

VII. GREENHOUSE GAS EMISSIONS – Would the project:				
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

7a. Response (Source:)

Global climate change is a cumulative impact. A project participates in this potential impact through its incremental contribution combined with the cumulative increase of all other sources of GHGs. Thus, GHG impacts are recognized as exclusively cumulative impacts; there are no non-cumulative GHG emission impacts from a climate change perspective (CAPCOA 2008). This approach is consistent with that recommended by the California Natural Resources Agency, which noted in its Public Notice for the proposed CEQA amendments that evidence indicates, in most cases, that the impact of GHG emissions should be considered in the context of a cumulative impact, rather than a project-level impact (CNRA 2009a). Similarly, the *Final Statement of Reasons for Regulatory Action* for amendments to the CEQA Guidelines confirms that an EIR or other environmental document must analyze the incremental contribution of a project to GHG levels and determine whether those emissions are cumulatively considerable (CNRA 2009b).

The CEQA Guidelines provide for streamlining the environmental review of project-level analysis of GHG emissions from a programmatic document, such as a GHG reduction plan, and allow for a finding of less than significant where a project is determined to be consistent with a local reduction plan (14 CCR Section 15183.5). The CEQA Guidelines provide that the environmental analysis of specific projects may be tiered from a programmatic GHG plan that substantially lessens the cumulative effect of GHG emissions. If a public agency adopts such a programmatic GHG plan, the environmental review of subsequent projects may be streamlined. A specific project’s incremental contribution of GHG emissions will not be considered cumulatively significant if the project complies with the adopted GHG plan.

County of San Bernardino GHG Reduction Plan

The County developed and adopted a GHG plan in September 2011 and developed an updated *Greenhouse Gas Emissions Development Review Processes*, March 2015. The county GHG plan presents a comprehensive set of actions to reduce its internal and external GHG emissions to 15% below current levels by 2020, consistent with the Assembly Bill (AB) 32 Scoping Plan. The County’s GHG reduction plan was prepared to accomplish the following specific objectives:

- Reduce emissions from activities over which the County has jurisdictional and operational control consistent with the target reductions of the AB 32 Scoping Plan;
- Provide estimated GHG reductions associated with the County of San Bernardino’s existing sustainability efforts and integrate the County’s sustainability efforts into the discrete actions of the GHG Plan;
- Provide a list of discrete actions that will reduce GHG emissions; and

- Approve a GHG Plan that satisfies the requirements of Section 15183.5 of the CEQA Guidelines so that compliance with the GHG Plan can be used in appropriate situations to determine the significance of a project's effects relating to GHG emissions, thus providing streamlined CEQA analysis of future projects that are consistent with the approved GHG Plan (County of San Bernardino 2011).

All development projects, including those otherwise determined to be exempt from CEQA, are subject to applicable Development Code provisions, including the GHG performance standards and state requirements. With the application of the GHG performance standards, projects that are exempt from CEQA and small projects that do not exceed 3,000 metric tons (MT) of carbon dioxide equivalent (CO₂e) per year (MT CO₂e/year)¹ are considered to be consistent with the GHG reduction plan and determined to have a less than significant individual and cumulative impact for GHG emissions (County of San Bernardino 2011). The development of this threshold implies that it should be applied to the total of a project's annual operational emissions plus its construction emissions annualized over the project life. A programmatic environmental impact report was developed for the GHG Plan in accordance with CEQA Guidelines Section 15183.5 and is considered a qualified GHG reduction plan. The County adopted a performance standard of 31% for certain discretionary projects within the unincorporated County with emissions more than 3,000 MT CO₂e per year. Projects with less than 3,000 MT CO₂e per year are still required to meet certain specified performance measures that also result in GHG emission reductions.

The GHG reduction plan includes goals and objectives aimed to reduce emissions generated during construction of projects. With respect to the proposed project, the GHG reduction plan specifies the following:

- GHG Goal TL 4: Reduce GHG emissions by regulating the idling of diesel-fueled vehicles and equipment and encouraging the use of alternative fuels and transportation technologies.
- Objective GHG TL 4.1: Reduce the exhaust emissions of diesel-fueled vehicles and equipment.

