

## **Appendix A**

# **Air Quality and Greenhouse Gas Emissions Analysis Technical Report (November 11, 2020)**



**Air Quality and Greenhouse Gas Emissions  
Analysis Technical Report  
for Encompass Health Chula Vista  
Chula Vista, California**

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# Acronyms and Abbreviations

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Acronym/Abbreviation	Definition
AB	Assembly Bill
ATCM	Airborne Toxic Control Measure
CAA	Clean Air Act
CAAQS	California Ambient Air Quality Standards
CalEEMod	California Emissions Estimator Model
CalRecycle	California Department of Resources Recycling and Recovery
CAP	Climate Action Plan
CARB	California Air Resources Board
CEC	California Energy Commission
CEQA	California Environmental Quality Act
CFC	chlorofluorocarbons
CH <sub>4</sub>	methane
City	City of Chula Vista
CNRA	California Natural Resources Agency
CO	carbon monoxide
CO <sub>2</sub>	carbon dioxide
CO <sub>2</sub> e	carbon dioxide equivalent
County	San Diego County
DPM	diesel particulate matter
EO	Executive Order
EPA	U.S. Environmental Protection Agency
EPIC	Energy Policy Initiative Center
First Update	First Update to the Climate Change Scoping Plan: Building on the Framework
GHG	greenhouse gas
GWP	global warming potential
HCFC	hydrochlorofluorocarbon
HFC	hydrofluorocarbon
HVAC	heating, ventilation, and air conditioning
I-805	Interstate 805
LOS	level of service
MMT	million metric tons
MT	metric tons
N <sub>2</sub> O	nitrous oxide
NAAQS	National Ambient Air Quality Standards
NHTSA	National Highway Traffic Safety Administration
NO <sub>2</sub>	nitrogen dioxide
NO <sub>x</sub>	oxides of nitrogen
O <sub>3</sub>	ozone
PDF	project design feature
PFC	perfluorocarbon
PM <sub>10</sub>	particulate matter with an aerodynamic diameter less than or equal to 10 microns

Acronym/Abbreviation	Definition
PM <sub>2.5</sub>	particulate matter with an aerodynamic diameter less than or equal to 2.5 microns
proposed project	Encompass Health Chula Vista
RAQS	Regional Air Quality Strategy
Regional Plan	San Diego Forward: The Regional Plan
RPS	Renewables Portfolio Standard
RTP	Regional Transportation Plan
SANDAG	San Diego Association of Government
SB	Senate Bill
SCAQMD	South Coast Air Quality Management District
Scoping Plan	Climate Change Scoping Plan: A Framework for Change
SCS	Sustainable Communities Strategy
SDAB	San Diego Air Basin
SDG&E	San Diego Gas & Electric
Second Update	2017 Climate Change Scoping Plan Update
SF <sub>6</sub>	sulfur hexafluoride
SIP	State Implementation Plan
SLCP	short-lived climate pollutant
SLCP Reduction Strategy	Short-Lived Climate Pollutant Reduction Strategy
SO <sub>2</sub>	sulfur dioxide
SO <sub>x</sub>	sulfur oxides
TAC	toxic air contaminant
VMT	vehicle miles traveled
VOC	volatile organic compound
ZEV	Zero-Emissions Vehicle
ZNE	zero net energy

# Executive Summary

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The purpose of this technical report is to assess the potential air quality and greenhouse gas (GHG) emissions impacts associated with implementation of the proposed Encompass Health Chula Vista (proposed project). This assessment utilizes the significance thresholds in Appendix G of the California Environmental Quality Act (CEQA) Guidelines (14 CCR 15000 et seq.).

## **Project Overview**

The proposed project is an 80-bed in-patient rehabilitation facility on an undeveloped 9.79-acre site located in the City of Chula Vista (City), California. The project site is located east of Interstate 805 (I-805), north of Main Street, and west of Brandywine Avenue. The property is located at 517 Shinohara Lane on Assessor's Parcel Number 644-040-01-00.

## **Air Quality**

The air quality impact analysis evaluated the potential for adverse impacts to air quality due to construction and operational emissions resulting from the proposed project. Impacts were evaluated for their significance based on the City's mass daily criteria air pollutant thresholds of significance. Criteria air pollutants are defined as pollutants for which the federal and state governments have established ambient air quality standards, or criteria, for outdoor concentrations to protect public health. Criteria air pollutants include ozone (O<sub>3</sub>), nitrogen dioxide (NO<sub>2</sub>), carbon monoxide (CO), sulfur dioxide (SO<sub>2</sub>), particulate matter with an aerodynamic diameter less than or equal to 10 microns (PM<sub>10</sub>), particulate matter with an aerodynamic diameter less than or equal to 2.5 microns (PM<sub>2.5</sub>), and lead. Pollutants that are evaluated include volatile organic compounds (VOCs) (also referred to as reactive organic gases), oxides of nitrogen (NO<sub>x</sub>), CO, sulfur oxides (SO<sub>x</sub>), PM<sub>10</sub>, and PM<sub>2.5</sub>. VOCs and NO<sub>x</sub> are important because they are precursors to O<sub>3</sub>.

## **Air Quality Plan Consistency**

If a project proposes development that is greater than that anticipated in the local plan and San Diego Association of Government's (SANDAG's) growth projections, the project might be in conflict with the State Implementation Plan (SIP) and Regional Air Quality Strategy (RAQS) and may contribute to a potentially significant cumulative impact on air quality. The proposed project is zoned Limited Industrial – Precise Plan (ILP) Modifying District. The project proposed inpatient rehabilitation center is an Unclassified Use pursuant to Section 19.54.020 (h) of the Chula Vista Municipal Code (CVMC) (City of Chula Vista 2020). As such, the proposed use would be permitted in this zone subject to approval of a Conditional Use Permit approved by the Planning Commission. The project would result in an increase of 210 employees. The SANDAG Series 13: 2050 Regional Growth Forecast estimates the employment in the City would grow from 64,035 in 2010 to 114,435 in 2050 (SANDAG 2017a). As such, the addition of 210 new employees associated with the project would be minimal; and would not exceed the growth projections for 2050. The project is an inpatient rehabilitation center and would not directly or indirectly induce population growth as it does not propose new homes. Therefore, the proposed project would not stimulate population growth or a population concentration or employment above what is assumed in local and regional land use plans, or projections made by regional planning authorities. Based on these considerations, impacts related to the proposed project's potential to conflict with or obstruct implementation of the applicable air quality plan would be less than significant.

## ***Cumulative Impacts***

### **Construction Criteria Air Pollutant Emissions**

Construction of the proposed project would result in the temporary addition of pollutants to the local airshed caused by on-site sources (i.e., off-road construction equipment, soil disturbance, and VOC off-gassing) and off-site sources (i.e., on-road haul trucks, vendor trucks, and worker vehicle trips). Maximum daily construction emissions would not exceed the City's significance thresholds for VOC, NO<sub>x</sub>, CO, SO<sub>x</sub>, PM<sub>10</sub>, or PM<sub>2.5</sub> during construction in all construction years (2020 through 2022).

### **Operational Criteria Air Pollutant Emissions**

Operational year 2023 was assumed following completion of proposed project construction. Operation of the proposed project would generate operational criteria air pollutants from mobile sources (vehicles), area sources (consumer product use, architectural coatings, and landscape maintenance equipment), energy (natural gas), and stationary sources. Maximum operational emissions would not exceed the City's operational significance thresholds for VOC, NO<sub>x</sub>, CO, SO<sub>x</sub>, PM<sub>10</sub>, or PM<sub>2.5</sub>.

The potential for the proposed project to result in a cumulatively considerable impact is based on the proposed project's potential to exceed the project-specific daily thresholds. As discussed previously, maximum construction and operational emissions would not exceed the City's significance thresholds for VOC, NO<sub>x</sub>, CO, SO<sub>x</sub>, PM<sub>10</sub>, or PM<sub>2.5</sub>. Therefore, the proposed project would not result in a cumulatively considerable increase in criteria air pollutants.

### ***Exposure of Sensitive Receptors***

Construction activities would not generate emissions in excess of the City's site-specific mass daily thresholds; therefore, site-specific construction impacts during construction of the proposed project would be less than significant. In addition, diesel equipment would also be subject to the California Air Resources Board (CARB) Airborne Toxic Control Measures (ATCMs) for in-use off-road diesel fleets, which would minimize diesel particulate matter (DPM) emissions.

As required by Policy E 6.10 in the City's General Plan Environmental Element (City of Chula Vista 2005), the siting of new sensitive receivers within 500 feet of highways resulting from development or redevelopment projects shall require the preparation of an HRA as part of the CEQA review of the project. The project site is located approximately 1,100 feet from the I-805 and, thus, the proposed project is not subject to the requirement. The proposed project would operate an emergency diesel generator, and the generator would be located 200 feet from the nearest sensitive receptor. The generator would operate 50 hours per year for testing, which would be a much shorter duration than the 30-year, continuously exposed, exposure duration. Furthermore, the emergency generator would be subject to SDACPD rules and permitting requirements.

The proposed project would not negatively affect the level of service (LOS) of intersections on the project site and would not significantly contribute to a CO hotspot. As such, potential project-generated impacts associated with CO hotspots would be less than significant.

### ***Other Emissions***

Potential odors produced during construction would be attributable to concentrations of unburned hydrocarbons from tailpipes of construction equipment, architectural coatings, and asphalt pavement application, which would disperse rapidly from the project site and generally occur at magnitudes that would not affect substantial numbers



of people. Impacts associated with odors during construction would be less than significant. The proposed project is an inpatient rehabilitation development that would not include land uses with sources that have the potential to generate substantial odors, and impacts associated with odors during operation would be less than significant.

## **Greenhouse Gas Emissions**

Global climate change is primarily considered a cumulative impact but must also be evaluated on a project-level under CEQA. A project participates in this potential impact through its incremental contribution combined with the cumulative increase of all other sources of GHG emissions. GHGs are gases that absorb infrared radiation in the atmosphere. Principal GHGs regulated under state and federal law and regulations include carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>), and nitrous oxide (N<sub>2</sub>O). GHG emissions are measured in metric tons (MT) of CO<sub>2</sub> equivalent (CO<sub>2</sub>e), which account for weighted global warming potential (GWP) factors for CH<sub>4</sub> and N<sub>2</sub>O.

### ***Project-Generated Construction and Operational Greenhouse Gas Emissions***

Construction of the proposed project would result in GHG emissions primarily associated with the use of off-road construction equipment, on-road hauling and vendor (material delivery) trucks, and worker vehicles. Total proposed project-generated GHG emissions during construction were estimated to be 593 MT CO<sub>2</sub>e, or 20 MT CO<sub>2</sub>e per year when amortized over 30 years.

The proposed project would generate operational GHG emissions from area sources (landscape maintenance), energy sources (electricity consumption), mobile sources (vehicle trips), water supply and wastewater treatment, solid waste, and stationary sources. Estimated annual proposed project-generated operational GHG emissions at buildout in 2023 would be approximately 900 MT CO<sub>2</sub>e per year.

Estimated annual proposed project-generated operational emissions in 2023, plus amortized project construction emissions, would be approximately 920 MT CO<sub>2</sub>e per year. The project emissions would be less than the 3,000 MT CO<sub>2</sub>e per year screening level threshold; therefore, the proposed project would have a less-than-significant impact.

### ***Consistency with Applicable Greenhouse Gas Reduction Plans***

The proposed project was shown to be consistent with SANDAG's Regional Plan, City's Climate Action Plan (CAP), Senate Bill (SB) 32, and Executive Order (EO) S-3-05. The proposed project does not conflict with any plans adopted with the purpose of reducing GHG emissions; therefore, the proposed project's impacts on GHG emissions would be less than significant.

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# 1 Introduction

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## 1.1 Report Purpose and Scope

The purpose of this technical report is to assess the potential air quality and greenhouse gas (GHG) emissions impacts associated with implementation of the proposed Encompass Health Chula Vista (proposed project). This assessment uses the significance thresholds in Appendix G of the California Environmental Quality Act (CEQA) Guidelines (14 CCR 15000 et seq.) and is based on the emissions-based significance thresholds recommended by the San Diego Air Pollution Control District (SDAPCD) and other applicable thresholds of significance.

This introductory section provides a description of the proposed project and the proposed project location. Section 2, Air Quality, describes the air quality-related environmental setting, regulatory setting, existing air quality conditions, and thresholds of significance and analysis methodology and presents an air quality impact analysis per Appendix G of the CEQA Guidelines. Section 3, Greenhouse Gas Emissions, follows the same format as Section 2 and similarly describes the GHG emissions-related environmental setting, regulatory setting, existing climate change conditions, and thresholds of significance and analysis methodology and presents a GHG emissions impact analysis per Appendix G of the CEQA Guidelines. Section 4, References Cited, includes a list of the references cited. Section 5, List of Preparers, includes a list of those who prepared this technical report.

## 1.2 Project Description

The proposed project is an 80-bed inpatient rehabilitation development on an undeveloped 9.79-acre site located in the City of Chula Vista (City), California (Figure 1, Project Location). The project site is located east of I-805, north of Main Street, and west of Brandywine Avenue. The property is located at 517 Shinohara Lane on Assessor's Parcel Number 644-040-01-00 (Figure 2, Aerial Image). The 80-bed facility is expected to have approximately 210 daily employees. The project construction would be split into two phases: the first phase would provide approximately 50 beds and the subsequent phase would provide an additional 30 beds, for a total of up to 80 beds (Figures 3a and 3b, Site Plan-Phase 1 and Site Plan-Phase 2, respectively).

### Phase 1

Phase 1 would include a one-story building located in the center of the site with a height ranging from 15 to 24 feet tall, and 50 beds totaling approximately 56,000 square feet. To meet the City's parking requirement of 1.5 spaces per patient bed (120 spaces), this phase of the project includes a total of 144 parking spaces located to both the north and south of the building within surface lots. As most patients would initially arrive at the facility via a non-emergency ambulance, an ambulance bay would be provided at the northern side of Building 2. A drop-off circle would also be located to the south of Building 2. Site access would be provided via Shinohara Lane.

### Phase 2

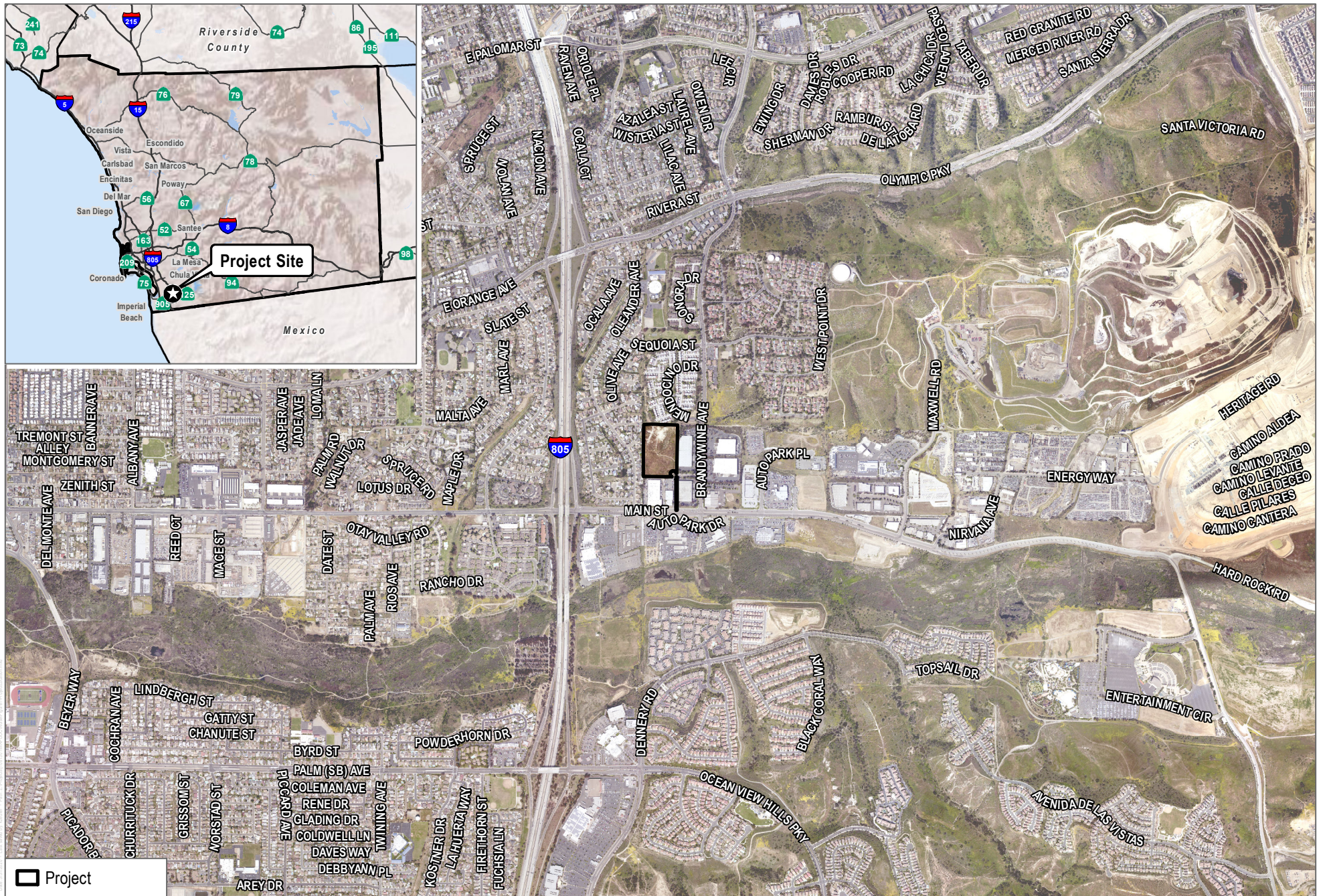
Phase 2 consists of a one-story building addition to the northeast corner of phase 1. Phase 2 would match the phase 1 building height of approximately 15 to 24 feet and add approximately 20,000 square feet bringing the total to approximately 76,000 square feet. This phase of the project reorganizes the layout of the parking spaces but does not decrease the total provided. The ambulance drop-off, which was previously located on the north side of phase 1, would be relocated to the east side of the building in phase 2, and the associated driveway would be moved closer to the eastern property boundary.

## 1.3 Project Design Features

To reduce construction and operational emissions to the extent feasible, the applicant would incorporate the following project design features (PDFs) into the new facility:

- PDF-AQ-1 Fugitive Dust Control.** The Developer or its designee shall implement the following measures to minimize fugitive dust (PM<sub>10</sub> and PM<sub>2.5</sub>):
- a. A non-toxic dust control agent shall be used on the grading areas or watering shall be applied at least three times daily.
  - b. Grading areas shall be stabilized as quickly as possible.
  - c. Chemical stabilizer shall be applied, a gravel pad shall be installed, or the last 100 feet of internal travel path within the construction site shall be paved prior to public road entry and for all haul roads.
  - d. Visible track-out into traveled public streets shall be removed with the use of sweepers, water trucks, or similar method at the end of the workday.
  - e. All soil disturbance and travel on unpaved surfaces shall be suspended if winds exceed 25 miles per hour.
  - f. On-site stockpiles of excavated material shall be covered.
  - g. A 15 mile per hour speed limit on unpaved surfaces shall be enforced.
- PDF-AQ-2 Building Materials.** The proposed project shall use low or no-volatile organic compound (VOC) products and recycled building materials, where available.
- PDF-GHG-1 Building Heat Index.** The proposed project shall implement passive sustainable design by sun orientation window placement, insulated exterior for efficient heating and cooling, and shaded frames for reduced heat gain.
- PDF-GHG-2 Energy-Efficient Appliances.** The proposed project shall install high-efficiency electrical and heating, ventilation, and air conditioning (HVAC).
- PDF-GHG-3 Water-Efficient Plumbing.** The proposed project shall install water-efficient plumbing.
- PDF-GHG-4 Drought-Tolerant Vegetation.** The proposed project shall plant native, drought-tolerant vegetation that would use less water than other common species.





SOURCE: SANGIS 2017

**DUDEK**



0 1,000 2,000 Feet

**FIGURE 1**

**Project Location**

Encompass Health Chula Vista



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SOURCE: SANDAG Aerial Imagery Basemap, 2014

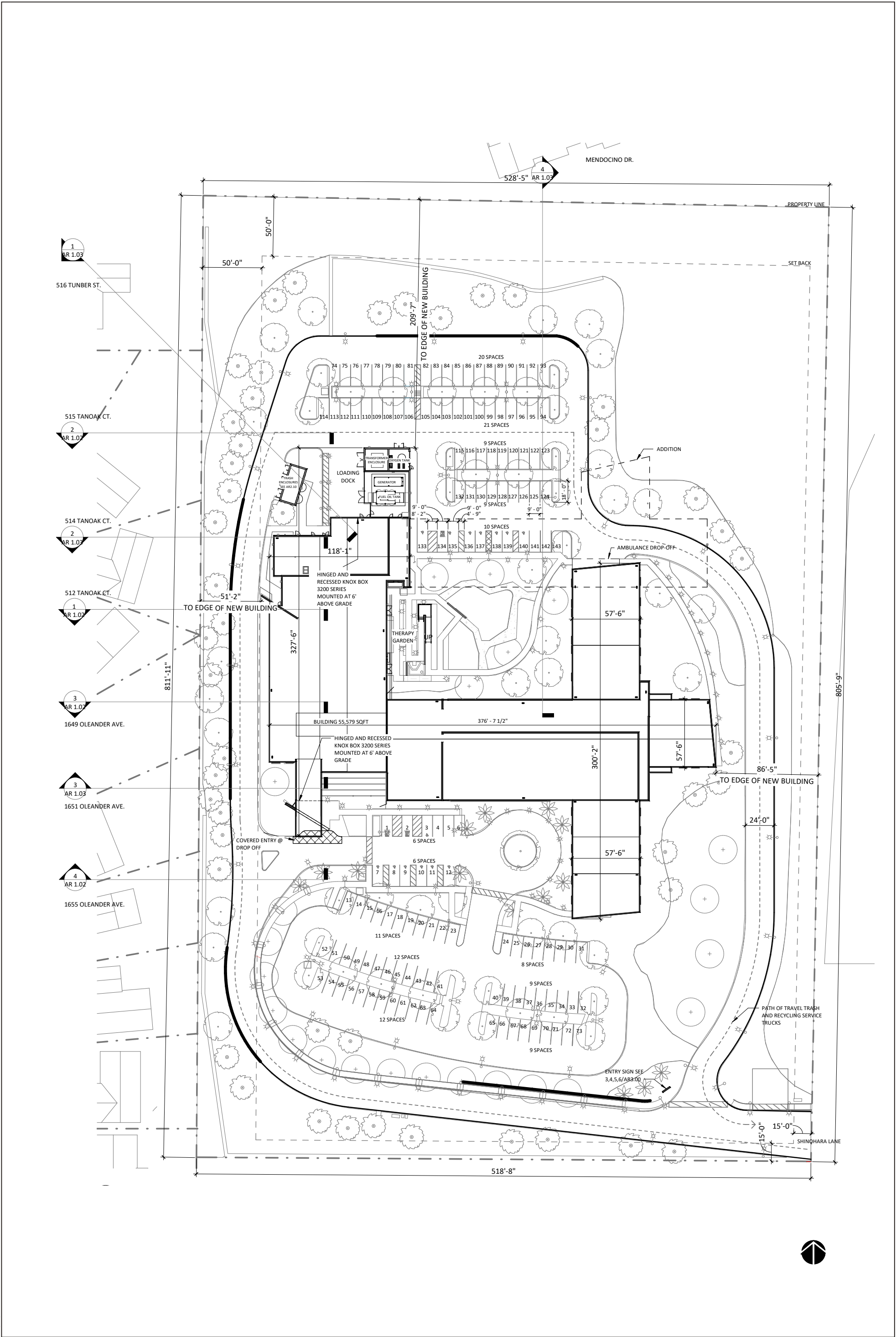
**FIGURE 2**

**Aerial Image**

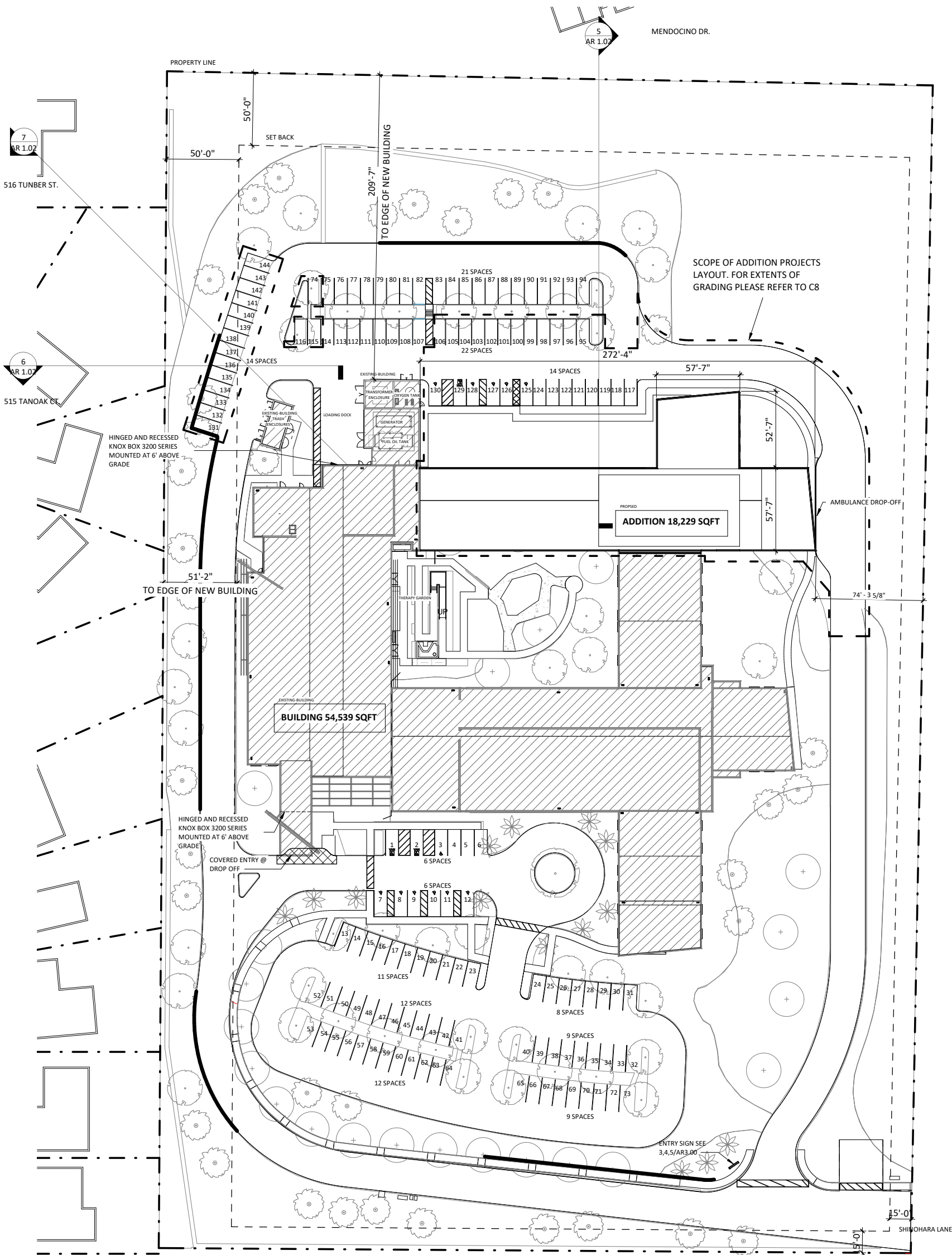
Encompass Health Chula Vista

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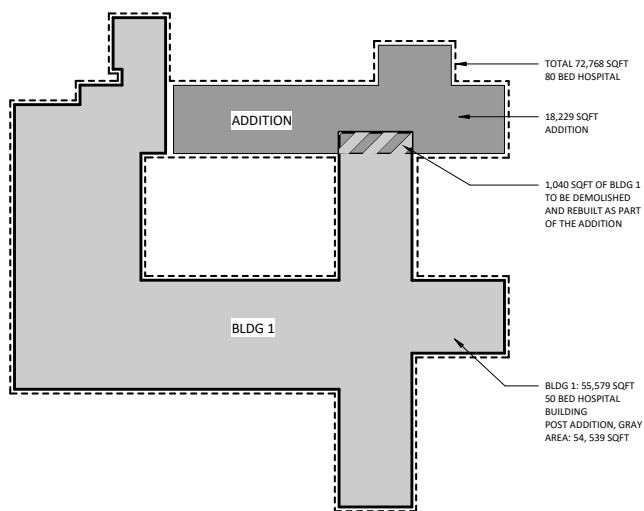




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HOSPITAL AND ADDITION DIAGRAM



#### BUILDING LEGEND

BUILDING BUILDING 1  
(NOT IN THE SCOPE OF ADDITION PROJECT)

#### ADDITION PARKING COUNTS

NORTH LOT		SOUTH LOT	
ACC. CAR	5	ACC. CAR	7
ACC. VAN	1	ACC. VAN	2
REGULAR	65	REGULAR	64
TOTAL	71	TOTAL	73

TOTAL SITE PARKING 144



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## 2 Air Quality

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### 2.1 Environmental Setting

The project site is located within the San Diego Air Basin (SDAB) and is subject to the SDAPCD guidelines and regulations. The SDAB is one of 15 air basins that geographically divide the State of California. The weather of the San Diego region, as in most of Southern California, is influenced by the Pacific Ocean and its semi-permanent high-pressure systems that result in dry, warm summers and mild, occasionally wet winters. The average temperature ranges (in °F) from the mid-40s to the high 90s. Most of the region's precipitation falls from November to April with infrequent (approximately 10%) precipitation during the summer. The average seasonal precipitation along the coast is approximately 10 inches; the amount increases with elevation as moist air is lifted over the mountains to the east.

The topography in the San Diego region varies greatly, from beaches on the west to mountains and desert on the east. Along with local meteorology, the topography influences the dispersal and movement of pollutants in the SDAB. The mountains to the east prohibit dispersal of pollutants in that direction and help trap them in inversion layers as described in the next section.

The interaction of ocean, land, and the Pacific High Pressure Zone maintains clear skies for much of the year and influences the direction of prevailing winds (westerly to northwesterly). Local terrain is often the dominant factor inland, and winds in inland mountainous areas tend to blow through the valleys during the day and down the hills and valleys at night.

#### 2.1.1 Meteorological and Topographical Conditions

The SDAB lies in the southwest corner of California, comprises the entire San Diego region, covers approximately covering 4,260 square miles, and is an area of high air pollution potential. The SDAB experiences warm summers, mild winters, infrequent rainfalls, light winds, and moderate humidity. This usually mild climatological pattern is interrupted infrequently by periods of extremely hot weather, winter storms, or Santa Ana winds.

The SDAB experiences frequent temperature inversions. Subsidence inversions occur during the warmer months as descending air associated with the Pacific High Pressure Zone meets cool marine air. The boundary between the two layers of air creates a temperature inversion that traps pollutants. Another type of inversion, a radiation inversion, develops on winter nights when air near the ground cools by heat radiation and air aloft remains warm. The shallow inversion layer formed between these two air masses also can trap pollutants. As the pollutants become more concentrated in the atmosphere, photochemical reactions occur that produce ozone (O<sub>3</sub>), commonly known as smog.

Light daytime winds, predominantly from the west, further aggravate the condition by driving air pollutants inland, toward the mountains. During the fall and winter, air quality problems are created due to carbon monoxide (CO) and oxides of nitrogen (NO<sub>x</sub>) emissions. CO concentrations are generally higher in the morning and late evening. In the morning, CO levels are elevated due to cold temperatures and the large number of motor vehicles traveling. Higher CO levels during the late evenings are a result of stagnant atmospheric conditions trapping CO in the area. Since CO is produced almost entirely from automobiles, the highest CO concentrations in the basin are associated with heavy traffic. Nitrogen dioxide (NO<sub>2</sub>) levels are also generally higher during fall and winter days when O<sub>3</sub> concentrations are lower.

Under certain conditions, atmospheric oscillation results in the offshore transport of air from the Los Angeles region to San Diego County (County). This often produces high O<sub>3</sub> concentrations, as measured at air pollutant monitoring stations within the County. The transport of air pollutants from Los Angeles to San Diego has also occurred within the stable layer of the elevated subsidence inversion, where high levels of O<sub>3</sub> are transported.

The local climate in the southern part of the County is characterized as semi-arid with consistently mild, warmer temperatures throughout the year. The average summertime high temperature in the region is approximately 81°F, with highs approaching 80°F in August on average, and record highs approaching 104°F in August. The average wintertime low temperature is approximately 43.8°F, although record lows have approached 32°F in January. Average precipitation in the local area is approximately 9.7 inches per year, with the bulk of precipitation falling between December and March (WRCC 2017).

## 2.1.2 Pollutants and Effects

### 2.1.2.1 Criteria Air Pollutants

Criteria air pollutants are defined as pollutants for which the federal and state governments have established ambient air quality standards, or criteria, for outdoor concentrations to protect public health. The federal and state standards have been set, with an adequate margin of safety, at levels above which concentrations could be harmful to human health and welfare. These standards are designed to protect the most sensitive persons from illness or discomfort. Pollutants of concern include O<sub>3</sub>, NO<sub>2</sub>, CO, sulfur dioxide (SO<sub>2</sub>), particulate matter with an aerodynamic diameter less than or equal to 10 microns (PM<sub>10</sub>), particulate matter with an aerodynamic diameter less than or equal to 2.5 microns (PM<sub>2.5</sub>), and lead. These pollutants, as well as toxic air contaminants (TACs), are discussed in the following paragraphs.<sup>1</sup> In California, sulfates, vinyl chloride, hydrogen sulfide, and visibility-reducing particles are also regulated as criteria air pollutants.

**Ozone.** O<sub>3</sub> is a strong-smelling, pale blue, reactive, toxic chemical gas consisting of three oxygen atoms. It is a secondary pollutant formed in the atmosphere by a photochemical process involving the sun's energy and O<sub>3</sub> precursors. These precursors are mainly NO<sub>x</sub> and VOCs. The maximum effects of precursor emissions on O<sub>3</sub> concentrations usually occur several hours after they are emitted and many miles from the source. Meteorology and terrain play major roles in O<sub>3</sub> formation, and ideal conditions occur during summer and early autumn on days with low wind speeds or stagnant air, warm temperatures, and cloudless skies. O<sub>3</sub> exists in the upper atmosphere O<sub>3</sub> layer (stratospheric ozone) and at the Earth's surface in the troposphere (ozone).<sup>2</sup> The O<sub>3</sub> that the U.S. Environmental Protection Agency (EPA) and the California Air Resources Board (CARB) regulate as a criteria air pollutant is produced close to the ground level, where people live, exercise, and breathe. Ground-level O<sub>3</sub> is a harmful air pollutant that causes numerous adverse health effects and is, thus, considered "bad" O<sub>3</sub>. Stratospheric, or "good," O<sub>3</sub> occurs naturally in the upper atmosphere, where it reduces the amount of ultraviolet light (i.e., solar radiation) entering the Earth's atmosphere. Without the protection of the beneficial stratospheric O<sub>3</sub> layer, plant and animal life would be seriously harmed.

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<sup>1</sup> The descriptions of each of the criteria air pollutants and associated health effects are based on the EPA's Criteria Air Pollutants (2016a) and the CARB Glossary of Air Pollutant Terms (2016a).

<sup>2</sup> The troposphere is the layer of the Earth's atmosphere nearest to the surface of the Earth. The troposphere extends outward about 5 miles at the poles and about 10 miles at the equator.

O<sub>3</sub> in the troposphere causes numerous adverse health effects; short-term exposures (lasting for a few hours) to O<sub>3</sub> at levels typically observed in Southern California can result in breathing pattern changes, reduction of breathing capacity, increased susceptibility to infections, inflammation of the lung tissue, and some immunological changes (EPA 2013). These health problems are particularly acute in sensitive receptors such as the sick, the elderly, and young children.

**Nitrogen Dioxide.** NO<sub>2</sub> is a brownish, highly reactive gas that is present in all urban atmospheres. The major mechanism for the formation of NO<sub>2</sub> in the atmosphere is the oxidation of the primary air pollutant nitric oxide, which is a colorless, odorless gas. NO<sub>x</sub> plays a major role, together with VOCs, in the atmospheric reactions that produce O<sub>3</sub>. NO<sub>x</sub> is formed from fuel combustion under high temperature or pressure. In addition, NO<sub>x</sub> is an important precursor to acid rain and may affect both terrestrial and aquatic ecosystems. The two major emissions sources are transportation and stationary fuel combustion sources, such as electric utility and industrial boilers.

NO<sub>2</sub> can irritate the lungs, cause bronchitis and pneumonia, and lower resistance to respiratory infections (EPA 2016b).

**Carbon Monoxide.** CO is a colorless, odorless gas formed by the incomplete combustion of hydrocarbon, or fossil fuels. CO is emitted almost exclusively from motor vehicles, power plants, refineries, industrial boilers, ships, aircraft, and trains. In urban areas, such as the project location, automobile exhaust accounts for the majority of CO emissions. CO is a nonreactive air pollutant that dissipates relatively quickly; therefore, ambient CO concentrations generally follow the spatial and temporal distributions of vehicular traffic. CO concentrations are influenced by local meteorological conditions—primarily wind speed, topography, and atmospheric stability. CO from motor vehicle exhaust can become locally concentrated when surface-based temperature inversions are combined with calm atmospheric conditions, which is a typical situation at dusk in urban areas from November to February. The highest levels of CO typically occur during the colder months of the year, when inversion conditions are more frequent.

In terms of adverse health effects, CO competes with oxygen, often replacing it in the blood, reducing the blood's ability to transport oxygen to vital organs. The results of excess CO exposure can include dizziness, fatigue, and impairment of central nervous system functions.

**Sulfur Dioxide.** SO<sub>2</sub> is a colorless, pungent gas formed primarily from incomplete combustion of sulfur-containing fossil fuels. The main sources of SO<sub>2</sub> are coal and oil used in power plants and industries; as such, the highest levels of SO<sub>2</sub> are generally found near large industrial complexes. In recent years, SO<sub>2</sub> concentrations have been reduced by the increasingly stringent controls placed on stationary source emissions of SO<sub>2</sub> and limits on the sulfur content of fuels.

SO<sub>2</sub> is an irritant gas that attacks the throat and lungs and can cause acute respiratory symptoms and diminished ventilator function in children. When combined with particulate matter, SO<sub>2</sub> can injure lung tissue and reduce visibility and the level of sunlight. SO<sub>2</sub> can also yellow plant leaves and erode iron and steel.

**Particulate Matter.** Particulate matter pollution consists of very small liquid and solid particles floating in the air, which can include smoke, soot, dust, salts, acids, and metals. Particulate matter can form when gases emitted from industries and motor vehicles undergo chemical reactions in the atmosphere. PM<sub>2.5</sub> and PM<sub>10</sub> represent fractions of particulate matter. Coarse particulate matter (PM<sub>10</sub>) consists of particulate matter that is 10 microns or less in diameter and is about 1/7 the thickness of a human hair. Major sources of PM<sub>10</sub> include crushing or grinding operations; dust stirred up by vehicles traveling on roads; wood-burning stoves and fireplaces; dust from

construction, landfills, and agriculture; wildfires and brush/waste burning; industrial sources; windblown dust from open lands; and atmospheric chemical and photochemical reactions. Fine particulate matter (PM<sub>2.5</sub>) consists of particulate matter that is 2.5 microns or less in diameter and is roughly 1/28 the diameter of a human hair. PM<sub>2.5</sub> results from fuel combustion (e.g., from motor vehicles and power generation and industrial facilities), residential fireplaces, and woodstoves. In addition, PM<sub>2.5</sub> can be formed in the atmosphere from gases such as sulfur oxides (SO<sub>x</sub>), NO<sub>x</sub>, and VOCs.

PM<sub>2.5</sub> and PM<sub>10</sub> pose a greater health risk than larger-size particles. When inhaled, these tiny particles can penetrate the human respiratory system's natural defenses and damage the respiratory tract. PM<sub>2.5</sub> and PM<sub>10</sub> can increase the number and severity of asthma attacks, cause or aggravate bronchitis and other lung diseases, and reduce the body's ability to fight infections. Very small particles of substances such as lead, sulfates, and nitrates can cause lung damage directly or be absorbed into the blood stream, causing damage elsewhere in the body. Additionally, these substances can transport adsorbed gases such as chlorides or ammonium into the lungs, also causing injury. Whereas PM<sub>10</sub> tends to collect in the upper portion of the respiratory system, PM<sub>2.5</sub> is so tiny that it can penetrate deeper into the lungs and damage lung tissue. Suspended particulates also damage and discolor surfaces on which they settle and produce haze and reduce regional visibility.

People with influenza, people with chronic respiratory and cardiovascular diseases, and the elderly may suffer worsening illness and premature death as a result of breathing particulate matter. People with bronchitis can expect aggravated symptoms from breathing in particulate matter. Children may experience a decline in lung function due to breathing in PM<sub>10</sub> and PM<sub>2.5</sub> (EPA 2009).

**Lead.** Lead in the atmosphere occurs as particulate matter. Sources of lead include leaded gasoline; the manufacturing of batteries, paints, ink, ceramics, and ammunition; and secondary lead smelters. Prior to 1978, mobile emissions were the primary source of atmospheric lead. Between 1978 and 1987, the phaseout of leaded gasoline reduced the overall inventory of airborne lead by nearly 95%. With the phaseout of leaded gasoline, secondary lead smelters, battery recycling, and manufacturing facilities are becoming lead-emissions sources of greater concern.

Prolonged exposure to atmospheric lead poses a serious threat to human health. Health effects associated with exposure to lead include gastrointestinal disturbances, anemia, kidney disease, and in severe cases, neuromuscular and neurological dysfunction. Of particular concern are low-level lead exposures during infancy and childhood. Such exposures are associated with decrements in neurobehavioral performance, including intelligence quotient performance, psychomotor performance, reaction time, and growth. Children are highly susceptible to the effects of lead.

**Volatile Organic Compounds.** Hydrocarbons are organic gases that are formed from hydrogen and carbon and sometimes other elements. Hydrocarbons that contribute to formation of O<sub>3</sub> are referred to and regulated as VOCs (also referred to as reactive organic gases). Combustion engine exhaust, oil refineries, and fossil-fueled power plants are the sources of hydrocarbons. Other sources of hydrocarbons include evaporation from petroleum fuels, solvents, dry cleaning solutions, and paint.

The primary health effects of VOCs result from the formation of O<sub>3</sub> and its related health effects. High levels of VOCs in the atmosphere can interfere with oxygen intake by reducing the amount of available oxygen through displacement. Carcinogenic forms of hydrocarbons, such as benzene, are considered TACs. There are no separate health standards for VOCs as a group.



**Sulfates.** Sulfates are the fully oxidized form of sulfur, which typically occur in combination with metals or hydrogen ions. Sulfates are produced from reactions of SO<sub>2</sub> in the atmosphere. Sulfates can result in respiratory impairment and reduced visibility.

**Vinyl Chloride.** Vinyl chloride is a colorless gas with a mild, sweet odor, which has been detected near landfills, sewage plants, and hazardous waste sites, due to the microbial breakdown of chlorinated solvents. Short-term exposure to high levels of vinyl chloride in the air can cause nervous system effects such as dizziness, drowsiness, and headaches. Long-term exposure through inhalation can cause liver damage, including liver cancer.

**Hydrogen Sulfide.** Hydrogen sulfide is a colorless and flammable gas that has a characteristic odor of rotten eggs. Sources of hydrogen sulfide include geothermal power plants, petroleum refineries, sewers, and sewage treatment plants. Exposure to hydrogen sulfide can result in nuisance odors, as well as headaches and breathing difficulties at higher concentrations.

**Visibility-Reducing Particles.** Visibility-reducing particles are any particles in the air that obstruct the range of visibility. Effects of reduced visibility can include obscuring the viewshed of natural scenery, reducing airport safety, and discouraging tourism. Sources of visibility-reducing particles are the same as for PM<sub>2.5</sub>, described above.

#### 2.1.2.2 Non-Criteria Air Pollutants

**Toxic Air Contaminants.** A substance is considered toxic if it has the potential to cause adverse health effects in humans, including increasing the risk of cancer upon exposure, or acute and/or chronic noncancer health effects. A toxic substance released into the air is considered a TAC. TACs are identified by federal and state agencies based on a review of available scientific evidence. In the State of California, TACs are identified through a two-step process that was established in 1983 under the Toxic Air Contaminant Identification and Control Act. This two-step process of risk identification and risk management and reduction was designed to protect residents from the health effects of toxic substances in the air. In addition, the California Air Toxics “Hot Spots” Information and Assessment Act, Assembly Bill (AB) 2588, was enacted by the legislature in 1987 to address public concern over the release of TACs into the atmosphere. The law requires facilities emitting toxic substances to provide local air pollution control districts with information that will allow an assessment of the air toxics problem, identification of air toxics emissions sources, location of resulting hotspots, notification of the public exposed to significant risk, and development of effective strategies to reduce potential risks to the public over 5 years.

Examples include certain aromatic and chlorinated hydrocarbons, certain metals, and asbestos. TACs are generated by a number of sources, including stationary sources, such as dry cleaners, gas stations, combustion sources, and laboratories; mobile sources, such as automobiles; and area sources, such as landfills. Adverse health effects associated with exposure to TACs may include carcinogenic (i.e., cancer-causing) and noncarcinogenic effects. Noncarcinogenic effects typically affect one or more target organ systems and may be experienced on either short-term (acute) or long-term (chronic) exposure to a given TAC.

**Diesel Particulate Matter.** Diesel particulate matter (DPM) is part of a complex mixture that makes up diesel exhaust. Diesel exhaust is composed of two phases, gas and particle, both of which contribute to health risks. More than 90% of DPM is less than 1 micrometer in diameter (about 1/70th the diameter of a human hair) and, thus, is a subset of PM<sub>2.5</sub> (CARB 2016a). DPM is typically composed of carbon particles (“soot,” also called black carbon) and numerous organic compounds, including over 40 known cancer-causing organic substances. Examples of these chemicals include polycyclic aromatic hydrocarbons, benzene, formaldehyde, acetaldehyde,

acrolein, and 1,3-butadiene (CARB 2016a). The CARB classified “particulate emissions from diesel-fueled engines” (i.e., DPM) (17 CCR 93000) as a TAC in August 1998. DPM is emitted from a broad range of diesel engines: on-road diesel engines of trucks, buses, and cars and off-road diesel engines, including locomotives, marine vessels, and heavy-duty construction equipment, among others. Approximately 70% of all airborne cancer risk in California is associated with DPM (CARB 2000). To reduce the cancer risk associated with DPM, CARB adopted a diesel risk reduction plan in 2000 (CARB 2000). Because it is part of PM<sub>2.5</sub>, DPM also contributes to the same non-cancer health effects as PM<sub>2.5</sub> exposure. These effects include premature death; hospitalizations and emergency department visits for exacerbated chronic heart and lung disease, including asthma; increased respiratory symptoms; and decreased lung function in children. Several studies suggest that exposure to DPM may also facilitate development of new allergies (CARB 2016b). Those most vulnerable to non-cancer health effects are children whose lungs are still developing and the elderly who often have chronic health problems.

**Odorous Compounds.** Odors are generally regarded as an annoyance rather than a health hazard. Manifestations of a person’s reaction to odors can range from psychological (e.g., irritation, anger, or anxiety) to physiological (e.g., circulatory and respiratory effects, nausea, vomiting, and headache). The ability to detect odors varies considerably among the population and, overall, is subjective. People may have different reactions to the same odor. An odor that is offensive to one person may be perfectly acceptable to another (e.g., coffee roaster). An unfamiliar odor is more easily detected and is more likely to cause complaints than a familiar one. Known as odor fatigue, a person can become desensitized to almost any odor, and recognition may only occur with an alteration in the intensity. The occurrence and severity of odor impacts depend on the nature, frequency, and intensity of the source; wind speed and direction; and the sensitivity of receptors.

**Valley Fever.** Coccidioidomycosis, more commonly known as “Valley Fever,” is an infection caused by inhalation of the spores of the *Coccidioides immitis* fungus, which grows in the soils of the southwestern United States. When fungal spores are present, any activity that disturbs the soil, such as digging, grading, or other earth-moving operations, can cause the spores to become airborne and thereby increase the risk of exposure. The ecologic factors that appear to be most conducive to survival and replication of the spores are high summer temperatures, mild winters, sparse rainfall, and alkaline sandy soils.

Valley Fever is not considered highly endemic to San Diego. Per the County Health and Human Services Agency, the 10-year average (2009–2018) for Coccidioidomycosis cases in the County of San Diego is 5.5 cases per 100,000 people per year. The project site is wholly contained within the 91911 zip code. For the 91911 zip code, there were 113 cases of Coccidioidomycosis between 2009 and 2018, which is equivalent to a rate of 13.5 cases per 100,000 people (Nelson 2019). Statewide incidences in 2018 were 18.8 per 100,000 people (CDPH 2019).

Even if present at a site, earth-moving activities may not result in increased incidence of Valley Fever. Propagation of *Coccidioides immitis* is dependent on climatic conditions, with the potential for growth and surface exposure highest following early seasonal rains and long dry spells. *Coccidioides immitis* spores can be released when filaments are disturbed by earth-moving activities, although receptors must be exposed to and inhale the spores to be at increased risk of developing Valley Fever. Moreover, exposure to *Coccidioides immitis* does not guarantee that an individual will become ill—approximately 60% of people exposed to the fungal spores are asymptomatic and show no signs of an infection (USGS 2000).

## 2.1.3 Sensitive Receptors

Some land uses are considered more sensitive to changes in air quality than others, depending on the population groups and the activities involved. People most likely to be affected by air pollution include children, the elderly, athletes, and people with cardiovascular and chronic respiratory diseases. Facilities and structures where these air pollution-sensitive people live or spend considerable amounts of time are known as sensitive receptors. Land uses where air pollution-sensitive individuals are most likely to spend time include schools and schoolyards, parks and playgrounds, daycare centers, nursing homes, hospitals, and residential communities (sensitive sites or sensitive land uses) (CARB 2005). The SDAPCD identifies sensitive receptors as those who are especially susceptible to adverse health effects from exposure to TACs, such as children, the elderly, and the ill. Sensitive receptors include schools (grades Kindergarten through 12), day care centers, nursing homes, retirement homes, health clinics, and hospitals within 2 kilometers of the facility (SDAPCD 2015). The closest sensitive receptors to the proposed project are residences adjacent to the western and northern property boundaries. The proposed project would also introduce new on-site sensitive receptors to the area.

## 2.2 Regulatory Setting

### 2.2.1 Federal Regulations

#### 2.2.1.1 Criteria Air Pollutants

The federal Clean Air Act (CAA), passed in 1970 and last amended in 1990, forms the basis for the national air pollution control effort. The EPA is responsible for implementing most aspects of the CAA, including the setting of the National Ambient Air Quality Standards (NAAQS) for major air pollutants, hazardous air pollutant standards, approval of state attainment plans, motor vehicle emission standards, stationary source emission standards and permits, acid rain control measures, stratospheric O<sub>3</sub> protection, and enforcement provisions.

Under the CAA, NAAQS are established for the following criteria pollutants: O<sub>3</sub>, CO, NO<sub>2</sub>, SO<sub>2</sub>, PM<sub>10</sub>, PM<sub>2.5</sub>, and lead. The NAAQS describe acceptable air quality conditions designed to protect the health and welfare of the citizens of the nation. The CAA requires the EPA to reassess the NAAQS at least every 5 years to determine whether adopted standards are adequate to protect public health based on current scientific evidence. States with areas that exceed the NAAQS must prepare a State Implementation Plan (SIP) that demonstrates how those areas will attain the standards within mandated time frames.

#### 2.2.1.2 Hazardous Air Pollutants

The 1977, federal CAA amendments required the EPA to identify National Emission Standards for Hazardous Air Pollutants to protect public health and welfare. Hazardous air pollutants include certain volatile organic chemicals, pesticides, herbicides, and radionuclides that present a tangible hazard, based on scientific studies of exposure to humans and other mammals. Under the 1990 CAA amendments, which expanded the control program for Hazardous Air Pollutants, 189 substances and chemical families were identified as Hazardous Air Pollutants.

## 2.2.2 State Regulations

### 2.2.2.1 Criteria Air Pollutants

The federal CAA delegates the regulation of air pollution control and the enforcement of the NAAQS to the states. In California, the task of air quality management and regulation has been legislatively granted to the CARB, with subsidiary responsibilities assigned to air quality management districts and air pollution control districts at the regional and county levels. CARB, which became part of the California Environmental Protection Agency in 1991, is responsible for ensuring implementation of the California CAA of 1988, responding to the CAA and regulating emissions from motor vehicles and consumer products.

CARB has established California Ambient Air Quality Standards (CAAQS), which are generally more restrictive than the NAAQS. The CAAQS describe adverse conditions; that is, pollution levels must be below these standards before a basin can attain the standard. Air quality is considered “in attainment” if pollutant levels are continuously below the CAAQS and violate the standards no more than once each year. The CAAQS for O<sub>3</sub>, CO, SO<sub>2</sub> (1-hour and 24-hour), NO<sub>2</sub>, PM<sub>10</sub>, PM<sub>2.5</sub>, and visibility-reducing particles are values that are not to be exceeded. All others are not to be equaled or exceeded.

The NAAQS and CAAQS are presented in Table 1.

**Table 1. Ambient Air Quality Standards**

Pollutant	Averaging Time	California Standards <sup>a</sup>	National Standards <sup>b</sup>	
		Concentration <sup>c</sup>	Primary <sup>c,d</sup>	Secondary <sup>c,e</sup>
O <sub>3</sub>	1 hour	0.09 ppm (180 µg/m <sup>3</sup> )	—	Same as Primary Standard <sup>f</sup>
	8 hours	0.070 ppm (137 µg/m <sup>3</sup> )	0.070 ppm (137 µg/m <sup>3</sup> ) <sup>f</sup>	
NO <sub>2</sub> <sup>g</sup>	1 hour	0.18 ppm (339 µg/m <sup>3</sup> )	0.100 ppm (188 µg/m <sup>3</sup> )	Same as Primary Standard
	Annual Arithmetic Mean	0.030 ppm (57 µg/m <sup>3</sup> )	0.053 ppm (100 µg/m <sup>3</sup> )	
CO	1 hour	20 ppm (23 mg/m <sup>3</sup> )	35 ppm (40 mg/m <sup>3</sup> )	None
	8 hours	9.0 ppm (10 mg/m <sup>3</sup> )	9 ppm (10 mg/m <sup>3</sup> )	
SO <sub>2</sub> <sup>h</sup>	1 hour	0.25 ppm (655 µg/m <sup>3</sup> )	0.075 ppm (196 µg/m <sup>3</sup> )	—
	3 hours	—	—	0.5 ppm (1,300 µg/m <sup>3</sup> )
	24 hours	0.04 ppm (105 µg/m <sup>3</sup> )	0.14 ppm (for certain areas) <sup>g</sup>	—
	Annual	—	0.030 ppm (for certain areas) <sup>g</sup>	—
PM <sub>10</sub> <sup>i</sup>	24 hours	50 µg/m <sup>3</sup>	150 µg/m <sup>3</sup>	Same as Primary Standard
	Annual Arithmetic Mean	20 µg/m <sup>3</sup>	—	
PM <sub>2.5</sub> <sup>j</sup>	24 hours	—	35 µg/m <sup>3</sup>	Same as Primary Standard
	Annual Arithmetic Mean	12 µg/m <sup>3</sup>	12.0 µg/m <sup>3</sup>	15.0 µg/m <sup>3</sup>

Table 1. Ambient Air Quality Standards

Pollutant	Averaging Time	California Standards <sup>a</sup>	National Standards <sup>b</sup>	
		Concentration <sup>c</sup>	Primary <sup>c,d</sup>	Secondary <sup>c,e</sup>
Lead <sup>j,k</sup>	30-day Average	1.5 µg/m <sup>3</sup>	—	—
	Calendar Quarter	—	1.5 µg/m <sup>3</sup> (for certain areas) <sup>k</sup>	Same as Primary Standard
	Rolling 3-Month Average	—	0.15 µg/m <sup>3</sup>	
Hydrogen sulfide	1 hour	0.03 ppm (42 µg/m <sup>3</sup> )	—	—
Vinyl chloride <sup>l</sup>	24 hours	0.01 ppm (26 µg/m <sup>3</sup> )	—	—
Sulfates	24 hours	25 µg/m <sup>3</sup>	—	—
Visibility reducing particles	8 hour (10:00 a.m. to 6:00 p.m. PST)	Insufficient amount to produce an extinction coefficient of 0.23 per kilometer due to the number of particles when the relative humidity is less than 70%	—	—

Source: CARB 2016b.

