | **7.10** | **47.48** | **14.62** | **9.70** |

## 2.3 Vegetation

**Vegetation**

| | CO2e |
|---|---|

| Category | MT |
|---|---|
| New Trees | 416.3040 |
| Vegetation Land Change | -1,353.7550 |
| **Total** | **-937.4510** |

## 4.0 Operational Detail - Mobile

### 4.1 Mitigation Measures Mobile

Implement NEV Network

Employee Vanpool/Shuttle

| | ROG | NOx | CO | SO2 | Fugitive 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 | 0.2453 | 1.1083 | 2.6923 | 0.0101 | 0.9589 | 7.2200e-003 | 0.9661 | 0.2573 | 6.7100e-003 | 0.2640 | 0.0000 | 926.8946 | 926.8946 | 0.0381 | 0.0000 | 927.8467 |
| Unmitigated | 0.2467 | 1.1154 | 2.7215 | 0.0102 | 0.9724 | 7.3100e-003 | 0.9797 | 0.2609 | 6.8000e-003 | 0.2677 | 0.0000 | 938.8471 | 938.8471 | 0.0385 | 0.0000 | 939.8093 |

### 4.2 Trip Summary Information

| | Average Daily Trip Rate | | | Unmitigated | Mitigated |
|---|---|---|---|---|---|
| Land Use | Weekday | Saturday | Sunday | Annual VMT | Annual VMT |
| Condo/Townhouse | 189.60 | 189.60 | 189.60 | 714,728 | 705,721 |
| Health Club | 0.00 | 0.00 | 0.00 | | |
| Hotel | 631.39 | 631.39 | 631.39 | 1,268,569 | 1,249,340 |
| Other Asphalt Surfaces | 0.00 | 0.00 | 0.00 | | |
| Other Asphalt Surfaces | 0.00 | 0.00 | 0.00 | | |
| Other Asphalt Surfaces | 0.00 | 0.00 | 0.00 | | |
| Other Asphalt Surfaces | 0.00 | 0.00 | 0.00 | | |
| Other Non-Asphalt Surfaces | 0.00 | 0.00 | 0.00 | | |
| Other Non-Asphalt Surfaces | 0.00 | 0.00 | 0.00 | | |
| Other Non-Asphalt Surfaces | 0.00 | 0.00 | 0.00 | | |
| Other Non-Asphalt Surfaces | 0.00 | 0.00 | 0.00 | | |
| Parking Lot | 0.00 | 0.00 | 0.00 | | |
| Single Family Housing | 162.69 | 162.69 | 162.69 | 613,287 | 605,557 |

| | | | | | |
|---|---|---|---|---|---|
| Total | 983.68 | 983.68 | 983.68 | 2,596,584 | 2,560,618 |

## 4.3 Trip Type Information

| | Miles | | | Trip % | | | Trip Purpose % | | |
|---|---|---|---|---|---|---|---|---|---|
| Land Use | H-W or C-W | H-S or C-C | H-O or C-NW | H-W or C-W | H-S or C-C | H-O or C-NW | Primary | Diverted | Pass-by |
| Condo/Townhouse | 16.80 | 7.10 | 7.90 | 44.00 | 18.80 | 37.20 | 86 | 11 | 3 |
| Health Club | 14.70 | 6.60 | 6.60 | 16.90 | 64.10 | 19.00 | 52 | 39 | 9 |
| Hotel | 14.70 | 6.60 | 6.60 | 19.40 | 61.60 | 19.00 | 58 | 38 | 4 |
| Other Asphalt Surfaces | 14.70 | 6.60 | 6.60 | 0.00 | 0.00 | 0.00 | 0 | 0 | 0 |
| Other Asphalt Surfaces | 14.70 | 6.60 | 6.60 | 0.00 | 0.00 | 0.00 | 0 | 0 | 0 |
| Other Asphalt Surfaces | 14.70 | 6.60 | 6.60 | 0.00 | 0.00 | 0.00 | 0 | 0 | 0 |
| Other Asphalt Surfaces | 14.70 | 6.60 | 6.60 | 0.00 | 0.00 | 0.00 | 0 | 0 | 0 |
| Other Non-Asphalt Surfaces | 14.70 | 6.60 | 6.60 | 0.00 | 0.00 | 0.00 | 0 | 0 | 0 |
| Other Non-Asphalt Surfaces | 14.70 | 6.60 | 6.60 | 0.00 | 0.00 | 0.00 | 0 | 0 | 0 |
| Other Non-Asphalt Surfaces | 14.70 | 6.60 | 6.60 | 0.00 | 0.00 | 0.00 | 0 | 0 | 0 |
| Other Non-Asphalt Surfaces | 14.70 | 6.60 | 6.60 | 0.00 | 0.00 | 0.00 | 0 | 0 | 0 |
| Parking Lot | 14.70 | 6.60 | 6.60 | 0.00 | 0.00 | 0.00 | 0 | 0 | 0 |
| Single Family Housing | 16.80 | 7.10 | 7.90 | 44.00 | 18.80 | 37.20 | 86 | 11 | 3 |

