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**Air Quality
Study**

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AIR QUALITY ASSESSMENT

Glamis Specific Plan County of Imperial

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EXECUTIVE SUMMARY

This air quality analysis has been completed to determine impacts, which may be associated with the construction or operation of the proposed Glamis Specific Plan (GSP) project located on a 142-acre project site located within the designated Glamis Specific Plan Area (GSPA).

During construction, the proposed Project would not be expected to produce significant air quality impacts under the California Environmental Quality Act or exceed thresholds of significance established by the Imperial County Air Pollution Control District (ICAPCD).

The proposed Project would not generate significant operational impacts offsite either during construction or during post construction operations.

Finally, the project would not be expected to generate offensive objective odors during either the construction or operation of the project.

Per the requirements of ICAPCD, the project would be required to implement standard design measures for both construction and operations and are identified below:

Standard Construction Site Design Measures:

1. Use of alternative fueled or catalyst equipped diesel construction equipment, including all off-road and portable diesel powered equipment.
2. Minimize idling time either by shutting equipment off when not in use or reducing the time of idling to 5 minutes as a maximum.
3. Limit, to the extent feasible, the hours of operation of heavy duty equipment and/or the amount of equipment in use.
4. Replace fossil fueled equipment with electrically driven equivalents (provided they are not run via a portable generator set).

Standard Operations Site Design Measures:

1. Provide on-site bicycle lockers and/or racks.
2. Provide on-site eating, refrigeration and food vending facilities to reduce lunchtime trips.

3. Provide shower and locker facilities to encourage employees to bike and/or walk to work.
4. Provide for paving a minimum of 100 feet from the property line for commercial driveways that access County paved roads as per County Standard Commercial Driveway Detail 410B (formerly SW-131A).
5. Measures which meet mandatory, prescriptive and/or performance measures as required by Title 24.

1.0 INTRODUCTION

The purpose of this Air Quality study is to determine whether potential air quality impacts are significant under the California Environmental Quality Act (CEQA) and Imperial County Air Pollution Control District (ICAPCD), if any, that may be created during the construction or operation of the Glamis Specific Plan (GSP) project.

1.1 Project Location

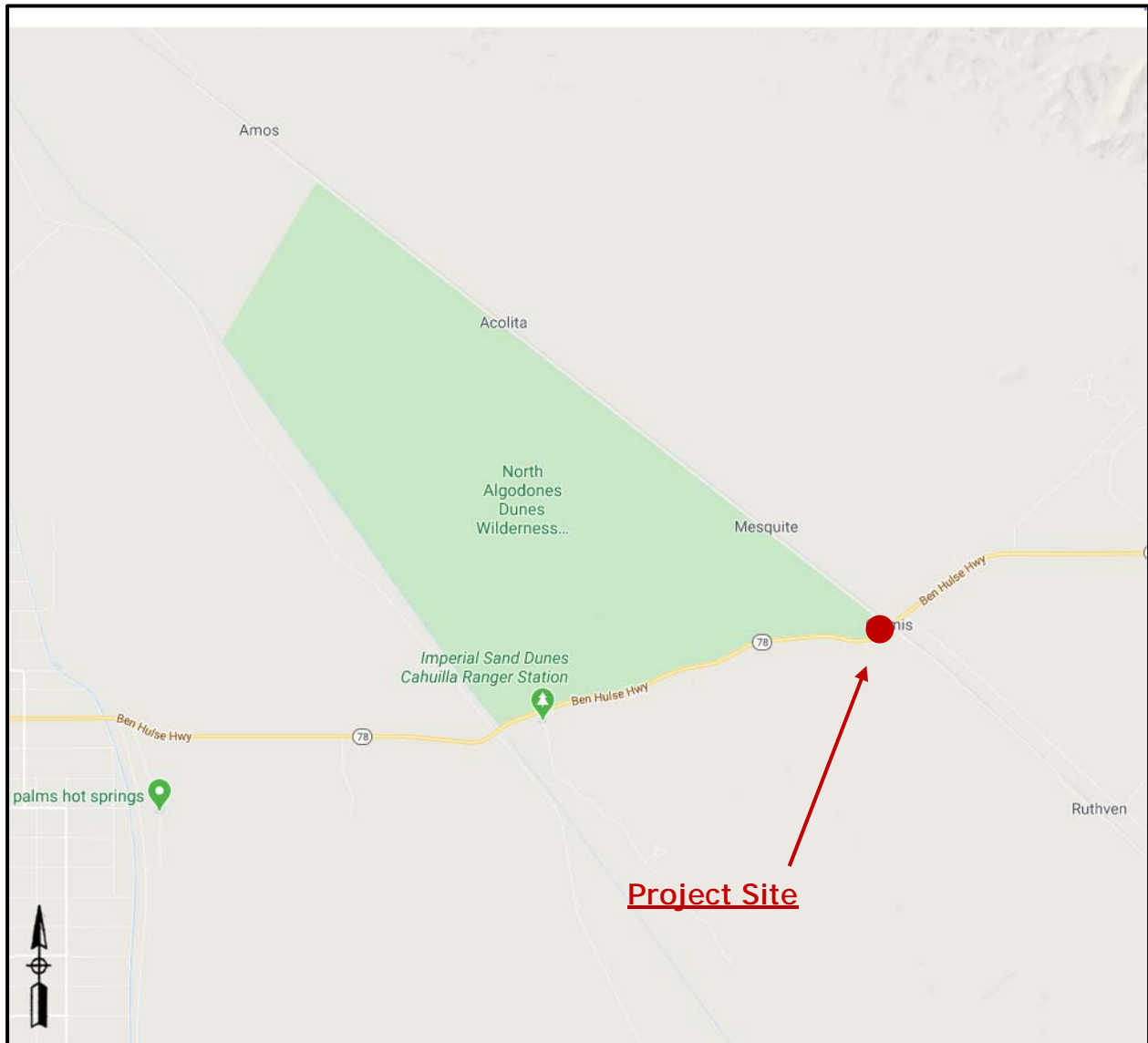
The GSP area is located approximately 27 miles east of Brawley at the intersection of State Route 78 (SR 78) and the Union Pacific Railroad (UPRR) in Imperial County, California. Geographically, the project site is located within the lower Colorado River Sonoran Desert Region of the United States in the east central portion of Imperial County (County) within the Salton Sea Air Basin (SSAB). A Project vicinity map and aerial image of the existing site is provided in Figures 1-A of this report.

1.2 Project Description

The approximately 142-acre GSP is located and contained within the County's designated Glamis Specific Plan Area (GSPA). The GSPA allows for the development and creation of a Specific Plan in accordance with GSPA design criteria, objectives and policies as outlined in the County's General Plan Land Use Element. The existing zoning designation for the project site is Open Space/Preservation (S-2) and a very small area that is General Commercial (C-2). The general area of the Glamis Beach Store (within APN 039-310-029) is zoned as C-2, while the remainder of the project site is zoned as S-2. The project site is surrounded by the Bureau of Land Management (BLM) land uses on all sides.

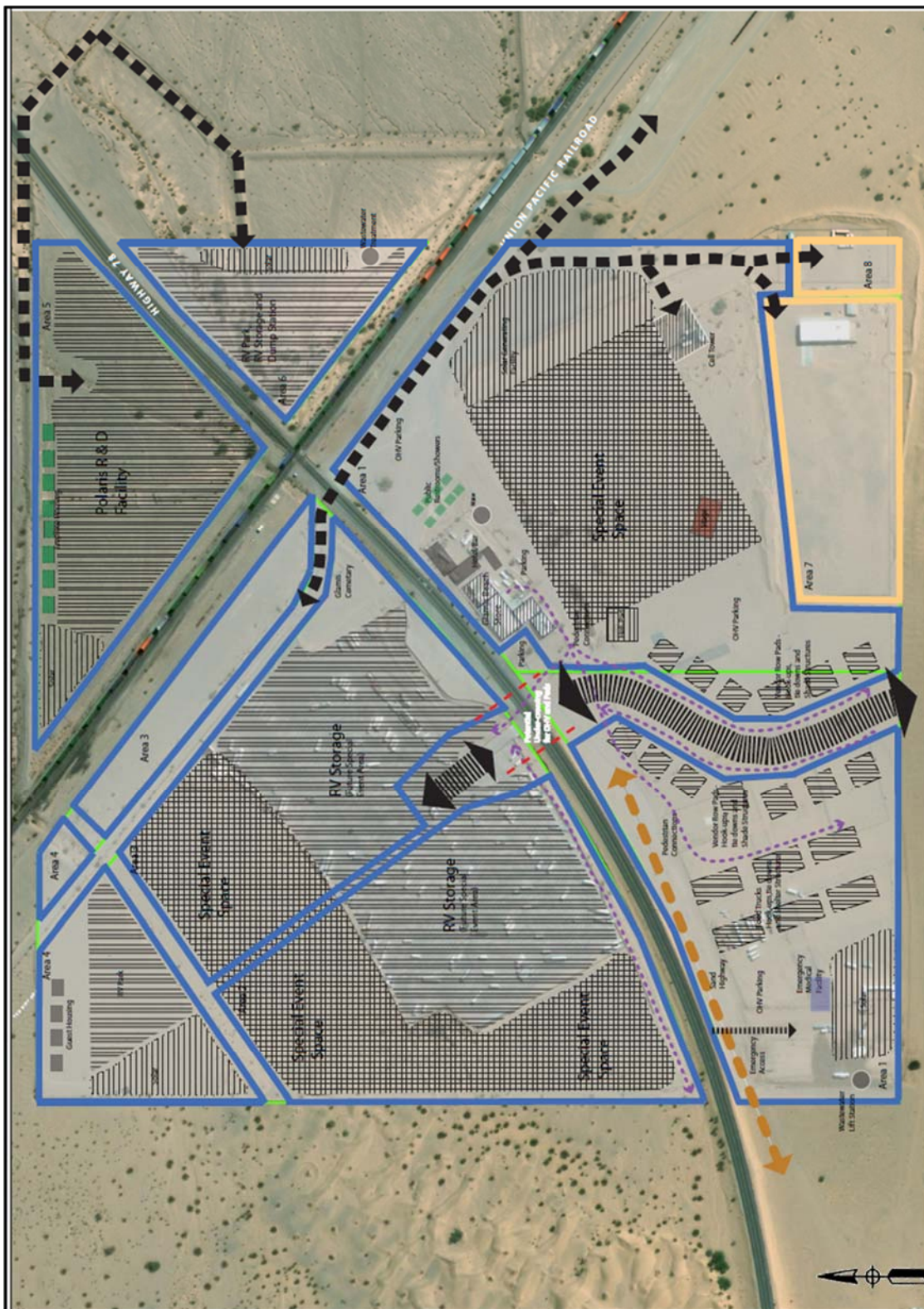
The proposed GSP includes a General Plan Amendment (GPA) and Change of Zone (CZ) for County approval. The GSP proposes the establishment of Commercial/Recreational (CR) designated zoning based upon different levels of allowable land use intensity. Also, the GSP proposes a Change of Zone from S-2 (Open Space/Preservation) to S-1 (Open Space/Recreation) for the approximate 1- acre parcel on the southeast side of the project site. The phasing plan component of the GSP would phase the development so that more intense land uses are developed incrementally over time within the various proposed zones. Figure 1-B depicts the Conceptual Site Plan.

Figure 1-A: Project Vicinity Map and Project Footprint



Source: Google Maps, 2020

Figure 1-B: Project Area Overview Map



Source: (The Altum Group, 2019)

Project Phasing

Development within the GSP is intended to occur over a span of approximately 20 to 50 years and will depend on market conditions, availability of supporting infrastructure, and other factors. Four (4) phases of development are proposed though do not specifically call for any detailed development scheme but offer a general guideline on construction precedence. Given this, the primary purpose of the GSP is to modify the allowable land uses on the site, not to establish a detailed parcel by parcel development scheme. The general phasing is shown below.

Phase One

Phase One would permit uses which could include restaurant(s), bar(s), repair shop(s), a vendor row area and event area. Additionally, the site could be developed with a possible research and development (R&D) facility an RV park and some employee housing. Phase One would also include the construction of water infrastructure to include both potable water treatment to treat ground water as well as a wastewater treatment facility and upgrades to the electrical system which would include connection to power lines located 7.2 miles to the northeast of the project site and some additional renewable energy to reduce GHG emissions or construction of a fully islanded 100% renewable energy microgrid (wind or PV including battery backup). The existing site uses diesel generators which would be phased out once electrical services are updated.

Phase Two

Phase Two would most likely be within Land Use Area 1, immediately west of Phase One. Phase Two development would serve as an extension to development occurring within Phase One by incorporating land uses permitted under the CR Zone similar to those permitted in Phase One. Phase Two would incorporate the Glamis Mainstreet to serve as a circulation corridor for Off- Highway Vehicle (OHV) traffic to and from the dunes and to Phase Four (Areas 2, 3, and 4) located directly north of SR 78.

Phase Three

Phase Three, located on the northeast side of the UPRR and bisected by SR 78, would be located within Land Use Area 5 and Land Use Area 6. No major public use facilities

would be considered for development within these two APNs to discourage OHV traffic from crossing the UPRR to access these areas. Phase Three however, would serve for the development of uses relevant to employee housing, RV park, and/or an R&D facility and possible PV Solar array system.

Phase Four

Phase Four, located on the north side of SR 78, would be located within Land Use Areas 2, 3 and 4. The Glamis Mainstreet corridor is proposed to provide an optional circulation interconnection between Phase One and Phase Four. All Phasing as proposed will be impacted by possible requirements that Caltrans may impose along SR 78 and for crossing the UPRR. The Imperial County Transportation Commission (ICTC) is currently conducting a feasibility study for a safe crossing over UPRR for off road vehicles either at SR 78 or Wash 10 or some other location, and additional information will be provided once the feasibility study is complete. Overall, the primary objective of the GSP is to formalize the site and provide services and amenities.

Special Events

The GSP area and greater Imperial Sand Dunes area has been historically utilized for OHV recreational events and activities. The applicant has been operating a special recreational event named "Camp RZR" since 2007 that attracts as many as 20,000 visitors each year. This event usually occurs during the weekend before Halloween. In 2008, the County of Imperial issued a Conditional Use Permit (CUP) to the applicant to operate a "seasonal event area" for special events such as Camp RZR on their private property within the ISDRA. Since 2008, the applicant has coordinated with the County, BLM, Imperial County Fire Department, Imperial County Sheriff's Office, California Highway Patrol and other affected public agencies to ensure that proper special event protocols and procedures are enforced to address key issues such as traffic, safety, emergency procedures, restrooms, and other related special event factors.

The GSP will include provisions for additional special events to be held in addition to the longstanding Camp RZR. In concert with the existing operational protocols, procedures and guidelines for special events, the GSP will provide performance standards that will meet the guidelines/requirements of the affected public agencies (i.e., Imperial County Fire Department and Sheriff's Office) to address and ensure

compliance with key special event-related issues. Furthermore, the GSP's performance standards will incorporate the BLM's Special Recreation Permit Event Operations Plan Checklist to ensure that operations of the proposed special annual events comply with the special event guidelines of the BLM. Special events that may be held at this site can be sponsored by the owner or by other entities provided they are first approved by the owner. Events can vary and be combined with off-site activities where portions of the event are on site while the remainder is on adjacent BLM lands. These events may include concerts, races, social gatherings, sporting activities, educational activities, training activities, and may include pyrotechnics and other entertainment venues.

Construction

Construction activities for Phase 1 through Phase 4 would occur within a timeframe of 20 to 50 years. Construction emissions over this duration would generally be higher at the start of construction given the regulatory requirements on construction equipment is continuously evolving using cleaner technologies. Given this, for purposes of this Air Quality analysis, a worst case construction scenario of 3 years was assumed. The project description calls for the construction of a solar or wind farm development with a battery backup system for power reliability and an option to receive power from as far as 7.2 miles away. For power stability the connection the utility provider would be the most reliable. For purposes of this analysis, it's assumed that the project would both construct renewables and connect to utility power 7.2 miles away.

Operations

Full buildout operations of the GSP is intended to occur over a span of approximately 20 to 50 years. However, in order to provide a conservative assessment, the entire Project was assumed and added to baseline conditions and was assumed to be built out by 2024. This assumption would be conservative as operations into the future would be reduced as regulatory requirements and technologies to reduce vehicular emissions would improve over time.

The project would maintain similar operations to that of the existing operations though would expand services to the existing seasonal influx of patrons recreating at the Glamis Dunes off-highway vehicle (OHV) areas surrounding the project. For this

reason, OHVs are not specifically analyzed. The project traffic study indicated that the buildout condition would generate roughly 1,750 ADT (LLG Engineers, 2019) over existing operations from this seasonal community. Also, it should be noted that due to the historic travel patterns, the bulk of the traffic would be Friday through Monday

The existing use requires diesel generators to supply power and would be phased out once the project has been connected to a constant electricity source. As noted above, it's assumed that the project would both construct renewables to offset all power usage and connect to utility power 7.2 miles away for power stability. The project could however install batteries which would be a less intense construction alternative.

The Project's proposed land uses are intended to serve the existing patrons of the dunes and will not operate year-round due to the long distance from population bases and the extreme heat. Operations are expected during the months of October through May or roughly 67% of the year.

2.0 EXISTING ENVIRONMENTAL SETTING

2.1 Existing Setting

The project site can be characterized as an area of open, sandy, disturbed desert land with all existing development occurring in close proximity (within approximately 0.25 mile) to the intersection of SR 78 and the UPRR. The project site consists of several adjoining parcels. On one parcel (APN 039-310-029) there is a one- and two-story metal building structure with water tanks, a wireless communications facility, a private residence/storage building and an unmaintained storage shed and shipping containers which together comprise what is commonly referred to as the "Glamis Beach Store." Also, there is a separate seasonal off-highway vehicle (OHV) repair business (and two related RV trailers) connected to the Glamis Beach Store.

Immediately south of the APN 039-310-029 parcel, is the 8-acre parcel (APN 039-310-030), which includes a single-family residence, large recreational vehicle storage garages, and other related equipment storage buildings. On the southeast corner of the project site is a 1-acre parcel (APN 039-310-017) which currently includes a rather dilapidated/abandoned pre-fab residential structure. On the parcel (APN 039-310-026) directly opposite of the Glamis Beach Store (to the north of SR 78 from the Glamis Beach Store) is an existing RV storage area, and other vacant desert land. On the parcel on the southwest side of the project site (APN 039-310-027) there are wood posts to form a sectioned-off parking/vendor area. On the northeast side of the GSP, there are two triangular parcels (on the northeast side of the UPRR, APN 039-310-022 and APN 039-310-023), which are currently vacant. The existing residential uses would remain and would exist to support the project.

The project site is relatively flat with a southwest-to-northeast trending grade of less than one percent or an approximate difference in elevation of 23 feet above mean sea level (AMSL) between the southwest corner of the site (approximate elevation of 324 feet AMSL) and the northeast corner of the site (approximately 347 feet AMSL). Areas of wind-blown sand dunes with sporadic native vegetation are found situated and encroaching upon the southeast corner of the project site.

The GSP contains the only private commercial land uses within the project vicinity and is surrounded by open desert land that is managed by the Bureau of Land

Management (BLM). Also, the Chocolate Mountain Aerial Gunnery Range (CMAGR) is located approximately 3 miles to the north of the GSP. The GSP is within and surrounded by the ISDRA and is bordered by the NADW to the northwest. Within all of the various BLM lands surrounding the GSP, the BLM has designated Recreation Management Zones (RMZs) which dictate the allowable recreation activities within those areas and provide for BLM's management objectives within those areas.

2.2 Climate and Meteorology

Climate within the SSAB experiences mild and dry winters with daytime temperatures ranging from 65 to 75 °F, extremely hot summers with daytime temperatures ranging from 104 to 115 °F, and very little rain. Imperial County usually receives approximately three inches of rain per year mostly occurring in late summer or midwinter. Summer weather patterns are dominated by intense heat induction low-pressure areas over the interior desert. The flat terrain of the Imperial Valley and the strong temperature differentials created by intense solar heating produce moderate winds and deep thermal convection.

The general wind speeds in the area are less than 10 mph, but occasionally experience winds speeds of greater than 30 mph during the months of April and May. Statistics reveal that prevailing winds blow from the northwest-northeast; a secondary trend of wind direction from the southeast is also evident.