**Notes:** O<sub>3</sub> = ozone; ppm = parts per million by volume; µg/m<sup>3</sup> = micrograms per cubic meter; — = no data available; NO<sub>2</sub> = nitrogen dioxide; CO = carbon monoxide; mg/m<sup>3</sup> = milligrams per cubic meter; SO<sub>2</sub> = sulfur dioxide; PM<sub>10</sub> = particulate matter with an aerodynamic diameter less than or equal to 10 microns; PM<sub>2.5</sub> = particulate matter with an aerodynamic diameter less than or equal to 2.5 microns; PST = Pacific Standard Time.

<sup>a</sup> California standards for O<sub>3</sub>, CO, SO<sub>2</sub> (1-hour and 24-hour), NO<sub>2</sub>, suspended particulate matter (PM<sub>10</sub>, PM<sub>2.5</sub>), and visibility-reducing particles are values that are not to be exceeded. All others are not to be equaled or exceeded. CAAQS are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations.

<sup>b</sup> National standards (other than O<sub>3</sub>, NO<sub>2</sub>, SO<sub>2</sub>, particulate matter, and those based on annual averages or annual arithmetic mean) are not to be exceeded more than once per year. The O<sub>3</sub> standard is attained when the fourth highest 8-hour concentration measured at each site in a year, averaged over 3 years, is equal to or less than the standard. For PM<sub>10</sub>, the 24-hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 µg/m<sup>3</sup> is equal to or less than 1. For PM<sub>2.5</sub>, the 24-hour standard is attained when 98% of the daily concentrations, averaged over 3 years, are equal to or less than the standard.

<sup>c</sup> Concentration expressed first in units in which it was promulgated. Equivalent units given in parentheses are based on a reference temperature of 25 °C and a reference pressure of 760 torr. Most measurements of air quality are to be corrected to a reference temperature of 25 °C and a reference pressure of 760 torr; ppm in this table refers to ppm by volume, or micromoles of pollutant per mole of gas.

<sup>d</sup> National Primary Standards: The levels of air quality necessary, with an adequate margin of safety, to protect the public health.

<sup>e</sup> National Secondary Standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.

<sup>f</sup> On October 1, 2015, the national 8-hour O<sub>3</sub> primary and secondary standards were lowered from 0.075 to 0.070 ppm.

<sup>g</sup> To attain the national 1-hour standard, the 3-year average of the annual 98th percentile of the 1-hour daily maximum concentrations at each site must not exceed 100 parts per billion (ppb). Note that the national 1-hour standard is in units of ppb. California standards are in units of ppm. To directly compare the national 1-hour standard to the California standards, the units can be converted from ppb to ppm. In this case, the national standard of 100 ppb is identical to 0.100 ppm.

<sup>h</sup> On June 2, 2010, a new 1-hour SO<sub>2</sub> standard was established, and the existing 24-hour and annual primary standards were revoked. To attain the national 1-hour standard, the 3-year average of the annual 99th percentile of the 1-hour daily maximum concentrations at each site must not exceed 75 ppb. The 1971 SO<sub>2</sub> national standards (24-hour and annual) remain in effect until 1 year after an area is designated for the 2010 standard, except that in areas designated nonattainment of the 1971 standards, the 1971 standards remain in effect until implementation plans to attain or maintain the 2010 standards are approved.

<sup>i</sup> On December 14, 2012, the national annual PM<sub>2.5</sub> primary standard was lowered from 15 µg/m<sup>3</sup> to 12.0 µg/m<sup>3</sup>. The existing national 24-hour PM<sub>2.5</sub> standards (primary and secondary) were retained at 35 µg/m<sup>3</sup>, as was the annual secondary standard of 15 µg/m<sup>3</sup>. The existing 24-hour PM<sub>10</sub> standards (primary and secondary) of 150 µg/m<sup>3</sup> were also retained. The form of the annual primary and secondary standards is the annual mean averaged over 3 years.

- <sup>j</sup> California Air Resources Board has identified lead and vinyl chloride as toxic air contaminants with no threshold level of exposure for adverse health effects determined. These actions allow for the implementation of control measures at levels below the ambient concentrations specified for these pollutants.
- <sup>k</sup> The national standard for lead was revised on October 15, 2008, to a rolling 3-month average. The 1978 lead standard (1.5 µg/m<sup>3</sup> as a quarterly average) remains in effect until 1 year after an area is designated for the 2008 standard, except that in areas designated nonattainment for the 1978 standard, the 1978 standard remains in effect until implementation plans to attain or maintain the 2008 standard are approved.

### 2.2.2.2 Toxic Air Contaminants

A TAC is defined by California law as an air pollutant that may cause or contribute to an increase in mortality or an increase in serious illness, or that may pose a present or potential hazard to human health. Federal laws use the Hazardous Air Pollutants to refer to the same types of compounds that are referred to as TACs under state law. California regulates TACs primarily through the Tanner Air Toxics Act (AB 1807) and the Air Toxics Hot Spots Information and Assessment Act of 1987 (AB 2588).

AB 1807 sets forth a formal procedure for CARB to designate substances as TACs. This includes research, public participation, and scientific peer review before CARB can designate a substance as a TAC. Pursuant to AB 2588, existing facilities that emit air pollutants above specified level were required to (1) prepare a TAC emission inventory plan and report, (2) prepare a risk assessment if TAC emissions were significant, (3) notify the public of significant risk levels, and (4) if health impacts were above specified levels, prepare and implement risk reduction measures.

The following regulatory measures pertain to the reduction of DPM and criteria pollutant emissions from off-road equipment and diesel-fueled vehicles:

#### **Idling of Commercial Heavy Duty Trucks (13 CCR 2485)**

In July 2004, CARB adopted an Airborne Toxic Control Measure (ATCM) to control emissions from idling trucks. The ATCM prohibits idling for more than 5 minutes for all commercial trucks with a gross vehicle weight rating over 10,000 pounds. The ATCM contains an exception that allows trucks to idle while queuing or involved in operational activities.

#### **In-Use Off-Road Diesel-Fueled Fleets (13 CCR 2449 et seq.)**

In July 2007, CARB adopted an ATCM for in-use off-road diesel vehicles. This regulation requires that specific fleet average requirements are met for NO<sub>x</sub> emissions and for particulate matter emissions. Where average requirements cannot be met, Best Available Control Technology requirements apply. The regulation also includes several recordkeeping and reporting requirements.

In response to AB 8 2X, the regulations were revised in July 2009 (effective December 3, 2009) to allow a partial postponement of the compliance schedule in 2011 and 2012 for existing fleets. On December 17, 2010, CARB adopted additional revisions to further delay the deadlines reflecting reductions in diesel emissions due to the poor economy and overestimates of diesel emissions in California. The revisions delayed the first compliance date until no earlier than January 1, 2014, for large fleets, with final compliance by January 1, 2023. The compliance dates for medium fleets were delayed until an initial date of January 1, 2017, and final compliance date of January 1, 2023. The compliance dates for small fleets were delayed until an initial date of January 1, 2019, and final compliance date of January 1, 2028. Correspondingly, the fleet average targets were made more stringent in future compliance years. The revisions also accelerated the phaseout of equipment with older equipment added to existing large and medium fleets over time, requiring the addition of Tier 2 or higher engines starting on March 1, 2011, with some exceptions: Tier 2 or higher engines on January 1, 2013, without exception; and Tier 3 or higher engines on January 1, 2018 (January 1, 2023, for small fleets).

On October 28, 2011 (effective December 14, 2011), the Executive Officer approved amendments to the regulation. The amendments included revisions to the applicability section and additions and revisions to the definition. The initial date for requiring the addition of Tier 2 or higher engines for large and medium fleets, with some exceptions, was revised to January 1, 2012. New provisions also allow for the removal of emission control devices for safety or visibility purposes. The regulation also was amended to combine the particulate matter and NO<sub>x</sub> fleet average targets under one, instead of two, sections. The amended fleet average targets are based on the fleet's NO<sub>x</sub> fleet average, and the previous section regarding particulate matter performance requirements was deleted completely. The Best Available Control Technology requirements, if a fleet cannot comply with the fleet average requirements, were restructured and clarified. Other amendments to the regulations included minor administrative changes to the regulatory text.

### **In-Use On-Road Diesel-Fueled Vehicles (13 CCR 2025)**

On December 12, 2008, CARB adopted an ATCM to reduce NO<sub>x</sub> and particulate matter emissions from most in-use on-road diesel trucks and buses with a gross vehicle weight rating greater than 14,000 pounds. The original ATCM regulation required fleets of on-road trucks to limit their NO<sub>x</sub> and particulate matter emissions through a combination of exhaust retrofit equipment and new vehicles. The regulation limited particulate matter emissions for most fleets by 2011, and limited NO<sub>x</sub> emissions for most fleets by 2013. The regulation did not require any vehicle to be replaced before 2012 and never required all vehicles in a fleet be replaced.

In December 2009, the CARB Governing Board directed staff to evaluate amendments that would provide additional flexibility for fleets adversely affected by the poor California economy. On December 17, 2010, CARB revised this ATCM to delay its implementation along with limited relaxation of its requirements. Starting on January 1, 2015, lighter trucks with a gross vehicle weight rating of 14,001 to 26,000 pounds with 20-year-old or older engines need to be replaced with newer trucks (2010 model year emissions equivalent as defined in the regulation). Trucks with a gross vehicle weight rating greater than 26,000 pounds with 1995 model year or older engines needed to be replaced as of January 1, 2015. Trucks with 1996–2006 model year engines must install a Level 3 (85% control) diesel particulate filter starting on January 1, 2012, to January 1, 2014, depending on the model year, and then must be replaced after 8 years. Trucks with 2007–2009 model year engines have no requirements until 2023, at which time they must be replaced with 2010 model year emissions equivalent engines, as defined in the regulation. Trucks with 2010 model year engines would meet the final compliance requirements. The ATCM provides a phase-in option under which a fleet operator would equip a percentage of trucks in the fleet with diesel particulate filters, starting at 30% as of January 1, 2012, with 100% by January 1, 2016. Under each option, delayed compliance is granted to fleet operators who have or will comply with requirements before the required deadlines.

On September 19, 2011 (effective December 14, 2011), the Executive Officer approved amendments to the regulations, including revisions to the compliance schedule for vehicles with a gross vehicle weight rating of 26,000 pounds or less to clarify that *all* vehicles must be equipped with 2010 model year emissions equivalent engines by 2023. The amendments included revised and additional credits for fleets that have downsized; implement early particulate matter retrofits; incorporate hybrid vehicles, alternative-fueled vehicles, and vehicles with heavy-duty pilot ignition engines; and implement early addition of newer vehicles. The amendments included provisions for additional flexibility, such as for low-usage construction trucks, and revisions to previous exemptions, delays, and extensions. Other amendments to the regulations included minor administrative changes to the regulatory text, including recordkeeping and reporting requirements related to other revisions.

## California Health and Safety Code Section 41700

Section 41700 of the California Health and Safety Code states that a person shall not discharge from any source whatsoever quantities of air contaminants or other material that cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or that endanger the comfort, repose, health, or safety of any of those persons or the public, or that cause, or have a natural tendency to cause, injury or damage to business or property. This section also applies to sources of objectionable odors.

### 2.2.3 Local Regulations

#### 2.2.3.1 San Diego Air Pollution Control District

While CARB is responsible for the regulation of mobile emission sources within the state, local air quality management districts and air pollution control districts are responsible for enforcing standards and regulating stationary sources. The project site is located within the SDAB and is subject to the guidelines and regulations of the SDAPCD.

In the County, O<sub>3</sub> and particulate matter are the pollutants of main concern, since exceedances of state ambient air quality standards for those pollutants are experienced here in most years. For this reason, the SDAB has been designated as a nonattainment area for the state PM<sub>10</sub>, PM<sub>2.5</sub>, and O<sub>3</sub> standards. The SDAB is also a federal O<sub>3</sub> attainment (maintenance) area for 1997 8-hour O<sub>3</sub> standard, an O<sub>3</sub> nonattainment area for the 2008 8-hour O<sub>3</sub> standard, and a CO maintenance area (western and central part of the SDAB only).

#### Federal Attainment Plans

In December 2016, the SDAPCD adopted an update to the Eight-Hour Ozone Attainment Plan for San Diego County (2008 O<sub>3</sub> NAAQS). The 2016 Eight-Hour Ozone Attainment Plan for San Diego County indicates that local controls and state programs would allow the region to reach attainment of the federal 8-hour O<sub>3</sub> standard (1997 O<sub>3</sub> NAAQS) by 2018 (SDAPCD 2016a). In this plan, SDAPCD relies on the Regional Air Quality Strategy (RAQS) to demonstrate how the region will comply with the federal O<sub>3</sub> standard. The RAQS details how the region will manage and reduce O<sub>3</sub> precursors (NO<sub>x</sub> and VOCs) by identifying measures and regulations intended to reduce these pollutants. The control measures identified in the RAQS generally focus on stationary sources; however, the emissions inventories and projections in the RAQS address all potential sources, including those under the authority of CARB and the EPA. Incentive programs for reduction of emissions from heavy-duty diesel vehicles, off-road equipment, and school buses are also established in the RAQS.

Currently, the County is designated as moderate nonattainment for the 2008 NAAQS and maintenance for the 1997 NAAQS. As documented in the 2016 8-Hour Ozone Attainment Plan for San Diego County, the County has a likely chance of obtaining attainment due to the transition to low-emission cars, stricter new source review rules, and continuing the requirement of general conformity for military growth and the San Diego International Airport. The County will also continue emission control measures, including ongoing implementation of existing regulations in ozone precursor reduction to stationary and area-wide sources, subsequent inspections of facilities and sources, and the adoption of laws requiring Best Available Retrofit Control Technology for control of emissions (SDAPCD 2016a).



## State Attainment Plans

The SDAPCD and the San Diego Association of Governments (SANDAG) are responsible for developing and implementing the clean air plan for attainment and maintenance of the ambient air quality standards in the SDAB. The RAQS for the SDAB was initially adopted in 1991 and is updated on a triennial basis, most recently in 2016 (SDAPCD 2016b). The RAQS outlines SDAPCD's plans and control measures designed to attain the state air quality standards for O<sub>3</sub>. The RAQS relies on information from CARB and SANDAG, including mobile and area source emissions, as well as information regarding projected growth in the County and the cities in the County, to forecast future emissions and then determine from that the strategies necessary for the reduction of emissions through regulatory controls. CARB mobile source emission projections and SANDAG growth projections are based on population, vehicle trends, and land use plans developed by the County and the cities in the County as part of the development of their general plans (SANDAG 2017a, 2017b).

In December 2016, the SDAPCD adopted the revised RAQS for the County. Since 2007, the San Diego region reduced daily VOC emissions and NO<sub>x</sub> emissions by 3.9% and 7.0%, respectively; the SDAPCD expects to continue reductions through 2035 (SDAPCD 2016b). These reductions were achieved through implementation of six VOC control measures and three NO<sub>x</sub> control measures adopted in the SDAPCD's 2009 RAQS (SDAPCD 2009a); in addition, the SDAPCD is considering additional measures, including three VOC measures and four control measures to reduce 0.3 daily tons of VOC and 1.2 daily tons of NO<sub>x</sub>, provided they are found to be feasible region-wide. In addition, SDAPCD has implemented nine incentive-based programs, has worked with SANDAG to implement regional transportation control measures, and has reaffirmed the state emission offset repeal.

In regards to particulate matter emissions reduction efforts, in December 2005, the SDAPCD prepared a report titled "Measures to Reduce Particulate Matter in San Diego County" to address implementation of Senate Bill (SB) 656 in San Diego County (SB 656 required additional controls to reduce ambient concentrations of PM<sub>10</sub> and PM<sub>2.5</sub>) (SDAPCD 2005). In the report, SDAPCD evaluated implementation of source-control measures that would reduce particulate matter emissions associated with residential wood combustion; various construction activities including earthmoving, demolition, and grading; bulk material storage and handling; carryout and trackout removal and cleanup methods; inactive disturbed land; disturbed open areas; unpaved parking lots/staging areas; unpaved roads; and windblown dust (SDAPCD 2005).

## SDAPCD Rules and Regulations

As stated above, the SDAPCD is responsible for planning, implementing, and enforcing federal and state ambient standards in the SDAB. The following rules and regulations apply to all sources in the jurisdiction of SDAPCD and would apply to the proposed project:

**SDAPCD Regulation II: Permits; Rule 20.2: New Source Review Non-Major Stationary Sources.** Requires new or modified stationary source units (that are not major stationary sources) with the potential to emit 10 pounds per day or more of VOC, NO<sub>x</sub>, SO<sub>x</sub>, or PM<sub>10</sub> to be equipped with Best Available Control Technology. For those units with a potential to emit above Air Quality Impact Assessments Trigger Levels, the units must demonstrate that such emissions would not violate or interfere with the attainment of any national air quality standard (SDAPCD 2016b).

**SDAPCD Regulation IV: Prohibitions; Rule 50: Visible Emissions.** Prohibits discharge into the atmosphere from any single source of emissions whatsoever any air contaminant for a period or periods aggregating more than 3 minutes in any period of 60 consecutive minutes, which is darker in shade than that designated as Number 1 on the Ringelmann Chart, as published by the United States Bureau of Mines, or of such opacity as to obscure an observer's view to a degree greater than does smoke of a shade designated as Number 1 on the Ringelmann Chart (SDAPCD 1997).

**SDAPCD Regulation IV: Prohibitions; Rule 51: Nuisance.** Prohibits the discharge, from any source, of such quantities of air contaminants or other materials that cause or have a tendency to cause injury, detriment, nuisance, annoyance to people and/or the public, or damage to any business or property (SDAPCD 1969).

**SDAPCD Regulation IV: Prohibitions; Rule 55: Fugitive Dust.** Regulates fugitive dust emissions from any commercial construction or demolition activity capable of generating fugitive dust emissions, including active operations, open storage piles, and inactive disturbed areas, as well as track-out and carry-out onto paved roads beyond a project area (SDAPCD 2009b).

**SDAPCD Regulation IV: Prohibitions; Rule 67.0.1: Architectural Coatings.** Requires manufacturers, distributors, and end users of architectural and industrial maintenance coatings to reduce VOC emissions from the use of these coatings, primarily by placing limits on the VOC content of various coating categories (SDAPCD 2015). Construction and operation of the proposed project would include application of architectural coatings (e.g., paint and other finishes), which are subject to SDAPCD Rule 67.0.1.

**SDAPCD Regulation XII: Toxic Air Contaminants; Rule 1200: Toxic Air Contaminants - New Source Review.** Requires new or modified stationary source units with the potential to emit TACs above rule threshold levels to either demonstrate that they will not increase the maximum incremental cancer risk above 1 in 1 million at every receptor location, demonstrate that toxics best available control technology will be employed if maximum incremental cancer risk is equal to or less than 10 in 1 million, or demonstrate compliance with the SDAPCD's protocol for those sources with an increase in maximum incremental cancer risk at any receptor location of greater than 10 in 1 million but less than 100 in 1 million (SDAPCD 2017a).

**SDAPCD Regulation XII: Toxic Air Contaminants; Rule 1210: Toxic Air Contaminant Public Health Risks –Public Notification and Risk Reduction.** Requires each stationary source required to prepare a public risk assessment to provide written public notice of risks at or above the following levels: maximum incremental cancer risks equal to or greater than 10 in 1 million, cancer burden equal to or greater than 1.0, total acute noncancer health hazard index equal to or greater than 1.0, or total chronic noncancer health hazard index equal to or greater than 1.0 (SDAPCD 2017b).

### 2.2.3.2 San Diego Association of Governments

SANDAG is the regional planning agency for the County and serves as a forum for regional issues relating to transportation, the economy, community development, and the environment. SANDAG serves as the federally designated metropolitan planning organization for the County. With respect to air quality planning and other regional issues, SANDAG has prepared *San Diego Forward: The Regional Plan* (Regional Plan) for the San Diego region (SANDAG 2015). The Regional Plan combines the big-picture vision for how the region will grow over the next 35 years with an implementation program to help make that vision a reality. The Regional Plan, including its Sustainable Communities Strategy (SCS), is built on an integrated set of public policies, strategies, and investments to maintain, manage, and improve the transportation system so that it meets the diverse needs of the San Diego region through 2050.

In regards to air quality, the Regional Plan sets the policy context in which SANDAG participates in and responds to the air district's air quality plans and builds off the air district's air quality plan processes that are designed to meet health-based criteria pollutant standards in several ways (SANDAG 2015). First, it complements air quality plans by providing guidance and incentives for public agencies to consider best practices that support the technology-based control measures in air quality plans. Second, the Regional Plan emphasizes the need for better coordination of land use and transportation planning, which heavily influences the emissions inventory from the transportation sectors of the economy. This also minimizes land use conflicts, such as residential development near freeways, industrial areas, or other sources of air pollution.

On September 23, 2016, SANDAG's Board of Directors adopted the final 2016 Regional Transportation Improvement Program. The 2016 Regional Transportation Improvement Program is a multi-billion dollar, multi-year program of proposed projects for major transportation projects in the San Diego region. Transportation projects funded with federal, state, and TransNet (the San Diego transportation sales tax program) must be included in an approved Regional Transportation Improvement Program. The programming of locally funded projects also may be programmed at the discretion of the agency. The 2016 Regional Transportation Improvement Program covers five fiscal years and incrementally implements the Regional Plan (SANDAG 2016).

### 2.2.3.3 Chula Vista General Plan

In the Environmental Element of the Chula Vista General Plan, the City outlines in Chapter 3.1.6, Promoting Clean Air, the background of air quality in the region and the following objectives and policies related to air quality (City of Chula Vista 2005):

- E6:** Improve local air quality and reduce greenhouse gas emissions by minimizing the release of air pollutants and toxic air contaminants and limiting the exposure of people to such pollutants.
- E6A:** Explore opportunities for improving indoor air quality.
- E6B:** Prioritize greening efforts to keep air, water, and land clean.

The following policies related to air quality are found in Section 3.1.6 of the Environmental Element in the Chula Vista General Plan:

- E6.1:** Encourage compact development featuring a mix of uses that locate residential areas within reasonable walking distance to jobs, services, and transit.
- E6.2:** Promote and facilitate transit system improvements in order to increase transit use and reduce dependency on the automobile.
- E6.3:** Facilitate the use of alternative fuel and low- and zero-emission vehicles and equipment in the community.
- E6.4:** Do not site new or re-powered fossil-fueled baseload or peaking-type Electric Generating Facilities and other major toxic emitters within 1,000 feet of sensitive receptors, or site sensitive receptors within 1,000 feet of such facilities.

- E6.5:** Ensure Electrical Generating Facilities incorporate cleaner fuel sources and least polluting technologies in order to help transition the City to a less fossil fuel dependent future, while meeting Chula Vista's energy demand.
- E6.6:** Explore incentives to promote voluntary air pollutant reductions, including incentives for developers who go above and beyond applicable requirements and for facilities and operations that are not otherwise regulated.
- E6.7:** Encourage innovative energy conservation practices and air quality improvements in new development and redevelopment projects consistent with the City's Air Quality Improvement Plan Guidelines or its equivalent, pursuant to the City's Growth Management Program.
- E6.9:** Discourage the use of landscaping equipment powered by two-stroke gasoline engines within the City and promote less-polluting alternatives to their use.
- E6.10:** The siting of new sensitive receivers within 500 feet of highways resulting from development or redevelopment projects shall require the preparation of a health risk assessment as part of the CEQA review of the project. Attendant health risks identified in the HRA shall be feasibly mitigated to the maximum extent practicable, in accordance with CEQA, in order to help ensure that applicable federal and state standards are not exceeded.
- E6.11:** Develop strategies to minimize CO hot spots that address all modes of transportation.
- E6.12:** Promote clean fuel sources that help reduce the exposure of sensitive uses to pollutants.
- E6.13:** Encourage programs and infrastructure to increase the availability and usage of energy-efficient vehicles, such as hybrid electric vehicles, electric vehicles, or those that run on alternative fuels.
- E6.14:** Transition the City fleet to 100% "clean" vehicles by integrating hybrid and alternative fuel vehicles as current municipal fleet vehicles are replaced.
- E6.15:** Site industries and other stationary emitters in a way that minimizes the potential impacts of poor air quality on homes, schools, hospitals, and other land uses where people congregate, and disadvantaged populations.
- E6.16:** Encourage the use of bicycles through support of bike share opportunities, community bike programs, and the provision of bicycle parking opportunities such as bike racks and bike lockers.
- E6.A.1:** Continue to limit exposure to secondhand smoke by encouraging the creation of smoke free spaces and facilities in public spaces, and at all workplaces and multi-unit housing.

## 2.3 Regional and Local Air Quality Conditions

### 2.3.1 San Diego Air Basin Attainment Designation

Pursuant to the 1990 federal CAA amendments, the EPA classifies air basins (or portions thereof) as “attainment” or “nonattainment” for each criteria air pollutant, based on whether the NAAQS have been achieved. Generally, if the recorded concentrations of a pollutant are lower than the standard, the area is classified as “attainment” for that pollutant. If an area exceeds the standard, the area is classified as “nonattainment” for that pollutant. If there is not enough data available to determine whether the standard is exceeded in an area, the area is designated as “unclassified” or “unclassifiable.” The designation of “unclassifiable/attainment” means that the area meets the standard or is expected to be meet the standard despite a lack of monitoring data. Areas that achieve the standards after a nonattainment designation are redesignated as maintenance areas and must have approved Maintenance Plans to ensure continued attainment of the standards. The California CAA, like its federal counterpart, called for the designation of areas as “attainment” or “nonattainment,” but based on CAAQS rather than the NAAQS. Table 2 depicts the current attainment status of the project site with respect to the NAAQS and CAAQS. The attainment classifications for the criteria pollutants are outlined in Table 2.

**Table 2. San Diego Air Basin Attainment Classification**

Pollutant	Designation/Classification	
	National Standards	State Standards
Ozone (O <sub>3</sub> ) – 1 hour	Attainment <sup>a</sup>	Nonattainment
O <sub>3</sub> (8-hour – 1997) (8-hour – 2008)	Attainment (maintenance) <b>Nonattainment (moderate)</b>	Nonattainment
Nitrogen Dioxide (NO <sub>2</sub> )	Unclassifiable/attainment	Attainment
Carbon Monoxide (CO)	Attainment (maintenance)	Attainment
Sulfur Dioxide (SO <sub>2</sub> ) <sup>a</sup>	Not designated <sup>b</sup>	Attainment
Coarse Particulate Matter (PM <sub>10</sub> )	Unclassifiable/attainment	Nonattainment
Fine Particulate Matter (PM <sub>2.5</sub> )	Unclassifiable/attainment	Nonattainment
Lead (Pb)	Unclassifiable/attainment	Attainment
Hydrogen Sulfide	No national standard	Attainment
Sulfates	No national standard	Unclassified
Visibility-Reducing Particles	No national standard	Unclassified
Vinyl Chloride	No national standard	No designation

**Sources:** EPA 2016c (federal); CARB 2016c (state).

**Notes:** Attainment = meets the standards; Attainment/maintenance = achieve the standards after a nonattainment designation; Nonattainment = does not meet the standards; Unclassified or Unclassifiable = insufficient data to classify; Unclassifiable/attainment = meets the standard or is expected to be meet the standard despite a lack of monitoring data.

If nonattainment for federal Standards, a clarifying classification will be provided indicating the severity of the nonattainment status.

<sup>a</sup> The federal 1-hour standard of 0.12 parts per million was in effect from 1979 through June 15, 2005. The revoked standard is referenced here, because it was employed for such a long period and because this benchmark is addressed in State Implementation Plans.

<sup>b</sup> Federal designations for SO<sub>2</sub> are on hold by the Environmental Protection Agency; Environmental Protection Agency expects to make the designations by December 2017 (EPA 2016d).

In summary, the SDAB is designated as an attainment area for the 1997 8-hour O<sub>3</sub> NAAQS and as a nonattainment area for the 2008 8-hour O<sub>3</sub> NAAQS. The SDAB is designated as a nonattainment area for O<sub>3</sub>, PM<sub>10</sub>, and PM<sub>2.5</sub> CAAQS. The portion of the SDAB where the project site is located is designated as attainment or unclassifiable/unclassified for all other criteria pollutants under the NAAQS and CAAQS.

## 2.3.2 Local Ambient Air Quality

CARB, air districts, and other agencies monitor ambient air quality at approximately 250 air quality monitoring stations across the state. Local ambient air quality is monitored by the SDAPCD. The SDAPCD operates a network of ambient air monitoring stations throughout the County, which measure ambient concentrations of pollutants and determine whether the ambient air quality meets the CAAQS and the NAAQS. The nearest SDAPCD-operated monitoring station is the Chula Vista monitoring station, which is located approximately 3 mile northwest of the project site. This site was used to show the background ambient air quality for O<sub>3</sub>, PM<sub>10</sub>, PM<sub>2.5</sub>, and NO<sub>2</sub>. The closest monitoring site that measures CO and SO<sub>2</sub> is the First Street monitoring station in El Cajon, which is about 14 miles northeast of the project site. The most recent background ambient air quality data and number of days exceeding the ambient air quality standards from 2016 to 2018 are presented in Table 3.

**Table 3. Local Ambient Air Quality Data**

Averaging Time	Unit	Agency/ Method	Ambient Air Quality Standard	Measured Concentration by Year			Exceedances by Year		
				2016	2017	2018	2016	2017	2018
Ozone (O <sub>3</sub> ) – Chula Vista									
Maximum 1-hour concentration	ppm	State	0.09	0.088	0.073	0.085	0	0	0
Maximum 8-hour concentration	ppm	State	0.070	0.066	0.068	0.074	0	0	1
		Federal	0.070	0.066	0.068	0.074	0	0	1
Nitrogen Dioxide (NO <sub>2</sub> ) – Chula Vista									
Maximum 1-hour concentration	ppm	State	0.18	0.049	0.054	0.057	0	0	0
		Federal	0.100	0.049	0.054	0.057	0	0	0
Annual concentration	ppm	State	0.030	0.010	0.009	0.009	—	—	—
		Federal	0.053	0.010	0.009	0.009	—	—	—
Carbon Monoxide (CO) – 533 First Street, El Cajon									
Maximum 1-hour concentration	ppm	State	20	—	1.6	1.5	—	0	0
		Federal	35	—	1.6	1.5	—	0	0
Maximum 8-hour concentration	ppm	State	9.0	—	1.3	1.4	—	0	0
		Federal	9	—	1.3	1.4	—	0	0
Sulfur Dioxide (SO <sub>2</sub> ) – 533 First Street, El Cajon									
Maximum 1-hour concentration	ppm	Federal	0.075	0.0012	0.0006	0.0010	0	0	0
Maximum 24-hour concentration	ppm	Federal	0.14	0.0004	0.0002	0.0004	0	0	0
Annual concentration	ppm	Federal	0.030	0.0001	0.0008	0.0001	0	0	0

Table 3. Local Ambient Air Quality Data

Averaging Time	Unit	Agency/ Method	Ambient Air Quality Standard	Measured Concentration by Year			Exceedances by Year		
				2016	2017	2018	2016	2017	2018
Coarse Particulate Matter (PM <sub>10</sub> ) <sup>a</sup> – Chula Vista									
Maximum 24-hour concentration	µg/m <sup>3</sup>	State	50	39.0	45.0	48.0	0.0 (0)	0.0 (0)	0.0 (0)
		Federal	150	38.0	46.0	48.0	0.0 (0)	0.0 (0)	0.0 (0)
Annual concentration	µg/m <sup>3</sup>	State	20	23.4	19.8	21.8	0.0 (0)	0.0 (0)	0.0 (0)
Fine Particulate Matter (PM <sub>2.5</sub> ) <sup>a</sup> – Chula Vista									
Maximum 24-hour concentration	µg/m <sup>3</sup>	Federal	35	33.5	23.9	42.7	0	0	1
Annual concentration	µg/m <sup>3</sup>	State	12	8.4	8.7	9.3	0	0	0
		Federal	12.0	8.4	8.7	9.3	0	0	0

Sources: CARB 2019a; EPA 2019a.

Notes: ppm = parts per million; – = no data available; µg/m<sup>3</sup> = micrograms per cubic meter.

Data taken from CARB iADAM (CARB 2019a) and Environmental Protection Agency AirData (EPA 2019a) represent the highest concentrations experienced over a given year.

Daily exceedances for particulate matter are estimated days because PM<sub>10</sub> and PM<sub>2.5</sub> are not monitored daily. All other criteria pollutants did not exceed federal or state standards during the years shown. There is no federal standard for 1-hour O<sub>3</sub>, annual PM<sub>10</sub>, or 24-hour SO<sub>2</sub>, nor is there a state 24-hour standard for PM<sub>2.5</sub>.

<sup>a</sup> Measurements of PM<sub>10</sub> and PM<sub>2.5</sub> are usually collected every 6 days and every 1 to 3 days, respectively. Number of days exceeding the standards is a mathematical estimate of the number of days concentrations would have been greater than the level of the standard had each day been monitored. The numbers in parentheses are the measured number of samples that exceeded the standard.

## 2.4 Significance Criteria and Methodology

### 2.4.1 Thresholds of Significance

The significance criteria used to evaluate the project impacts to air quality is based on the recommendations provided in Appendix G of the CEQA Guidelines. For the purposes of this air quality analysis, a significant impact would occur if the project would (14 CCR 15000 et seq.):

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

Appendix G of the CEQA Guidelines (14 CCR 15000 et seq.) indicates that, where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to determine whether the project would have a significant impact on air quality.

The City evaluated project emissions based on the quantitative emission thresholds established by the South Coast Air Quality Management District (SCAQMD). The SCAQMD sets forth quantitative emission significance thresholds below which a project would not have a significant impact on ambient air quality. It should be noted that the use of these significance thresholds is conservative, as the SCAQMD's significance thresholds were originally based on the South Coast Air Basin extreme ozone nonattainment status for the 1-hour NAAQS, whereas the SDAB was designated as an attainment area for the 1-hour NAAQS. Project-related air quality impacts estimated in this environmental analysis would be considered significant if any of the applicable significance thresholds presented in Table 4 are exceeded.

**Table 4. City of Chula Vista Air Quality Significance Thresholds**

<b>Criteria Pollutants Mass Daily Thresholds</b>		
<b>Pollutant</b>	<b>Construction (pounds per day)</b>	<b>Operation (pounds per day)</b>
VOCs	75	55
NO <sub>x</sub>	100	55
CO	550	550
SO <sub>x</sub>	150	150
PM <sub>10</sub>	150	150
PM <sub>2.5</sub>	55	55
Lead <sup>a</sup>	3	3

**Source:** SCAQMD 2015.

**Notes:** VOC = volatile organic compound; NO<sub>x</sub> = oxides of nitrogen; CO = carbon monoxide; SO<sub>x</sub> = sulfur oxides; PM<sub>10</sub> = coarse particulate matter; PM<sub>2.5</sub> = fine particulate matter.

GHG emissions thresholds for industrial projects, as added in the March 2015 revision to the SCAQMD Air Quality Significance Thresholds, were not included in Table 4 as they will be addressed within the GHG emissions analysis and not the air quality study.

<sup>a</sup> The phaseout of leaded gasoline started in 1976. Since gasoline no longer contains lead, the project is not anticipated to result in impacts related to lead; therefore, it is not discussed in this analysis.

The thresholds listed in Table 4 represent screening-level thresholds that can be used to evaluate whether project-related emissions could cause a significant impact on air quality. Emissions below the screening-level thresholds would not cause a significant impact. For nonattainment pollutants, if emissions exceed the thresholds shown in Table 4, the proposed project could have the potential to result in a cumulatively considerable net increase in these pollutants and, thus, could have a significant impact on the ambient air quality.

With respect to odors, SDAPCD Rule 51 (Public Nuisance) prohibits emission of any material that causes nuisance to a considerable number of persons or endangers the comfort, health, or safety of any person. A project that proposes a use that would produce objectionable odors would be deemed to have a significant odor impact if it would affect a considerable number of off-site receptors.

## 2.4.2 Approach and Methodology

### 2.4.2.1 Construction

Emissions from the construction phase of the proposed project were estimated using the California Emissions Estimator Model (CalEEMod) Version 2016.3.2 (CAPCOA 2017).



As described in Section 1.2, Project Description, the proposed project would develop an 80-bed inpatient rehabilitation facility with supporting amenities on 9.79 acres. For the purposes of modeling, it was assumed that construction of phase 1 of the proposed project would commence in December 2020 and would last approximately 12 months, ending in December 2021. Construction of phase 2 of the proposed project would commence in January 2022 and would last approximately 6 months, ending in June 2022. The analysis contained herein is based on the assumptions outlined in Table 5 (duration of phases is approximate). The proposed project schedule was based on information provided by the project applicant.

**Table 5. Construction Phasing Assumptions**

Proposed Project Construction Phase	Construction Start Month/Year	Construction End Month/Year
Phase 1 Site Preparation	12/2020	12/2020
Phase 1 Grading	12/2020	12/2020
Phase 1 Building Construction	12/2020	11/2021
Phase 1 Paving	11/2021	11/2021
Phase 1 Architectural Coatings	12/2021	12/2021
Phase 2 Site Preparation	1/2022	1/2022
Phase 2 Grading	1/2022	1/2022
Phase 2 Building Construction	1/2022	5/2022
Phase 2 Paving	5/2022	6/2022
Phase 2 Architectural Coatings	6/2022	6/2022

**Notes:** See Appendix A for details.

The construction equipment mix, quantity, and usage hours for estimating the construction emissions of the proposed project were provided by the applicant and is shown in Table 6. For this analysis, it was assumed that heavy construction equipment would operate 5 days a week during proposed project construction.

**Table 6. Construction Scenario Assumptions**

Construction Phase	One-Way Vehicle Trips			Equipment		
	Average Daily Worker Trips	Average Daily Vendor Truck Trips	Total Haul Truck Trips	Equipment Type	Quantity	Usage Hours
Phase 1 Site Preparation	6	0	0	Tractors/Loaders/Backhoes	4	8
Phase 1 Grading	6	0	3,156	Excavators	1	8
Phase 1 Building Construction	52	16	0	Cranes	1	7
				Forklifts	3	8
				Tractors/Loaders/Backhoes	3	7
				Generator Sets	1	8
				Welders	1	8
Phase 1 Paving	8	0	0	Cement and Mortar Mixers	1	6
				Pavers	1	8
				Rollers	2	6

Table 6. Construction Scenario Assumptions

Construction Phase	One-Way Vehicle Trips			Equipment		
	Average Daily Worker Trips	Average Daily Vendor Truck Trips	Total Haul Truck Trips	Equipment Type	Quantity	Usage Hours
				Tractors/Loaders/Backhoes	1	8
				Paving Equipment	2	6
Phase 1 Architectural Coating	6	0	0	Air Compressors	2	6
Phase 2 Site Preparation	4	0	0	Tractors/Loaders/Backhoes	1	8
Phase 2 Grading	4	0	50	Concrete/Industrial Saws	1	8
				Tractors/Loaders/Backhoes	2	6
Phase 2 Building Construction	110	4	0	Forklifts	2	6
				Tractors/Loaders/Backhoes	1	8
Phase 2 Paving	8	0	0	Cement and Mortar Mixers	1	6
				Pavers	1	7
				Rollers	1	7
				Tractors/Loaders/Backhoes	1	7
Phase 2 Architectural Coating	2	2	0	Air Compressors	1	6

**Notes:** See Appendix A for details.

Construction-worker and vendor estimates by construction phase were generated by the applicant. As specified by the applicant, phase 1 would require 28,400 cubic yards of soil export in trucks with a capacity of 18 cubic yards, thus, 3,156 one-way haul truck trips were assumed. Phase 2 would require 50 one-way haul truck trips for aggregate and topsoil import.

Construction of proposed project components would be subject to SDAPCD Rule 55, Fugitive Dust Control. This rule requires that construction of proposed project components include steps to restrict visible emissions of fugitive dust beyond the property line (SDAPCD 2009b). Compliance with Rule 55 would limit fugitive dust (PM<sub>10</sub> and PM<sub>2.5</sub>) that may be generated during grading and construction activities.

The application of architectural coatings, such as exterior/interior paint and other finishes, would also produce VOC emissions; however, the contractor is required to procure architectural coatings from a supplier in compliance with the requirements of SDAPCD Rule 67.0.1, Architectural Coatings. This rule requires manufacturers, distributors, and end users of architectural and industrial maintenance coatings to reduce VOC emissions from the use of these coatings, primarily by placing limits on the VOC content of various coating categories (SDAPCD 2015). The project would comply with SDAPCD Rule 67.0.1 through the incorporation of low-VOC architectural coatings. The VOC content assumed for the analysis includes 50 grams per liter for interior coatings and 100 grams per liter for exterior coatings and for parking lot coatings.

A detailed depiction of the construction schedule—including information regarding subphases and equipment used during each subphase—is included in Appendix A, California Emissions Estimator Model Output Files, of this report. The information contained in Appendix A was used as CalEEMod model inputs.

#### 2.4.2.2 Operation

Emissions from the operational phase of the proposed project were estimated using CalEEMod. Operational year 2023 was assumed as it would be the first full year following completion of construction.

##### Area Sources

CalEEMod was used to estimate operational emissions from area sources, including emissions from consumer product use, architectural coatings, and landscape maintenance equipment. Emissions associated with natural gas usage in space heating and water heating are calculated in the building energy use module of CalEEMod, as described in the following text.

Consumer products are chemically formulated products used by household and institutional consumers, including detergents; cleaning compounds; polishes; floor finishes; cosmetics; personal care products; home, lawn, and garden products; disinfectants; sanitizers; aerosol paints; and automotive specialty products. Other paint products, furniture coatings, or architectural coatings are not considered consumer products (CAPCOA 2017). Consumer product VOC emissions are estimated in CalEEMod based on the floor area of buildings and on the default factor of pounds of VOC per building square foot per day. The CalEEMod default values for consumer products were assumed.

VOC off-gassing emissions result from evaporation of solvents contained in surface coatings, such as in paints and primers used during building maintenance. CalEEMod calculates the VOC evaporative emissions from the application of surface coatings based on the VOC emission factor, the building square footage, the assumed fraction of surface area, and the reapplication rate. The VOC emissions factor is based on the VOC content of the surface coatings, and SDAPCD's Rule 67.0.1 (Architectural Coatings) governs the VOC content for interior and exterior coatings. This rule requires manufacturers, distributors, and end users of architectural and industrial maintenance coatings to reduce VOC emissions from the use of these coatings, primarily by placing limits on the VOC content of various coating categories (SDAPCD 2015). The proposed project would use architectural coatings that would not exceed 50 grams per liter for interior and 100 grams per liter for exterior applications. The model default reapplication rate of 10% of area per year is assumed. Consistent with CalEEMod defaults, it is assumed that the surface area for painting equals 2.7 times the floor square footage, with 75% assumed for interior coating and 25% assumed for exterior surface coating (CAPCOA 2017). CalEEMod defaults were assumed for the application of architectural coatings during operation, as that would not be controlled by the project applicant.

Landscape maintenance includes fuel combustion emissions from equipment such as lawn mowers, rototillers, shredders/grinders, blowers, trimmers, chainsaws, and hedge trimmers. The emissions associated with landscape equipment use are estimated based on CalEEMod default values for emission factors (grams per square foot of building space per day) and number of summer days (when landscape maintenance would generally be performed) and winter days. For the County, the average annual number of summer days is estimated at 180 days (CAPCOA 2017).

### **Energy Sources**

As represented in CalEEMod, energy sources include emissions associated with building electricity and natural gas usage. Electricity use would contribute indirectly to criteria air pollutant emissions; however, the emissions from electricity use are only quantified for GHGs in CalEEMod, since criteria pollutant emissions occur at the site of the power plant, which is typically off site.

### **Stationary Source**

The proposed project would install and operate a Cummins Model 750DQCB 750-kilowatt emergency diesel generator. To calculate estimated emissions due to testing, emissions were calculated using the default emission factors from CalEEMod and manufacturer's source test (Appendix A) at 100% load assuming a maximum of 30 minutes of operation per day and up to 50 total hours per year. The emergency generator would be subject to SDAPCD rules and permitting requirements.

### **Mobile Sources**

Following the completion of construction activities, the proposed project would generate criteria pollutant emissions from mobile sources (vehicular traffic) as a result of the employees and visitors from the proposed project. The maximum weekday trip rate of 480 trips per day were taken from the Traffic Impact Analysis for the proposed project (Dudek 2020). The CalEEMod model was used to estimate emissions from proposed vehicular sources (refer to Appendix A). CalEEMod default data, including temperature, trip characteristics, variable start information, emissions factors, and trip distances, were conservatively used for the model inputs. Project-related traffic was assumed to include a mixture of vehicles in accordance with the associated use, light-duty vehicles for the employees and visitors. Emission factors representing the vehicle mix and emissions for 2023 were conservatively used to estimate emissions associated with vehicular sources.

## **2.5 Impact Analysis**

### **2.5.1 Would the Project Conflict with or Obstruct Implementation of the Applicable Air Quality Plan?**

As mentioned in Section 2.2.3, Local Regulations, the SDAPCD and SANDAG are responsible for developing and implementing the clean air plans for attainment and maintenance of the ambient air quality standards in the basin—specifically, the SIP and RAQS.<sup>3</sup> The federal O<sub>3</sub> maintenance plan, which is part of the SIP, was adopted in

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<sup>3</sup> For the purpose of this discussion, the relevant federal air quality plan is the ozone maintenance plan (SDAPCD 2016). The RAQS is the applicable plan for purposes of state air quality planning. Both plans reflect growth projections in the SDAB.

2012. The most recent O<sub>3</sub> attainment plan was adopted in 2016. The SIP includes a demonstration that current strategies and tactics will maintain acceptable air quality in the SDAB based on the NAAQS. The RAQS was initially adopted in 1991 and is updated on a triennial basis (most recently in 2016). The RAQS outlines SDAPCD's plans and control measures designed to attain the state air quality standards for O<sub>3</sub>. The SIP and RAQS rely on information from CARB and SANDAG, including mobile and area source emissions, as well as information regarding projected growth in the County as a whole and the cities in the County, to project future emissions and determine the strategies necessary for the reduction of emissions through regulatory controls. CARB mobile source emission projections and SANDAG growth projections are based on population, vehicle trends, and land use plans developed by the County and the cities in the County as part of the development of their general plans.

If a project proposes development that is greater than that anticipated in the local plan and SANDAG's growth projections, the project might be in conflict with the SIP and RAQS and may contribute to a potentially significant cumulative impact on air quality. The City's General Plan, Land Use Element designates the project site as Limited Industrial (LI), which is intended for light manufacturing, warehousing, certain public utilities, auto repair, auto salvage yards, and flexible-use projects that combine these uses with associated office space (City of Chula Vista 2005).

The project proposed inpatient rehabilitation center is an Unclassified Use pursuant to Section 19.54.020 (h) of the CVMC (City of Chula Vista 2020). As such, the proposed use would be permitted in this zone subject to approval of a Conditional Use Permit approved by the Planning Commission. The project would result in an increase of 210 employees. The SANDAG Series 13: 2050 Regional Growth Forecast estimates the employment in the City would grow from 64,035 in 2010 to 114,435 in 2050 (SANDAG 2017a). As such, the addition of 210 new employees associated with the project would be minimal; and would not exceed the growth projections for 2050. The project is an inpatient rehabilitation center and would not directly or indirectly induce population growth as it does not propose new homes. Therefore, the proposed project would not stimulate population growth or a population concentration or employment above what is assumed in local and regional land use plans, or projections made by regional planning authorities. Thus, impacts would be considered **less than significant**.

#### **Mitigation Measures**

No mitigation is required.

#### **Level of Significance After Mitigation**

The proposed project would have a less-than-significant impact prior to mitigation.

### **2.5.2 Would the Project Result in a Cumulatively Considerable Net Increase of Any Criteria Pollutant for which the Project Region is Nonattainment under an Applicable Federal or State Ambient Air Quality Standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?**

Air pollution is largely a cumulative impact. The nonattainment status of regional pollutants is a result of past and present development, and the SDAPCD develops and implements plans for future attainment of ambient air quality standards. Based on these considerations, project-level thresholds of significance for criteria pollutants

are relevant in the determination of whether a project's individual emissions would have a cumulatively significant impact on air quality.

The SDAB is a nonattainment area for O<sub>3</sub> under the NAAQS and CAAQS. The poor air quality in the SDAB is the result of cumulative emissions from motor vehicles, off-road equipment, commercial and industrial facilities, and other emission sources. Projects that emit these pollutants or their precursors (i.e., VOCs and NO<sub>x</sub> for O<sub>3</sub>) potentially contribute to poor air quality. In analyzing cumulative impacts from a project, the analysis must specifically evaluate the project's contribution to the cumulative increase in pollutants for which the SDAB is designated as nonattainment for the CAAQS and NAAQS. If the project does not exceed thresholds and is determined to have less-than-significant project-specific impacts, it may still contribute to a significant cumulative impact on air quality if the emissions from the project, in combination with the emissions from other proposed or reasonably foreseeable future projects, are in excess of established thresholds. However, a project would only be considered to have a significant cumulative impact if the project's contribution accounts for a significant proportion of the cumulative total emissions (i.e., it represents a "cumulatively considerable contribution" to the cumulative air quality impact).

Additionally, for the SDAB, the RAQS serves as the long-term regional air quality planning document for the purpose of assessing cumulative operational emissions in the basin to ensure the SDAB continues to make progress toward NAAQS- and CAAQS-attainment status. As such, cumulative projects located in the San Diego region would have the potential to result in a cumulative impact to air quality if, in combination, they would conflict with or obstruct implementation of the RAQS. Similarly, individual projects that are inconsistent with the regional planning documents upon which the RAQS is based would have the potential to result in cumulative operational impacts if they represent development and population increases beyond regional projections.

The SDAB has been designated as a federal nonattainment area for O<sub>3</sub> and a state nonattainment area for O<sub>3</sub>, PM<sub>10</sub>, and PM<sub>2.5</sub>. The nonattainment status is the result of cumulative emissions from all sources of these air pollutants and their precursors within the basin. As discussed previously, the proposed project would not exceed significance thresholds during construction or operation. As such, the proposed project would result in less-than-significant impacts to air quality relative to emissions.

Construction of the proposed project would result in the temporary addition of pollutants to the local airshed caused by on-site sources (i.e., off-road construction equipment, soil disturbance, and VOC off-gassing) and off-site sources (worker vehicle trips). Construction emissions can vary substantially day to day, depending on the level of activity, the specific type of operation, and for dust, the prevailing weather conditions.

Criteria air pollutant emissions associated with construction activity were quantified using CalEEMod. Default values provided by the program were used where detailed proposed project information was not available. A detailed depiction of the construction schedule—including information regarding phasing, equipment used during each phase, haul trucks, vendor trucks, and worker vehicles—is included in Section 2.4.2.1, Construction. The information contained in Appendix A was used as CalEEMod inputs.

Implementation of the proposed project would generate air pollutant emissions from entrained dust, off-road equipment, vehicle emissions, and asphalt pavement application. Entrained dust results from the exposure of earth surfaces to wind from the direct disturbance and movement of soil, resulting in PM<sub>10</sub> and PM<sub>2.5</sub> emissions. The proposed project is subject to SDAPCD Rule 55, Fugitive Dust Control. This rule requires that the proposed project take steps to restrict visible emissions of fugitive dust beyond the property line. Compliance with Rule 55 would limit fugitive dust (PM<sub>10</sub> and PM<sub>2.5</sub>) generated during grading and construction activities. To account for dust control

measures in the calculations, it was assumed that the active sites would be watered at least three times daily, resulting in an approximately 61% reduction of particulate matter. As a surrogate for watering unpaved road three times per day, the “soil stabilizer for unpaved” option was used assuming an 84% reduction in PM<sub>10</sub> and PM<sub>2.5</sub>. Also, it was assumed that the project would limit vehicle travel on unpaved roads to 15 miles per hour.

Exhaust from internal combustion engines used by construction equipment and worker vehicles would result in emissions of VOC, NO<sub>x</sub>, CO, SO<sub>x</sub>, PM<sub>10</sub>, and PM<sub>2.5</sub>. The application of asphalt pavement and architectural coatings would also produce VOC emissions.

Table 7 shows the estimated maximum daily construction emissions associated with construction of the proposed project without mitigation. Complete details of the emissions calculations are provided in Appendix A of this document.

**Table 7. Estimated Maximum Daily Construction Criteria Air Pollutant Emissions**

	VOC	NO <sub>x</sub>	CO	SO <sub>x</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>
Year	<i>pounds per day</i>					
2020	4.38	82.82	36.38	0.20	7.79	4.38
2021	11.98	19.19	18.37	0.04	1.50	1.05
2022	33.55	7.69	8.45	0.02	1.13	0.43
<b>Maximum Daily Emissions</b>	<b>33.35</b>	<b>82.82</b>	<b>36.38</b>	<b>0.20</b>	<b>7.79</b>	<b>4.38</b>
<i>Chula Vista Threshold</i>	<i>75</i>	<i>100</i>	<i>550</i>	<i>150</i>	<i>150</i>	<i>55</i>
<b>Threshold Exceeded?</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>

**Notes:** VOC = volatile organic compound; NO<sub>x</sub> = oxides of nitrogen; CO = carbon monoxide; SO<sub>x</sub> = sulfur oxides; PM<sub>10</sub> = coarse particulate matter; PM<sub>2.5</sub> = fine particulate matter.

See Appendix A for complete results.

The values shown are the maximum summer or winter daily emissions results from California Emissions Estimator Model. Although not considered mitigation, these emissions reflect California Emissions Estimator Model “mitigated” output, which accounts for the required compliance with SDAPCD Rule 55 (Fugitive Dust) and Rule 67.0.1 (Architectural Coatings).

As shown in Table 7, daily construction emissions would not exceed the City’s significance thresholds. Therefore, impacts during construction would be **less than significant**.

Operation of the proposed project would generate VOC, NO<sub>x</sub>, CO, SO<sub>x</sub>, PM<sub>10</sub>, and PM<sub>2.5</sub> emissions from mobile sources, including vehicle trips; area sources, including the use of consumer products, and landscape maintenance equipment; and energy sources. As discussed in Section 2.4.2.2, Operation, pollutant emissions associated with long-term operations were quantified using CalEEMod. Project-generated mobile source emissions were estimated in CalEEMod based on project-specific trip rates. CalEEMod default values were used to estimate emissions from the proposed project area and energy sources.

Table 8 presents the maximum daily area, energy, and mobile source emissions associated with operation (Year 2023) of the proposed project. The values shown are the maximum summer or winter daily emissions results from CalEEMod. Details of the emission calculations are provided in Appendix A.

**Table 8. Estimated Maximum Daily Operational Criteria Air Pollutant Emissions**

	VOC	NO <sub>x</sub>	CO	SO <sub>x</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>
Emission Source	<i>pounds per day</i>					
Area	2.08	<0.01	0.02	0.00	<0.01	<0.01

**Table 8. Estimated Maximum Daily Operational Criteria Air Pollutant Emissions**

Emission Source	VOC	NO <sub>x</sub>	CO	SO <sub>x</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>
Energy	0.09	0.85	0.71	0.01	0.06	0.06
Mobile	0.70	2.60	7.92	0.03	2.58	0.71
Stationary	1.37	5.24	0.40	0.01	0.12	0.12
<b>Total</b>	<b>4.25</b>	<b>8.69</b>	<b>9.06</b>	<b>0.04</b>	<b>2.77</b>	<b>0.89</b>
<i>Chula Vista Threshold</i>	55	55	550	150	150	55
<b>Threshold Exceeded?</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>

**Notes:** VOC = volatile organic compound; NO<sub>x</sub> = oxides of nitrogen; CO = carbon monoxide; SO<sub>x</sub> = sulfur oxides; PM<sub>10</sub> = coarse particulate matter; PM<sub>2.5</sub> = fine particulate matter; <0.01 = emissions reported are less than 0.01.

See Appendix A for complete results.

The values shown are the maximum summer or winter daily emissions results from California Emissions Estimator Model. These emissions reflect California Emissions Estimator Model “mitigated” output, which accounts for compliance with Rule 67.0.1 (Architectural Coatings).