## 4.4 Fleet Mix

| Land Use | LDA | LDT1 | LDT2 | MDV | LHD1 | LHD2 | MHD | HHD | OBUS | UBUS | MCY | SBUS | MH |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Condo/Townhouse | 0.568837 | 0.025317 | 0.211236 | 0.111178 | 0.014144 | 0.004292 | 0.020506 | 0.029118 | 0.004136 | 0.002161 | 0.007258 | 0.001234 | 0.000584 |
| Health Club | 0.568837 | 0.025317 | 0.211236 | 0.111178 | 0.014144 | 0.004292 | 0.020506 | 0.029118 | 0.004136 | 0.002161 | 0.007258 | 0.001234 | 0.000584 |
| Hotel | 0.568837 | 0.025317 | 0.211236 | 0.111178 | 0.014144 | 0.004292 | 0.020506 | 0.029118 | 0.004136 | 0.002161 | 0.007258 | 0.001234 | 0.000584 |
| Other Asphalt Surfaces | 0.568837 | 0.025317 | 0.211236 | 0.111178 | 0.014144 | 0.004292 | 0.020506 | 0.029118 | 0.004136 | 0.002161 | 0.007258 | 0.001234 | 0.000584 |
| Other Asphalt Surfaces | 0.568837 | 0.025317 | 0.211236 | 0.111178 | 0.014144 | 0.004292 | 0.020506 | 0.029118 | 0.004136 | 0.002161 | 0.007258 | 0.001234 | 0.000584 |
| Other Non-Asphalt Surfaces | 0.568837 | 0.025317 | 0.211236 | 0.111178 | 0.014144 | 0.004292 | 0.020506 | 0.029118 | 0.004136 | 0.002161 | 0.007258 | 0.001234 | 0.000584 |
| Other Non-Asphalt Surfaces | 0.568837 | 0.025317 | 0.211236 | 0.111178 | 0.014144 | 0.004292 | 0.020506 | 0.029118 | 0.004136 | 0.002161 | 0.007258 | 0.001234 | 0.000584 |
| Parking Lot | 0.568837 | 0.025317 | 0.211236 | 0.111178 | 0.014144 | 0.004292 | 0.020506 | 0.029118 | 0.004136 | 0.002161 | 0.007258 | 0.001234 | 0.000584 |
| Single Family Housing | 0.568837 | 0.025317 | 0.211236 | 0.111178 | 0.014144 | 0.004292 | 0.020506 | 0.029118 | 0.004136 | 0.002161 | 0.007258 | 0.001234 | 0.000584 |

## 5.0 Energy Detail

Historical Energy Use: N

## 5.1 Mitigation Measures Energy

Install High Efficiency Lighting

Percent of Electricity Use Generated with Renewable Energy

Install Energy Efficient Appliances

| | ROG | NOx | CO | SO2 | Fugitive 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 | 217.1340 | 217.1340 | 0.0217 | 4.4900e-003 | 219.0156 |
| Electricity Unmitigated | | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 291.1021 | 291.1021 | 0.0291 | 6.0200e-003 | 293.6247 |
| NaturalGas Mitigated | 0.0568 | 0.5120 | 0.3992 | 3.1000e-003 | | 0.0393 | 0.0393 | | 0.0393 | 0.0393 | 0.0000 | 562.5227 | 562.5227 | 0.0108 | 0.0103 | 565.8655 |
| NaturalGas Unmitigated | 0.0568 | 0.5120 | 0.3992 | 3.1000e-003 | | 0.0393 | 0.0393 | | 0.0393 | 0.0393 | 0.0000 | 562.5227 | 562.5227 | 0.0108 | 0.0103 | 565.8655 |

## 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 | | | | | |
| Condo/Townhouse | 1.12338e+006 | 6.0600e-003 | 0.0518 | 0.0220 | 3.3000e-004 | | 4.1900e-003 | 4.1900e-003 | | 4.1900e-003 | 4.1900e-003 | 0.0000 | 59.9479 | 59.9479 | 1.1500e-003 | 1.1000e-003 | 60.3041 |
| Health Club | 1.34775e+006 | 7.2700e-003 | 0.0661 | 0.0555 | 4.0000e-004 | | 5.0200e-003 | 5.0200e-003 | | 5.0200e-003 | 5.0200e-003 | 0.0000 | 71.9213 | 71.9213 | 1.3800e-003 | 1.3200e-003 | 72.3487 |
| Hotel | 7.57604e+006 | 0.0409 | 0.3714 | 0.3120 | 2.2300e-003 | | 0.0282 | 0.0282 | | 0.0282 | 0.0282 | 0.0000 | 404.2861 | 404.2861 | 7.7500e-003 | 7.4100e-003 | 406.6886 |
| Other Asphalt Surfaces | 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Other Non-Asphalt Surfaces | 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Parking Lot | 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Single Family Housing | 494107 | 2.6600e-003 | 0.0228 | 9.6900e-003 | 1.5000e-004 | | 1.8400e-003 | 1.8400e-003 | | 1.8400e-003 | 1.8400e-003 | 0.0000 | 26.3674 | 26.3674 | 5.1000e-004 | 4.8000e-004 | 26.5241 |
| **Total** | | **0.0568** | **0.5120** | **0.3992** | **3.1100e-003** | | **0.0393** | **0.0393** | | **0.0393** | **0.0393** | **0.0000** | **562.5227** | **562.5227** | **0.0108** | **0.0103** | **565.8655** |