2.3 Regulatory Standards

The Federal Air Quality Standards were developed per the requirements of The Federal Clean Air Act, which is a federal law that was passed in 1970 and further amended in 1990. This law provides the basis for the national air pollution control effort. An important element of the act included the development of national ambient air quality standards (NAAQS) for major air pollutants.

The Clean Air Act established two types of air quality standards otherwise known as primary and secondary standards. *Primary Standards* set limits for the intention of protecting public health, which includes sensitive populations such as asthmatics, children and elderly. *Secondary Standards* set limits to protect public welfare to include the protection against decreased visibility, damage to animals, crops, vegetation and buildings.

The EPA Office of Air Quality Planning and Standards (OAQPS) has set NAAQS for principal pollutants, which are called "criteria" pollutants. These pollutants are defined below:

1. *Carbon Monoxide (CO): is a colorless, odorless, and tasteless gas and is produced from the partial combustion of carbon-containing compounds, notably in internal-combustion engines. Carbon monoxide usually forms when there is a reduced availability of oxygen present during the combustion process. Exposure to CO near the levels of the ambient air quality standards can lead to fatigue, headaches, confusion, and dizziness. CO interferes with the blood's ability to carry oxygen.*
2. *Lead (Pb): is a potent neurotoxin that accumulates in soft tissues and bone over time. The major sources of lead emissions have historically been motor vehicles (such as cars and trucks) and industrial sources. Because lead is only slowly excreted, exposures to small amounts of lead from a variety of sources can accumulate to harmful levels. Effects from inhalation of lead near the level of the ambient air quality standard include impaired blood formation and nerve conduction. Lead can adversely affect the nervous, reproductive, digestive, immune, and blood-forming systems. Symptoms can include fatigue, anxiety, short-term memory loss, depression, weakness in the extremities, and learning disabilities in children.*
3. *Nitrogen Dioxide (NO₂): is a reactive, oxidizing gas capable of damaging cells lining the respiratory tract and is one of the nitrogen oxides emitted from high-temperature combustion, such as those occurring in trucks, cars, power plants, home heaters, and gas stoves. In the presence of other air contaminants, NO₂ is usually visible as a reddish-brown air layer over urban areas. NO₂ along with other traffic-related pollutants is associated with respiratory symptoms, respiratory illness and respiratory impairment. Studies in animals have reported biochemical, structural, and cellular changes in the lung when exposed to NO₂ above the level of the current state air quality standard. Clinical studies of human subjects suggest that NO₂ exposure to levels near the current standard may worsen the effect of allergens in allergic asthmatics, especially in children.*
4. *Particulate Matter (PM₁₀ or PM_{2.5}): is a complex mixture of tiny particles that consists of dry solid fragments, solid cores with liquid coatings, and small droplets of liquid. These particles vary in shape, size and chemical composition, and can be made up of multiple materials such as metal, soot, soil, and dust. PM₁₀ particles are 10 microns (µm) or less and PM_{2.5} particles are 2.5 (µm) or less. These particles can contribute significantly to regional haze and reduction of visibility in California. Exposure to PM levels exceeding current air quality standards increases the risk of allergies such as asthma and respiratory illness.*
5. *Ozone (O₃): is a highly oxidative unstable gas capable of damaging the linings of the respiratory tract. This pollutant forms in the atmosphere through reactions between chemicals directly emitted from vehicles, industrial plants, and many other sources. Exposure to ozone above ambient air quality standards can lead to human health effects such as lung inflammation, tissue damage and impaired lung functioning. Ozone can also damage materials such as rubber, fabrics and plastics.*
6. *Sulfur Dioxide (SO₂): is a gaseous compound of sulfur and oxygen and is formed when sulfur-containing fuel is burned by mobile sources, such as locomotives, ships, and off-road diesel equipment. SO₂ is also emitted from several industrial processes, such as petroleum refining and metal processing. Effects from SO₂ exposures at levels near the one-hour standard include bronchoconstriction accompanied by symptoms, which may include wheezing, shortness of breath and chest tightness, especially during exercise or physical activity. Children, the elderly, and people with asthma, cardiovascular disease or chronic lung disease (such as bronchitis or emphysema) are most susceptible to these symptoms. Continued*

exposure at elevated levels of SO₂ results in increased incidence of pulmonary symptoms and disease, decreased pulmonary function, and increased risk of mortality.

2.3.2 State Standards and Definitions

The State of California Air Resources Board (CARB) sets the laws and regulations for air quality on the state level. The California Ambient Air Quality Standards (CAAQS) are either the same as or more restrictive than the NAAQS with the exception of the 1-hr NO₂ standards which are stricter under the NAAQS. The CAAQS also restricts four additional contaminants. Table 2.1 on the following page identifies both the NAAQS and CAAQS. The additional contaminants as regulated by the CAAQS are defined below:

1. *Visibility Reducing Particles: Particles in the Air that obstruct the visibility.*
2. *Sulfates: are salts of Sulfuric Acid. Sulfates occur as microscopic particles (aerosols) resulting from fossil fuel and biomass combustion. They increase the acidity of the atmosphere and form acid rain.*
3. *Hydrogen Sulfide (H₂S): is a colorless, toxic and flammable gas with a recognizable smell of rotten eggs or flatulence. H₂S occurs naturally in crude petroleum, natural gas, volcanic gases, and hot springs. Usually, H₂S is formed from bacterial breakdown of organic matter. Exposure to low concentrations of hydrogen sulfide may cause irritation to the eyes, nose, or throat. It may also cause difficulty in breathing for some asthmatics. Brief exposures to high concentrations of hydrogen sulfide (greater than 500 Parts per Million (ppm)) can cause a loss of consciousness and possibly death.*
4. *Vinyl Chloride: also known as chloroethene and is a toxic, carcinogenic, colorless gas with a sweet odor. It is an industrial chemical mainly used to produce its polymer, polyvinyl chloride (PVC).*

2.3.3 Regional Standards

The State of California has 35 specific air districts, which are each responsible for ensuring that the criteria pollutants are below the NAAQS and CAAQS. Air basins that exceed either the NAAQS or the CAAQS for any criteria pollutants are designated as "non-attainment areas" for that pollutant. Currently, there are 15 non-attainment areas for the federal ozone standard and two non-attainment areas for the PM_{2.5} standard and many areas are in non-attainment for PM₁₀ as well. California therefore created the California State Implementation Plan (SIP), which is designed to provide control measures needed to attain ambient air quality standards.

Table 2.1: Ambient Air Quality Standards

Ambient Air Quality Standards							
Pollutant	Average Time	California Standards ¹		Federal Standards ²			
		Concentration ³	Method ⁴	Primary ^{3,5}	Secondary ^{3,6}	Method ⁷	
Ozone (O ₃) ⁸	1 Hour	0.09 ppm (180 µg/m ³)	Ultraviolet Photometry	-	Same as Primary Standard	Ultraviolet Photometry	
	8 Hour	0.070 ppm (137 µg/m ³)		0.070 ppm (137 µg/m ³)			
Respirable Particulate Matter (PM ₁₀) ⁹	24 Hour	50 µg/m ³	Gravimetric or Beta Attenuation	150 µg/m ³	Same as Primary Standard	Inertial Separation and Gravimetric Analysis	
	Annual Arithmetic Mean	20 µg/m ³		-			
Fine Particulate Matter (PM _{2.5}) ⁹	24 Hour	No Separate State Standard		35 µg/m ³	Same as Primary Standard	Inertial Separation and Gravimetric Analysis	
	Annual Arithmetic Mean	12 µg/m ³	Gravimetric or Beta Attenuation	12.0 µg/m ³			15 µg/m ³
Carbon Monoxide (CO)	8 hour	9.0 ppm (10mg/m ³)	Non-Dispersive Infrared Photometry (NDIR)	9 ppm (10 mg/m ³)	-	Non-Dispersive Infrared Photometry	
	1 hour	20 ppm (23 mg/m ³)		35 ppm (40 mg/m ³)			
	8 Hour (Lake Tahoe)	6 ppm (7 mg/m ³)		-			-
Nitrogen Dioxide (NO ₂) ¹⁰	Annual Arithmetic Mean	0.030 ppm (57 µg/m ³)	Gas Phase Chemiluminescence	0.053 ppm (100 µg/m ³) ⁸	Same as Primary Standard	Gas Phase Chemiluminescence	
	1 Hour	0.18 ppm (339 µg/m ³)		0.100 ppm ⁸ (188/ µg/m ³)			
Sulfur Dioxide (SO ₂) ¹¹	Annual Arithmetic Mean	-	Ultraviolet Fluorescence	0.030 ppm ¹⁰ (for Certain Areas)	-	Ultraviolet Fluorescence; Spectrophotometry (Pararosaniline Method) ⁹	
	24 Hour	0.04 ppm (105 µg/m ³)		0.14 ppm ¹⁰ (for Certain Areas) (See Footnote 9)			
	3 Hour	-		-			0.5 ppm (1300 µg/m ³)
	1 Hour	0.25 ppm (655 µg/m ³)		75 ppb (196 µg/m ³)			-
Lead ^{12,13}	30 Day Average	1.5 µg/m ³	Atomic Absorption	-	Same as Primary Standard	High Volume Sampler and Atomic Absorption	
	Calendar Quarter	-		1.5 µg/m ³			
	Rolling 3-Month Average	-		0.15 µg/m ³			
Visibility Reducing Particles	8 Hour	See footnote 14					
Sulfates	24 Hour	25 µg/m ³	Ion Chromatography				
Hydrogen Sulfide	1 Hour	0.03 ppm (42 µg/m ³)	Ultraviolet Fluorescence				
Vinyl Chloride ¹²	24 Hour	0.01 ppm (26 µg/m ³)	Gas Chromatography				

- California standards for ozone, carbon monoxide (except 8-hour Lake Tahoe), sulfur dioxide (1 and 24 hour), nitrogen dioxide, and particulate matter (PM₁₀, PM_{2.5}, and visibility reducing particles), are values that are not to be exceeded. All others are not to be equaled or exceeded. California ambient air quality standards are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations.
- National standards (other than ozone, particulate matter, and those based on annual arithmetic mean) are not to be exceeded more than once a year. The ozone standard is attained when the fourth highest 8-hour concentration measured at each site in a year, averaged over three years, is equal to or less than the standard. For PM₁₀, the 24-hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 µg/m³ is equal to or less than one. For PM_{2.5}, the 24-hour standard is attained when 98 percent of the daily concentrations, averaged over three years, are equal to or less than the standard. Contact the U.S. EPA for further clarification and current national policies.
- Concentration expressed first in units in which it was promulgated. Equivalent units given in parentheses are based upon 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.
- Any equivalent procedure which can be shown to the satisfaction CARB to give equivalent results at or near the level of the air quality standard may be used.
- National Primary Standards: The levels of air quality necessary, with an adequate margin of safety to protect the public health.
- National Secondary Standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.
- Reference method as described by the EPA. An "equivalent method" of measurement may be used but must have a "consistent relationship to the reference method" and must be approved by the EPA.
- On October 1, 2015, the national 8-hour ozone primary and secondary standards were lowered from 0.075 to 0.070 ppm.
- On December 14, 2012, the national annual PM_{2.5} primary standard was lowered from 15 µg/m³ to 12.0 µg/m³. The existing national 24-hour PM_{2.5} standards (primary and secondary) were retained at 35 µg/m³, as was the annual secondary standard of 15 µg/m³. The existing 24-hour PM₁₀ standards (primary and secondary) of 150 µg/m³ also were retained. The form of the annual primary and secondary standards is the annual mean, averaged over 3 years.
- To attain the 1-hour national standard, the 3-year average of the annual 98th percentile of the 1-hour daily maximum concentrations at each site must not exceed 100 ppb. Note that the national 1-hour standard is in units of parts per billion (ppb). California standards are in units of parts per million (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.
- On June 2, 2010, a new 1-hour SO₂ standard was established and the existing 24-hour and annual primary standards were revoked. To attain the 1-hour national 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 SO₂ national standards (24-hour and annual) remain in effect until one year after an area is designated for the 2010 standard, except that in areas designated nonattainment for the 1971 standards, the 1971 standards remain in effect until implementation plans to attain or maintain the 2010 standards are approved.
- The CARB 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.
- The national standard for lead was revised on October 15, 2008 to a rolling 3-month average. The 1978 lead standard (1.5 µg/m³ as a quarterly average) remains in effect until one 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.
- In 1989, the CARB converted both the general statewide 10-mile visibility standard and the Lake Tahoe 30-mile visibility standard to instrumental equivalents, which are "extinction of 0.23 per kilometer" and "extinction of 0.07 per kilometer" for the statewide and Lake Tahoe Air Basin standards, respectively.

Source: (California Air Resources Board, 5/4/2016)

The Imperial County Air Pollution Control District (ICAPCD) is the government agency which regulates stationary sources of air pollution within Imperial County and the SSAB. Currently, the SSAB is in “non-attainment” status for O₃ and serious non-attainment of PM₁₀. Therefore, the ICAPCD developed an Ambient Air Quality Plan (AAQP) to provide control measures to try to achieve attainment status. The AAQP was adopted in 1991. A new NAAQS for ozone was adopted by EPA in 1997 and required modified strategies to decrease higher ozone concentrations.

In order to guide non-attainment areas closer to NAAQS requirements an 8-hr Ozone Air Quality Management Plan (AQMP) was approved by ICAPCD in 2009 and was accepted by the EPA in 2010. Similarly, in 2009 the County revised their SIP to address the serious non-attainment status of PM₁₀ and again revised the plan in 2013, 2017 and 2018 (ICAPCD, 2018). The latest 2018 revisions was approved in 2020 and it was found The EPA is also approving the State of California's request to redesignate the Imperial Valley Planning Area from nonattainment to attainment for the PM₁₀ national ambient air quality standards (US EPA, 2020). The criteria pollutant standards are generally attained when each monitor within the region that has had no exceedances during the previous three calendar years. Attainment status within the County of Imperial as of the date of this report is shown below in Table 2.2.

Table 2.2: Imperial County Air Basin Attainment Status by Pollutant

Criteria Pollutant	Federal Designation	State Designation
Ozone	Marginal Nonattainment	Nonattainment
Carbon Monoxide	Unclassified/ Attainment	Attainment
PM ₁₀	Attainment	Nonattainment
PM _{2.5}	Moderate Nonattainment – partial*	Attainment
Nitrogen Dioxide	Unclassified/ Attainment	Attainment
Sulfur Dioxide	Attainment	Attainment
Lead	Unclassified/ Attainment	Attainment
Sulfates	No Federal Standard	Attainment
Hydrogen Sulfide	No Federal Standard	Unclassified
Visibility	No Federal Standard	Unclassified

2.4 California Environmental Quality Act (CEQA) Significance Thresholds

The California Environmental Quality Act has provided a checklist to identify the significance of air quality impacts. These guidelines are found in Appendix G of the CEQA Guidelines. Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:

- A:* Conflict with or obstruct implementation of the applicable air quality plan?
- B:* Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?
- C:* Expose sensitive receptors to substantial pollutant concentrations?
- D:* Result in other emissions (such as those leading to odors adversely affecting a substantial number of people?

2.5 ICAPCD Air Quality Impact Assessment Screening Thresholds (CEQA)

The ICAPCD has established significance thresholds in the 2017 ICAPCD CEQA Handbook for the preparation of Air Quality Impact Assessments (AQIA) (ICAPCD, 2017). The screening criteria within this handbook can be used to determine whether a project's total emissions would result in a significant impact as defined by CEQA. Should emissions be found to exceed these thresholds, additional modeling is required to demonstrate that the project's total air quality impacts are below the state and federal ambient air quality standards. These screening thresholds for construction and daily operations are shown in Table 2.3.

The CEQA handbook further states that any proposed project with a potential to emit less than the Tier I thresholds during operations may potentially still have adverse impacts on the local air quality and would be required to develop an Initial Study to help the Lead Agency determine whether the project would have a less than significant impact. On the other hand, if the proposed project's operational development fits within the Tier II classification, it is considered to have a significant impact on regional and local air quality. Therefore, Tier II projects are required to implement all standard design measures as well as all feasible discretionary design measures.

Table 2.3: Screening Threshold for Criteria Pollutants

Pollutant		Total Emissions (Pounds per Day)	
Construction Emissions			
Respirable Particulate Matter (PM ₁₀ and PM _{2.5})		150	
Nitrogen Oxide (NO _x)		100	
Carbon Monoxide (CO)		550	
Reactive Organic Gases (ROG)		75	
Operational Emissions			
Pollutant	Tier I (Pounds per Day)	Tier II (Pounds per Day)	
PM ₁₀ and Sulfur Oxide (SO _x)	< 150	150 or greater	
NO _x and ROG	< 137	137 or greater	
CO	< 550	550 or greater	
Level of Significance:	Less Than Significant	Significant Impact	
Level of Analysis:	Initial Study	Comprehensive Air Quality Analysis Report	
Environmental Document:	Negative Declaration	Mitigated ND or EIR	
Source: (ICAPCD, 2017)			

Additionally, ICAPCD defined standard design measures for construction equipment and fugitive PM₁₀ must be implemented at all construction sites. The implementation of design measures, as listed in the ICAPCD CEQA handbook, apply to those construction sites which are 5 acres or more for non-residential developments such as the proposed Project. Additionally, in an effort to reduce PM₁₀ or Fugitive Dust from ambient air, the Project would be required to develop a dust management plan consistent with Regulation VIII of ICAPCD's Rules and Regulations. Additionally, the project shall not exceed the 20 percent opacity threshold under Rule 801.

Standard Construction Site Design Measures:

1. Use of alternative fueled or catalyst equipped diesel construction equipment, including all off-road and portable diesel powered equipment.
2. Minimize idling time either by shutting equipment off when not in use or reducing the time of idling to 5 minutes as a maximum.
3. Limit, to the extent feasible, the hours of operation of heavy duty equipment and/or the amount of equipment in use.
4. Replace fossil fueled equipment with electrically driven equivalents (provided they are not run via a portable generator set).

Should the project be sufficiently large enough that operational design measures simply cannot reduce pollutant levels below thresholds of significance, pollutant levels the ICAPCD has adopted the Operation Development Fee as was adopted under Rule 310 which provides the ICAPCD with a sound method for mitigating the emissions produced from the operation of new commercial and residential development projects. Projects unmitigable through standard procedures are assessed a one-time fee for either Ozone Precursors or PM₁₀ impacts, which is based upon either the square footage of the commercial development or the number of residential units. Impacts of this sort are calculated based on the assumption that the worst-case daily emissions are allowed for an entire year and then converted to an annual emission equivalent. Emissions exceeding annual thresholds would pay a fair share sum to reduce impacts to below significance.

Similar to construction, the project would be required to implement standard design measures for operations. According to Table 2.3, Tier I, projects generating less than 137 lbs/day of NO_x or ROG; less than 150 lbs/day of PM₁₀ or SO_x; or less than 550 lbs/day of CO or PM_{2.5}, the Project is required to implement all the Standard Operational design Measures in order to help mitigate or reduce the air quality impacts to a level of insignificance. These design measures are identified below:

Standard Operations Site Design Measures:

1. Provide on-site bicycle lockers and/or racks.
2. Provide on-site eating, refrigeration and food vending facilities to reduce lunchtime trips.
3. Provide shower and locker facilities to encourage employees to bike and/or walk to work.
4. Provide for paving a minimum of 100 feet from the property line for commercial driveways that access County paved roads as per County Standard Commercial Driveway Detail 410B (formerly SW-131A).
5. Measures which meet mandatory, prescriptive and/or performance measures as required by Title 24.

Furthermore, to be consistent with the California Air Resource Board, ICAPCD requires PM₁₀ emitted by diesel powered construction equipment (DPM) to be analyzed. DPM can potentially increase the cancer risk for nearby residential receptors if any. Generally, sites increasing the cancer risk between one and ten in one million need to

implement toxics best available control technology or impose effective emission limitations, emission control devices or control techniques to reduce the cancer risk. Finally, at no time shall the project increase the cancer risk to over 10 in one million.

2.6 Local Air Quality

Criteria pollutants are measured continuously throughout the County of Imperial and the data is used to track ambient air quality patterns throughout the County. As mentioned earlier, this data is also used to determine attainment status when compared to the NAAQS and CAAQS. The ICAPCD is responsible for monitoring four sites which collect meteorological and criteria pollutant data used by the district to assist with pollutant forecasting, data analysis and characterization of air pollutant transport. Also, a fifth monitoring locations is located in the City of Calexico which is monitored by CARB.