As shown in Table 8, the combined daily area, energy, and mobile source emissions would not exceed the City’s operational thresholds for VOC, NO<sub>x</sub>, CO, SO<sub>x</sub>, PM<sub>10</sub>, and PM<sub>2.5</sub>. Regarding long-term cumulative operational emissions in relation to consistency with local air quality plans, the SIP and RAQS serve as the primary air quality planning documents for the state and SDAB, respectively. The SIP and RAQS rely on SANDAG growth projections based on population, vehicle trends, and land use plans developed by the cities and the County as part of the development of their general plans. Therefore, projects that propose development that is consistent with the growth anticipated by local plans would be consistent with the SIP and RAQS and would not be considered to result in cumulatively considerable impacts from operational emissions. As stated previously, the addition of 210 new employees associated with the project would be minimal; and would not exceed the SANDAG growth projections for 2050. The project is an impatient rehabilitation center and would not directly or indirectly induce population growth as it does not propose new homes. Therefore, the proposed project would not stimulate population growth or a population concentration or employment above what is assumed in local and regional land use plans, or projections made by regional planning authorities.. As a result, the proposed project would not result in a cumulatively considerable contribution to regional O<sub>3</sub> concentrations or other criteria pollutant emissions. Impacts associated with project-generated operational criteria air pollutant emissions would be **less than significant**.

#### **Mitigation Measures**

No mitigation is required.

#### **Level of Significance After Mitigation**

The proposed project would have a less-than-significant impact prior to mitigation.

### 2.5.3 Would the Project Expose Sensitive Receptors to Substantial Pollutant Concentrations?

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



impacts upon those persons termed “sensitive receptors” are the most serious hazards of existing air quality conditions in the area. Some land uses are considered more sensitive to changes in air quality than others, depending on the population groups and the activities involved. People most likely to be affected by air pollution, as identified by CARB, include children, the elderly, athletes, and people with cardiovascular and chronic respiratory diseases. As such, sensitive receptors include residences, schools, playgrounds, child-care centers, athletic facilities, long-term health-care facilities, rehabilitation centers, convalescent centers, and retirement homes. The closest sensitive receptors to the proposed project are residences adjacent to the western and northern property boundaries. The proposed project would also introduce new on-site sensitive receptors to the area.

### Health Impacts of Toxic Air Contaminants

“Incremental cancer risk” is the net increased likelihood that a person continuously exposed to concentrations of TACs resulting from a project over a 9-, 30-, and 70-year exposure period would contract cancer based on the use of standard OEHHA risk-assessment methodology (OEHHA 2015). In addition, some TACs have non-carcinogenic effects. TACs that would potentially be emitted during construction activities would be DPM emitted from heavy-duty construction equipment and heavy-duty trucks. Heavy-duty construction equipment and diesel trucks are subject to CARB ATCMs to reduce DPM emissions. According to the OEHHA, HRAs should be based on a 30-year exposure duration based on typical residency period; however, such assessments should be limited to the period/duration of activities associated with the project (OEHHA 2015). Thus, the duration of proposed construction activities (approximately 18 months) would only constitute a small percentage of the total long-term exposure period and would not result in exposure of proximate sensitive receptors to substantial TACs. The heavy-duty construction equipment is subject to a CARB ATCM for in-use diesel construction equipment to reduce diesel particulate emissions, and diesel trucks are subject to a CARB ATCM that limits idling of equipment and trucks during loading and unloading to 5 minutes and requires that electric auxiliary power units be used whenever possible. Also, construction equipment are subject to CARB In-Use Off-Road Diesel Regulation that requires specific fleet average requirements be met for particulate matter emissions, and apply Best Available Control Technology requirements.

As required by Policy E 6.10 in the City’s General Plan Environmental Element (City of Chula Vista 2005), the siting of new sensitive receivers within 500 feet of highways resulting from development or redevelopment projects shall require the preparation of an HRA as part of the CEQA review of the project. The project site is located approximately 1,100 feet from the I-805 and, thus, the proposed project is not subject to the requirement. The proposed project would operate an emergency diesel generator, and the generator would be located 200 feet from the nearest sensitive receptor. The generator would operate 50 hours per year for testing, which would be a much shorter duration than the 30-year, continuously exposed, exposure duration. Furthermore, the emergency generator would be subject to SDAPCD rules and permitting requirements, which would include compliance with SDAPCD’s Best Available Control Technology requirements. The predominant wind direction is towards the east (Figure 4, Chula Vista Monitoring Station Wind Rose) and, thus, away from the residential receptors to the north and west of the project site. Therefore, the exposure of sensitive receptors to TAC emissions would result in a **less-than-significant** impact.

### **Health Impacts of Carbon Monoxide**

Mobile-source impacts occur on two basic scales of motion. Regionally, project-related travel will add to regional trip generation and increase the VMT within the local airshed and the SDAB. Locally, project traffic will be added to the City's roadway system. If such traffic occurs during periods of poor atmospheric ventilation, consists of a large number of vehicles "cold-started" and operating at pollution-inefficient speeds, and operates on roadways already crowded with non-project traffic, there is a potential for the formation of microscale CO "hotspots" in the area immediately around points of congested traffic. Because of continued improvement in mobile emissions at a rate faster than the rate of vehicle growth and/or congestion, the potential for CO hotspots in the SDAB is steadily decreasing.

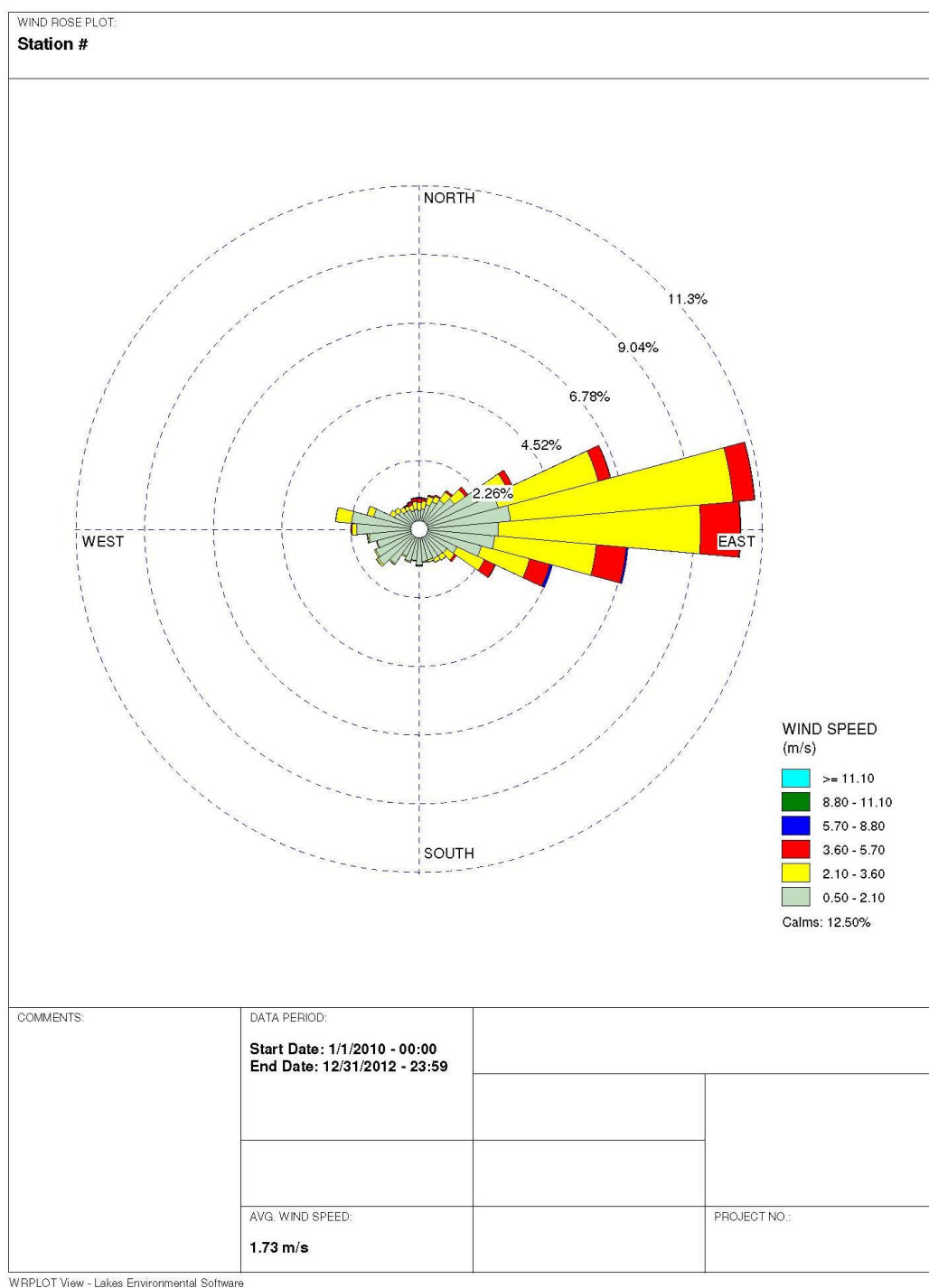


Figure 4. Chula Vista Monitoring Station Wind Rose (Wind Direction Blowing To)

The SDAB is a CO maintenance area (western and central part of the SDAB only). As a screening analysis, the SCAQMD conducted CO modeling for the 2003 AQMP (Appendix V: Modeling and Attainment Demonstrations, SCAQMD 2003) for the four worst-case intersections in the SCAB: (1) Wilshire Boulevard and Veteran Avenue, (2) Sunset Boulevard and Highland Avenue, (3) La Cienega Boulevard and Century Boulevard, and (4) Long Beach Boulevard and Imperial Highway. At the time the 2003 AQMP was prepared, the intersection of Wilshire Boulevard and Veteran Avenue was the most congested intersection in Los Angeles County, with an average daily traffic volume of about 100,000 vehicles per day. Using CO emission factors for 2002, the peak modeled CO 1-hour concentration was estimated to be 4.6 ppm at the intersection of Wilshire Boulevard and Veteran Avenue. When added to the maximum 1-hour CO concentration from 2016 through 2018 at the 533 First Street, El Cajon monitoring station (see Table 3, Local Ambient Air Quality Data), which was 1.6 ppm in 2017, the 1-hour CO would be 6.2 ppm, while the CAAQS is 20 ppm.

The 2003 AQMP also projected 8-hour CO concentrations at these four intersections for 1997 and from 2002 through 2005. From years 2002 through 2005, the maximum 8-hour CO concentration was 3.8 ppm at the Sunset Boulevard and Highland Avenue intersection in 2002; the maximum 8-hour CO concentration was 3.4 ppm at the Wilshire Boulevard and Veteran Avenue in 2002. Adding the 3.8 ppm to the maximum 8-hour CO concentration from 2016 through 2018 at the 533 First Street, El Cajon monitoring station (see Table 3), which was 1.4 ppm in 2018, the 8-hour CO would be 5.2 ppm, while the CAAQS is 9.0 ppm.

Accordingly, CO concentrations at congested intersections would not exceed the 1-hour or 8-hour CO CAAQS unless projected daily traffic would less than 100,000 vehicles per day. Because the proposed project would not increase daily traffic volumes at any study intersection to more than 100,000 vehicles per day (Appendix A),<sup>4</sup> a CO hotspot is not anticipated to occur and associated impacts would be **less than significant**.

### Health Impacts of Other Criteria Air Pollutants

Construction and operation of the proposed project would not result in emissions that exceed the City's emission thresholds for any criteria air pollutants. Regarding VOCs, some VOCs would be associated with motor vehicles and construction equipment, while others are associated with architectural coatings, the emissions of which would not result in the exceedances of the SDAPCD's thresholds. Generally, the VOCs in architectural coatings are of relatively low toxicity. Additionally, SDAPCD Rule 67.0.1 restricts the VOC content of coatings for both construction and operational applications.

In addition, VOCs and NO<sub>x</sub> are precursors to O<sub>3</sub>, for which the SDAB is designated as nonattainment with respect to the NAAQS and CAAQS (the SDAB is designated by the EPA as an attainment area for the 1-hour O<sub>3</sub> NAAQS standard and 1997 8-hour NAAQS standard). The health effects associated with O<sub>3</sub>, as discussed in Section 2.1.2, Pollutants and Effects, are generally associated with reduced lung function. The contribution of VOCs and NO<sub>x</sub> to regional ambient O<sub>3</sub> concentrations is the result of complex photochemistry. The increases in O<sub>3</sub> concentrations in the SDAB due to O<sub>3</sub> precursor emissions tend to be found downwind from the source location to allow time for the photochemical reactions to occur. However, the potential for exacerbating excessive O<sub>3</sub> concentrations would also depend on the time of year that the VOC emissions would occur, because exceedances of the O<sub>3</sub> AAQS tend to occur between April and October when solar radiation is highest.

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<sup>4</sup> For each study intersection in each scenario evaluated in the Traffic Impact Study, the daily volumes were estimated by assuming that the AM peak hour intersection volumes represent 9% of the daily traffic volumes and the total PM peak hour intersection volumes represent 9% of the daily traffic volumes. Using this method, all 4 study intersections were estimated to result in less than 100,000 vehicles per day in every scenario evaluated (ranging from 378 vehicles to 40,956 vehicles).

The holistic effect of a single project's emissions of O<sub>3</sub> precursors is speculative due to the lack of quantitative methods to assess this impact. Nonetheless, the VOC and NO<sub>x</sub> emissions associated with proposed project construction and operations could minimally contribute to regional O<sub>3</sub> concentrations and the associated health impacts. Due to the minimal contribution during construction and operation, as well as the existing good air quality in Coastal San Diego areas, health impacts would be considered less than significant.

Regarding NO<sub>2</sub>, according to the construction emissions analysis, construction of the proposed project would not contribute to exceedances of the NAAQS and CAAQS for NO<sub>2</sub>. As described in Section 2.1.2, NO<sub>2</sub> and NO<sub>x</sub> health impacts are associated with respiratory irritation, which may be experienced by nearby receptors during the periods of heaviest use of off-road construction equipment. However, these operations would be relatively short term. Additionally, off-road construction equipment would operate at various portions of the site and would not be concentrated in one portion of the site at any one time. Construction of the proposed project would not require any stationary emission sources that would create substantial, localized NO<sub>x</sub> impacts. Therefore, health impacts would be considered less than significant.

The VOC and NO<sub>x</sub> emissions, as described previously, would minimally contribute to regional O<sub>3</sub> concentrations and its associated health effects. In addition to O<sub>3</sub>, NO<sub>x</sub> emissions would not contribute to potential exceedances of the NAAQS and CAAQS for NO<sub>2</sub>. As shown in Table 3, the existing NO<sub>2</sub> concentrations in the area are well below the NAAQS and CAAQS standards. Thus, it is not expected that the proposed project's operational NO<sub>x</sub> emissions would result in exceedances of the NO<sub>2</sub> standards or contribute to the associated health effects. CO tends to be a localized impact associated with congested intersections. The associated CO "hotspots" were discussed previously as a less-than-significant impact. Thus, the proposed project's CO emissions would not contribute to significant health effects associated with this pollutant. PM<sub>10</sub> and PM<sub>2.5</sub> would not contribute to potential exceedances of the NAAQS and CAAQS for particulate matter, would not obstruct the SDAB from coming into attainment for these pollutants, and would not contribute to significant health effects associated with particulates.

Based on the preceding considerations, health impacts associated with criteria air pollutants would be considered **less than significant**.

### Valley Fever Exposure

As discussed in Section 2.1.2, Valley Fever is not highly endemic to San Diego, and within the County, the incidence rate in the project area is below the statewide average. Construction of the project would comply with SDAPCD Rule 55, which limits the amount of fugitive dust generated during construction. Strategies the proposed project would implement to comply with SDAPCD Rule 55 and control dust include watering three times per day, using magnesium chloride for dust suppression on unpaved roads, and limiting speed on unpaved roads to 15 miles per hour.

Based on the low incidence rate of Coccidioidomycosis in the County, and the proposed project's implementation of dust control strategies, it is not anticipated that earth-moving activities during project construction would result in exposure of nearby sensitive receptors to Valley Fever. Therefore, the proposed project would have a **less-than-significant** impact with respect to Valley Fever exposure for sensitive receptors.

### Mitigation Measures

No mitigation is required.

### Level of Significance After Mitigation

The proposed project would have a less-than-significant impact prior to mitigation.

## 2.5.4 Would the Project Result in other Emissions (such as those leading to odors) Adversely Affecting a Substantial Number of People?

The State of California Health and Safety Code, Division 26, Part 4, Chapter 3, Section 41700 and SDAPCD Rule 51, commonly referred to as public nuisance law, prohibits emissions from any source whatsoever in such quantities of air contaminants or other material that cause injury, detriment, nuisance, or annoyance to the public health or damage to property. Projects required to obtain permits from SDAPCD are evaluated by SDAPCD staff for potential odor nuisance, and conditions may be applied (or control equipment required) where necessary to prevent occurrence of public nuisance.

Section 19.66.090, Odors, of the CVMC requires that no emission shall be permitted of odorous gases or other odorous matter in such quantities as to be readily detectable at the points of measurement specified in CVMC 19.66.060(A). Any process that may involve the creation or emission of any odors shall be provided with an adequate secondary safeguard system of control, so that control will be maintained if the primary safeguard system should fail (City of Chula Vista 1969). SDAPCD Rule 51 (Public Nuisance) also prohibits emission of any material that causes nuisance to a considerable number of persons or endangers the comfort, health, or safety of any person. A project that proposes a use that would produce objectionable odors would be deemed to have a significant odor impact if it would affect a considerable number of off-site receptors. Odor issues are very subjective by the nature of odors themselves and due to the fact that their measurements are difficult to quantify. As a result, this guideline is qualitative and will focus on the existing and potential surrounding uses and location of sensitive receptors.

The occurrence and severity of potential odor impacts depends on numerous factors: the nature, frequency, and intensity of the source; the wind speeds and direction; and the sensitivity of receiving location each contribute to the intensity of the impact. Although offensive odors seldom cause physical harm, they can be annoying, cause distress among the public, and generate citizen complaints.

Odors would be potentially generated from vehicles and equipment exhaust emissions during construction of the proposed project. Potential odors produced during construction would be attributable to concentrations of unburned hydrocarbons from tailpipes of construction equipment, architectural coatings, and asphalt pavement application. Such odors would disperse rapidly from the project site and generally occur at magnitudes that would not affect substantial numbers of people. Therefore, impacts associated with odors during construction would be less than significant.

Land uses and industrial operations associated with odor complaints include agricultural uses, wastewater treatment plants, food-processing plants, chemical plants, composting, refineries, landfills, dairies, and fiberglass molding (SCAQMD 1993). The proposed project does not include any of the land uses typically associated with odor complaints. Therefore, proposed project operations would result in an odor impact that would be **less than significant**.

### Mitigation Measures

No mitigation is required.

### Level of Significance After Mitigation

The proposed project would have a less-than-significant impact prior to mitigation.

# 3 Greenhouse Gas Emissions

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## 3.1 Environmental Setting

### 3.1.1 Climate Change Overview

Climate change refers to any significant change in measures of climate, such as temperature, precipitation, or wind patterns, lasting for an extended period of time (decades or longer). The Earth's temperature depends on the balance between energy entering and leaving the planet's system. Many factors, both natural and human, can cause changes in Earth's energy balance, including variations in the Sun's energy reaching Earth, changes in the reflectivity of Earth's atmosphere and surface, and changes in the greenhouse effect, which affects the amount of heat retained by Earth's atmosphere (EPA 2017).

The greenhouse effect is the trapping and build-up of heat in the atmosphere (troposphere) near the Earth's surface. The greenhouse effect traps heat in the troposphere through a threefold process as follows: short-wave radiation emitted by the Sun is absorbed by the Earth; the Earth emits a portion of this energy in the form of long-wave radiation; and GHGs in the upper atmosphere absorb this long-wave radiation and emit it into space and toward the Earth. The greenhouse effect is a natural process that contributes to regulating the Earth's temperature and creates a pleasant, livable environment on the Earth. Human activities that emit additional GHGs to the atmosphere increase the amount of infrared radiation that gets absorbed before escaping into space, thus enhancing the greenhouse effect and causing the Earth's surface temperature to rise.

The scientific record of the Earth's climate shows that the climate system varies naturally over a wide range of time scales and that, in general, climate changes prior to the Industrial Revolution in the 1700s can be explained by natural causes, such as changes in solar energy, volcanic eruptions, and natural changes in GHG concentrations. Recent climate changes, in particular the warming observed over the past century, however, cannot be explained by natural causes alone. Rather, it is extremely likely that human activities have been the dominant cause of that warming since the mid-20th century and is the most significant driver of observed climate change (IPCC 2013; EPA 2017). Human influence on the climate system is evident from the increasing GHG concentrations in the atmosphere, positive radiative forcing, observed warming, and improved understanding of the climate system (IPCC 2013). The atmospheric concentrations of GHGs have increased to levels unprecedented in the last 800,000 years, primarily from fossil fuel emissions and secondarily from emissions associated with land use changes (IPCC 2013). Continued emissions of GHGs will cause further warming and changes in all components of the climate system, which is discussed further in Section 3.3.2, Potential Effects of Climate Change.

### 3.1.2 Greenhouse Gases

A GHG is any gas that absorbs infrared radiation in the atmosphere; in other words, GHGs trap heat in the atmosphere. GHGs include, but are not limited to, carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>), nitrous oxide (N<sub>2</sub>O), ozone (O<sub>3</sub>), water vapor, hydrofluorocarbons (HFCs), hydrochlorofluorocarbons (HCFCs), perfluorocarbons (PFCs), and

sulfur hexafluoride (SF<sub>6</sub>).<sup>5</sup> Some GHGs, such as CO<sub>2</sub>, CH<sub>4</sub>, and N<sub>2</sub>O, occur naturally and are emitted to the atmosphere through natural processes and human activities. Of these gases, CO<sub>2</sub> and CH<sub>4</sub> are emitted in the greatest quantities from human activities. Manufactured GHGs, which have a much greater heat-absorption potential than CO<sub>2</sub>, include fluorinated gases, such as HFCs, HCFCs, PFCs, and SF<sub>6</sub>, which are associated with certain industrial products and processes. A summary of the most common GHGs and their sources is included in the following text.<sup>6</sup> Also included is a discussion of other climate-forcing substances.

**Carbon Dioxide.** CO<sub>2</sub> is a naturally occurring gas and a by-product of human activities and is the principal anthropogenic GHG that affects the Earth's radiative balance. Natural sources of CO<sub>2</sub> include respiration of bacteria, plants, animals, and fungus; evaporation from oceans; volcanic out-gassing; and decomposition of dead organic matter. Human activities that generate CO<sub>2</sub> are from the combustion of fuels, such as coal, oil, natural gas, and wood, and changes in land use.

**Methane.** CH<sub>4</sub> is produced through both natural and human activities. CH<sub>4</sub> is a flammable gas and is the main component of natural gas. CH<sub>4</sub> is produced through anaerobic (without oxygen) decomposition of waste in landfills, flooded rice fields, animal digestion, decomposition of animal wastes, production and distribution of natural gas and petroleum, coal production, and incomplete fossil fuel combustion.

**Nitrous Oxide.** N<sub>2</sub>O is produced through natural and human activities, mainly through agricultural activities and natural biological processes, although fuel burning and other processes also create N<sub>2</sub>O. Sources of N<sub>2</sub>O include soil cultivation practices (microbial processes in soil and water), especially the use of commercial and organic fertilizers, manure management, industrial processes (such as in nitric acid production, nylon production, and fossil-fuel-fired power plants), vehicle emissions, and using N<sub>2</sub>O as a propellant (such as in rockets, race cars, and aerosol sprays).

**Fluorinated Gases.** Fluorinated gases (also referred to as F-gases) are synthetic powerful GHGs emitted from many industrial processes. Fluorinated gases are commonly used as substitutes for stratospheric O<sub>3</sub>-depleting substances (e.g., chlorofluorocarbons [CFCs], HCFCs, and halons). The most prevalent fluorinated gases include the following:

- **Hydrofluorocarbons:** HFCs are compounds containing only hydrogen, fluorine, and carbon atoms. HFCs are synthetic chemicals used as alternatives to O<sub>3</sub>-depleting substances in serving many industrial, commercial, and personal needs. HFCs are emitted as byproducts of industrial processes and are used in manufacturing.
- **Perfluorocarbons:** PFCs are a group of human-made chemicals composed of carbon and fluorine only. These chemicals were introduced as alternatives, with HFCs, to the O<sub>3</sub>-depleting substances. The two main sources of PFCs are primary aluminum production and semiconductor manufacturing. Since PFCs have stable molecular structures and do not break down through the chemical processes in the lower atmosphere, these chemicals have long lifetimes, ranging between 10,000 and 50,000 years.
- **Sulfur Hexafluoride:** SF<sub>6</sub> is a colorless gas soluble in alcohol and ether and slightly soluble in water. SF<sub>6</sub> is used for insulation in electric power transmission and distribution equipment, semiconductor manufacturing, the magnesium industry, and as a tracer gas for leak detection.

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<sup>5</sup> California Health and Safety Code 38505 identifies seven GHGs that CARB is responsible for monitoring and regulating to reduce emissions: CO<sub>2</sub>, CH<sub>4</sub>, N<sub>2</sub>O, SF<sub>6</sub>, HFCs, PFCs, and nitrogen trifluoride.

<sup>6</sup> The descriptions of GHGs are summarized from the IPCC Second Assessment Report (1995), IPCC Fourth Assessment Report (2007), CARB's Glossary of Terms Used in GHG Inventories (2015), and EPA's Glossary of Climate Change Terms (2016f).



- **Nitrogen Trifluoride:**  $\text{NF}_3$  is used in the manufacture of a variety of electronics, including semiconductors, and flat panel displays.

**Chlorofluorocarbons.** CFCs are synthetic chemicals that have been used as cleaning solvents, refrigerants, and aerosol propellants. CFCs are chemically unreactive in the lower atmosphere (troposphere), and the production of CFCs was prohibited in 1987 due to the chemical destruction of stratospheric  $\text{O}_3$ .

**Hydrochlorofluorocarbons.** HCFCs are a large group of compounds with a structure very close to that of CFCs—containing hydrogen, fluorine, chlorine, and carbon atoms—but including one or more hydrogen atoms. Like HFCs, HCFCs are used in refrigerants and propellants. HCFCs were also used in place of CFCs for some applications; however, their use in general is being phased out.

**Black Carbon.** Black carbon is a component of fine particulate matter ( $\text{PM}_{2.5}$ ), which has been identified as a leading environmental risk factor for premature death. It is produced from the incomplete combustion of fossil fuels and biomass burning, particularly from older diesel engines and forest fires. Black carbon warms the atmosphere by absorbing solar radiation, influences cloud formation, and darkens the surface of snow and ice, which accelerates heat absorption and melting. Black carbon is a short-lived species that varies spatially, which makes it difficult to quantify the global warming potential (GWP). DPM emissions are a major source of black carbon and are TACs that have been regulated and controlled in California for several decades to protect public health. In relation to declining DPM from the CARB's regulations pertaining to diesel engines, diesel fuels, and burning activities, CARB estimates that annual black carbon emissions in California have reduced by 70% between 1990 and 2010, with 95% control expected by 2020 (CARB 2014a).

**Water Vapor.** The primary source of water vapor is evaporation from the ocean, with additional vapor generated by sublimation (change from solid to gas) from ice and snow, evaporation from other water bodies, and transpiration from plant leaves. Water vapor is the most important, abundant, and variable GHG in the atmosphere and maintains a climate necessary for life.

**Ozone.** Tropospheric  $\text{O}_3$ , which is created by photochemical reactions involving gases from both natural sources and human activities, acts as a GHG. Stratospheric  $\text{O}_3$ , which is created by the interaction between solar ultraviolet radiation and molecular oxygen ( $\text{O}_2$ ), plays a decisive role in the stratospheric radiative balance. Depletion of stratospheric  $\text{O}_3$ , due to chemical reactions that may be enhanced by climate change, results in an increased ground-level flux of ultraviolet-B radiation.

**Aerosols.** Aerosols are suspensions of particulate matter in a gas emitted into the air through burning biomass (plant material) and fossil fuels. Aerosols can warm the atmosphere by absorbing and emitting heat and can cool the atmosphere by reflecting light.

### 3.1.3 Global Warming Potential

Gases in the atmosphere can contribute to climate change both directly and indirectly. Direct effects occur when the gas itself absorbs radiation. Indirect radiative forcing occurs when chemical transformations of the substance produce other GHGs, when a gas influences the atmospheric lifetimes of other gases, and/or when a gas affects atmospheric processes that alter the radiative balance of the Earth (e.g., affect cloud formation or albedo) (EPA 2016e). IPCC developed the GWP concept to compare the ability of each GHG to trap heat in the atmosphere relative to another gas. The GWP of a GHG is defined as the ratio of the time-integrated radiative forcing from the instantaneous release of 1 kilogram of a trace substance relative to that of 1 kilogram of a reference gas (IPCC

2014). The reference gas used is CO<sub>2</sub>; therefore, GWP-weighted emissions are measured in metric tons (MT) of carbon dioxide equivalent (CO<sub>2</sub>e).

The current version of CalEEMod (version 2016.3.2) assumes that the GWP for CH<sub>4</sub> is 25 (so emissions of 1 MT of CH<sub>4</sub> are equivalent to emissions of 25 MT of CO<sub>2</sub>), and the GWP for N<sub>2</sub>O is 298, based on the IPCC Fourth Assessment Report (IPCC 2007). The GWP values identified in CalEEMod were applied to the proposed project.

## 3.2 Regulatory Setting

### 3.2.1 Federal Regulations

**Massachusetts v. EPA.** In *Massachusetts v. EPA* (April 2007), the U.S. Supreme Court directed the EPA administrator to determine whether GHG emissions from new motor vehicles cause or contribute to air pollution that may reasonably be anticipated to endanger public health or welfare, or whether the science is too uncertain to make a reasoned decision. In December 2009, the administrator signed a final rule with the following two distinct findings regarding GHGs under Section 202(a) of the federal CAA:

- The administrator found that elevated concentrations of GHGs—CO<sub>2</sub>, CH<sub>4</sub>, N<sub>2</sub>O, HFCs, PFCs, and SF<sub>6</sub>—in the atmosphere threaten the public health and welfare of current and future generations. This is the “endangerment finding.”
- The administrator further found the combined emissions of GHGs—CO<sub>2</sub>, CH<sub>4</sub>, N<sub>2</sub>O, and HFCs—from new motor vehicles and new motor vehicle engines contribute to the GHG air pollution that endangers public health and welfare. This is the “cause or contribute finding.”

These two findings were necessary to establish the foundation for regulation of GHGs from new motor vehicles as air pollutants under the CAA.

**Energy Independence and Security Act.** The Energy Independence and Security Act of 2007 (December 2007), among other key measures, would do the following, which would aid in the reduction of national GHG emissions (EPA 2007):

- Increase the supply of alternative fuel sources by setting a mandatory Renewable Fuel Standard requiring fuel producers to use at least 36 billion gallons of biofuel in 2022.
- Set a target of 35 miles per gallon for the combined fleet of cars and light trucks by model year 2020 and direct National Highway Traffic Safety Administration (NHTSA) to establish a fuel economy program for medium- and heavy-duty trucks and create a separate fuel economy standard for work trucks.
- Prescribe or revise standards affecting regional efficiency for heating and cooling products and procedures for new or amended standards, energy conservation, energy efficiency labeling for consumer electronic products, residential boiler efficiency, electric motor efficiency, and home appliances.

**Federal Vehicle Standards.** In response to the U.S. Supreme Court ruling discussed above, the Bush Administration issued Executive Order (EO) 13432 in 2007 directing the EPA, the Department of Transportation, and the Department of Energy to establish regulations that reduce GHG emissions from motor vehicles, non-road vehicles, and non-road engines by 2008. In 2009, the NHTSA issued a final rule regulating fuel efficiency and GHG emissions from cars and light-duty trucks for model year 2011, and in 2010, the EPA and NHTSA issued a final rule regulating cars and light-duty trucks for model years 2012–2016 (75 FR 25324–25728).

In 2010, President Obama issued a memorandum directing the Department of Transportation, Department of Energy, EPA, and NHTSA to establish additional standards regarding fuel efficiency and GHG reduction, clean fuels, and advanced vehicle infrastructure. In response to this directive, the EPA and NHTSA proposed stringent, coordinated federal GHG and fuel economy standards for model years 2017–2025 light-duty vehicles. The proposed standards projected to achieve 163 grams/mile of CO<sub>2</sub> in model year 2025, on an average industry fleet-wide basis, which is equivalent to 54.5 miles per gallon if this level were achieved solely through fuel efficiency. The final rule was adopted in 2012 for model years 2017–2021 (77 FR 62624–63200), and NHTSA intends to set standards for model years 2022–2025 in a future rulemaking.

In addition to the regulations applicable to cars and light-duty trucks described above, in 2011, the EPA and NHTSA announced fuel economy and GHG standards for medium- and heavy-duty trucks for model years 2014–2018. The standards for CO<sub>2</sub> emissions and fuel consumption are tailored to three main vehicle categories: combination tractors, heavy-duty pickup trucks and vans, and vocational vehicles. According to the EPA, this regulatory program will reduce GHG emissions and fuel consumption for the affected vehicles by 6%–23% over the 2010 baselines (76 FR 57106–57513).

In August 2016, the EPA and NHTSA announced the adoption of the phase two program related to the fuel economy and GHG standards for medium- and heavy-duty trucks. The phase two program will apply to vehicles with model year 2018 through 2027 for certain trailers and model years 2021 through 2027 for semi-trucks, large pickup trucks, vans, and all types of sizes of buses and work trucks. The final standards are expected to lower CO<sub>2</sub> emissions by approximately 1.1 billion MT and reduce oil consumption by up to 2 billion barrels over the lifetime of the vehicles sold under the program (EPA and NHTSA 2016).

**Clean Power Plan and New Source Performance Standards for Electric Generating Units.** In October 2015, EPA published a final rule (effective December 2015) establishing the Carbon Pollution Emission Guidelines for Existing Stationary Sources: Electric Utility Generating Units (80 FR 64510–64660), also known as the Clean Power Plan. These guidelines prescribe how states must develop plans to reduce GHG emissions from existing fossil-fuel-fired electric generating units. The guidelines establish CO<sub>2</sub> emission performance rates representing the best system of emission reduction for two subcategories of existing fossil-fuel-fired electric generating units: (1) fossil-fuel-fired electric utility steam-generating units and (2) stationary combustion turbines. Concurrently, EPA published a final rule in October 2015 establishing Standards of Performance for Greenhouse Gas Emissions from New, Modified, and Reconstructed Stationary Sources: Electric Utility Generating Units (80 FR 64661–65120). The rule prescribes CO<sub>2</sub> emission standards for newly constructed, modified, and reconstructed affected fossil-fuel-fired electric utility generating units. Implementation of the Clean Power Plan has been stayed by the U.S. Supreme Court pending resolution of several lawsuits; additionally, President Trump has called upon the EPA to review the Clean Power Plan.

### 3.2.2 State Regulations

The statewide GHG emissions regulatory framework is summarized below by category: state climate change targets, building energy, renewable energy and energy procurement, mobile sources, solid waste, water, and other state regulations and goals. The following text describes EOs, legislation, regulations, and other plans and policies that would directly or indirectly reduce GHG emissions and/or address climate change issues.

## State Climate Change Targets

**EO S-3-05.** EO S-3-05 (June 2005) established the following statewide goals: GHG emissions should be reduced to 2000 levels by 2010; GHG emissions should be reduced to 1990 levels by 2020; and GHG emissions should be reduced to 80% below 1990 levels by 2050.

**AB 32 and CARB's Climate Change Scoping Plan.** In furtherance of the goals established in EO S-3-05, the Legislature enacted AB 32, the California Global Warming Solutions Act of 2006. AB 32 requires California to reduce its GHG emissions to 1990 levels by 2020.

Under AB 32, CARB is responsible for and is recognized as having the expertise to carry out and develop the programs and requirements necessary to achieve the GHG emissions reduction mandate of AB 32. Under AB 32, CARB must adopt regulations requiring the reporting and verification of statewide GHG emissions from specified sources. This program is used to monitor and enforce compliance with established standards. CARB also is required to adopt rules and regulations to achieve the maximum technologically feasible and cost-effective GHG emission reductions. AB 32 relatedly authorized CARB to adopt market-based compliance mechanisms to meet the specified requirements. Finally, CARB is ultimately responsible for monitoring compliance and enforcing any rule, regulation, order, emission limitation, emission reduction measure, or market-based compliance mechanism adopted.

In 2007, CARB approved a limit on the statewide GHG emissions level for year 2020 consistent with the determined 1990 baseline (427 million metric tons [MMT] CO<sub>2</sub>e). CARB's adoption of this limit is in accordance with Health and Safety Code Section 38550.

Further, in 2008, CARB adopted the Climate Change Scoping Plan: A Framework for Change (Scoping Plan) in accordance with Health and Safety Code Section 38561. The Scoping Plan establishes an overall framework for the measures that will be adopted to reduce California's GHG emissions for various emission sources/sectors to 1990 levels by 2020. The Scoping Plan evaluates opportunities for sector-specific reductions, integrates all CARB and Climate Action Team early actions and additional GHG reduction features by both entities, identifies additional measures to be pursued as regulations, and outlines the role of a cap-and-trade program. The key elements of the Scoping Plan include the following (CARB 2008):

1. Expanding and strengthening existing energy efficiency programs, as well as building and appliance standards.
2. Achieving a statewide renewable energy mix of 33%.
3. Developing a California cap-and-trade program that links with other Western Climate Initiative partner programs to create a regional market system and caps sources contributing 85% of California's GHG emissions.
4. Establishing targets for transportation-related GHG emissions for regions throughout California, and pursuing policies and incentives to achieve those targets.
5. Adopting and implementing measures pursuant to existing state laws and policies, including California's clean car standards, goods movement measures, and the Low Carbon Fuel Standard.
6. Creating targeted fees, including a public goods charge on water use, fees on high GWP gases, and a fee to fund the administrative costs of the State of California's long-term commitment to AB 32 implementation.

In the Scoping Plan, CARB determined that achieving the 1990 emissions level in 2020 would require a reduction in GHG emissions of approximately 28.5% from the otherwise projected 2020 emissions level; i.e., those emissions that would occur in 2020, absent GHG-reducing laws and regulations (referred to as “Business-As-Usual”). For purposes of calculating this percent reduction, CARB assumed that all new electricity generation would be supplied by natural gas plants; no further regulatory action would impact vehicle fuel efficiency; and building energy efficiency codes would be held at 2005 standards.

In the 2011 Final Supplement to the Scoping Plan’s Functional Equivalent Document, CARB revised its estimates of the projected 2020 emissions level in light of the economic recession and the availability of updated information about GHG reduction regulations. Based on the new economic data, CARB determined that achieving the 1990 emissions level by 2020 would require a reduction in GHG emissions of 21.7% (down from 28.5%) from the Business-As-Usual conditions. When the 2020 emissions level projection also was updated to account for newly implemented regulatory measures, including Pavley I (model years 2009–2016) and the Renewables Portfolio Standard (RPS) (CPUC 2015) (12%–20%), CARB determined that achieving the 1990 emissions level in 2020 would require a reduction in GHG emissions of 16% (down from 28.5%) from the Business-As-Usual conditions.

More recently, in 2014, CARB adopted the First Update to the Climate Change Scoping Plan: Building on the Framework (First Update). The stated purpose of the First Update is to “highlight California’s success to date in reducing its GHG emissions and lay the foundation for establishing a broad framework for continued emission reductions beyond 2020, on the path to 80% below 1990 levels by 2050” (CARB 2014b). The First Update found that California is on track to meet the 2020 emissions reduction mandate established by AB 32 and noted that California could reduce emissions further by 2030 to levels squarely in line with those needed to stay on track to reduce emissions to 80% below 1990 levels by 2050 if the state realizes the expected benefits of existing policy goals.

In conjunction with the First Update, CARB identified “six key focus areas comprising major components of the state’s economy to evaluate and describe the larger transformative actions that will be needed to meet the state’s more expansive emission reduction needs by 2050” (CARB 2014b). Those six areas are: (1) energy; (2) transportation (vehicles/equipment, sustainable communities, housing, fuels, and infrastructure); (3) agriculture; (4) water; (5) waste management; and (6) natural and working lands. The First Update identifies key recommended actions for each sector that will facilitate achievement of EO S-3-05’s 2050 reduction goal.

CARB’s research efforts presented in the First Update indicate that it has a “strong sense of the mix of technologies needed to reduce emissions through 2050” (CARB 2014b). Those technologies include energy demand reduction through efficiency and activity changes; large-scale electrification of on-road vehicles, buildings, and industrial machinery; decarbonizing electricity and fuel supplies; and the rapid market penetration of efficient and clean energy technologies.

As part of the First Update, CARB recalculated the state’s 1990 emissions level using more recent GWPs identified by the IPCC. Using the recalculated 1990 emissions level (431 MMT CO<sub>2</sub>e) and the revised 2020 emissions level projection identified in the 2011 Final Supplement, CARB determined that achieving the 1990 emissions level by 2020 would require a reduction in GHG emissions of approximately 15% (instead of 28.5% or 16%) from the Business-As-Usual conditions.

On January 20, 2017, CARB released The 2017 Climate Change Scoping Plan Update (Second Update) for public review and comment (CARB 2017). This update presents CARB’s strategy for achieving the state’s 2030 GHG target as established in SB 32 (discussed below), including continuing the Cap-and-Trade Program through 2030, and includes a new approach to reduce GHGs from refineries by 20%. The Second Update incorporates

approaches to cutting short-lived climate pollutants (SLCPs) under the Short-Lived Climate Pollutant Reduction Strategy (a planning document that was adopted by CARB in March 2017) and acknowledges the need for reducing emissions in agriculture and highlights the work underway to ensure that California's natural and working lands increasingly sequester carbon. During development of the Second Update, CARB held a number of public workshops in the Natural and Working Lands, Agriculture, Energy, and Transportation sectors to inform development of the 2030 Scoping Plan Update (CARB 2017). When discussing project-level GHG emissions reduction actions and thresholds, the Second Update states "achieving no net increase in GHG emissions is the correct overall objective, but it may not be appropriate or feasible for every development project. An inability to mitigate a project's GHG emissions to zero does not necessarily imply a substantial contribution to the cumulatively significant environmental impact of climate change under CEQA" (CARB 2017). The Final Proposed Scoping Plan Update was adopted by CARB's Governing Board on December 14, 2017.

**EO B-30-15.** EO B-30-15 (April 2015) identified an interim GHG reduction target in support of targets previously identified under S-3-05 and AB 32. EO B-30-15 set an interim target goal of reducing statewide GHG emissions to 40% below 1990 levels by 2030 to keep California on its trajectory toward meeting or exceeding the long-term goal of reducing statewide GHG emissions to 80% below 1990 levels by 2050 as set forth in S-3-05. To facilitate achievement of this goal, EO B-30-15 calls for an update to CARB's Scoping Plan to express the 2030 target in terms of MMT CO<sub>2</sub>e. The EO also calls for state agencies to continue to develop and implement GHG emission reduction programs in support of the reduction targets. EO B-30-15 does not require local agencies to take any action to meet the new interim GHG reduction target.

**SB 32 and AB 197.** SB 32 and AB 197 (enacted in 2016) are companion bills that set a new statewide GHG reduction targets, make changes to CARB's membership and increase legislative oversight of CARB's climate change-based activities, and expand dissemination of GHG and other air quality-related emissions data to enhance transparency and accountability. More specifically, SB 32 codified the 2030 emissions reduction goal of EO B-30-15 by requiring CARB to ensure that statewide GHG emissions are reduced to 40% below 1990 levels by 2030. AB 197 established the Joint Legislative Committee on Climate Change Policies, consisting of at least three members of the Senate and three members of the Assembly, in order to provide ongoing oversight over implementation of the state's climate policies. AB 197 also added two members of the Legislature to CARB as nonvoting members; requires CARB to make available and update (at least annually via its website) emissions data for GHGs, criteria air pollutants, and TACs from reporting facilities; and, requires CARB to identify specific information for GHG emissions reduction measures when updating the Scoping Plan.

**SB 605 and SB 1383.** SB 605 (2014) requires CARB to complete a comprehensive strategy to reduce emissions of SLCPs in the state, and SB 1383 (2016) requires CARB to approve and implement that strategy by January 1, 2018. SB 1383 also establishes specific targets for the reduction of SLCPs (40% below 2013 levels by 2030 for CH<sub>4</sub> and HFCs and 50% below 2013 levels by 2030 for anthropogenic black carbon) and provides direction for reductions from dairy and livestock operations and landfills. Accordingly, and as mentioned above, CARB adopted its Short-Lived Climate Pollutant Reduction Strategy in March 2017. The SLCP reduction strategy establishes a framework for the statewide reduction of emissions of black carbon, CH<sub>4</sub>, and fluorinated gases.

## Building Energy

**Title 24, Part 6.** Title 24 of the California Code of Regulations was established in 1978 and serves to enhance and regulate California's building standards. While not initially promulgated to reduce GHG emissions, Part 6 of Title 24 specifically establishes Building Energy Efficiency Standards that are designed to ensure new and existing buildings in California achieve energy efficiency and preserve outdoor and indoor environmental quality. These energy efficiency standards are reviewed every few years by the Building Standards Commission and the California Energy Commission (CEC) (and revised if necessary) (California PRC, Section 25402[b][1]). The regulations receive input from members of industry, as well as the public, with the goal of "reducing of wasteful, uneconomic, inefficient, or unnecessary consumption of energy" (California PRC, Section 25402). These regulations are carefully scrutinized and analyzed for technological and economic feasibility (California PRC, Section 25402[d]) and cost effectiveness (California PRC, Sections 25402[b][2] and [b][3]). These standards are updated to consider and incorporate new energy-efficient technologies and construction methods. As a result, these standards save energy, increase electricity supply reliability, increase indoor comfort, avoid the need to construct new power plants, and help preserve the environment.

The 2016 Title 24 standards became effective on January 1, 2017. In general, single-family homes built to the 2016 standards are anticipated to use about 28% less energy for lighting, heating, cooling, ventilation, and water heating than those built to the 2013 standards, and nonresidential buildings built to the 2016 standards will use an estimated 5% less energy than those built to the 2013 standards (CEC 2015a).

The 2019 Standards will continue to improve upon the 2016 Standards for new construction of, and additions and alterations to, residential and nonresidential buildings. The 2019 Standards came into effect on January 1, 2020. Nonresidential buildings built under the 2019 Title 24 Standards would use about 30% less energy than those built under the 2016 Title 24 Standards due mainly to lighting upgrades (CEC 2018).

**Title 24, Part 11.** In addition to the CEC's efforts, in 2008, the California Building Standards Commission adopted the nation's first green building standards. The California Green Building Standards Code (CALGreen 2016) is commonly referred to as CALGreen and establishes minimum mandatory standards as well as voluntary standards pertaining to the planning and design of sustainable site development, energy efficiency (in excess of the California Energy Code requirements), water conservation, material conservation, and interior air quality. The CALGreen standards took effect in January 2011 and instituted mandatory minimum environmental performance standards for all ground-up, new construction of commercial, low-rise residential and state-owned buildings and schools and hospitals. The CALGreen 2016 standards became effective on January 1, 2017. The mandatory standards require the following (CALGreen 2016):

- Mandatory reduction in indoor water use through compliance with specified flow rates for plumbing fixtures and fittings.
- Mandatory reduction in outdoor water use through compliance with a local water efficient landscaping ordinance or the California Department of Water Resources' Model Water Efficient Landscape Ordinance.
- 65% of construction and demolition waste must be diverted from landfills.
- Mandatory inspections of energy systems to ensure optimal working efficiency.
- Inclusion of electric vehicle charging stations or designated spaces capable of supporting future charging stations.
- Low-pollutant emitting exterior and interior finish materials, such as paints, carpets, vinyl flooring, and particle boards.

The CALGreen standards also include voluntary efficiency measures that are provided at two separate tiers and implemented at the discretion of local agencies and applicants. CALGreen's Tier 1 standards call for a 15% improvement in energy requirements, stricter water conservation, 65% diversion of construction and demolition waste, 10% recycled content in building materials, 20% permeable paving, 20% cement reduction, and cool/solar-reflective roofs. CALGreen's more rigorous Tier 2 standards call for a 30% improvement in energy requirements, stricter water conservation, 75% diversion of construction and demolition waste, 15% recycled content in building materials, 30% permeable paving, 25% cement reduction, and cool/solar-reflective roofs.

CPUC, CEC, and CARB also have a shared, established goal of achieving zero net energy (ZNE) for new construction in California. The key policy timelines include: (1) all new residential construction in California will be ZNE by 2020, and (2) all new commercial construction in California will be ZNE by 2030 (CPUC 2013).<sup>7</sup> As most recently defined by the CEC in its 2015 *Integrated Energy Policy Report*, a ZNE code building is "one where the value of the energy produced by on-site renewable energy resources is equal to the value of the energy consumed annually by the building" using the CEC's Time Dependent Valuation metric (CEC 2015b).

**Title 20.** Title 20 of the California Code of Regulations requires manufacturers of appliances to meet state and federal standards for energy and water efficiency. Performance of appliances must be certified through the CEC to demonstrate compliance with standards. New appliances regulated under Title 20 include refrigerators, refrigerator-freezers, and freezers; room air conditioners and room air-conditioning heat pumps; central air conditioners; spot air conditioners; vented gas space heaters; gas pool heaters; plumbing fittings and plumbing fixtures; fluorescent lamp ballasts; lamps; emergency lighting; traffic signal modules; dishwaters; clothes washers and dryers; cooking products; electric motors; low voltage dry-type distribution transformers; power supplies; televisions and consumer audio and video equipment; and battery charger systems. Title 20 presents protocols for testing for each type of appliance covered under the regulations, and appliances must meet the standards for energy performance, energy design, water performance, and water design. Title 20 contains three types of standards for appliances: federal and state standards for federally regulated appliances, state standards for federally regulated appliances, and state standards for non-federally regulated appliances.

**SB 1.** SB 1 (2006) established a \$3 billion rebate program to support the goal of the state to install rooftop solar energy systems with a generation capacity of 3,000 megawatts through 2016. SB 1 added sections to the Public Resources Code—including Chapter 8.8 (California Solar Initiative)—that require building projects applying for ratepayer-funded incentives for photovoltaic systems to meet minimum energy efficiency levels and performance requirements. Section 25780 established that it is a goal of the state to establish a self-sufficient solar industry in which solar energy systems are a viable mainstream option for both homes and businesses within 10 years of adoption and to place solar energy systems on 50% of new homes within 13 years of adoption. SB 1, also termed "GoSolarCalifornia," was previously titled "Million Solar Roofs."

**AB 1470.** This bill established the Solar Water Heating and Efficiency Act of 2007. The bill makes findings and declarations of the Legislature relating to the promotion of solar water heating systems and other technologies that reduce natural gas demand. The bill defines several terms for purposes of the act. The bill requires the commission to evaluate the data available from a specified pilot program and, if it makes a specified determination, to design and implement a program of incentives for the installation of 200,000 solar water heating systems in homes and businesses throughout the state by 2017.

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<sup>7</sup> It is expected that achievement of the ZNE goal will occur via revisions to the Title 24 standards.



**AB 1109.** Enacted in 2007, AB 1109 required the CEC to adopt minimum energy efficiency standards for general purpose lighting, to reduce electricity consumption 50% for indoor residential lighting and 25% for indoor commercial lighting.

### Renewable Energy and Energy Procurement

**SB 1078.** SB 1078 (2002) established the RPS program, which requires an annual increase in renewable generation by the utilities equivalent to at least 1% of sales, with an aggregate goal of 20% by 2017. This goal was subsequently accelerated, requiring utilities to obtain 20% of their power from renewable sources by 2010.

**SB 1368.** SB 1368 (2006) requires the CEC to develop and adopt regulations for GHG emission performance standards for the long-term procurement of electricity by local publicly owned utilities. These standards must be consistent with the standards adopted by the CPUC. This effort will help protect energy customers from financial risks associated with investments in carbon-intensive generation by allowing new capital investments in power plants for which GHG emissions are as low as or lower than new combined-cycle natural gas plants by requiring imported electricity to meet GHG performance standards in California and by requiring that the standards be developed and adopted in a public process.

**SB X1 2.** SB X1 2 (2011) expanded the RPS by establishing that 20% of the total electricity sold to retail customers in California per year by December 31, 2013, and 33% by December 31, 2020, and in subsequent years be secured from qualifying renewable energy sources. Under the bill, a renewable electrical generation facility is one that uses biomass, solar thermal, photovoltaic, wind, geothermal, fuel cells using renewable fuels, small hydroelectric generation of 30 megawatts or less, digester gas, municipal solid waste conversion, landfill gas, ocean wave, ocean thermal, or tidal current and that meets other specified requirements with respect to its location. In addition to the retail sellers previously covered by the RPS, SB X1 2 added local, publicly owned electric utilities to the RPS.

**SB 350.** SB 350 (2015) further expanded the RPS by establishing that 50% of the total electricity sold to retail customers in California per year by December 31, 2030, be secured from qualifying renewable energy sources. In addition, SB 350 includes the goal to double the energy efficiency savings in electricity and natural gas final end uses (such as heating, cooling, lighting, or class of energy uses on which an energy-efficiency program is focused) of retail customers through energy conservation and efficiency. The bill also requires the CPUC, in consultation with the CEC, to establish efficiency targets for electrical and gas corporations consistent with this goal.

**Senate Bill 100.** SB 100 (2018) increased the standards set forth in SB 350 establishing that 44% of the total electricity sold to retail customers in California per year by December 31, 2024, 52% by December 31, 2027, and 60% by December 31, 2030 be secured from qualifying renewable energy sources. SB 100 states that it is the policy of the state that eligible renewable energy resources and zero-carbon resources supply 100% of the retail sales of electricity to California. This bill requires that the achievement of 100% zero-carbon electricity resources do not increase the carbon emissions elsewhere in the western grid and that the achievement not be achieved through resource shuffling.

### Mobile Sources

**AB 1493.** In a response to the transportation sector accounting for more than half of California's CO<sub>2</sub> emissions, AB 1493 was enacted in July 2002. AB 1493 required CARB to set GHG emission standards for passenger vehicles, light-duty trucks, and other vehicles determined by the state board to be vehicles that are primarily used for noncommercial personal transportation in the state. The bill required that CARB set GHG emission standards

for motor vehicles manufactured in 2009 and all subsequent model years. CARB adopted the standards in September 2004. When fully phased in, the near-term (2009–2012) standards will result in a reduction of about 22% in GHG emissions compared to the emissions from the 2002 fleet, while the mid-term (2013–2016) standards will result in a reduction of about 30%.

**EO S-1-07.** Issued on January 18, 2007, EO S-1-07 sets a declining Low Carbon Fuel Standard for GHG emissions measured in CO<sub>2</sub>e grams per unit of fuel energy sold in California. The target of the Low Carbon Fuel Standard is to reduce the carbon intensity of California passenger vehicle fuels by at least 10% by 2020. The carbon intensity measures the amount of GHG emissions in the lifecycle of a fuel, including extraction/feedstock production, processing, transportation, and final consumption, per unit of energy delivered. CARB adopted the implementing regulation in April 2009. The regulation is expected to increase the production of biofuels, including those from alternative sources, such as algae, wood, and agricultural waste.

**SB 375.** SB 375 (2008) addresses GHG emissions associated with the transportation sector through regional transportation and sustainability plans. SB 375 required CARB to adopt regional GHG reduction targets for the automobile and light-truck sector for 2020 and 2035. Regional metropolitan planning organizations are then responsible for preparing an SCS within their Regional Transportation Plan (RTP). The goal of the SCS is to establish a forecasted development pattern for the region that, after considering transportation measures and policies, will achieve, if feasible, the GHG reduction targets. If an SCS is unable to achieve the GHG reduction target, a metropolitan planning organization must prepare an Alternative Planning Strategy demonstrating how the GHG reduction target would be achieved through alternative development patterns, infrastructure, or additional transportation measures or policies.

Pursuant to Government Code Section 65080(b)(2)(K), an SCS does not: (1) regulate the use of land; (2) supersede the land use authority of cities and counties; or (3) require that a city's or county's land use policies and regulations, including those in a general plan, be consistent with it. Nonetheless, SB 375 makes regional and local planning agencies responsible for developing those strategies as part of the federally required metropolitan transportation planning process and the state-mandated housing element process.