**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 | | | | | |
| Condo/Townhouse | 1.12338e+006 | 6.0600e-003 | 0.0518 | 0.0220 | 3.3000e-004 | | 4.1900e-003 | 4.1900e-003 | | 4.1900e-003 | 4.1900e-003 | 0.0000 | 59.9479 | 59.9479 | 1.1500e-003 | 1.1000e-003 | 60.3041 |
| Health Club | 1.34775e+006 | 7.2700e-003 | 0.0661 | 0.0555 | 4.0000e-004 | | 5.0200e-003 | 5.0200e-003 | | 5.0200e-003 | 5.0200e-003 | 0.0000 | 71.9213 | 71.9213 | 1.3800e-003 | 1.3200e-003 | 72.3487 |
| Hotel | 7.57604e+006 | 0.0409 | 0.3714 | 0.3120 | 2.2300e-003 | | 0.0282 | 0.0282 | | 0.0282 | 0.0282 | 0.0000 | 404.2861 | 404.2861 | 7.7500e-003 | 7.4100e-003 | 406.6886 |
| Other Asphalt Surfaces | 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Other Non-Asphalt Surfaces | 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Parking Lot | 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Single Family Housing | 494107 | 2.6600e-003 | 0.0228 | 9.6900e-003 | 1.5000e-004 | | 1.8400e-003 | 1.8400e-003 | | 1.8400e-003 | 1.8400e-003 | 0.0000 | 26.3674 | 26.3674 | 5.1000e-004 | 4.8000e-004 | 26.5241 |
| **Total** | | **0.0568** | **0.5120** | **0.3992** | **3.1100e-003** | | **0.0393** | **0.0393** | | **0.0393** | **0.0393** | **0.0000** | **562.5227** | **562.5227** | **0.0108** | **0.0103** | **565.8655** |

## 5.3 Energy by Land Use - Electricity

**Unmitigated**

| | Electricity Use | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|
| Land Use | kWh/yr | MT/yr | | | |
| Condo/Townhouse | 302726 | 39.8211 | 3.9800e-003 | 8.2000e-004 | 40.1662 |
| Health Club | 422003 | 55.5111 | 5.5500e-003 | 1.1500e-003 | 55.9921 |
| Hotel | 1.30285e+006 | 171.3795 | 0.0171 | 3.5500e-003 | 172.8646 |
| Other Asphalt Surfaces | 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Other Non-Asphalt Surfaces | 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Parking Lot | 47880 | 6.2982 | 6.3000e-004 | 1.3000e-004 | 6.3528 |
| Single Family Housing | 137540 | 18.0922 | 1.8100e-003 | 3.7000e-004 | 18.2490 |

| | | | | | |
|---|---|---|---|---|---|
| **Total** | | **291.1021** | **0.0291** | **6.0200e-003** | **293.6247** |

**Mitigated**

| | Electricity Use | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|
| Land Use | kWh/yr | MT/yr | | | |
| Condo/Townhouse | 226253 | 29.7617 | 2.9800e-003 | 6.2000e-004 | 30.0196 |
| Health Club | 312426 | 41.0970 | 4.1100e-003 | 8.5000e-004 | 41.4531 |
| Hotel | 977994 | 128.6471 | 0.0129 | 2.6600e-003 | 129.7619 |
| Other Asphalt Surfaces | 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Other Non-Asphalt Surfaces | 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Parking Lot | 30643.2 | 4.0309 | 4.0000e-004 | 8.0000e-005 | 4.0658 |
| Single Family Housing | 103369 | 13.5974 | 1.3600e-003 | 2.8000e-004 | 13.7152 |
| **Total** | | **217.1340** | **0.0217** | **4.4900e-003** | **219.0156** |

## 6.0 Area Detail

### 6.1 Mitigation Measures Area

Use Electric Lawnmower

Use Electric Leafblower

Use Low VOC Paint - Residential Interior

Use Low VOC Paint - Residential Exterior

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

Use only Natural Gas Hearths

Use Low VOC Cleaning Supplies

| | ROG | NOx | CO | SO2 | Fugitive 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 | 1.5872 | 0.0183 | 0.6253 | 1.0000e-004 | | 4.2000e-003 | 4.2000e-003 | | 4.2000e-003 | 4.2000e-003 | 0.0000 | 13.5326 | 13.5326 | 1.1200e-003 | 2.3000e-004 | 13.6294 |
| Unmitigated | 2.1568 | 0.0233 | 1.4096 | 1.2000e-003 | | 0.0897 | 0.0897 | | 0.0897 | 0.0897 | 8.2587 | 9.7597 | 18.0184 | 0.0114 | 7.0000e-004 | 18.5115 |

## 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 | 0.2603 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Consumer Products | 1.4049 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Hearth | 0.4666 | 0.0140 | 0.6025 | 1.1600e-003 | | 0.0852 | 0.0852 | | 0.0852 | 0.0852 | 8.2587 | 8.4357 | 16.6945 | 0.0101 | 7.0000e-004 | 17.1547 |
| Landscaping | 0.0251 | 9.2600e-003 | 0.8071 | 4.0000e-005 | | 4.4500e-003 | 4.4500e-003 | | 4.4500e-003 | 4.4500e-003 | 0.0000 | 1.3240 | 1.3240 | 1.3100e-003 | 0.0000 | 1.3568 |
| **Total** | **2.1568** | **0.0233** | **1.4096** | **1.2000e-003** | | **0.0897** | **0.0897** | | **0.0897** | **0.0897** | **8.2587** | **9.7597** | **18.0184** | **0.0114** | **7.0000e-004** | **18.5115** |