The monitoring station that is closest to the proposed Project is the 9th Street monitoring station in El Centro, which is approximately 31 miles west of the project site. Table 2.4 on the following page provides the criteria pollutant levels monitored at these two stations for 2016-2018, which is the most current data at this time. The criteria pollutants monitored closest to the Project [Ambient data was obtained from the California Environmental Protection Agency's Air Resources Board Website (ARB, 2020)].

Based on review of the ambient data, Both Ozone and PM emissions exceed AAQS and therefore are in non-attainment status. The 8 hour Ozone non-Attainment is considered moderate Non-Attainment while the 24-Hour PM10 is considered "Serious" Non-Attainment. Therefore, to comply with the ICAPCDs SIP and AAQP, the project must implement Best Available Control Measure (BACM) and BACT as outlined in the standard design measures that all project must implement in Section 2.5 of this report above.

Table 2.4: Latest Three-Year Ambient Air Quality data near Project Site

Pollutant	Closest Recorded Ambient Monitoring Site	Averaging Time	CAAQS	NAAQS	2016	2017	2018
O3 (ppm)	El Centro – 9 th Street	1 Hour	0.09 ppm	No Standard	0.108	0.110	0.102
		8 Hour	0.070 ppm	0.070 ppm	0.082	0.092	0.090
PM10 (µg/m3)		24 Hour	50 µg/m3	150 µg/m3	284.9	268.5	253.0
		Annual Arithmetic Mean	20 µg/m3	No Standard	45.0	41.3	46.9
PM2.5 (µg/m3)		24 Hour	No standard -	35 µg/m3	31.3	23.2	22.4
		Annual Arithmetic Mean	12 µg/m3	15 µg/m3	9.4	8.4	8.6
NO2 (ppm)		Annual Arithmetic Mean	0.030 ppm	0.053 ppm	0.005	No Data	No Data
		1 Hour	0.18 ppm	0.100 ppm	0.042	0.040	0.032
ppm=Parts per Million N/A=Not Available for give year							

3.0 METHODOLOGY

3.1 Construction Emissions Calculations

Air Quality impacts related to construction and daily operations were calculated using the latest CalEEMod 2016.3.2 air quality model, which was developed by BREEZE Software for South Coast Air Quality Management District (SCAQMD) in 2017. The construction module in CalEEMod is used to calculate the emissions associated with the construction of the Project and uses methodologies presented in the US EPA AP-42 document with emphasis on Chapter 11.9. The CalEEMod input/output model is shown in *Attachment A* to this report.

The project site is not located near any offsite sensitive receptors. Based on a cursory review, no homes exist within at least 2 miles from the project site. Therefore, since no sensitive uses are near the project site, a less than significant health risk impact would be expected at all offsite residential unit from the proposed Project. This is consistent with general risk guidelines by the California Air Resources Board for setting new developments within existing sources with the tightest restrictions on the placement of schools. Schools are suggested to be no less than 1,000 feet from diesel sources such as transportation refrigeration units (TRU) (CARB, 2005). The proposed project does not propose schools or sources which include TRUs though for purposes of discussion we want to focus on the setback recommendation of 1,000 feet. The 1,000-foot setback is the most restrictive. Since the nearest receptors are greater than 2 miles from the site impacts would not be expected. Based on this, specific construction related health risks at offsite units are not quantified within this analysis.

3.2 Construction Assumptions

Construction activities for Phase 1 through Phase 4 would occur within a timeframe of 20 to 50 years. Construction emissions over this duration would generally be higher at the start of construction given the regulatory requirements on construction equipment is continuously evolving and using cleaner technologies as time moves forward. Given this, for purposes of this Air Quality analysis, a worst case construction scenario of 3 years was assumed. The construction scenario includes construction of a conceptual scenario which includes multiple uses to include a water/wastewater infrastructure, power lines up to 7.2 miles away, a hotel use, retail uses, additional employee residential uses, research and development uses, renewables such as

photovoltaics or wind turbines to offset electrical usage and additional recreational vehicle parking.

Table 3.1: Expected Construction Equipment

Equipment Identification	Proposed Start	Proposed Finish	Quantity
Site Preparation	01/01/2022	02/11/2022	
Rubber Tired Dozers			3
Tractors/Loaders/Backhoes			4
Grading	02/12/2022	07/29/2022	
Excavators			2
Graders			1
Rubber Tired Dozers			1
Scrapers			2
Tractors/Loaders/Backhoes			2
Paving	07/30/2022	10/07/2022	
Pavers			2
Paving Equipment			2
Rollers			2
Building Construction onsite and offsite utility connection	10/08/2022	02/09/2024	
Cranes			1
Forklifts			3
Generator Sets			1
Tractors/Loaders/Backhoes			3
Welders			1
Architectural Coatings	12/01/2022	02/09/2024	
Air Compressors			1
This equipment list is based upon equipment inventory within CALLEEMOD 2016.3.2. The quantity and types are based upon discussions with the project applicant.			

3.3 Operational Impacts

Full buildout operations of the GSP is intended to occur over a span of approximately 20 to 50 years. However, in order to provide a conservative assessment, the entire Project was assumed and added to baseline conditions and was assumed to be built out by 2024. This assumption would be conservative as operations beyond 2024 would likely introduce further regulatory requirements by the state and perhaps local

authorities to reduce air quality emissions. Also, technologies to reduce vehicular emissions would likely improve over time as well.

The project would maintain similar operations to that of existing operations though would expand services to existing seasonal patrons recreating at the Glamis Dunes off-highway vehicle (OHV) areas surrounding the project. The project traffic study indicated that the buildout condition would generate roughly 1,750 ADT (LLG Engineers, 2019) over existing operations from this seasonal community and would primarily be Friday through Monday which are the busiest times at Glamis.

The existing use requires diesel generators to supply power and would be phased out once the project has been connected to a constant electricity source. For this analysis, connection to a utility grid as well as renewable offsets are assumed. Also, the project would not utilize natural gas given the resource is not available at the site location.

The Project’s proposed land uses are intended to serve the existing patrons of the dunes and will likely operate October through May. The site would be closed the remainder of the year due to the fact that patrons would not likely utilize the facilities due to the long distance from population bases and the extreme heat in the summer.

In order to quantify air quality emissions, a scenario which would both generate 1,750 ADT within the GSP and fit within the conceptual plan of the GSP could include a 50 year buildout as shown in Table 3.2. The areas identified as solar within the GSP would be built out to provide 100 percent renewable operations and would either utilize the grid to provide power stability or would install a battery backup system to accomplish this goal. An air quality model utilizing the CalEEMod 2016.3.2 model was prepared for these trip quantities and scenario and is also shown as *Attachment A*.

Table 3.2: Operational Use Scenario

Land Use Type	Land Use Sub Type	Land Use Unit Amount
Commercial	Research & Development	10,000 SF
Industrial	Water/Wastewater Plants	1 Unit
Parking	Other Non-Asphalt Surfaces	25 acres
Recreational	Hotel	150 Rooms
Residential	Employee Housing	5 Units
Retail	Shopping or amenities	10,000 SF

4.0 FINDINGS

4.1 Construction Findings

The Project construction dates were estimated based on a worst case construction kickoff starting in 2022 with construction ending sometime in 2024. In all reality construction would occur over a 20 to 50 year period which would be less intense. CalEEMod 2016.3.2 was utilized for all construction calculations. A summary of the construction emissions is shown below in Table 4.1. Given these findings, no fugitive dust impacts are expected during construction. Also, it should be noted that all ICAPCD standard design measures will be required as they are required for all construction projects within the County. Based on this, the air quality emissions would be reduced from those presented in Table 4.1.

Table 4.1: Expected Construction Emissions Summary (Pounds per Day)

Year	ROG	NO _x	CO	PM ₁₀ (Dust)	PM ₁₀ (Exhaust)	PM ₁₀ (Total)	PM _{2.5} (Dust)	PM _{2.5} (Exhaust)	PM _{2.5} (Total)
2022 (lb/day)	20.05	43.19	61.68	18.21	1.64	19.82	9.97	1.51	11.45
2023 (lb/day)	19.42	35.24	57.78	7.61	0.83	8.44	2.07	0.78	2.85
2024 (lb/day)	19.01	33.82	55.39	7.61	0.73	8.34	2.07	0.69	2.76
Significance Threshold (lb/day)	75	100	550	-	-	150	-	-	150
ICAPCD Impact?	No	No	No	-	-	No	-	-	No

4.2 Operational Findings

Project Buildout is expected within 20 to 50 years however the site was modeled to include buildout in 2024. CalEEMod was also updated to reflect the project traffic projections of 1,750 trips per day (LLG Engineers, 2019). These trips would be expected to be heaviest Friday through Monday and would be operational October through May and the site was modeled assuming GSP scenario shown in Table 3.2 above. Also, it should be noted that daily trips are generated from existing patrons within the Glamis area.

The daily operational pollutants calculated within CalEEMod for both Summer and Winter scenarios as is typical of the model. These emissions are presented in Tables 4.2 and 4.3. Based upon these calculations, the proposed project would not exceed ICAPCD operational air quality significance thresholds and would not be required to implement design measures to comply with CEQA and ICAPCD thresholds. Given this, a less than significant impact is expected. It should be noted that the project would not be operational in the summer months

though CalEEMod software provides these estimates. Since the data is provided, shows that if the project did operate in the summer the emissions would be also less than significant.

Table 4.2: Expected Daily Pollutant Generation (Summer)

	ROG	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}
Area Source Emission Estimates (Lb/Day)	6.67	0.05	0.45	0.00	0.01	0.01
Energy Source Emissions (Lb/Day)	0.00	0.00	0.00	0.00	0.00	0.00
Operational Vehicle Emissions (Lb/Day)	4.59	25.89	40.49	0.11	5.48	1.50
Total (Lb/Day)	11.26	25.94	40.94	0.11	5.49	1.51
ICAPCD Thresholds	55	55	550	150	150	150
Significant?	No	No	No	No	No	No
Daily pollutant generation assumes trip distances within CalEEMod 2016.3.2						

Table 4.3: Expected Daily Pollutant Generation (Winter)

	ROG	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}
Area Source Emission Estimates (Lb/Day)	6.67	0.05	0.45	0.00	0.01	0.01
Energy Source Emissions (Lb/Day)	0.00	0.00	0.00	0.00	0.00	0.00
Operational Vehicle Emissions (Lb/Day)	3.43	25.53	34.60	0.10	5.48	1.50
Total (Lb/Day)	10.11	25.57	35.05	0.10	5.49	1.51
ICAPCD Thresholds	55	55	550	150	150	150
Significant?	No	No	No	No	No	No
Daily pollutant generation assumes trip distances within CalEEMod 2016.3.2						

4.3 Odor Impact Findings

The proposed project is not located around sensitive offsite residential receptors. Given this, no sensitive receptors would be exposed to odors either short or long term from the proposed project. Therefore, a less than significant odor impact is expected. It should be noted that the project would create onsite employee housing. These homes are accessory items to the project site. These units may be exposed to short term odors from construction activities though because they are short term, a less than significant odor impact would be expected.

4.4 Cumulative Impact Findings

Cumulative impacts would exist when either there are direct air quality impacts or when multiple construction projects occur within the same area simultaneously. To illustrate this, if a project was to produce air quality emissions simultaneous to a nearby construction project the addition of both project emissions to the environment could exceed significance thresholds. For this project, the construction emissions were found to be less than significant as shown in Table 4.1 above. If a nearby project was to be under construction at the same time, that project would need to produce an additive amount of emissions close to the project site such that emissions would exceed thresholds.

Based on review of the surrounding area, no significant cumulative construction projects have been identified. Given this, no significant cumulative construction impact is expected.

The Project GSP seeks to was found to generate less than significant operational air quality impacts. Also, the GSP is located and contained within the County's designated Glamis Specific Plan Area (GSPA). The GSPA allows for the development and creation of a Specific Plan in accordance with GSPA design criteria, objectives and policies as outlined in the County's General Plan Land Use Element. The existing zoning designation for the project site is Open Space/Preservation (S-2) and a very small area that is General Commercial (C-2). The general area of the Glamis Beach Store (within APN 039-310-029) is zoned as C-2, while the remainder of the project site is zoned as S-2.

The proposed GSP includes a General Plan Amendment (GPA) and Change of Zone (CZ) for County approval. The GSP proposes the establishment of Commercial/Recreational (CR) designated zoning based upon different levels of allowable land use intensity. Also, the GSP proposes a Change of Zone from S-2 (Open Space/Preservation) to S-1 (Open Space/Recreation) for the approximate 1- acre parcel on the southeast side of the project site.

For purposes of analyzing consistency with the AQMP/SIP, it may be assumed that if a proposed project would have vehicle trip generation substantially greater than anticipated in the General Plan, then the proposed project would conflict with the AQMP/SIP.

The GSP has been designed and would be developed in accordance with GSPA design criteria, objectives and policies as outlined in the County's General Plan Land Use Element. Given this, since the proposed project would not have any significant direct impacts and would not have any significant cumulative impacts, the project would not conflict with either the County's AQMP or SIP.

4.5 Conclusion of Findings

Based on this analysis, no construction or operational impacts are expected and no mitigation is required.

5.0 CERTIFICATIONS

The contents of this report represent an accurate depiction of the air quality environment and impacts within and surrounding the GSP Project. The information contained in this report was based on the best available data at the time of preparation.

DRAFT

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Date November 16, 2020

ATTACHMENT A

CalEEMod Construction and Operational Air Quality Emissions

Glamis GSP - Imperial County, Summer

Glamis GSP
Imperial County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Research & Development	10.00	1000sqft	72.00	10,000.00	0
User Defined Industrial	1.00	User Defined Unit	10.00	1,000.00	0
Other Non-Asphalt Surfaces	25.00	Acre	25.00	1,089,000.00	0
Hotel	150.00	Room	10.00	217,800.00	0
Apartments Low Rise	5.00	Dwelling Unit	10.00	5,000.00	16
Strip Mall	10.00	1000sqft	15.00	10,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	3.4	Precipitation Freq (Days)	12
Climate Zone	15			Operational Year	2024
Utility Company	Imperial Irrigation District				
CO2 Intensity (lb/MWhr)	1270.9	CH4 Intensity (lb/MWhr)	0.029	N2O Intensity (lb/MWhr)	0.006

1.3 User Entered Comments & Non-Default Data

Glamis GSP - Imperial County, Summer

Project Characteristics -

Land Use - estimated GSP

Construction Phase - cs

Off-road Equipment -

On-road Fugitive Dust - Roadways to and from the site from workers are all paved.

Grading -

Vehicle Trips - traffic 1750 ADT on weekends and Monday and Friday and 50% During Tues, Wed, Thur

Road Dust - Access to project via paved roads

Woodstoves -

Energy Use - Natural Gas will not be provided or used onsite

Water And Wastewater -

Energy Mitigation - Project would provide 100% renewable energy between California's Renewable Portfolio (RPS) requirements and onsite renewable energy production

Trips and VMT - Rural Assumption used for construction trip length

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadMoistureContent	0	0.5
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	40
tblConstructionPhase	NumDays	120.00	30.00
tblConstructionPhase	NumDays	310.00	120.00
tblConstructionPhase	NumDays	220.00	50.00
tblConstructionPhase	NumDays	3,100.00	350.00
tblConstructionPhase	NumDays	220.00	312.00
tblEnergyUse	NT24NG	6,030.00	0.00
tblEnergyUse	NT24NG	4.86	0.00
tblEnergyUse	NT24NG	17.13	0.00
tblEnergyUse	NT24NG	0.30	0.00
tblEnergyUse	T24NG	9,544.50	0.00

Glamis GSP - Imperial County, Summer

tblEnergyUse	T24NG	55.15	0.00
tblEnergyUse	T24NG	15.36	0.00
tblEnergyUse	T24NG	1.92	0.00
tblLandUse	LandUseSquareFeet	0.00	1,000.00
tblLandUse	LotAcreage	0.23	72.00
tblLandUse	LotAcreage	0.00	10.00
tblLandUse	LotAcreage	5.00	10.00
tblLandUse	LotAcreage	0.31	10.00
tblLandUse	LotAcreage	0.23	15.00
tblOnRoadDust	HaulingPercentPave	50.00	100.00
tblOnRoadDust	HaulingPercentPave	50.00	100.00
tblOnRoadDust	HaulingPercentPave	50.00	100.00
tblOnRoadDust	HaulingPercentPave	50.00	100.00
tblOnRoadDust	HaulingPercentPave	50.00	100.00
tblOnRoadDust	VendorPercentPave	50.00	100.00
tblOnRoadDust	VendorPercentPave	50.00	100.00
tblOnRoadDust	VendorPercentPave	50.00	100.00
tblOnRoadDust	VendorPercentPave	50.00	100.00
tblOnRoadDust	VendorPercentPave	50.00	100.00
tblOnRoadDust	WorkerPercentPave	50.00	100.00
tblOnRoadDust	WorkerPercentPave	50.00	100.00
tblOnRoadDust	WorkerPercentPave	50.00	100.00
tblOnRoadDust	WorkerPercentPave	50.00	100.00
tblOnRoadDust	WorkerPercentPave	50.00	100.00
tblRoadDust	RoadPercentPave	50	100
tblTripsAndVMT	VendorTripLength	8.90	11.90
tblTripsAndVMT	VendorTripLength	8.90	11.90

Glamis GSP - Imperial County, Summer

tblTripsAndVMT	VendorTripLength	8.90	11.90
tblTripsAndVMT	VendorTripLength	8.90	11.90
tblTripsAndVMT	VendorTripLength	8.90	11.90
tblTripsAndVMT	WorkerTripLength	7.30	10.20
tblTripsAndVMT	WorkerTripLength	7.30	10.20
tblTripsAndVMT	WorkerTripLength	7.30	10.20
tblTripsAndVMT	WorkerTripLength	7.30	10.20
tblTripsAndVMT	WorkerTripLength	7.30	10.20
tblVehicleTrips	HO_TTP	40.60	41.00
tblVehicleTrips	HS_TTP	19.20	19.00
tblVehicleTrips	HW_TTP	40.20	40.00
tblVehicleTrips	ST_TR	7.16	4.00
tblVehicleTrips	ST_TR	8.19	8.00
tblVehicleTrips	ST_TR	1.90	8.00
tblVehicleTrips	ST_TR	42.04	45.00
tblVehicleTrips	SU_TR	6.07	4.00
tblVehicleTrips	SU_TR	5.95	8.00
tblVehicleTrips	SU_TR	1.11	8.00
tblVehicleTrips	SU_TR	20.43	45.00
tblVehicleTrips	WD_TR	6.59	2.80
tblVehicleTrips	WD_TR	8.17	2.80
tblVehicleTrips	WD_TR	8.11	2.80
tblVehicleTrips	WD_TR	44.32	31.50

2.0 Emissions Summary

Glamis GSP - Imperial County, Summer

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2022	20.0532	43.1897	61.6800	0.1662	18.2059	1.6358	19.8193	9.9677	1.5050	11.4521	0.0000	16,804.43 35	16,804.43 35	1.9550	0.0000	16,838.09 84
2023	19.4195	35.2358	57.7751	0.1625	7.6120	0.8253	8.4373	2.0734	0.7806	2.8539	0.0000	16,433.17 41	16,433.17 41	1.2185	0.0000	16,463.63 55
2024	19.0091	33.8224	55.3860	0.1607	7.6120	0.7281	8.3401	2.0734	0.6883	2.7617	0.0000	16,258.55 30	16,258.55 30	1.1897	0.0000	16,288.29 64
Maximum	20.0532	43.1897	61.6800	0.1662	18.2059	1.6358	19.8193	9.9677	1.5050	11.4521	0.0000	16,804.43 35	16,804.43 35	1.9550	0.0000	16,838.09 84

