
3.5 - Greenhouse Gas Emissions

This section describes the potential greenhouse gas emissions effects of project implementation on the project site and its surrounding area. Descriptions and analysis in this section are based on the result of the California Air Resources Board's (CARB's) OFFROAD2011 off-road construction equipment emissions model and the CARB's EMFAC2011 mobile source emission model. The emissions estimations are included in this Draft EIR as Appendix B.

3.5.1 - Existing Conditions

Climate change is a change in the average weather of the earth that is measured by alterations in wind patterns, storms, precipitation, and temperature. These changes are assessed using historical records of temperature changes occurring in the past, such as during previous ice ages. Many of the concerns regarding climate change use this data to extrapolate a level of statistical significance specifically focusing on temperature records from the last 150 years (the Industrial Age) that differ from previous climate changes in rate and magnitude.

Greenhouse Gases

Gases that trap heat in the atmosphere are referred to as greenhouse gases. The effect is analogous to the way a greenhouse retains heat. Common greenhouse gases include water vapor, carbon dioxide, methane, nitrous oxides, chlorofluorocarbons, hydrofluorocarbons, perfluorocarbons, sulfur hexafluoride, ozone, and aerosols. Natural processes and human activities emit greenhouse gases. The presence of greenhouse gases in the atmosphere affects the earth's temperature. It is believed that emissions from human activities, such as electricity production and vehicle use, have elevated the concentration of these gases in the atmosphere beyond the level of naturally occurring concentrations.

Climate change is driven by forcings and feedbacks. Radiative forcing is the difference between the incoming energy and outgoing energy in the climate system. Positive forcing tends to warm the surface while negative forcing tends to cool it. Radiative forcing values are typically expressed in watts per square meter. A feedback is a climate process that can strengthen or weaken a forcing. For example, when ice or snow melts, it reveals darker land underneath which absorbs more radiation and causes more warming. The global warming potential is the potential of a gas or aerosol to trap heat in the atmosphere. The global warming potential of a gas is essentially a measurement of the radiative forcing of a greenhouse gas compared with the reference gas, carbon dioxide.

Individual greenhouse gas compounds have varying global warming potential and atmospheric lifetimes. Carbon dioxide, the reference gas for global warming potential, has a global warming potential of one. The global warming potential of a greenhouse gas is a measure of how much a given mass of a greenhouse gas is estimated to contribute to global warming. To describe how much global warming a given type and amount of greenhouse gas may cause, use is made of a metric called the carbon dioxide equivalent. The calculation of the carbon dioxide equivalent is a consistent

Greenhouse Gas Emissions

methodology for comparing greenhouse gas emissions since it normalizes various greenhouse gas emissions to a consistent reference gas, carbon dioxide. For example, methane’s warming potential of 21 indicates that methane has a 21 times greater warming affect than carbon dioxide on a molecule per molecule basis. A carbon dioxide equivalent is the mass emissions of an individual greenhouse gas multiplied by its global warming potential.

Greenhouse gases as defined by Assembly Bill (AB) 32 include the following gases: carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride. Select greenhouse gases are summarized in Table 3.5-1.

Table 3.5-1: Description of Greenhouse Gases

Greenhouse Gas	Description and Physical Properties	Sources
Nitrous oxide	Nitrous oxide is also known as laughing gas and is a colorless greenhouse gas. It has a lifetime of 114 years. Its global warming potential is 310.	Microbial processes in soil and water, fuel combustion, and industrial processes.
Methane	Methane is a flammable gas and is the main component of natural gas. It has a lifetime of 12 years. Its global warming potential is 21.	Methane is extracted from geological deposits (natural gas fields). Other sources are landfills, fermentation of manure, decay of organic matter, and cattle.
Carbon dioxide	Carbon dioxide (CO ₂) is an odorless, colorless, natural greenhouse gas. Carbon dioxide’s global warming potential is 1. The concentration in 2005 was 379 parts per million (ppm), which is an increase of about 1.4 ppm per year since 1960.	Natural sources include decomposition of dead organic matter; respiration of bacteria, plants, animals, and fungus; evaporation from oceans; and volcanic outgassing. Anthropogenic sources are from burning coal, oil, natural gas, and wood.
Chloro-fluorocarbons	These are gases formed synthetically by replacing all hydrogen atoms in methane or ethane with chlorine and/or fluorine atoms. They are nontoxic, nonflammable, insoluble, and chemically unreactive in the troposphere (the level of air at the earth’s surface). Global warming potentials range from 3,800 to 8,100.	Chlorofluorocarbons were synthesized in 1928 for use as refrigerants, aerosol propellants, and cleaning solvents. They destroy stratospheric ozone. The Montreal Protocol on Substances that Deplete the Ozone Layer prohibited their production in 1987.
Hydro-fluorocarbons	Hydrofluorocarbons are a group of greenhouse gases containing carbon, chlorine, and at least one hydrogen atom. Global warming potentials range from 140 to 11,700.	Hydrofluorocarbons are synthetic manmade chemicals used as a substitute for chlorofluorocarbons in applications such as automobile air conditioners and refrigerants.