### 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 | 0.2603 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Consumer Products | 1.3089 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Hearth | 1.2700e-003 | 0.0109 | 4.6200e-003 | 7.0000e-005 | | 8.8000e-004 | 8.8000e-004 | | 8.8000e-004 | 8.8000e-004 | 0.0000 | 12.5866 | 12.5866 | 2.4000e-004 | 2.3000e-004 | 12.6614 |
| Landscaping | 0.0167 | 7.4100e-003 | 0.6207 | 3.0000e-005 | | 3.3200e-003 | 3.3200e-003 | | 3.3200e-003 | 3.3200e-003 | 0.0000 | 0.9460 | 0.9460 | 8.8000e-004 | 0.0000 | 0.9679 |
| **Total** | **1.5872** | **0.0183** | **0.6253** | **1.0000e-004** | | **4.2000e-003** | **4.2000e-003** | | **4.2000e-003** | **4.2000e-003** | **0.0000** | **13.5326** | **13.5326** | **1.1200e-003** | **2.3000e-004** | **13.6294** |

## 7.0 Water Detail

## 7.1 Mitigation Measures Water

Use Reclaimed Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

Use Water Efficient Irrigation System

Use Water Efficient Landscaping

| | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|
| Category | MT/yr | | | |
| Mitigated | 8.9060 | 0.2783 | 6.6800e-003 | 17.8548 |
| Unmitigated | 13.4029 | 0.3481 | 8.4000e-003 | 24.6087 |

## 7.2 Water by Land Use

**Unmitigated**

| | Indoor/Outdoor Use | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|
| Land Use | Mgal | MT/yr | | | |
| Condo/Townhouse | 3.90924 / 2.46452 | 5.1574 | 0.1278 | 3.0900e-003 | 9.2722 |
| Health Club | 3.02162 / 1.85196 | 3.9620 | 0.0988 | 2.3900e-003 | 7.1423 |
| Hotel | 2.61278 / 0.290309 | 2.8223 | 0.0853 | 2.0500e-003 | 5.5671 |
| Other Asphalt Surfaces | 0 / 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Other Non-Asphalt Surfaces | 0 / 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Parking Lot | 0 / 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Single Family Housing | 1.10762 / 0.698281 | 1.4613 | 0.0362 | 8.8000e-004 | 2.6271 |

| | | | | | |
|---|---|---|---|---|---|
| **Total** | | **13.4029** | **0.3481** | **8.4100e-003** | **24.6087** |

**Mitigated**

| | Indoor/Outdoor Use | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|
| Land Use | Mgal | MT/yr | | | |
| Condo/Townhouse | 3.12739 / 0.138851 | 3.2821 | 0.1021 | 2.4500e-003 | 6.5667 |
| Health Club | 2.4173 / 0.10434 | 2.5355 | 0.0789 | 1.9000e-003 | 5.0743 |
| Hotel | 2.09022 / 0.016356 | 2.1584 | 0.0683 | 1.6400e-003 | 4.3534 |
| Other Asphalt Surfaces | 0 / 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Other Non-Asphalt Surfaces | 0 / 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Parking Lot | 0 / 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Single Family Housing | 0.886095 / 0.0393412 | 0.9299 | 0.0289 | 7.0000e-004 | 1.8606 |
| **Total** | | **8.9060** | **0.2783** | **6.6900e-003** | **17.8548** |

# 8.0 Waste Detail

## 8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

**Category/Year**

| | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|
| | MT/yr | | | |
| Mitigated | 40.2694 | 2.3799 | 0.0000 | 99.7656 |
| Unmitigated | 80.5387 | 4.7597 | 0.0000 | 199.5312 |

## 8.2 Waste by Land Use

## Unmitigated

| | Waste Disposed | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|
| Land Use | tons | MT/yr | | | |
| Condo/Townhouse | 27.6 | 5.6026 | 0.3311 | 0.0000 | 13.8801 |
| Health Club | 291.21 | 59.1130 | 3.4935 | 0.0000 | 146.4500 |
| Hotel | 56.39 | 11.4467 | 0.6765 | 0.0000 | 28.3586 |
| Other Asphalt Surfaces | 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Other Non-Asphalt Surfaces | 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Parking Lot | 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Single Family Housing | 21.56 | 4.3765 | 0.2586 | 0.0000 | 10.8426 |
| **Total** | | **80.5387** | **4.7597** | **0.0000** | **199.5312** |

## Mitigated

| | Waste Disposed | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|
| Land Use | tons | MT/yr | | | |
| Condo/Townhouse | 13.8 | 2.8013 | 0.1656 | 0.0000 | 6.9400 |
| Health Club | 145.605 | 29.5565 | 1.7467 | 0.0000 | 73.2250 |
| Hotel | 28.195 | 5.7233 | 0.3382 | 0.0000 | 14.1793 |
| Other Asphalt Surfaces | 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Other Non-Asphalt Surfaces | 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Parking Lot | 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Single Family Housing | 10.78 | 2.1882 | 0.1293 | 0.0000 | 5.4213 |
| **Total** | | **40.2694** | **2.3799** | **0.0000** | **99.7656** |

## 11.0 Vegetation

| | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|
| Category | MT | | | |
| Unmitigated | -937.4510 | 0.0000 | 0.0000 | -937.4510 |

## 11.1 Vegetation Land Change

**Vegetation Type**

| | Initial/Final | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|
| | Acres | MT | | | |
| Grassland | 20.5 / 0 | -88.3550 | 0.0000 | 0.0000 | -88.3550 |
| Others | 5.4 / 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Trees | 11.4 / 0 | -1,265.4000 | 0.0000 | 0.0000 | -1,265.4000 |
| Wetlands | 1 / 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Total** | | **-1,353.7550** | **0.0000** | **0.0000** | **-1,353.7550** |