In 2010, CARB adopted the SB 375 targets for the regional metropolitan planning organizations. The targets for SANDAG are a 7% reduction in emissions per capita by 2020 and a 13% reduction by 2035.

SANDAG completed and adopted its *2050 Regional Transportation Plan/Sustainable Communities Strategy* in October 2011 (SANDAG 2011). In November 2011, CARB, by resolution, accepted SANDAG's GHG emissions quantification analysis and determination that, if implemented, the SCS would achieve CARB's 2020 and 2035 GHG emissions reduction targets for the region.

After SANDAG's 2050 RTP/SCS was adopted, a lawsuit was filed by the Cleveland National Forest Foundation and others. The matter is pending before the California Supreme Court (Case No. S223603) for determination of whether an environmental impact report for an RTP must include an analysis of the plan's consistency with the GHG reduction goals reflected in EO S-3-05 to comply with CEQA.

Although the environmental impact report for SANDAG's 2050 RTP/SCS is pending before the California Supreme Court, in 2015, SANDAG adopted the next iteration of its RTP/SCS in accordance with statutorily mandated timelines, and no subsequent litigation challenge was filed. More specifically, in October 2015, SANDAG adopted the Regional Plan. Like the 2050 RTP/SCS, this planning document meets CARB's 2020 and 2035 reduction targets for the region (SANDAG 2015). In December 2015, CARB, by resolution, accepted SANDAG's GHG

emissions quantification analysis and determination that, if implemented, the SCS would achieve CARB's 2020 and 2035 GHG emissions reduction targets for the region.

**Advanced Clean Cars Program.** In January 2012, CARB approved the Advanced Clean Cars program, a new emissions-control program for model years 2015 through 2025. The program combines the control of smog- and soot-causing pollutants and GHG emissions into a single coordinated package. The package includes elements to reduce smog-forming pollution, reduce GHG emissions, promote clean cars, and provide the fuels for clean cars (CARB 2011). To improve air quality, CARB has implemented new emissions standards to reduce smog-forming emissions beginning with 2015 model year vehicles. It is estimated that, in 2025, cars will emit 75% less smog-forming pollution than the average new car sold before 2012. To reduce GHG emissions, CARB, in conjunction with the EPA and the NHTSA, has adopted new GHG standards for model year 2017 to 2025 vehicles; the new standards are estimated to reduce GHG emissions by 34% in 2025. The Zero-Emissions Vehicle (ZEV) program will act as the focused technology of the Advanced Clean Cars program by requiring manufacturers to produce increasing numbers of ZEVs and plug-in hybrid electric vehicles in the 2018 to 2025 model years. The Clean Fuels Outlet regulation will ensure that fuels such as electricity and hydrogen are available to meet the fueling needs of the new advanced technology vehicles as they come to the market.

**EO B-16-12.** EO B-16-12 (2012) directs state entities under the governor's direction and control to support and facilitate development and distribution ZEVs. This EO also sets a long-term target of reaching 1.5 million ZEVs on California's roadways by 2025. On a statewide basis, EO B-16-12 also establishes a GHG emissions reduction target from the transportation sector equaling 80% less than 1990 levels by 2050. In furtherance of this EO, the Governor convened an Interagency Working Group on ZEVs that has published multiple reports regarding the progress made on the penetration of ZEVs in the statewide vehicle fleet.

**AB 1236.** AB 1236 (2015) as enacted in California's Planning and Zoning Law, requires local land use jurisdictions to approve applications for the installation of electric vehicle charging stations, as defined, through the issuance of specified permits, unless there is substantial evidence in the record that the proposed installation would have a specific, adverse impact on public health or safety and there is no feasible method to satisfactorily mitigate or avoid the specific, adverse impact. The bill provides for appeal of that decision to the planning commission, as specified. The bill requires local land use jurisdictions with a population of 200,000 or more residents to adopt an ordinance by September 30, 2016, which creates an expedited and streamlined permitting process for electric vehicle charging stations, as specified. Prior to this statutory deadline, in August 2016, the County Board of Supervisors adopted Ordinance No. 10437 (N.S.) adding a section to its County Code related to the expedited processing of electric vehicle charging stations permits consistent with AB 1236.

**SB 350.** In 2015, SB 350—the Clean Energy and Pollution Reduction Act—was enacted into law. As one of its elements, SB 350 establishes a statewide policy for widespread electrification of the transportation sector, recognizing that such electrification is required for achievement of the state's 2030 and 2050 reduction targets (see Public Utilities Code Section 740.12).

## Solid Waste

**AB 939 and AB 341.** In 1989, AB 939, known as the Integrated Waste Management Act (PRC Sections 40000 et seq.), was passed because of the increase in waste stream and the decrease in landfill capacity. The statute established the California Integrated Waste Management Board, which oversees a disposal reporting system. AB 939 mandated a reduction of waste being disposed where jurisdictions were required to meet diversion goals of all solid waste through source reduction, recycling, and composting activities of 25% by 1995 and 50% by the year 2000.

AB 341 (2011) amended the California Integrated Waste Management Act of 1989 to include a provision declaring that it is the policy goal of the state that not less than 75% of solid waste generated be source-reduced, recycled, or composted by the year 2020 and annually thereafter. In addition, AB 341 required the California Department of Resources Recycling and Recovery (CalRecycle) to develop strategies to achieve the state's policy goal. CalRecycle has conducted multiple workshops and published documents that identify priority strategies that CalRecycle believes would assist the state in reaching the 75% goal by 2020.

## Water

**EO B-29-15.** In response to the ongoing drought in California, EO B-29-15 (April 2015) set a goal of achieving a statewide reduction in potable urban water usage of 25% relative to water use in 2013. The term of the EO extended through February 28, 2016, although many of the directives have since become permanent water-efficiency standards and requirements. The EO includes specific directives that set strict limits on water usage in the state. In response to EO B-29-15, the California Department of Water Resources has modified and adopted a revised version of the Model Water Efficient Landscape Ordinance that, among other changes, significantly increases the requirements for landscape water use efficiency and broadens its applicability to include new development projects with smaller landscape areas.

## Other State Regulations and Goals

**SB 97.** SB 97 (Dutton) (August 2007) directed the Governor's Office of Planning and Research to develop guidelines under CEQA for the mitigation of GHG emissions. In 2008, the Office of Planning and Research issued a technical advisory as interim guidance regarding the analysis of GHG emissions in CEQA documents. The advisory indicated that the lead agency should identify and estimate a project's GHG emissions, including those associated with vehicular traffic, energy consumption, water usage, and construction activities (OPR 2008). The advisory further recommended that the lead agency determine significance of the impacts and impose all mitigation measures necessary to reduce GHG emissions to a level that is less than significant. The California Natural Resources Agency (CNRA) adopted the CEQA Guidelines amendments in December 2009, which became effective in March 2010.

Under the amended CEQA Guidelines, a lead agency has the discretion to determine whether to use a quantitative or qualitative analysis or apply performance standards to determine the significance of GHG emissions resulting from a particular project (14 CCR 15064.4[a]). The Guidelines require a lead agency to consider the extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of GHG emissions (14 CCR 15064.4[b]). The Guidelines also allow a lead agency to consider feasible means of mitigating the significant effects of GHG emissions, including reductions in emissions through the implementation of project features or off-site measures. The adopted amendments do not establish a GHG emission threshold, instead allowing a lead agency to develop,

adopt, and apply its own thresholds of significance or those developed by other agencies or experts. The CNRA also acknowledges that a lead agency may consider compliance with regulations or requirements implementing AB 32 in determining the significance of a project's GHG emissions (CNRA 2009).

With respect to GHG emissions, the CEQA Guidelines state in Section 15064.4(a) that lead agencies should “make a good faith effort, to the extent possible on scientific and factual data, to describe, calculate or estimate” GHG emissions. The CEQA Guidelines note that an agency may identify emissions by either selecting a “model or methodology” to quantify the emissions or by relying on “qualitative analysis or other performance based standards” (14 CCR 15064.4[a]). Section 15064.4(b) states that the lead agency should consider the following when assessing the significance of impacts from GHG emissions on the environment: (1) the extent a project may increase or reduce GHG emissions as compared to the existing environmental setting; (2) whether the project emissions exceed a threshold of significance that the lead agency determines applies to the project; and (3) the extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of GHG emissions (14 CCR 15064.4[b]).

**EO S-13-08.** EO S-13-08 (November 2008) is intended to hasten California's response to the impacts of global climate change, particularly sea-level rise. Therefore, the EO directs state agencies to take specified actions to assess and plan for such impacts. The final 2009 California Climate Adaptation Strategy report was issued in December 2009 (CNRA 2009), and an update, *Safeguarding California: Reducing Climate Risk*, followed in July 2014 (CNRA 2014). To assess the state's vulnerability, the report summarizes key climate change impacts to the state for the following areas: Agriculture, Biodiversity and Habitat, Emergency Management, Energy, Forestry, Ocean and Coastal Ecosystems and Resources, Public Health, Transportation, and Water. Issuance of the *Safeguarding California: Implementation Action Plans* followed in March 2016 (CNRA 2016). Presently, a draft of the *Safeguarding California Plan: 2017 Update* is being prepared to communicate current and needed actions that the state government should take to build climate change resiliency (CNRA 2017).

**2015 State of the State Address.** In January 2015, Governor Brown in his inaugural address and annual report to the Legislature established supplementary goals that would further reduce GHG emissions over the next 15 years. These goals include an increase in California's renewable energy portfolio from 33% to 50%, a reduction in vehicle petroleum use for cars and trucks by up to 50%, measures to double the efficiency of existing buildings, and decreasing emissions associated with heating fuels.

**2016 State of the State Address.** In his January 2016 address, Governor Brown established a statewide goal to bring per capita GHG emissions down to two tons per person, which reflects the goal of the Global Climate Leadership Memorandum of Understanding to limit global warming to less than 2°C by 2050. The Global Climate Leadership Memorandum of Understanding agreement pursues emission reductions of 80% to 95% below 1990 levels by 2050 and/or reach a per-capita annual emissions goal of less than 2 MT by 2050. A total of 187 jurisdictions representing 38 countries and 6 continents, including California, have signed or endorsed the Global Climate Leadership Memorandum of Understanding (Under 2 Coalition 2017).

### 3.2.3 Local Regulations

#### 3.2.3.1 San Diego Air Pollution Control District

SDAPCD does not have established GHG rules, regulations, or policies.

### 3.2.3.2 City of Chula Vista

**International Council of Environmental Initiatives Local Governments for Sustainability.** In 1992, the City participated in the Cities for Climate Protection Program, which aimed at developing municipal action plans for the reduction of GHGs. This program was sponsored and developed by the International Council of Environmental Initiatives and the United Nations Environment Program in response to the United Nations Framework Convention on Climate Change, while recognizing that all local planning and development has direct consequences on energy consumption, and cities exercise key powers over urban infrastructure, including neighborhood design, and over transportation infrastructure, such as roads, streets, pedestrian areas, bicycle lanes, and public transport.

**Chula Vista Carbon Dioxide (CO<sub>2</sub>) Reduction Plan.** Each participant in the International Council of Environmental Initiatives program was to create local policy measures to ensure multiple benefits to the City and, at the same time, identify a carbon reduction goal through the implementation of those measures. The carbon reduction goal was to fit within the realm of international climate treaty reduction goals.

In its CO<sub>2</sub> Reduction Plan, developed in 1996 and officially adopted in 2000, Chula Vista committed to lowering its CO<sub>2</sub> emissions by diversifying its transportation system and using energy more efficiently in all sectors. To focus efforts in this direction, Chula Vista adopted the international CO<sub>2</sub> reduction goal of returning to pre-1990 levels by 2010. In order to achieve this goal, eight actions were identified, which when fully implemented, were anticipated to save 100,000 tons of CO<sub>2</sub> each year.

As a result of the 2005 GHG Emissions Inventory Report, in May 2007, staff reported to the City Council that citywide GHG emissions had increased by 35% (mainly due to residential growth) from 1990 to 2005, while emissions on a per capita basis and from municipal operations decreased by 17% and 18%, respectively. The City Council directed staff to convene a Climate Change Working Group to develop recommendations to reduce the community's GHGs in order to meet the City's 2010 GHG emissions reduction targets.

As a result of the 2012 GHG Emissions Inventory Report, staff reported to the City Council that citywide GHG levels are 1,011,481 MT CO<sub>2</sub>e. Compared to 2005, Chula Vista's citywide GHG emissions have increased by 8%. However, 2012 per capita emissions are approximately 5% below 2005 levels and 33% below 1990 levels. Unlike the last two inventories, 2009 and 2010, there was a slight increase in citywide energy consumption over the last couple of years due most likely to local economic recovery. As with past inventories, community transportation activity has continued increasing with 2012 VMT about 29% higher than in 2005. In order to reach the current community emissions reduction goal of 20% below 1990 emission levels, the City will have to reduce its GHG emissions by more than 359,332 MT CO<sub>2</sub>e (35%); however, statewide initiatives are expected to help achieve some of these reductions by 2020.

**Climate Change Working Group.** The Climate Change Working Group, which is composed of residents, businesses, and community organization representatives, helps the city develop climate-related programs and policies. In 2008, the group reviewed over 90 carbon reduction measures and ultimately chose seven measures to recommend for adoption to the City Council, which the council subsequently adopted. The measures were designed to reduce or mitigate climate change impacts by reducing GHG emissions within Chula Vista to 20% below 1990 levels, in keeping with its CO<sub>2</sub> Reduction Plan and United Nations Framework Convention on Climate Change goals.

In October 2009, the City Council directed the group to evaluate how the City could adapt to potential climate change impacts. The group met throughout 2011 to develop recommendations based on the City's vulnerabilities and risks to climate change. In May 2011, the group adopted the Climate Adaptation Strategies – Implementation Plans, described below, and in 2014, the group released the 2014 Climate Action Plan Update – Recommendations, described below.

**Chula Vista Climate Adaptation Strategies – Implementation Plans.** The Climate Adaptation Strategies – Implementation Plans document developed by the Climate Change Working Group includes 11 strategies to facilitate Chula Vista's adaptation to the potential impacts of global climate change related to energy and water supply, public health, wildfires, ecosystem management, coastal infrastructure, and local economy sectors. The strategies include cool paving, shade trees, cool roofs, local water supply and reuse, stormwater pollution prevention and reuse, education and wildfires, extreme heat plans, open space management, wetlands preservation, sea level rise and land development codes, and green economy. For each strategy, the plans outline specific implementation components, critical steps, costs, and timelines. In order to limit the necessary staffing and funding required to implement the strategies, the plans were also designed to build upon existing municipal efforts, rather than create new, standalone policies or programs. Initial implementation of all 11 strategies were phased over a 3-year period after adoption of the plan in 2011.

**Chula Vista Climate Protection Measures.** On July 10, 2008, the City Council adopted implementation plans for seven climate protection measures to reduce GHG emissions to 20% below 1990 levels by 2012. The implementation plans outline the detailed strategy for initiating, funding, and tracking the following measures:

1. **Clean Vehicle Replacement Policy for City Fleet:** When City fleet vehicles are retired, they will be replaced through the purchase or lease of alternative fuel or hybrid substitutes. In addition, the City fleet will begin to pursue installing new fuel tanks to allow heavy-duty vehicles to convert to biodiesel fuel immediately.
2. **Clean Vehicle Replacement Policy for City-Contracted Fleets:** As contracts for City-contracted fleet services (such as transit buses, trash haulers and street sweeper trucks) are renewed, the City will encourage contractors to replace their vehicles with alternative fuel or hybrid substitutes through the contract bid process. In addition, the City will pursue implementing two hydrogen vehicle demonstration projects.
3. **Business Energy Evaluations:** Businesses with storefronts or offices need to participate in a no-cost energy assessment of their facilities to help identify opportunities for them to reduce monthly energy costs. The business assessment will be integrated into the existing business licensing process and codified through a new municipal ordinance.
4. **Green Building Standard:** The City will implement a citywide, mandatory green building standard for new residential and non-residential construction projects and major renovations. The standard includes four components: 1) adopting a citywide Green Building Standard, 2) adopting a citywide Enhanced Energy Efficiency Standard, 3) launching a Green Building Awareness program for builders, permit applicants and the general public, and 4) developing design guidelines for sustainable development.
5. **Solar and Energy Efficiency Conversion Program:** The City will create a community program to provide residents and businesses with a streamlined, cost-effective opportunity to implement energy efficiency improvements and to install solar/renewable energy systems on their properties. The City will develop a funding mechanism to allow program participants to voluntarily choose to place the improvement costs on their property's tax rolls, thereby avoiding large upfront capital costs. In addition, the program will promote vocational training, local manufacturing, and retail sales opportunities for environmental products and services. To help stimulate the private-sector renewable market and lower the cost for

installing renewable energy systems on new homes, the City will require all new residential buildings to include pre-wiring and pre-plumbing for solar photovoltaic and solar hot water systems, respectively.

6. **Smart Growth Around Trolley Stations:** The City will continue to implement the smart growth design principles, which promote mixed-use and walkable and transit-friendly development, particularly in and around the E, H, and Palomar trolley stations. These principles were emphasized in the revised Chula Vista General Plan and the Urban Core Specific Plan. In particular, the City will initiate site planning, design studies and specific area plan development to further support smart growth development that complements GHG reductions.
7. **Turf Lawn Conversion Program:** The City will create a community program to provide residents and businesses with a streamlined, cost-effective opportunity to replace their turf lawns with water-saving landscaping and irrigation systems. Some municipal turf lawn areas (such as medians, fire stations and non-recreational park areas) will also be converted to act as public demonstration sites and to reduce monthly water costs. The City will establish the model for water-wise landscaping for new development through an update of the Chula Vista Municipal Landscape Ordinance and Water Conservation Plan guidelines.

**Chula Vista Climate Protection Measures – 2013 Progress Report.** Since 2000, Chula Vista has been implementing a “Climate Action Plan” (CO<sub>2</sub> Reduction Plan) to address the threat of climate change to the local community. This original plan has been revised to incorporate new climate mitigation (2008) and adaptation (2011) measures to strengthen the City’s climate action efforts and to facilitate the numerous community co-benefits, such as utility savings, better air quality, reduced traffic congestion, local economic development, and improved quality of life. Based on available funding, staff has been implementing the 18 climate-related actions and their 57 associated components. Overall, 70% of the components have been successfully completed and/or are being implemented on an ongoing basis, which represents a 7% increase since the last reporting period. Another 26% are still being actively pursued, while only two components remain on hold (City of Chula Vista 2013).

**2014 Climate Action Plan Update – Recommendations by the Climate Change Working Group.** The Climate Change Working Group has been evaluating new opportunities to help reach the Chula Vista CAP’s GHG gas reduction goal of 30% below 2005 levels. As such, they have identified the following 12 action areas that could generate up to 166,000 MT in reductions by 2020, while improving local air quality, generating utility savings, reducing traffic congestion, and promoting a healthier community (City of Chula Vista 2014).

**2017 Climate Action Plan.** The latest version of the CAP was adopted on September 26, 2017, by the City Council and provides updated goals, policies, actions, and the latest city-wide inventory and projections. The CAP is not considered a CEQA “qualified” plan under CEQA Guidelines Section 15183.5, as it has not been adopted in a public process following environmental review. The Climate Change Working Group has been evaluating new opportunities to help reach the Chula Vista CAP’s GHG gas reduction goals which are based on the Scoping Plan Update goals of 6 MT CO<sub>2</sub>e per person by 2030 and 2 MT CO<sub>2</sub>e per person by 2050. As such, they have identified the following 11 action areas that could generate up to 208,220 MT in reductions by 2020, while improving local air quality, generating utility savings, reducing traffic congestion, and promoting a healthier community (City of Chula Vista 2017):

#### **Water Conservation and Reuse – Estimated Annual GHG Reductions = 12,357 MT CO<sub>2</sub>e**

1. Water Education and Enforcement
  - Expand education and enforcement (through fines) targeting landscape water waste.



2. Water Efficiency Upgrades

- Update the City's Landscape Water Conservation Ordinance to promote more water-wise landscaping designs.
- Require water-savings retrofits in existing buildings at a specific point in time (not point of sale).

3. Water Reuse Plan and System Installations

- Develop a Water Reuse Master Plan to maximize the use of stormwater, recycled water, and on-site water reclamation.
- Facilitate simple graywater systems for laundry-to-landscape applications
- Streamline complex graywater systems permit review

**Waste Reduction – Estimated Annual GHG Reductions = 38,126 MT CO<sub>2</sub>e**

1. Zero Waste Plan

- Develop a Zero Waste Plan to supplement statewide green waste, recycling, and plastic bag ban efforts.

**Renewable and Efficient Energy – Estimated Annual GHG Reductions = 70,763 MT CO<sub>2</sub>e**

1. Energy Education and Enforcement

- Expand education targeting key community segments (i.e., do-it-yourself and Millennials) and facilitating energy performance disclosure (i.e., Green Leases and Home Energy Ratings).
- Leverage the building inspection process to distribute energy-related information and to deter unpermitted, low performing energy improvements.

2. Clean Energy Sources

- Incorporate solar photovoltaic into all new residential and commercial buildings (on a project level basis).
- Provide more grid-delivered clean energy (up to 100%) through Community Choice Aggregation or other mechanism.

3. Energy Efficiency Upgrades

- Expand the City's "cool roof" standards to include re-roofs and western areas.
- Facilitate more energy upgrades in the community through tax breaks, rebates, and more local energy efficiency programming.
- Require energy-savings retrofits in existing buildings at a specific point in time (not at point of sale).

4. Robust Urban Forests

- Plant more shade trees to save energy, address heat island issues, and improve air quality.

**Smart Growth and Transportation – Estimated Annual GHG Reductions = 86,974 MT CO<sub>2</sub>e**

1. Complete Streets and Neighborhoods

- Incorporate "Complete Streets" principles into the Bicycle and Pedestrian Master Plans and Capital Improvement Program.
- Encourage higher density and mixed-use development in Smart Growth areas, especially around trolley stations and other transit nodes.

2. Transportation Demand Management

- Utilize bike facilities, transit access/passes and other Transportation Demand Management and congestion management offerings.
- Expand bike-sharing, car-sharing and other “last mile” transportation options.

3. Alternative Fuel Vehicle Readiness

- Support the installation of more local alternative fueling stations and designate preferred parking for alternative fuel vehicles.
- Designate preferred parking for alternative fuel vehicles.
- Design all new residential and commercial buildings to be “Electric Vehicle Ready.”

**Chula Vista Green Building Standards.** Consistent with Measure 4 of the Chula Vista Climate Protection Measures, the City Council adopted the Green Building Standards Ordinance (Ordinance No. 3140) on October 6, 2009, which became effective November 5, 2009. The Green Building Standards ordinance includes standards for energy efficiency, pollutant controls, interior moisture control, improved indoor air quality and exhaust, indoor water conservation, stormwater management, and construction waste reduction and recycling.

Building permit applications are required to indicate on project construction plans and specifications the Green Building Standards measures that comply with the ordinance. Prior to final building approval or issuance of a certificate of occupancy, the Building Official reviews the information submitted by the applicant and determines whether the applicant has constructed the project in accordance with the permitted plans and documents, and whether the plans are in compliance with the Green Building Standards. In 2013, Chula Vista adopted the Green Building Code, called CALGreen, for Residential and Non-residential development effective January 1, 2014.

**Chapter 15.12 Green Building Standards.** Title 24, Part 11, was adopted as the Green Building Code of the City for enhancing the design and construction of buildings, building additions and alterations through the use of building concepts having a reduced negative impact or positive environmental impact and encouraging sustainable construction practices, excepting such portions as are hereinafter deleted, modified, or amended.

**Chula Vista Increased Energy Efficiency Standards.** On January 26, 2010, the City Council adopted the Increased Energy Efficiency Standards Ordinance (Ordinance No. 3149). This ordinance became effective February 26, 2010, as Section 15.26 of the municipal code. Permit applications are required to comply with these energy efficiency standards.

Chula Vista Municipal Code Section 15.26.030 requires permit applications to comply with increased energy efficiency standards that achieve 15% to 20% greater efficiency than the requirements of the Title 24 2008 standards, depending on climate zone. The City falls within two climate zones, Zone 7 and Zone 10. The project site is within Zone 7. For Zone 7, the code requires:

- All new low-rise residential building or additions, remodels or alterations to existing low-rise residential buildings where the additions, remodels or alterations are greater than 1,000 square feet of conditional floor area, shall use at least 15% less energy than the 2008 Title 24 Building Energy Efficiency Standards allow; and

- All new non-residential, high-rise residential or hotel/motel buildings, or additions, remodels or alterations to existing non-residential, high-rise residential or hotel/motel buildings where the additions, remodels or alterations are greater than 10,000 square feet of conditioned floor area, shall use at least 15% less energy than the 2008 Title 24 Building Energy Efficiency Standards.
- No city building permit shall be issued unless the permit application demonstrates to the Building Official compliance with the requirements of Section 15.26.030. Compliance is to be demonstrated based on a performance approach, using a CEC-approved energy compliance software program, as specified in the Title 24 2008 Building Energy Efficiency Standards.

In 2013, Chula Vista adopted the Energy Code for Residential and Non-Residential development, effective July 1, 2014. Energy Efficiency measures adopted by the Chula Vista Municipal Code are as follows:

- **Section 15.26.010 - California Energy Code.** The California Energy Code is adopted as the energy code of the City for the purpose of regulating building design and construction standards to increase efficiency in the use of energy for new residential and nonresidential buildings.
- **Section 15.26.020 – Outdoor Lighting Zones.** The City has adopted an outdoor lighting zones map amending state default lighting zones as applied to certain areas of the City. The location of outdoor lighting zones in the City are per the adopted Outdoor Lighting Zones Map, dated September 2, 2005, and kept on file with the City Planning and Building Department.
- **Section 15.28.015 Solar Water Heater Pre-plumbing (specific to the City).** All new residential units shall include plumbing specifically designed to allow the later installation of a system that utilizes solar energy as the primary means of heating domestic potable water. No building permit shall be issued unless the requirements of this section and the Chula Vista Solar Water Heater Pre-Plumbing Installation Requirements are incorporated into the approved building plans.
- **Section 15.24.065 Pre-wiring for Photovoltaic (specific to the City).** All new residential units shall include electrical conduit specifically designed to allow the later installation of a photovoltaic system that utilizes solar energy as a means to provide electricity. No building permit shall be issued unless the requirements of this section and the Chula Vista Photovoltaic Pre-Wiring Installation Requirements are incorporated into the approved building plans.
- **Section 15.28.020 Residential Graywater Stub-out (specific to the City).** All new detached single-family dwellings and duplexes shall include a single-source clothes washer graywater outlet and an outside stub-out to allow the later installation of a clothes washer graywater irrigation system that complies with the requirements of Section 1602.1.1 of the 2013 California Plumbing Code. The outlet and stub-out shall be installed in accordance with the Chula Vista Clothes Washer Graywater Pre-Plumbing and Stub-Out for New Residential Construction or an equivalent alternate method and/or material approved by the Building Official.

**City of Chula Vista Mandatory Construction and Demolition Debris Recycling Ordinance.** Section 8.25.095 of the Chula Vista Municipal Code requires that 90% of inert materials and a minimum of 50% of all other materials be recycled and/or reused from certain covered projects. Covered projects include:

- Any project requiring a permit for demolition or construction, which has a project valuation of \$20,000 or more.
- Housing subdivision construction or demolition and/or any sequenced development will be considered a project in its entirety and not a series of individual projects.

- Tenant improvements greater than 1,000 square feet but less than 10,000 square feet and individual single-family home construction, remodel, addition or renovation, shall submit a Waste Management Report only (no deposit required).
- All City projects.

Covered projects must submit a waste management plan to the Chula Vista Public Works Department, Environmental Services Division, which must be reviewed and approved prior to the issuance of a demolition or building permit. The waste management plan will indicate how the applicant will recycle and/or reuse 90% of inert materials and at least 50% of the remaining construction and demolition debris generated from the project.

**City of Chula Vista Clean Transportation Energy Roadmap (2012).** The Clean Transportation Energy Roadmap (“Roadmap”) can serve as a resource for the City as it continues to promote clean transportation measures, both in its municipal operations and in the community. The Roadmap identifies petroleum reduction measures and tools specific to the City that generally result in cost savings and benefits to the environment, including:

- An assessment of alternative fuel vehicles and fuel availability for the City’s vehicle fleet.
- Commuter programs, including vanpools, carpools, and teleworking that the City could promote to its employees.
- Online tools to establish a baseline of petroleum consumed and GHGs emitted from employee commutes, as well as annual tracking tools.
- Smart growth and active transportation policies that enhance local walking and biking options.
- Outreach materials on Clean Transportation programs that can be shared with local residents, schools, and businesses.

The Roadmap also recognizes the significant steps that the City has taken already. Since 2000, Chula Vista has been implementing a “Climate Action Plan” (CO<sub>2</sub> Reduction Plan) that includes measures to reduce energy and fuel use at municipal facilities and throughout the community.

**City of Chula Vista General Plan.** The City General Plan (City of Chula Vista 2005) includes various policies related to reducing GHG emissions (both directly and indirectly). Applicable policies include the following:

***Land Use and Transportation Element***

- **Policy LUT-23.1:** Encourage the use of bicycles and walking as alternatives to driving.
- **Policy LUT-23.2:** Foster the development of a system of inter-connecting bicycle routes throughout the City and region.
- **Policy LUT-23.5:** Provide linkages between bicycle facilities that utilize circulation element alignments and open space corridors.
- **Policy LUT-23.8:** Provide and maintain a safe and efficient system of sidewalks, trails, and pedestrian crossings.
- **Policy LUT-23.14:** Require new development projects to provide internal bikeway systems with connections to the citywide bicycle networks.

***Environmental Element***

- **Policy E-6.1:** Encourage compact development featuring a mix of uses that locate residential areas within reasonable walking distance to jobs, services, and transit.

- **Policy E-6.5:** Ensure that plans developed to meet the City's energy demand use the least polluting strategies, wherever practical. Conservation, clean renewables, and clean distributed generation should be considered as part of the City's energy plan, along with larger natural gas-fired plants.
- **Policy E-6.7:** Encourage innovative energy conservation practices and air quality improvements in new development and redevelopment projects consistent with the City's Air Quality Improvement Plan Guidelines or its equivalent, pursuant to the City's Growth Management Program.
- **Policy E-6.8:** Support the use of alternative fuel transit, City fleet and private vehicles in Chula Vista.
- **Policy E-7.1:** Promote development of regulations and building design standards that maximize energy efficiency through appropriate site and building design and through the use of energy-efficient materials, equipment, and appliances.
- **Policy E-7.6:** Encourage the construction and operation of green buildings, considering such programs as the Leadership in Energy and Environmental Design (LEED) Green Building Rating System.
- **Policy E-7.8:** Ensure that residential and non-residential construction complies with all applicable City energy efficiency measures and other green building measures that are in effect at the time of discretionary permit review and approval or building permit issuance, whichever is applicable.
- **Policy E-8.1:** Promote efforts to reduce waste, minimize the need for additional landfills, and provide economically and environmentally sound resource recovery, management, and disposal facilities.
- **Policy E-8.3:** Implement source reduction strategies, including curbside recycling, use of small collection facilities for recycling, and composting.

## 3.3 Greenhouse Gas Inventories and Climate Change Conditions

### 3.3.1 Sources of Greenhouse Gas Emissions

#### Global Inventory

Anthropogenic GHG emissions worldwide in 2012 (the most recent year for which data is available) totaled approximately 44,816 MMT CO<sub>2</sub>e (WRI 2015). Six countries—China, the United States, the Russian Federation, India, Japan, and Brazil—and the European community accounted for approximately 65% of the total global emissions, approximately 29,300 MMT CO<sub>2</sub>e (WRI 2015). Table 9 presents the top GHG-emissions-producing countries.

**Table 9. Six Top Greenhouse Gas Producer Countries and the European Community**

Emitting Countries	GHG Emissions (MMT CO <sub>2</sub> e)
China	10,975.5
United States	6,235.1
European Union	4,399.2
India	3,013.8
Russian Federation	2,322.2
Japan	1,344.6
Brazil	1,012.6
<b>Total</b>	<b>29,302.9</b>

Source: WRI 2015.

**Notes:** GHG = greenhouse gas; MMT = million metric tons; CO<sub>2</sub>e = carbon dioxide equivalent.  
Total may not sum due to rounding.

### National and State Inventories

Per the EPA's Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990–2017 (EPA 2019b), total U.S. GHG emissions were approximately 6,457 MMT CO<sub>2</sub>e in 2017. The primary GHG emitted by human activities in the United States was CO<sub>2</sub>, which represented approximately 81.6% of total GHG emissions (6,457 MMT CO<sub>2</sub>e). The largest source of CO<sub>2</sub>, and of overall GHG emissions, was fossil-fuel combustion, which accounted for approximately 93.2% of CO<sub>2</sub> emissions in 2017 (4,912 MMT CO<sub>2</sub>e). Relative to 1990, gross United States GHG emissions in 2017 are higher by 1.3%, down from a high of 15.7% above 1990 levels in 2007. GHG emissions decreased from 2016 to 2017 by 0.5% (36 MMT CO<sub>2</sub>e) and overall, net emissions in 2017 were 13% below 2005 levels (EPA 2019b).

According to California's 2000–2017 GHG emissions inventory (2019 edition), California emitted 424.10 MMT CO<sub>2</sub>e in 2017, including emissions resulting from out-of-state electrical generation (CARB 2019b). The sources of GHG emissions in California include transportation, industrial uses, electric power production from both in-state and out-of-state sources, commercial and residential uses, agriculture, high global-warming potential substances, and recycling and waste. The California GHG emission source categories (as defined in CARB's 2008 Scoping Plan) and their relative contributions in 2017 are presented in Table 10.

**Table 10. Greenhouse Gas Emissions Sources in California**

Source Category	Annual GHG Emissions (MMT CO <sub>2</sub> e)	Percent of Total <sup>a</sup>
Transportation	169.86	40%
Industrial uses <sup>a</sup>	89.40	21%
Electricity generation <sup>b</sup>	62.39	15%
Residential and commercial uses	41.14	10%
Agriculture	32.42	8%
High GWP substances	19.99	5%
Recycling and waste	8.89	2%
<b>Totals</b>	<b>424.10</b>	<b>100%</b>

**Source:** CARB 2019b.

**Notes:** GHG = greenhouse gas; GWP = global warming potential; MMT CO<sub>2</sub>e = million metric tons of carbon dioxide equivalent.  
Emissions reflect 2017 California GHG inventory.

Totals may not sum due to rounding.

<sup>a</sup> Includes emissions associated with imported electricity, which account for 23.94 MMT CO<sub>2</sub>e.

According to the GHG inventory data compiled by the Energy Policy Initiative Center, in 2010, the County emitted 34.5 MMT CO<sub>2</sub>e (EPIC 2013). As outlined in Table 11, on-road transportation created 42% of these emissions. Similar to emissions trends statewide, electricity generation is the second biggest emitter.

**Table 11. San Diego County Greenhouse Gas Emissions by Sectors**

Source Category	Annual GHG Emissions (MMT CO <sub>2</sub> e)	Percent of Total
On-road transportation	14.4	42%
Electricity generation	8.3	24%
Natural gas end uses	2.9	8%
Off-road equipment and vehicles	1.4	4%

**Table 11. San Diego County Greenhouse Gas Emissions by Sectors**

Source Category	Annual GHG Emissions (MMT CO <sub>2</sub> e)	Percent of Total
Civil aviation	1.9	5%
Industrial processes and products	1.8	5%
Waste	0.6	2%
Water-borne navigation	0.1	<1%
Rail	0.32	<1%
Other fuels	1.58	5%
Agriculture (livestock)	0.05	<1%
Wildfires	0.28	<1%
Development (loss of vegetation)	0.18	<1%
Sequestration from land cover	0.66	2%
<b>Total</b>	<b>34.5</b>	<b>100%</b>

**Source:** EPIC 2013.

**Note:** GHG = greenhouse gas; MMT CO<sub>2</sub>e = million metric tons of carbon dioxide equivalent.  
Totals may not sum due to rounding.

The City prepared a GHG inventory in 2012 as part of its climate action program, which is summarized in Table 12.

**Table 12. Chula Vista Greenhouse Gas Emissions by Sectors**

Source Category	Annual GHG Emissions (MT CO <sub>2</sub> e)	Percent of Total
<b>Community Analysis</b>		
Transportation	393,333	38.9
Energy Use	497,282	49.2
Solid Waste	62,504	6.2
Potable Water	40,643	4.0
Wastewater	17,719	1.8
<i>Subtotal</i>	<i>1,011,481</i>	<i>100</i>
<b>Municipal Analysis</b>		
Transportation	6,800	35.9
Energy Use	6,654	35.1
Solid Waste	3,106	16.4
Potable Water	2,371	12.5
<i>Subtotal</i>	<i>18,931</i>	<i>100</i>

**Source:** City of Chula Vista 2012.

**Note:** GHG = greenhouse gas; MT CO<sub>2</sub>e = metric tons of carbon dioxide equivalent.  
Totals may not sum due to rounding.

### 3.3.2 Potential Effects of Climate Change

Globally, climate change has the potential to affect numerous environmental resources through uncertain impacts related to future air temperatures and precipitation patterns. The 2014 Intergovernmental Panel on Climate Change Synthesis Report indicated that warming of the climate system is unequivocal, and since the 1950s, many of the observed changes are unprecedented over decades to millennia. Signs that global climate

change has occurred include warming of the atmosphere and ocean, diminished amounts of snow and ice, and rising sea levels (IPCC 2014).

In California, climate change impacts have the potential to affect sea level rise, agriculture, snowpack and water supply, forestry, wildfire risk, public health, and electricity demand and supply (CCCC 2006). The primary effect of global climate change has been a 0.2°C rise in average global tropospheric temperature per decade, determined from meteorological measurements worldwide between 1990 and 2005. Scientific modeling predicts that continued emissions of GHGs at or above current rates would induce more extreme climate changes during the 21st century than were observed during the 20th century. A warming of about 0.2°C (0.36°F) per decade is projected, and there are identifiable signs that global warming could be taking place.

Although climate change is driven by global atmospheric conditions, climate change impacts are felt locally. A scientific consensus confirms that climate change is already affecting California. The average temperatures in California have increased, leading to more extreme hot days and fewer cold nights; shifts in the water cycle have been observed, with less winter precipitation falling as snow, and both snowmelt and rainwater running off earlier in the year; sea levels have risen; and wildland fires are becoming more frequent and intense due to dry seasons that start earlier and end later (CAT 2010).

An increase in annual average temperature is a reasonably foreseeable effect of climate change. Observed changes over the last several decades across the Western United States reveal clear signals of climate change. Statewide average temperatures increased by about 1.7°F from 1895 to 2011, and warming has been the greatest in the Sierra Nevada (CCCC 2012). By 2050, California is projected to warm by approximately 2.7°F above 2000 averages, a threefold increase in the rate of warming over the last century. By 2100, average temperatures could increase by 4.1 to 8.6°F, depending on emissions levels. Springtime warming—a critical influence on snowmelt—will be particularly pronounced. Summer temperatures will rise more than winter temperatures, and the increases will be greater in inland California, compared to the coast. Heat waves will be more frequent, hotter, and longer. There will be fewer extremely cold nights (CCCC 2012). A decline of Sierra snowpack, which accounts for approximately half of the surface water storage in California and much of the state's water supply, by 30% to as much as 90% is predicted over the next 100 years (CAT 2006).

Model projections for precipitation over California continue to show the Mediterranean pattern of wet winters and dry summers with seasonal, year-to-year, and decade-to-decade variability. For the first time, however, several of the improved climate models shift toward drier conditions by the mid-to-late 21st century in Central and, most notably, Southern California. By late-century, all projections show drying, and half of them suggest 30-year average precipitation will decline by more than 10% below the historical average (CCCC 2012).

A summary of current and future climate change impacts to resource areas in California, as discussed in the *Safeguarding California: Reducing Climate Risk* (CNRA 2014), is provided below.

**Agriculture.** The impacts of climate change on the agricultural sector are far more severe than the typical variability in weather and precipitation patterns that occur year to year. The agriculture sector and farmers face some specific challenges that include more drastic and unpredictable precipitation and weather patterns; extreme weather events that range from severe flooding and extreme drought to destructive storm events; significant shifts in water availability and water quality; changes in pollinator lifecycles; temperature fluctuations, including extreme heat stress and decreased chill hours; increased risks from invasive species and weeds, agricultural pests, and plant diseases; and disruptions to the transportation and energy infrastructure supporting agricultural production. These challenges and associated short-term and long-term impacts can have both positive and negative effects on agricultural production.



Nonetheless, it is predicted that current crop and livestock production will suffer long-term negative effects resulting in a substantial decrease in the agricultural sector if not managed or mitigated.

**Biodiversity and Habitat.** The state's extensive biodiversity stems from its varied climate and assorted landscapes, which have resulted in numerous habitats where species have evolved and adapted over time. Specific climate change challenges to biodiversity and habitat include species migration in response to climatic changes, range shift and novel combinations of species; pathogens, parasites, and disease; invasive species; extinction risks; changes in the timing of seasonal life-cycle events; food web disruptions; and threshold effects (i.e., a change in the ecosystem that results in a "tipping point" beyond which irreversible damage or loss has occurs). Habitat restoration, conservation, and resource management across California and through collaborative efforts among public, private, and nonprofit agencies has assisted in the effort to fight climate change impacts on biodiversity and habitat. One of the key measures in these efforts is ensuring species' ability to relocate as temperature and water availability fluctuate as a result of climate change based on geographic region.

**Energy.** The energy sector provides California residents with a supply of reliable and affordable energy through a complex integrated system. Specific climate change challenges for the energy sector include temperature, fluctuating precipitation patterns, increasing extreme weather events, and sea level rise. Increasing temperatures and reduced snowpack negatively impact the availability of a steady flow of snowmelt to hydroelectric reservoirs. Higher temperatures also reduce the capacity of thermal power plants, since power plant cooling is less efficient at higher ambient temperatures. Increased temperatures will also increase electricity demand associated with air conditioning. Natural gas infrastructure in Coastal California is threatened by sea level rise and extreme storm events.

**Forestry.** Forests occupy approximately 33% of California's 100 million acres and provide key benefits, such as wildlife habitat, absorption of CO<sub>2</sub>, renewable energy, and building materials. The most significant climate change-related risks to forests are accelerated risk of wildfire and more frequent and severe droughts. Droughts have resulted in more large-scale mortalities and, combined with increasing temperatures, have led to an overall increase in wildfire risks. Increased wildfire intensity subsequently increases public safety risks, property damage, fire suppression and emergency response costs, watershed and water quality impacts, and vegetation conversions. These factors contribute to decreased forest growth, geographic shifts in tree distribution, loss of fish and wildlife habitat, and decreased carbon absorption. Climate change may result in increased establishment of non-native species, particularly in rangelands where invasive species are already a problem. Invasive species may be able to exploit temperature or precipitation changes or quickly occupy areas denuded by fire, insect mortality, or other climate change effects on vegetation.

**Ocean and Coastal Ecosystems and Resources.** Sea level rise, changing ocean conditions, and other climate change stressors are likely to exacerbate long-standing challenges related to ocean and coastal ecosystems in addition to threatening people and infrastructure located along the California coastline and in coastal communities. Sea level rise, in addition to more frequent and severe coastal storms and erosion, are threatening vital infrastructure, such as roads, bridges, power plants, ports and airports, gasoline pipes, and emergency facilities, as well as negatively impacting the coastal recreational assets, such as beaches and tidal wetlands. Water quality and ocean acidification threaten the abundance of seafood and other plant and wildlife habitats throughout California and globally.

**Public Health.** Climate change can impact public health through various environmental changes and is the largest threat to human health in the 21st century. Changes in precipitation patterns affect public health primarily through potential for altered water supplies, and extreme events, such as heat, floods, droughts, and wildfires. Increased frequency, intensity, and duration of extreme heat and heat waves is likely to increase the risk of

mortality due to heat-related illness, as well as exacerbate existing chronic health conditions. Other extreme weather events are likely to negatively impact air quality and increase or intensify respiratory illness, such as asthma and allergies. Additional health impacts that may be impacted by climate change include cardiovascular disease, vector-borne diseases, mental health impacts, and malnutrition injuries. Increased frequency of these ailments is likely to subsequently increase the direct risk of injury and/or mortality.

**Transportation.** Residents of California rely on airports, seaports, public transportation, and an extensive roadway network to gain access to destinations, goods, and services. While the transportation industry is a source of GHG emissions, it is also vulnerable to climate change risks. Particularly, sea level rise and erosion threaten many coastal California roadways, airports, seaports, transit systems, bridge supports, and energy and fueling infrastructure. Increasing temperatures and extended periods of extreme heat threaten the integrity of the roadways and rail lines. High temperatures cause the road surfaces to expand, which leads to increased pressure and pavement buckling. High temperatures can also cause rail breakages, which could lead to train derailment. Other forms of extreme weather events, such as extreme storm events, can negatively impact infrastructure, which can impair movement of peoples and goods, or potentially block evacuation routes and emergency access roads. Increased wildfires, flooding, erosion risks, landslides, mudslides, and rockslides can all profoundly impact the transportation system and pose a serious risk to public safety.

**Water.** Water resources in California support residences, plants, wildlife, farmland, landscapes, and ecosystems and bring trillions of dollars in economic activity. Climate change could seriously impact the timing, form, amount of precipitation, runoff patterns, and frequency and severity of precipitation events. Higher temperatures reduce the amount of snowpack and lead to earlier snowmelt, which can impact water supply availability, natural ecosystems, and winter recreation. Water supply availability during the intense dry summer months is heavily dependent on the snowpack accumulated during the winter. Increased risk of flooding has a variety of public health concerns, including water quality, public safety, property damage, displacement, and post-disaster mental health problems. Prolonged and intensified droughts can also negatively affect groundwater reserves and result in increased overdraft and subsidence. Droughts can also negatively impact agriculture and farmland throughout the state. The higher risk of wildfires can lead to increased erosion, which can negatively impact watersheds and result in poor water quality. Water temperatures are also prone to increase, which can negatively impact wildlife that rely on a specific range of temperatures for suitable habitat.

In May 2017, CNRA released the draft Safeguarding California Plan: 2017 Update, which is a survey of current programmatic responses for climate change and contains recommendations for further actions (CNRA 2017).

## 3.4 Significance Criteria and Methodology

### 3.4.1 Thresholds of Significance

The significance criteria used to evaluate the project's GHG emissions impacts is based on the recommendations provided in Appendix G of the CEQA Guidelines. For the purposes of this GHG emissions analysis, the project would have a significant environmental impact if it would (14 CCR 15000 et seq.):

1. Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment?
2. Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs?

Global climate change is a cumulative impact; a project participates in this potential impact through its incremental contribution combined with the cumulative increase of all other sources of GHGs. There are currently no established thresholds for assessing whether the GHG emissions of a project, such as the proposed project, would be considered a cumulatively considerable contribution to global climate change; however, all reasonable efforts should be made to minimize a project's contribution to global climate change. In addition, while GHG impacts are recognized exclusively as cumulative impacts (CAPCOA 2008), GHG emissions impacts must also be evaluated on a project-level under CEQA.

The CEQA Guidelines do not prescribe specific methodologies for performing an assessment, do not establish specific thresholds of significance, and do not mandate specific mitigation measures. Rather, the CEQA Guidelines emphasize the lead agency's discretion to determine the appropriate methodologies and thresholds of significance consistent with the manner in which other impact areas are handled in CEQA (CNRA 2009). The State of California has not adopted emissions-based thresholds for GHG emissions under CEQA. The Governor's Office of Planning and Research's Technical Advisory titled "CEQA and Climate Change: Addressing Climate Change through California Environmental Quality Act Review" states that "public agencies are encouraged but not required to adopt thresholds of significance for environmental impacts. Even in the absence of clearly defined thresholds for GHG emissions, the law requires that such emissions from CEQA projects must be disclosed and mitigated to the extent feasible whenever the lead agency determines that the project contributes to a significant, cumulative climate change impact" (OPR 2008). Furthermore, the advisory document indicates that "in the absence of regulatory standards for GHG emissions or other scientific data to clearly define what constitutes a 'significant impact,' individual lead agencies may undertake a project-by-project analysis, consistent with available guidance and current CEQA practice." Section 15064.7(c) of the CEQA Guidelines specifies that "when adopting thresholds of significance, a lead agency may consider thresholds of significance previously adopted or recommended by other public agencies, or recommended by experts, provided the decision of the lead agency to adopt such thresholds is supported by substantial evidence."

Neither the State of California, City, nor the SDAPCD has adopted emission-based thresholds of significance for GHG emissions under CEQA. **Thus, a review of potential thresholds, including an efficiency threshold and screening level threshold, was completed to determine the appropriate threshold for this project.**

The first potential threshold reviewed was an efficiency threshold, which sets a per capita emissions limit. Under an efficiency threshold, the total emissions from a given project are summed and divided by a project's service population (SP) to determine emissions per capita and are compared to the efficiency threshold.<sup>8</sup> An efficiency threshold **has been utilized for some projects in the City in the past few years.** However, a city-specific efficiency threshold is not appropriate to assess GHG emissions **for this project because it does not have residents.** A majority of the project's emissions are from mobile sources (employees and visitors) and energy use; however, patients and visitors are not considered residents and, therefore, cannot be included in the service population, which only includes employees and residents. **As such, the use of an efficiency threshold would not accurately portray the project's GHG emission impacts because it would exclude a significant portion of the project's GHG emissions—patients and visitors.** The efficiency threshold is not appropriate for the proposed project's land use type, which includes GHG emissions resulting from patients, visitors, and employees but a low employee population. Thus, a City-specific efficiency threshold is not used herein to assess the project's GHG emissions impacts.

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<sup>8</sup> Service population is defined as the number of residents plus the number of employees within the City.

The second threshold reviewed was the screening threshold. In October 2008, the SCAQMD proposed recommended numeric CEQA significance thresholds for GHG emissions for lead agencies to use in assessing GHG impacts of residential and commercial development projects as presented in its Draft Guidance Document – Interim CEQA Greenhouse Gas (GHG) Significance Threshold (SCAQMD 2008). This guidance document, which builds on the previous guidance prepared by the CAPCOA, explored various approaches for establishing a significance threshold for GHG emissions. SCAQMD recommends using a screening level threshold of 3,000 MT CO<sub>2e</sub> per year for residential/commercial land use projects under option 1. Furthermore, the City's efficiency metric using service population, which refers to the sum of number of jobs and residents, is not appropriate for this project's land use type since the project is neither a residential or employment-oriented land use. Thus, the City's efficiency metric does not address the land use character of the project being analyzed. To determine the project's potential to generate GHG emissions that would have a significant impact on the environment, its GHG emissions were compared to the SCAQMD recommended quantitative screening threshold of 3,000 MT CO<sub>2e</sub> per year.

This analysis also assesses compliance with applicable plans, policies, regulations, and requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of GHG emissions. As a land use development project, the most directly applicable adopted regulatory plan to reduce GHG emissions is the SANDAG's Regional Plan, which is designed to achieve regional GHG reductions from the land use and transportation sectors as required by SB 375 and the state's long-term climate goals. This analysis also considers consistency with regulations and requirements adopted by the Scoping Plan and the City's CAP.

### 3.4.2 Approach and Methodology

As discussed in Section 3.1.3, Global Warming Potential, this analysis assumes that the GWP for CH<sub>4</sub> is 25 and the GWP for N<sub>2</sub>O is 298, based on the IPCC Fourth Assessment Report (IPCC 2007).

#### 3.4.2.1 Construction

CalEEMod Version 2016.3.2 was used to estimate potential project-generated GHG emissions during construction. Construction of the proposed project would result in GHG emissions primarily associated with use of off-road construction equipment, on-road hauling and vendor (material delivery) trucks, and worker vehicles. All details for construction criteria air pollutants discussed in Section 2.4.2.1, are also applicable for the estimation of construction-related GHG emissions. As such, see Section 2.4.2.1 for a discussion of construction emissions calculation methodology and assumptions.

#### 3.4.2.2 Operation

CalEEMod Version 2016.3.2 was used to estimate potential project-generated operational GHG emissions from area sources (landscape maintenance), energy sources (natural gas and electricity), mobile sources, solid waste, water supply and wastewater treatment, and stationary sources. Emissions from each category are discussed in the following text with respect to the proposed project. For additional details, see Section 2.4.2.2, Operation, for a discussion of operational emission calculation methodology and assumptions, specifically for area, energy (natural gas), and mobile sources. Operational year 2023 was assumed as it would be the first full year following completion of construction.

## Energy Sources

As represented in CalEEMod, energy sources include GHG emissions associated with building electricity and natural gas usage. Electricity use would contribute indirectly to GHGs, since GHG emissions occur at the site of the power plant, which is typically off site. Emissions were calculated by multiplying the energy use by the utility's carbon intensity (pounds of GHGs per megawatt-hour for electricity or 1,000 British thermal units for natural gas) for CO<sub>2</sub> and other GHGs. Annual natural gas and electricity emissions were estimated in CalEEMod using the emissions factors for San Diego Gas & Electric (SDG&E), which would be the energy source provider for the proposed project. For the operational year 2023, the emission factors for SDG&E were adjusted to reflect SDG&E's compliance with the RPS standards. A renewable procurement percentage of 43% was achieved in 2016 as reported by CEC and thus is a conservative estimate of the renewable mix for 2023 since the RPS goal for 2030 is 50% (CEC 2017).

CalEEMod default values for energy consumption for each land use were applied for the proposed project analysis. The energy use from residential land uses is calculated in CalEEMod based on the California Residential End-Use Survey database. The program uses data collected during the Residential Appliance Saturation Survey to develop energy intensity values (electricity and natural gas usage per square foot per year) for residential buildings. Energy use in buildings (both natural gas and electricity) is divided by the program into end use categories subject to Title 24 requirements (end uses associated with the building envelope, such as the HVAC system, water heating system, and integrated lighting) and those not subject to Title 24 requirements (such as appliances, electronics, and miscellaneous "plug-in" uses).

Title 24 of the California Code of Regulations serves to enhance and regulate California's building standards. The most recent amendments to Title 24, Part 6, referred to as the 2019 standards, became effective on January 1, 2020. The previous amendments were referred to as the 2016 standards. CalEEMod 2016.3.2 includes compliance with the 2016 Title 24 standards. It was assumed that the proposed project would be built under the 2019 Title 24 standards and would use about 30% less energy than those built under the 2016 Title 24 standards (CEC 2018).

## Solid Waste

The proposed project would generate solid waste and would, therefore, result in CO<sub>2</sub>e emissions associated with landfill off-gassing. Solid waste generation was derived from the CalEEMod default rates for each land use type. Emission estimates associated with solid waste were estimated using CalEEMod. These rates, last updated in 2013, provide solid waste generation for different land use types before prior to diversion (Qiguo, pers. comm. 2018). A solid waste diversion rate of 75% was assumed in accordance with AB 341 and 939.

## Water Supply and Wastewater

Water supplied to the proposed project requires the use of electricity. Accordingly, the supply, conveyance, treatment, and distribution of water would indirectly result in GHG emissions through use of electricity. Annual water use for the proposed project and GHG emissions associated with the electricity used for water supply were calculated based upon default water use estimates for each land-use type, as estimated by CalEEMod and SDG&E factors.

## Stationary Source

As discussed above, the proposed project would install and operate a Cummins Model 750DQCB 750-kilowatt emergency diesel generator. The generator would operate for a maximum of 30 minutes per day and up to 50 total hours per year.

## Loss of Sequestered Carbon

The calculation methodology and default values provided in CalEEMod were used to calculate potential CO<sub>2</sub> emissions associated with the one-time change in carbon sequestration capacity of a vegetation land use type. The calculation of the one-time loss of sequestered carbon is the product of the converted acreage value and the carbon content value for each land use type (vegetation community). The mass of sequestered carbon per unit area (expressed in units of MT of CO<sub>2</sub> per acre) is dependent on the specific land use type. Assuming that the sequestered carbon is released as CO<sub>2</sub> after removal of the vegetation, annual CO<sub>2</sub> is calculated by multiplying total biomass (MT of dry matter per acre) from IPCC data by the carbon fraction in plant material, and then converting MT of carbon to MT of CO<sub>2</sub> based on the molecular weights of carbon and CO<sub>2</sub>.