Table 3.5-1 (cont.): Description of Greenhouse Gases

Greenhouse Gas	Description and Physical Properties	Sources
Perfluorocarbons	Perfluorocarbons have stable molecular structures and only break down by ultraviolet rays about 60 kilometers above Earth's surface. Because of this, they have long lifetimes, between 10,000 and 50,000 years. Global warming potentials range from 6,500 to 9,200.	Two main sources of perfluorocarbons are primary aluminum production and semiconductor manufacturing.
Sulfur hexafluoride	Sulfur hexafluoride is an inorganic, odorless, colorless, and nontoxic, nonflammable gas. It has a lifetime of 3,200 years. It has a high global warming potential, 23,900.	This gas is manmade and used for insulation in electric power transmission equipment, in the magnesium industry, in semiconductor manufacturing, and as a tracer gas.

Sources: Compiled from a variety of sources, primarily IPCC, 2007.

Other greenhouse gases include water vapor, ozone, and aerosols. Water vapor is an important component of our climate system and is not regulated. Ozone and aerosols are short-lived greenhouse gases; global warming potentials for short-lived greenhouse gases are not defined by the IPCC. Aerosols can remain suspended in the atmosphere for about a week and can warm the atmosphere by absorbing heat and cool the atmosphere by reflecting light. Black carbon is a type of aerosol that can also cause warming from deposition on snow.

There are no adverse health effects from the concentration of greenhouse gases in the atmosphere at the current levels, with the exception of ozone and aerosols (particulate matter). The potential health effects of ozone and particulate matter are discussed in criteria pollutant analyses. At very high concentrations, carbon dioxide, methane, sulfur hexafluoride, and some chlorofluorocarbons can cause suffocation as the gases can displace oxygen (Department of Health and Human Services 2005, Occupational Safety and Health Administration 2003).

3.5.2 - Regulatory Setting

State Regulations

Pavley Regulations. California AB 1493, enacted on July 22, 2002, required the CARB to develop and adopt regulations that reduce greenhouse gases emitted by passenger vehicles and light duty trucks. The regulation was stalled by automaker lawsuits and by the EPA's denial of an implementation waiver. On January 21, 2009, the ARB requested that the EPA reconsider its previous waiver denial. On January 26, 2009, President Obama directed that the EPA assess whether the denial of the waiver was appropriate. On June 30, 2009, the EPA granted the waiver request, which begins with motor vehicles in the 2009 model year.

The standards phase in during the 2009 through 2016 model years. When fully phased in, the near term (2009 to 2012) standards will result in about a 22 percent reduction compared with the 2002 fleet, and the mid-term (2013 to 2016) standards will result in about a 30 percent reduction. Several technologies stand out as providing significant reductions in emissions at favorable costs. These include discrete variable valve lift or camless valve actuation to optimize valve operation rather than relying on fixed valve timing and lift as has historically been done; turbocharging to boost power and allow for engine downsizing; improved multi-speed transmissions; and improved air conditioning systems that operate optimally, leak less, and/or use an alternative refrigerant.