## 11.2 Net New Trees

**Species Class**

| | Number of Trees | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|
| | | MT | | | |
| Miscellaneous | 588 | 416.3040 | 0.0000 | 0.0000 | 416.3040 |
| **Total** | | **416.3040** | **0.0000** | **0.0000** | **416.3040** |

# Paraiso Springs Spa and Resort Proposed Project Applicant Mitigations

**Monterey County, Winter**

## 1.0 Project Characteristics

### 1.1 Land Usage

| Land Uses | Size | Metric | Lot Acreage | Floor Surface Area | Population |
|---|---|---|---|---|---|
| Other Asphalt Surfaces | 298.10 | 1000sqft | 6.84 | 298,100.00 | 0 |
| Other Asphalt Surfaces | 3.44 | Acre | 3.44 | 149,846.40 | 0 |
| Other Non-Asphalt Surfaces | 260.80 | 1000sqft | 5.99 | 260,800.00 | 0 |
| Other Non-Asphalt Surfaces | 23.80 | Acre | 23.80 | 1,036,728.00 | 0 |
| Parking Lot | 342.00 | Space | 3.08 | 136,800.00 | 0 |
| Health Club | 51.09 | 1000sqft | 1.17 | 51,090.00 | 0 |
| Hotel | 103.00 | Room | 3.93 | 170,978.00 | 0 |
| Condo/Townhouse | 60.00 | Dwelling Unit | 2.21 | 60,000.00 | 0 |
| Single Family Housing | 17.00 | Dwelling Unit | 0.64 | 46,495.00 | 49 |

### 1.2 Other Project Characteristics

| | | | | | |
|---|---|---|---|---|---|
| **Urbanization** | Rural | **Wind Speed (m/s)** | 3.6 | **Precipitation Freq (Days)** | 55 |
| **Climate Zone** | 4 | | | **Operational Year** | 2029 |
| **Utility Company** | Pacific Gas & Electric Company | | | | |
| **CO2 Intensity (lb/MWhr)** | 290 | **CH4 Intensity (lb/MWhr)** | 0.029 | **N2O Intensity (lb/MWhr)** | 0.006 |

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

Project Characteristics - CO2 Intensity factor adjusted per PG&E Projections for 2020

Land Use - Floor area and footprints from EIR Project description Table 2.2
Inferred footprints for SFD timeshare units structural acreage only

Demolition -

Grading -

Vehicle Trips - Adjusted to reflect HMM TIA Exhibit 6D Trip Generation for Hotel and single-family
health club trips assumed to be internal per TIA

Energy Use -

Land Use Change - Includes Scrub

Sequestration - 779 new trees per Landscape Plan HGL2.1 (2005)
191 proposed for removal
At least 588 net new trees

Construction Off-road Equipment Mitigation -

Mobile Land Use Mitigation -

Mobile Commute Mitigation - Per Hatch Mott MacDonald TIA

Area Mitigation - Includes MBARD recommendations for hearths and architectural coatings

Energy Mitigation -
Fans assumed to be similar to cooktops with vents

Water Mitigation - Compliant with County regs for low-flow water fixtures
Compliant with WELO - See water budget worksheet

Waste Mitigation - Assumed 50 percent diversion

Stationary Sources - Emergency Generators and Fire Pumps -

| Table Name | Column Name | Default Value | New Value |
|---|---|---|---|
| tblAreaMitigation | UseLowVOCPaintParkingCheck | False | True |
| tblConstDustMitigation | WaterUnpavedRoadVehicleSpeed | 0 | 15 |
| tblLandUse | LandUseSquareFeet | 149,556.00 | 170,978.00 |
| tblLandUse | LandUseSquareFeet | 30,600.00 | 46,495.00 |
| tblLandUse | LotAcreage | 3.43 | 3.93 |
| tblLandUse | LotAcreage | 3.75 | 2.21 |
| tblLandUse | LotAcreage | 5.52 | 0.64 |
| tblLandUse | Population | 172.00 | 0.00 |
| tblProjectCharacteristics | CO2IntensityFactor | 641.35 | 290 |
| tblProjectCharacteristics | UrbanizationLevel | Urban | Rural |

| | | | |
|---|---|---|---|
| tblSequestration | NumberOfNewTrees | 0.00 | 588.00 |
| tblVehicleTrips | ST_TR | 5.67 | 3.16 |
| tblVehicleTrips | ST_TR | 20.87 | 0.00 |
| tblVehicleTrips | ST_TR | 8.19 | 6.13 |
| tblVehicleTrips | ST_TR | 9.91 | 9.57 |
| tblVehicleTrips | SU_TR | 4.84 | 3.16 |
| tblVehicleTrips | SU_TR | 26.73 | 0.00 |
| tblVehicleTrips | SU_TR | 5.95 | 6.13 |
| tblVehicleTrips | SU_TR | 8.62 | 9.57 |
| tblVehicleTrips | WD_TR | 5.81 | 3.16 |
| tblVehicleTrips | WD_TR | 32.93 | 0.00 |
| tblVehicleTrips | WD_TR | 8.17 | 6.13 |
| tblVehicleTrips | WD_TR | 9.52 | 9.57 |