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2022	20.0532	43.1897	61.6800	0.1662	18.2059	1.6358	19.8193	9.9677	1.5050	11.4521	0.0000	16,804.43 35	16,804.43 35	1.9550	0.0000	16,838.09 84
2023	19.4195	35.2358	57.7751	0.1625	7.6120	0.8253	8.4373	2.0734	0.7806	2.8539	0.0000	16,433.17 41	16,433.17 41	1.2185	0.0000	16,463.63 55
2024	19.0091	33.8224	55.3860	0.1607	7.6120	0.7281	8.3401	2.0734	0.6883	2.7617	0.0000	16,258.55 30	16,258.55 30	1.1897	0.0000	16,288.29 64
Maximum	20.0532	43.1897	61.6800	0.1662	18.2059	1.6358	19.8193	9.9677	1.5050	11.4521	0.0000	16,804.43 35	16,804.43 35	1.9550	0.0000	16,838.09 84

Glamis GSP - Imperial 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	6.6736	0.0474	0.4504	2.9000e-004		5.7900e-003	5.7900e-003		5.7900e-003	5.7900e-003	0.0000	54.9445	54.9445	1.8600e-003	9.9000e-004	55.2869
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	4.5850	25.8923	40.4880	0.1067	5.4352	0.0454	5.4806	1.4574	0.0424	1.4998		10,923.4977	10,923.4977	0.7861		10,943.1491
Total	11.2586	25.9397	40.9384	0.1070	5.4352	0.0512	5.4864	1.4574	0.0482	1.5056	0.0000	10,978.4422	10,978.4422	0.7879	9.9000e-004	10,998.4360

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	6.6736	0.0474	0.4504	2.9000e-004		5.7900e-003	5.7900e-003		5.7900e-003	5.7900e-003	0.0000	54.9445	54.9445	1.8600e-003	9.9000e-004	55.2869
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	4.5850	25.8923	40.4880	0.1067	5.4352	0.0454	5.4806	1.4574	0.0424	1.4998		10,923.4977	10,923.4977	0.7861		10,943.1491
Total	11.2586	25.9397	40.9384	0.1070	5.4352	0.0512	5.4864	1.4574	0.0482	1.5056	0.0000	10,978.4422	10,978.4422	0.7879	9.9000e-004	10,998.4360

Glamis GSP - Imperial 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	Site Preparation	Site Preparation	1/1/2022	2/11/2022	5	30	
2	Grading	Grading	2/12/2022	7/29/2022	5	120	
3	Paving	Paving	7/30/2022	10/7/2022	5	50	
4	Building Construction including overhead power lines	Building Construction	10/8/2022	2/9/2024	5	350	
5	Architectural Coating	Architectural Coating	12/1/2022	2/9/2024	5	312	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 300

Acres of Paving: 25

Residential Indoor: 10,125; Residential Outdoor: 3,375; Non-Residential Indoor: 358,200; Non-Residential Outdoor: 119,400; Striped Parking Area: 65,340 (Architectural Coating – sqft)

OffRoad Equipment

Glamis GSP - Imperial County, Summer

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Building Construction including overhead power lines	Cranes	1	7.00	231	0.29
Building Construction including overhead power lines	Forklifts	3	8.00	89	0.20
Building Construction including overhead power lines	Generator Sets	1	8.00	84	0.74
Building Construction including overhead power lines	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction including overhead power lines	Welders	1	8.00	46	0.45
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
Site Preparation	7	18.00	0.00	0.00	10.20	11.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	10.20	11.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.20	11.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction including overhead power lines	9	559.00	218.00	0.00	10.20	11.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	112.00	0.00	0.00	10.20	11.90	20.00	LD_Mix	HDT_Mix	HHDT

Glamis GSP - Imperial County, Summer

3.1 Mitigation Measures Construction

3.2 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					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	3.1701	33.0835	19.6978	0.0380		1.6126	1.6126		1.4836	1.4836		3,686.0619	3,686.0619	1.1922		3,715.8655
Total	3.1701	33.0835	19.6978	0.0380	18.0663	1.6126	19.6788	9.9307	1.4836	11.4143		3,686.0619	3,686.0619	1.1922		3,715.8655

Glamis GSP - Imperial County, Summer

3.2 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	0.1323	0.0865	1.0031	1.3200e-003	0.1397	8.3000e-004	0.1405	0.0371	7.6000e-004	0.0378		130.9536	130.9536	9.7300e-003		131.1967
Total	0.1323	0.0865	1.0031	1.3200e-003	0.1397	8.3000e-004	0.1405	0.0371	7.6000e-004	0.0378		130.9536	130.9536	9.7300e-003		131.1967

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	3.1701	33.0835	19.6978	0.0380		1.6126	1.6126		1.4836	1.4836	0.0000	3,686.0619	3,686.0619	1.1922		3,715.8655
Total	3.1701	33.0835	19.6978	0.0380	18.0663	1.6126	19.6788	9.9307	1.4836	11.4143	0.0000	3,686.0619	3,686.0619	1.1922		3,715.8655

Glamis GSP - Imperial County, Summer

3.2 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	0.1323	0.0865	1.0031	1.3200e-003	0.1397	8.3000e-004	0.1405	0.0371	7.6000e-004	0.0378		130.9536	130.9536	9.7300e-003		131.1967
Total	0.1323	0.0865	1.0031	1.3200e-003	0.1397	8.3000e-004	0.1405	0.0371	7.6000e-004	0.0378		130.9536	130.9536	9.7300e-003		131.1967

3.3 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					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	3.6248	38.8435	29.0415	0.0621		1.6349	1.6349		1.5041	1.5041		6,011.4105	6,011.4105	1.9442		6,060.0158
Total	3.6248	38.8435	29.0415	0.0621	8.6733	1.6349	10.3082	3.5965	1.5041	5.1006		6,011.4105	6,011.4105	1.9442		6,060.0158

Glamis GSP - Imperial County, Summer

3.3 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	0.0000	0.0000	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	0.1470	0.0962	1.1146	1.4700e-003	0.1552	9.2000e-004	0.1561	0.0412	8.5000e-004	0.0420		145.5040	145.5040	0.0108		145.7741
Total	0.1470	0.0962	1.1146	1.4700e-003	0.1552	9.2000e-004	0.1561	0.0412	8.5000e-004	0.0420		145.5040	145.5040	0.0108		145.7741

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	3.6248	38.8435	29.0415	0.0621		1.6349	1.6349		1.5041	1.5041	0.0000	6,011.4105	6,011.4105	1.9442		6,060.0158
Total	3.6248	38.8435	29.0415	0.0621	8.6733	1.6349	10.3082	3.5965	1.5041	5.1006	0.0000	6,011.4105	6,011.4105	1.9442		6,060.0158

Glamis GSP - Imperial County, Summer

3.3 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	0.0000	0.0000	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	0.1470	0.0962	1.1146	1.4700e-003	0.1552	9.2000e-004	0.1561	0.0412	8.5000e-004	0.0420		145.5040	145.5040	0.0108		145.7741
Total	0.1470	0.0962	1.1146	1.4700e-003	0.1552	9.2000e-004	0.1561	0.0412	8.5000e-004	0.0420		145.5040	145.5040	0.0108		145.7741

3.4 Paving - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1028	11.1249	14.5805	0.0228		0.5679	0.5679		0.5225	0.5225		2,207.6603	2,207.6603	0.7140		2,225.5104
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	1.1028	11.1249	14.5805	0.0228		0.5679	0.5679		0.5225	0.5225		2,207.6603	2,207.6603	0.7140		2,225.5104

Glamis GSP - Imperial County, Summer

3.4 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	0.1103	0.0721	0.8359	1.1000e-003	0.1164	6.9000e-004	0.1171	0.0309	6.4000e-004	0.0315		109.1280	109.1280	8.1000e-003		109.3306
Total	0.1103	0.0721	0.8359	1.1000e-003	0.1164	6.9000e-004	0.1171	0.0309	6.4000e-004	0.0315		109.1280	109.1280	8.1000e-003		109.3306

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1028	11.1249	14.5805	0.0228		0.5679	0.5679		0.5225	0.5225	0.0000	2,207.6603	2,207.6603	0.7140		2,225.5104
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	1.1028	11.1249	14.5805	0.0228		0.5679	0.5679		0.5225	0.5225	0.0000	2,207.6603	2,207.6603	0.7140		2,225.5104

Glamis GSP - Imperial County, Summer

3.4 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	0.1103	0.0721	0.8359	1.1000e-003	0.1164	6.9000e-004	0.1171	0.0309	6.4000e-004	0.0315		109.1280	109.1280	8.1000e-003		109.3306
Total	0.1103	0.0721	0.8359	1.1000e-003	0.1164	6.9000e-004	0.1171	0.0309	6.4000e-004	0.0315		109.1280	109.1280	8.1000e-003		109.3306

3.5 Building Construction including overhead power lines - 2022

Unmitigated Construction On-Site

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

Glamis GSP - Imperial County, Summer

3.5 Building Construction including overhead power lines - 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	0.9100	22.9395	6.1094	0.0869	2.4058	0.0627	2.4684	0.6924	0.0599	0.7523		9,086.9935	9,086.9935	0.3538		9,095.8380
Worker	4.1097	2.6876	31.1520	0.0411	4.3372	0.0258	4.3630	1.1505	0.0237	1.1742		4,066.8361	4,066.8361	0.3020		4,074.3869
Total	5.0198	25.6271	37.2615	0.1280	6.7430	0.0884	6.8314	1.8429	0.0836	1.9265		13,153.8296	13,153.8296	0.6558		13,170.2249

Mitigated Construction On-Site

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

Glamis GSP - Imperial County, Summer

3.5 Building Construction including overhead power lines - 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	0.9100	22.9395	6.1094	0.0869	2.4058	0.0627	2.4684	0.6924	0.0599	0.7523		9,086.9935	9,086.9935	0.3538		9,095.8380
Worker	4.1097	2.6876	31.1520	0.0411	4.3372	0.0258	4.3630	1.1505	0.0237	1.1742		4,066.8361	4,066.8361	0.3020		4,074.3869
Total	5.0198	25.6271	37.2615	0.1280	6.7430	0.0884	6.8314	1.8429	0.0836	1.9265		13,153.8296	13,153.8296	0.6558		13,170.2249

3.5 Building Construction including overhead power lines - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584		2,555.2099	2,555.2099	0.6079		2,570.4061
Total	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584		2,555.2099	2,555.2099	0.6079		2,570.4061

Glamis GSP - Imperial County, Summer

3.5 Building Construction including overhead power lines - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.7379	16.5733	5.3353	0.0851	2.4058	0.0251	2.4309	0.6924	0.0240	0.7164		8,900.0989	8,900.0989	0.2617		8,906.6405
Worker	3.8471	2.4781	28.6454	0.0395	4.3372	0.0247	4.3620	1.1505	0.0228	1.1733		3,912.5145	3,912.5145	0.2767		3,919.4314
Total	4.5850	19.0514	33.9806	0.1247	6.7430	0.0498	6.7928	1.8429	0.0467	1.8896		12,812.6134	12,812.6134	0.5383		12,826.0718

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584	0.0000	2,555.2099	2,555.2099	0.6079		2,570.4061
Total	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584	0.0000	2,555.2099	2,555.2099	0.6079		2,570.4061

Glamis GSP - Imperial County, Summer

3.5 Building Construction including overhead power lines - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.7379	16.5733	5.3353	0.0851	2.4058	0.0251	2.4309	0.6924	0.0240	0.7164		8,900.0989	8,900.0989	0.2617		8,906.6405
Worker	3.8471	2.4781	28.6454	0.0395	4.3372	0.0247	4.3620	1.1505	0.0228	1.1733		3,912.5145	3,912.5145	0.2767		3,919.4314
Total	4.5850	19.0514	33.9806	0.1247	6.7430	0.0498	6.7928	1.8429	0.0467	1.8896		12,812.6134	12,812.6134	0.5383		12,826.0718

3.5 Building Construction including overhead power lines - 2024

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	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769		2,555.6989	2,555.6989	0.6044		2,570.8077
Total	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769		2,555.6989	2,555.6989	0.6044		2,570.8077

Glamis GSP - Imperial County, Summer

3.5 Building Construction including overhead power lines - 2024

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	0.7101	16.3796	4.9883	0.0848	2.4058	0.0247	2.4305	0.6924	0.0237	0.7161		8,870.7953	8,870.7953	0.2570		8,877.2212
Worker	3.6218	2.3162	27.0093	0.0383	4.3372	0.0242	4.3615	1.1505	0.0223	1.1728		3,791.0454	3,791.0454	0.2603		3,797.5539
Total	4.3319	18.6958	31.9976	0.1231	6.7430	0.0490	6.7920	1.8429	0.0460	1.8889		12,661.8406	12,661.8406	0.5174		12,674.7751

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	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769	0.0000	2,555.6989	2,555.6989	0.6044		2,570.8077
Total	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769	0.0000	2,555.6989	2,555.6989	0.6044		2,570.8077

Glamis GSP - Imperial County, Summer

3.5 Building Construction including overhead power lines - 2024

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	0.7101	16.3796	4.9883	0.0848	2.4058	0.0247	2.4305	0.6924	0.0237	0.7161		8,870.7953	8,870.7953	0.2570		8,877.2212
Worker	3.6218	2.3162	27.0093	0.0383	4.3372	0.0242	4.3615	1.1505	0.0223	1.1728		3,791.0454	3,791.0454	0.2603		3,797.5539
Total	4.3319	18.6958	31.9976	0.1231	6.7430	0.0490	6.7920	1.8429	0.0460	1.8889		12,661.8406	12,661.8406	0.5174		12,674.7751

3.6 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	12.2992					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
Total	12.5038	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817		281.4481	281.4481	0.0183		281.9062

Glamis GSP - Imperial County, Summer

3.6 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	0.0000	0.0000	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	0.8234	0.5385	6.2416	8.2400e-003	0.8690	5.1600e-003	0.8742	0.2305	4.7500e-003	0.2353		814.8223	814.8223	0.0605		816.3351
Total	0.8234	0.5385	6.2416	8.2400e-003	0.8690	5.1600e-003	0.8742	0.2305	4.7500e-003	0.2353		814.8223	814.8223	0.0605		816.3351

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	12.2992					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
Total	12.5038	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

Glamis GSP - Imperial County, Summer

3.6 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	0.0000	0.0000	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	0.8234	0.5385	6.2416	8.2400e-003	0.8690	5.1600e-003	0.8742	0.2305	4.7500e-003	0.2353		814.8223	814.8223	0.0605		816.3351
Total	0.8234	0.5385	6.2416	8.2400e-003	0.8690	5.1600e-003	0.8742	0.2305	4.7500e-003	0.2353		814.8223	814.8223	0.0605		816.3351

3.6 Architectural Coating - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	12.2992					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708		281.4481	281.4481	0.0168		281.8690
Total	12.4909	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708		281.4481	281.4481	0.0168		281.8690

Glamis GSP - Imperial County, Summer

3.6 Architectural Coating - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.7708	0.4965	5.7393	7.9200e-003	0.8690	4.9600e-003	0.8740	0.2305	4.5600e-003	0.2351		783.9027	783.9027	0.0554		785.2886
Total	0.7708	0.4965	5.7393	7.9200e-003	0.8690	4.9600e-003	0.8740	0.2305	4.5600e-003	0.2351		783.9027	783.9027	0.0554		785.2886

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	12.2992					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708	0.0000	281.4481	281.4481	0.0168		281.8690
Total	12.4909	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708	0.0000	281.4481	281.4481	0.0168		281.8690

Glamis GSP - Imperial County, Summer

3.6 Architectural Coating - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
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	0.7708	0.4965	5.7393	7.9200e-003	0.8690	4.9600e-003	0.8740	0.2305	4.5600e-003	0.2351		783.9027	783.9027	0.0554		785.2886
Total	0.7708	0.4965	5.7393	7.9200e-003	0.8690	4.9600e-003	0.8740	0.2305	4.5600e-003	0.2351		783.9027	783.9027	0.0554		785.2886

3.6 Architectural Coating - 2024

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	12.2992					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609		281.4481	281.4481	0.0159		281.8443
Total	12.4800	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609		281.4481	281.4481	0.0159		281.8443

Glamis GSP - Imperial County, Summer

3.6 Architectural Coating - 2024

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	0.7257	0.4641	5.4115	7.6700e-003	0.8690	4.8600e-003	0.8739	0.2305	4.4700e-003	0.2350		759.5654	759.5654	0.0522		760.8695
Total	0.7257	0.4641	5.4115	7.6700e-003	0.8690	4.8600e-003	0.8739	0.2305	4.4700e-003	0.2350		759.5654	759.5654	0.0522		760.8695

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	12.2992					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609	0.0000	281.4481	281.4481	0.0159		281.8443
Total	12.4800	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609	0.0000	281.4481	281.4481	0.0159		281.8443

Glamis GSP - Imperial County, Summer

3.6 Architectural Coating - 2024

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	0.7257	0.4641	5.4115	7.6700e-003	0.8690	4.8600e-003	0.8739	0.2305	4.4700e-003	0.2350		759.5654	759.5654	0.0522		760.8695
Total	0.7257	0.4641	5.4115	7.6700e-003	0.8690	4.8600e-003	0.8739	0.2305	4.4700e-003	0.2350		759.5654	759.5654	0.0522		760.8695

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Glamis GSP - Imperial 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	4.5850	25.8923	40.4880	0.1067	5.4352	0.0454	5.4806	1.4574	0.0424	1.4998		10,923.49 77	10,923.49 77	0.7861		10,943.14 91
Unmitigated	4.5850	25.8923	40.4880	0.1067	5.4352	0.0454	5.4806	1.4574	0.0424	1.4998		10,923.49 77	10,923.49 77	0.7861		10,943.14 91

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	14.00	20.00	20.00	26,303	26,303
Hotel	420.00	1,200.00	1200.00	959,819	959,819
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Research & Development	28.00	80.00	80.00	84,349	84,349
Strip Mall	315.00	450.00	450.00	428,283	428,283
User Defined Industrial	0.00	0.00	0.00		
Total	777.00	1,750.00	1,750.00	1,498,754	1,498,754

4.3 Trip Type Information

Glamis GSP - Imperial County, Summer

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
Apartments Low Rise	7.30	3.90	3.70	40.00	19.00	41.00	86	11	3
Hotel	6.70	5.00	8.90	19.40	61.60	19.00	58	38	4
Other Non-Asphalt Surfaces	6.70	5.00	8.90	0.00	0.00	0.00	0	0	0
Research & Development	6.70	5.00	8.90	33.00	48.00	19.00	82	15	3
Strip Mall	6.70	5.00	8.90	16.60	64.40	19.00	45	40	15
User Defined Industrial	6.70	5.00	8.90	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Low Rise	0.524989	0.030717	0.161165	0.112416	0.014580	0.004690	0.018794	0.121206	0.003615	0.001256	0.005248	0.000725	0.000600
Hotel	0.524989	0.030717	0.161165	0.112416	0.014580	0.004690	0.018794	0.121206	0.003615	0.001256	0.005248	0.000725	0.000600
Other Non-Asphalt Surfaces	0.524989	0.030717	0.161165	0.112416	0.014580	0.004690	0.018794	0.121206	0.003615	0.001256	0.005248	0.000725	0.000600
Research & Development	0.524989	0.030717	0.161165	0.112416	0.014580	0.004690	0.018794	0.121206	0.003615	0.001256	0.005248	0.000725	0.000600
Strip Mall	0.524989	0.030717	0.161165	0.112416	0.014580	0.004690	0.018794	0.121206	0.003615	0.001256	0.005248	0.000725	0.000600
User Defined Industrial	0.524989	0.030717	0.161165	0.112416	0.014580	0.004690	0.018794	0.121206	0.003615	0.001256	0.005248	0.000725	0.000600

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Percent of Electricity Use Generated with Renewable Energy

Glamis GSP - Imperial 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					
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

Glamis GSP - Imperial 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					
Apartments Low Rise	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
Hotel	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Research & Development	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
Strip Mall	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
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

Glamis GSP - Imperial County, Summer

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Low Rise	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
Hotel	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Research & Development	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
Strip Mall	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
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

6.0 Area Detail

6.1 Mitigation Measures Area

Glamis GSP - Imperial 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	6.6736	0.0474	0.4504	2.9000e-004		5.7900e-003	5.7900e-003		5.7900e-003	5.7900e-003	0.0000	54.9445	54.9445	1.8600e-003	9.9000e-004	55.2869
Unmitigated	6.6736	0.0474	0.4504	2.9000e-004		5.7900e-003	5.7900e-003		5.7900e-003	5.7900e-003	0.0000	54.9445	54.9445	1.8600e-003	9.9000e-004	55.2869

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	1.0513					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	5.6030					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	4.9600e-003	0.0424	0.0181	2.7000e-004		3.4300e-003	3.4300e-003		3.4300e-003	3.4300e-003	0.0000	54.1588	54.1588	1.0400e-003	9.9000e-004	54.4807
Landscaping	0.0142	4.9300e-003	0.4323	2.0000e-005		2.3600e-003	2.3600e-003		2.3600e-003	2.3600e-003		0.7857	0.7857	8.2000e-004		0.8063
Total	6.6736	0.0474	0.4504	2.9000e-004		5.7900e-003	5.7900e-003		5.7900e-003	5.7900e-003	0.0000	54.9445	54.9445	1.8600e-003	9.9000e-004	55.2869

Glamis GSP - Imperial 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	1.0513					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	5.6030					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	4.9600e-003	0.0424	0.0181	2.7000e-004		3.4300e-003	3.4300e-003		3.4300e-003	3.4300e-003	0.0000	54.1588	54.1588	1.0400e-003	9.9000e-004	54.4807
Landscaping	0.0142	4.9300e-003	0.4323	2.0000e-005		2.3600e-003	2.3600e-003		2.3600e-003	2.3600e-003		0.7857	0.7857	8.2000e-004		0.8063
Total	6.6736	0.0474	0.4504	2.9000e-004		5.7900e-003	5.7900e-003		5.7900e-003	5.7900e-003	0.0000	54.9445	54.9445	1.8600e-003	9.9000e-004	55.2869

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

Glamis GSP - Imperial 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

Glamis GSP - Imperial County, Winter

Glamis GSP
Imperial County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Research & Development	10.00	1000sqft	72.00	10,000.00	0
User Defined Industrial	1.00	User Defined Unit	10.00	1,000.00	0
Other Non-Asphalt Surfaces	25.00	Acre	25.00	1,089,000.00	0
Hotel	150.00	Room	10.00	217,800.00	0
Apartments Low Rise	5.00	Dwelling Unit	10.00	5,000.00	16
Strip Mall	10.00	1000sqft	15.00	10,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	3.4	Precipitation Freq (Days)	12
Climate Zone	15			Operational Year	2024
Utility Company	Imperial Irrigation District				
CO2 Intensity (lb/MW hr)	1270.9	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

Glamis GSP - Imperial County, Winter

Project Characteristics -

Land Use - estimated GSP

Construction Phase - cs

Off-road Equipment -

On-road Fugitive Dust - Roadways to and from the site from workers are all paved.