Executive Order S-3-05. California Governor Arnold Schwarzenegger announced on June 1, 2005, through Executive Order S-3-05, the following reduction targets for greenhouse gas emissions:

- By 2010, reduce greenhouse gas emissions to 2000 levels.
- By 2020, reduce greenhouse gas emissions to 1990 levels.
- By 2050, reduce greenhouse gas emissions to 80 percent below 1990 levels.

The 2050 reduction goal represents what scientists believe is necessary to reach levels that will stabilize the climate. The 2020 goal was established to be an aggressive, but achievable, mid-term target. The Climate Action Team’s Report to the Governor in 2006 contains recommendations and strategies to help ensure the 2020 targets in Executive Order S-3-05 are met.

Low Carbon Fuel Standard - Executive Order S-01-07. The Governor signed Executive Order S-01-07 on January 18, 2007. The order mandates that a statewide goal shall be established to reduce the carbon intensity of California’s transportation fuels by at least 10 percent by 2020. In particular, the executive order established a Low-Carbon Fuel Standard and directed the Secretary for Environmental Protection to coordinate the actions of the California Energy Commission, the CARB, the University of California, and other agencies to develop and propose protocols for measuring the “life-cycle carbon intensity” of transportation fuels. This analysis supporting development of the protocols was included in the State Implementation Plan for alternative fuels (State Alternative Fuels Plan adopted by California Energy Commission on December 24, 2007) and was submitted to CARB for consideration as an “early action” item under AB 32. The ARB adopted the Low Carbon Fuel Standard on April 23, 2009.

AB 32. The California State Legislature enacted AB 32, the California Global Warming Solutions Act of 2006. AB 32 requires that greenhouse gases emitted in California be reduced to 1990 levels by the year 2020. “Greenhouse gases” as defined under AB 32 include carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride. ARB is the state agency charged with monitoring and regulating sources of greenhouse gases. AB 32 states the following:

Global warming poses a serious threat to the economic well-being, public health, natural resources, and the environment of California. The potential adverse impacts of global warming include the exacerbation of air quality problems, a reduction in the quality and supply of water to the state from the Sierra snowpack, a rise in sea levels resulting in the displacement of thousands of coastal businesses and residences, damage to marine ecosystems and the natural environment, and an increase in the incidences of infectious diseases, asthma, and other human health-related problems.

The CARB Board approved the 1990 greenhouse gas emissions level of 427 MMTCO₂e on December 6, 2007 (CARB 2007). Therefore, emissions generated in California in 2020 are required to be equal to or less than 427 MMTCO₂e. Emissions in 2020 in a “business as usual” scenario are estimated to be 596 MMTCO₂e.

Under AB 32, the ARB published its Final Expanded List of Early Action Measures to Reduce Greenhouse Gas Emissions in California. Discrete early action measures are currently underway or are enforceable by January 1, 2010. The ARB has 44 early action measures that apply to the transportation, commercial, forestry, agriculture, cement, oil and gas, fire suppression, fuels, education, energy efficiency, electricity, and waste sectors. Of these early action measures, nine are considered discrete early action measures, as they are regulatory and enforceable by January 1, 2010. The ARB estimates that the 44 recommendations are expected to result in reductions of at least 42 MMTCO₂e by 2020, representing approximately 25 percent of the 2020 target.

The ARB approved the Climate Change Scoping Plan in December 2008 (CARB 2008). The Scoping Plan contains measures designed to reduce the State’s emissions to 1990 levels by the year 2020. The Scoping Plan identifies recommended measures for multiple greenhouse gas emission sectors and the associated emission reductions needed to achieve the year 2020 emissions target—each sector has a different emission reduction target. The measures in the Scoping Plan will be in place by 2012. Most of the measures target the transportation and electricity sectors. As stated in the Scoping Plan, the key elements of the strategy for achieving the 2020 greenhouse gas target include:

- Expanding and strengthening existing energy efficiency programs as well as building and appliance standards.
- Achieving a statewide renewables energy mix of 33 percent.
- Developing a California cap-and-trade program that links with other Western Climate Initiative partner programs to create a regional market system.
- Establishing targets for transportation-related greenhouse gas emissions for regions throughout California and pursuing policies and incentives to achieve those targets.