## 2.0 Emissions Summary

### 2.2 Overall Operational

**Unmitigated Operational**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Area | 20.7046 | 0.4166 | 21.1520 | 0.0286 | | 2.1147 | 2.1147 | | 2.1147 | 2.1147 | 222.0414 | 238.4754 | 460.5168 | 0.2837 | 0.0187 | 473.1806 |
| Energy | 0.3115 | 2.8053 | 2.1872 | 0.0170 | | 0.2152 | 0.2152 | | 0.2152 | 0.2152 | | 3,397.6717 | 3,397.6717 | 0.0651 | 0.0623 | 3,417.8624 |
| Mobile | 1.3404 | 6.2436 | 15.7277 | 0.0556 | 5.5203 | 0.0403 | 5.5605 | 1.4773 | 0.0375 | 1.5147 | | 5,642.9004 | 5,642.9004 | 0.2389 | | 5,648.8730 |
| **Total** | **22.3564** | **9.4655** | **39.0669** | **0.1012** | **5.5203** | **2.3702** | **7.8905** | **1.4773** | **2.3674** | **3.8447** | **222.0414** | **9,279.0475** | **9,501.0889** | **0.5877** | **0.0810** | **9,539.9161** |

**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 | 8.7630 | 0.3243 | 5.0782 | 1.9200e-003 | | 0.0480 | 0.0480 | | 0.0480 | 0.0480 | 0.0000 | 346.7422 | 346.7422 | 0.0142 | 6.2000e-003 | 348.9467 |
| Energy | 0.3115 | 2.8053 | 2.1872 | 0.0170 | | 0.2152 | 0.2152 | | 0.2152 | 0.2152 | | 3,397.6717 | 3,397.6717 | 0.0651 | 0.0623 | 3,417.8624 |
| Mobile | 1.3322 | 6.2029 | 15.5652 | 0.0549 | 5.4438 | 0.0398 | 5.4836 | 1.4568 | 0.0370 | 1.4938 | | 5,570.7288 | 5,570.7288 | 0.2364 | | 5,576.6398 |
| **Total** | **10.4067** | **9.3326** | **22.8306** | **0.0738** | **5.4438** | **0.3030** | **5.7468** | **1.4568** | **0.3002** | **1.7570** | **0.0000** | **9,315.1427** | **9,315.1427** | **0.3158** | **0.0685** | **9,343.4489** |

| | ROG | NOx | 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** | **53.45** | **1.40** | **41.56** | **27.09** | **1.39** | **87.22** | **27.17** | **1.38** | **87.32** | **54.30** | **100.00** | **-0.39** | **1.96** | **46.27** | **15.43** | **2.06** |

## 4.0 Operational Detail - Mobile

### 4.1 Mitigation Measures Mobile

Implement NEV Network

Employee Vanpool/Shuttle

| | ROG | NOx | CO | SO2 | Fugitive 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 | 1.3322 | 6.2029 | 15.5652 | 0.0549 | 5.4438 | 0.0398 | 5.4836 | 1.4568 | 0.0370 | 1.4938 | | 5,570.7288 | 5,570.7288 | 0.2364 | | 5,576.6398 |
| Unmitigated | 1.3404 | 6.2436 | 15.7277 | 0.0556 | 5.5203 | 0.0403 | 5.5605 | 1.4773 | 0.0375 | 1.5147 | | 5,642.9004 | 5,642.9004 | 0.2389 | | 5,648.8730 |

### 4.2 Trip Summary Information

| | Average Daily Trip Rate | | | Unmitigated | Mitigated |
|---|---|---|---|---|---|
| Land Use | Weekday | Saturday | Sunday | Annual VMT | Annual VMT |
| Condo/Townhouse | 189.60 | 189.60 | 189.60 | 714,728 | 705,721 |
| Health Club | 0.00 | 0.00 | 0.00 | | |
| Hotel | 631.39 | 631.39 | 631.39 | 1,268,569 | 1,249,340 |
| Other Asphalt Surfaces | 0.00 | 0.00 | 0.00 | | |
| Other Asphalt Surfaces | 0.00 | 0.00 | 0.00 | | |
| Other Asphalt Surfaces | 0.00 | 0.00 | 0.00 | | |
| Other Asphalt Surfaces | 0.00 | 0.00 | 0.00 | | |
| Other Non-Asphalt Surfaces | 0.00 | 0.00 | 0.00 | | |
| Other Non-Asphalt Surfaces | 0.00 | 0.00 | 0.00 | | |

| | | | | | |
|---|---|---|---|---|---|
| Other Non-Asphalt Surfaces | 0.00 | 0.00 | 0.00 | | |
| Other Non-Asphalt Surfaces | 0.00 | 0.00 | 0.00 | | |
| Parking Lot | 0.00 | 0.00 | 0.00 | | |
| Single Family Housing | 162.69 | 162.69 | 162.69 | 613,287 | 605,557 |
| Total | 983.68 | 983.68 | 983.68 | 2,596,584 | 2,560,618 |