Grading -

Vehicle Trips - traffic 1750 ADT on weekends and Monday and Friday and 50% During Tues, Wed, Thur

Road Dust - Access to project via paved roads

Woodstoves -

Energy Use - Natural Gas will not be provided or used onsite

Water And Wastewater -

Energy Mitigation - Project would provide 100% renewable energy between California's Renewable Portfolio (RPS) requirements and onsite renewable energy production

Trips and VMT - Rural Assumption used for construction trip length

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadMoistureContent	0	0.5
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	40
tblConstructionPhase	NumDays	120.00	30.00
tblConstructionPhase	NumDays	310.00	120.00
tblConstructionPhase	NumDays	220.00	50.00
tblConstructionPhase	NumDays	3,100.00	350.00
tblConstructionPhase	NumDays	220.00	312.00
tblEnergyUse	NT24NG	6,030.00	0.00
tblEnergyUse	NT24NG	4.86	0.00
tblEnergyUse	NT24NG	17.13	0.00
tblEnergyUse	NT24NG	0.30	0.00
tblEnergyUse	T24NG	9,544.50	0.00

Glamis GSP - Imperial County, Winter

tblEnergyUse	T24NG	55.15	0.00
tblEnergyUse	T24NG	15.36	0.00
tblEnergyUse	T24NG	1.92	0.00
tblLandUse	LandUseSquareFeet	0.00	1,000.00
tblLandUse	LotAcreage	0.23	72.00
tblLandUse	LotAcreage	0.00	10.00
tblLandUse	LotAcreage	5.00	10.00
tblLandUse	LotAcreage	0.31	10.00
tblLandUse	LotAcreage	0.23	15.00
tblOnRoadDust	HaulingPercentPave	50.00	100.00
tblOnRoadDust	HaulingPercentPave	50.00	100.00
tblOnRoadDust	HaulingPercentPave	50.00	100.00
tblOnRoadDust	HaulingPercentPave	50.00	100.00
tblOnRoadDust	HaulingPercentPave	50.00	100.00
tblOnRoadDust	VendorPercentPave	50.00	100.00
tblOnRoadDust	VendorPercentPave	50.00	100.00
tblOnRoadDust	VendorPercentPave	50.00	100.00
tblOnRoadDust	VendorPercentPave	50.00	100.00
tblOnRoadDust	VendorPercentPave	50.00	100.00
tblOnRoadDust	WorkerPercentPave	50.00	100.00
tblOnRoadDust	WorkerPercentPave	50.00	100.00
tblOnRoadDust	WorkerPercentPave	50.00	100.00
tblOnRoadDust	WorkerPercentPave	50.00	100.00
tblOnRoadDust	WorkerPercentPave	50.00	100.00
tblRoadDust	RoadPercentPave	50	100
tblTripsAndVMT	VendorTripLength	8.90	11.90
tblTripsAndVMT	VendorTripLength	8.90	11.90

Glamis GSP - Imperial County, Winter

tblTripsAndVMT	VendorTripLength	8.90	11.90
tblTripsAndVMT	VendorTripLength	8.90	11.90
tblTripsAndVMT	VendorTripLength	8.90	11.90
tblTripsAndVMT	WorkerTripLength	7.30	10.20
tblTripsAndVMT	WorkerTripLength	7.30	10.20
tblTripsAndVMT	WorkerTripLength	7.30	10.20
tblTripsAndVMT	WorkerTripLength	7.30	10.20
tblTripsAndVMT	WorkerTripLength	7.30	10.20
tblVehicleTrips	HO_TTP	40.60	41.00
tblVehicleTrips	HS_TTP	19.20	19.00
tblVehicleTrips	HW_TTP	40.20	40.00
tblVehicleTrips	ST_TR	7.16	4.00
tblVehicleTrips	ST_TR	8.19	8.00
tblVehicleTrips	ST_TR	1.90	8.00
tblVehicleTrips	ST_TR	42.04	45.00
tblVehicleTrips	SU_TR	6.07	4.00
tblVehicleTrips	SU_TR	5.95	8.00
tblVehicleTrips	SU_TR	1.11	8.00
tblVehicleTrips	SU_TR	20.43	45.00
tblVehicleTrips	WD_TR	6.59	2.80
tblVehicleTrips	WD_TR	8.17	2.80
tblVehicleTrips	WD_TR	8.11	2.80
tblVehicleTrips	WD_TR	44.32	31.50

2.0 Emissions Summary

Glamis GSP - Imperial County, Winter

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2022	19.3075	43.7594	52.3254	0.1556	18.2059	1.6358	19.8193	9.9677	1.5050	11.4521	0.0000	15,745.90 32	15,745.90 32	1.9528	0.0000	15,778.74 51
2023	18.7303	35.4593	49.0108	0.1523	7.6120	0.8260	8.4380	2.0734	0.7812	2.8545	0.0000	15,412.06 73	15,412.06 73	1.1812	0.0000	15,441.59 71
2024	18.3768	34.0111	47.0768	0.1508	7.6120	0.7286	8.3407	2.0734	0.6888	2.7622	0.0000	15,263.25 78	15,263.25 78	1.1572	0.0000	15,292.18 71
Maximum	19.3075	43.7594	52.3254	0.1556	18.2059	1.6358	19.8193	9.9677	1.5050	11.4521	0.0000	15,745.90 32	15,745.90 32	1.9528	0.0000	15,778.74 51

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2022	19.3075	43.7594	52.3254	0.1556	18.2059	1.6358	19.8193	9.9677	1.5050	11.4521	0.0000	15,745.90 32	15,745.90 32	1.9528	0.0000	15,778.74 51
2023	18.7303	35.4593	49.0108	0.1523	7.6120	0.8260	8.4380	2.0734	0.7812	2.8545	0.0000	15,412.06 73	15,412.06 73	1.1812	0.0000	15,441.59 71
2024	18.3768	34.0111	47.0768	0.1508	7.6120	0.7286	8.3407	2.0734	0.6888	2.7622	0.0000	15,263.25 78	15,263.25 78	1.1572	0.0000	15,292.18 71
Maximum	19.3075	43.7594	52.3254	0.1556	18.2059	1.6358	19.8193	9.9677	1.5050	11.4521	0.0000	15,745.90 32	15,745.90 32	1.9528	0.0000	15,778.74 51

Glamis GSP - Imperial 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	6.6736	0.0474	0.4504	2.9000e-004		5.7900e-003	5.7900e-003		5.7900e-003	5.7900e-003	0.0000	54.9445	54.9445	1.8600e-003	9.9000e-004	55.2869
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	3.4337	25.5250	34.5998	0.0955	5.4352	0.0465	5.4817	1.4574	0.0435	1.5008		9,786.7305	9,786.7305	0.7967		9,806.6479
Total	10.1073	25.5723	35.0502	0.0958	5.4352	0.0523	5.4875	1.4574	0.0493	1.5066	0.0000	9,841.6750	9,841.6750	0.7986	9.9000e-004	9,861.9348

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	6.6736	0.0474	0.4504	2.9000e-004		5.7900e-003	5.7900e-003		5.7900e-003	5.7900e-003	0.0000	54.9445	54.9445	1.8600e-003	9.9000e-004	55.2869
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	3.4337	25.5250	34.5998	0.0955	5.4352	0.0465	5.4817	1.4574	0.0435	1.5008		9,786.7305	9,786.7305	0.7967		9,806.6479
Total	10.1073	25.5723	35.0502	0.0958	5.4352	0.0523	5.4875	1.4574	0.0493	1.5066	0.0000	9,841.6750	9,841.6750	0.7986	9.9000e-004	9,861.9348

Glamis GSP - Imperial 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	Site Preparation	Site Preparation	1/1/2022	2/11/2022	5	30	
2	Grading	Grading	2/12/2022	7/29/2022	5	120	
3	Paving	Paving	7/30/2022	10/7/2022	5	50	
4	Building Construction including overhead power lines	Building Construction	10/8/2022	2/9/2024	5	350	
5	Architectural Coating	Architectural Coating	12/1/2022	2/9/2024	5	312	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 300

Acres of Paving: 25

Residential Indoor: 10,125; Residential Outdoor: 3,375; Non-Residential Indoor: 358,200; Non-Residential Outdoor: 119,400; Striped Parking Area: 65,340 (Architectural Coating – sqft)

OffRoad Equipment

Glamis GSP - Imperial County, Winter

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Building Construction including overhead power lines	Cranes	1	7.00	231	0.29
Building Construction including overhead power lines	Forklifts	3	8.00	89	0.20
Building Construction including overhead power lines	Generator Sets	1	8.00	84	0.74
Building Construction including overhead power lines	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction including overhead power lines	Welders	1	8.00	46	0.45
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
Site Preparation	7	18.00	0.00	0.00	10.20	11.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	10.20	11.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.20	11.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction including overhead power lines	9	559.00	218.00	0.00	10.20	11.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	112.00	0.00	0.00	10.20	11.90	20.00	LD_Mix	HDT_Mix	HHDT

Glamis GSP - Imperial County, Winter

3.1 Mitigation Measures Construction

3.2 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					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	3.1701	33.0835	19.6978	0.0380		1.6126	1.6126		1.4836	1.4836		3,686.0619	3,686.0619	1.1922		3,715.8655
Total	3.1701	33.0835	19.6978	0.0380	18.0663	1.6126	19.6788	9.9307	1.4836	11.4143		3,686.0619	3,686.0619	1.1922		3,715.8655

Glamis GSP - Imperial County, Winter

3.2 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	0.1115	0.0907	0.7296	1.1100e-003	0.1397	8.3000e-004	0.1405	0.0371	7.6000e-004	0.0378		109.6630	109.6630	7.7400e-003		109.8566
Total	0.1115	0.0907	0.7296	1.1100e-003	0.1397	8.3000e-004	0.1405	0.0371	7.6000e-004	0.0378		109.6630	109.6630	7.7400e-003		109.8566

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	3.1701	33.0835	19.6978	0.0380		1.6126	1.6126		1.4836	1.4836	0.0000	3,686.0619	3,686.0619	1.1922		3,715.8655
Total	3.1701	33.0835	19.6978	0.0380	18.0663	1.6126	19.6788	9.9307	1.4836	11.4143	0.0000	3,686.0619	3,686.0619	1.1922		3,715.8655

Glamis GSP - Imperial County, Winter

3.2 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	0.1115	0.0907	0.7296	1.1100e-003	0.1397	8.3000e-004	0.1405	0.0371	7.6000e-004	0.0378		109.6630	109.6630	7.7400e-003		109.8566
Total	0.1115	0.0907	0.7296	1.1100e-003	0.1397	8.3000e-004	0.1405	0.0371	7.6000e-004	0.0378		109.6630	109.6630	7.7400e-003		109.8566

3.3 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					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	3.6248	38.8435	29.0415	0.0621		1.6349	1.6349		1.5041	1.5041		6,011.4105	6,011.4105	1.9442		6,060.0158
Total	3.6248	38.8435	29.0415	0.0621	8.6733	1.6349	10.3082	3.5965	1.5041	5.1006		6,011.4105	6,011.4105	1.9442		6,060.0158

Glamis GSP - Imperial County, Winter

3.3 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	0.0000	0.0000	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	0.1238	0.1008	0.8107	1.2300e-003	0.1552	9.2000e-004	0.1561	0.0412	8.5000e-004	0.0420		121.8478	121.8478	8.6000e-003		122.0628
Total	0.1238	0.1008	0.8107	1.2300e-003	0.1552	9.2000e-004	0.1561	0.0412	8.5000e-004	0.0420		121.8478	121.8478	8.6000e-003		122.0628

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	3.6248	38.8435	29.0415	0.0621		1.6349	1.6349		1.5041	1.5041	0.0000	6,011.4105	6,011.4105	1.9442		6,060.0158
Total	3.6248	38.8435	29.0415	0.0621	8.6733	1.6349	10.3082	3.5965	1.5041	5.1006	0.0000	6,011.4105	6,011.4105	1.9442		6,060.0158

Glamis GSP - Imperial County, Winter

3.3 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	0.0000	0.0000	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	0.1238	0.1008	0.8107	1.2300e-003	0.1552	9.2000e-004	0.1561	0.0412	8.5000e-004	0.0420		121.8478	121.8478	8.6000e-003		122.0628
Total	0.1238	0.1008	0.8107	1.2300e-003	0.1552	9.2000e-004	0.1561	0.0412	8.5000e-004	0.0420		121.8478	121.8478	8.6000e-003		122.0628

3.4 Paving - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1028	11.1249	14.5805	0.0228		0.5679	0.5679		0.5225	0.5225		2,207.6603	2,207.6603	0.7140		2,225.5104
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	1.1028	11.1249	14.5805	0.0228		0.5679	0.5679		0.5225	0.5225		2,207.6603	2,207.6603	0.7140		2,225.5104

Glamis GSP - Imperial County, Winter

3.4 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	0.0929	0.0756	0.6080	9.2000e-004	0.1164	6.9000e-004	0.1171	0.0309	6.4000e-004	0.0315		91.3858	91.3858	6.4500e-003		91.5471
Total	0.0929	0.0756	0.6080	9.2000e-004	0.1164	6.9000e-004	0.1171	0.0309	6.4000e-004	0.0315		91.3858	91.3858	6.4500e-003		91.5471

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1028	11.1249	14.5805	0.0228		0.5679	0.5679		0.5225	0.5225	0.0000	2,207.6603	2,207.6603	0.7140		2,225.5104
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	1.1028	11.1249	14.5805	0.0228		0.5679	0.5679		0.5225	0.5225	0.0000	2,207.6603	2,207.6603	0.7140		2,225.5104

Glamis GSP - Imperial County, Winter

3.4 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	0.0929	0.0756	0.6080	9.2000e-004	0.1164	6.9000e-004	0.1171	0.0309	6.4000e-004	0.0315		91.3858	91.3858	6.4500e-003		91.5471
Total	0.0929	0.0756	0.6080	9.2000e-004	0.1164	6.9000e-004	0.1171	0.0309	6.4000e-004	0.0315		91.3858	91.3858	6.4500e-003		91.5471

3.5 Building Construction including overhead power lines - 2022

Unmitigated Construction On-Site

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

Glamis GSP - Imperial County, Winter

3.5 Building Construction including overhead power lines - 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	0.9429	23.3538	6.9489	0.0844	2.4058	0.0644	2.4702	0.6924	0.0616	0.7540		8,822.1295	8,822.1295	0.3948		8,831.9988
Worker	3.4611	2.8170	22.6595	0.0344	4.3372	0.0258	4.3630	1.1505	0.0237	1.1742		3,405.6447	3,405.6447	0.2405		3,411.6561
Total	4.4040	26.1708	29.6084	0.1188	6.7430	0.0902	6.8332	1.8429	0.0853	1.9282		12,227.7742	12,227.7742	0.6352		12,243.6549

Mitigated Construction On-Site

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

Glamis GSP - Imperial County, Winter

3.5 Building Construction including overhead power lines - 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	0.9429	23.3538	6.9489	0.0844	2.4058	0.0644	2.4702	0.6924	0.0616	0.7540		8,822.1295	8,822.1295	0.3948		8,831.9988
Worker	3.4611	2.8170	22.6595	0.0344	4.3372	0.0258	4.3630	1.1505	0.0237	1.1742		3,405.6447	3,405.6447	0.2405		3,411.6561
Total	4.4040	26.1708	29.6084	0.1188	6.7430	0.0902	6.8332	1.8429	0.0853	1.9282		12,227.7742	12,227.7742	0.6352		12,243.6549

3.5 Building Construction including overhead power lines - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584		2,555.2099	2,555.2099	0.6079		2,570.4061
Total	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584		2,555.2099	2,555.2099	0.6079		2,570.4061

Glamis GSP - Imperial County, Winter

3.5 Building Construction including overhead power lines - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.7618	16.6588	5.9793	0.0827	2.4058	0.0257	2.4315	0.6924	0.0246	0.7170		8,642.4564	8,642.4564	0.2909		8,649.7279
Worker	3.2531	2.5931	20.8075	0.0331	4.3372	0.0247	4.3620	1.1505	0.0228	1.1733		3,276.4838	3,276.4838	0.2213		3,282.0165
Total	4.0149	19.2519	26.7867	0.1157	6.7430	0.0504	6.7935	1.8429	0.0473	1.8902		11,918.9403	11,918.9403	0.5122		11,931.7445

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	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584	0.0000	2,555.2099	2,555.2099	0.6079		2,570.4061
Total	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584	0.0000	2,555.2099	2,555.2099	0.6079		2,570.4061

Glamis GSP - Imperial County, Winter

3.5 Building Construction including overhead power lines - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.7618	16.6588	5.9793	0.0827	2.4058	0.0257	2.4315	0.6924	0.0246	0.7170		8,642.4564	8,642.4564	0.2909		8,649.7279
Worker	3.2531	2.5931	20.8075	0.0331	4.3372	0.0247	4.3620	1.1505	0.0228	1.1733		3,276.4838	3,276.4838	0.2213		3,282.0165
Total	4.0149	19.2519	26.7867	0.1157	6.7430	0.0504	6.7935	1.8429	0.0473	1.8902		11,918.9403	11,918.9403	0.5122		11,931.7445

3.5 Building Construction including overhead power lines - 2024

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	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769		2,555.6989	2,555.6989	0.6044		2,570.8077
Total	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769		2,555.6989	2,555.6989	0.6044		2,570.8077

Glamis GSP - Imperial County, Winter

3.5 Building Construction including overhead power lines - 2024

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	0.7343	16.4437	5.6174	0.0824	2.4058	0.0253	2.4311	0.6924	0.0242	0.7166		8,615.6196	8,615.6196	0.2863		8,622.7770
Worker	3.0749	2.4199	19.5629	0.0320	4.3372	0.0242	4.3615	1.1505	0.0223	1.1728		3,174.4629	3,174.4629	0.2088		3,179.6838
Total	3.8092	18.8636	25.1803	0.1144	6.7430	0.0496	6.7926	1.8429	0.0465	1.8894		11,790.0825	11,790.0825	0.4951		11,802.4608