- Adopting and implementing measures pursuant to existing State laws and policies, including California’s clean car standards, goods movement measures, and the Low Carbon Fuel Standard.
- Creating targeted fees, including a public goods charge on water use, fees on high global warming potential gases, and a fee to fund the administrative costs of the State’s long-term commitment to AB 32 implementation.

In addition, the Scoping Plan differentiates between “capped” and “uncapped” strategies. “Capped” strategies are subject to the proposed cap-and-trade program. The Scoping Plan states that the inclusion of these emissions within the cap-and-trade program will help ensure that the year 2020 emission targets are met despite some degree of uncertainty in the emission reduction estimates for any individual measure. Implementation of the capped strategies is calculated to achieve a sufficient amount of reductions by 2020 to achieve the emission target contained in AB 32. “Uncapped” strategies that will not be subject to the cap-and-trade emissions caps and requirements are provided as a margin of safety by accounting for additional greenhouse gas emission reductions.

Executive Order S-13-08. Executive Order S-13-08 indicates that “climate change in California during the next century is expected to shift precipitation patterns, accelerate sea level rise and increase temperatures, thereby posing a serious threat to California’s economy, to the health and welfare of its population and to its natural resources.” Pursuant to the requirements in the order, in December 2009, the California Natural Resources Agency released its 2009 California Climate Adaptation Strategy (California Natural Resources Agency 2009). The Strategy is the “. . . first statewide, multi-sector, region-specific, and information-based climate change adaptation strategy in the United States.” Objectives include analyzing risks of climate change in California, identifying and exploring strategies to adapt to climate change, and specifying a direction for future research.

According to the Adaptation Strategy Report, one of the expected impacts of global warming is a shift in the water cycle with less winter precipitation falling as snow, and both snowmelt and rainwater runoff occurring sooner in the year creating risks of flooding and water shortages. One of the key recommendations is implementation of Senate Bill X71, that directs state agencies to employ strategies to achieve a statewide 20 percent reduction in per capita water use by 2020, expand surface and groundwater storage, implement efforts to fix the Delta water supply, quality, and ecosystem conditions, support agricultural water use efficiency, improve state-wide water quality, and improve Delta ecosystem conditions and stabilize water supplies as developed in the Bay Delta Conservation Plan. These recommendations are consistent with earlier recommendations made by the Department of Water Resources (DWR) in its October 2008 publication, “Managing an Uncertain Future.” According to DWR, actions to increase the overall water supply require protection of groundwater, especially from contamination and overuse. DWR’s Bulletin 118 California’s Groundwater Update 2003 provides information for planning the optimal use of the groundwater resources.

CEQA Guidelines Update. As required by SB 97, the Governor’s Office of Planning and Research prepared and transmitted recommended Amendments to the CEQA Guidelines for greenhouse gas emissions to the California Natural Resources Agency on April 13, 2009. After a public comment period, the Natural Resources Agency proposed revisions to the text of the Proposed Guidelines Amendments. The Natural Resources Agency provided additional public comment time on the revised text. The Natural Resources Agency adopted the CEQA Guidelines Amendments with minor, non-substantial changes.

The Natural Resources Agency transmitted the Adopted Amendments and the entire rulemaking file to the Office of Administrative Law on December 31, 2009. The Office of Administrative Law reviewed the Adopted Amendments and the Natural Resources Agency’s rulemaking file. The Adopted Amendments were filed with the Secretary of State, and became effective March 18, 2010.

The CEQA Amendments provide guidance to public agencies regarding the analysis and mitigation of the effects of greenhouse gas emissions in CEQA documents. The CEQA Amendments fit within the existing CEQA framework by amending existing CEQA Guidelines to reference climate change.

A new section, CEQA Guidelines Section 15064.4, was added to assist agencies in determining the significance of greenhouse gas emissions. The new section allows agencies the discretion to determine whether a quantitative or qualitative analysis is best for a particular project. Importantly, however, little guidance is offered on the crucial next step in this assessment process—how to determine whether the project’s estimated greenhouse gas emissions are significant or cumulatively considerable.