## 4.3 Trip Type Information

| | Miles | | | Trip % | | | Trip Purpose % | | |
|---|---|---|---|---|---|---|---|---|---|
| Land Use | H-W or C-W | H-S or C-C | H-O or C-NW | H-W or C-... | H-S or C-C | H-O or C-NW | Primary | Diverted | Pass-by |
| Condo/Townhouse | 16.80 | 7.10 | 7.90 | 44.00 | 18.80 | 37.20 | 86 | 11 | 3 |
| Health Club | 14.70 | 6.60 | 6.60 | 16.90 | 64.10 | 19.00 | 52 | 39 | 9 |
| Hotel | 14.70 | 6.60 | 6.60 | 19.40 | 61.60 | 19.00 | 58 | 38 | 4 |
| Other Asphalt Surfaces | 14.70 | 6.60 | 6.60 | 0.00 | 0.00 | 0.00 | 0 | 0 | 0 |
| Other Asphalt Surfaces | 14.70 | 6.60 | 6.60 | 0.00 | 0.00 | 0.00 | 0 | 0 | 0 |
| Other Asphalt Surfaces | 14.70 | 6.60 | 6.60 | 0.00 | 0.00 | 0.00 | 0 | 0 | 0 |
| Other Asphalt Surfaces | 14.70 | 6.60 | 6.60 | 0.00 | 0.00 | 0.00 | 0 | 0 | 0 |
| Other Non-Asphalt Surfaces | 14.70 | 6.60 | 6.60 | 0.00 | 0.00 | 0.00 | 0 | 0 | 0 |
| Other Non-Asphalt Surfaces | 14.70 | 6.60 | 6.60 | 0.00 | 0.00 | 0.00 | 0 | 0 | 0 |
| Other Non-Asphalt Surfaces | 14.70 | 6.60 | 6.60 | 0.00 | 0.00 | 0.00 | 0 | 0 | 0 |
| Other Non-Asphalt Surfaces | 14.70 | 6.60 | 6.60 | 0.00 | 0.00 | 0.00 | 0 | 0 | 0 |
| Parking Lot | 14.70 | 6.60 | 6.60 | 0.00 | 0.00 | 0.00 | 0 | 0 | 0 |
| Single Family Housing | 16.80 | 7.10 | 7.90 | 44.00 | 18.80 | 37.20 | 86 | 11 | 3 |

## 4.4 Fleet Mix

| Land Use | LDA | LDT1 | LDT2 | MDV | LHD1 | LHD2 | MHD | HHD | OBUS | UBUS | MCY | SBUS | MH |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Condo/Townhouse | 0.568837 | 0.025317 | 0.211236 | 0.111178 | 0.014144 | 0.004292 | 0.020506 | 0.029118 | 0.004136 | 0.002161 | 0.007258 | 0.001234 | 0.000584 |
| Health Club | 0.568837 | 0.025317 | 0.211236 | 0.111178 | 0.014144 | 0.004292 | 0.020506 | 0.029118 | 0.004136 | 0.002161 | 0.007258 | 0.001234 | 0.000584 |
| Hotel | 0.568837 | 0.025317 | 0.211236 | 0.111178 | 0.014144 | 0.004292 | 0.020506 | 0.029118 | 0.004136 | 0.002161 | 0.007258 | 0.001234 | 0.000584 |
| Other Asphalt Surfaces | 0.568837 | 0.025317 | 0.211236 | 0.111178 | 0.014144 | 0.004292 | 0.020506 | 0.029118 | 0.004136 | 0.002161 | 0.007258 | 0.001234 | 0.000584 |
| Other Asphalt Surfaces | 0.568837 | 0.025317 | 0.211236 | 0.111178 | 0.014144 | 0.004292 | 0.020506 | 0.029118 | 0.004136 | 0.002161 | 0.007258 | 0.001234 | 0.000584 |
| Other Non-Asphalt Surfaces | 0.568837 | 0.025317 | 0.211236 | 0.111178 | 0.014144 | 0.004292 | 0.020506 | 0.029118 | 0.004136 | 0.002161 | 0.007258 | 0.001234 | 0.000584 |
| Other Non-Asphalt Surfaces | 0.568837 | 0.025317 | 0.211236 | 0.111178 | 0.014144 | 0.004292 | 0.020506 | 0.029118 | 0.004136 | 0.002161 | 0.007258 | 0.001234 | 0.000584 |
| Parking Lot | 0.568837 | 0.025317 | 0.211236 | 0.111178 | 0.014144 | 0.004292 | 0.020506 | 0.029118 | 0.004136 | 0.002161 | 0.007258 | 0.001234 | 0.000584 |
| Single Family Housing | 0.568837 | 0.025317 | 0.211236 | 0.111178 | 0.014144 | 0.004292 | 0.020506 | 0.029118 | 0.004136 | 0.002161 | 0.007258 | 0.001234 | 0.000584 |

## 5.0 Energy Detail

Historical Energy Use: N

### 5.1 Mitigation Measures Energy

Install High Efficiency Lighting

Percent of Electricity Use Generated with Renewable Energy

Install Energy Efficient Appliances

| | ROG | NOx | CO | SO2 | Fugitive 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 | 0.3115 | 2.8053 | 2.1872 | 0.0170 | | 0.2152 | 0.2152 | | 0.2152 | 0.2152 | | 3,397.6717 | 3,397.6717 | 0.0651 | 0.0623 | 3,417.8624 |
| NaturalGas Unmitigated | 0.3115 | 2.8053 | 2.1872 | 0.0170 | | 0.2152 | 0.2152 | | 0.2152 | 0.2152 | | 3,397.6717 | 3,397.6717 | 0.0651 | 0.0623 | 3,417.8624 |