It is conservatively assumed that all sequestered carbon from the removed vegetation will be returned to the atmosphere; that is, the wood from the trees and vegetation communities would not be re-used in a solid form or another form that would retain carbon. GHG emissions generated during construction activities, including clearing, tree removal, and grading, are estimated in the construction emissions analysis.

CalEEMod calculates GHG emissions resulting from land conversion and uses six<sup>10</sup> general IPCC land use classifications for assigning default carbon content values (in units of MT CO<sub>2</sub>/acre). CalEEMod default carbon content values were assumed to estimate the loss of sequestered carbon (release of CO<sub>2</sub>) from the removal of the scrub (14.3 MT CO<sub>2</sub>/acre), forest (111 MT CO<sub>2</sub>/acre), and grassland (4.31 MT CO<sub>2</sub>/acre) vegetation categories, which are based on data and formulas provided in the IPCC reports. The proposed project would remove seven trees.

## 3.5 Impact Analysis

### 3.5.1 Would the Project Generate Greenhouse Gas Emissions, either Directly or Indirectly, that may have a Significant Impact on the Environment?

#### Construction Emissions

Construction of the proposed project would result in GHG emissions, which are primarily associated with use of off-road construction equipment, on-road hauling and vendor (material delivery) trucks, and worker vehicles. GHG emissions associated with temporary construction activity were quantified using CalEEMod. A detailed depiction of the construction schedule—including information regarding phasing, equipment utilized during each phase, haul trucks, vendor trucks, and worker vehicles—is included in Section 2.4.2.1 of this report.

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<sup>10</sup> Forest land (scrub), forest land (trees), cropland, grassland, wetlands, and other.

Table 13 shows the estimated annual GHG construction emissions associated with the proposed project, as well as the amortized construction emissions over a 30-year “project life.”

**Table 13. Estimated Annual Construction Greenhouse Gas Emissions**

	CO <sub>2</sub>	CH <sub>4</sub>	N <sub>2</sub> O	CO <sub>2</sub> e
Year	Metric Tons			
2020	134.50	0.01	0.00	134.85
2021	369.81	0.07	0.00	371.63
2022	73.80	0.01	0.00	74.06
Subtotal				580.54
Vegetation Removal				12.21
Total Emissions				592.75
30-Year Amortized Emissions				19.76

**Notes:** CO<sub>2</sub> = carbon dioxide; CH<sub>4</sub> = methane; N<sub>2</sub>O = nitrous oxide; CO<sub>2</sub>e = carbon dioxide equivalent.  
See Appendix A for complete results.

Total construction-related GHG emissions for the proposed project were 593 MT CO<sub>2</sub>e. Estimated 30-year amortized project-generated construction emissions would be approximately 20 MT CO<sub>2</sub>e per year. However, because there is no separate GHG threshold for construction emissions alone, the evaluation of significance is discussed in the operational emissions analysis below.

### Operational Emissions

Operation of the proposed project would generate GHG emissions through motor vehicle trips to and from the project site; landscape maintenance equipment operation; energy use (natural gas and generation of electricity consumed by the proposed project); solid waste disposal; and generation of electricity associated with water supply, treatment, and distribution and wastewater treatment. CalEEMod was used to calculate the annual GHG emissions based on the operational assumptions described in Section 3.4.2.2, Operation.

The estimated operational (year 2023) project-generated GHG emissions from area sources, energy usage, motor vehicles, solid waste generation, water usage and wastewater generation, and stationary sources are shown in Table 14.

**Table 14. Estimated Annual Operational Greenhouse Gas Emissions**

	CO <sub>2</sub>	CH <sub>4</sub>	N <sub>2</sub> O	CO <sub>2</sub> e
Emission Source	Metric Tons per Year			
Area	<0.01	0.00	0.00	<0.01
Energy	399.02	0.01	0.01	400.85
Mobile	407.49	0.02	0.00	408.01
Solid waste	23.71	1.40	0.00	58.74
Water supply and wastewater	24.79	0.24	0.01	32.37
Stationary	0.07	<0.01	0.00	0.18
Total				900.15
Amortized Construction Emissions				19.76
Operation + Amortized Construction Total				919.91

**Notes:** CO<sub>2</sub> = carbon dioxide; CH<sub>4</sub> = methane; N<sub>2</sub>O = nitrous oxide; CO<sub>2</sub>e = carbon dioxide equivalent; <0.01 = emissions reported are less than 0.01.

See Appendix A for detailed results.

These emissions reflect California Emissions Estimator Model “mitigated” output and operational year 2023.

As shown in Table 14, estimated annual project-generated GHG emissions in 2023 would be approximately 900 MT CO<sub>2</sub>e per year as a result of proposed project operations. Estimated annual project-generated emissions in 2023 from area, energy, mobile, solid waste, water/wastewater, and stationary sources and amortized proposed project construction emissions would be approximately 920 MT CO<sub>2</sub>e per year. The proposed project’s GHG emissions would be less than the 3,000 MT CO<sub>2</sub>e per year screening level threshold. Therefore, the proposed project would be considered to have a **less-than-significant** impact.

### Mitigation

No mitigation is required.

### Level of Significance After Mitigation

The proposed project’s impact would be less than significant prior to mitigation.

## 3.5.2 Would the Project Conflict with an Applicable Plan, Policy, or Regulation Adopted for the Purpose of Reducing the Emissions of Greenhouse Gases?

This section discusses the proposed project’s consistency with the City’s CAP, SANDAG’s Regional Plan, and CARB’s Scoping Plan.

### Consistency with the CAP

The City’s CAP is not considered a qualified GHG reduction plan in accordance with CEQA Guidelines Section 15183.5, as it has not been adopted in a public process following environmental review. Therefore, this consistency analysis is included for informational purposes only and will not be used to determine significance.

The proposed project includes several design features that will help reduce its GHG emissions in line with the City’s CAP. Table 15 identifies the measures and goals within the CAP and the project’s consistency with them.

**Table 15. City of Chula Vista Climate Action Plan Consistency Analysis**

Category	Policy Objective or Strategy	Consistency Analysis
<b>Water Conservation and Reuse</b>		
Water Education and Enforcement	Expand education and enforcement (through fines) targeting landscape water waste.	<i>Consistent.</i> The proposed project would plant native, drought-tolerant vegetation.
Water Efficiency Upgrades	Update the City’s Landscape Water Conservation Ordinance to promote more water-wise landscaping designs.	<i>Consistent.</i> The proposed project would plant native, drought-tolerant vegetation.
Water Efficiency Upgrades	Require water-savings retrofits in existing buildings at a specific point in	<i>Not applicable.</i> The proposed project would not impair the ability of the City to require



Table 15. City of Chula Vista Climate Action Plan Consistency Analysis

Category	Policy Objective or Strategy	Consistency Analysis
	time (not point of sale).	water-savings retrofits for existing buildings.
Water Reuse Plan and System Installations	Develop a Water Reuse Master Plan to maximize the use of stormwater, recycled water, and on-site water reclamation.	<i>Not applicable.</i> The proposed project would not impair the ability of the City to develop a Water Reuse Master Plan.
Water Reuse Plan and System Installations	Facilitate simple graywater systems for laundry-to-landscape applications.	<i>Not applicable.</i> The proposed project would not impair the ability of the City to facilitate simple graywater systems for laundry-to-landscape applications. As these are primarily targeted for single-family homes, it is not anticipated that this would apply to the proposed project.
Water Reuse Plan and System Installations	Streamline complex graywater systems permit review.	<i>Not applicable.</i> The proposed project would not impair the ability of the City to streamline complex graywater systems permit review.
<b>Waste Reduction</b>		
Zero Waste Plan	Develop a Zero Waste Plan to supplement statewide green waste, recycling, and plastic bag ban efforts.	<i>Not applicable.</i> The proposed project would not impair the ability of the City to develop a Zero Waste Plan.
<b>Renewable and Energy Efficiency</b>		
Energy Education and Enforcement	Expand education targeting key community segments (i.e., do-it-yourself and Millennials) and facilitating energy performance disclosure (i.e., Green Leases and Home Energy Ratings).	<i>Not applicable.</i> The proposed project would not impair the ability of the City to expand energy education.
Energy Education and Enforcement	Leverage the building inspection process to distribute energy-related information and to deter unpermitted, low performing energy improvements.	<i>Not applicable.</i> The proposed project would not impair the ability of the City to distribute energy-related information during the building inspection process.
Clean Energy Sources	Incorporate solar photovoltaic into all new residential and commercial buildings (on a project level basis).	<i>Consistent.</i> The proposed project would be in compliance with the current building standards and design solar-ready rooftops.
Clean Energy Sources	Provide more grid-delivered clean energy (up to 100%) through Community Choice Aggregation or other mechanism.	<i>Not applicable.</i> The proposed project would not impair the ability of the City to provide a Community Choice Aggregation of clean energy.
Energy Efficiency Upgrades	Expand the City's "cool roof" standards to include re-roofs and western areas.	<i>Not applicable.</i> The proposed project would not impair the ability of the City to expand the City's cool roof standards.
Energy Efficiency Upgrades	Facilitate more energy upgrades in the community through tax breaks, rebates, and more local energy efficiency programming.	<i>Not applicable.</i> The proposed project would not impair the ability of the City to incentivize additional energy upgrades in the community.
Energy Efficiency Upgrades	Require energy-savings retrofits in existing buildings at a specific point in time (not at point of sale).	<i>Not applicable.</i> The proposed project would not impair the ability of the City to require energy-savings retrofits for existing buildings.

Table 15. City of Chula Vista Climate Action Plan Consistency Analysis

Category	Policy Objective or Strategy	Consistency Analysis
Robust Urban Forests	Plant more shade trees to save energy, address heat island issues, and improve air quality.	<i>Consistent.</i> The proposed project would include shade trees on site to save energy and reduce heat island issues.
<b>Smart Growth and Transportation</b>		
Complete Streets and Neighborhoods	Incorporate “Complete Streets” principles into the Bicycle and Pedestrian Master Plans and Capital Improvement Program.	<i>Not applicable.</i> The proposed project would not impair the ability of the City to incorporate Complete Streets principles into the Bicycle and Pedestrian Master Plans and Capital Improvement Program.
Complete Streets and Neighborhoods	Encourage higher density and mixed-use development in Smart Growth areas, especially around trolley stations and other transit nodes.	<i>Consistent.</i> The proposed project would be located close to major urban and employment centers. The proposed project would be building on a site within the City and is located in close proximity to public transit and Interstate 805.
Transportation Demand Management	Utilize bike facilities, transit access/passes and other Transportation Demand Management and congestion management offerings.	<i>Not applicable.</i> The proposed project would not impair the ability of the City to use Transportation Demand Management and congestion management offerings.
Transportation Demand Management	Expand bike-sharing, car-sharing and other “last mile” transportation options.	<i>Not applicable.</i> The proposed project would not impair the ability of the City to expand bike-sharing, car-sharing, and other last mile transportation options.
Alternative Fuel Vehicle Readiness	Support the installation of more local alternative fueling stations and designate preferred parking for alternative fuel vehicles.	<i>Consistent.</i> The proposed project would include the installation of electric vehicle charging stations on site.
Alternative Fuel Vehicle Readiness	Designate preferred parking for alternative fuel vehicles.	<i>Consistent.</i> The proposed project would provide designated preferred parking for alternative fuel vehicles
Alternative Fuel Vehicle Readiness	Design all new residential and commercial buildings to be “Electric Vehicle Ready.”	<i>Consistent.</i> The proposed project would be electric vehicle ready.

**Source:** City of Chula Vista 2017.

**Notes:** City = City of Chula Vista; proposed project = Encompass Health Chula Vista.

As shown in Table 15, the proposed project would be consistent with the applicable measures within the City’s CAP.

#### Consistency with SANDAG’s San Diego Forward: the Regional Plan

Regarding consistency with SANDAG’s Regional Plan, the proposed project would include site design elements and PDFs developed to support the policy objectives of the RTP and SB 375.

Table 16 illustrates the proposed project’s consistency with all applicable goals and policies of the Regional Plan (SANDAG 2015).

Table 16. San Diego Forward: The Regional Plan Consistency Analysis

Category	Policy Objective or Strategy	Consistency Analysis
<b>The Regional Plan – Policy Objectives</b>		
Mobility Choices	Provide safe, secure, healthy, affordable, and convenient travel choices between the places where people live, work, and play.	<i>Consistent.</i> The proposed project would provide pedestrian and bicycle connectivity to the neighborhood. Furthermore, the proposed project would be located near MTS bus route 704 and Interstate 805.
Mobility Choices	Take advantage of new technologies to make the transportation system more efficient and environmentally friendly.	<i>Not applicable.</i> The proposed project would not impair SANDAG's ability to employ new technologies to make travel more reliable and convenient.
Habitat and Open Space Preservation	Focus growth in areas that are already urbanized, allowing the region to set aside and restore more open space in our less developed areas.	<i>Consistent.</i> The proposed project would be located close to major urban centers, and the proposed project would also be a source of employment.
Habitat and Open Space Preservation	Protect and restore our region's urban canyons, coastlines, beaches, and water resources.	<i>Not Applicable.</i> The proposed project would not impair the ability of SANDAG to protect and restore urban canyons, coastlines, beaches, and water resources.
Regional Economic Prosperity	Invest in transportation projects that provide access for all communities to a variety of jobs with competitive wages.	<i>Not Applicable.</i> The proposed project would not impair the ability of SANDAG to invest in transportation projects available to all members of the Community.
Regional Economic Prosperity	Build infrastructure that makes the movement of freight in our community more efficient and environmentally friendly.	<i>Not Applicable.</i> The proposed project does not propose regional freight movement, nor would it impair SANDAG's ability to preserve and expand options for regional freight movement.
Partnerships/Collaboration	Collaborate with Native American tribes, Mexico, military bases, neighboring counties, infrastructure providers, the private sector, and local communities to design a transportation system that connects to the mega-region and national network, works for everyone, and fosters a high quality of life for all.	<i>Not Applicable.</i> The proposed project would not impair the ability of SANDAG to provide transportation choices to better connect the San Diego region with Mexico, neighboring counties, and tribal nations.
Partnerships/Collaboration	As we plan for our region, recognize the vital economic, environmental, cultural, and community linkages between the San Diego region and Baja California.	<i>Not Applicable.</i> The proposed project would not impair the ability of SANDAG to provide transportation choices to better connect the San Diego region with Mexico.
Healthy and Complete Communities	Create great places for everyone to live, work, and play.	<i>Consistent.</i> The proposed project would provide pedestrian and bicycle connectivity to the neighborhood. Furthermore, the proposed project would be located near MTS bus route 704 and Interstate 805.
Healthy and Complete Communities	Connect communities through a variety of transportation choices that promote healthy lifestyles, including walking and biking.	<i>Consistent.</i> The proposed project would provide pedestrian and bicycle connectivity to the neighborhood. Furthermore, the proposed project would be located near

**Table 16. San Diego Forward: The Regional Plan Consistency Analysis**

Category	Policy Objective or Strategy	Consistency Analysis
		MTS bus route 704 and Interstate 805.
Environmental Stewardship	Make transportation investments that result in cleaner air, environmental protection, conservation, efficiency, and sustainable living.	<i>Consistent.</i> The proposed project would provide pedestrian and bicycle connectivity to the neighborhood. Furthermore, the proposed project would be located near MTS bus route 704 and Interstate 805.
Environmental Stewardship	Support energy programs that promote sustainability.	<i>Consistent.</i> The proposed project would be in compliance with the current building standards and design solar-ready rooftops.
<b>Sustainable Communities Strategy – Strategies</b>		
Strategy No. 1	Focus housing and job growth in urbanized areas where there is existing and planned transportation infrastructure, including transit.	<i>Consistent.</i> The proposed project would be located close to major urban centers, and the proposed project would also be a source of employment.
Strategy No. 2	Protect the environment and help ensure the success of smart growth land use policies by preserving sensitive habitat, open space, cultural resources, and farmland.	<i>Consistent.</i> The proposed project would be located close to major urban centers, and the proposed project would also be a source of employment.
Strategy No. 3	Invest in a transportation network that gives people transportation choices and reduces greenhouse gas emissions.	<i>Consistent.</i> The proposed project would provide pedestrian and bicycle connectivity to the neighborhood. Furthermore, the proposed project would be located near MTS bus route 704 and Interstate 805.
Strategy No. 4	Address the housing needs of all economic segments of the population.	<i>Not Applicable.</i> The proposed project would not impair the ability of SANDAG to address housing needs of all economic segments of the population.
Strategy No. 5	Implement the Regional Plan through incentives and collaboration.	<i>Not Applicable.</i> The proposed project would not impair the ability of SANDAG to implement the Regional Transportation Plan through incentives and collaborations.

**Source:** SANDAG 2015.

**Notes:** MTS = San Diego Metropolitan Transit System; proposed project = Encompass Health Chula Vista; SANDAG = San Diego Association of Governments.

As shown in Table 16, the proposed project is consistent with all applicable Regional Plan Policy Objectives or Strategies. Impacts would be less than significant.

#### Consistency with CARB's Scoping Plan

The Scoping Plan, approved by CARB on December 12, 2008, provides a framework for actions to reduce California's GHG emissions and requires CARB and other state agencies to adopt regulations and other initiatives to reduce GHGs. As such, the Scoping Plan is not directly applicable to specific projects. Relatedly, in the Final Statement of Reasons for the Amendments to the CEQA Guidelines, the CNRA observed that "[t]he [Scoping Plan] may not be appropriate for use in determining the significance of individual projects because it is conceptual at this stage and relies on the future development of regulations to implement the strategies

identified in the Scoping Plan” (CNRA 2009). Under the Scoping Plan, however, there are several state regulatory measures aimed at the identification and reduction of GHG emissions. CARB and other state agencies have adopted many of the measures identified in the Scoping Plan. Most of these measures focus on area source emissions (e.g., energy usage, high-GWP GHGs in consumer products) and changes to the vehicle fleet (i.e., hybrid, electric, and more fuel-efficient vehicles) and associated fuels (e.g., low-carbon fuel standard), among others. The proposed project would comply with all applicable regulations adopted in furtherance of the Scoping Plan to the extent required by law.

The Scoping Plan recommends strategies for implementation at the statewide level to meet the goals of AB 32 and establishes an overall framework for the measures that will be adopted to reduce California’s GHG emissions. Table 17 highlights measures that have been developed under the Scoping Plan and the proposed project’s consistency with Scoping Plan measures. The table also includes measures in the 2017 Scoping Plan Update. To the extent that these regulations are applicable to the proposed project, its inhabitants, or uses, the proposed project would comply with all applicable regulations adopted in furtherance of the Scoping Plan.

**Table 17. Project Consistency with Scoping Plan Greenhouse Gas Emission Reduction Strategies**

Scoping Plan Measure	Measure Number	Project Consistency
<b>Transportation Sector</b>		
Advanced Clean Cars	T-1	The proposed project’s employees and visitors would purchase vehicles in compliance with CARB vehicle standards that are in effect at the time of vehicle purchase.
1.5 million zero-emission and plug-in hybrid light-duty electric vehicles by 2025 (4.2 million Zero-Emissions Vehicles by 2030)	NA	The proposed project would be electric vehicle charging ready.
Low Carbon Fuel Standard	T-2	Motor vehicles driven by the proposed project’s employees and visitors would use compliant fuels.
Low Carbon Fuel Standard (18% reduction in carbon intensity by 2030)	NA	Motor vehicles driven by the proposed project’s employees and visitors would use compliant fuels.
Regional Transportation-Related GHG Targets	T-3	The proposed project would encourage use of alternative forms of transportation.
Advanced Clean Transit	NA	This measure does not apply to the proposed project. The proposed project would not inhibit CARB from implementing this Scoping Plan Measure.
Last Mile Delivery	NA	This measure does not apply to the proposed project. The proposed project would not inhibit CARB from implementing this Scoping Plan Measure.
Reduction in Vehicle Miles Traveled	NA	The proposed project would encourage use of alternative forms of transportation.
Vehicle Efficiency Measures 1. Tire Pressure 2. Fuel Efficiency Tire Program 3. Low-Friction Oil 4. Solar-Reflective Automotive Paint and Window Glazing	T-4	This measure does not apply to the proposed project. The proposed project would not inhibit CARB from implementing this Scoping Plan Measure.

**Table 17. Project Consistency with Scoping Plan Greenhouse Gas Emission Reduction Strategies**

Scoping Plan Measure	Measure Number	Project Consistency
Ship Electrification at Ports (Shore Power)	T-5	This measure does not apply to the proposed project. The proposed project would not inhibit CARB from implementing this Scoping Plan Measure.
Goods Movement Efficiency Measures 1. Port Drayage Trucks 2. Transport Refrigeration Units Cold Storage Prohibition 3. Cargo Handling Equipment, Anti-Idling, Hybrid, Electrification 4. Goods Movement Systemwide Efficiency Improvements 5. Commercial Harbor Craft Maintenance and Design Efficiency 6. Clean Ships 7. Vessel Speed Reduction	T-6	This measure does not apply to the proposed project. The proposed project would not inhibit CARB from implementing this Scoping Plan Measure.
California Sustainable Freight Action Plan	NA	This measure does not apply to the proposed project. The proposed project would not inhibit CARB from implementing this Scoping Plan Measure.
Heavy-Duty Vehicle GHG Emission Reduction 1. Tractor-Trailer GHG Regulation 2. Heavy-Duty Greenhouse Gas Standards for New Vehicle and Engines (Phase I)	T-7	This measure does not apply to the proposed project. The proposed project would not inhibit CARB from implementing this Scoping Plan Measure.
Medium- and Heavy-Duty Vehicle Hybridization Voucher Incentive Project	T-8	This measure does not apply to the proposed project. The proposed project would not inhibit CARB from implementing this Scoping Plan Measure.
Medium and Heavy-Duty GHG Phase 2	NA	This measure does not apply to the proposed project. The proposed project would not inhibit CARB from implementing this Scoping Plan Measure.
High-Speed Rail	T-9	This measure does not apply to the proposed project. The proposed project would not inhibit CARB from implementing this Scoping Plan Measure.
<b>Electricity and Natural Gas Sector</b>		
Energy Efficiency Measures (Electricity)	E-1	The proposed project will comply with current Title 24, Part 6, of the California Code of Regulations energy efficiency standards for electrical appliances and other devices at the time of building construction.
Energy Efficiency (Natural Gas)	CR-1	The proposed project will comply with current Title 24, Part 6, of the California Code of Regulations energy efficiency standards for electrical appliances and other devices at the time of building construction.
Solar Water Heating (California Solar Initiative Thermal Program)	CR-2	The proposed project would not employ solar water heating as part of the design.
Combined Heat and Power	E-2	This measure does not apply to the proposed project. The proposed project would not inhibit CARB from implementing this Scoping Plan Measure.

**Table 17. Project Consistency with Scoping Plan Greenhouse Gas Emission Reduction Strategies**

Scoping Plan Measure	Measure Number	Project Consistency
Renewable Portfolios Standard (33% by 2020)	E-3	The proposed project would use energy supplied by San Diego Gas & Electric, which is in compliance with the Renewable Portfolio Standard.
Renewable Portfolios Standard (50% by 2050)	NA	The proposed project would use energy supplied by San Diego Gas & Electric, which is in compliance with the Renewable Portfolio Standard.
Senate Bill 1 Million Solar Roofs (California Solar Initiative, New Solar Home Partnership, Public Utility Programs) and Earlier Solar Programs	E-4	The proposed project would be in compliance with the current building standards and design solar-ready rooftops.
<b>Water Sector</b>		
Water Use Efficiency	W-1	The proposed project is going to utilize water saving features.
Water Recycling	W-2	Recycled water will not be used on site.
Water System Energy Efficiency	W-3	This is applicable for the transmission and treatment of water, but it is not applicable for the proposed project.
Reuse Urban Runoff	W-4	This measure does not apply to the proposed project. The proposed project would not inhibit CARB from implementing this Scoping Plan Measure.
Renewable Energy Production	W-5	Applicable for wastewater treatment systems. Not applicable for the proposed project.
<b>Green Buildings</b>		
State Green Building Initiative: Leading the Way with State Buildings (Greening New and Existing State Buildings)	GB-1	The proposed project would be required to be constructed in compliance with state or local green building standards in effect at the time of building construction.
Green Building Standards Code (Greening New Public Schools, Residential and Commercial Buildings)	GB-2	The proposed project's buildings would meet green building standards that are in effect at the time of construction.
Beyond Code: Voluntary Programs at the Local Level (Greening New Public Schools, Residential and Commercial Buildings)	GB-3	The proposed project would be required to be constructed in compliance with local green building standards in effect at the time of building construction.
Greening Existing Buildings (Greening Existing Homes and Commercial Buildings)	GB-4	This measure does not apply to the proposed project. The proposed project would not inhibit CARB from implementing this Scoping Plan Measure.
<b>Industry Sector</b>		
Energy Efficiency and Co-Benefits Audits for Large Industrial Sources	I-1	This measure does not apply to the proposed project. The proposed project would not inhibit CARB from implementing this Scoping Plan Measure.
Oil and Gas Extraction GHG Emission Reduction	I-2	This measure does not apply to the proposed project. The proposed project would not inhibit CARB from implementing this Scoping Plan Measure.
Reduce GHG Emissions by 20% in Oil Refinery Sector	NA	This measure does not apply to the proposed project. The proposed project would not inhibit CARB from implementing this Scoping Plan Measure.

**Table 17. Project Consistency with Scoping Plan Greenhouse Gas Emission Reduction Strategies**

<b>Scoping Plan Measure</b>	<b>Measure Number</b>	<b>Project Consistency</b>
GHG Emissions Reduction from Natural Gas Transmission and Distribution	I-3	This measure does not apply to the proposed project. The proposed project would not inhibit CARB from implementing this Scoping Plan Measure.
Refinery Flare Recovery Process Improvements	I-4	This measure does not apply to the proposed project. The proposed project would not inhibit CARB from implementing this Scoping Plan Measure.
Work with the local air districts to evaluate amendments to their existing leak detection and repair rules for industrial facilities to include methane leaks	I-5	This measure does not apply to the proposed project. The proposed project would not inhibit CARB from implementing this Scoping Plan Measure.
<b><i>Recycling and Waste Management Sector</i></b>		
Landfill Methane Control Measure	RW-1	This measure does not apply to the proposed project. The proposed project would not inhibit CARB from implementing this Scoping Plan Measure.
Increasing the Efficiency of Landfill Methane Capture	RW-2	This measure does not apply to the proposed project. The proposed project would not inhibit CARB from implementing this Scoping Plan Measure.
Mandatory Commercial Recycling	RW-3	During both construction and operation of the proposed project, the proposed project would comply with all state regulations related to solid waste generation, storage, and disposal, including the California Integrated Waste Management Act, as amended. During construction, all wastes would be recycled to the maximum extent possible.
Increase Production and Markets for Compost and Other Organics	RW-4	This measure does not apply to the proposed project. The proposed project would not inhibit CARB from implementing this Scoping Plan Measure.
Anaerobic/Aerobic Digestion	RW-5	This measure does not apply to the proposed project. The proposed project would not inhibit CARB from implementing this Scoping Plan Measure.
Extended Producer Responsibility	RW-6	This measure does not apply to the proposed project. The proposed project would not inhibit CARB from implementing this Scoping Plan Measure.
Environmentally Preferable Purchasing	RW-7	This measure does not apply to the proposed project. The proposed project would not inhibit CARB from implementing this Scoping Plan Measure.
<b><i>Forests Sector</i></b>		
Sustainable Forest Target	F-1	This measure does not apply to the proposed project. The proposed project would not inhibit CARB from implementing this Scoping Plan Measure.



**Table 17. Project Consistency with Scoping Plan Greenhouse Gas Emission Reduction Strategies**

Scoping Plan Measure	Measure Number	Project Consistency
<b>High Global Warming Potential Gases Sector</b>		
Motor Vehicle Air Conditioning Systems: Reduction of Refrigerant Emissions from Non-Professional Servicing	H-1	This measure does not apply to the proposed project. The proposed project would not inhibit CARB from implementing this Scoping Plan Measure.
SF <sub>6</sub> Limits in Non-Utility and Non-Semiconductor Applications	H-2	This measure does not apply to the proposed project. The proposed project would not inhibit CARB from implementing this Scoping Plan Measure.
Reduction of Perfluorocarbons in Semiconductor Manufacturing	H-3	This measure does not apply to the proposed project. The proposed project would not inhibit CARB from implementing this Scoping Plan Measure.
Limit High Global Warming Potential Use in Consumer Products	H-4	The proposed project's employees would use consumer products that would comply with the regulations that are in effect at the time of manufacture.
Air Conditioning Refrigerant Leak Test During Vehicle Smog Check	H-5	This measure does not apply to the proposed project. The proposed project would not inhibit CARB from implementing this Scoping Plan Measure.
Stationary Equipment Refrigerant Management Program – Refrigerant Tracking/Reporting/Repair Program	H-6	This measure does not apply to the proposed project. The proposed project would not inhibit CARB from implementing this Scoping Plan Measure.
Stationary Equipment Refrigerant Management Program – Specifications for Commercial and Industrial Refrigeration	H-6	This measure does not apply to the proposed project. The proposed project would not inhibit CARB from implementing this Scoping Plan Measure.
SF <sub>6</sub> Leak Reduction Gas Insulated Switchgear	H-6	This measure does not apply to the proposed project. The proposed project would not inhibit CARB from implementing this Scoping Plan Measure.
40% reduction in methane and hydrofluorocarbon emissions	NA	This measure does not apply to the proposed project. The proposed project would not inhibit CARB from implementing this Scoping Plan Measure.
50% reduction in black carbon emissions	NA	This measure does not apply to the proposed project. The proposed project would not inhibit CARB from implementing this Scoping Plan Measure.
<b>Agriculture Sector</b>		
Methane Capture at Large Dairies	A-1	This measure does not apply to the proposed project. The proposed project would not inhibit CARB from implementing this Scoping Plan Measure.

**Source:** CARB 2008, 2017.

**Notes:** proposed project = Encompass Health Chula Vista; CARB = California Air Resources Board; NA = not applicable; GHG = greenhouse gas; SF<sub>6</sub> = sulfur hexafluoride.

In summary, the proposed project would be consistent with the measures and policy goals as shown in Table 17. Therefore, the proposed project would be consistent with CARB's Scoping Plan. The proposed project would be less than the SCAQMD 3,000 MT CO<sub>2</sub>e per year screening level threshold. Finally, the SDAPCD has not adopted GHG reduction measures that would apply to the GHG emissions associated with the proposed project. Therefore, this impact would be less than significant.

**Mitigation Measures**

No mitigation is required.

**Level of Significance After Mitigation**

The proposed project's impact would be less than significant prior to mitigation.

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# 5 List of Preparers

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Samantha Wang, Air Quality Specialist

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# Appendix A

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## California Emissions Estimator Model Output Files



## Encompass Health Construction Unmitigated - San Diego County, Annual

## Encompass Health Construction Unmitigated

### San Diego County, Annual

## 1.0 Project Characteristics

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### 1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Hospital	80.00	Bed	1.31	57,260.61	0
Parking Lot	144.00	Space	1.30	57,600.00	0

### 1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.6	Precipitation Freq (Days)	40
Climate Zone	13			Operational Year	2023
Utility Company	San Diego Gas & Electric				
CO2 Intensity (lb/MWhr)	720.49	CH4 Intensity (lb/MWhr)	0.029	N2O Intensity (lb/MWhr)	0.006

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

## Encompass Health Construction Unmitigated - San Diego County, Annual

Project Characteristics - Construction only.

Land Use -

Construction Phase - Data provided by applicant.

Off-road Equipment - Data provided by applicant.

Off-road Equipment - Data provided by applicant

Off-road Equipment - Data provided by applicant.

Off-road Equipment - Data provided by applicant.

Off-road Equipment - Data provided by applicant

Off-road Equipment -

Off-road Equipment - Data from applicant.

Off-road Equipment - Data provided by applicant.

Off-road Equipment - Data from applicant.

Off-road Equipment - Data provided by applicant.

Trips and VMT - Data provided by applicant.

Grading - Data provided by applicant.

Architectural Coating - SDAPCD Rule 67.0.1, Ph 1 50 beds, Ph 2 30 beds

Vehicle Trips - Construction only.

Area Coating - Construction only.

Landscape Equipment - Construction only

Energy Use - Construction only

Water And Wastewater - Construction only

Solid Waste - Construction only

Construction Off-road Equipment Mitigation - Fugitive dust control measures

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	28,630.00	17,894.00
tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	28,630.00	10,736.00



## Encompass Health Construction Unmitigated - San Diego County, Annual

tblArchitecturalCoating	ConstArea_Nonresidential_Interior	85,891.00	53,682.00
tblArchitecturalCoating	ConstArea_Nonresidential_Interior	85,891.00	32,209.00
tblArchitecturalCoating	ConstArea_Parking	3,456.00	0.00
tblArchitecturalCoating	ConstArea_Parking	3,456.00	7,794.00
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	100.00
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	100.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	50.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	50.00
tblArchitecturalCoating	EF_Parking	250.00	100.00
tblArchitecturalCoating	EF_Parking	250.00	100.00
tblAreaCoating	Area_Nonresidential_Exterior	28630	0
tblAreaCoating	Area_Nonresidential_Interior	85891	0
tblAreaCoating	Area_Parking	3456	0
tblConstDustMitigation	WaterExposedAreaPM10PercentReduction	55	61
tblConstDustMitigation	WaterExposedAreaPM25PercentReduction	55	61
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	10.00	5.00
tblConstructionPhase	NumDays	10.00	18.00
tblConstructionPhase	NumDays	220.00	230.00
tblConstructionPhase	NumDays	220.00	100.00
tblConstructionPhase	NumDays	6.00	15.00
tblConstructionPhase	NumDays	6.00	5.00
tblConstructionPhase	NumDays	10.00	18.00
tblConstructionPhase	NumDays	10.00	5.00
tblConstructionPhase	NumDays	3.00	5.00
tblConstructionPhase	NumDays	3.00	1.00
tblEnergyUse	LightingElect	4.52	0.00

## Encompass Health Construction Unmitigated - San Diego County, Annual

tblEnergyUse	NT24E	5.87	0.00
tblEnergyUse	NT24NG	6.92	0.00
tblEnergyUse	T24E	6.37	0.00
tblEnergyUse	T24NG	51.05	0.00
tblFleetMix	HHD	0.02	0.00
tblFleetMix	LDA	0.60	0.00
tblFleetMix	LDT1	0.04	0.00
tblFleetMix	LDT2	0.18	0.00
tblFleetMix	LHD1	0.01	0.00
tblFleetMix	LHD2	5.4350e-003	0.00
tblFleetMix	MCY	5.9380e-003	0.00
tblFleetMix	MDV	0.10	0.00
tblFleetMix	MH	1.0560e-003	0.00
tblFleetMix	MHD	0.02	0.00
tblFleetMix	OBUS	1.9340e-003	0.00
tblFleetMix	SBUS	7.5700e-004	0.00
tblFleetMix	UBUS	1.8880e-003	0.00
tblGrading	AcresOfGrading	0.00	9.56
tblGrading	MaterialExported	0.00	28,400.00
tblGrading	MaterialImported	0.00	450.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	3.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00

## Encompass Health Construction Unmitigated - San Diego County, Annual

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	3.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	7.00
tblOffRoadEquipment	UsageHours	8.00	4.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	6.00
tblOffRoadEquipment	UsageHours	8.00	7.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	7.00
tblOffRoadEquipment	UsageHours	8.00	1.00
tblOffRoadEquipment	UsageHours	6.00	7.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	6.00
tblOffRoadEquipment	UsageHours	8.00	7.00
tblOffRoadEquipment	UsageHours	7.00	8.00

## Encompass Health Construction Unmitigated - San Diego County, Annual

tblOffRoadEquipment	UsageHours	7.00	8.00
tblSolidWaste	SolidWasteGenerationRate	233.60	0.00
tblTripsAndVMT	HaulingTripNumber	3,550.00	3,156.00
tblTripsAndVMT	HaulingTripNumber	56.00	50.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	VendorTripNumber	19.00	16.00
tblTripsAndVMT	VendorTripNumber	19.00	4.00
tblTripsAndVMT	WorkerTripNumber	10.00	6.00
tblTripsAndVMT	WorkerTripNumber	9.00	2.00
tblTripsAndVMT	WorkerTripNumber	3.00	6.00
tblTripsAndVMT	WorkerTripNumber	43.00	52.00
tblTripsAndVMT	WorkerTripNumber	18.00	8.00
tblTripsAndVMT	WorkerTripNumber	9.00	6.00
tblTripsAndVMT	WorkerTripNumber	3.00	4.00
tblTripsAndVMT	WorkerTripNumber	8.00	4.00
tblTripsAndVMT	WorkerTripNumber	43.00	110.00
tblTripsAndVMT	WorkerTripNumber	10.00	8.00
tblVehicleTrips	ST_TR	8.14	0.00
tblVehicleTrips	SU_TR	7.19	0.00
tblVehicleTrips	WD_TR	12.94	0.00
tblWater	IndoorWaterUseRate	7,185,091.63	0.00
tblWater	OutdoorWaterUseRate	1,368,588.88	0.00

## 2.0 Emissions Summary

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Encompass Health Construction Unmitigated - San Diego County, Annual

## 2.1 Overall Construction Unmitigated Construction

Year	tons/yr										MT/yr			
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBIO- CO2	Total CO2	CH4
2020	0.0215	0.5305	0.1892	1.3700e-003	0.0356	5.8900e-003	0.0415	8.6800e-003	5.5100e-003	0.0142	0.0000	134.4997	134.4997	0.0142
2021	0.3540	2.2915	2.2116	4.2100e-003	0.0601	0.1158	0.1759	0.0163	0.1089	0.1251	0.0000	369.8076	369.8076	0.0728
2022	0.1271	0.2331	0.3747	8.2000e-004	0.0463	0.0118	0.0581	0.0123	0.0109	0.0233	0.0000	73.8006	73.8006	0.0104
Maximum	0.3540	2.2915	2.2116	4.2100e-003	0.0601	0.1158	0.1759	0.0163	0.1089	0.1251	0.0000	369.8076	369.8076	0.0728
											0.0000			371.6265

## Mitigated Construction

Year	tons/yr										MT/yr			
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBIO- CO2	Total CO2	CH4
2020	0.0215	0.5305	0.1892	1.3700e-003	0.0313	5.8900e-003	0.0372	8.1600e-003	5.5100e-003	0.0137	0.0000	134.4997	134.4997	0.0142
2021	0.3540	2.2915	2.2116	4.2100e-003	0.0601	0.1158	0.1759	0.0163	0.1089	0.1251	0.0000	369.8073	369.8073	0.0728
2022	0.1271	0.2331	0.3747	8.2000e-004	0.0462	0.0118	0.0580	0.0123	0.0109	0.0232	0.0000	73.8006	73.8006	0.0104
Maximum	0.3540	2.2915	2.2116	4.2100e-003	0.0601	0.1158	0.1759	0.0163	0.1089	0.1251	0.0000	369.8073	369.8073	0.0728
											0.0000			371.6262

## Encompass Health Construction Unmitigated - San Diego County, Annual

	ROG	NOx	CO	SO2	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	3.05	0.00	1.57	1.40	0.00	0.33	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	12-1-2020	2-28-2021	0.9841	0.9841
2	3-1-2021	5-31-2021	0.7005	0.7005
3	6-1-2021	8-31-2021	0.7001	0.7001
4	9-1-2021	11-30-2021	0.6323	0.6323
5	12-1-2021	2-28-2022	0.2747	0.2747
6	3-1-2022	5-31-2022	0.1511	0.1511
7	6-1-2022	8-31-2022	0.1006	0.1006
		Highest	0.9841	0.9841

## Encompass Health Construction Unmitigated - San Diego County, Annual

**2.2 Overall Operational****Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.2276	2.0000e-005	2.0600e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	4.0000e-003	4.0000e-003	1.0000e-005	0.0000	4.2700e-003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	6.5885	6.5885	2.7000e-004	5.0000e-005	6.6114
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>0.2276</b>	<b>2.0000e-005</b>	<b>2.0600e-003</b>	<b>0.0000</b>	<b>0.0000</b>	<b>1.0000e-005</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>1.0000e-005</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>6.5925</b>	<b>6.5925</b>	<b>2.8000e-004</b>	<b>5.0000e-005</b>	<b>6.6157</b>

## Encompass Health Construction Unmitigated - San Diego County, Annual

**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	0.2276	2.0000e-005	2.0600e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	4.0000e-003	4.0000e-003	1.0000e-005	0.0000	4.2700e-003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	6.5885	6.5885	2.7000e-004	5.0000e-005	6.6114
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>0.2276</b>	<b>2.0000e-005</b>	<b>2.0600e-003</b>	<b>0.0000</b>	<b>0.0000</b>	<b>1.0000e-005</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>1.0000e-005</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>6.5925</b>	<b>6.5925</b>	<b>2.8000e-004</b>	<b>5.0000e-005</b>	<b>6.6157</b>

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

**3.0 Construction Detail****Construction Phase**



## Encompass Health Construction Unmitigated - San Diego County, Annual

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Phase 1 Site Preparation	Site Preparation	12/1/2020	12/7/2020	5	5	
2	Phase 1 Grading	Grading	12/8/2020	12/28/2020	5	15	
3	Phase 1 Building Construction	Building Construction	12/28/2020	11/12/2021	5	230	
4	Phase 1 Paving	Paving	11/13/2021	12/8/2021	5	18	
5	Phase 1 Architectural Coatings	Architectural Coating	12/9/2021	1/3/2022	5	18	
6	Phase 2 Site Preparation	Site Preparation	1/4/2022	1/4/2022	5	1	
7	Phase 2 Grading	Grading	1/5/2022	1/11/2022	5	5	
8	Phase 2 Building Construction	Building Construction	1/12/2022	5/31/2022	5	100	
9	Phase 2 Paving	Paving	6/1/2022	6/7/2022	5	5	
10	Phase 2 Architectural Coating	Architectural Coating	6/2/2022	6/8/2022	5	5	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 1.3

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 53,682; Non-Residential Outdoor: 17,894; Striped Parking Area: 0 (Architectural Coating – sqft)

#### OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Phase 1 Site Preparation	Rubber Tired Dozers	0	8.00	247	0.40
Phase 1 Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Phase 1 Grading	Excavators	1	8.00	158	0.38
Phase 1 Grading	Graders	0	8.00	187	0.41
Phase 1 Grading	Rubber Tired Dozers	0	8.00	247	0.40
Phase 1 Grading	Tractors/Loaders/Backhoes	0	8.00	97	0.37

## Encompass Health Construction Unmitigated - San Diego County, Annual

Phase 1 Building Construction	Cranes	1	7.00	231	0.29
Phase 1 Building Construction	Forklifts	3	8.00	89	0.20
Phase 1 Building Construction	Generator Sets	1	8.00	84	0.74
Phase 1 Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Phase 1 Building Construction	Welders	1	8.00	46	0.45
Phase 1 Paving	Cement and Mortar Mixers	1	6.00	9	0.56
Phase 1 Paving	Pavers	1	8.00	130	0.42
Phase 1 Paving	Paving Equipment	2	6.00	132	0.36
Phase 1 Paving	Rollers	2	6.00	80	0.38
Phase 1 Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Phase 1 Architectural Coatings	Air Compressors	2	6.00	78	0.48
Phase 2 Site Preparation	Rubber Tired Dozers	0	8.00	247	0.40
Phase 2 Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Phase 2 Grading	Concrete/Industrial Saws	1	8.00	81	0.73
Phase 2 Grading	Excavators	0	8.00	158	0.38
Phase 2 Grading	Graders	0	8.00	187	0.41
Phase 2 Grading	Rubber Tired Dozers	0	1.00	247	0.40
Phase 2 Grading	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Phase 2 Building Construction	Cranes	0	4.00	231	0.29
Phase 2 Building Construction	Forklifts	2	6.00	89	0.20
Phase 2 Building Construction	Generator Sets	0	8.00	84	0.74
Phase 2 Building Construction	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Phase 2 Building Construction	Welders	0	8.00	46	0.45
Phase 2 Paving	Cement and Mortar Mixers	1	6.00	9	0.56
Phase 2 Paving	Pavers	1	7.00	130	0.42
Phase 2 Paving	Paving Equipment	0	6.00	132	0.36
Phase 2 Paving	Rollers	1	7.00	80	0.38

## Encompass Health Construction Unmitigated - San Diego County, Annual

Phase 2 Paving	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Phase 2 Architectural Coating	Air Compressors	1	6.00	78	0.48

**Trips and VMT**

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Phase 1 Site Preparation	4	6.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Phase 1 Grading	1	6.00	0.00	3,156.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Phase 1 Building Construction	9	52.00	16.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Phase 1 Paving	7	8.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Phase 1 Architectural Coatings	2	6.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Phase 2 Site Preparation	1	4.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Phase 2 Grading	3	4.00	0.00	50.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Phase 2 Building Construction	3	110.00	4.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Phase 2 Paving	4	8.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Phase 2 Architectural Coating	1	2.00	2.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

**3.1 Mitigation Measures Construction**

Use Soil Stabilizer

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

## Encompass Health Construction Unmitigated - San Diego County, Annual

**3.2 Phase 1 Site Preparation - 2020****Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.1000e-003	0.0211	0.0228	3.0000e-005		1.3300e-003	1.3300e-003		1.2200e-003	1.2200e-003	0.0000	2.7285	2.7285	8.8000e-004	0.0000	2.7506
<b>Total</b>	<b>2.1000e-003</b>	<b>0.0211</b>	<b>0.0228</b>	<b>3.0000e-005</b>	<b>0.0000</b>	<b>1.3300e-003</b>	<b>1.3300e-003</b>	<b>0.0000</b>	<b>1.2200e-003</b>	<b>1.2200e-003</b>	<b>0.0000</b>	<b>2.7285</b>	<b>2.7285</b>	<b>8.8000e-004</b>	<b>0.0000</b>	<b>2.7506</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.0000e-005	4.0000e-005	4.0000e-004	0.0000	1.2000e-004	0.0000	1.2000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.1087	0.1087	0.0000	0.0000	0.1088
<b>Total</b>	<b>6.0000e-005</b>	<b>4.0000e-005</b>	<b>4.0000e-004</b>	<b>0.0000</b>	<b>1.2000e-004</b>	<b>0.0000</b>	<b>1.2000e-004</b>	<b>3.0000e-005</b>	<b>0.0000</b>	<b>3.0000e-005</b>	<b>0.0000</b>	<b>0.1087</b>	<b>0.1087</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.1088</b>

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**3.2 Phase 1 Site Preparation - 2020****Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.1000e-003	0.0211	0.0228	3.0000e-005		1.3300e-003	1.3300e-003		1.2200e-003	1.2200e-003	0.0000	2.7285	2.7285	8.8000e-004	0.0000	2.7506
<b>Total</b>	<b>2.1000e-003</b>	<b>0.0211</b>	<b>0.0228</b>	<b>3.0000e-005</b>	<b>0.0000</b>	<b>1.3300e-003</b>	<b>1.3300e-003</b>	<b>0.0000</b>	<b>1.2200e-003</b>	<b>1.2200e-003</b>	<b>0.0000</b>	<b>2.7285</b>	<b>2.7285</b>	<b>8.8000e-004</b>	<b>0.0000</b>	<b>2.7506</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.0000e-005	4.0000e-005	4.0000e-004	0.0000	1.2000e-004	0.0000	1.2000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.1087	0.1087	0.0000	0.0000	0.1088
<b>Total</b>	<b>6.0000e-005</b>	<b>4.0000e-005</b>	<b>4.0000e-004</b>	<b>0.0000</b>	<b>1.2000e-004</b>	<b>0.0000</b>	<b>1.2000e-004</b>	<b>3.0000e-005</b>	<b>0.0000</b>	<b>3.0000e-005</b>	<b>0.0000</b>	<b>0.1087</b>	<b>0.1087</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.1088</b>

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**3.3 Phase 1 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					7.0600e-003	0.0000	7.0600e-003	8.5000e-004	0.0000	8.5000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.8400e-003	0.0181	0.0245	4.0000e-005		8.8000e-004	8.8000e-004		8.1000e-004	8.1000e-004	0.0000	3.4028	3.4028	1.1000e-003	0.0000	3.4303
<b>Total</b>	<b>1.8400e-003</b>	<b>0.0181</b>	<b>0.0245</b>	<b>4.0000e-005</b>	<b>7.0600e-003</b>	<b>8.8000e-004</b>	<b>7.9400e-003</b>	<b>8.5000e-004</b>	<b>8.1000e-004</b>	<b>1.6600e-003</b>	<b>0.0000</b>	<b>3.4028</b>	<b>3.4028</b>	<b>1.1000e-003</b>	<b>0.0000</b>	<b>3.4303</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0126	0.4489	0.1028	1.2300e-003	0.0270	1.4200e-003	0.0284	7.4200e-003	1.3600e-003	8.7700e-003	0.0000	121.7031	121.7031	0.0110	0.0000	121.9771
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	1.7000e-004	1.2000e-004	1.2000e-003	0.0000	3.6000e-004	0.0000	3.6000e-004	1.0000e-004	0.0000	1.0000e-004	0.0000	0.3262	0.3262	1.0000e-005	0.0000	0.3264
<b>Total</b>	<b>0.0128</b>	<b>0.4490</b>	<b>0.1040</b>	<b>1.2300e-003</b>	<b>0.0274</b>	<b>1.4200e-003</b>	<b>0.0288</b>	<b>7.5200e-003</b>	<b>1.3600e-003</b>	<b>8.8700e-003</b>	<b>0.0000</b>	<b>122.0293</b>	<b>122.0293</b>	<b>0.0110</b>	<b>0.0000</b>	<b>122.3035</b>

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**3.3 Phase 1 Grading - 2020****Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.7600e-003	0.0000	2.7600e-003	3.3000e-004	0.0000	3.3000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.8400e-003	0.0181	0.0245	4.0000e-005		8.8000e-004	8.8000e-004		8.1000e-004	8.1000e-004	0.0000	3.4027	3.4027	1.1000e-003	0.0000	3.4303
<b>Total</b>	<b>1.8400e-003</b>	<b>0.0181</b>	<b>0.0245</b>	<b>4.0000e-005</b>	<b>2.7600e-003</b>	<b>8.8000e-004</b>	<b>3.6400e-003</b>	<b>3.3000e-004</b>	<b>8.1000e-004</b>	<b>1.1400e-003</b>	<b>0.0000</b>	<b>3.4027</b>	<b>3.4027</b>	<b>1.1000e-003</b>	<b>0.0000</b>	<b>3.4303</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0126	0.4489	0.1028	1.2300e-003	0.0270	1.4200e-003	0.0284	7.4200e-003	1.3600e-003	8.7700e-003	0.0000	121.7031	121.7031	0.0110	0.0000	121.9771
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	1.7000e-004	1.2000e-004	1.2000e-003	0.0000	3.6000e-004	0.0000	3.6000e-004	1.0000e-004	0.0000	1.0000e-004	0.0000	0.3262	0.3262	1.0000e-005	0.0000	0.3264
<b>Total</b>	<b>0.0128</b>	<b>0.4490</b>	<b>0.1040</b>	<b>1.2300e-003</b>	<b>0.0274</b>	<b>1.4200e-003</b>	<b>0.0288</b>	<b>7.5200e-003</b>	<b>1.3600e-003</b>	<b>8.8700e-003</b>	<b>0.0000</b>	<b>122.0293</b>	<b>122.0293</b>	<b>0.0110</b>	<b>0.0000</b>	<b>122.3035</b>

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**3.4 Phase 1 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	4.2400e-003	0.0384	0.0337	5.0000e-005		2.2300e-003	2.2300e-003		2.1000e-003	2.1000e-003	0.0000	4.6322	4.6322	1.1300e-003	0.0000	4.6605
<b>Total</b>	<b>4.2400e-003</b>	<b>0.0384</b>	<b>0.0337</b>	<b>5.0000e-005</b>		<b>2.2300e-003</b>	<b>2.2300e-003</b>		<b>2.1000e-003</b>	<b>2.1000e-003</b>	<b>0.0000</b>	<b>4.6322</b>	<b>4.6322</b>	<b>1.1300e-003</b>	<b>0.0000</b>	<b>4.6605</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.2000e-004	3.6500e-003	9.7000e-004	1.0000e-005	2.1000e-004	2.0000e-005	2.3000e-004	6.0000e-005	2.0000e-005	8.0000e-005	0.0000	0.8444	0.8444	6.0000e-005	0.0000	0.8460
Worker	3.8000e-004	2.8000e-004	2.7800e-003	1.0000e-005	8.3000e-004	1.0000e-005	8.4000e-004	2.2000e-004	1.0000e-005	2.3000e-004	0.0000	0.7539	0.7539	2.0000e-005	0.0000	0.7544
<b>Total</b>	<b>5.0000e-004</b>	<b>3.9300e-003</b>	<b>3.7500e-003</b>	<b>2.0000e-005</b>	<b>1.0400e-003</b>	<b>3.0000e-005</b>	<b>1.0700e-003</b>	<b>2.8000e-004</b>	<b>3.0000e-005</b>	<b>3.1000e-004</b>	<b>0.0000</b>	<b>1.5982</b>	<b>1.5982</b>	<b>8.0000e-005</b>	<b>0.0000</b>	<b>1.6004</b>



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**3.4 Phase 1 Building Construction - 2020****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	4.2400e-003	0.0384	0.0337	5.0000e-005		2.2300e-003	2.2300e-003		2.1000e-003	2.1000e-003	0.0000	4.6322	4.6322	1.1300e-003	0.0000	4.6605
<b>Total</b>	<b>4.2400e-003</b>	<b>0.0384</b>	<b>0.0337</b>	<b>5.0000e-005</b>		<b>2.2300e-003</b>	<b>2.2300e-003</b>		<b>2.1000e-003</b>	<b>2.1000e-003</b>	<b>0.0000</b>	<b>4.6322</b>	<b>4.6322</b>	<b>1.1300e-003</b>	<b>0.0000</b>	<b>4.6605</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.2000e-004	3.6500e-003	9.7000e-004	1.0000e-005	2.1000e-004	2.0000e-005	2.3000e-004	6.0000e-005	2.0000e-005	8.0000e-005	0.0000	0.8444	0.8444	6.0000e-005	0.0000	0.8460
Worker	3.8000e-004	2.8000e-004	2.7800e-003	1.0000e-005	8.3000e-004	1.0000e-005	8.4000e-004	2.2000e-004	1.0000e-005	2.3000e-004	0.0000	0.7539	0.7539	2.0000e-005	0.0000	0.7544
<b>Total</b>	<b>5.0000e-004</b>	<b>3.9300e-003</b>	<b>3.7500e-003</b>	<b>2.0000e-005</b>	<b>1.0400e-003</b>	<b>3.0000e-005</b>	<b>1.0700e-003</b>	<b>2.8000e-004</b>	<b>3.0000e-005</b>	<b>3.1000e-004</b>	<b>0.0000</b>	<b>1.5982</b>	<b>1.5982</b>	<b>8.0000e-005</b>	<b>0.0000</b>	<b>1.6004</b>

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**3.4 Phase 1 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	0.2148	1.9698	1.8730	3.0400e-003		0.1083	0.1083		0.1018	0.1018	0.0000	261.7501	261.7501	0.0632	0.0000	263.3288
<b>Total</b>	<b>0.2148</b>	<b>1.9698</b>	<b>1.8730</b>	<b>3.0400e-003</b>		<b>0.1083</b>	<b>0.1083</b>		<b>0.1018</b>	<b>0.1018</b>	<b>0.0000</b>	<b>261.7501</b>	<b>261.7501</b>	<b>0.0632</b>	<b>0.0000</b>	<b>263.3288</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	5.5900e-003	0.1858	0.0496	4.8000e-004	0.0120	3.9000e-004	0.0124	3.4600e-003	3.8000e-004	3.8400e-003	0.0000	47.2684	47.2684	3.5100e-003	0.0000	47.3561
Worker	0.0204	0.0146	0.1468	4.6000e-004	0.0471	3.3000e-004	0.0475	0.0125	3.1000e-004	0.0128	0.0000	41.1627	41.1627	1.1800e-003	0.0000	41.1922
<b>Total</b>	<b>0.0260</b>	<b>0.2004</b>	<b>0.1964</b>	<b>9.4000e-004</b>	<b>0.0591</b>	<b>7.2000e-004</b>	<b>0.0598</b>	<b>0.0160</b>	<b>6.9000e-004</b>	<b>0.0167</b>	<b>0.0000</b>	<b>88.4311</b>	<b>88.4311</b>	<b>4.6900e-003</b>	<b>0.0000</b>	<b>88.5483</b>