Also amended were CEQA Guidelines Section 15126.4 and 15130, which address mitigation measures and cumulative impacts respectively. Greenhouse gas mitigation measures are referenced in general terms, but no specific measures are championed. The revision to the cumulative impact discussion requirement (Section 15130) simply directs agencies to analyze greenhouse gas emissions in an EIR when a project’s incremental contribution of emissions may be cumulatively considerable, however it does not answer the question of when emissions are cumulatively considerable.

Section 15183.5 permits programmatic greenhouse gas analysis and later project-specific tiering, as well as the preparation of Greenhouse Gas Reduction Plans. Compliance with such plans can support a determination that a project’s cumulative effect is not cumulatively considerable, according to proposed Section 15183.5(b).

In addition, the amendments revised Appendix F of the CEQA Guidelines, which focuses on Energy Conservation, and Appendix G, which includes the sample Environmental Checklist Form. The Checklist was also amended to include greenhouse gas questions, as identified in the Threshold section of this document.

Local Regulations

The project is within the South Coast Air Basin, which is under the jurisdiction of the South Coast Air Quality Management District (SCAQMD). The SCAQMD, the County of Riverside, and the City of Beaumont do not have any climate action plans or greenhouse gas reduction plans.

3.5.3 - Thresholds of Significance

According to the CEQA Guidelines' Appendix G Environmental Checklist, to determine whether greenhouse emissions impacts are significant environmental effects, the following questions are analyzed and evaluated. Would the project:

- a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment? (See Greenhouse Gas Emissions Impact GHG-1.)
- b) Conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases? (See Conflict with Plan, Policy, or Regulation that Reduces Emissions Impact GHG-2.)

3.5.4 - Project Impact Analysis and Mitigation Measures

This section discusses potential impacts associated with the proposed project and provides mitigation measures where necessary.

Greenhouse Gas Emissions

Impact GHG-1	The project would not generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment.
---------------------	---

Impact Analysis

The project contributes to climate change impacts through its contribution of GHG emissions. The project would generate a variety of GHGs during construction and operation such as carbon dioxide, methane, and nitrous oxide from the exhaust of equipment, and exhaust of vehicles for employees and hauling trips. The project may also emit GHGs that are not defined by AB 32. For example, the project may generate aerosols. Aerosols are short-lived GHGs, as they remain in the atmosphere for about 1 week. Black carbon is a component of aerosol. A couple of studies have indicated that black carbon has a high global warming potential; however, the United Nations Intergovernmental Panel on Climate Change (IPCC) states that it has a low level of scientific certainty (IPCC 2007). Water vapor could be emitted from evaporated water from the recharge basins as well as from water used for landscaping, but this is not a significant impact because water vapor concentrations in the upper atmosphere are primarily due to climate feedbacks rather than emissions from project-related activities. The project would emit nitrogen oxides and volatile organic compounds, which are ozone precursors. Ozone is a GHG; however, unlike the other GHGs, ozone in the troposphere is relatively short-lived and can be reduced in the troposphere on a daily basis.

Certain GHGs defined by AB 32 would not be emitted by the project. Perfluorocarbons and sulfur hexafluoride are typically used in industrial applications, none of which would be used by the project. Therefore, it is not anticipated that the project would emit perfluorocarbons or sulfur hexafluoride.

An inventory of greenhouse gas emissions generated by the project is presented below. The emissions are converted to metric tons of carbon equivalents (MTCO_{2e}) using the formula:

$$\text{MTCO}_2\text{e} = (\text{tons of gas}) \times (\text{global warming potential}) \times (0.9072 \text{ metric tons of gas})$$

Construction

Carbon dioxide emissions from construction were estimated using the emission factors from the CARB OFFROAD 2011 emission model for off-road construction equipment and the CARB EMFAC2011 mobile source emission model for estimating emissions from worker vehicles and haul trucks (see Section 3.1 Air Quality for assumptions).

Greenhouse gas emissions from project construction equipment and worker vehicles are shown in Table 3.5-2. The emissions are from all phases of construction.

Table 3.5-2: Construction Greenhouse Gases

Phase	Total Emissions (MTCO _{2e})
Recharge Basin	338
Well Construction	6
Pipeline Construction	38
Service Connection	7
Total	389
Notes: MTCO _{2e} = metric tons of carbon dioxide equivalent. Source: See Appendix B.	