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	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769	0.0000	2,555.6989	2,555.6989	0.6044		2,570.8077
Total	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769	0.0000	2,555.6989	2,555.6989	0.6044		2,570.8077

Glamis GSP - Imperial County, Winter

3.5 Building Construction including overhead power lines - 2024

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	0.7343	16.4437	5.6174	0.0824	2.4058	0.0253	2.4311	0.6924	0.0242	0.7166		8,615.6196	8,615.6196	0.2863		8,622.7770
Worker	3.0749	2.4199	19.5629	0.0320	4.3372	0.0242	4.3615	1.1505	0.0223	1.1728		3,174.4629	3,174.4629	0.2088		3,179.6838
Total	3.8092	18.8636	25.1803	0.1144	6.7430	0.0496	6.7926	1.8429	0.0465	1.8894		11,790.0825	11,790.0825	0.4951		11,802.4608

3.6 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	12.2992					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
Total	12.5038	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817		281.4481	281.4481	0.0183		281.9062

Glamis GSP - Imperial County, Winter

3.6 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	0.0000	0.0000	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	0.6935	0.5644	4.5400	6.8900e-003	0.8690	5.1600e-003	0.8742	0.2305	4.7500e-003	0.2353		682.3474	682.3474	0.0482		683.5519
Total	0.6935	0.5644	4.5400	6.8900e-003	0.8690	5.1600e-003	0.8742	0.2305	4.7500e-003	0.2353		682.3474	682.3474	0.0482		683.5519

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	12.2992					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
Total	12.5038	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

Glamis GSP - Imperial County, Winter

3.6 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	0.0000	0.0000	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	0.6935	0.5644	4.5400	6.8900e-003	0.8690	5.1600e-003	0.8742	0.2305	4.7500e-003	0.2353		682.3474	682.3474	0.0482		683.5519
Total	0.6935	0.5644	4.5400	6.8900e-003	0.8690	5.1600e-003	0.8742	0.2305	4.7500e-003	0.2353		682.3474	682.3474	0.0482		683.5519

3.6 Architectural Coating - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	12.2992					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708		281.4481	281.4481	0.0168		281.8690
Total	12.4909	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708		281.4481	281.4481	0.0168		281.8690

Glamis GSP - Imperial County, Winter

3.6 Architectural Coating - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.6518	0.5196	4.1689	6.6200e-003	0.8690	4.9600e-003	0.8740	0.2305	4.5600e-003	0.2351		656.4690	656.4690	0.0443		657.5776
Total	0.6518	0.5196	4.1689	6.6200e-003	0.8690	4.9600e-003	0.8740	0.2305	4.5600e-003	0.2351		656.4690	656.4690	0.0443		657.5776

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	12.2992					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708	0.0000	281.4481	281.4481	0.0168		281.8690
Total	12.4909	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708	0.0000	281.4481	281.4481	0.0168		281.8690

Glamis GSP - Imperial County, Winter

3.6 Architectural Coating - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
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	0.6518	0.5196	4.1689	6.6200e-003	0.8690	4.9600e-003	0.8740	0.2305	4.5600e-003	0.2351		656.4690	656.4690	0.0443		657.5776
Total	0.6518	0.5196	4.1689	6.6200e-003	0.8690	4.9600e-003	0.8740	0.2305	4.5600e-003	0.2351		656.4690	656.4690	0.0443		657.5776

3.6 Architectural Coating - 2024

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	12.2992					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609		281.4481	281.4481	0.0159		281.8443
Total	12.4800	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609		281.4481	281.4481	0.0159		281.8443

Glamis GSP - Imperial County, Winter

3.6 Architectural Coating - 2024

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	0.6161	0.4849	3.9196	6.4200e-003	0.8690	4.8600e-003	0.8739	0.2305	4.4700e-003	0.2350		636.0284	636.0284	0.0418		637.0744
Total	0.6161	0.4849	3.9196	6.4200e-003	0.8690	4.8600e-003	0.8739	0.2305	4.4700e-003	0.2350		636.0284	636.0284	0.0418		637.0744

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	12.2992					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609	0.0000	281.4481	281.4481	0.0159		281.8443
Total	12.4800	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609	0.0000	281.4481	281.4481	0.0159		281.8443

Glamis GSP - Imperial County, Winter

3.6 Architectural Coating - 2024

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	0.6161	0.4849	3.9196	6.4200e-003	0.8690	4.8600e-003	0.8739	0.2305	4.4700e-003	0.2350		636.0284	636.0284	0.0418		637.0744
Total	0.6161	0.4849	3.9196	6.4200e-003	0.8690	4.8600e-003	0.8739	0.2305	4.4700e-003	0.2350		636.0284	636.0284	0.0418		637.0744

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Glamis GSP - Imperial 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	3.4337	25.5250	34.5998	0.0955	5.4352	0.0465	5.4817	1.4574	0.0435	1.5008		9,786.7305	9,786.7305	0.7967		9,806.6479
Unmitigated	3.4337	25.5250	34.5998	0.0955	5.4352	0.0465	5.4817	1.4574	0.0435	1.5008		9,786.7305	9,786.7305	0.7967		9,806.6479

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	14.00	20.00	20.00	26,303	26,303
Hotel	420.00	1,200.00	1200.00	959,819	959,819
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Research & Development	28.00	80.00	80.00	84,349	84,349
Strip Mall	315.00	450.00	450.00	428,283	428,283
User Defined Industrial	0.00	0.00	0.00		
Total	777.00	1,750.00	1,750.00	1,498,754	1,498,754

4.3 Trip Type Information

Glamis GSP - Imperial County, Winter

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
Apartments Low Rise	7.30	3.90	3.70	40.00	19.00	41.00	86	11	3
Hotel	6.70	5.00	8.90	19.40	61.60	19.00	58	38	4
Other Non-Asphalt Surfaces	6.70	5.00	8.90	0.00	0.00	0.00	0	0	0
Research & Development	6.70	5.00	8.90	33.00	48.00	19.00	82	15	3
Strip Mall	6.70	5.00	8.90	16.60	64.40	19.00	45	40	15
User Defined Industrial	6.70	5.00	8.90	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Low Rise	0.524989	0.030717	0.161165	0.112416	0.014580	0.004690	0.018794	0.121206	0.003615	0.001256	0.005248	0.000725	0.000600
Hotel	0.524989	0.030717	0.161165	0.112416	0.014580	0.004690	0.018794	0.121206	0.003615	0.001256	0.005248	0.000725	0.000600
Other Non-Asphalt Surfaces	0.524989	0.030717	0.161165	0.112416	0.014580	0.004690	0.018794	0.121206	0.003615	0.001256	0.005248	0.000725	0.000600
Research & Development	0.524989	0.030717	0.161165	0.112416	0.014580	0.004690	0.018794	0.121206	0.003615	0.001256	0.005248	0.000725	0.000600
Strip Mall	0.524989	0.030717	0.161165	0.112416	0.014580	0.004690	0.018794	0.121206	0.003615	0.001256	0.005248	0.000725	0.000600
User Defined Industrial	0.524989	0.030717	0.161165	0.112416	0.014580	0.004690	0.018794	0.121206	0.003615	0.001256	0.005248	0.000725	0.000600

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Percent of Electricity Use Generated with Renewable Energy

Glamis GSP - Imperial 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					
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

Glamis GSP - Imperial 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					
Apartments Low Rise	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
Hotel	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Research & Development	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
Strip Mall	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
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

Glamis GSP - Imperial County, Winter

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Low Rise	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
Hotel	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Research & Development	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
Strip Mall	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
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

6.0 Area Detail

6.1 Mitigation Measures Area

Glamis GSP - Imperial 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	6.6736	0.0474	0.4504	2.9000e-004		5.7900e-003	5.7900e-003		5.7900e-003	5.7900e-003	0.0000	54.9445	54.9445	1.8600e-003	9.9000e-004	55.2869
Unmitigated	6.6736	0.0474	0.4504	2.9000e-004		5.7900e-003	5.7900e-003		5.7900e-003	5.7900e-003	0.0000	54.9445	54.9445	1.8600e-003	9.9000e-004	55.2869

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	1.0513					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	5.6030					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	4.9600e-003	0.0424	0.0181	2.7000e-004		3.4300e-003	3.4300e-003		3.4300e-003	3.4300e-003	0.0000	54.1588	54.1588	1.0400e-003	9.9000e-004	54.4807
Landscaping	0.0142	4.9300e-003	0.4323	2.0000e-005		2.3600e-003	2.3600e-003		2.3600e-003	2.3600e-003		0.7857	0.7857	8.2000e-004		0.8063
Total	6.6736	0.0474	0.4504	2.9000e-004		5.7900e-003	5.7900e-003		5.7900e-003	5.7900e-003	0.0000	54.9445	54.9445	1.8600e-003	9.9000e-004	55.2869

Glamis GSP - Imperial 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	1.0513					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	5.6030					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	4.9600e-003	0.0424	0.0181	2.7000e-004		3.4300e-003	3.4300e-003		3.4300e-003	3.4300e-003	0.0000	54.1588	54.1588	1.0400e-003	9.9000e-004	54.4807
Landscaping	0.0142	4.9300e-003	0.4323	2.0000e-005		2.3600e-003	2.3600e-003		2.3600e-003	2.3600e-003		0.7857	0.7857	8.2000e-004		0.8063
Total	6.6736	0.0474	0.4504	2.9000e-004		5.7900e-003	5.7900e-003		5.7900e-003	5.7900e-003	0.0000	54.9445	54.9445	1.8600e-003	9.9000e-004	55.2869

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

Glamis GSP - Imperial 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
----------------	--------

11.0 Vegetation

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C-2

**Greenhouse Gas
Screening Letter**

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Ldn Consulting, Inc.

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November 16, 2020

Chris Moore
The Altum Group
73-710 Fred Waring Dr., Ste. 219
Palm Desert, CA 92260

RE: Glamis Specific Plan Greenhouse Gas (GHG) Screening Letter

The purpose of this GHG screening letter is to identify potential GHG impacts which may be created from the construction and operation of the proposed Glamis Specific Plan (GSP) project located on approximately 142-acre project site located within the designated Glamis Specific Plan Area (GSPA). The GSP is located and contained within the County's designated Glamis Specific Plan Area (GSPA). The GSPA allows for the development and creation of a Specific Plan in accordance with GSPA design criteria, objectives and policies as outlined in the County's General Plan Land Use Element. The existing zoning designation for the project site is Open Space/Preservation (S-2) and a small area that is General Commercial (C-2). The general area of the Glamis Beach Store (within APN 039-310-029) is zoned as C-2, while the remainder of the project site is zoned as S-2. The project site is surrounded by the Bureau of Land Management (BLM) land uses on all sides. The site configuration is provided in Figure 1.

The proposed GSP includes a General Plan Amendment (GPA) and Change of Zone (CZ) for County approval. The GSP proposes the establishment of Commercial/Recreational (CR) designated zoning based upon different levels of allowable land use intensity. Also, the GSP proposes a Change of Zone from S-2 (Open Space/Preservation) to S-1 (Open Space/Recreation) for the approximate 1- acre parcel on the southeast side of the project site. The phasing plan component of the GSP would phase the development so that land uses are developed incrementally over time within the various proposed zones.

Phase One

Phase One would permit uses which could include restaurant(s), bar(s), repair shop(s), a vendor row area and event area. Additionally, the site could be developed with a possible research and development (R&D) facility an RV park and some employee housing. Phase One would also include the construction of water infrastructure to include both potable water treatment to treat ground water as well as a wastewater treatment facility and upgrades to the electrical system which would include connection to power lines located 7.2 miles from the project site and some additional renewable energy to reduce GHG emissions or construction of a 100% renewable energy microgrid (wind or PV including battery backup).

Phase Two

Phase Two would most likely be within Land Use Area 1, immediately west of Phase One. Phase Two development would serve as an extension to development occurring within Phase One by incorporating land uses permitted under the CR Zone similar to those permitted in Phase One. Phase Two would incorporate the Glamis Mainstreet to serve as a circulation corridor for Off-Highway Vehicle (OHV) traffic to and from the dunes and to Phase Four (Areas 2, 3, and 4) located directly north of SR 78.

Phase Three

Phase Three, located on the northeast side of the UPRR and bisected by SR 78, would be located within Land Use Area 5 and Land Use Area 6. No major public use facilities would be considered for development within these two APNs to discourage OHV traffic from crossing the UPRR to access these areas. Phase Three however, would serve for the development of uses relevant to employee housing, RV park, and/or an R&D facility and possible PV Solar array system.

Phase Four

Phase Four, located on the north side of SR 78, would be located within Land Use Areas 2, 3 and 4. The Glamis Mainstreet corridor is proposed to provide an optional circulation interconnection between Phase One and Phase Four. All Phasing as proposed will be impacted by possible requirements that Caltrans may impose along SR 78 and for crossing the UPRR. The Imperial County Transportation Commission (ICTC) is currently conducting a feasibility study for a safe crossing over UPRR for off road vehicles either at SR 78, Wash 10 or some other location, and additional information will be provided once the feasibility study is complete. Overall, the primary objective of the GSP is to formalize the site and provide services and amenities.

Special Events

The GSP area and greater Imperial Sand Dunes area has been historically utilized for OHV recreational events and activities. The applicant has been operating a special recreational event named "Camp RZR" since 2007 that attracts as many as 20,000 visitors each year. This event usually occurs during the weekend before Halloween. In 2008, the County of Imperial issued a Conditional Use Permit (CUP) to the applicant to operate a "seasonal event area" for special events such as Camp RZR on their private property within the ISDRA. Since 2008, the applicant has coordinated with the County, BLM, Imperial County Fire Department, Imperial County Sherriff's Office, California Highway Patrol and other affected public agencies to ensure that proper special event protocols and procedures are enforced to address key issues such as traffic, safety, emergency procedures, restrooms, and other related special event factors.

The GSP will include provisions for additional special events to be held in addition to the longstanding Camp RZR. In concert with the existing operational protocols, procedures and

guidelines for special events, the GSP will provide performance standards that will meet the guidelines/requirements of the affected public agencies (i.e., Imperial County Fire Department and Sheriff's Office) to address and ensure compliance with key special event-related issues. Furthermore, the GSP's performance standards will incorporate the BLM's Special Recreation Permit Event Operations Plan Checklist to ensure that operations of the proposed special annual events comply with the special event guidelines of the BLM. Special events that may be held at this site can be sponsored by the owner or by other entities provided they are first approved by the owner. Events can vary and be combined with off-site activities where portions of the event are on site while the remainder is on adjacent BLM lands. These events may include concerts, races, social gatherings, sporting activities, educational activities, training activities, and may include pyrotechnics and other entertainment venues.

GHG Regulations

The State of California Greenhouse Gas laws are based on the "the California Global Warming Solutions Act of 2006" (AB32), requires the California Air Resources Board (CARB) to adopt rules and regulations that would reduce GHG emissions to 1990 levels by 2020 and is outlined by the California Air Resource Board (ARB) (California Air Resource Board, 2014). As part of AB32 (Section 38562-A), the state board shall adopt greenhouse gas emission limits and emission reduction measures before 2011 and enforce these measures starting in 2012.

Currently, greenhouse gas emission limits for projects such as the proposed project, have not been adopted by the State or Imperial County. In the absence of GHG significance thresholds, it's acceptable to utilize thresholds from South Coast Air Quality Management District (SCAQMD) as these thresholds have been utilized throughout imperial county (SCAQMD, 2008). These thresholds state that screening thresholds for industrial should be 10,000 MT/year CO₂e, 3,500 MT/year CO₂e for residential projects and 3,000 MT/year CO₂e for mixed use projects. Given this, using a 3,000 MT/year CO₂e threshold would be recommended.

Greenhouse Gasses contributed from the proposed project are Carbon Dioxide (CO₂), Methane (CH₄), and Nitrous Oxide (N₂O). For purposes of analysis, both CH₄ and N₂O can be converted to an equivalent amount of CO₂ (CO₂e) by multiplying the calculated levels of CH₄ and N₂O by a Global Warming Potential (GWP). The U.S. Environmental Protection Agency publishes GWPs for various GHGs and reports that the GWP for CH₄ and N₂O is 21 and 310, respectively. These are automatically calculated within the GHG estimation model discussed later in this report.

Construction

Construction activities for Phase 1 through Phase 4 would occur within a timeframe of 20 to 50 years. Construction emissions over this duration would generally be higher at the start of construction given the regulatory requirements on construction equipment is continuously evolving using cleaner technologies. Given this, for purposes of this GHG analysis, a worst case construction scenario of 3 years was assumed. The project description calls for the construction

of a solar or wind farm development with a battery backup system for power reliability and an option to receive power from as far as 7.2 miles away. For power stability, the utility provider would be the most reliable. For purposes of this analysis, it is assumed that the project would both construct renewables to offset all power usage and connect to utility power 7.2 miles away for power stability. The worst case construction schedule is shown in Table 1.

GHG impacts related to construction and daily operations were calculated using the latest CalEEMod 2016.3.2 air quality model, which was developed by BREEZE Software for South Coast Air Quality Management District (SCAQMD) in 2017. The project construction model is provided as **Attachment A**.

Table 1: Expected Construction Equipment

Equipment Identification	Proposed Start	Proposed Finish	Quantity
Site Preparation	01/01/2022	02/11/2022	
Rubber Tired Dozers			3
Tractors/Loaders/Backhoes			4
Grading	02/12/2022	07/29/2022	
Excavators			2
Graders			1
Rubber Tired Dozers			1
Scrapers			2
Tractors/Loaders/Backhoes			2
Paving	07/30/2022	10/07/2022	
Pavers			2
Paving Equipment			2
Rollers			2
Building Construction onsite and offsite utility	10/08/2022	02/09/2024	
Cranes			1
Forklifts			3
Generator Sets			1
Tractors/Loaders/Backhoes			3
Welders			1
Architectural Coatings	12/01/2022	02/09/2024	
Air Compressors			1
This equipment list is based upon equipment inventory within CALLEEMOD 2016.3.2. The quantity and types are based upon discussions with the project applicant.			

Operations

Full buildout operations of the GSP is intended to occur over a span of approximately 20 to 50 years. However, in order to provide a conservative assessment, the entire Project was assumed and added to baseline conditions and was assumed to be built out by 2024. This assumption would be conservative as operations into the future would be reduced as regulatory requirements and technologies to reduce vehicular emissions would improve over time.

The project would maintain similar operations to that of the existing operations though would expand services to the existing seasonal influx of patrons recreating at the Glamis Dunes off-highway vehicle (OHV) areas surrounding the project. For this reason, OHVs are not specifically analyzed. The project traffic study indicated that the buildout condition would generate roughly 1,750 ADT (LLG Engineers, 2019) over existing operations from this seasonal community. Also, it should be noted that due to the historic travel patterns, the bulk of the traffic would be Friday through Monday.

The existing use requires diesel generators to supply power and would be phased out once the project has been connected to a constant electricity source. As noted above, it is assumed that the project would both construct renewables to offset all power usage and/or connect to utility power 7.2 miles away for power stability. The project could however install batteries which would be a less intense construction alternative. Also, the project would not utilize natural gas given the resource is not available at the site location.

The Project's proposed land uses as shown in Table 2 are intended to serve the existing patrons of the dunes and will not operate year-round due to the long distance from population bases and the extreme heat. Operations are expected during the months of October through May or roughly 67% of the year.

Table 2: Operational Use Scenario

Land Use Type	Land Use Sub Type	Land Use Unit Amount
Commercial	Research & Development	10,000 SF
Industrial	Water/Wastewater Plants	1 Unit
Parking	Other Non-Asphalt Surfaces	25 acres
Recreational	Hotel	150 Rooms
Residential	Employee Housing	5 Units
Retail	Shopping or amenities	10,000 SF

In order to quantify GHG emissions, a scenario which would both generate 1,750 ADT within the GSP and fit within the conceptual plan of the GSP could include a 50 year buildout. The

areas identified as solar within the GSP would be built out to provide 100 percent renewable operations and would either utilize the grid to provide power stability or would install a battery backup system to accomplish this goal. A GHG operational model utilizing the CalEEMod 2016.3.2 model was prepared for these trip quantities and scenario and is also shown as **Attachment A**.