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**3.4 Phase 1 Building Construction - 2021****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	0.2148	1.9698	1.8730	3.0400e-003		0.1083	0.1083		0.1018	0.1018	0.0000	261.7498	261.7498	0.0632	0.0000	263.3285
<b>Total</b>	<b>0.2148</b>	<b>1.9698</b>	<b>1.8730</b>	<b>3.0400e-003</b>		<b>0.1083</b>	<b>0.1083</b>		<b>0.1018</b>	<b>0.1018</b>	<b>0.0000</b>	<b>261.7498</b>	<b>261.7498</b>	<b>0.0632</b>	<b>0.0000</b>	<b>263.3285</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	5.5900e-003	0.1858	0.0496	4.8000e-004	0.0120	3.9000e-004	0.0124	3.4600e-003	3.8000e-004	3.8400e-003	0.0000	47.2684	47.2684	3.5100e-003	0.0000	47.3561
Worker	0.0204	0.0146	0.1468	4.6000e-004	0.0471	3.3000e-004	0.0475	0.0125	3.1000e-004	0.0128	0.0000	41.1627	41.1627	1.1800e-003	0.0000	41.1922
<b>Total</b>	<b>0.0260</b>	<b>0.2004</b>	<b>0.1964</b>	<b>9.4000e-004</b>	<b>0.0591</b>	<b>7.2000e-004</b>	<b>0.0598</b>	<b>0.0160</b>	<b>6.9000e-004</b>	<b>0.0167</b>	<b>0.0000</b>	<b>88.4311</b>	<b>88.4311</b>	<b>4.6900e-003</b>	<b>0.0000</b>	<b>88.5483</b>

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**3.5 Phase 1 Paving - 2021****Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	9.4500e-003	0.0951	0.1083	1.7000e-004		5.1100e-003	5.1100e-003		4.7100e-003	4.7100e-003	0.0000	14.4242	14.4242	4.6000e-003	0.0000	14.5392
Paving	1.7000e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>0.0112</b>	<b>0.0951</b>	<b>0.1083</b>	<b>1.7000e-004</b>		<b>5.1100e-003</b>	<b>5.1100e-003</b>		<b>4.7100e-003</b>	<b>4.7100e-003</b>	<b>0.0000</b>	<b>14.4242</b>	<b>14.4242</b>	<b>4.6000e-003</b>	<b>0.0000</b>	<b>14.5392</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.5000e-004	1.8000e-004	1.8000e-003	1.0000e-005	5.8000e-004	0.0000	5.8000e-004	1.5000e-004	0.0000	1.6000e-004	0.0000	0.5044	0.5044	1.0000e-005	0.0000	0.5047
<b>Total</b>	<b>2.5000e-004</b>	<b>1.8000e-004</b>	<b>1.8000e-003</b>	<b>1.0000e-005</b>	<b>5.8000e-004</b>	<b>0.0000</b>	<b>5.8000e-004</b>	<b>1.5000e-004</b>	<b>0.0000</b>	<b>1.6000e-004</b>	<b>0.0000</b>	<b>0.5044</b>	<b>0.5044</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>0.5047</b>

## Encompass Health Construction Unmitigated - San Diego County, Annual

**3.5 Phase 1 Paving - 2021****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	9.4500e-003	0.0951	0.1083	1.7000e-004		5.1100e-003	5.1100e-003		4.7100e-003	4.7100e-003	0.0000	14.4242	14.4242	4.6000e-003	0.0000	14.5391
Paving	1.7000e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>0.0112</b>	<b>0.0951</b>	<b>0.1083</b>	<b>1.7000e-004</b>		<b>5.1100e-003</b>	<b>5.1100e-003</b>		<b>4.7100e-003</b>	<b>4.7100e-003</b>	<b>0.0000</b>	<b>14.4242</b>	<b>14.4242</b>	<b>4.6000e-003</b>	<b>0.0000</b>	<b>14.5391</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.5000e-004	1.8000e-004	1.8000e-003	1.0000e-005	5.8000e-004	0.0000	5.8000e-004	1.5000e-004	0.0000	1.6000e-004	0.0000	0.5044	0.5044	1.0000e-005	0.0000	0.5047
<b>Total</b>	<b>2.5000e-004</b>	<b>1.8000e-004</b>	<b>1.8000e-003</b>	<b>1.0000e-005</b>	<b>5.8000e-004</b>	<b>0.0000</b>	<b>5.8000e-004</b>	<b>1.5000e-004</b>	<b>0.0000</b>	<b>1.6000e-004</b>	<b>0.0000</b>	<b>0.5044</b>	<b>0.5044</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>0.5047</b>

## Encompass Health Construction Unmitigated - San Diego County, Annual

**3.6 Phase 1 Architectural Coatings - 2021****Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.0979					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.7200e-003	0.0260	0.0309	5.0000e-005		1.6000e-003	1.6000e-003		1.6000e-003	1.6000e-003	0.0000	4.3405	4.3405	3.0000e-004	0.0000	4.3480
<b>Total</b>	<b>0.1016</b>	<b>0.0260</b>	<b>0.0309</b>	<b>5.0000e-005</b>		<b>1.6000e-003</b>	<b>1.6000e-003</b>		<b>1.6000e-003</b>	<b>1.6000e-003</b>	<b>0.0000</b>	<b>4.3405</b>	<b>4.3405</b>	<b>3.0000e-004</b>	<b>0.0000</b>	<b>4.3480</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.8000e-004	1.3000e-004	1.2700e-003	0.0000	4.1000e-004	0.0000	4.1000e-004	1.1000e-004	0.0000	1.1000e-004	0.0000	0.3573	0.3573	1.0000e-005	0.0000	0.3575
<b>Total</b>	<b>1.8000e-004</b>	<b>1.3000e-004</b>	<b>1.2700e-003</b>	<b>0.0000</b>	<b>4.1000e-004</b>	<b>0.0000</b>	<b>4.1000e-004</b>	<b>1.1000e-004</b>	<b>0.0000</b>	<b>1.1000e-004</b>	<b>0.0000</b>	<b>0.3573</b>	<b>0.3573</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>0.3575</b>

## Encompass Health Construction Unmitigated - San Diego County, Annual

**3.6 Phase 1 Architectural Coatings - 2021****Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.0979					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.7200e-003	0.0260	0.0309	5.0000e-005		1.6000e-003	1.6000e-003		1.6000e-003	1.6000e-003	0.0000	4.3405	4.3405	3.0000e-004	0.0000	4.3480
<b>Total</b>	<b>0.1016</b>	<b>0.0260</b>	<b>0.0309</b>	<b>5.0000e-005</b>		<b>1.6000e-003</b>	<b>1.6000e-003</b>		<b>1.6000e-003</b>	<b>1.6000e-003</b>	<b>0.0000</b>	<b>4.3405</b>	<b>4.3405</b>	<b>3.0000e-004</b>	<b>0.0000</b>	<b>4.3480</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.8000e-004	1.3000e-004	1.2700e-003	0.0000	4.1000e-004	0.0000	4.1000e-004	1.1000e-004	0.0000	1.1000e-004	0.0000	0.3573	0.3573	1.0000e-005	0.0000	0.3575
<b>Total</b>	<b>1.8000e-004</b>	<b>1.3000e-004</b>	<b>1.2700e-003</b>	<b>0.0000</b>	<b>4.1000e-004</b>	<b>0.0000</b>	<b>4.1000e-004</b>	<b>1.1000e-004</b>	<b>0.0000</b>	<b>1.1000e-004</b>	<b>0.0000</b>	<b>0.3573</b>	<b>0.3573</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>0.3575</b>

## Encompass Health Construction Unmitigated - San Diego County, Annual

**3.6 Phase 1 Architectural Coatings - 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					
Archit. Coating	5.7600e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.0000e-004	1.4100e-003	1.8100e-003	0.0000		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005	0.0000	0.2553	0.2553	2.0000e-005	0.0000	0.2557
<b>Total</b>	<b>5.9600e-003</b>	<b>1.4100e-003</b>	<b>1.8100e-003</b>	<b>0.0000</b>		<b>8.0000e-005</b>	<b>8.0000e-005</b>		<b>8.0000e-005</b>	<b>8.0000e-005</b>	<b>0.0000</b>	<b>0.2553</b>	<b>0.2553</b>	<b>2.0000e-005</b>	<b>0.0000</b>	<b>0.2557</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0000e-005	1.0000e-005	7.0000e-005	0.0000	2.0000e-005	0.0000	2.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0203	0.0203	0.0000	0.0000	0.0203
<b>Total</b>	<b>1.0000e-005</b>	<b>1.0000e-005</b>	<b>7.0000e-005</b>	<b>0.0000</b>	<b>2.0000e-005</b>	<b>0.0000</b>	<b>2.0000e-005</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>0.0203</b>	<b>0.0203</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0203</b>



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**3.6 Phase 1 Architectural Coatings - 2022****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	5.7600e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.0000e-004	1.4100e-003	1.8100e-003	0.0000		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005	0.0000	0.2553	0.2553	2.0000e-005	0.0000	0.2557
<b>Total</b>	<b>5.9600e-003</b>	<b>1.4100e-003</b>	<b>1.8100e-003</b>	<b>0.0000</b>		<b>8.0000e-005</b>	<b>8.0000e-005</b>		<b>8.0000e-005</b>	<b>8.0000e-005</b>	<b>0.0000</b>	<b>0.2553</b>	<b>0.2553</b>	<b>2.0000e-005</b>	<b>0.0000</b>	<b>0.2557</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0000e-005	1.0000e-005	7.0000e-005	0.0000	2.0000e-005	0.0000	2.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0203	0.0203	0.0000	0.0000	0.0203
<b>Total</b>	<b>1.0000e-005</b>	<b>1.0000e-005</b>	<b>7.0000e-005</b>	<b>0.0000</b>	<b>2.0000e-005</b>	<b>0.0000</b>	<b>2.0000e-005</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>0.0203</b>	<b>0.0203</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0203</b>

## Encompass Health Construction Unmitigated - San Diego County, Annual

**3.7 Phase 2 Site Preparation - 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					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	8.0000e-005	8.4000e-004	1.1200e-003	0.0000		5.0000e-005	5.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.1366	0.1366	4.0000e-005	0.0000	0.1377
<b>Total</b>	<b>8.0000e-005</b>	<b>8.4000e-004</b>	<b>1.1200e-003</b>	<b>0.0000</b>	<b>0.0000</b>	<b>5.0000e-005</b>	<b>5.0000e-005</b>	<b>0.0000</b>	<b>4.0000e-005</b>	<b>4.0000e-005</b>	<b>0.0000</b>	<b>0.1366</b>	<b>0.1366</b>	<b>4.0000e-005</b>	<b>0.0000</b>	<b>0.1377</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0000e-005	0.0000	5.0000e-005	0.0000	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0135	0.0135	0.0000	0.0000	0.0135
<b>Total</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>5.0000e-005</b>	<b>0.0000</b>	<b>2.0000e-005</b>	<b>0.0000</b>	<b>2.0000e-005</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0135</b>	<b>0.0135</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0135</b>

## Encompass Health Construction Unmitigated - San Diego County, Annual

**3.7 Phase 2 Site Preparation - 2022****Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	8.0000e-005	8.4000e-004	1.1200e-003	0.0000		5.0000e-005	5.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.1366	0.1366	4.0000e-005	0.0000	0.1377
<b>Total</b>	<b>8.0000e-005</b>	<b>8.4000e-004</b>	<b>1.1200e-003</b>	<b>0.0000</b>	<b>0.0000</b>	<b>5.0000e-005</b>	<b>5.0000e-005</b>	<b>0.0000</b>	<b>4.0000e-005</b>	<b>4.0000e-005</b>	<b>0.0000</b>	<b>0.1366</b>	<b>0.1366</b>	<b>4.0000e-005</b>	<b>0.0000</b>	<b>0.1377</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0000e-005	0.0000	5.0000e-005	0.0000	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0135	0.0135	0.0000	0.0000	0.0135
<b>Total</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>5.0000e-005</b>	<b>0.0000</b>	<b>2.0000e-005</b>	<b>0.0000</b>	<b>2.0000e-005</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0135</b>	<b>0.0135</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0135</b>

## Encompass Health Construction Unmitigated - San Diego County, Annual

**3.8 Phase 2 Grading - 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					
Fugitive Dust					3.0000e-005	0.0000	3.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.5100e-003	0.0133	0.0176	3.0000e-005		7.1000e-004	7.1000e-004		6.9000e-004	6.9000e-004	0.0000	2.3689	2.3689	4.0000e-004	0.0000	2.3791
<b>Total</b>	<b>1.5100e-003</b>	<b>0.0133</b>	<b>0.0176</b>	<b>3.0000e-005</b>	<b>3.0000e-005</b>	<b>7.1000e-004</b>	<b>7.4000e-004</b>	<b>0.0000</b>	<b>6.9000e-004</b>	<b>6.9000e-004</b>	<b>0.0000</b>	<b>2.3689</b>	<b>2.3689</b>	<b>4.0000e-004</b>	<b>0.0000</b>	<b>2.3791</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.8000e-004	5.9700e-003	1.6000e-003	2.0000e-005	4.3000e-004	2.0000e-005	4.4000e-004	1.2000e-004	2.0000e-005	1.3000e-004	0.0000	1.8791	1.8791	1.7000e-004	0.0000	1.8833
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	3.0000e-005	2.0000e-005	2.3000e-004	0.0000	8.0000e-005	0.0000	8.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0675	0.0675	0.0000	0.0000	0.0675
<b>Total</b>	<b>2.1000e-004</b>	<b>5.9900e-003</b>	<b>1.8300e-003</b>	<b>2.0000e-005</b>	<b>5.1000e-004</b>	<b>2.0000e-005</b>	<b>5.2000e-004</b>	<b>1.4000e-004</b>	<b>2.0000e-005</b>	<b>1.5000e-004</b>	<b>0.0000</b>	<b>1.9466</b>	<b>1.9466</b>	<b>1.7000e-004</b>	<b>0.0000</b>	<b>1.9509</b>

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**3.8 Phase 2 Grading - 2022****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					1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.5100e-003	0.0133	0.0176	3.0000e-005		7.1000e-004	7.1000e-004		6.9000e-004	6.9000e-004	0.0000	2.3689	2.3689	4.0000e-004	0.0000	2.3791
<b>Total</b>	<b>1.5100e-003</b>	<b>0.0133</b>	<b>0.0176</b>	<b>3.0000e-005</b>	<b>1.0000e-005</b>	<b>7.1000e-004</b>	<b>7.2000e-004</b>	<b>0.0000</b>	<b>6.9000e-004</b>	<b>6.9000e-004</b>	<b>0.0000</b>	<b>2.3689</b>	<b>2.3689</b>	<b>4.0000e-004</b>	<b>0.0000</b>	<b>2.3791</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.8000e-004	5.9700e-003	1.6000e-003	2.0000e-005	4.3000e-004	2.0000e-005	4.4000e-004	1.2000e-004	2.0000e-005	1.3000e-004	0.0000	1.8791	1.8791	1.7000e-004	0.0000	1.8833
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	3.0000e-005	2.0000e-005	2.3000e-004	0.0000	8.0000e-005	0.0000	8.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0675	0.0675	0.0000	0.0000	0.0675
<b>Total</b>	<b>2.1000e-004</b>	<b>5.9900e-003</b>	<b>1.8300e-003</b>	<b>2.0000e-005</b>	<b>5.1000e-004</b>	<b>2.0000e-005</b>	<b>5.2000e-004</b>	<b>1.4000e-004</b>	<b>2.0000e-005</b>	<b>1.5000e-004</b>	<b>0.0000</b>	<b>1.9466</b>	<b>1.9466</b>	<b>1.7000e-004</b>	<b>0.0000</b>	<b>1.9509</b>

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**3.9 Phase 2 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	0.0168	0.1629	0.1984	2.7000e-004		9.7500e-003	9.7500e-003		8.9700e-003	8.9700e-003	0.0000	23.7358	23.7358	7.6800e-003	0.0000	23.9277
<b>Total</b>	<b>0.0168</b>	<b>0.1629</b>	<b>0.1984</b>	<b>2.7000e-004</b>		<b>9.7500e-003</b>	<b>9.7500e-003</b>		<b>8.9700e-003</b>	<b>8.9700e-003</b>	<b>0.0000</b>	<b>23.7358</b>	<b>23.7358</b>	<b>7.6800e-003</b>	<b>0.0000</b>	<b>23.9277</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	5.8000e-004	0.0194	5.1900e-003	5.0000e-005	1.3300e-003	4.0000e-005	1.3600e-003	3.8000e-004	4.0000e-005	4.2000e-004	0.0000	5.1793	5.1793	3.8000e-004	0.0000	5.1887
Worker	0.0181	0.0124	0.1276	4.1000e-004	0.0441	3.1000e-004	0.0444	0.0117	2.8000e-004	0.0120	0.0000	37.1164	37.1164	1.0100e-003	0.0000	37.1417
<b>Total</b>	<b>0.0187</b>	<b>0.0319</b>	<b>0.1328</b>	<b>4.6000e-004</b>	<b>0.0454</b>	<b>3.5000e-004</b>	<b>0.0458</b>	<b>0.0121</b>	<b>3.2000e-004</b>	<b>0.0124</b>	<b>0.0000</b>	<b>42.2957</b>	<b>42.2957</b>	<b>1.3900e-003</b>	<b>0.0000</b>	<b>42.3303</b>

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**3.9 Phase 2 Building Construction - 2022****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	0.0168	0.1629	0.1984	2.7000e-004		9.7500e-003	9.7500e-003		8.9700e-003	8.9700e-003	0.0000	23.7358	23.7358	7.6800e-003	0.0000	23.9277
<b>Total</b>	<b>0.0168</b>	<b>0.1629</b>	<b>0.1984</b>	<b>2.7000e-004</b>		<b>9.7500e-003</b>	<b>9.7500e-003</b>		<b>8.9700e-003</b>	<b>8.9700e-003</b>	<b>0.0000</b>	<b>23.7358</b>	<b>23.7358</b>	<b>7.6800e-003</b>	<b>0.0000</b>	<b>23.9277</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	5.8000e-004	0.0194	5.1900e-003	5.0000e-005	1.3300e-003	4.0000e-005	1.3600e-003	3.8000e-004	4.0000e-005	4.2000e-004	0.0000	5.1793	5.1793	3.8000e-004	0.0000	5.1887
Worker	0.0181	0.0124	0.1276	4.1000e-004	0.0441	3.1000e-004	0.0444	0.0117	2.8000e-004	0.0120	0.0000	37.1164	37.1164	1.0100e-003	0.0000	37.1417
<b>Total</b>	<b>0.0187</b>	<b>0.0319</b>	<b>0.1328</b>	<b>4.6000e-004</b>	<b>0.0454</b>	<b>3.5000e-004</b>	<b>0.0458</b>	<b>0.0121</b>	<b>3.2000e-004</b>	<b>0.0124</b>	<b>0.0000</b>	<b>42.2957</b>	<b>42.2957</b>	<b>1.3900e-003</b>	<b>0.0000</b>	<b>42.3303</b>

## Encompass Health Construction Unmitigated - San Diego County, Annual

**3.10 Phase 2 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	1.2900e-003	0.0127	0.0159	2.0000e-005		6.6000e-004	6.6000e-004		6.1000e-004	6.1000e-004	0.0000	2.0914	2.0914	6.6000e-004	0.0000	2.1079
Paving	1.7000e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>2.9900e-003</b>	<b>0.0127</b>	<b>0.0159</b>	<b>2.0000e-005</b>		<b>6.6000e-004</b>	<b>6.6000e-004</b>		<b>6.1000e-004</b>	<b>6.1000e-004</b>	<b>0.0000</b>	<b>2.0914</b>	<b>2.0914</b>	<b>6.6000e-004</b>	<b>0.0000</b>	<b>2.1079</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.0000e-005	5.0000e-005	4.6000e-004	0.0000	1.6000e-004	0.0000	1.6000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.1350	0.1350	0.0000	0.0000	0.1351
<b>Total</b>	<b>7.0000e-005</b>	<b>5.0000e-005</b>	<b>4.6000e-004</b>	<b>0.0000</b>	<b>1.6000e-004</b>	<b>0.0000</b>	<b>1.6000e-004</b>	<b>4.0000e-005</b>	<b>0.0000</b>	<b>4.0000e-005</b>	<b>0.0000</b>	<b>0.1350</b>	<b>0.1350</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.1351</b>



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**3.10 Phase 2 Paving - 2022****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	1.2900e-003	0.0127	0.0159	2.0000e-005		6.6000e-004	6.6000e-004		6.1000e-004	6.1000e-004	0.0000	2.0914	2.0914	6.6000e-004	0.0000	2.1079
Paving	1.7000e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>2.9900e-003</b>	<b>0.0127</b>	<b>0.0159</b>	<b>2.0000e-005</b>		<b>6.6000e-004</b>	<b>6.6000e-004</b>		<b>6.1000e-004</b>	<b>6.1000e-004</b>	<b>0.0000</b>	<b>2.0914</b>	<b>2.0914</b>	<b>6.6000e-004</b>	<b>0.0000</b>	<b>2.1079</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.0000e-005	5.0000e-005	4.6000e-004	0.0000	1.6000e-004	0.0000	1.6000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.1350	0.1350	0.0000	0.0000	0.1351
<b>Total</b>	<b>7.0000e-005</b>	<b>5.0000e-005</b>	<b>4.6000e-004</b>	<b>0.0000</b>	<b>1.6000e-004</b>	<b>0.0000</b>	<b>1.6000e-004</b>	<b>4.0000e-005</b>	<b>0.0000</b>	<b>4.0000e-005</b>	<b>0.0000</b>	<b>0.1350</b>	<b>0.1350</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.1351</b>

## Encompass Health Construction Unmitigated - San Diego County, Annual

**3.11 Phase 2 Architectural Coating - 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					
Archit. Coating	0.0803					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.1000e-004	3.5200e-003	4.5300e-003	1.0000e-005		2.0000e-004	2.0000e-004		2.0000e-004	2.0000e-004	0.0000	0.6383	0.6383	4.0000e-005	0.0000	0.6394
<b>Total</b>	<b>0.0808</b>	<b>3.5200e-003</b>	<b>4.5300e-003</b>	<b>1.0000e-005</b>		<b>2.0000e-004</b>	<b>2.0000e-004</b>		<b>2.0000e-004</b>	<b>2.0000e-004</b>	<b>0.0000</b>	<b>0.6383</b>	<b>0.6383</b>	<b>4.0000e-005</b>	<b>0.0000</b>	<b>0.6394</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.0000e-005	4.9000e-004	1.3000e-004	0.0000	3.0000e-005	0.0000	3.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.1295	0.1295	1.0000e-005	0.0000	0.1297
Worker	2.0000e-005	1.0000e-005	1.2000e-004	0.0000	4.0000e-005	0.0000	4.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0337	0.0337	0.0000	0.0000	0.0338
<b>Total</b>	<b>3.0000e-005</b>	<b>5.0000e-004</b>	<b>2.5000e-004</b>	<b>0.0000</b>	<b>7.0000e-005</b>	<b>0.0000</b>	<b>7.0000e-005</b>	<b>2.0000e-005</b>	<b>0.0000</b>	<b>2.0000e-005</b>	<b>0.0000</b>	<b>0.1632</b>	<b>0.1632</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>0.1635</b>

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**3.11 Phase 2 Architectural Coating - 2022****Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.0803					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.1000e-004	3.5200e-003	4.5300e-003	1.0000e-005		2.0000e-004	2.0000e-004		2.0000e-004	2.0000e-004	0.0000	0.6383	0.6383	4.0000e-005	0.0000	0.6394
<b>Total</b>	<b>0.0808</b>	<b>3.5200e-003</b>	<b>4.5300e-003</b>	<b>1.0000e-005</b>		<b>2.0000e-004</b>	<b>2.0000e-004</b>		<b>2.0000e-004</b>	<b>2.0000e-004</b>	<b>0.0000</b>	<b>0.6383</b>	<b>0.6383</b>	<b>4.0000e-005</b>	<b>0.0000</b>	<b>0.6394</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.0000e-005	4.9000e-004	1.3000e-004	0.0000	3.0000e-005	0.0000	3.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.1295	0.1295	1.0000e-005	0.0000	0.1297
Worker	2.0000e-005	1.0000e-005	1.2000e-004	0.0000	4.0000e-005	0.0000	4.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0337	0.0337	0.0000	0.0000	0.0338
<b>Total</b>	<b>3.0000e-005</b>	<b>5.0000e-004</b>	<b>2.5000e-004</b>	<b>0.0000</b>	<b>7.0000e-005</b>	<b>0.0000</b>	<b>7.0000e-005</b>	<b>2.0000e-005</b>	<b>0.0000</b>	<b>2.0000e-005</b>	<b>0.0000</b>	<b>0.1632</b>	<b>0.1632</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>0.1635</b>

**4.0 Operational Detail - Mobile**

## Encompass Health Construction Unmitigated - San Diego County, Annual

## 4.1 Mitigation Measures Mobile

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

## 4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Hospital	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

## 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
Hospital	9.50	7.30	7.30	64.90	16.10	19.00	73	25	2
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

## 4.4 Fleet Mix

## Encompass Health Construction Unmitigated - San Diego County, Annual

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Parking Lot	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Hospital	0.602700	0.040134	0.179939	0.104242	0.014985	0.005435	0.016642	0.024350	0.001934	0.001888	0.005938	0.000757	0.001056

## 5.0 Energy Detail

Historical Energy Use: N

## 5.1 Mitigation Measures Energy

[illegible]

## Encompass Health Construction Unmitigated - San Diego County, Annual

## 5.2 Energy by Land Use - NaturalGas

### Unmitigated

[illegible]

**Mitigated**

[illegible]

## Encompass Health Construction Unmitigated - San Diego County, Annual

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

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Hospital	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	20160	6.5885	2.7000e-004	5.0000e-005	6.6114
<b>Total</b>		<b>6.5885</b>	<b>2.7000e-004</b>	<b>5.0000e-005</b>	<b>6.6114</b>

**Mitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Hospital	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	20160	6.5885	2.7000e-004	5.0000e-005	6.6114
<b>Total</b>		<b>6.5885</b>	<b>2.7000e-004</b>	<b>5.0000e-005</b>	<b>6.6114</b>

**6.0 Area Detail****6.1 Mitigation Measures Area**

## Encompass Health Construction Unmitigated - San Diego County, Annual

	ROG	NOx	CO	SO2	Fugitive 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	0.2276	2.0000e-005	2.0600e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	4.0000e-003	4.0000e-003	1.0000e-005	0.0000	4.2700e-003
Unmitigated	0.2276	2.0000e-005	2.0600e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	4.0000e-003	4.0000e-003	1.0000e-005	0.0000	4.2700e-003

## 6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.2274					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.9000e-004	2.0000e-005	2.0600e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	4.0000e-003	4.0000e-003	1.0000e-005	0.0000	4.2700e-003
<b>Total</b>	<b>0.2275</b>	<b>2.0000e-005</b>	<b>2.0600e-003</b>	<b>0.0000</b>		<b>1.0000e-005</b>	<b>1.0000e-005</b>		<b>1.0000e-005</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>4.0000e-003</b>	<b>4.0000e-003</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>4.2700e-003</b>



## Encompass Health Construction Unmitigated - San Diego County, Annual

**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	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.2274					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.9000e-004	2.0000e-005	2.0600e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	4.0000e-003	4.0000e-003	1.0000e-005	0.0000	4.2700e-003
<b>Total</b>	<b>0.2275</b>	<b>2.0000e-005</b>	<b>2.0600e-003</b>	<b>0.0000</b>		<b>1.0000e-005</b>	<b>1.0000e-005</b>		<b>1.0000e-005</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>4.0000e-003</b>	<b>4.0000e-003</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>4.2700e-003</b>

**7.0 Water Detail****7.1 Mitigation Measures Water**

## Encompass Health Construction Unmitigated - San Diego County, Annual

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

## 7.2 Water by Land Use

Unmitigated

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

## Encompass Health Construction Unmitigated - San Diego County, Annual

**7.2 Water by Land Use****Mitigated**

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

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

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

## Encompass Health Construction Unmitigated - San Diego County, Annual

**8.2 Waste by Land Use****Unmitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Hospital	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**Mitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Hospital	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**9.0 Operational Offroad**

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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## Encompass Health Construction Unmitigated - San Diego County, Annual

## 10.0 Stationary Equipment

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### Fire Pumps and Emergency Generators

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

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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### User Defined Equipment

Equipment Type	Number
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## 11.0 Vegetation

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## Encompass Health Construction Unmitigated - San Diego County, Summer

## Encompass Health Construction Unmitigated

### San Diego County, Summer

## 1.0 Project Characteristics

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### 1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Hospital	80.00	Bed	1.31	57,260.61	0
Parking Lot	144.00	Space	1.30	57,600.00	0

### 1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.6	Precipitation Freq (Days)	40
Climate Zone	13			Operational Year	2023
Utility Company	San Diego Gas & Electric				
CO2 Intensity (lb/MWhr)	720.49	CH4 Intensity (lb/MWhr)	0.029	N2O Intensity (lb/MWhr)	0.006

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

## Encompass Health Construction Unmitigated - San Diego County, Summer

Project Characteristics - Construction only.

Land Use -

Construction Phase - Data provided by applicant.

Off-road Equipment -

Off-road Equipment - Data from applicant.

Off-road Equipment - Data provided by applicant.

Off-road Equipment - Data from applicant.

Off-road Equipment - Data provided by applicant.

Trips and VMT - Data provided by applicant.

Grading - Data provided by applicant.

Architectural Coating - SDAPCD Rule 67.0.1, Ph 1 50 beds, Ph 2 30 beds

Vehicle Trips - Construction only.

Area Coating - Construction only.

Landscape Equipment - Construction only

Energy Use - Construction only

Water And Wastewater - Construction only

Solid Waste - Construction only

Construction Off-road Equipment Mitigation - Fugitive dust control measures

Off-road Equipment - Data provided by applicant

Off-road Equipment - Data provided by applicant.

Off-road Equipment - Data provided by applicant

Off-road Equipment - Data provided by applicant.

Off-road Equipment - Data provided by applicant.

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	28,630.00	17,893.75
tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	28,630.00	10,736.25

## Encompass Health Construction Unmitigated - San Diego County, Summer

tblArchitecturalCoating	ConstArea_Nonresidential_Interior	85,891.00	53,681.87
tblArchitecturalCoating	ConstArea_Nonresidential_Interior	85,891.00	32,209.12
tblArchitecturalCoating	ConstArea_Parking	3,456.00	0.00
tblArchitecturalCoating	ConstArea_Parking	3,456.00	7,794.00
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	100.00
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	100.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	50.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	50.00
tblArchitecturalCoating	EF_Parking	250.00	100.00
tblArchitecturalCoating	EF_Parking	250.00	100.00
tblAreaCoating	Area_Nonresidential_Exterior	28630	0
tblAreaCoating	Area_Nonresidential_Interior	85891	0
tblAreaCoating	Area_Parking	3456	0
tblConstDustMitigation	WaterExposedAreaPM10PercentReduction	55	61
tblConstDustMitigation	WaterExposedAreaPM25PercentReduction	55	61
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	10.00	5.00
tblConstructionPhase	NumDays	10.00	18.00
tblConstructionPhase	NumDays	220.00	230.00
tblConstructionPhase	NumDays	220.00	100.00
tblConstructionPhase	NumDays	6.00	15.00
tblConstructionPhase	NumDays	6.00	5.00
tblConstructionPhase	NumDays	10.00	18.00
tblConstructionPhase	NumDays	10.00	5.00
tblConstructionPhase	NumDays	3.00	5.00
tblConstructionPhase	NumDays	3.00	1.00
tblEnergyUse	LightingElect	4.52	0.00



## Encompass Health Construction Unmitigated - San Diego County, Summer

tblEnergyUse	NT24E	5.87	0.00
tblEnergyUse	NT24NG	6.92	0.00
tblEnergyUse	T24E	6.37	0.00
tblEnergyUse	T24NG	51.05	0.00
tblFleetMix	HHD	0.02	0.00
tblFleetMix	LDA	0.60	0.00
tblFleetMix	LDT1	0.04	0.00
tblFleetMix	LDT2	0.18	0.00
tblFleetMix	LHD1	0.01	0.00
tblFleetMix	LHD2	5.4350e-003	0.00
tblFleetMix	MCY	5.9380e-003	0.00
tblFleetMix	MDV	0.10	0.00
tblFleetMix	MH	1.0560e-003	0.00
tblFleetMix	MHD	0.02	0.00
tblFleetMix	OBUS	1.9340e-003	0.00
tblFleetMix	SBUS	7.5700e-004	0.00
tblFleetMix	UBUS	1.8880e-003	0.00
tblGrading	AcresOfGrading	5.50	9.56
tblGrading	MaterialExported	0.00	28,400.00
tblGrading	MaterialImported	0.00	450.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	3.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00

## Encompass Health Construction Unmitigated - San Diego County, Summer

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	3.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	PhaseName		Phase 2 Grading
tblOffRoadEquipment	PhaseName		Phase 1 Grading
tblOffRoadEquipment	PhaseName		Phase 2 Grading
tblOffRoadEquipment	PhaseName		Phase 1 Site Preparation
tblOffRoadEquipment	PhaseName		Phase 2 Site Preparation
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	7.00
tblOffRoadEquipment	UsageHours	8.00	4.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	6.00
tblOffRoadEquipment	UsageHours	8.00	7.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	7.00

## Encompass Health Construction Unmitigated - San Diego County, Summer

tblOffRoadEquipment	UsageHours	8.00	1.00
tblOffRoadEquipment	UsageHours	6.00	7.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	6.00
tblOffRoadEquipment	UsageHours	8.00	7.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblSolidWaste	SolidWasteGenerationRate	233.60	0.00
tblTripsAndVMT	HaulingTripNumber	3,952.00	3,156.00
tblTripsAndVMT	HaulingTripNumber	1,306.00	50.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	VendorTripNumber	19.00	16.00
tblTripsAndVMT	VendorTripNumber	19.00	4.00
tblTripsAndVMT	WorkerTripNumber	18.00	6.00
tblTripsAndVMT	WorkerTripNumber	9.00	2.00
tblTripsAndVMT	WorkerTripNumber	15.00	6.00
tblTripsAndVMT	WorkerTripNumber	43.00	52.00
tblTripsAndVMT	WorkerTripNumber	20.00	8.00
tblTripsAndVMT	WorkerTripNumber	9.00	6.00
tblTripsAndVMT	WorkerTripNumber	3.00	4.00
tblTripsAndVMT	WorkerTripNumber	10.00	4.00
tblTripsAndVMT	WorkerTripNumber	43.00	110.00
tblTripsAndVMT	WorkerTripNumber	18.00	8.00
tblVehicleTrips	ST_TR	8.14	0.00
tblVehicleTrips	SU_TR	7.19	0.00
tblVehicleTrips	WD_TR	12.94	0.00

## Encompass Health Construction Unmitigated - San Diego County, Summer

tblWater	IndoorWaterUseRate	7,185,091.63	0.00
tblWater	OutdoorWaterUseRate	1,368,588.88	0.00

## 2.0 Emissions Summary

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## Mitigated Construction

[illegible]

## Encompass Health Construction Unmitigated - San Diego County, 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
Percent Reduction	0.00	0.00	0.00	0.00	56.28	0.00	51.05	58.61	0.00	51.12	0.00	0.00	0.00	0.00	0.00	0.00

## Encompass Health Construction Unmitigated - San Diego County, 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	1.2479	2.1000e-004	0.0229	0.0000		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005		0.0490	0.0490	1.3000e-004		0.0522
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
<b>Total</b>	<b>1.2479</b>	<b>2.1000e-004</b>	<b>0.0229</b>	<b>0.0000</b>	<b>0.0000</b>	<b>8.0000e-005</b>	<b>8.0000e-005</b>	<b>0.0000</b>	<b>8.0000e-005</b>	<b>8.0000e-005</b>		<b>0.0490</b>	<b>0.0490</b>	<b>1.3000e-004</b>	<b>0.0000</b>	<b>0.0522</b>

**Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	1.2479	2.1000e-004	0.0229	0.0000		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005		0.0490	0.0490	1.3000e-004		0.0522
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
<b>Total</b>	<b>1.2479</b>	<b>2.1000e-004</b>	<b>0.0229</b>	<b>0.0000</b>	<b>0.0000</b>	<b>8.0000e-005</b>	<b>8.0000e-005</b>	<b>0.0000</b>	<b>8.0000e-005</b>	<b>8.0000e-005</b>		<b>0.0490</b>	<b>0.0490</b>	<b>1.3000e-004</b>	<b>0.0000</b>	<b>0.0522</b>

## Encompass Health Construction Unmitigated - San Diego County, 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
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

### 3.0 Construction Detail

#### Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Phase 1 Site Preparation	Site Preparation	12/1/2020	12/7/2020	5	5	
2	Phase 1 Grading	Grading	12/8/2020	12/28/2020	5	15	
3	Phase 1 Building Construction	Building Construction	12/28/2020	11/12/2021	5	230	
4	Phase 1 Paving	Paving	11/13/2021	12/8/2021	5	18	
5	Phase 1 Architectural Coatings	Architectural Coating	12/9/2021	1/3/2022	5	18	
6	Phase 2 Site Preparation	Site Preparation	1/4/2022	1/4/2022	5	1	
7	Phase 2 Grading	Grading	1/5/2022	1/11/2022	5	5	
8	Phase 2 Building Construction	Building Construction	1/12/2022	5/31/2022	5	100	
9	Phase 2 Paving	Paving	6/1/2022	6/7/2022	5	5	
10	Phase 2 Architectural Coating	Architectural Coating	6/2/2022	6/8/2022	5	5	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 1.3

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 53,682; Non-Residential Outdoor: 17,894; Striped Parking Area: 0  
(Architectural Coating – sqft)

#### OffRoad Equipment



## Encompass Health Construction Unmitigated - San Diego County, Summer

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Phase 1 Site Preparation	Rubber Tired Dozers	0	8.00	247	0.40
Phase 1 Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Phase 1 Grading	Excavators	1	8.00	158	0.38
Phase 1 Grading	Graders	0	8.00	187	0.41
Phase 1 Grading	Rubber Tired Dozers	0	8.00	247	0.40
Phase 1 Grading	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Phase 1 Building Construction	Cranes	1	7.00	231	0.29
Phase 1 Building Construction	Forklifts	3	8.00	89	0.20
Phase 1 Building Construction	Generator Sets	1	8.00	84	0.74
Phase 1 Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Phase 1 Building Construction	Welders	1	8.00	46	0.45
Phase 1 Paving	Cement and Mortar Mixers	1	6.00	9	0.56
Phase 1 Paving	Pavers	1	8.00	130	0.42
Phase 1 Paving	Paving Equipment	2	6.00	132	0.36
Phase 1 Paving	Rollers	2	6.00	80	0.38
Phase 1 Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Phase 1 Architectural Coatings	Air Compressors	2	6.00	78	0.48
Phase 2 Site Preparation	Rubber Tired Dozers	0	8.00	247	0.40
Phase 2 Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Phase 2 Grading	Concrete/Industrial Saws	1	8.00	81	0.73
Phase 2 Grading	Excavators	0	8.00	158	0.38
Phase 2 Grading	Graders	0	8.00	187	0.41
Phase 2 Grading	Rubber Tired Dozers	0	1.00	247	0.40
Phase 2 Grading	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Phase 2 Building Construction	Cranes	0	4.00	231	0.29
Phase 2 Building Construction	Forklifts	2	6.00	89	0.20

## Encompass Health Construction Unmitigated - San Diego County, Summer

Phase 2 Building Construction	Generator Sets	0	8.00	84	0.74
Phase 2 Building Construction	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Phase 2 Building Construction	Welders	0	8.00	46	0.45
Phase 2 Paving	Cement and Mortar Mixers	1	6.00	9	0.56
Phase 2 Paving	Pavers	1	7.00	130	0.42
Phase 2 Paving	Paving Equipment	0	6.00	132	0.36
Phase 2 Paving	Rollers	1	7.00	80	0.38
Phase 2 Paving	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Phase 2 Architectural Coating	Air Compressors	1	6.00	78	0.48

**Trips and VMT**

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Phase 1 Site Preparation	7	6.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Phase 1 Grading	6	6.00	0.00	3,156.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Phase 1 Building Construction	9	52.00	16.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Phase 1 Paving	8	8.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Phase 1 Architectural Coatings	1	6.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Phase 2 Site Preparation	1	4.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Phase 2 Grading	4	4.00	0.00	50.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Phase 2 Building Construction	5	110.00	4.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Phase 2 Paving	7	8.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Phase 2 Architectural Coating	1	2.00	2.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

**3.1 Mitigation Measures Construction**

## Encompass Health Construction Unmitigated - San Diego County, Summer

Use Soil Stabilizer

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

**3.2 Phase 1 Site Preparation - 2020****Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	0.8380	8.4206	9.1188	0.0124		0.5325	0.5325		0.4899	0.4899		1,203.0740	1,203.0740	0.3891		1,212.8015
<b>Total</b>	<b>0.8380</b>	<b>8.4206</b>	<b>9.1188</b>	<b>0.0124</b>	<b>18.0663</b>	<b>0.5325</b>	<b>18.5987</b>	<b>9.9307</b>	<b>0.4899</b>	<b>10.4206</b>		<b>1,203.0740</b>	<b>1,203.0740</b>	<b>0.3891</b>		<b>1,212.8015</b>

## Encompass Health Construction Unmitigated - San Diego County, Summer

**3.2 Phase 1 Site Preparation - 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	0.0220	0.0148	0.1701	5.1000e-004	0.0493	3.5000e-004	0.0496	0.0131	3.2000e-004	0.0134		50.5648	50.5648	1.5100e-003		50.6026
<b>Total</b>	<b>0.0220</b>	<b>0.0148</b>	<b>0.1701</b>	<b>5.1000e-004</b>	<b>0.0493</b>	<b>3.5000e-004</b>	<b>0.0496</b>	<b>0.0131</b>	<b>3.2000e-004</b>	<b>0.0134</b>		<b>50.5648</b>	<b>50.5648</b>	<b>1.5100e-003</b>		<b>50.6026</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					7.0458	0.0000	7.0458	3.8730	0.0000	3.8730			0.0000			0.0000
Off-Road	0.8380	8.4206	9.1188	0.0124		0.5325	0.5325		0.4899	0.4899	0.0000	1,203.0740	1,203.0740	0.3891		1,212.8015
<b>Total</b>	<b>0.8380</b>	<b>8.4206</b>	<b>9.1188</b>	<b>0.0124</b>	<b>7.0458</b>	<b>0.5325</b>	<b>7.5783</b>	<b>3.8730</b>	<b>0.4899</b>	<b>4.3629</b>	<b>0.0000</b>	<b>1,203.0740</b>	<b>1,203.0740</b>	<b>0.3891</b>		<b>1,212.8015</b>

## Encompass Health Construction Unmitigated - San Diego County, Summer

**3.2 Phase 1 Site Preparation - 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
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	0.0220	0.0148	0.1701	5.1000e-004	0.0493	3.5000e-004	0.0496	0.0131	3.2000e-004	0.0134		50.5648	50.5648	1.5100e-003		50.6026
<b>Total</b>	<b>0.0220</b>	<b>0.0148</b>	<b>0.1701</b>	<b>5.1000e-004</b>	<b>0.0493</b>	<b>3.5000e-004</b>	<b>0.0496</b>	<b>0.0131</b>	<b>3.2000e-004</b>	<b>0.0134</b>		<b>50.5648</b>	<b>50.5648</b>	<b>1.5100e-003</b>		<b>50.6026</b>

**3.3 Phase 1 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					5.3581	0.0000	5.3581	2.5408	0.0000	2.5408			0.0000			0.0000
Off-Road	0.2450	2.4126	3.2678	5.1700e-003		0.1169	0.1169		0.1075	0.1075		500.1184	500.1184	0.1618		504.1621
<b>Total</b>	<b>0.2450</b>	<b>2.4126</b>	<b>3.2678</b>	<b>5.1700e-003</b>	<b>5.3581</b>	<b>0.1169</b>	<b>5.4750</b>	<b>2.5408</b>	<b>0.1075</b>	<b>2.6483</b>		<b>500.1184</b>	<b>500.1184</b>	<b>0.1618</b>		<b>504.1621</b>

## Encompass Health Construction Unmitigated - San Diego County, Summer

**3.3 Phase 1 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	1.6630	58.6943	13.3265	0.1647	3.6765	0.1873	3.8637	1.0076	0.1792	1.1867		18,017.1129	18,017.1129	1.5871		18,056.7892
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	0.0220	0.0148	0.1701	5.1000e-004	0.0493	3.5000e-004	0.0496	0.0131	3.2000e-004	0.0134		50.5648	50.5648	1.5100e-003		50.6026
<b>Total</b>	<b>1.6851</b>	<b>58.7091</b>	<b>13.4965</b>	<b>0.1652</b>	<b>3.7258</b>	<b>0.1876</b>	<b>3.9134</b>	<b>1.0206</b>	<b>0.1795</b>	<b>1.2001</b>		<b>18,067.6777</b>	<b>18,067.6777</b>	<b>1.5886</b>		<b>18,107.3918</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.0897	0.0000	2.0897	0.9909	0.0000	0.9909			0.0000			0.0000
Off-Road	0.2450	2.4126	3.2678	5.1700e-003		0.1169	0.1169		0.1075	0.1075	0.0000	500.1184	500.1184	0.1618		504.1621
<b>Total</b>	<b>0.2450</b>	<b>2.4126</b>	<b>3.2678</b>	<b>5.1700e-003</b>	<b>2.0897</b>	<b>0.1169</b>	<b>2.2065</b>	<b>0.9909</b>	<b>0.1075</b>	<b>1.0984</b>	<b>0.0000</b>	<b>500.1184</b>	<b>500.1184</b>	<b>0.1618</b>		<b>504.1621</b>

## Encompass Health Construction Unmitigated - San Diego County, Summer

**3.3 Phase 1 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	1.6630	58.6943	13.3265	0.1647	3.6765	0.1873	3.8637	1.0076	0.1792	1.1867		18,017.1129	18,017.1129	1.5871		18,056.7892
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	0.0220	0.0148	0.1701	5.1000e-004	0.0493	3.5000e-004	0.0496	0.0131	3.2000e-004	0.0134		50.5648	50.5648	1.5100e-003		50.6026
<b>Total</b>	<b>1.6851</b>	<b>58.7091</b>	<b>13.4965</b>	<b>0.1652</b>	<b>3.7258</b>	<b>0.1876</b>	<b>3.9134</b>	<b>1.0206</b>	<b>0.1795</b>	<b>1.2001</b>		<b>18,067.6777</b>	<b>18,067.6777</b>	<b>1.5886</b>		<b>18,107.3918</b>

**3.4 Phase 1 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		2,553.0631	2,553.0631	0.6229		2,568.6345
<b>Total</b>	<b>2.1198</b>	<b>19.1860</b>	<b>16.8485</b>	<b>0.0269</b>		<b>1.1171</b>	<b>1.1171</b>		<b>1.0503</b>	<b>1.0503</b>		<b>2,553.0631</b>	<b>2,553.0631</b>	<b>0.6229</b>		<b>2,568.6345</b>

## Encompass Health Construction Unmitigated - San Diego County, Summer

**3.4 Phase 1 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
Vendor	0.0598	1.8041	0.4596	4.3800e-003	0.1083	8.8300e-003	0.1171	0.0312	8.4400e-003	0.0396		470.4641	470.4641	0.0347		471.3318
Worker	0.1908	0.1286	1.4740	4.4000e-003	0.4272	3.0000e-003	0.4302	0.1133	2.7600e-003	0.1161		438.2285	438.2285	0.0131		438.5556
<b>Total</b>	<b>0.2506</b>	<b>1.9327</b>	<b>1.9336</b>	<b>8.7800e-003</b>	<b>0.5355</b>	<b>0.0118</b>	<b>0.5473</b>	<b>0.1445</b>	<b>0.0112</b>	<b>0.1557</b>		<b>908.6926</b>	<b>908.6926</b>	<b>0.0478</b>		<b>909.8874</b>

**Mitigated Construction On-Site**

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



## Encompass Health Construction Unmitigated - San Diego County, Summer

**3.4 Phase 1 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
Vendor	0.0598	1.8041	0.4596	4.3800e-003	0.1083	8.8300e-003	0.1171	0.0312	8.4400e-003	0.0396		470.4641	470.4641	0.0347		471.3318
Worker	0.1908	0.1286	1.4740	4.4000e-003	0.4272	3.0000e-003	0.4302	0.1133	2.7600e-003	0.1161		438.2285	438.2285	0.0131		438.5556
<b>Total</b>	<b>0.2506</b>	<b>1.9327</b>	<b>1.9336</b>	<b>8.7800e-003</b>	<b>0.5355</b>	<b>0.0118</b>	<b>0.5473</b>	<b>0.1445</b>	<b>0.0112</b>	<b>0.1557</b>		<b>908.6926</b>	<b>908.6926</b>	<b>0.0478</b>		<b>909.8874</b>

**3.4 Phase 1 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		2,553.3639	2,553.3639	0.6160		2,568.7643
<b>Total</b>	<b>1.9009</b>	<b>17.4321</b>	<b>16.5752</b>	<b>0.0269</b>		<b>0.9586</b>	<b>0.9586</b>		<b>0.9013</b>	<b>0.9013</b>		<b>2,553.3639</b>	<b>2,553.3639</b>	<b>0.6160</b>		<b>2,568.7643</b>

## Encompass Health Construction Unmitigated - San Diego County, Summer

**3.4 Phase 1 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
Vendor	0.0484	1.6293	0.4152	4.3300e-003	0.1083	3.4200e-003	0.1117	0.0312	3.2700e-003	0.0345		466.1631	466.1631	0.0333		466.9958
Worker	0.1799	0.1169	1.3792	4.2500e-003	0.4272	2.9500e-003	0.4301	0.1133	2.7200e-003	0.1160		423.5093	423.5093	0.0121		423.8114
<b>Total</b>	<b>0.2282</b>	<b>1.7461</b>	<b>1.7944</b>	<b>8.5800e-003</b>	<b>0.5355</b>	<b>6.3700e-003</b>	<b>0.5419</b>	<b>0.1445</b>	<b>5.9900e-003</b>	<b>0.1505</b>		<b>889.6724</b>	<b>889.6724</b>	<b>0.0454</b>		<b>890.8073</b>

**Mitigated Construction On-Site**

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

## Encompass Health Construction Unmitigated - San Diego County, Summer

**3.4 Phase 1 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
Vendor	0.0484	1.6293	0.4152	4.3300e-003	0.1083	3.4200e-003	0.1117	0.0312	3.2700e-003	0.0345		466.1631	466.1631	0.0333		466.9958
Worker	0.1799	0.1169	1.3792	4.2500e-003	0.4272	2.9500e-003	0.4301	0.1133	2.7200e-003	0.1160		423.5093	423.5093	0.0121		423.8114
<b>Total</b>	<b>0.2282</b>	<b>1.7461</b>	<b>1.7944</b>	<b>8.5800e-003</b>	<b>0.5355</b>	<b>6.3700e-003</b>	<b>0.5419</b>	<b>0.1445</b>	<b>5.9900e-003</b>	<b>0.1505</b>		<b>889.6724</b>	<b>889.6724</b>	<b>0.0454</b>		<b>890.8073</b>

**3.5 Phase 1 Paving - 2021****Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0499	10.5638	12.0290	0.0184		0.5681	0.5681		0.5235	0.5235		1,766.6650	1,766.6650	0.5631		1,780.7414
Paving	0.1892					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>1.2391</b>	<b>10.5638</b>	<b>12.0290</b>	<b>0.0184</b>		<b>0.5681</b>	<b>0.5681</b>		<b>0.5235</b>	<b>0.5235</b>		<b>1,766.6650</b>	<b>1,766.6650</b>	<b>0.5631</b>		<b>1,780.7414</b>

## Encompass Health Construction Unmitigated - San Diego County, Summer

**3.5 Phase 1 Paving - 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
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	0.0277	0.0180	0.2122	6.5000e-004	0.0657	4.5000e-004	0.0662	0.0174	4.2000e-004	0.0179		65.1553	65.1553	1.8600e-003		65.2018
<b>Total</b>	<b>0.0277</b>	<b>0.0180</b>	<b>0.2122</b>	<b>6.5000e-004</b>	<b>0.0657</b>	<b>4.5000e-004</b>	<b>0.0662</b>	<b>0.0174</b>	<b>4.2000e-004</b>	<b>0.0179</b>		<b>65.1553</b>	<b>65.1553</b>	<b>1.8600e-003</b>		<b>65.2018</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0499	10.5638	12.0290	0.0184		0.5681	0.5681		0.5235	0.5235	0.0000	1,766.6650	1,766.6650	0.5631		1,780.7414
Paving	0.1892					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>1.2391</b>	<b>10.5638</b>	<b>12.0290</b>	<b>0.0184</b>		<b>0.5681</b>	<b>0.5681</b>		<b>0.5235</b>	<b>0.5235</b>	<b>0.0000</b>	<b>1,766.6650</b>	<b>1,766.6650</b>	<b>0.5631</b>		<b>1,780.7414</b>

## Encompass Health Construction Unmitigated - San Diego County, Summer

**3.5 Phase 1 Paving - 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
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	0.0277	0.0180	0.2122	6.5000e-004	0.0657	4.5000e-004	0.0662	0.0174	4.2000e-004	0.0179		65.1553	65.1553	1.8600e-003		65.2018
<b>Total</b>	<b>0.0277</b>	<b>0.0180</b>	<b>0.2122</b>	<b>6.5000e-004</b>	<b>0.0657</b>	<b>4.5000e-004</b>	<b>0.0662</b>	<b>0.0174</b>	<b>4.2000e-004</b>	<b>0.0179</b>		<b>65.1553</b>	<b>65.1553</b>	<b>1.8600e-003</b>		<b>65.2018</b>

**3.6 Phase 1 Architectural Coatings - 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					
Archit. Coating	11.5192					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.4378	3.0537	3.6351	5.9400e-003		0.1882	0.1882		0.1882	0.1882		562.8961	562.8961	0.0386		563.8618
<b>Total</b>	<b>11.9570</b>	<b>3.0537</b>	<b>3.6351</b>	<b>5.9400e-003</b>		<b>0.1882</b>	<b>0.1882</b>		<b>0.1882</b>	<b>0.1882</b>		<b>562.8961</b>	<b>562.8961</b>	<b>0.0386</b>		<b>563.8618</b>

## Encompass Health Construction Unmitigated - San Diego County, Summer

**3.6 Phase 1 Architectural Coatings - 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
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	0.0208	0.0135	0.1591	4.9000e-004	0.0493	3.4000e-004	0.0496	0.0131	3.1000e-004	0.0134		48.8665	48.8665	1.3900e-003		48.9013
<b>Total</b>	<b>0.0208</b>	<b>0.0135</b>	<b>0.1591</b>	<b>4.9000e-004</b>	<b>0.0493</b>	<b>3.4000e-004</b>	<b>0.0496</b>	<b>0.0131</b>	<b>3.1000e-004</b>	<b>0.0134</b>		<b>48.8665</b>	<b>48.8665</b>	<b>1.3900e-003</b>		<b>48.9013</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	11.5192					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.4378	3.0537	3.6351	5.9400e-003		0.1882	0.1882		0.1882	0.1882	0.0000	562.8961	562.8961	0.0386		563.8618
<b>Total</b>	<b>11.9570</b>	<b>3.0537</b>	<b>3.6351</b>	<b>5.9400e-003</b>		<b>0.1882</b>	<b>0.1882</b>		<b>0.1882</b>	<b>0.1882</b>	<b>0.0000</b>	<b>562.8961</b>	<b>562.8961</b>	<b>0.0386</b>		<b>563.8618</b>

## Encompass Health Construction Unmitigated - San Diego County, Summer

**3.6 Phase 1 Architectural Coatings - 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
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	0.0208	0.0135	0.1591	4.9000e-004	0.0493	3.4000e-004	0.0496	0.0131	3.1000e-004	0.0134		48.8665	48.8665	1.3900e-003		48.9013
<b>Total</b>	<b>0.0208</b>	<b>0.0135</b>	<b>0.1591</b>	<b>4.9000e-004</b>	<b>0.0493</b>	<b>3.4000e-004</b>	<b>0.0496</b>	<b>0.0131</b>	<b>3.1000e-004</b>	<b>0.0134</b>		<b>48.8665</b>	<b>48.8665</b>	<b>1.3900e-003</b>		<b>48.9013</b>