Operation

Operational or long-term emissions will occur over the life of the project. These emissions will include maintenance vehicles, off-road equipment, haul truck, and operation of a well pump for irrigation. It is anticipated that the recharge facility may require servicing on an annual basis which would require the basins to be completely dewatered for cleaning. Each cleaning assumes that a bulldozer would remove the silt layer built up on the basin's bottom. An estimated 100 cubic yards of silt would be removed annually by the use of 2 haul truck trips per day over 5 days to complete the 5 proposed basins.

Greenhouse Gas Emissions

Motor vehicle emissions generate greenhouse gas emissions from the exhausts of employee vehicles. Estimates of mobile source greenhouse emissions were estimated using the emission factors from the EMFAC2011 mobile source emission model.

Off-road equipment would be used to break up the silt at the bottom of the basin approximately twice per year. Emissions were estimated using the emission factors from the OFFROAD2011 emission model. Maintenance was assumed to require the use of one bulldozer and one water truck. Vehicle exhaust emissions are assumed to occur from haul trucks that are used each day during the annual maintenance cleaning of the basins. As identified above, the estimates of mobile source greenhouse emissions were estimated using the emission factors from the EMFAC2011 mobile source emission model. Each day during the assumed 5-days of cleaning, four worker vehicles are assumed to visit the project site and two 10 cubic yard truckloads of silt would be exported offsite 7 miles away (14 miles round trip) to the Lamb Canyon Landfill off State Route 79 south of Interstate 10.

The total operational and construction emissions for the project are shown in Table 3.5-3. As recommended by the SCAQMD, the construction emissions are averaged over 30 years and are added to the operational emissions to obtain the total emissions.

Table 3.5-3: Project Operational Greenhouse Gases (including Construction)

Source	Emissions (MTCO ₂ e per year)
Motor Vehicles - Maintenance workers ¹	1
Off-road equipment and haul trucks ²	10
Electricity for Well Pump ³	3
Subtotal Operational	14
Construction averaged over 30 years	13
Total operational and construction	27
Notes: MTCO ₂ e = metric tons of carbon dioxide equivalents ¹ This operational analysis assumes four worker vehicles per day over the five day period and each one-way trip is 20 miles, twice per year ² This operational analysis assumes one bulldozer (7 hours per day), two water truck (3 hours per day), and 2 haul trucks (7 miles each one-way trip per day) will be used over a period of five days. ³ Assumes a 20 horsepower well pump operating 4 hours per day, 3 days per week Source: See Appendix B.	

Summary

CEQA requires that Lead Agencies inform decision makers and the public regarding potential significant environmental effects of proposed projects and feasible ways that environmental damage can be avoided or reduced, through feasible mitigation measures and/or project alternatives. The

Lead Agencies must also disclose the reasons why a project is approved if significant environmental effects are involved (CEQA Guidelines Section 15002). CEQA also requires Lead Agencies to evaluate potential environmental effects based on, to the fullest extent possible, scientific and factual data (CEQA Guidelines Section 15064[b]). Significance conclusions must be based on substantial evidence, which includes facts, reasonable assumptions predicated upon facts, and expert opinion supported by facts (CEQA Guidelines Section 15064f [5]).

On December 5, 2008, the SCAQMD Governing Board adopted an interim greenhouse gas significance threshold for stationary sources, rules, and plans where the SCAQMD is lead agency (“SCAQMD permit threshold”). The SCAQMD permit threshold consists of five tiers, as follows:

- Tier 1 consists of evaluating whether or not the project qualifies for any applicable exemption under CEQA.
- Tier 2 consists of determining whether the project is consistent with a greenhouse gas reduction plan. If a project is consistent with a qualifying local greenhouse gas reduction plan, it does not have significant greenhouse gas emissions.
- Tier 3 is a screening threshold level to determine significance using a 90 percent emission capture rate approach and is 10,000 MTCO₂e per year (with construction emissions amortized over 30 years and added to operational emissions).
- Tier 4 was not approved in the interim greenhouse gas threshold.

Tier 5 would allow the project proponent to purchase offsite mitigation to reduce greenhouse gas emissions to less than the screening level (in Tier 3).