Project Related Construction Emissions

Construction activities for Phase 1 through Phase 4 would occur within a timeframe of 20 to 50 years. Utilizing the CalEEMod inputs for the model as discussed above, grading and construction of the Project will produce approximately 2,956.83 MT of CO₂e over a three year buildout. Based on SQAQMD methodology, it is recommended to average the construction emissions over the Project life, which is assumed to be 30 years (SCAQMD, 2008). Given this, the annual construction emission for the proposed Project is 98.56 MT of CO₂e per year and is shown in Table 3.

Table 3: Proposed Project Construction CO₂e Emissions Summary MT/Year

Year	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
2021	0.00	862.49	862.49	0.17	0.00	866.83
2022	0.00	1872.25	1872.25	0.14	0.00	1875.75
2023	0.00	213.85	213.85	0.02	0.00	214.25
Total						2,956.83
Yearly Average Construction Emissions (Metric Tons/year over 30 years)						98.56

Project Related Operational Emissions

Based on the CalEEMod analysis, the proposed Project buildout would generate 872.85 MT CO₂e annually, which is shown in Table 4. These emissions include the design as identified within this report and assume all electrical emissions are offset with renewable sources. The site would be operational roughly 67% of the time. During the season when the facilities are not operational, some energy use is expected though would be minimal. Solar however will produce power year-round. Based on this GHG emissions from energy sources are anticipated to be zero. It should be noted: if the solar offset only 15 percent of the electrical use the project emissions would still be under the 3,000 MT/year CO₂e threshold.

Table 4: Operational GHG Emissions (MT/Year) – October Through May

Source	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e (MT/Yr)
Area	0.00	0.11	0.11	0.00	0.00	0.11
Energy	0.00	0.00	0.00	0.00	0.00	0.00
Mobile	0.00	678.19	678.19	0.05	0.00	679.46
Waste	12.95	0.00	12.95	0.77	0.00	32.10
Water	2.07	53.63	55.70	0.21	0.01	62.62
Construction Emissions						98.56
Project Total GHG Emissions						872.85
Data is presented in decimal format and may have rounding errors. Data is reduced 67% due to operational year (October to May)						

Based upon the findings for the proposed project, neither construction activities nor operational activities would generate yearly GHG emissions in excess of the 3,000 MT/year CO₂e threshold. Therefore, no impacts would be expected. If you have any questions, please do not hesitate to contact me directly at (760) 473-1253.

Sincerely,
 Ldn Consulting, Inc.

DRAFT

Jeremy Loudon

Attachment A: CalEEMod Model Results

References:

California Air Resource Board. (2014, August 5). *Assembly Bill 32 Overview*. Retrieved 2016, from <http://www.arb.ca.gov/>: <http://www.arb.ca.gov/cc/ab32/ab32.htm>

LLG Engineers. (2019). *TRANSPORTATION IMPACT ANALYSIS - GLAMIS SPECIFIC PLAN*.

SCAQMD. (2008). *Interim CEQA GHG Significance Threshold for Stationary Sources, Rules and Plans*. SCAQMD. Retrieved from [http://www.aqmd.gov/docs/default-source/ceqa/handbook/greenhouse-gases-\(ghg\)-ceqa-significance-thresholds/ghgattachmente.pdf](http://www.aqmd.gov/docs/default-source/ceqa/handbook/greenhouse-gases-(ghg)-ceqa-significance-thresholds/ghgattachmente.pdf)

The Altum Group. (2019). *Glamis Specific Plan Conceptual Site Plan*.

Glamis GSP - Imperial County, Annual

Glamis GSP
Imperial County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Research & Development	10.00	1000sqft	72.00	10,000.00	0
User Defined Industrial	1.00	User Defined Unit	10.00	1,000.00	0
Other Non-Asphalt Surfaces	25.00	Acre	25.00	1,089,000.00	0
Hotel	150.00	Room	10.00	217,800.00	0
Apartments Low Rise	5.00	Dwelling Unit	10.00	5,000.00	16
Strip Mall	10.00	1000sqft	15.00	10,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	3.4	Precipitation Freq (Days)	12
Climate Zone	15			Operational Year	2024
Utility Company	Imperial Irrigation District				
CO2 Intensity (lb/MW hr)	1270.9	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

Glamis GSP - Imperial County, Annual

Project Characteristics -

Land Use - estimated GSP

Construction Phase - cs

Off-road Equipment -

On-road Fugitive Dust - Roadways to and from the site from workers are all paved.

Grading -

Vehicle Trips - traffic 1750 ADT on weekends and Monday and Friday and 50% During Tues, Wed, Thur

Road Dust - Access to project via paved roads

Woodstoves -

Energy Use - Natural Gas will not be provided or used onsite

Water And Wastewater -

Energy Mitigation - Project would provide 100% renewable energy between California's Renewable Portfolio (RPS) requirements and onsite renewable energy production

Trips and VMT - Rural Assumption used for construction trip length

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadMoistureContent	0	0.5
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	40
tblConstructionPhase	NumDays	120.00	30.00
tblConstructionPhase	NumDays	310.00	120.00
tblConstructionPhase	NumDays	220.00	50.00
tblConstructionPhase	NumDays	3,100.00	350.00
tblConstructionPhase	NumDays	220.00	312.00
tblEnergyUse	NT24NG	6,030.00	0.00
tblEnergyUse	NT24NG	4.86	0.00
tblEnergyUse	NT24NG	17.13	0.00
tblEnergyUse	NT24NG	0.30	0.00
tblEnergyUse	T24NG	9,544.50	0.00

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tblEnergyUse	T24NG	55.15	0.00
tblEnergyUse	T24NG	15.36	0.00
tblEnergyUse	T24NG	1.92	0.00
tblLandUse	LandUseSquareFeet	0.00	1,000.00
tblLandUse	LotAcreage	0.23	72.00
tblLandUse	LotAcreage	0.00	10.00
tblLandUse	LotAcreage	5.00	10.00
tblLandUse	LotAcreage	0.31	10.00
tblLandUse	LotAcreage	0.23	15.00
tblOnRoadDust	HaulingPercentPave	50.00	100.00
tblOnRoadDust	HaulingPercentPave	50.00	100.00
tblOnRoadDust	HaulingPercentPave	50.00	100.00
tblOnRoadDust	HaulingPercentPave	50.00	100.00
tblOnRoadDust	HaulingPercentPave	50.00	100.00
tblOnRoadDust	VendorPercentPave	50.00	100.00
tblOnRoadDust	VendorPercentPave	50.00	100.00
tblOnRoadDust	VendorPercentPave	50.00	100.00
tblOnRoadDust	VendorPercentPave	50.00	100.00
tblOnRoadDust	VendorPercentPave	50.00	100.00
tblOnRoadDust	WorkerPercentPave	50.00	100.00
tblOnRoadDust	WorkerPercentPave	50.00	100.00
tblOnRoadDust	WorkerPercentPave	50.00	100.00
tblOnRoadDust	WorkerPercentPave	50.00	100.00
tblOnRoadDust	WorkerPercentPave	50.00	100.00
tblRoadDust	RoadPercentPave	50	100
tblTripsAndVMT	VendorTripLength	8.90	11.90
tblTripsAndVMT	VendorTripLength	8.90	11.90

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tblTripsAndVMT	VendorTripLength	8.90	11.90
tblTripsAndVMT	VendorTripLength	8.90	11.90
tblTripsAndVMT	VendorTripLength	8.90	11.90
tblTripsAndVMT	WorkerTripLength	7.30	10.20
tblTripsAndVMT	WorkerTripLength	7.30	10.20
tblTripsAndVMT	WorkerTripLength	7.30	10.20
tblTripsAndVMT	WorkerTripLength	7.30	10.20
tblTripsAndVMT	WorkerTripLength	7.30	10.20
tblVehicleTrips	HO_TTP	40.60	41.00
tblVehicleTrips	HS_TTP	19.20	19.00
tblVehicleTrips	HW_TTP	40.20	40.00
tblVehicleTrips	ST_TR	7.16	4.00
tblVehicleTrips	ST_TR	8.19	8.00
tblVehicleTrips	ST_TR	1.90	8.00
tblVehicleTrips	ST_TR	42.04	45.00
tblVehicleTrips	SU_TR	6.07	4.00
tblVehicleTrips	SU_TR	5.95	8.00
tblVehicleTrips	SU_TR	1.11	8.00
tblVehicleTrips	SU_TR	20.43	45.00
tblVehicleTrips	WD_TR	6.59	2.80
tblVehicleTrips	WD_TR	8.17	2.80
tblVehicleTrips	WD_TR	8.11	2.80
tblVehicleTrips	WD_TR	44.32	31.50

2.0 Emissions Summary

Glamis GSP - Imperial County, Annual

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2022	0.6333	4.3940	3.9975	9.6000e-003	1.0160	0.1645	1.1805	0.4260	0.1520	0.5780	0.0000	862.4910	862.4910	0.1736	0.0000	866.8307
2023	2.4379	4.6245	6.6747	0.0204	0.9829	0.1073	1.0902	0.2679	0.1015	0.3694	0.0000	1,872.2516	1,872.2516	0.1400	0.0000	1,875.7514
2024	0.2759	0.5120	0.7397	2.3300e-003	0.1134	0.0109	0.1243	0.0309	0.0103	0.0412	0.0000	213.8542	213.8542	0.0158	0.0000	214.2494
Maximum	2.4379	4.6245	6.6747	0.0204	1.0160	0.1645	1.1805	0.4260	0.1520	0.5780	0.0000	1,872.2516	1,872.2516	0.1736	0.0000	1,875.7514

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2022	0.6333	4.3940	3.9975	9.6000e-003	1.0160	0.1645	1.1805	0.4260	0.1520	0.5780	0.0000	862.4904	862.4904	0.1736	0.0000	866.8301
2023	2.4379	4.6245	6.6747	0.0204	0.9829	0.1073	1.0902	0.2679	0.1015	0.3694	0.0000	1,872.2512	1,872.2512	0.1400	0.0000	1,875.7510
2024	0.2759	0.5120	0.7397	2.3300e-003	0.1134	0.0109	0.1243	0.0309	0.0103	0.0412	0.0000	213.8542	213.8542	0.0158	0.0000	214.2494
Maximum	2.4379	4.6245	6.6747	0.0204	1.0160	0.1645	1.1805	0.4260	0.1520	0.5780	0.0000	1,872.2512	1,872.2512	0.1736	0.0000	1,875.7510

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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
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
8	11-27-2021	2-26-2022	0.7755	0.7755
9	2-27-2022	5-26-2022	1.3574	1.3574
10	5-27-2022	8-26-2022	1.1004	1.1004
11	8-27-2022	11-26-2022	1.0414	1.0414
12	11-27-2022	2-26-2023	1.8698	1.8698
13	2-27-2023	5-26-2023	1.7318	1.7318
14	5-27-2023	8-26-2023	1.7958	1.7958
15	8-27-2023	11-26-2023	1.7863	1.7863
16	11-27-2023	2-26-2024	1.4258	1.4258
		Highest	1.8698	1.8698

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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	1.2157	5.4000e-004	0.0390	0.0000		2.2000e-004	2.2000e-004		2.2000e-004	2.2000e-004	0.0000	0.1698	0.1698	7.0000e-005	0.0000	0.1721
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2,422.9018	2,422.9018	0.0553	0.0114	2,427.6927
Mobile	0.4115	2.8258	3.8069	0.0109	0.5825	4.9600e-003	0.5874	0.1563	4.6400e-003	0.1609	0.0000	1,016.7657	1,016.7657	0.0767	0.0000	1,018.6829
Waste						0.0000	0.0000		0.0000	0.0000	19.4242	0.0000	19.4242	1.1479	0.0000	48.1227
Water						0.0000	0.0000		0.0000	0.0000	3.1054	80.4050	83.5104	0.3208	7.9100e-003	93.8877
Total	1.6273	2.8264	3.8459	0.0109	0.5825	5.1800e-003	0.5877	0.1563	4.8600e-003	0.1611	22.5296	3,520.2423	3,542.7719	1.6008	0.0194	3,588.5581

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2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	1.2157	5.4000e-004	0.0390	0.0000		2.2000e-004	2.2000e-004		2.2000e-004	2.2000e-004	0.0000	0.1698	0.1698	7.0000e-005	0.0000	0.1721
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	0.0000
Mobile	0.4115	2.8258	3.8069	0.0109	0.5825	4.9600e-003	0.5874	0.1563	4.6400e-003	0.1609	0.0000	1,016.7657	1,016.7657	0.0767	0.0000	1,018.6829
Waste						0.0000	0.0000		0.0000	0.0000	19.4242	0.0000	19.4242	1.1479	0.0000	48.1227
Water						0.0000	0.0000		0.0000	0.0000	3.1054	80.4050	83.5104	0.3208	7.9100e-003	93.8877
Total	1.6273	2.8264	3.8459	0.0109	0.5825	5.1800e-003	0.5877	0.1563	4.8600e-003	0.1611	22.5296	1,097.3405	1,119.8701	1.5455	7.9100e-003	1,160.8653

	ROG	NOx	CO	SO2	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	68.83	68.39	3.45	59.12	67.65

3.0 Construction Detail

Construction Phase

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Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	1/1/2022	2/11/2022	5	30	
2	Grading	Grading	2/12/2022	7/29/2022	5	120	
3	Paving	Paving	7/30/2022	10/7/2022	5	50	
4	Building Construction including overhead power lines	Building Construction	10/8/2022	2/9/2024	5	350	
5	Architectural Coating	Architectural Coating	12/1/2022	2/9/2024	5	312	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 300

Acres of Paving: 25

Residential Indoor: 10,125; Residential Outdoor: 3,375; Non-Residential Indoor: 358,200; Non-Residential Outdoor: 119,400; Striped Parking Area: 65,340 (Architectural Coating – sqft)

OffRoad Equipment

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Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Building Construction including overhead power lines	Cranes	1	7.00	231	0.29
Building Construction including overhead power lines	Forklifts	3	8.00	89	0.20
Building Construction including overhead power lines	Generator Sets	1	8.00	84	0.74
Building Construction including overhead power lines	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction including overhead power lines	Welders	1	8.00	46	0.45
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
Site Preparation	7	18.00	0.00	0.00	10.20	11.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	10.20	11.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.20	11.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction including overhead power lines	9	559.00	218.00	0.00	10.20	11.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	112.00	0.00	0.00	10.20	11.90	20.00	LD_Mix	HDT_Mix	HHDT

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3.1 Mitigation Measures Construction

3.2 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					0.2710	0.0000	0.2710	0.1490	0.0000	0.1490	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0476	0.4963	0.2955	5.7000e-004		0.0242	0.0242		0.0223	0.0223	0.0000	50.1591	50.1591	0.0162	0.0000	50.5647
Total	0.0476	0.4963	0.2955	5.7000e-004	0.2710	0.0242	0.2952	0.1490	0.0223	0.1712	0.0000	50.1591	50.1591	0.0162	0.0000	50.5647

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3.2 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	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	1.7000e-003	1.3400e-003	0.0121	2.0000e-005	2.0800e-003	1.0000e-005	2.0900e-003	5.5000e-004	1.0000e-005	5.6000e-004	0.0000	1.6114	1.6114	1.1000e-004	0.0000	1.6143
Total	1.7000e-003	1.3400e-003	0.0121	2.0000e-005	2.0800e-003	1.0000e-005	2.0900e-003	5.5000e-004	1.0000e-005	5.6000e-004	0.0000	1.6114	1.6114	1.1000e-004	0.0000	1.6143

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.2710	0.0000	0.2710	0.1490	0.0000	0.1490	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0476	0.4963	0.2955	5.7000e-004		0.0242	0.0242		0.0223	0.0223	0.0000	50.1590	50.1590	0.0162	0.0000	50.5646
Total	0.0476	0.4963	0.2955	5.7000e-004	0.2710	0.0242	0.2952	0.1490	0.0223	0.1712	0.0000	50.1590	50.1590	0.0162	0.0000	50.5646

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3.2 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	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	1.7000e-003	1.3400e-003	0.0121	2.0000e-005	2.0800e-003	1.0000e-005	2.0900e-003	5.5000e-004	1.0000e-005	5.6000e-004	0.0000	1.6114	1.6114	1.1000e-004	0.0000	1.6143
Total	1.7000e-003	1.3400e-003	0.0121	2.0000e-005	2.0800e-003	1.0000e-005	2.0900e-003	5.5000e-004	1.0000e-005	5.6000e-004	0.0000	1.6114	1.6114	1.1000e-004	0.0000	1.6143

3.3 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					0.5204	0.0000	0.5204	0.2158	0.0000	0.2158	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.2175	2.3306	1.7425	3.7200e-003		0.0981	0.0981		0.0903	0.0903	0.0000	327.2076	327.2076	0.1058	0.0000	329.8532
Total	0.2175	2.3306	1.7425	3.7200e-003	0.5204	0.0981	0.6185	0.2158	0.0903	0.3060	0.0000	327.2076	327.2076	0.1058	0.0000	329.8532

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3.3 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	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	7.5400e-003	5.9700e-003	0.0539	8.0000e-005	9.2400e-003	6.0000e-005	9.3000e-003	2.4500e-003	5.0000e-005	2.5000e-003	0.0000	7.1617	7.1617	5.1000e-004	0.0000	7.1745
Total	7.5400e-003	5.9700e-003	0.0539	8.0000e-005	9.2400e-003	6.0000e-005	9.3000e-003	2.4500e-003	5.0000e-005	2.5000e-003	0.0000	7.1617	7.1617	5.1000e-004	0.0000	7.1745

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					0.5204	0.0000	0.5204	0.2158	0.0000	0.2158	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.2175	2.3306	1.7425	3.7200e-003		0.0981	0.0981		0.0903	0.0903	0.0000	327.2072	327.2072	0.1058	0.0000	329.8528
Total	0.2175	2.3306	1.7425	3.7200e-003	0.5204	0.0981	0.6185	0.2158	0.0903	0.3060	0.0000	327.2072	327.2072	0.1058	0.0000	329.8528

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3.3 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	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	7.5400e-003	5.9700e-003	0.0539	8.0000e-005	9.2400e-003	6.0000e-005	9.3000e-003	2.4500e-003	5.0000e-005	2.5000e-003	0.0000	7.1617	7.1617	5.1000e-004	0.0000	7.1745
Total	7.5400e-003	5.9700e-003	0.0539	8.0000e-005	9.2400e-003	6.0000e-005	9.3000e-003	2.4500e-003	5.0000e-005	2.5000e-003	0.0000	7.1617	7.1617	5.1000e-004	0.0000	7.1745

3.4 Paving - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0276	0.2781	0.3645	5.7000e-004		0.0142	0.0142		0.0131	0.0131	0.0000	50.0689	50.0689	0.0162	0.0000	50.4737
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0276	0.2781	0.3645	5.7000e-004		0.0142	0.0142		0.0131	0.0131	0.0000	50.0689	50.0689	0.0162	0.0000	50.4737

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3.4 Paving - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.3600e-003	1.8600e-003	0.0168	2.0000e-005	2.8900e-003	2.0000e-005	2.9100e-003	7.7000e-004	2.0000e-005	7.8000e-004	0.0000	2.2380	2.2380	1.6000e-004	0.0000	2.2420
Total	2.3600e-003	1.8600e-003	0.0168	2.0000e-005	2.8900e-003	2.0000e-005	2.9100e-003	7.7000e-004	2.0000e-005	7.8000e-004	0.0000	2.2380	2.2380	1.6000e-004	0.0000	2.2420

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	0.0276	0.2781	0.3645	5.7000e-004		0.0142	0.0142		0.0131	0.0131	0.0000	50.0688	50.0688	0.0162	0.0000	50.4737
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0276	0.2781	0.3645	5.7000e-004		0.0142	0.0142		0.0131	0.0131	0.0000	50.0688	50.0688	0.0162	0.0000	50.4737

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3.4 Paving - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.3600e-003	1.8600e-003	0.0168	2.0000e-005	2.8900e-003	2.0000e-005	2.9100e-003	7.7000e-004	2.0000e-005	7.8000e-004	0.0000	2.2380	2.2380	1.6000e-004	0.0000	2.2420
Total	2.3600e-003	1.8600e-003	0.0168	2.0000e-005	2.8900e-003	2.0000e-005	2.9100e-003	7.7000e-004	2.0000e-005	7.8000e-004	0.0000	2.2380	2.2380	1.6000e-004	0.0000	2.2420