**3.6 Phase 1 Architectural Coatings - 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					
Archit. Coating	11.5192					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.4091	2.8170	3.6272	5.9400e-003		0.1634	0.1634		0.1634	0.1634		562.8961	562.8961	0.0367		563.8123
<b>Total</b>	<b>11.9283</b>	<b>2.8170</b>	<b>3.6272</b>	<b>5.9400e-003</b>		<b>0.1634</b>	<b>0.1634</b>		<b>0.1634</b>	<b>0.1634</b>		<b>562.8961</b>	<b>562.8961</b>	<b>0.0367</b>		<b>563.8123</b>

## Encompass Health Construction Unmitigated - San Diego County, Summer

**3.6 Phase 1 Architectural Coatings - 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	0.0196	0.0123	0.1480	4.7000e-004	0.0493	3.3000e-004	0.0496	0.0131	3.1000e-004	0.0134		47.0736	47.0736	1.2800e-003		47.1056
<b>Total</b>	<b>0.0196</b>	<b>0.0123</b>	<b>0.1480</b>	<b>4.7000e-004</b>	<b>0.0493</b>	<b>3.3000e-004</b>	<b>0.0496</b>	<b>0.0131</b>	<b>3.1000e-004</b>	<b>0.0134</b>		<b>47.0736</b>	<b>47.0736</b>	<b>1.2800e-003</b>		<b>47.1056</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	11.5192					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.4091	2.8170	3.6272	5.9400e-003		0.1634	0.1634		0.1634	0.1634	0.0000	562.8961	562.8961	0.0367		563.8123
<b>Total</b>	<b>11.9283</b>	<b>2.8170</b>	<b>3.6272</b>	<b>5.9400e-003</b>		<b>0.1634</b>	<b>0.1634</b>		<b>0.1634</b>	<b>0.1634</b>	<b>0.0000</b>	<b>562.8961</b>	<b>562.8961</b>	<b>0.0367</b>		<b>563.8123</b>



## Encompass Health Construction Unmitigated - San Diego County, Summer

**3.6 Phase 1 Architectural Coatings - 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	0.0196	0.0123	0.1480	4.7000e-004	0.0493	3.3000e-004	0.0496	0.0131	3.1000e-004	0.0134		47.0736	47.0736	1.2800e-003		47.1056
<b>Total</b>	<b>0.0196</b>	<b>0.0123</b>	<b>0.1480</b>	<b>4.7000e-004</b>	<b>0.0493</b>	<b>3.3000e-004</b>	<b>0.0496</b>	<b>0.0131</b>	<b>3.1000e-004</b>	<b>0.0134</b>		<b>47.0736</b>	<b>47.0736</b>	<b>1.2800e-003</b>		<b>47.1056</b>

**3.7 Phase 2 Site Preparation - 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					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.1647	1.6756	2.2379	3.1100e-003		0.0901	0.0901		0.0829	0.0829		301.2390	301.2390	0.0974		303.6746
<b>Total</b>	<b>0.1647</b>	<b>1.6756</b>	<b>2.2379</b>	<b>3.1100e-003</b>	<b>0.0000</b>	<b>0.0901</b>	<b>0.0901</b>	<b>0.0000</b>	<b>0.0829</b>	<b>0.0829</b>		<b>301.2390</b>	<b>301.2390</b>	<b>0.0974</b>		<b>303.6746</b>

## Encompass Health Construction Unmitigated - San Diego County, Summer

**3.7 Phase 2 Site Preparation - 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	0.0131	8.2000e-003	0.0987	3.1000e-004	0.0329	2.2000e-004	0.0331	8.7200e-003	2.0000e-004	8.9200e-003		31.3824	31.3824	8.5000e-004		31.4037
<b>Total</b>	<b>0.0131</b>	<b>8.2000e-003</b>	<b>0.0987</b>	<b>3.1000e-004</b>	<b>0.0329</b>	<b>2.2000e-004</b>	<b>0.0331</b>	<b>8.7200e-003</b>	<b>2.0000e-004</b>	<b>8.9200e-003</b>		<b>31.3824</b>	<b>31.3824</b>	<b>8.5000e-004</b>		<b>31.4037</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.1647	1.6756	2.2379	3.1100e-003		0.0901	0.0901		0.0829	0.0829	0.0000	301.2390	301.2390	0.0974		303.6746
<b>Total</b>	<b>0.1647</b>	<b>1.6756</b>	<b>2.2379</b>	<b>3.1100e-003</b>	<b>0.0000</b>	<b>0.0901</b>	<b>0.0901</b>	<b>0.0000</b>	<b>0.0829</b>	<b>0.0829</b>	<b>0.0000</b>	<b>301.2390</b>	<b>301.2390</b>	<b>0.0974</b>		<b>303.6746</b>

## Encompass Health Construction Unmitigated - San Diego County, Summer

**3.7 Phase 2 Site Preparation - 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	0.0131	8.2000e-003	0.0987	3.1000e-004	0.0329	2.2000e-004	0.0331	8.7200e-003	2.0000e-004	8.9200e-003		31.3824	31.3824	8.5000e-004		31.4037
<b>Total</b>	<b>0.0131</b>	<b>8.2000e-003</b>	<b>0.0987</b>	<b>3.1000e-004</b>	<b>0.0329</b>	<b>2.2000e-004</b>	<b>0.0331</b>	<b>8.7200e-003</b>	<b>2.0000e-004</b>	<b>8.9200e-003</b>		<b>31.3824</b>	<b>31.3824</b>	<b>8.5000e-004</b>		<b>31.4037</b>

**3.8 Phase 2 Grading - 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					
Fugitive Dust					0.3138	0.0000	0.3138	0.1674	0.0000	0.1674			0.0000			0.0000
Off-Road	0.6048	5.3146	7.0216	0.0109		0.2854	0.2854		0.2745	0.2745		1,044.523 1	1,044.523 1	0.1785		1,048.984 8
<b>Total</b>	<b>0.6048</b>	<b>5.3146</b>	<b>7.0216</b>	<b>0.0109</b>	<b>0.3138</b>	<b>0.2854</b>	<b>0.5991</b>	<b>0.1674</b>	<b>0.2745</b>	<b>0.4420</b>		<b>1,044.523 1</b>	<b>1,044.523 1</b>	<b>0.1785</b>		<b>1,048.984 8</b>

## Encompass Health Construction Unmitigated - San Diego County, Summer

**3.8 Phase 2 Grading - 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	0.0697	2.3457	0.6232	7.5900e-003	0.1747	6.6200e-003	0.1814	0.0479	6.3400e-003	0.0542		834.6481	834.6481	0.0740		836.4973
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	0.0131	8.2000e-003	0.0987	3.1000e-004	0.0329	2.2000e-004	0.0331	8.7200e-003	2.0000e-004	8.9200e-003		31.3824	31.3824	8.5000e-004		31.4037
<b>Total</b>	<b>0.0828</b>	<b>2.3539</b>	<b>0.7219</b>	<b>7.9000e-003</b>	<b>0.2076</b>	<b>6.8400e-003</b>	<b>0.2144</b>	<b>0.0566</b>	<b>6.5400e-003</b>	<b>0.0632</b>		<b>866.0305</b>	<b>866.0305</b>	<b>0.0748</b>		<b>867.9010</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.1224	0.0000	0.1224	0.0653	0.0000	0.0653			0.0000			0.0000
Off-Road	0.6048	5.3146	7.0216	0.0109		0.2854	0.2854		0.2745	0.2745	0.0000	1,044.523 1	1,044.523 1	0.1785		1,048.984 8
<b>Total</b>	<b>0.6048</b>	<b>5.3146</b>	<b>7.0216</b>	<b>0.0109</b>	<b>0.1224</b>	<b>0.2854</b>	<b>0.4077</b>	<b>0.0653</b>	<b>0.2745</b>	<b>0.3398</b>	<b>0.0000</b>	<b>1,044.523 1</b>	<b>1,044.523 1</b>	<b>0.1785</b>		<b>1,048.984 8</b>

## Encompass Health Construction Unmitigated - San Diego County, Summer

**3.8 Phase 2 Grading - 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	0.0697	2.3457	0.6232	7.5900e-003	0.1747	6.6200e-003	0.1814	0.0479	6.3400e-003	0.0542		834.6481	834.6481	0.0740		836.4973
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	0.0131	8.2000e-003	0.0987	3.1000e-004	0.0329	2.2000e-004	0.0331	8.7200e-003	2.0000e-004	8.9200e-003		31.3824	31.3824	8.5000e-004		31.4037
<b>Total</b>	<b>0.0828</b>	<b>2.3539</b>	<b>0.7219</b>	<b>7.9000e-003</b>	<b>0.2076</b>	<b>6.8400e-003</b>	<b>0.2144</b>	<b>0.0566</b>	<b>6.5400e-003</b>	<b>0.0632</b>		<b>866.0305</b>	<b>866.0305</b>	<b>0.0748</b>		<b>867.9010</b>

**3.9 Phase 2 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	0.3351	3.2580	3.9686	5.4000e-003		0.1949	0.1949		0.1793	0.1793		523.2852	523.2852	0.1692		527.5162
<b>Total</b>	<b>0.3351</b>	<b>3.2580</b>	<b>3.9686</b>	<b>5.4000e-003</b>		<b>0.1949</b>	<b>0.1949</b>		<b>0.1793</b>	<b>0.1793</b>		<b>523.2852</b>	<b>523.2852</b>	<b>0.1692</b>		<b>527.5162</b>

## Encompass Health Construction Unmitigated - San Diego County, Summer

**3.9 Phase 2 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
Vendor	0.0113	0.3849	0.0983	1.0700e-003	0.0271	7.4000e-004	0.0278	7.8000e-003	7.0000e-004	8.5000e-003		115.4455	115.4455	8.0700e-003		115.6473
Worker	0.3597	0.2254	2.7130	8.6600e-003	0.9036	6.1100e-003	0.9097	0.2397	5.6200e-003	0.2453		863.0157	863.0157	0.0234		863.6017
<b>Total</b>	<b>0.3710</b>	<b>0.6103</b>	<b>2.8113</b>	<b>9.7300e-003</b>	<b>0.9307</b>	<b>6.8500e-003</b>	<b>0.9375</b>	<b>0.2475</b>	<b>6.3200e-003</b>	<b>0.2538</b>		<b>978.4612</b>	<b>978.4612</b>	<b>0.0315</b>		<b>979.2490</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.3351	3.2580	3.9686	5.4000e-003		0.1949	0.1949		0.1793	0.1793	0.0000	523.2852	523.2852	0.1692		527.5162
<b>Total</b>	<b>0.3351</b>	<b>3.2580</b>	<b>3.9686</b>	<b>5.4000e-003</b>		<b>0.1949</b>	<b>0.1949</b>		<b>0.1793</b>	<b>0.1793</b>	<b>0.0000</b>	<b>523.2852</b>	<b>523.2852</b>	<b>0.1692</b>		<b>527.5162</b>

## Encompass Health Construction Unmitigated - San Diego County, Summer

**3.9 Phase 2 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	0.0113	0.3849	0.0983	1.0700e-003	0.0271	7.4000e-004	0.0278	7.8000e-003	7.0000e-004	8.5000e-003		115.4455	115.4455	8.0700e-003		115.6473
Worker	0.3597	0.2254	2.7130	8.6600e-003	0.9036	6.1100e-003	0.9097	0.2397	5.6200e-003	0.2453		863.0157	863.0157	0.0234		863.6017
<b>Total</b>	<b>0.3710</b>	<b>0.6103</b>	<b>2.8113</b>	<b>9.7300e-003</b>	<b>0.9307</b>	<b>6.8500e-003</b>	<b>0.9375</b>	<b>0.2475</b>	<b>6.3200e-003</b>	<b>0.2538</b>		<b>978.4612</b>	<b>978.4612</b>	<b>0.0315</b>		<b>979.2490</b>

**3.10 Phase 2 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	0.5147	5.0890	6.3408	9.6700e-003		0.2639	0.2639		0.2436	0.2436		922.1629	922.1629	0.2899		929.4110
Paving	0.6812					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>1.1959</b>	<b>5.0890</b>	<b>6.3408</b>	<b>9.6700e-003</b>		<b>0.2639</b>	<b>0.2639</b>		<b>0.2436</b>	<b>0.2436</b>		<b>922.1629</b>	<b>922.1629</b>	<b>0.2899</b>		<b>929.4110</b>

## Encompass Health Construction Unmitigated - San Diego County, Summer

**3.10 Phase 2 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	0.0262	0.0164	0.1973	6.3000e-004	0.0657	4.4000e-004	0.0662	0.0174	4.1000e-004	0.0178		62.7648	62.7648	1.7000e-003		62.8074
<b>Total</b>	<b>0.0262</b>	<b>0.0164</b>	<b>0.1973</b>	<b>6.3000e-004</b>	<b>0.0657</b>	<b>4.4000e-004</b>	<b>0.0662</b>	<b>0.0174</b>	<b>4.1000e-004</b>	<b>0.0178</b>		<b>62.7648</b>	<b>62.7648</b>	<b>1.7000e-003</b>		<b>62.8074</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.5147	5.0890	6.3408	9.6700e-003		0.2639	0.2639		0.2436	0.2436	0.0000	922.1629	922.1629	0.2899		929.4110
Paving	0.6812					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>1.1959</b>	<b>5.0890</b>	<b>6.3408</b>	<b>9.6700e-003</b>		<b>0.2639</b>	<b>0.2639</b>		<b>0.2436</b>	<b>0.2436</b>	<b>0.0000</b>	<b>922.1629</b>	<b>922.1629</b>	<b>0.2899</b>		<b>929.4110</b>



## Encompass Health Construction Unmitigated - San Diego County, Summer

**3.10 Phase 2 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	0.0262	0.0164	0.1973	6.3000e-004	0.0657	4.4000e-004	0.0662	0.0174	4.1000e-004	0.0178		62.7648	62.7648	1.7000e-003		62.8074
<b>Total</b>	<b>0.0262</b>	<b>0.0164</b>	<b>0.1973</b>	<b>6.3000e-004</b>	<b>0.0657</b>	<b>4.4000e-004</b>	<b>0.0662</b>	<b>0.0174</b>	<b>4.1000e-004</b>	<b>0.0178</b>		<b>62.7648</b>	<b>62.7648</b>	<b>1.7000e-003</b>		<b>62.8074</b>

**3.11 Phase 2 Architectural Coating - 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					
Archit. Coating	32.1065					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2045	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817		281.4481	281.4481	0.0183		281.9062
<b>Total</b>	<b>32.3110</b>	<b>1.4085</b>	<b>1.8136</b>	<b>2.9700e-003</b>		<b>0.0817</b>	<b>0.0817</b>		<b>0.0817</b>	<b>0.0817</b>		<b>281.4481</b>	<b>281.4481</b>	<b>0.0183</b>		<b>281.9062</b>

## Encompass Health Construction Unmitigated - San Diego County, Summer

**3.11 Phase 2 Architectural Coating - 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	5.6200e-003	0.1925	0.0492	5.4000e-004	0.0135	3.7000e-004	0.0139	3.9000e-003	3.5000e-004	4.2500e-003		57.7228	57.7228	4.0400e-003		57.8237
Worker	6.5400e-003	4.1000e-003	0.0493	1.6000e-004	0.0164	1.1000e-004	0.0165	4.3600e-003	1.0000e-004	4.4600e-003		15.6912	15.6912	4.3000e-004		15.7019
<b>Total</b>	<b>0.0122</b>	<b>0.1966</b>	<b>0.0985</b>	<b>7.0000e-004</b>	<b>0.0300</b>	<b>4.8000e-004</b>	<b>0.0305</b>	<b>8.2600e-003</b>	<b>4.5000e-004</b>	<b>8.7100e-003</b>		<b>73.4140</b>	<b>73.4140</b>	<b>4.4700e-003</b>		<b>73.5255</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	32.1065					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2045	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817	0.0000	281.4481	281.4481	0.0183		281.9062
<b>Total</b>	<b>32.3110</b>	<b>1.4085</b>	<b>1.8136</b>	<b>2.9700e-003</b>		<b>0.0817</b>	<b>0.0817</b>		<b>0.0817</b>	<b>0.0817</b>	<b>0.0000</b>	<b>281.4481</b>	<b>281.4481</b>	<b>0.0183</b>		<b>281.9062</b>

## Encompass Health Construction Unmitigated - San Diego County, Summer

**3.11 Phase 2 Architectural Coating - 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	5.6200e-003	0.1925	0.0492	5.4000e-004	0.0135	3.7000e-004	0.0139	3.9000e-003	3.5000e-004	4.2500e-003		57.7228	57.7228	4.0400e-003		57.8237
Worker	6.5400e-003	4.1000e-003	0.0493	1.6000e-004	0.0164	1.1000e-004	0.0165	4.3600e-003	1.0000e-004	4.4600e-003		15.6912	15.6912	4.3000e-004		15.7019
<b>Total</b>	<b>0.0122</b>	<b>0.1966</b>	<b>0.0985</b>	<b>7.0000e-004</b>	<b>0.0300</b>	<b>4.8000e-004</b>	<b>0.0305</b>	<b>8.2600e-003</b>	<b>4.5000e-004</b>	<b>8.7100e-003</b>		<b>73.4140</b>	<b>73.4140</b>	<b>4.4700e-003</b>		<b>73.5255</b>

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

Encompass Health Construction Unmitigated - San Diego County, 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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

## 4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Hospital	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

### 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
Hospital	9.50	7.30	7.30	64.90	16.10	19.00	73	25	2
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

#### 4.4 Fleet Mix

[illegible]

## Encompass Health Construction Unmitigated - San Diego County, Summer

**5.0 Energy Detail**

Historical Energy Use: N

**5.1 Mitigation Measures Energy**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

## Encompass Health Construction Unmitigated - San Diego County, Summer

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

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

**6.0 Area Detail****6.1 Mitigation Measures Area**

## Encompass Health Construction Unmitigated - San Diego County, 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	1.2479	2.1000e-004	0.0229	0.0000		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005		0.0490	0.0490	1.3000e-004		0.0522
Unmitigated	1.2479	2.1000e-004	0.0229	0.0000		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005		0.0490	0.0490	1.3000e-004		0.0522

## 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	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.2458					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.1200e-003	2.1000e-004	0.0229	0.0000		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005		0.0490	0.0490	1.3000e-004		0.0522
<b>Total</b>	<b>1.2479</b>	<b>2.1000e-004</b>	<b>0.0229</b>	<b>0.0000</b>		<b>8.0000e-005</b>	<b>8.0000e-005</b>		<b>8.0000e-005</b>	<b>8.0000e-005</b>		<b>0.0490</b>	<b>0.0490</b>	<b>1.3000e-004</b>		<b>0.0522</b>

## Encompass Health Construction Unmitigated - San Diego County, 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	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.2458					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.1200e-003	2.1000e-004	0.0229	0.0000		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005		0.0490	0.0490	1.3000e-004		0.0522
<b>Total</b>	<b>1.2479</b>	<b>2.1000e-004</b>	<b>0.0229</b>	<b>0.0000</b>		<b>8.0000e-005</b>	<b>8.0000e-005</b>		<b>8.0000e-005</b>	<b>8.0000e-005</b>		<b>0.0490</b>	<b>0.0490</b>	<b>1.3000e-004</b>		<b>0.0522</b>

**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
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**10.0 Stationary Equipment****Fire Pumps and Emergency Generators**



## Encompass Health Construction Unmitigated - San Diego County, Summer

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

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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**User Defined Equipment**

Equipment Type	Number
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**11.0 Vegetation**

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## Encompass Health Construction Unmitigated - San Diego County, Winter

## Encompass Health Construction Unmitigated

### San Diego County, Winter

## 1.0 Project Characteristics

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### 1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Hospital	80.00	Bed	1.31	57,260.61	0
Parking Lot	144.00	Space	1.30	57,600.00	0

### 1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.6	Precipitation Freq (Days)	40
Climate Zone	13			Operational Year	2023
Utility Company	San Diego Gas & Electric				
CO2 Intensity (lb/MWhr)	720.49	CH4 Intensity (lb/MWhr)	0.029	N2O Intensity (lb/MWhr)	0.006

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

## Encompass Health Construction Unmitigated - San Diego County, Winter

Project Characteristics - Construction only.

Land Use -

Construction Phase - Data provided by applicant.

Off-road Equipment -

Off-road Equipment - Data from applicant.

Off-road Equipment - Data provided by applicant.

Off-road Equipment - Data from applicant.

Off-road Equipment - Data provided by applicant.

Trips and VMT - Data provided by applicant.

Grading - Data provided by applicant.

Architectural Coating - SDAPCD Rule 67.0.1, Ph 1 50 beds, Ph 2 30 beds

Vehicle Trips - Construction only.

Area Coating - Construction only.

Landscape Equipment - Construction only

Energy Use - Construction only

Water And Wastewater - Construction only

Solid Waste - Construction only

Construction Off-road Equipment Mitigation - Fugitive dust control measures

Off-road Equipment - Data provided by applicant

Off-road Equipment - Data provided by applicant.

Off-road Equipment - Data provided by applicant

Off-road Equipment - Data provided by applicant.

Off-road Equipment - Data provided by applicant.

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	28,630.00	17,893.75
tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	28,630.00	10,736.25

## Encompass Health Construction Unmitigated - San Diego County, Winter

tblArchitecturalCoating	ConstArea_Nonresidential_Interior	85,891.00	53,681.87
tblArchitecturalCoating	ConstArea_Nonresidential_Interior	85,891.00	32,209.12
tblArchitecturalCoating	ConstArea_Parking	3,456.00	0.00
tblArchitecturalCoating	ConstArea_Parking	3,456.00	7,794.00
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	100.00
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	100.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	50.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	50.00
tblArchitecturalCoating	EF_Parking	250.00	100.00
tblArchitecturalCoating	EF_Parking	250.00	100.00
tblAreaCoating	Area_Nonresidential_Exterior	28630	0
tblAreaCoating	Area_Nonresidential_Interior	85891	0
tblAreaCoating	Area_Parking	3456	0
tblConstDustMitigation	WaterExposedAreaPM10PercentReduction	55	61
tblConstDustMitigation	WaterExposedAreaPM25PercentReduction	55	61
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	10.00	5.00
tblConstructionPhase	NumDays	10.00	18.00
tblConstructionPhase	NumDays	220.00	230.00
tblConstructionPhase	NumDays	220.00	100.00
tblConstructionPhase	NumDays	6.00	15.00
tblConstructionPhase	NumDays	6.00	5.00
tblConstructionPhase	NumDays	10.00	18.00
tblConstructionPhase	NumDays	10.00	5.00
tblConstructionPhase	NumDays	3.00	5.00
tblConstructionPhase	NumDays	3.00	1.00
tblEnergyUse	LightingElect	4.52	0.00

## Encompass Health Construction Unmitigated - San Diego County, Winter

tblEnergyUse	NT24E	5.87	0.00
tblEnergyUse	NT24NG	6.92	0.00
tblEnergyUse	T24E	6.37	0.00
tblEnergyUse	T24NG	51.05	0.00
tblFleetMix	HHD	0.02	0.00
tblFleetMix	LDA	0.60	0.00
tblFleetMix	LDT1	0.04	0.00
tblFleetMix	LDT2	0.18	0.00
tblFleetMix	LHD1	0.01	0.00
tblFleetMix	LHD2	5.4350e-003	0.00
tblFleetMix	MCY	5.9380e-003	0.00
tblFleetMix	MDV	0.10	0.00
tblFleetMix	MH	1.0560e-003	0.00
tblFleetMix	MHD	0.02	0.00
tblFleetMix	OBUS	1.9340e-003	0.00
tblFleetMix	SBUS	7.5700e-004	0.00
tblFleetMix	UBUS	1.8880e-003	0.00
tblGrading	AcresOfGrading	5.50	9.56
tblGrading	MaterialExported	0.00	28,400.00
tblGrading	MaterialImported	0.00	450.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	3.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00

## Encompass Health Construction Unmitigated - San Diego County, Winter

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	3.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	PhaseName		Phase 2 Grading
tblOffRoadEquipment	PhaseName		Phase 1 Grading
tblOffRoadEquipment	PhaseName		Phase 2 Grading
tblOffRoadEquipment	PhaseName		Phase 1 Site Preparation
tblOffRoadEquipment	PhaseName		Phase 2 Site Preparation
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	7.00
tblOffRoadEquipment	UsageHours	8.00	4.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	6.00
tblOffRoadEquipment	UsageHours	8.00	7.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	7.00

## Encompass Health Construction Unmitigated - San Diego County, Winter

tblOffRoadEquipment	UsageHours	8.00	1.00
tblOffRoadEquipment	UsageHours	6.00	7.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	6.00
tblOffRoadEquipment	UsageHours	8.00	7.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblSolidWaste	SolidWasteGenerationRate	233.60	0.00
tblTripsAndVMT	HaulingTripNumber	3,952.00	3,156.00
tblTripsAndVMT	HaulingTripNumber	1,306.00	50.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	VendorTripNumber	19.00	16.00
tblTripsAndVMT	VendorTripNumber	19.00	4.00
tblTripsAndVMT	WorkerTripNumber	18.00	6.00
tblTripsAndVMT	WorkerTripNumber	9.00	2.00
tblTripsAndVMT	WorkerTripNumber	15.00	6.00
tblTripsAndVMT	WorkerTripNumber	43.00	52.00
tblTripsAndVMT	WorkerTripNumber	20.00	8.00
tblTripsAndVMT	WorkerTripNumber	9.00	6.00
tblTripsAndVMT	WorkerTripNumber	3.00	4.00
tblTripsAndVMT	WorkerTripNumber	10.00	4.00
tblTripsAndVMT	WorkerTripNumber	43.00	110.00
tblTripsAndVMT	WorkerTripNumber	18.00	8.00
tblVehicleTrips	ST_TR	8.14	0.00
tblVehicleTrips	SU_TR	7.19	0.00
tblVehicleTrips	WD_TR	12.94	0.00

## Encompass Health Construction Unmitigated - San Diego County, Winter

tblWater	IndoorWaterUseRate	7,185,091.63	0.00
tblWater	OutdoorWaterUseRate	1,368,588.88	0.00

## 2.0 Emissions Summary

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## 2.1 Overall Construction (Maximum Daily Emission)

Year	lb/day														lb/day			
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBIO- CO2	Total CO2	CH4	N2O	CO2e		
2020	4,3776	82.8210	36.3833	0.2029	18.1156	1.4374	18.6484	9.9438	1.3524	10.4340	0.0000	21,678.38	21,678.38	2.4767	0.0000	21,740.30		
2021	11.9805	19.1882	18.3340	0.0351	0.5355	0.9651	1.5006	0.1445	0.9074	1.0519	0.0000	3,405.039	3,405.039	0.6628	0.0000	3,421.609		
2022	33.5500	7.6871	8.4404	0.0187	0.9307	0.3465	1.1325	0.2475	0.3262	0.5053	0.0000	1,894.066	1,894.066	0.3145	0.0000	1,909.456		
Maximum	33.5500	82.8210	36.3833	0.2029	18.1156	1.4374	18.6484	9.9438	1.3524	10.4340	0.0000	21,678.38	21,678.38	2.4767	0.0000	21,740.30		

## Mitigated Construction

Year	lb/day										lb/day					
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
2020	4,3776	82.8210	36.3833	0.2029	7.0951	1.4374	7.7883	3.8860	1.3524	4.3762	0.0000	21,678.38	21,678.38	2.4767	0.0000	21,740.30
2021	11.9805	19.1882	18.3340	0.0351	0.5355	0.9651	1.5006	0.1445	0.9074	1.0519	0.0000	3,405.039	3,405.039	0.6628	0.0000	3,421.609
2022	33.5500	7.6871	8.4404	0.0187	0.9307	0.3465	1.1325	0.2475	0.3262	0.4332	0.0000	1,894.066	1,894.066	0.3145	0.0000	1,900.456
Maximum	33.5500	82.8210	36.3833	0.2029	7.0951	1.4374	7.7883	3.8860	1.3524	4.3762	0.0000	21,678.38	21,678.38	2.4767	0.0000	21,740.30

## Encompass Health Construction Unmitigated - San Diego County, 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
Percent Reduction	0.00	0.00	0.00	0.00	56.28	0.00	51.03	58.61	0.00	51.12	0.00	0.00	0.00	0.00	0.00	0.00

## Encompass Health Construction Unmitigated - San Diego County, 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	1.2479	2.1000e-004	0.0229	0.0000		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005		0.0490	0.0490	1.3000e-004		0.0522
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
<b>Total</b>	<b>1.2479</b>	<b>2.1000e-004</b>	<b>0.0229</b>	<b>0.0000</b>	<b>0.0000</b>	<b>8.0000e-005</b>	<b>8.0000e-005</b>	<b>0.0000</b>	<b>8.0000e-005</b>	<b>8.0000e-005</b>		<b>0.0490</b>	<b>0.0490</b>	<b>1.3000e-004</b>	<b>0.0000</b>	<b>0.0522</b>

**Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	1.2479	2.1000e-004	0.0229	0.0000		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005		0.0490	0.0490	1.3000e-004		0.0522
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
<b>Total</b>	<b>1.2479</b>	<b>2.1000e-004</b>	<b>0.0229</b>	<b>0.0000</b>	<b>0.0000</b>	<b>8.0000e-005</b>	<b>8.0000e-005</b>	<b>0.0000</b>	<b>8.0000e-005</b>	<b>8.0000e-005</b>		<b>0.0490</b>	<b>0.0490</b>	<b>1.3000e-004</b>	<b>0.0000</b>	<b>0.0522</b>

## Encompass Health Construction Unmitigated - San Diego County, 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
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

**3.0 Construction Detail****Construction Phase**

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Phase 1 Site Preparation	Site Preparation	12/1/2020	12/7/2020	5	5	
2	Phase 1 Grading	Grading	12/8/2020	12/28/2020	5	15	
3	Phase 1 Building Construction	Building Construction	12/28/2020	11/12/2021	5	230	
4	Phase 1 Paving	Paving	11/13/2021	12/8/2021	5	18	
5	Phase 1 Architectural Coatings	Architectural Coating	12/9/2021	1/3/2022	5	18	
6	Phase 2 Site Preparation	Site Preparation	1/4/2022	1/4/2022	5	1	
7	Phase 2 Grading	Grading	1/5/2022	1/11/2022	5	5	
8	Phase 2 Building Construction	Building Construction	1/12/2022	5/31/2022	5	100	
9	Phase 2 Paving	Paving	6/1/2022	6/7/2022	5	5	
10	Phase 2 Architectural Coating	Architectural Coating	6/2/2022	6/8/2022	5	5	

**Acres of Grading (Site Preparation Phase): 0****Acres of Grading (Grading Phase): 0****Acres of Paving: 1.3****Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 53,682; Non-Residential Outdoor: 17,894; Striped Parking Area: 0 (Architectural Coating – sqft)****OffRoad Equipment**

## Encompass Health Construction Unmitigated - San Diego County, Winter

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Phase 1 Site Preparation	Rubber Tired Dozers	0	8.00	247	0.40
Phase 1 Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Phase 1 Grading	Excavators	1	8.00	158	0.38
Phase 1 Grading	Graders	0	8.00	187	0.41
Phase 1 Grading	Rubber Tired Dozers	0	8.00	247	0.40
Phase 1 Grading	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Phase 1 Building Construction	Cranes	1	7.00	231	0.29
Phase 1 Building Construction	Forklifts	3	8.00	89	0.20
Phase 1 Building Construction	Generator Sets	1	8.00	84	0.74
Phase 1 Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Phase 1 Building Construction	Welders	1	8.00	46	0.45
Phase 1 Paving	Cement and Mortar Mixers	1	6.00	9	0.56
Phase 1 Paving	Pavers	1	8.00	130	0.42
Phase 1 Paving	Paving Equipment	2	6.00	132	0.36
Phase 1 Paving	Rollers	2	6.00	80	0.38
Phase 1 Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Phase 1 Architectural Coatings	Air Compressors	2	6.00	78	0.48
Phase 2 Site Preparation	Rubber Tired Dozers	0	8.00	247	0.40
Phase 2 Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Phase 2 Grading	Concrete/Industrial Saws	1	8.00	81	0.73
Phase 2 Grading	Excavators	0	8.00	158	0.38
Phase 2 Grading	Graders	0	8.00	187	0.41
Phase 2 Grading	Rubber Tired Dozers	0	1.00	247	0.40
Phase 2 Grading	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Phase 2 Building Construction	Cranes	0	4.00	231	0.29
Phase 2 Building Construction	Forklifts	2	6.00	89	0.20

## Encompass Health Construction Unmitigated - San Diego County, Winter

Phase 2 Building Construction	Generator Sets	0	8.00	84	0.74
Phase 2 Building Construction	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Phase 2 Building Construction	Welders	0	8.00	46	0.45
Phase 2 Paving	Cement and Mortar Mixers	1	6.00	9	0.56
Phase 2 Paving	Pavers	1	7.00	130	0.42
Phase 2 Paving	Paving Equipment	0	6.00	132	0.36
Phase 2 Paving	Rollers	1	7.00	80	0.38
Phase 2 Paving	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Phase 2 Architectural Coating	Air Compressors	1	6.00	78	0.48

**Trips and VMT**

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Phase 1 Site Preparation	7	6.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Phase 1 Grading	6	6.00	0.00	3,156.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Phase 1 Building Construction	9	52.00	16.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Phase 1 Paving	8	8.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Phase 1 Architectural Coatings	1	6.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Phase 2 Site Preparation	1	4.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Phase 2 Grading	4	4.00	0.00	50.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Phase 2 Building Construction	5	110.00	4.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Phase 2 Paving	7	8.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Phase 2 Architectural Coating	1	2.00	2.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

**3.1 Mitigation Measures Construction**

## Encompass Health Construction Unmitigated - San Diego County, Winter

Use Soil Stabilizer

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

**3.2 Phase 1 Site Preparation - 2020****Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	0.8380	8.4206	9.1188	0.0124		0.5325	0.5325		0.4899	0.4899		1,203.074 0	1,203.074 0	0.3891		1,212.801 5
<b>Total</b>	<b>0.8380</b>	<b>8.4206</b>	<b>9.1188</b>	<b>0.0124</b>	<b>18.0663</b>	<b>0.5325</b>	<b>18.5987</b>	<b>9.9307</b>	<b>0.4899</b>	<b>10.4206</b>		<b>1,203.074 0</b>	<b>1,203.074 0</b>	<b>0.3891</b>		<b>1,212.801 5</b>

## Encompass Health Construction Unmitigated - San Diego County, Winter

**3.2 Phase 1 Site Preparation - 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	0.0249	0.0167	0.1604	4.8000e-004	0.0493	3.5000e-004	0.0496	0.0131	3.2000e-004	0.0134		47.4679	47.4679	1.4300e-003		47.5037
<b>Total</b>	<b>0.0249</b>	<b>0.0167</b>	<b>0.1604</b>	<b>4.8000e-004</b>	<b>0.0493</b>	<b>3.5000e-004</b>	<b>0.0496</b>	<b>0.0131</b>	<b>3.2000e-004</b>	<b>0.0134</b>		<b>47.4679</b>	<b>47.4679</b>	<b>1.4300e-003</b>		<b>47.5037</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					7.0458	0.0000	7.0458	3.8730	0.0000	3.8730			0.0000			0.0000
Off-Road	0.8380	8.4206	9.1188	0.0124		0.5325	0.5325		0.4899	0.4899	0.0000	1,203.0740	1,203.0740	0.3891		1,212.8015
<b>Total</b>	<b>0.8380</b>	<b>8.4206</b>	<b>9.1188</b>	<b>0.0124</b>	<b>7.0458</b>	<b>0.5325</b>	<b>7.5783</b>	<b>3.8730</b>	<b>0.4899</b>	<b>4.3629</b>	<b>0.0000</b>	<b>1,203.0740</b>	<b>1,203.0740</b>	<b>0.3891</b>		<b>1,212.8015</b>



## Encompass Health Construction Unmitigated - San Diego County, Winter

**3.2 Phase 1 Site Preparation - 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
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	0.0249	0.0167	0.1604	4.8000e-004	0.0493	3.5000e-004	0.0496	0.0131	3.2000e-004	0.0134		47.4679	47.4679	1.4300e-003		47.5037
<b>Total</b>	<b>0.0249</b>	<b>0.0167</b>	<b>0.1604</b>	<b>4.8000e-004</b>	<b>0.0493</b>	<b>3.5000e-004</b>	<b>0.0496</b>	<b>0.0131</b>	<b>3.2000e-004</b>	<b>0.0134</b>		<b>47.4679</b>	<b>47.4679</b>	<b>1.4300e-003</b>		<b>47.5037</b>

**3.3 Phase 1 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					5.3581	0.0000	5.3581	2.5408	0.0000	2.5408			0.0000			0.0000
Off-Road	0.2450	2.4126	3.2678	5.1700e-003		0.1169	0.1169		0.1075	0.1075		500.1184	500.1184	0.1618		504.1621
<b>Total</b>	<b>0.2450</b>	<b>2.4126</b>	<b>3.2678</b>	<b>5.1700e-003</b>	<b>5.3581</b>	<b>0.1169</b>	<b>5.4750</b>	<b>2.5408</b>	<b>0.1075</b>	<b>2.6483</b>		<b>500.1184</b>	<b>500.1184</b>	<b>0.1618</b>		<b>504.1621</b>

## Encompass Health Construction Unmitigated - San Diego County, Winter

**3.3 Phase 1 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	1.7091	59.2587	14.2069	0.1619	3.6765	0.1912	3.8676	1.0076	0.1829	1.1905		17,708.0094	17,708.0094	1.6414		17,749.0445
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	0.0249	0.0167	0.1604	4.8000e-004	0.0493	3.5000e-004	0.0496	0.0131	3.2000e-004	0.0134		47.4679	47.4679	1.4300e-003		47.5037
<b>Total</b>	<b>1.7341</b>	<b>59.2753</b>	<b>14.3672</b>	<b>0.1624</b>	<b>3.7258</b>	<b>0.1915</b>	<b>3.9173</b>	<b>1.0206</b>	<b>0.1832</b>	<b>1.2038</b>		<b>17,755.4773</b>	<b>17,755.4773</b>	<b>1.6428</b>		<b>17,796.5481</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.0897	0.0000	2.0897	0.9909	0.0000	0.9909			0.0000			0.0000
Off-Road	0.2450	2.4126	3.2678	5.1700e-003		0.1169	0.1169		0.1075	0.1075	0.0000	500.1184	500.1184	0.1618		504.1621
<b>Total</b>	<b>0.2450</b>	<b>2.4126</b>	<b>3.2678</b>	<b>5.1700e-003</b>	<b>2.0897</b>	<b>0.1169</b>	<b>2.2065</b>	<b>0.9909</b>	<b>0.1075</b>	<b>1.0984</b>	<b>0.0000</b>	<b>500.1184</b>	<b>500.1184</b>	<b>0.1618</b>		<b>504.1621</b>

## Encompass Health Construction Unmitigated - San Diego County, Winter

**3.3 Phase 1 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	1.7091	59.2587	14.2069	0.1619	3.6765	0.1912	3.8676	1.0076	0.1829	1.1905		17,708.0094	17,708.0094	1.6414		17,749.0445
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	0.0249	0.0167	0.1604	4.8000e-004	0.0493	3.5000e-004	0.0496	0.0131	3.2000e-004	0.0134		47.4679	47.4679	1.4300e-003		47.5037
<b>Total</b>	<b>1.7341</b>	<b>59.2753</b>	<b>14.3672</b>	<b>0.1624</b>	<b>3.7258</b>	<b>0.1915</b>	<b>3.9173</b>	<b>1.0206</b>	<b>0.1832</b>	<b>1.2038</b>		<b>17,755.4773</b>	<b>17,755.4773</b>	<b>1.6428</b>		<b>17,796.5481</b>

**3.4 Phase 1 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		2,553.0631	2,553.0631	0.6229		2,568.6345
<b>Total</b>	<b>2.1198</b>	<b>19.1860</b>	<b>16.8485</b>	<b>0.0269</b>		<b>1.1171</b>	<b>1.1171</b>		<b>1.0503</b>	<b>1.0503</b>		<b>2,553.0631</b>	<b>2,553.0631</b>	<b>0.6229</b>		<b>2,568.6345</b>

## Encompass Health Construction Unmitigated - San Diego County, Winter

**3.4 Phase 1 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
Vendor	0.0626	1.8027	0.5101	4.2700e-003	0.1083	8.9900e-003	0.1173	0.0312	8.6000e-003	0.0398		458.3396	458.3396	0.0369		459.2616
Worker	0.2161	0.1444	1.3897	4.1300e-003	0.4272	3.0000e-003	0.4302	0.1133	2.7600e-003	0.1161		411.3886	411.3886	0.0124		411.6983
<b>Total</b>	<b>0.2787</b>	<b>1.9470</b>	<b>1.8998</b>	<b>8.4000e-003</b>	<b>0.5355</b>	<b>0.0120</b>	<b>0.5475</b>	<b>0.1445</b>	<b>0.0114</b>	<b>0.1559</b>		<b>869.7282</b>	<b>869.7282</b>	<b>0.0493</b>		<b>870.9598</b>

**Mitigated Construction On-Site**

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

## Encompass Health Construction Unmitigated - San Diego County, Winter

**3.4 Phase 1 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
Vendor	0.0626	1.8027	0.5101	4.2700e-003	0.1083	8.9900e-003	0.1173	0.0312	8.6000e-003	0.0398		458.3396	458.3396	0.0369		459.2616
Worker	0.2161	0.1444	1.3897	4.1300e-003	0.4272	3.0000e-003	0.4302	0.1133	2.7600e-003	0.1161		411.3886	411.3886	0.0124		411.6983
<b>Total</b>	<b>0.2787</b>	<b>1.9470</b>	<b>1.8998</b>	<b>8.4000e-003</b>	<b>0.5355</b>	<b>0.0120</b>	<b>0.5475</b>	<b>0.1445</b>	<b>0.0114</b>	<b>0.1559</b>		<b>869.7282</b>	<b>869.7282</b>	<b>0.0493</b>		<b>870.9598</b>

**3.4 Phase 1 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		2,553.3639	2,553.3639	0.6160		2,568.7643
<b>Total</b>	<b>1.9009</b>	<b>17.4321</b>	<b>16.5752</b>	<b>0.0269</b>		<b>0.9586</b>	<b>0.9586</b>		<b>0.9013</b>	<b>0.9013</b>		<b>2,553.3639</b>	<b>2,553.3639</b>	<b>0.6160</b>		<b>2,568.7643</b>

## Encompass Health Construction Unmitigated - San Diego County, Winter

**3.4 Phase 1 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
Vendor	0.0510	1.6249	0.4623	4.2200e-003	0.1083	3.5600e-003	0.1119	0.0312	3.4000e-003	0.0346		454.1109	454.1109	0.0354		454.9953
Worker	0.2040	0.1312	1.2965	3.9900e-003	0.4272	2.9500e-003	0.4301	0.1133	2.7200e-003	0.1160		397.5647	397.5647	0.0114		397.8503
<b>Total</b>	<b>0.2550</b>	<b>1.7561</b>	<b>1.7588</b>	<b>8.2100e-003</b>	<b>0.5355</b>	<b>6.5100e-003</b>	<b>0.5420</b>	<b>0.1445</b>	<b>6.1200e-003</b>	<b>0.1506</b>		<b>851.6756</b>	<b>851.6756</b>	<b>0.0468</b>		<b>852.8456</b>

**Mitigated Construction On-Site**

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

## Encompass Health Construction Unmitigated - San Diego County, Winter

**3.4 Phase 1 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
Vendor	0.0510	1.6249	0.4623	4.2200e-003	0.1083	3.5600e-003	0.1119	0.0312	3.4000e-003	0.0346		454.1109	454.1109	0.0354		454.9953
Worker	0.2040	0.1312	1.2965	3.9900e-003	0.4272	2.9500e-003	0.4301	0.1133	2.7200e-003	0.1160		397.5647	397.5647	0.0114		397.8503
<b>Total</b>	<b>0.2550</b>	<b>1.7561</b>	<b>1.7588</b>	<b>8.2100e-003</b>	<b>0.5355</b>	<b>6.5100e-003</b>	<b>0.5420</b>	<b>0.1445</b>	<b>6.1200e-003</b>	<b>0.1506</b>		<b>851.6756</b>	<b>851.6756</b>	<b>0.0468</b>		<b>852.8456</b>

**3.5 Phase 1 Paving - 2021****Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0499	10.5638	12.0290	0.0184		0.5681	0.5681		0.5235	0.5235		1,766.6650	1,766.6650	0.5631		1,780.7414
Paving	0.1892					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>1.2391</b>	<b>10.5638</b>	<b>12.0290</b>	<b>0.0184</b>		<b>0.5681</b>	<b>0.5681</b>		<b>0.5235</b>	<b>0.5235</b>		<b>1,766.6650</b>	<b>1,766.6650</b>	<b>0.5631</b>		<b>1,780.7414</b>

## Encompass Health Construction Unmitigated - San Diego County, Winter

**3.5 Phase 1 Paving - 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
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	0.0314	0.0202	0.1995	6.1000e-004	0.0657	4.5000e-004	0.0662	0.0174	4.2000e-004	0.0179		61.1638	61.1638	1.7600e-003		61.2077
<b>Total</b>	<b>0.0314</b>	<b>0.0202</b>	<b>0.1995</b>	<b>6.1000e-004</b>	<b>0.0657</b>	<b>4.5000e-004</b>	<b>0.0662</b>	<b>0.0174</b>	<b>4.2000e-004</b>	<b>0.0179</b>		<b>61.1638</b>	<b>61.1638</b>	<b>1.7600e-003</b>		<b>61.2077</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0499	10.5638	12.0290	0.0184		0.5681	0.5681		0.5235	0.5235	0.0000	1,766.6650	1,766.6650	0.5631		1,780.7414
Paving	0.1892					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>1.2391</b>	<b>10.5638</b>	<b>12.0290</b>	<b>0.0184</b>		<b>0.5681</b>	<b>0.5681</b>		<b>0.5235</b>	<b>0.5235</b>	<b>0.0000</b>	<b>1,766.6650</b>	<b>1,766.6650</b>	<b>0.5631</b>		<b>1,780.7414</b>



## Encompass Health Construction Unmitigated - San Diego County, Winter

**3.5 Phase 1 Paving - 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
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	0.0314	0.0202	0.1995	6.1000e-004	0.0657	4.5000e-004	0.0662	0.0174	4.2000e-004	0.0179		61.1638	61.1638	1.7600e-003		61.2077
<b>Total</b>	<b>0.0314</b>	<b>0.0202</b>	<b>0.1995</b>	<b>6.1000e-004</b>	<b>0.0657</b>	<b>4.5000e-004</b>	<b>0.0662</b>	<b>0.0174</b>	<b>4.2000e-004</b>	<b>0.0179</b>		<b>61.1638</b>	<b>61.1638</b>	<b>1.7600e-003</b>		<b>61.2077</b>

**3.6 Phase 1 Architectural Coatings - 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					
Archit. Coating	11.5192					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.4378	3.0537	3.6351	5.9400e-003		0.1882	0.1882		0.1882	0.1882		562.8961	562.8961	0.0386		563.8618
<b>Total</b>	<b>11.9570</b>	<b>3.0537</b>	<b>3.6351</b>	<b>5.9400e-003</b>		<b>0.1882</b>	<b>0.1882</b>		<b>0.1882</b>	<b>0.1882</b>		<b>562.8961</b>	<b>562.8961</b>	<b>0.0386</b>		<b>563.8618</b>

## Encompass Health Construction Unmitigated - San Diego County, Winter

**3.6 Phase 1 Architectural Coatings - 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
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	0.0235	0.0151	0.1496	4.6000e-004	0.0493	3.4000e-004	0.0496	0.0131	3.1000e-004	0.0134		45.8729	45.8729	1.3200e-003		45.9058
<b>Total</b>	<b>0.0235</b>	<b>0.0151</b>	<b>0.1496</b>	<b>4.6000e-004</b>	<b>0.0493</b>	<b>3.4000e-004</b>	<b>0.0496</b>	<b>0.0131</b>	<b>3.1000e-004</b>	<b>0.0134</b>		<b>45.8729</b>	<b>45.8729</b>	<b>1.3200e-003</b>		<b>45.9058</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	11.5192					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.4378	3.0537	3.6351	5.9400e-003		0.1882	0.1882		0.1882	0.1882	0.0000	562.8961	562.8961	0.0386		563.8618
<b>Total</b>	<b>11.9570</b>	<b>3.0537</b>	<b>3.6351</b>	<b>5.9400e-003</b>		<b>0.1882</b>	<b>0.1882</b>		<b>0.1882</b>	<b>0.1882</b>	<b>0.0000</b>	<b>562.8961</b>	<b>562.8961</b>	<b>0.0386</b>		<b>563.8618</b>

## Encompass Health Construction Unmitigated - San Diego County, Winter

**3.6 Phase 1 Architectural Coatings - 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
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	0.0235	0.0151	0.1496	4.6000e-004	0.0493	3.4000e-004	0.0496	0.0131	3.1000e-004	0.0134		45.8729	45.8729	1.3200e-003		45.9058
<b>Total</b>	<b>0.0235</b>	<b>0.0151</b>	<b>0.1496</b>	<b>4.6000e-004</b>	<b>0.0493</b>	<b>3.4000e-004</b>	<b>0.0496</b>	<b>0.0131</b>	<b>3.1000e-004</b>	<b>0.0134</b>		<b>45.8729</b>	<b>45.8729</b>	<b>1.3200e-003</b>		<b>45.9058</b>

**3.6 Phase 1 Architectural Coatings - 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					
Archit. Coating	11.5192					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.4091	2.8170	3.6272	5.9400e-003		0.1634	0.1634		0.1634	0.1634		562.8961	562.8961	0.0367		563.8123
<b>Total</b>	<b>11.9283</b>	<b>2.8170</b>	<b>3.6272</b>	<b>5.9400e-003</b>		<b>0.1634</b>	<b>0.1634</b>		<b>0.1634</b>	<b>0.1634</b>		<b>562.8961</b>	<b>562.8961</b>	<b>0.0367</b>		<b>563.8123</b>

## Encompass Health Construction Unmitigated - San Diego County, Winter

**3.6 Phase 1 Architectural Coatings - 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	0.0223	0.0138	0.1388	4.4000e-004	0.0493	3.3000e-004	0.0496	0.0131	3.1000e-004	0.0134		44.1915	44.1915	1.2100e-003		44.2217
<b>Total</b>	<b>0.0223</b>	<b>0.0138</b>	<b>0.1388</b>	<b>4.4000e-004</b>	<b>0.0493</b>	<b>3.3000e-004</b>	<b>0.0496</b>	<b>0.0131</b>	<b>3.1000e-004</b>	<b>0.0134</b>		<b>44.1915</b>	<b>44.1915</b>	<b>1.2100e-003</b>		<b>44.2217</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	11.5192					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.4091	2.8170	3.6272	5.9400e-003		0.1634	0.1634		0.1634	0.1634	0.0000	562.8961	562.8961	0.0367		563.8123
<b>Total</b>	<b>11.9283</b>	<b>2.8170</b>	<b>3.6272</b>	<b>5.9400e-003</b>		<b>0.1634</b>	<b>0.1634</b>		<b>0.1634</b>	<b>0.1634</b>	<b>0.0000</b>	<b>562.8961</b>	<b>562.8961</b>	<b>0.0367</b>		<b>563.8123</b>

## Encompass Health Construction Unmitigated - San Diego County, Winter

**3.6 Phase 1 Architectural Coatings - 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	0.0223	0.0138	0.1388	4.4000e-004	0.0493	3.3000e-004	0.0496	0.0131	3.1000e-004	0.0134		44.1915	44.1915	1.2100e-003		44.2217
<b>Total</b>	<b>0.0223</b>	<b>0.0138</b>	<b>0.1388</b>	<b>4.4000e-004</b>	<b>0.0493</b>	<b>3.3000e-004</b>	<b>0.0496</b>	<b>0.0131</b>	<b>3.1000e-004</b>	<b>0.0134</b>		<b>44.1915</b>	<b>44.1915</b>	<b>1.2100e-003</b>		<b>44.2217</b>

**3.7 Phase 2 Site Preparation - 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					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.1647	1.6756	2.2379	3.1100e-003		0.0901	0.0901		0.0829	0.0829		301.2390	301.2390	0.0974		303.6746
<b>Total</b>	<b>0.1647</b>	<b>1.6756</b>	<b>2.2379</b>	<b>3.1100e-003</b>	<b>0.0000</b>	<b>0.0901</b>	<b>0.0901</b>	<b>0.0000</b>	<b>0.0829</b>	<b>0.0829</b>		<b>301.2390</b>	<b>301.2390</b>	<b>0.0974</b>		<b>303.6746</b>

## Encompass Health Construction Unmitigated - San Diego County, Winter

**3.7 Phase 2 Site Preparation - 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	0.0149	9.2000e-003	0.0925	3.0000e-004	0.0329	2.2000e-004	0.0331	8.7200e-003	2.0000e-004	8.9200e-003		29.4610	29.4610	8.0000e-004		29.4811
<b>Total</b>	<b>0.0149</b>	<b>9.2000e-003</b>	<b>0.0925</b>	<b>3.0000e-004</b>	<b>0.0329</b>	<b>2.2000e-004</b>	<b>0.0331</b>	<b>8.7200e-003</b>	<b>2.0000e-004</b>	<b>8.9200e-003</b>		<b>29.4610</b>	<b>29.4610</b>	<b>8.0000e-004</b>		<b>29.4811</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.1647	1.6756	2.2379	3.1100e-003		0.0901	0.0901		0.0829	0.0829	0.0000	301.2390	301.2390	0.0974		303.6746
<b>Total</b>	<b>0.1647</b>	<b>1.6756</b>	<b>2.2379</b>	<b>3.1100e-003</b>	<b>0.0000</b>	<b>0.0901</b>	<b>0.0901</b>	<b>0.0000</b>	<b>0.0829</b>	<b>0.0829</b>	<b>0.0000</b>	<b>301.2390</b>	<b>301.2390</b>	<b>0.0974</b>		<b>303.6746</b>

## Encompass Health Construction Unmitigated - San Diego County, Winter

**3.7 Phase 2 Site Preparation - 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	0.0149	9.2000e-003	0.0925	3.0000e-004	0.0329	2.2000e-004	0.0331	8.7200e-003	2.0000e-004	8.9200e-003		29.4610	29.4610	8.0000e-004		29.4811
<b>Total</b>	<b>0.0149</b>	<b>9.2000e-003</b>	<b>0.0925</b>	<b>3.0000e-004</b>	<b>0.0329</b>	<b>2.2000e-004</b>	<b>0.0331</b>	<b>8.7200e-003</b>	<b>2.0000e-004</b>	<b>8.9200e-003</b>		<b>29.4610</b>	<b>29.4610</b>	<b>8.0000e-004</b>		<b>29.4811</b>

**3.8 Phase 2 Grading - 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					
Fugitive Dust					0.3138	0.0000	0.3138	0.1674	0.0000	0.1674			0.0000			0.0000
Off-Road	0.6048	5.3146	7.0216	0.0109		0.2854	0.2854		0.2745	0.2745		1,044.523 1	1,044.523 1	0.1785		1,048.984 8
<b>Total</b>	<b>0.6048</b>	<b>5.3146</b>	<b>7.0216</b>	<b>0.0109</b>	<b>0.3138</b>	<b>0.2854</b>	<b>0.5991</b>	<b>0.1674</b>	<b>0.2745</b>	<b>0.4420</b>		<b>1,044.523 1</b>	<b>1,044.523 1</b>	<b>0.1785</b>		<b>1,048.984 8</b>