### 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 | | | | | |
| Condo/Townhouse | 3077.76 | 0.0332 | 0.2836 | 0.1207 | 1.8100e-003 | | 0.0229 | 0.0229 | | 0.0229 | 0.0229 | | 362.0888 | 362.0888 | 6.9400e-003 | 6.6400e-003 | 364.2405 |
| Health Club | 3692.48 | 0.0398 | 0.3620 | 0.3041 | 2.1700e-003 | | 0.0275 | 0.0275 | | 0.0275 | 0.0275 | | 434.4091 | 434.4091 | 8.3300e-003 | 7.9600e-003 | 436.9906 |
| Hotel | 20756.3 | 0.2238 | 2.0349 | 1.7093 | 0.0122 | | 0.1547 | 0.1547 | | 0.1547 | 0.1547 | | 2,441.9130 | 2,441.9130 | 0.0468 | 0.0448 | 2,456.4241 |
| Other Asphalt Surfaces | 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Other Non-Asphalt Surfaces | 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Parking Lot | 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Single Family Housing | 1353.72 | 0.0146 | 0.1248 | 0.0531 | 8.0000e-004 | | 0.0101 | 0.0101 | | 0.0101 | 0.0101 | | 159.2608 | 159.2608 | 3.0500e-003 | 2.9200e-003 | 160.2072 |
| **Total** | | **0.3115** | **2.8053** | **2.1872** | **0.0170** | | **0.2152** | **0.2152** | | **0.2152** | **0.2152** | | **3,397.6717** | **3,397.6717** | **0.0651** | **0.0623** | **3,417.8624** |

**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 | | | | | |
| Condo/Townhouse | 3.07776 | 0.0332 | 0.2836 | 0.1207 | 1.8100e-003 | | 0.0229 | 0.0229 | | 0.0229 | 0.0229 | | 362.0888 | 362.0888 | 6.9400e-003 | 6.6400e-003 | 364.2405 |
| Health Club | 3.69248 | 0.0398 | 0.3620 | 0.3041 | 2.1700e-003 | | 0.0275 | 0.0275 | | 0.0275 | 0.0275 | | 434.4091 | 434.4091 | 8.3300e-003 | 7.9600e-003 | 436.9906 |
| Hotel | 20.7563 | 0.2238 | 2.0349 | 1.7093 | 0.0122 | | 0.1547 | 0.1547 | | 0.1547 | 0.1547 | | 2,441.9130 | 2,441.9130 | 0.0468 | 0.0448 | 2,456.4241 |
| Other Asphalt Surfaces | 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Other Non-Asphalt Surfaces | 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Parking Lot | 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Single Family Housing | 1.35372 | 0.0146 | 0.1248 | 0.0531 | 8.0000e-004 | | 0.0101 | 0.0101 | | 0.0101 | 0.0101 | | 159.2608 | 159.2608 | 3.0500e-003 | 2.9200e-003 | 160.2072 |
| **Total** | | **0.3115** | **2.8053** | **2.1872** | **0.0170** | | **0.2152** | **0.2152** | | **0.2152** | **0.2152** | | **3,397.6717** | **3,397.6717** | **0.0651** | **0.0623** | **3,417.8624** |

## 6.0 Area Detail

### 6.1 Mitigation Measures Area

Use Electric Lawnmower

Use Electric Leafblower

Use Low VOC Paint - Residential Interior

Use Low VOC Paint - Residential Exterior

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

Use only Natural Gas Hearths

Use Low VOC Cleaning Supplies

| | ROG | NOx | CO | SO2 | Fugitive 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 | 8.7630 | 0.3243 | 5.0782 | 1.9200e-003 | | 0.0480 | 0.0480 | | 0.0480 | 0.0480 | 0.0000 | 346.7422 | 346.7422 | 0.0142 | 6.2000e-003 | 348.9467 |
| Unmitigated | 20.7046 | 0.4166 | 21.1520 | 0.0286 | | 2.1147 | 2.1147 | | 2.1147 | 2.1147 | 222.0414 | 238.4754 | 460.5168 | 0.2837 | 0.0187 | 473.1806 |

## 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 | 1.4262 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Consumer Products | 7.6980 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Hearth | 11.3797 | 0.3425 | 14.6952 | 0.0283 | | 2.0791 | 2.0791 | | 2.0791 | 2.0791 | 222.0414 | 226.8000 | 448.8414 | 0.2721 | 0.0187 | 461.2160 |
| Landscaping | 0.2007 | 0.0741 | 6.4568 | 3.4000e-004 | | 0.0356 | 0.0356 | | 0.0356 | 0.0356 | | 11.6754 | 11.6754 | 0.0116 | | 11.9646 |
| **Total** | **20.7046** | **0.4166** | **21.1520** | **0.0286** | | **2.1147** | **2.1147** | | **2.1147** | **2.1147** | **222.0414** | **238.4754** | **460.5168** | **0.2837** | **0.0187** | **473.1806** |

### 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 | 1.4262 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Consumer Products | 7.1723 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Hearth | 0.0310 | 0.2651 | 0.1128 | 1.6900e-003 | | 0.0214 | 0.0214 | | 0.0214 | 0.0214 | 0.0000 | 338.4000 | 338.4000 | 6.4900e-003 | 6.2000e-003 | 340.4109 |
| Landscaping | 0.1335 | 0.0593 | 4.9654 | 2.3000e-004 | | 0.0266 | 0.0266 | | 0.0266 | 0.0266 | | 8.3422 | 8.3422 | 7.7400e-003 | | 8.5358 |
| **Total** | **8.7630** | **0.3243** | **5.0782** | **1.9200e-003** | | **0.0480** | **0.0480** | | **0.0480** | **0.0480** | **0.0000** | **346.7422** | **346.7422** | **0.0142** | **6.2000e-003** | **348.9467** |