The SCAQMD is in the process of preparing recommended significance thresholds for greenhouse gases for local lead agency consideration (SCAQMD draft local agency threshold); however, the SCAQMD Board has not approved the thresholds as of the date of the NOP for local lead agencies to utilize in assessing impacts. The current draft thresholds consist of a tiered approach. Tier 1 and Tier 2 are the same as in the SCAQMD permit threshold listed above. Tier 3 consists of screening values, which the lead agency can choose but must be consistent with the approach. A project’s construction emissions are averaged over 30 years and are added to a project’s operational emissions. If a project’s emissions are under one of the following screening thresholds, then the project is less than significant (SCAQMD 2010):

- All land use types: 3,000 MTCO₂e per year
- Based on land use type:
 - Residential: 3,500 MTCO₂e per year
 - Commercial: 1,400 MTCO₂e per year
 - Mixed use: 3,000 MTCO₂e per year

Greenhouse Gas Emissions

Tier 4 in the SCAQMD draft local agency threshold has three options. The first option involves reducing emissions from business as usual by a certain percentage. The second option requires early implementation of applicable AB 32 Scoping Plan measures. The third option is a SCAQMD efficiency target for service populations. Tier 5 involves mitigation offsets to achieve target significance threshold.

The County of Riverside published a document titled “Greenhouse Gas Emissions, Screening Tables, County of Riverside California in May of 2012.”¹ The Screening Tables document was prepared by Akins for the County of Riverside.

The screening tables use a point-based system. If the project is able to achieve 100 points or more, then they do not need to analyze GHG emissions in the air quality study. The screening tables also allow developers to tailor their mitigation measures to the project’s needs rather than have them be subject to a one-size fits all mitigation measures that may be too stringent for them.

If the project is not able to achieve 100 points, then a detailed, GHG analysis is required, where the project’s emissions are compared to the SCAQMD draft threshold of 3,000 MTCO₂e per year. If the project exceeds the 3,000 MTCO₂e per year threshold, then project emissions would need to be reduced by 25 percent from year 2011 emissions levels.

To determine whether the project is significant, this assessment utilized the SCAQMD draft local agency threshold and County of Riverside threshold of 3,000 MTCO₂e per year.

The project would emit approximately 27 MTCO₂e per year, which is under the SCAQMD’s draft threshold and the County of Riverside threshold of 3,000 tons per year in their greenhouse gas significance test. The project’s greenhouse gas emissions are, therefore, less than the SCAQMD’s and County of Riverside’s significance thresholds.

Considering the above information, the project would result in a less than significant impact. Although the project would generate a small amount of greenhouse gases, the emissions would not have a significant impact on the environment.

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

No mitigation measures are required.

Level of Significance After Mitigation

Less than significant impact.

¹ http://rivcocob.com/agenda/2012/06_19_12/03.45f.pdf.

Conflict with Plan, Policy, or Regulation that Reduces Emissions

Impact GHG-2 **The project would not conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases.**

Impact Analysis

As discussed in Impact GHG-1, the project's emissions of greenhouse gases are below the draft SCAQMD threshold as well as the County of Riverside's threshold. The SCAQMD, the County of Riverside, and the City of Beaumont do not have an applicable plan, policy or regulation adopted to reduce the emissions of greenhouse gases. The California Air Resources Board (CARB) 2008 Climate Change Scoping Plan is a document that outlines measures that the State can take to reduce its greenhouse gas emissions to 1990 levels by the year 2020. The measures in the Scoping Plan deal with statewide measures that cannot be implemented by a project applicant or lead agency. Such measures include the state cap and trade program, state light duty vehicle greenhouse gas emission standards, state building energy efficiency standards, renewable energy portfolio standards, low carbon fuel standards, setting regional transportation-related greenhouse gas targets, light duty and heavy-duty vehicle efficiency standards, goods movement, solar roofs program, high-speed rail, and green building programs. Because of the nature of this project, the Scoping Plan measures do not apply to the proposed project. Therefore, the project would not conflict with any applicable plan, policy or regulation of an agency adopted to reduce the emissions of greenhouse gases.

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

No mitigation measures are required.

Level of Significance After Mitigation

Less than significant impact.