3.5 Building Construction including overhead power lines - 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	0.0512	0.4685	0.4909	8.1000e-004		0.0243	0.0243		0.0228	0.0228	0.0000	69.5176	69.5176	0.0167	0.0000	69.9339
Total	0.0512	0.4685	0.4909	8.1000e-004		0.0243	0.0243		0.0228	0.0228	0.0000	69.5176	69.5176	0.0167	0.0000	69.9339

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3.5 Building Construction including overhead power lines - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0273	0.7063	0.1929	2.5800e-003	0.0718	1.9000e-003	0.0737	0.0207	1.8200e-003	0.0225	0.0000	244.2800	244.2800	0.0101	0.0000	244.5321
Worker	0.1054	0.0834	0.7531	1.1100e-003	0.1292	7.7000e-004	0.1300	0.0343	7.1000e-004	0.0350	0.0000	100.0854	100.0854	7.1200e-003	0.0000	100.2633
Total	0.1326	0.7897	0.9460	3.6900e-003	0.2009	2.6700e-003	0.2036	0.0550	2.5300e-003	0.0575	0.0000	344.3653	344.3653	0.0172	0.0000	344.7954

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	0.0512	0.4685	0.4909	8.1000e-004		0.0243	0.0243		0.0228	0.0228	0.0000	69.5175	69.5175	0.0167	0.0000	69.9339
Total	0.0512	0.4685	0.4909	8.1000e-004		0.0243	0.0243		0.0228	0.0228	0.0000	69.5175	69.5175	0.0167	0.0000	69.9339

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3.5 Building Construction including overhead power lines - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0273	0.7063	0.1929	2.5800e-003	0.0718	1.9000e-003	0.0737	0.0207	1.8200e-003	0.0225	0.0000	244.2800	244.2800	0.0101	0.0000	244.5321
Worker	0.1054	0.0834	0.7531	1.1100e-003	0.1292	7.7000e-004	0.1300	0.0343	7.1000e-004	0.0350	0.0000	100.0854	100.0854	7.1200e-003	0.0000	100.2633
Total	0.1326	0.7897	0.9460	3.6900e-003	0.2009	2.6700e-003	0.2036	0.0550	2.5300e-003	0.0575	0.0000	344.3653	344.3653	0.0172	0.0000	344.7954

3.5 Building Construction including overhead power lines - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2045	1.8700	2.1117	3.5000e-003		0.0910	0.0910		0.0856	0.0856	0.0000	301.3462	301.3462	0.0717	0.0000	303.1383
Total	0.2045	1.8700	2.1117	3.5000e-003		0.0910	0.0910		0.0856	0.0856	0.0000	301.3462	301.3462	0.0717	0.0000	303.1383

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3.5 Building Construction including overhead power lines - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0954	2.1855	0.7247	0.0109	0.3109	3.2900e-003	0.3142	0.0896	3.1500e-003	0.0927	0.0000	1,036.8630	1,036.8630	0.0323	0.0000	1,037.6694
Worker	0.4284	0.3329	3.0015	4.6400e-003	0.5598	3.2200e-003	0.5630	0.1486	2.9600e-003	0.1515	0.0000	417.2507	417.2507	0.0284	0.0000	417.9602
Total	0.5238	2.5184	3.7262	0.0156	0.8707	6.5100e-003	0.8772	0.2381	6.1100e-003	0.2442	0.0000	1,454.1137	1,454.1137	0.0606	0.0000	1,455.6296

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	0.2045	1.8700	2.1117	3.5000e-003		0.0910	0.0910		0.0856	0.0856	0.0000	301.3458	301.3458	0.0717	0.0000	303.1380
Total	0.2045	1.8700	2.1117	3.5000e-003		0.0910	0.0910		0.0856	0.0856	0.0000	301.3458	301.3458	0.0717	0.0000	303.1380

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3.5 Building Construction including overhead power lines - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0954	2.1855	0.7247	0.0109	0.3109	3.2900e-003	0.3142	0.0896	3.1500e-003	0.0927	0.0000	1,036.8630	1,036.8630	0.0323	0.0000	1,037.6694
Worker	0.4284	0.3329	3.0015	4.6400e-003	0.5598	3.2200e-003	0.5630	0.1486	2.9600e-003	0.1515	0.0000	417.2507	417.2507	0.0284	0.0000	417.9602
Total	0.5238	2.5184	3.7262	0.0156	0.8707	6.5100e-003	0.8772	0.2381	6.1100e-003	0.2442	0.0000	1,454.1137	1,454.1137	0.0606	0.0000	1,455.6296

3.5 Building Construction including overhead power lines - 2024

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	0.0221	0.2017	0.2425	4.0000e-004		9.2000e-003	9.2000e-003		8.6500e-003	8.6500e-003	0.0000	34.7774	34.7774	8.2200e-003	0.0000	34.9830
Total	0.0221	0.2017	0.2425	4.0000e-004		9.2000e-003	9.2000e-003		8.6500e-003	8.6500e-003	0.0000	34.7774	34.7774	8.2200e-003	0.0000	34.9830

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3.5 Building Construction including overhead power lines - 2024

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	0.0106	0.2490	0.0784	1.2600e-003	0.0359	3.7000e-004	0.0363	0.0103	3.6000e-004	0.0107	0.0000	119.2534	119.2534	3.6600e-003	0.0000	119.3449
Worker	0.0467	0.0359	0.3263	5.2000e-004	0.0646	3.6000e-004	0.0650	0.0171	3.3000e-004	0.0175	0.0000	46.6474	46.6474	3.0900e-003	0.0000	46.7247
Total	0.0573	0.2849	0.4047	1.7800e-003	0.1005	7.3000e-004	0.1012	0.0275	6.9000e-004	0.0282	0.0000	165.9008	165.9008	6.7500e-003	0.0000	166.0696

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	0.0221	0.2017	0.2425	4.0000e-004		9.2000e-003	9.2000e-003		8.6500e-003	8.6500e-003	0.0000	34.7773	34.7773	8.2200e-003	0.0000	34.9829
Total	0.0221	0.2017	0.2425	4.0000e-004		9.2000e-003	9.2000e-003		8.6500e-003	8.6500e-003	0.0000	34.7773	34.7773	8.2200e-003	0.0000	34.9829

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3.5 Building Construction including overhead power lines - 2024

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	0.0106	0.2490	0.0784	1.2600e-003	0.0359	3.7000e-004	0.0363	0.0103	3.6000e-004	0.0107	0.0000	119.2534	119.2534	3.6600e-003	0.0000	119.3449
Worker	0.0467	0.0359	0.3263	5.2000e-004	0.0646	3.6000e-004	0.0650	0.0171	3.3000e-004	0.0175	0.0000	46.6474	46.6474	3.0900e-003	0.0000	46.7247
Total	0.0573	0.2849	0.4047	1.7800e-003	0.1005	7.3000e-004	0.1012	0.0275	6.9000e-004	0.0282	0.0000	165.9008	165.9008	6.7500e-003	0.0000	166.0696

3.6 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	0.1353					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.2500e-003	0.0155	0.0200	3.0000e-005		9.0000e-004	9.0000e-004		9.0000e-004	9.0000e-004	0.0000	2.8086	2.8086	1.8000e-004	0.0000	2.8132
Total	0.1375	0.0155	0.0200	3.0000e-005		9.0000e-004	9.0000e-004		9.0000e-004	9.0000e-004	0.0000	2.8086	2.8086	1.8000e-004	0.0000	2.8132

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3.6 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	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	7.7400e-003	6.1300e-003	0.0553	8.0000e-005	9.4900e-003	6.0000e-005	9.5500e-003	2.5200e-003	5.0000e-005	2.5700e-003	0.0000	7.3527	7.3527	5.2000e-004	0.0000	7.3658
Total	7.7400e-003	6.1300e-003	0.0553	8.0000e-005	9.4900e-003	6.0000e-005	9.5500e-003	2.5200e-003	5.0000e-005	2.5700e-003	0.0000	7.3527	7.3527	5.2000e-004	0.0000	7.3658

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	0.1353					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.2500e-003	0.0155	0.0200	3.0000e-005		9.0000e-004	9.0000e-004		9.0000e-004	9.0000e-004	0.0000	2.8086	2.8086	1.8000e-004	0.0000	2.8132
Total	0.1375	0.0155	0.0200	3.0000e-005		9.0000e-004	9.0000e-004		9.0000e-004	9.0000e-004	0.0000	2.8086	2.8086	1.8000e-004	0.0000	2.8132

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3.6 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	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	7.7400e-003	6.1300e-003	0.0553	8.0000e-005	9.4900e-003	6.0000e-005	9.5500e-003	2.5200e-003	5.0000e-005	2.5700e-003	0.0000	7.3527	7.3527	5.2000e-004	0.0000	7.3658
Total	7.7400e-003	6.1300e-003	0.0553	8.0000e-005	9.4900e-003	6.0000e-005	9.5500e-003	2.5200e-003	5.0000e-005	2.5700e-003	0.0000	7.3527	7.3527	5.2000e-004	0.0000	7.3658

3.6 Architectural Coating - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.5989					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0249	0.1694	0.2355	3.9000e-004		9.2100e-003	9.2100e-003		9.2100e-003	9.2100e-003	0.0000	33.1923	33.1923	1.9900e-003	0.0000	33.2419
Total	1.6238	0.1694	0.2355	3.9000e-004		9.2100e-003	9.2100e-003		9.2100e-003	9.2100e-003	0.0000	33.1923	33.1923	1.9900e-003	0.0000	33.2419

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3.6 Architectural Coating - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0858	0.0667	0.6014	9.3000e-004	0.1122	6.4000e-004	0.1128	0.0298	5.9000e-004	0.0304	0.0000	83.5994	83.5994	5.6900e-003	0.0000	83.7416
Total	0.0858	0.0667	0.6014	9.3000e-004	0.1122	6.4000e-004	0.1128	0.0298	5.9000e-004	0.0304	0.0000	83.5994	83.5994	5.6900e-003	0.0000	83.7416

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.5989					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0249	0.1694	0.2354	3.9000e-004		9.2100e-003	9.2100e-003		9.2100e-003	9.2100e-003	0.0000	33.1923	33.1923	1.9900e-003	0.0000	33.2419
Total	1.6238	0.1694	0.2354	3.9000e-004		9.2100e-003	9.2100e-003		9.2100e-003	9.2100e-003	0.0000	33.1923	33.1923	1.9900e-003	0.0000	33.2419

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3.6 Architectural Coating - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0858	0.0667	0.6014	9.3000e-004	0.1122	6.4000e-004	0.1128	0.0298	5.9000e-004	0.0304	0.0000	83.5994	83.5994	5.6900e-003	0.0000	83.7416
Total	0.0858	0.0667	0.6014	9.3000e-004	0.1122	6.4000e-004	0.1128	0.0298	5.9000e-004	0.0304	0.0000	83.5994	83.5994	5.6900e-003	0.0000	83.7416

3.6 Architectural Coating - 2024

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	0.1845					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.7100e-003	0.0183	0.0272	4.0000e-005		9.1000e-004	9.1000e-004		9.1000e-004	9.1000e-004	0.0000	3.8299	3.8299	2.2000e-004	0.0000	3.8353
Total	0.1872	0.0183	0.0272	4.0000e-005		9.1000e-004	9.1000e-004		9.1000e-004	9.1000e-004	0.0000	3.8299	3.8299	2.2000e-004	0.0000	3.8353

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3.6 Architectural Coating - 2024

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	9.3500e-003	7.1900e-003	0.0654	1.0000e-004	0.0129	7.0000e-005	0.0130	3.4300e-003	7.0000e-005	3.5000e-003	0.0000	9.3462	9.3462	6.2000e-004	0.0000	9.3617
Total	9.3500e-003	7.1900e-003	0.0654	1.0000e-004	0.0129	7.0000e-005	0.0130	3.4300e-003	7.0000e-005	3.5000e-003	0.0000	9.3462	9.3462	6.2000e-004	0.0000	9.3617

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	0.1845					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.7100e-003	0.0183	0.0272	4.0000e-005		9.1000e-004	9.1000e-004		9.1000e-004	9.1000e-004	0.0000	3.8299	3.8299	2.2000e-004	0.0000	3.8353
Total	0.1872	0.0183	0.0272	4.0000e-005		9.1000e-004	9.1000e-004		9.1000e-004	9.1000e-004	0.0000	3.8299	3.8299	2.2000e-004	0.0000	3.8353

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3.6 Architectural Coating - 2024

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	9.3500e-003	7.1900e-003	0.0654	1.0000e-004	0.0129	7.0000e-005	0.0130	3.4300e-003	7.0000e-005	3.5000e-003	0.0000	9.3462	9.3462	6.2000e-004	0.0000	9.3617
Total	9.3500e-003	7.1900e-003	0.0654	1.0000e-004	0.0129	7.0000e-005	0.0130	3.4300e-003	7.0000e-005	3.5000e-003	0.0000	9.3462	9.3462	6.2000e-004	0.0000	9.3617

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	0.4115	2.8258	3.8069	0.0109	0.5825	4.9600e-003	0.5874	0.1563	4.6400e-003	0.1609	0.0000	1,016.7657	1,016.7657	0.0767	0.0000	1,018.6829
Unmitigated	0.4115	2.8258	3.8069	0.0109	0.5825	4.9600e-003	0.5874	0.1563	4.6400e-003	0.1609	0.0000	1,016.7657	1,016.7657	0.0767	0.0000	1,018.6829

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	14.00	20.00	20.00	26,303	26,303
Hotel	420.00	1,200.00	1200.00	959,819	959,819
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Research & Development	28.00	80.00	80.00	84,349	84,349
Strip Mall	315.00	450.00	450.00	428,283	428,283
User Defined Industrial	0.00	0.00	0.00		
Total	777.00	1,750.00	1,750.00	1,498,754	1,498,754

4.3 Trip Type Information

Glamis GSP - Imperial County, Annual

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
Apartments Low Rise	7.30	3.90	3.70	40.00	19.00	41.00	86	11	3
Hotel	6.70	5.00	8.90	19.40	61.60	19.00	58	38	4
Other Non-Asphalt Surfaces	6.70	5.00	8.90	0.00	0.00	0.00	0	0	0
Research & Development	6.70	5.00	8.90	33.00	48.00	19.00	82	15	3
Strip Mall	6.70	5.00	8.90	16.60	64.40	19.00	45	40	15
User Defined Industrial	6.70	5.00	8.90	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Low Rise	0.524989	0.030717	0.161165	0.112416	0.014580	0.004690	0.018794	0.121206	0.003615	0.001256	0.005248	0.000725	0.000600
Hotel	0.524989	0.030717	0.161165	0.112416	0.014580	0.004690	0.018794	0.121206	0.003615	0.001256	0.005248	0.000725	0.000600
Other Non-Asphalt Surfaces	0.524989	0.030717	0.161165	0.112416	0.014580	0.004690	0.018794	0.121206	0.003615	0.001256	0.005248	0.000725	0.000600
Research & Development	0.524989	0.030717	0.161165	0.112416	0.014580	0.004690	0.018794	0.121206	0.003615	0.001256	0.005248	0.000725	0.000600
Strip Mall	0.524989	0.030717	0.161165	0.112416	0.014580	0.004690	0.018794	0.121206	0.003615	0.001256	0.005248	0.000725	0.000600
User Defined Industrial	0.524989	0.030717	0.161165	0.112416	0.014580	0.004690	0.018794	0.121206	0.003615	0.001256	0.005248	0.000725	0.000600

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Percent of Electricity Use Generated with Renewable Energy

Glamis GSP - Imperial County, Annual

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Low Rise	24301.3	14.0090	3.2000e-004	7.0000e-005	14.0367
Hotel	3.95089e+006	2,277.5729	0.0520	0.0108	2,282.0764
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Research & Development	101500	58.5118	1.3400e-003	2.8000e-004	58.6275
Strip Mall	126300	72.8082	1.6600e-003	3.4000e-004	72.9522
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000
Total		2,422.9018	0.0553	0.0114	2,427.6927

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5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Low Rise	0	0.0000	0.0000	0.0000	0.0000
Hotel	0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Research & Development	0	0.0000	0.0000	0.0000	0.0000
Strip Mall	0	0.0000	0.0000	0.0000	0.0000
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

6.0 Area Detail

6.1 Mitigation Measures Area

Glamis GSP - Imperial 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	1.2157	5.4000e-004	0.0390	0.0000		2.2000e-004	2.2000e-004		2.2000e-004	2.2000e-004	0.0000	0.1698	0.1698	7.0000e-005	0.0000	0.1721
Unmitigated	1.2157	5.4000e-004	0.0390	0.0000		2.2000e-004	2.2000e-004		2.2000e-004	2.2000e-004	0.0000	0.1698	0.1698	7.0000e-005	0.0000	0.1721

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	0.1919					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.0226					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	1.0000e-005	9.0000e-005	4.0000e-005	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	0.1056	0.1056	0.0000	0.0000	0.1063
Landscaping	1.2800e-003	4.4000e-004	0.0389	0.0000		2.1000e-004	2.1000e-004		2.1000e-004	2.1000e-004	0.0000	0.0642	0.0642	7.0000e-005	0.0000	0.0658
Total	1.2157	5.3000e-004	0.0390	0.0000		2.2000e-004	2.2000e-004		2.2000e-004	2.2000e-004	0.0000	0.1698	0.1698	7.0000e-005	0.0000	0.1721

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6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.1919					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.0226					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	1.0000e-005	9.0000e-005	4.0000e-005	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	0.1056	0.1056	0.0000	0.0000	0.1063
Landscaping	1.2800e-003	4.4000e-004	0.0389	0.0000		2.1000e-004	2.1000e-004		2.1000e-004	2.1000e-004	0.0000	0.0642	0.0642	7.0000e-005	0.0000	0.0658
Total	1.2157	5.3000e-004	0.0390	0.0000		2.2000e-004	2.2000e-004		2.2000e-004	2.2000e-004	0.0000	0.1698	0.1698	7.0000e-005	0.0000	0.1721

7.0 Water Detail

7.1 Mitigation Measures Water

Glamis GSP - Imperial County, Annual

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	83.5104	0.3208	7.9100e-003	93.8877
Unmitigated	83.5104	0.3208	7.9100e-003	93.8877

Glamis GSP - Imperial County, Annual

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Low Rise	0.32577 / 0.205377	3.8640	0.0107	2.7000e-004	4.2115
Hotel	3.80502 / 0.422779	32.4762	0.1247	3.0800e-003	36.5101
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Research & Development	4.91694 / 0	38.4676	0.1611	3.9600e-003	43.6734
Strip Mall	0.740725 / 0.453993	8.7027	0.0243	6.1000e-004	9.4927
User Defined Industrial	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		83.5104	0.3208	7.9200e-003	93.8877

Glamis GSP - Imperial County, Annual

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Low Rise	0.32577 / 0.205377	3.8640	0.0107	2.7000e-004	4.2115
Hotel	3.80502 / 0.422779	32.4762	0.1247	3.0800e-003	36.5101
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Research & Development	4.91694 / 0	38.4676	0.1611	3.9600e-003	43.6734
Strip Mall	0.740725 / 0.453993	8.7027	0.0243	6.1000e-004	9.4927
User Defined Industrial	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		83.5104	0.3208	7.9200e-003	93.8877

8.0 Waste Detail

8.1 Mitigation Measures Waste

Glamis GSP - Imperial County, Annual

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	19.4242	1.1479	0.0000	48.1227
Unmitigated	19.4242	1.1479	0.0000	48.1227

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8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Low Rise	2.3	0.4669	0.0276	0.0000	1.1567
Hotel	82.13	16.6717	0.9853	0.0000	41.3033
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Research & Development	0.76	0.1543	9.1200e-003	0.0000	0.3822
Strip Mall	10.5	2.1314	0.1260	0.0000	5.2805
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000
Total		19.4242	1.1479	0.0000	48.1227

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8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Low Rise	2.3	0.4669	0.0276	0.0000	1.1567
Hotel	82.13	16.6717	0.9853	0.0000	41.3033
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Research & Development	0.76	0.1543	9.1200e-003	0.0000	0.3822
Strip Mall	10.5	2.1314	0.1260	0.0000	5.2805
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000
Total		19.4242	1.1479	0.0000	48.1227

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

Glamis GSP - Imperial County, Annual

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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