## Encompass Health Construction Unmitigated - San Diego County, Winter

**3.8 Phase 2 Grading - 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	0.0717	2.3633	0.6608	7.4600e-003	0.1747	6.7700e-003	0.1815	0.0479	6.4800e-003	0.0544		820.0828	820.0828	0.0763		821.9901
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	0.0149	9.2000e-003	0.0925	3.0000e-004	0.0329	2.2000e-004	0.0331	8.7200e-003	2.0000e-004	8.9200e-003		29.4610	29.4610	8.0000e-004		29.4811
<b>Total</b>	<b>0.0865</b>	<b>2.3725</b>	<b>0.7533</b>	<b>7.7600e-003</b>	<b>0.2076</b>	<b>6.9900e-003</b>	<b>0.2146</b>	<b>0.0566</b>	<b>6.6800e-003</b>	<b>0.0633</b>		<b>849.5438</b>	<b>849.5438</b>	<b>0.0771</b>		<b>851.4712</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.1224	0.0000	0.1224	0.0653	0.0000	0.0653			0.0000			0.0000
Off-Road	0.6048	5.3146	7.0216	0.0109		0.2854	0.2854		0.2745	0.2745	0.0000	1,044.523 1	1,044.523 1	0.1785		1,048.984 8
<b>Total</b>	<b>0.6048</b>	<b>5.3146</b>	<b>7.0216</b>	<b>0.0109</b>	<b>0.1224</b>	<b>0.2854</b>	<b>0.4077</b>	<b>0.0653</b>	<b>0.2745</b>	<b>0.3398</b>	<b>0.0000</b>	<b>1,044.523 1</b>	<b>1,044.523 1</b>	<b>0.1785</b>		<b>1,048.984 8</b>



## Encompass Health Construction Unmitigated - San Diego County, Winter

**3.8 Phase 2 Grading - 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	0.0717	2.3633	0.6608	7.4600e-003	0.1747	6.7700e-003	0.1815	0.0479	6.4800e-003	0.0544		820.0828	820.0828	0.0763		821.9901
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	0.0149	9.2000e-003	0.0925	3.0000e-004	0.0329	2.2000e-004	0.0331	8.7200e-003	2.0000e-004	8.9200e-003		29.4610	29.4610	8.0000e-004		29.4811
<b>Total</b>	<b>0.0865</b>	<b>2.3725</b>	<b>0.7533</b>	<b>7.7600e-003</b>	<b>0.2076</b>	<b>6.9900e-003</b>	<b>0.2146</b>	<b>0.0566</b>	<b>6.6800e-003</b>	<b>0.0633</b>		<b>849.5438</b>	<b>849.5438</b>	<b>0.0771</b>		<b>851.4712</b>

**3.9 Phase 2 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	0.3351	3.2580	3.9686	5.4000e-003		0.1949	0.1949		0.1793	0.1793		523.2852	523.2852	0.1692		527.5162
<b>Total</b>	<b>0.3351</b>	<b>3.2580</b>	<b>3.9686</b>	<b>5.4000e-003</b>		<b>0.1949</b>	<b>0.1949</b>		<b>0.1793</b>	<b>0.1793</b>		<b>523.2852</b>	<b>523.2852</b>	<b>0.1692</b>		<b>527.5162</b>

## Encompass Health Construction Unmitigated - San Diego County, Winter

**3.9 Phase 2 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
Vendor	0.0119	0.3836	0.1094	1.0400e-003	0.0271	7.7000e-004	0.0279	7.8000e-003	7.3000e-004	8.5300e-003		112.4411	112.4411	8.5600e-003		112.6551
Worker	0.4089	0.2530	2.5449	8.1300e-003	0.9036	6.1100e-003	0.9097	0.2397	5.6200e-003	0.2453		810.1781	810.1781	0.0221		810.7312
<b>Total</b>	<b>0.4207</b>	<b>0.6366</b>	<b>2.6543</b>	<b>9.1700e-003</b>	<b>0.9307</b>	<b>6.8800e-003</b>	<b>0.9376</b>	<b>0.2475</b>	<b>6.3500e-003</b>	<b>0.2538</b>		<b>922.6192</b>	<b>922.6192</b>	<b>0.0307</b>		<b>923.3863</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.3351	3.2580	3.9686	5.4000e-003		0.1949	0.1949		0.1793	0.1793	0.0000	523.2852	523.2852	0.1692		527.5162
<b>Total</b>	<b>0.3351</b>	<b>3.2580</b>	<b>3.9686</b>	<b>5.4000e-003</b>		<b>0.1949</b>	<b>0.1949</b>		<b>0.1793</b>	<b>0.1793</b>	<b>0.0000</b>	<b>523.2852</b>	<b>523.2852</b>	<b>0.1692</b>		<b>527.5162</b>

## Encompass Health Construction Unmitigated - San Diego County, Winter

**3.9 Phase 2 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	0.0119	0.3836	0.1094	1.0400e-003	0.0271	7.7000e-004	0.0279	7.8000e-003	7.3000e-004	8.5300e-003		112.4411	112.4411	8.5600e-003		112.6551
Worker	0.4089	0.2530	2.5449	8.1300e-003	0.9036	6.1100e-003	0.9097	0.2397	5.6200e-003	0.2453		810.1781	810.1781	0.0221		810.7312
<b>Total</b>	<b>0.4207</b>	<b>0.6366</b>	<b>2.6543</b>	<b>9.1700e-003</b>	<b>0.9307</b>	<b>6.8800e-003</b>	<b>0.9376</b>	<b>0.2475</b>	<b>6.3500e-003</b>	<b>0.2538</b>		<b>922.6192</b>	<b>922.6192</b>	<b>0.0307</b>		<b>923.3863</b>

**3.10 Phase 2 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	0.5147	5.0890	6.3408	9.6700e-003		0.2639	0.2639		0.2436	0.2436		922.1629	922.1629	0.2899		929.4110
Paving	0.6812					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>1.1959</b>	<b>5.0890</b>	<b>6.3408</b>	<b>9.6700e-003</b>		<b>0.2639</b>	<b>0.2639</b>		<b>0.2436</b>	<b>0.2436</b>		<b>922.1629</b>	<b>922.1629</b>	<b>0.2899</b>		<b>929.4110</b>

## Encompass Health Construction Unmitigated - San Diego County, Winter

**3.10 Phase 2 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	0.0297	0.0184	0.1851	5.9000e-004	0.0657	4.4000e-004	0.0662	0.0174	4.1000e-004	0.0178		58.9221	58.9221	1.6100e-003		58.9623
<b>Total</b>	<b>0.0297</b>	<b>0.0184</b>	<b>0.1851</b>	<b>5.9000e-004</b>	<b>0.0657</b>	<b>4.4000e-004</b>	<b>0.0662</b>	<b>0.0174</b>	<b>4.1000e-004</b>	<b>0.0178</b>		<b>58.9221</b>	<b>58.9221</b>	<b>1.6100e-003</b>		<b>58.9623</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.5147	5.0890	6.3408	9.6700e-003		0.2639	0.2639		0.2436	0.2436	0.0000	922.1629	922.1629	0.2899		929.4110
Paving	0.6812					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>1.1959</b>	<b>5.0890</b>	<b>6.3408</b>	<b>9.6700e-003</b>		<b>0.2639</b>	<b>0.2639</b>		<b>0.2436</b>	<b>0.2436</b>	<b>0.0000</b>	<b>922.1629</b>	<b>922.1629</b>	<b>0.2899</b>		<b>929.4110</b>

## Encompass Health Construction Unmitigated - San Diego County, Winter

**3.10 Phase 2 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	0.0297	0.0184	0.1851	5.9000e-004	0.0657	4.4000e-004	0.0662	0.0174	4.1000e-004	0.0178		58.9221	58.9221	1.6100e-003		58.9623
<b>Total</b>	<b>0.0297</b>	<b>0.0184</b>	<b>0.1851</b>	<b>5.9000e-004</b>	<b>0.0657</b>	<b>4.4000e-004</b>	<b>0.0662</b>	<b>0.0174</b>	<b>4.1000e-004</b>	<b>0.0178</b>		<b>58.9221</b>	<b>58.9221</b>	<b>1.6100e-003</b>		<b>58.9623</b>

**3.11 Phase 2 Architectural Coating - 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					
Archit. Coating	32.1065					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2045	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817		281.4481	281.4481	0.0183		281.9062
<b>Total</b>	<b>32.3110</b>	<b>1.4085</b>	<b>1.8136</b>	<b>2.9700e-003</b>		<b>0.0817</b>	<b>0.0817</b>		<b>0.0817</b>	<b>0.0817</b>		<b>281.4481</b>	<b>281.4481</b>	<b>0.0183</b>		<b>281.9062</b>

## Encompass Health Construction Unmitigated - San Diego County, Winter

**3.11 Phase 2 Architectural Coating - 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	5.9300e-003	0.1918	0.0547	5.2000e-004	0.0135	3.8000e-004	0.0139	3.9000e-003	3.7000e-004	4.2600e-003		56.2205	56.2205	4.2800e-003		56.3276
Worker	7.4300e-003	4.6000e-003	0.0463	1.5000e-004	0.0164	1.1000e-004	0.0165	4.3600e-003	1.0000e-004	4.4600e-003		14.7305	14.7305	4.0000e-004		14.7406
<b>Total</b>	<b>0.0134</b>	<b>0.1964</b>	<b>0.1010</b>	<b>6.7000e-004</b>	<b>0.0300</b>	<b>4.9000e-004</b>	<b>0.0305</b>	<b>8.2600e-003</b>	<b>4.7000e-004</b>	<b>8.7200e-003</b>		<b>70.9510</b>	<b>70.9510</b>	<b>4.6800e-003</b>		<b>71.0681</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	32.1065					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2045	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817	0.0000	281.4481	281.4481	0.0183		281.9062
<b>Total</b>	<b>32.3110</b>	<b>1.4085</b>	<b>1.8136</b>	<b>2.9700e-003</b>		<b>0.0817</b>	<b>0.0817</b>		<b>0.0817</b>	<b>0.0817</b>	<b>0.0000</b>	<b>281.4481</b>	<b>281.4481</b>	<b>0.0183</b>		<b>281.9062</b>

## Encompass Health Construction Unmitigated - San Diego County, Winter

**3.11 Phase 2 Architectural Coating - 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	5.9300e-003	0.1918	0.0547	5.2000e-004	0.0135	3.8000e-004	0.0139	3.9000e-003	3.7000e-004	4.2600e-003		56.2205	56.2205	4.2800e-003		56.3276
Worker	7.4300e-003	4.6000e-003	0.0463	1.5000e-004	0.0164	1.1000e-004	0.0165	4.3600e-003	1.0000e-004	4.4600e-003		14.7305	14.7305	4.0000e-004		14.7406
<b>Total</b>	<b>0.0134</b>	<b>0.1964</b>	<b>0.1010</b>	<b>6.7000e-004</b>	<b>0.0300</b>	<b>4.9000e-004</b>	<b>0.0305</b>	<b>8.2600e-003</b>	<b>4.7000e-004</b>	<b>8.7200e-003</b>		<b>70.9510</b>	<b>70.9510</b>	<b>4.6800e-003</b>		<b>71.0681</b>

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

## Encompass Health Construction Unmitigated - San Diego County, 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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

## 4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Hospital	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

### 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
Hospital	9.50	7.30	7.30	64.90	16.10	19.00	73	25	2
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

#### 4.4 Fleet Mix

[illegible]



## Encompass Health Construction Unmitigated - San Diego County, Winter

**5.0 Energy Detail**

Historical Energy Use: N

**5.1 Mitigation Measures Energy**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

## Encompass Health Construction Unmitigated - San Diego County, Winter

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

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

**6.0 Area Detail****6.1 Mitigation Measures Area**

## Encompass Health Construction Unmitigated - San Diego County, 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	1.2479	2.1000e-004	0.0229	0.0000		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005		0.0490	0.0490	1.3000e-004		0.0522
Unmitigated	1.2479	2.1000e-004	0.0229	0.0000		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005		0.0490	0.0490	1.3000e-004		0.0522

## 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	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.2458					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.1200e-003	2.1000e-004	0.0229	0.0000		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005		0.0490	0.0490	1.3000e-004		0.0522
<b>Total</b>	<b>1.2479</b>	<b>2.1000e-004</b>	<b>0.0229</b>	<b>0.0000</b>		<b>8.0000e-005</b>	<b>8.0000e-005</b>		<b>8.0000e-005</b>	<b>8.0000e-005</b>		<b>0.0490</b>	<b>0.0490</b>	<b>1.3000e-004</b>		<b>0.0522</b>

## Encompass Health Construction Unmitigated - San Diego County, 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	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.2458					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.1200e-003	2.1000e-004	0.0229	0.0000		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005		0.0490	0.0490	1.3000e-004		0.0522
<b>Total</b>	<b>1.2479</b>	<b>2.1000e-004</b>	<b>0.0229</b>	<b>0.0000</b>		<b>8.0000e-005</b>	<b>8.0000e-005</b>		<b>8.0000e-005</b>	<b>8.0000e-005</b>		<b>0.0490</b>	<b>0.0490</b>	<b>1.3000e-004</b>		<b>0.0522</b>

**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
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**10.0 Stationary Equipment****Fire Pumps and Emergency Generators**

## Encompass Health Construction Unmitigated - San Diego County, Winter

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

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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**User Defined Equipment**

Equipment Type	Number
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**11.0 Vegetation**

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## Encompass Health Operational Unmit - San Diego County, Annual

## Encompass Health Operational Unmit San Diego County, Annual

### 1.0 Project Characteristics

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#### 1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Hospital	80.00	Bed	1.69	73,808.00	0

#### 1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.6	Precipitation Freq (Days)	40
Climate Zone	13			Operational Year	2023
Utility Company	San Diego Gas & Electric				
CO2 Intensity (lb/MW hr)	456.31	CH4 Intensity (lb/MW hr)	0.018	N2O Intensity (lb/MW hr)	0.004

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

## Encompass Health Operational Unmit - San Diego County, Annual

Project Characteristics - Adjusted RPS 2023

Land Use - Data provided by applicant.

Construction Phase - No construction, operations only.

Grading -

Trips and VMT - No construction, operations only.

Architectural Coating -

Vehicle Trips - Project-specific traffic report.

Energy Use -

Land Use Change - Assume 7 x Eucalyptus sideroxylon from Ron Stark, Ridge Landscape Architects, on 2/3/2020 <https://selectree.calpoly.edu/tree-detail/eucalyptus-sideroxylon>

Energy Mitigation - It was assumed that the Project would be built under the 2019 Title 24 standards and would use about 30% less energy than those built under the 2016 Title 24 standards [http://www.energy.ca.gov/title24/2019standards/documents/2018\\_Title\\_24\\_2019\\_Building\\_Standards\\_FAQ.pdf](http://www.energy.ca.gov/title24/2019standards/documents/2018_Title_24_2019_Building_Standards_FAQ.pdf)

Waste Mitigation - A solid waste diversion rate of 75% was assumed in accordance with AB 341 and 939.

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	20.00	2.00
tblConstructionPhase	PhaseEndDate	3/6/2020	2/11/2020
tblLandUse	LandUseSquareFeet	57,260.61	73,808.00
tblLandUse	LotAcreage	1.31	1.69
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.018
tblProjectCharacteristics	CO2IntensityFactor	720.49	456.31
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.004
tblTripsAndVMT	WorkerTripNumber	13.00	0.00
tblVehicleTrips	ST_TR	8.14	3.77
tblVehicleTrips	SU_TR	7.19	3.33
tblVehicleTrips	WD_TR	12.94	6.00

## 2.0 Emissions Summary

	ROG	NOx	CO	SO <sub>2</sub>	Fugitive PM <sub>10</sub>	Exhaust PM <sub>10</sub>	Total PM <sub>10</sub>	Fugitive PM <sub>2.5</sub>	Exhaust PM <sub>2.5</sub>	PM <sub>2.5</sub> Total	Bio- CO <sub>2</sub>	NBio- CO <sub>2</sub>	Total CO <sub>2</sub>	CH <sub>4</sub>	N <sub>2</sub> O	CO <sub>2e</sub>	
Year	tons/yr																
2020	2.1300e-003	0.0210	0.0147	2.0000e-005	0.0000	1.1500e-003	1.1500e-003	1.1500e-003	0.0000	1.0800e-003	1.0800e-003	0.0000	2.1068	2.1068	5.4000e-004	0.0000	2.1203
Maximum	2.1300e-003	0.0210	0.0147	2.0000e-005	0.0000	1.1500e-003	1.1500e-003	1.1500e-003	0.0000	1.0800e-003	1.0800e-003	0.0000	2.1068	2.1068	5.4000e-004	0.0000	2.1203

[illegible]



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Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	2-10-2020	5-9-2020	0.0165	0.0165
		Highest	0.0165	0.0165

## 2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.3739	1.0000e-005	7.4000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.4300e-003	1.4300e-003	0.0000	0.0000	1.5200e-003
Energy	0.0231	0.2097	0.1762	1.2600e-003		0.0159	0.0159		0.0159	0.0159	0.0000	484.3623	484.3623	0.0145	6.4300e-003	486.6405
Mobile	0.1061	0.4196	1.2400	4.4100e-003	0.4024	3.4300e-003	0.4058	0.1078	3.2000e-003	0.1109	0.0000	407.4883	407.4883	0.0208	0.0000	408.0072
Waste						0.0000	0.0000		0.0000	0.0000	47.4187	0.0000	47.4187	2.8024	0.0000	117.4778
Water						0.0000	0.0000		0.0000	0.0000	2.2795	22.5114	24.7909	0.2350	5.7300e-003	32.3725
<b>Total</b>	<b>0.5031</b>	<b>0.6293</b>	<b>1.4170</b>	<b>5.6700e-003</b>	<b>0.4024</b>	<b>0.0194</b>	<b>0.4218</b>	<b>0.1078</b>	<b>0.0191</b>	<b>0.1269</b>	<b>49.6982</b>	<b>914.3635</b>	<b>964.0617</b>	<b>3.0726</b>	<b>0.0122</b>	<b>1,044.4995</b>

## Encompass Health Operational Unmit - San Diego County, Annual

**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	0.3739	1.0000e-005	7.4000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.4300e-003	1.4300e-003	0.0000	0.0000	1.5200e-003
Energy	0.0170	0.1543	0.1296	9.3000e-004		0.0117	0.0117		0.0117	0.0117	0.0000	394.8477	394.8477	0.0122	5.0700e-003	396.6624
Mobile	0.1061	0.4196	1.2400	4.4100e-003	0.4024	3.4300e-003	0.4058	0.1078	3.2000e-003	0.1109	0.0000	407.4883	407.4883	0.0208	0.0000	408.0072
Waste						0.0000	0.0000		0.0000	0.0000	23.7093	0.0000	23.7093	1.4012	0.0000	58.7389
Water						0.0000	0.0000		0.0000	0.0000	2.2795	22.5114	24.7909	0.2350	5.7300e-003	32.3725
<b>Total</b>	<b>0.4970</b>	<b>0.5739</b>	<b>1.3704</b>	<b>5.3400e-003</b>	<b>0.4024</b>	<b>0.0152</b>	<b>0.4176</b>	<b>0.1078</b>	<b>0.0149</b>	<b>0.1227</b>	<b>25.9888</b>	<b>824.8489</b>	<b>850.8378</b>	<b>1.6691</b>	<b>0.0108</b>	<b>895.7826</b>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
<b>Percent Reduction</b>	<b>1.21</b>	<b>8.80</b>	<b>3.28</b>	<b>5.82</b>	<b>0.00</b>	<b>21.73</b>	<b>1.00</b>	<b>0.00</b>	<b>22.00</b>	<b>3.32</b>	<b>47.71</b>	<b>9.79</b>	<b>11.74</b>	<b>45.68</b>	<b>11.18</b>	<b>14.24</b>

## Encompass Health Operational Unmit - San Diego County, Annual

**2.3 Vegetation****Vegetation**

	CO2e
Category	MT
Vegetation Land Change	-12.2100
<b>Total</b>	<b>-12.2100</b>

**3.0 Construction Detail****Construction Phase**

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	2/10/2020	2/11/2020	5	2	

**Acres of Grading (Site Preparation Phase): 0****Acres of Grading (Grading Phase): 0****Acres of Paving: 0****Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (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	Rubber Tired Dozers	1	8.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	3	8.00	97	0.37

**Trips and VMT**

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	5	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

**3.1 Mitigation Measures Construction****3.2 Demolition - 2020****Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	2.1300e-003	0.0210	0.0147	2.0000e-005		1.1500e-003	1.1500e-003		1.0800e-003	1.0800e-003	0.0000	2.1068	2.1068	5.4000e-004	0.0000	2.1203
<b>Total</b>	<b>2.1300e-003</b>	<b>0.0210</b>	<b>0.0147</b>	<b>2.0000e-005</b>		<b>1.1500e-003</b>	<b>1.1500e-003</b>		<b>1.0800e-003</b>	<b>1.0800e-003</b>	<b>0.0000</b>	<b>2.1068</b>	<b>2.1068</b>	<b>5.4000e-004</b>	<b>0.0000</b>	<b>2.1203</b>

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**3.2 Demolition - 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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	2.1300e-003	0.0210	0.0147	2.0000e-005		1.1500e-003	1.1500e-003		1.0800e-003	1.0800e-003	0.0000	2.1068	2.1068	5.4000e-004	0.0000	2.1203
<b>Total</b>	<b>2.1300e-003</b>	<b>0.0210</b>	<b>0.0147</b>	<b>2.0000e-005</b>		<b>1.1500e-003</b>	<b>1.1500e-003</b>		<b>1.0800e-003</b>	<b>1.0800e-003</b>	<b>0.0000</b>	<b>2.1068</b>	<b>2.1068</b>	<b>5.4000e-004</b>	<b>0.0000</b>	<b>2.1203</b>

## Encompass Health Operational Unmit - San Diego County, Annual

**3.2 Demolition - 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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

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

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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	0.1061	0.4196	1.2400	4.4100e-003	0.4024	3.4300e-003	0.4058	0.1078	3.2000e-003	0.1109	0.0000	407.4883	407.4883	0.0208	0.0000	408.0072
Unmitigated	0.1061	0.4196	1.2400	4.4100e-003	0.4024	3.4300e-003	0.4058	0.1078	3.2000e-003	0.1109	0.0000	407.4883	407.4883	0.0208	0.0000	408.0072

## 4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Hospital	480.00	301.60	266.40	1,067,817	1,067,817
Total	480.00	301.60	266.40	1,067,817	1,067,817

## 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
Hospital	9.50	7.30	7.30	64.90	16.10	19.00	73	25	2

## 4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Hospital	0.602700	0.040134	0.179939	0.104242	0.014985	0.005435	0.016642	0.024350	0.001934	0.001888	0.005938	0.000757	0.001056

## 5.0 Energy Detail

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Historical Energy Use: N

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## 5.1 Mitigation Measures Energy

Exceed Title 24

	ROG	NOx	CO	SO2	Fugitive 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	226.8435	226.8435	8.9500e-003	1.9900e-003	227.6598
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	256.0373	256.0373	0.0101	2.2400e-003	256.9586
NaturalGas Mitigated	0.0170	0.1543	0.1296	9.3000e-004		0.0117	0.0117		0.0117	0.0117	0.0000	168.0042	168.0042	3.2200e-003	3.0800e-003	169.0026
NaturalGas Unmitigated	0.0231	0.2097	0.1762	1.2600e-003		0.0159	0.0159		0.0159	0.0159	0.0000	228.3251	228.3251	4.3800e-003	4.1900e-003	229.6819



Natural Gas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	tons/yr					MT/yr				
											Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e				
4,278,656 +006	0.0231	0.2097	0.1762	1.2600e-003	0.0159	0.0159	0.0159	0.0159	0.0159	0.0159	0.0000	228.3251	228.3251	228.3251	4.3800e-003	4.1900e-003	229.6819			
Total	0.0231	0.2097	0.1762	1.2600e-003	0.0159	0.0159	0.0159	0.0159	0.0159	0.0159	0.0000	228.3251	228.3251	228.3251	4.3800e-003	4.1900e-003	229.6819			

Natural Gas Use	Land Use	tons/yr												MT/yr			
		CO <sub>2</sub>	NO <sub>x</sub>	CO	SO <sub>2</sub>	Fugitive PM <sub>10</sub>	Exhaust PM <sub>10</sub>	Fugitive PM <sub>2.5</sub>	Exhaust PM <sub>2.5</sub>	PM <sub>2.5</sub> Total	Bio- CO <sub>2</sub>	NBio- CO <sub>2</sub>	Total CO <sub>2</sub>	CH <sub>4</sub>	N <sub>2</sub> O	CO <sub>2</sub> e	
Hospital	3,148,286 +006	0.0170	0.1543	0.1296	9.3000e-004	0.0117	0.0117	0.0117	0.0117	0.0117	0.0000	168.0042	168.0042	3.2200e-003	3.0800e-003	169.0026	
Total		0.0170	0.1543	0.1296	9.3000e-004	0.0117	0.0117	0.0117	0.0117	0.0117	0.0000	168.0042	168.0042	3.2200e-003	3.0800e-003	169.0026	

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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			
Hospital	1.23702e+006	256.0373	0.0101	2.2400e-003	256.9586
<b>Total</b>		<b>256.0373</b>	<b>0.0101</b>	<b>2.2400e-003</b>	<b>256.9586</b>

**Mitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Hospital	1.09597e+006	226.8435	8.9500e-003	1.9900e-003	227.6598
<b>Total</b>		<b>226.8435</b>	<b>8.9500e-003</b>	<b>1.9900e-003</b>	<b>227.6598</b>

**6.0 Area Detail****6.1 Mitigation Measures Area**

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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	0.3739	1.0000e-005	7.4000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.4300e-003	1.4300e-003	0.0000	0.0000	1.5200e-003
Unmitigated	0.3739	1.0000e-005	7.4000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.4300e-003	1.4300e-003	0.0000	0.0000	1.5200e-003

## 6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0855					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.2883					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	7.0000e-005	1.0000e-005	7.4000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.4300e-003	1.4300e-003	0.0000	0.0000	1.5200e-003
<b>Total</b>	<b>0.3739</b>	<b>1.0000e-005</b>	<b>7.4000e-004</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>1.4300e-003</b>	<b>1.4300e-003</b>	<b>0.0000</b>	<b>0.0000</b>	<b>1.5200e-003</b>

## Encompass Health Operational Unmit - San Diego County, Annual

**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	0.0855					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.2883					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	7.0000e-005	1.0000e-005	7.4000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.4300e-003	1.4300e-003	0.0000	0.0000	1.5200e-003
<b>Total</b>	<b>0.3739</b>	<b>1.0000e-005</b>	<b>7.4000e-004</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>1.4300e-003</b>	<b>1.4300e-003</b>	<b>0.0000</b>	<b>0.0000</b>	<b>1.5200e-003</b>

**7.0 Water Detail****7.1 Mitigation Measures Water**

## Encompass Health Operational Unmit - San Diego County, Annual

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	24.7909	0.2350	5.7300e-003	32.3725
Unmitigated	24.7909	0.2350	5.7300e-003	32.3725

## 7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Hospital	7.18509 / 1.36859	24.7909	0.2350	5.7300e-003	32.3725
<b>Total</b>		<b>24.7909</b>	<b>0.2350</b>	<b>5.7300e-003</b>	<b>32.3725</b>

## Encompass Health Operational Unmit - San Diego County, Annual

**7.2 Water by Land Use****Mitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Hospital	7.18509 / 1.36859	24.7909	0.2350	5.7300e-003	32.3725
<b>Total</b>		<b>24.7909</b>	<b>0.2350</b>	<b>5.7300e-003</b>	<b>32.3725</b>

**8.0 Waste Detail**

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**8.1 Mitigation Measures Waste**

Institute Recycling and Composting Services

## Encompass Health Operational Unmit - San Diego County, Annual

**Category/Year**

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	23.7093	1.4012	0.0000	58.7389
Unmitigated	47.4187	2.8024	0.0000	117.4778

**8.2 Waste by Land Use****Unmitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Hospital	233.6	47.4187	2.8024	0.0000	117.4778
<b>Total</b>		<b>47.4187</b>	<b>2.8024</b>	<b>0.0000</b>	<b>117.4778</b>

## Encompass Health Operational Unmit - San Diego County, Annual

**8.2 Waste by Land Use****Mitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Hospital	116.8	23.7093	1.4012	0.0000	58.7389
<b>Total</b>		<b>23.7093</b>	<b>1.4012</b>	<b>0.0000</b>	<b>58.7389</b>

**9.0 Operational Offroad**

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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**10.0 Stationary Equipment****Fire Pumps and Emergency Generators**

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

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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**User Defined Equipment**

Equipment Type	Number
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**11.0 Vegetation**



## Encompass Health Operational Unmit - San Diego County, Annual

	Total CO2	CH4	N2O	CO2e
Category	MT			
Unmitigated	-12.2100	0.0000	0.0000	-12.2100

**11.1 Vegetation Land Change****Vegetation Type**

	Initial/Final	Total CO2	CH4	N2O	CO2e
	Acres	MT			
Trees	0.11 / 0	-12.2100	0.0000	0.0000	-12.2100
<b>Total</b>		<b>-12.2100</b>	<b>0.0000</b>	<b>0.0000</b>	<b>-12.2100</b>

## Encompass Health Operational Unmit - San Diego County, Summer

**Encompass Health Operational Unmit**  
**San Diego County, Summer****1.0 Project Characteristics**

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**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Hospital	80.00	Bed	1.69	73,808.00	0

**1.2 Other Project Characteristics**

Urbanization	Urban	Wind Speed (m/s)	2.6	Precipitation Freq (Days)	40
Climate Zone	13			Operational Year	2023
Utility Company	San Diego Gas & Electric				
CO2 Intensity (lb/MW hr)	456.31	CH4 Intensity (lb/MW hr)	0.018	N2O Intensity (lb/MW hr)	0.004

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

## Encompass Health Operational Unmit - San Diego County, Summer

Project Characteristics - Adjusted RPS 2023

Land Use - Data provided by applicant.

Construction Phase - No construction, operations only.

Grading -

Trips and VMT - No construction, operations only.

Architectural Coating -

Vehicle Trips - Project-specific traffic report.

Energy Use -

Land Use Change - Assume 7 x Eucalyptus sideroxylon from Ron Stark, Ridge Landscape Architects, on 2/3/2020 <https://selectree.calpoly.edu/tree-detail/eucalyptus-sideroxylon>

Energy Mitigation - It was assumed that the Project would be built under the 2019 Title 24 standards and would use about 30% less energy than those built under the 2016 Title 24 standards [http://www.energy.ca.gov/title24/2019standards/documents/2018\\_Title\\_24\\_2019\\_Building\\_Standards\\_FAQ.pdf](http://www.energy.ca.gov/title24/2019standards/documents/2018_Title_24_2019_Building_Standards_FAQ.pdf)

Waste Mitigation - A solid waste diversion rate of 75% was assumed in accordance with AB 341 and 939.

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	20.00	2.00
tblConstructionPhase	PhaseEndDate	3/6/2020	2/11/2020
tblLandUse	LandUseSquareFeet	57,260.61	73,808.00
tblLandUse	LotAcreage	1.31	1.69
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.018
tblProjectCharacteristics	CO2IntensityFactor	720.49	456.31
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.004
tblTripsAndVMT	WorkerTripNumber	13.00	0.00
tblVehicleTrips	ST_TR	8.14	3.77
tblVehicleTrips	SU_TR	7.19	3.33
tblVehicleTrips	WD_TR	12.94	6.00

## 2.0 Emissions Summary

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Year	lb/day											lb/day				
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
2020	2.1262	20.9463	14.6573	0.0241	0.0000	1.1525	1.1525	1.0761	1.0761	0.0000	2.322.312	2.322.312	2.322.312	0.5970	0.0000	2.337.236
Maximum	2.1262	20.9463	14.6573	0.0241	0.0000	1.1525	1.1525	1.0761	1.0761	0.0000	2.322.312	2.322.312	2.322.312	0.5970	0.0000	2.337.236

## Mitigated Construction

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

## Encompass Health Operational Unmit - San Diego County, 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	2.0489	7.0000e-005	8.1700e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005		0.0175	0.0175	5.0000e-005		0.0187
Energy	0.1264	1.1493	0.9654	6.9000e-003		0.0873	0.0873		0.0873	0.0873		1,379.0974	1,379.0974	0.0264	0.0253	1,387.2927
Mobile	0.6998	2.5346	7.9240	0.0287	2.5631	0.0213	2.5844	0.6850	0.0199	0.7048		2,916.9758	2,916.9758	0.1431		2,920.5539
<b>Total</b>	<b>2.8751</b>	<b>3.6840</b>	<b>8.8976</b>	<b>0.0356</b>	<b>2.5631</b>	<b>0.1087</b>	<b>2.6718</b>	<b>0.6850</b>	<b>0.1072</b>	<b>0.7922</b>		<b>4,296.0907</b>	<b>4,296.0907</b>	<b>0.1696</b>	<b>0.0253</b>	<b>4,307.8652</b>

**Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	2.0489	7.0000e-005	8.1700e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005		0.0175	0.0175	5.0000e-005		0.0187
Energy	0.0930	0.8456	0.7103	5.0700e-003		0.0643	0.0643		0.0643	0.0643		1,014.7559	1,014.7559	0.0195	0.0186	1,020.7861
Mobile	0.6998	2.5346	7.9240	0.0287	2.5631	0.0213	2.5844	0.6850	0.0199	0.7048		2,916.9758	2,916.9758	0.1431		2,920.5539
<b>Total</b>	<b>2.8417</b>	<b>3.3803</b>	<b>8.6425</b>	<b>0.0337</b>	<b>2.5631</b>	<b>0.0856</b>	<b>2.6487</b>	<b>0.6850</b>	<b>0.0842</b>	<b>0.7691</b>		<b>3,931.7492</b>	<b>3,931.7492</b>	<b>0.1626</b>	<b>0.0186</b>	<b>3,941.3586</b>

## Encompass Health Operational Unmit - San Diego County, 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
Percent Reduction	1.16	8.24	2.87	5.15	0.00	21.22	0.86	0.00	21.51	2.91	0.00	8.48	8.48	4.12	26.42	8.51

**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	2/10/2020	2/11/2020	5	2	

**Acres of Grading (Site Preparation Phase): 0****Acres of Grading (Grading Phase): 0****Acres of Paving: 0****Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)****OffRoad Equipment**

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Rubber Tired Dozers	1	8.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	3	8.00	97	0.37

**Trips and VMT**

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	5	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

## Encompass Health Operational Unmit - San Diego County, Summer

**3.1 Mitigation Measures Construction****3.2 Demolition - 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	2.1262	20.9463	14.6573	0.0241		1.1525	1.1525		1.0761	1.0761		2,322.3127	2,322.3127	0.5970		2,337.2363
<b>Total</b>	<b>2.1262</b>	<b>20.9463</b>	<b>14.6573</b>	<b>0.0241</b>		<b>1.1525</b>	<b>1.1525</b>		<b>1.0761</b>	<b>1.0761</b>		<b>2,322.3127</b>	<b>2,322.3127</b>	<b>0.5970</b>		<b>2,337.2363</b>

**Unmitigated Construction Off-Site**

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

## Encompass Health Operational Unmit - San Diego County, Summer

**3.2 Demolition - 2020****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	2.1262	20.9463	14.6573	0.0241		1.1525	1.1525		1.0761	1.0761	0.0000	2,322.3127	2,322.3127	0.5970		2,337.2363
<b>Total</b>	<b>2.1262</b>	<b>20.9463</b>	<b>14.6573</b>	<b>0.0241</b>		<b>1.1525</b>	<b>1.1525</b>		<b>1.0761</b>	<b>1.0761</b>	<b>0.0000</b>	<b>2,322.3127</b>	<b>2,322.3127</b>	<b>0.5970</b>		<b>2,337.2363</b>

**Mitigated Construction Off-Site**

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

**4.0 Operational Detail - Mobile**



## Encompass Health Operational Unmit - San Diego County, Summer

## 4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.6998	2.5346	7.9240	0.0287	2.5631	0.0213	2.5844	0.6850	0.0199	0.7048		2,916.9758	2,916.9758	0.1431		2,920.5539
Unmitigated	0.6998	2.5346	7.9240	0.0287	2.5631	0.0213	2.5844	0.6850	0.0199	0.7048		2,916.9758	2,916.9758	0.1431		2,920.5539

## 4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Hospital	480.00	301.60	266.40	1,067,817	1,067,817
Total	480.00	301.60	266.40	1,067,817	1,067,817

## 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
Hospital	9.50	7.30	7.30	64.90	16.10	19.00	73	25	2

## 4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Hospital	0.602700	0.040134	0.179939	0.104242	0.014985	0.005435	0.016642	0.024350	0.001934	0.001888	0.005938	0.000757	0.001056

## Encompass Health Operational Unmit - San Diego County, Summer

**5.0 Energy Detail**

Historical Energy Use: N

**5.1 Mitigation Measures Energy**

Exceed Title 24

	ROG	NOx	CO	SO2	Fugitive 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	0.0930	0.8456	0.7103	5.0700e-003		0.0643	0.0643		0.0643	0.0643		1,014.7559	1,014.7559	0.0195	0.0186	1,020.7861
NaturalGas Unmitigated	0.1264	1.1493	0.9654	6.9000e-003		0.0873	0.0873		0.0873	0.0873		1,379.0974	1,379.0974	0.0264	0.0253	1,387.2927

## 5.2 Energy by Land Use - Natural Gas

**Unmitigated**

Natural Gas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	lb/day				lb/day			
											Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e		
11722.3	0.1264	1.1493	0.9654	6.9000e-003	0.0873	0.0873	0.0873	0.0873	0.0873	0.0873	1,379.097 <sup>4</sup>	1,379.097 <sup>4</sup>	1,379.097 <sup>4</sup>	0.0264	0.0253	1,387.292 <sup>7</sup>		
Hospital	0.1264	1.1493	0.9654	6.9000e-003	0.0873	0.0873	0.0873	0.0873	0.0873	0.0873	1,379.097 <sup>4</sup>	1,379.097 <sup>4</sup>	1,379.097 <sup>4</sup>	0.0264	0.0253	1,387.292 <sup>7</sup>		
Land Use	KBTU/yr											lb/day						
Total	0.1264	1.1493	0.9654	6.9000e-003	0.0873	0.0873	0.0873	0.0873	0.0873	0.0873	1,379.097 <sup>4</sup>	1,379.097 <sup>4</sup>	1,379.097 <sup>4</sup>	0.0264	0.0253	1,387.292 <sup>7</sup>		

## Mitigated

	Natural Gas Use	ROG	NOx	CO	SO <sub>2</sub>	Fugitive PM <sub>10</sub>	Exhaust PM <sub>10</sub>	Fugitive PM <sub>2.5</sub>	Exhaust PM <sub>2.5</sub>	PM <sub>2.5</sub> Total	Bio- CO <sub>2</sub>	NBio- CO <sub>2</sub>	Total CO <sub>2</sub>	CH <sub>4</sub>	N <sub>2</sub> O	CO <sub>2e</sub>
Land Use	kBTU/yr	lb/day														
Hospital	8.62543	0.0930	0.8456	0.7103	5.0700e-003	0.0643	0.0643	0.0643	0.0643	0.0643		1,014.7559	1,014.7559	0.0195	0.0186	1,020.7861
Total		0.0930	0.8456	0.7103	5.0700e-003		0.0643	0.0643	0.0643	0.0643		1,014.7559	1,014.7559	0.0195	0.0186	1,020.7861

## 6.0 Area Detail

## 6.1 Mitigation Measures Area

## Encompass Health Operational Unmit - San Diego County, 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	2.0489	7.0000e-005	8.1700e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005		0.0175	0.0175	5.0000e-005		0.0187
Unmitigated	2.0489	7.0000e-005	8.1700e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005		0.0175	0.0175	5.0000e-005		0.0187

## 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	0.4686					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.5795					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	7.6000e-004	7.0000e-005	8.1700e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005		0.0175	0.0175	5.0000e-005		0.0187
<b>Total</b>	<b>2.0489</b>	<b>7.0000e-005</b>	<b>8.1700e-003</b>	<b>0.0000</b>		<b>3.0000e-005</b>	<b>3.0000e-005</b>		<b>3.0000e-005</b>	<b>3.0000e-005</b>		<b>0.0175</b>	<b>0.0175</b>	<b>5.0000e-005</b>		<b>0.0187</b>

## Encompass Health Operational Unmit - San Diego County, 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	0.4686					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.5795					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	7.6000e-004	7.0000e-005	8.1700e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005		0.0175	0.0175	5.0000e-005		0.0187
<b>Total</b>	<b>2.0489</b>	<b>7.0000e-005</b>	<b>8.1700e-003</b>	<b>0.0000</b>		<b>3.0000e-005</b>	<b>3.0000e-005</b>		<b>3.0000e-005</b>	<b>3.0000e-005</b>		<b>0.0175</b>	<b>0.0175</b>	<b>5.0000e-005</b>		<b>0.0187</b>

**7.0 Water Detail****7.1 Mitigation Measures Water****8.0 Waste Detail****8.1 Mitigation Measures Waste**

Institute Recycling and Composting Services

**9.0 Operational Offroad**

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

## Encompass Health Operational Unmit - San Diego County, Summer

**Fire Pumps and Emergency Generators**

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

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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**User Defined Equipment**

Equipment Type	Number
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**11.0 Vegetation**

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## Encompass Health Operational Unmit - San Diego County, Winter

**Encompass Health Operational Unmit  
San Diego County, Winter****1.0 Project Characteristics**

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**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Hospital	80.00	Bed	1.69	73,808.00	0

**1.2 Other Project Characteristics**

Urbanization	Urban	Wind Speed (m/s)	2.6	Precipitation Freq (Days)	40
Climate Zone	13			Operational Year	2023
Utility Company	San Diego Gas & Electric				
CO2 Intensity (lb/MW hr)	456.31	CH4 Intensity (lb/MW hr)	0.018	N2O Intensity (lb/MW hr)	0.004

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

## Encompass Health Operational Unmit - San Diego County, Winter

Project Characteristics - Adjusted RPS 2023

Land Use - Data provided by applicant.

Construction Phase - No construction, operations only.

Grading -

Trips and VMT - No construction, operations only.

Architectural Coating -

Vehicle Trips - Project-specific traffic report.

Energy Use -

Land Use Change - Assume 7 x Eucalyptus sideroxylon from Ron Stark, Ridge Landscape Architects, on 2/3/2020 <https://selectree.calpoly.edu/tree-detail/eucalyptus-sideroxylon>

Energy Mitigation - It was assumed that the Project would be built under the 2019 Title 24 standards and would use about 30% less energy than those built under the 2016 Title 24 standards [http://www.energy.ca.gov/title24/2019standards/documents/2018\\_Title\\_24\\_2019\\_Building\\_Standards\\_FAQ.pdf](http://www.energy.ca.gov/title24/2019standards/documents/2018_Title_24_2019_Building_Standards_FAQ.pdf)

Waste Mitigation - A solid waste diversion rate of 75% was assumed in accordance with AB 341 and 939.

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	20.00	2.00
tblConstructionPhase	PhaseEndDate	3/6/2020	2/11/2020
tblLandUse	LandUseSquareFeet	57,260.61	73,808.00
tblLandUse	LotAcreage	1.31	1.69
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.018
tblProjectCharacteristics	CO2IntensityFactor	720.49	456.31
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.004
tblTripsAndVMT	WorkerTripNumber	13.00	0.00
tblVehicleTrips	ST_TR	8.14	3.77
tblVehicleTrips	SU_TR	7.19	3.33
tblVehicleTrips	WD_TR	12.94	6.00

## 2.0 Emissions Summary



## Unmitigated Construction

	Year	lb/day										lb/day					
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
2020	2.1262	20.9463	14.6573	0.0241	0.0000	1.1525	1.1525	0.0000	1.0761	1.0761	0.0000	2.322.312	2.322.312	2.322.312	0.5970	0.0000	2.337.236
Maximum	2.1262	20.9463	14.6573	0.0241	0.0000	1.1525	1.1525	0.0000	1.0761	1.0761	0.0000	2.322.312	2.322.312	2.322.312	0.5970	0.0000	2.337.236

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

## Encompass Health Operational Unmit - San Diego County, 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	2.0489	7.0000e-005	8.1700e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005		0.0175	0.0175	5.0000e-005		0.0187
Energy	0.1264	1.1493	0.9654	6.9000e-003		0.0873	0.0873		0.0873	0.0873		1,379.097 4	1,379.097 4	0.0264	0.0253	1,387.292 7
Mobile	0.6768	2.6040	7.7997	0.0272	2.5631	0.0215	2.5845	0.6850	0.0200	0.7050		2,767.125 6	2,767.125 6	0.1439		2,770.721 7
<b>Total</b>	<b>2.8521</b>	<b>3.7533</b>	<b>8.7733</b>	<b>0.0341</b>	<b>2.5631</b>	<b>0.1088</b>	<b>2.6719</b>	<b>0.6850</b>	<b>0.1074</b>	<b>0.7923</b>		<b>4,146.240 5</b>	<b>4,146.240 5</b>	<b>0.1703</b>	<b>0.0253</b>	<b>4,158.033 1</b>

**Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	2.0489	7.0000e-005	8.1700e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005		0.0175	0.0175	5.0000e-005		0.0187
Energy	0.0930	0.8456	0.7103	5.0700e-003		0.0643	0.0643		0.0643	0.0643		1,014.755 9	1,014.755 9	0.0195	0.0186	1,020.786 1
Mobile	0.6768	2.6040	7.7997	0.0272	2.5631	0.0215	2.5845	0.6850	0.0200	0.7050		2,767.125 6	2,767.125 6	0.1439		2,770.721 7
<b>Total</b>	<b>2.8187</b>	<b>3.4497</b>	<b>8.5182</b>	<b>0.0323</b>	<b>2.5631</b>	<b>0.0858</b>	<b>2.6488</b>	<b>0.6850</b>	<b>0.0843</b>	<b>0.7693</b>		<b>3,781.899 0</b>	<b>3,781.899 0</b>	<b>0.1634</b>	<b>0.0186</b>	<b>3,791.526 5</b>

## Encompass Health Operational Unmit - San Diego County, 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
Percent Reduction	1.17	8.09	2.91	5.37	0.00	21.20	0.86	0.00	21.49	2.91	0.00	8.79	8.79	4.10	26.42	8.81

**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	2/10/2020	2/11/2020	5	2	

**Acres of Grading (Site Preparation Phase): 0****Acres of Grading (Grading Phase): 0****Acres of Paving: 0****Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)****OffRoad Equipment**

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Rubber Tired Dozers	1	8.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	3	8.00	97	0.37

**Trips and VMT**

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	5	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

## Encompass Health Operational Unmit - San Diego County, Winter

**3.1 Mitigation Measures Construction****3.2 Demolition - 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	2.1262	20.9463	14.6573	0.0241		1.1525	1.1525		1.0761	1.0761		2,322.3127	2,322.3127	0.5970		2,337.2363
<b>Total</b>	<b>2.1262</b>	<b>20.9463</b>	<b>14.6573</b>	<b>0.0241</b>		<b>1.1525</b>	<b>1.1525</b>		<b>1.0761</b>	<b>1.0761</b>		<b>2,322.3127</b>	<b>2,322.3127</b>	<b>0.5970</b>		<b>2,337.2363</b>

**Unmitigated Construction Off-Site**

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

## Encompass Health Operational Unmit - San Diego County, Winter

**3.2 Demolition - 2020****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	2.1262	20.9463	14.6573	0.0241		1.1525	1.1525		1.0761	1.0761	0.0000	2,322.3127	2,322.3127	0.5970		2,337.2363
<b>Total</b>	<b>2.1262</b>	<b>20.9463</b>	<b>14.6573</b>	<b>0.0241</b>		<b>1.1525</b>	<b>1.1525</b>		<b>1.0761</b>	<b>1.0761</b>	<b>0.0000</b>	<b>2,322.3127</b>	<b>2,322.3127</b>	<b>0.5970</b>		<b>2,337.2363</b>

**Mitigated Construction Off-Site**

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

**4.0 Operational Detail - Mobile**

## Encompass Health Operational Unmit - San Diego County, Winter

## 4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.6768	2.6040	7.7997	0.0272	2.5631	0.0215	2.5845	0.6850	0.0200	0.7050		2,767.1256	2,767.1256	0.1439		2,770.7217
Unmitigated	0.6768	2.6040	7.7997	0.0272	2.5631	0.0215	2.5845	0.6850	0.0200	0.7050		2,767.1256	2,767.1256	0.1439		2,770.7217

## 4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Hospital	480.00	301.60	266.40	1,067,817	1,067,817
Total	480.00	301.60	266.40	1,067,817	1,067,817

## 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
Hospital	9.50	7.30	7.30	64.90	16.10	19.00	73	25	2

## 4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Hospital	0.602700	0.040134	0.179939	0.104242	0.014985	0.005435	0.016642	0.024350	0.001934	0.001888	0.005938	0.000757	0.001056

## Encompass Health Operational Unmit - San Diego County, Winter

**5.0 Energy Detail**

Historical Energy Use: N

**5.1 Mitigation Measures Energy**

Exceed Title 24

	ROG	NOx	CO	SO2	Fugitive 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	0.0930	0.8456	0.7103	5.0700e-003		0.0643	0.0643		0.0643	0.0643		1,014.7559	1,014.7559	0.0195	0.0186	1,020.7861
NaturalGas Unmitigated	0.1264	1.1493	0.9654	6.9000e-003		0.0873	0.0873		0.0873	0.0873		1,379.0974	1,379.0974	0.0264	0.0253	1,387.2927

## 5.2 Energy by Land Use - NaturalGas

**Unmitigated**

	Natural Gas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Land Use	KBTU/yr																
	11722.3	0.1264	1.1493	0.9654	6.9000e-003	0.0873	0.0873	0.0873	0.0873	0.0873	0.0873	1.379.097 <sup>4</sup>	1.379.097 <sup>4</sup>	1.379.097 <sup>4</sup>	0.0264	0.0253	1.387.292 <sup>7</sup>
Hospital	11722.3	0.1264	1.1493	0.9654	6.9000e-003	0.0873	0.0873	0.0873	0.0873	0.0873	0.0873	1.379.097 <sup>4</sup>	1.379.097 <sup>4</sup>	1.379.097 <sup>4</sup>	0.0264	0.0253	1.387.292 <sup>7</sup>
Total		0.1264	1.1493	0.9654	6.9000e-003	0.0873	0.0873	0.0873	0.0873	0.0873	0.0873	1.379.097 <sup>4</sup>	1.379.097 <sup>4</sup>	1.379.097 <sup>4</sup>	0.0264	0.0253	1.387.292 <sup>7</sup>

## Mitigated

	Natural Gas Use	ROG	NOx	CO	SO <sub>2</sub>	Fugitive PM <sub>10</sub>	Exhaust PM <sub>10</sub>	Fugitive PM <sub>2.5</sub>	Exhaust PM <sub>2.5</sub>	PM <sub>2.5</sub> Total	Bio- CO <sub>2</sub>	NBio- CO <sub>2</sub>	Total CO <sub>2</sub>	CH <sub>4</sub>	N <sub>2</sub> O	CO <sub>2e</sub>
Land Use	kBTU/yr	lb/day														
Hospital	8.62543	0.0930	0.8456	0.7103	5.0700e-003	0.0643	0.0643	0.0643	0.0643	0.0643		1,014.7559	1,014.7559	0.0195	0.0186	1,020.7861
Total		0.0930	0.8456	0.7103	5.0700e-003		0.0643	0.0643	0.0643	0.0643		1,014.7559	1,014.7559	0.0195	0.0186	1,020.7861

## 6.0 Area Detail

## 6.1 Mitigation Measures Area



## Encompass Health Operational Unmit - San Diego County, 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	2.0489	7.0000e-005	8.1700e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005		0.0175	0.0175	5.0000e-005		0.0187
Unmitigated	2.0489	7.0000e-005	8.1700e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005		0.0175	0.0175	5.0000e-005		0.0187

## 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	0.4686					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.5795					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	7.6000e-004	7.0000e-005	8.1700e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005		0.0175	0.0175	5.0000e-005		0.0187
<b>Total</b>	<b>2.0489</b>	<b>7.0000e-005</b>	<b>8.1700e-003</b>	<b>0.0000</b>		<b>3.0000e-005</b>	<b>3.0000e-005</b>		<b>3.0000e-005</b>	<b>3.0000e-005</b>		<b>0.0175</b>	<b>0.0175</b>	<b>5.0000e-005</b>		<b>0.0187</b>

## Encompass Health Operational Unmit - San Diego County, 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	0.4686					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.5795					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	7.6000e-004	7.0000e-005	8.1700e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005		0.0175	0.0175	5.0000e-005		0.0187
<b>Total</b>	<b>2.0489</b>	<b>7.0000e-005</b>	<b>8.1700e-003</b>	<b>0.0000</b>		<b>3.0000e-005</b>	<b>3.0000e-005</b>		<b>3.0000e-005</b>	<b>3.0000e-005</b>		<b>0.0175</b>	<b>0.0175</b>	<b>5.0000e-005</b>		<b>0.0187</b>

**7.0 Water Detail****7.1 Mitigation Measures Water****8.0 Waste Detail****8.1 Mitigation Measures Waste**

Institute Recycling and Composting Services

**9.0 Operational Offroad**

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

## Encompass Health Operational Unmit - San Diego County, Winter

**Fire Pumps and Emergency Generators**

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

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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**User Defined Equipment**

Equipment Type	Number
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**11.0 Vegetation**

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# Encompass Health Emission Calculations

## Operational

					Emission Factor								Calculated Emissions										
Source	hp	LF	Operating Schedule		VOC <sup>1</sup>	NOx <sup>2</sup>	CO <sup>2</sup>	SOx <sup>2</sup>	PM10 <sup>2</sup>	PM2.5 <sup>2</sup>	CO2 <sup>1</sup>	CH4 <sup>1</sup>	N2O <sup>1</sup>	VOC	NOx	CO	SOx	PM10	PM2.5	CO2	CH4	N2O	CO2e
			hr/day	hr/year	lb/hp-hr	g/hp-hr	g/hp-hr	g/hp-hr	g/hp-hr	g/hp-hr	g/hp-hr	g/hp-hr	g/hp-hr	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	MT/Year	MT/Year	MT/Year	MT/Year
Emergency Diesel Generator	1,220	100%	0.5	50	0.00225	3.9	0.3	0.00494	0.09	0.09	1.15	0.073	0.00	1.37	5.24	0.40	0.01	0.12	0.12	0.07	0.00	0.00	0.18

## Source:

1 CalEEMod Default, CalEEMod Version 2016.3.2 User Guide Appendix D, Table 12.1, Diesel Emergency Generator and Fire Pump Emission Factors

2 Manufacturer's source test

1 lb = 453.592 g

1 MT = 2,204.62 lb

## Operational Criteria Air Pollutant

Emission Source	VOC	NO <sub>x</sub>	CO	SO <sub>x</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>
	pounds per day					
Area	2.05	0	0.01	0	0	0
Energy	0.09	0.85	0.71	0.01	0.06	0.06
Mobile	0.7	2.6	7.92	0.03	2.58	0.71
Stationary	1.37	5.24	0.40	0.01	0.12	0.12
<b>Total</b>	<b>4.21</b>	<b>8.69</b>	<b>9.04</b>	<b>0.05</b>	<b>2.76</b>	<b>0.89</b>
<i>Chula Vista Threshold</i>	<i>55</i>	<i>55</i>	<i>550</i>	<i>150</i>	<i>150</i>	<i>55</i>
Threshold Exceeded?	No	No	No	No	No	No

## Operational GHG Emissions

Emission Source	CO <sub>2</sub>	CH <sub>4</sub>	N <sub>2</sub> O	CO <sub>2</sub> e
	Metric Tons per Year			
Area	<0.01	0.00	0.00	0.00
Energy	394.85	0.01	0.01	396.66
Mobile	407.49	0.02	0.00	408.01
Solid waste	23.71	1.40	0.00	58.74
Water supply and wastewater	24.79	0.24	0.01	32.37
Stationary	0.07	0.00	0.00	0.18
<b>Total</b>				<b>895.96</b>
<i>Amortized Construction Emissions</i>				<i>19.76</i>
<b>Operation + Amortized Construction Total</b>				<b>915.72</b>

**Trip Rate from Traffic Report**

Land Use	Weekday
Hospital	480

**Trip Ratio Calculations - Weekday, Saturday, Sunday**

Default VehicleTripsLa ndUseSizeMetri VehicleTripsLandUseSubType c	CalEEMod Default Trip Rates			Percent of Weekday		Revised Trip Rates for CalEEMod		
	WD_TR	ST_TR	SU_TR	Saturday	Sunday	Kittel son Provid ed WD_TR	Calc Based on Kittel son & % ST_TR	Calc Based on Kittel son & % SU_TR
50-Bed Hospital/Convalescent 80	12.94	8.14	7.19	63%	56%	6.00	3.77	3.33