As described in the updated *Greenhouse Gas Emissions Development Review Processes*, March 2015, GHG reducing performance standards were developed by the County to improve the energy efficiency, water conservation, vehicle trip reduction potential, and other GHG reducing impacts from all new development approved within the unincorporated portions of San Bernardino County. As such, the Performance Standards establish the minimum level of compliance that development must meet to assist in meeting the 2020 GHG reduction target identified in the in the County GHG

¹ The CO₂ equivalent for a gas is derived by multiplying the mass of the gas by the associated global warming potential (GWP), such that MT CO₂e = (metric tons of a GHG) x (GWP of the GHG). For example, the GWP for CH₄ is 21. This means that emissions of 1 metric ton of methane are equivalent to emissions of 21 metric tons of CO₂.

Emissions Reduction Plan. The Performance Standards apply to all Projects, including those that are exempt under CEQA for commercial and industrial projects.

1. GHG – Operational Standards. *The developer shall implement the following as greenhouse gas (GHG) mitigation during the operation of the approved project:*
 - a) Waste Stream Reduction. *The “developer” shall provide to all tenants and project employees County-approved informational materials about methods and need to reduce the solid waste stream and listing available recycling services.*
 - b) Vehicle Trip Reduction. *The “developer” shall provide to all tenants and project employees County-approved informational materials about the need to reduce vehicle trips and the program elements this project is implementing. Such elements may include: participation in established ride-sharing programs, creating a new ride-share employee vanpool, designating preferred parking spaces for ride sharing vehicles, designating adequate passenger loading and unloading for ride sharing vehicles with benches in waiting areas, and/or providing a web site or message board for coordinating rides.*
 - c) Provide Educational Materials. *The developer shall provide to all tenants and staff education materials and other publicity about reducing waste and available recycling services. The education and publicity materials/program shall be submitted to County Planning for review and approval. The developer shall also provide to all tenants and require that the tenants shall display in their stores current transit route information for the project area in a visible and convenient location for employees and customers. The specific transit routes displayed shall include Omni Trans Route 8, San Bernardino-Mentone-Yucaipa.*
 - d) Landscape Equipment. *The developer shall require in the landscape maintenance contract and/or in onsite procedures that a minimum of 20% of the landscape maintenance equipment shall be electric-powered.*
2. GHG – Construction Standards. *The “developer” shall submit for review and obtain approval from County Planning of a signed letter agreeing to include as a condition of all construction*

contracts/subcontracts requirements to reduce GHG emissions and submitting documentation of compliance. The developer/construction contractors shall do the following:

- a) Implement the approved Coating Restriction Plans.*
 - b) Select construction equipment based on low GHG emissions factors and high-energy efficiency. All diesel/gasoline-powered construction equipment shall be replaced, where possible, with equivalent electric or CNG equipment.*
 - c) Grading contractor shall provide the implement the following when possible:
 - 1) training operators to use equipment more efficiently.*
 - 2) identifying the proper size equipment for a task can also provide fuel savings and associated reductions in GHG emissions*
 - 3) replacing older, less fuel-efficient equipment with newer models*
 - 4) use GPS for grading to maximize efficiency**
 - d) Grading plans shall include the following statements:
 - “All construction equipment engines shall be properly tuned and maintained in accordance with the manufacturers specifications prior to arriving on site and throughout construction duration.”*
 - “All construction equipment (including electric generators) shall be shut off by work crews when not in use and shall not idle for more than 5 minutes.”**
 - e) Schedule construction traffic ingress/egress to not interfere with peak-hour traffic and to minimize traffic obstructions. Queuing of trucks on and off site shall be firmly discouraged and not scheduled. A flagperson shall be retained to maintain efficient traffic flow and safety adjacent to existing roadways.*
 - f) Recycle and reuse construction and demolition waste (e.g. soil, vegetation, concrete, lumber, metal, and cardboard) per County Solid Waste procedures.*
 - g) The construction contractor shall support and encourage ridesharing and transit incentives for the construction crew and educate all construction workers about the required waste reduction and the availability of recycling services.*
- 3. GHG – Design Standards. The developer shall submit for review and obtain approval from County Planning that the following measures*

have been incorporated into the design of the project. These are intended to reduce potential project greenhouse gas (GHGs) emissions. Proper installation of the approved design features and equipment shall be confirmed by County Building and Safety prior to final inspection of each structure.

a) Meet Title 24 Energy Efficiency requirements implemented July 1, 2014 The Developer shall document that the design of the proposed structures meets the current Title 24 energy-efficiency requirements. County Planning shall coordinate this review with the County Building and Safety. Any combination of the following design features may be used to fulfill this requirement, provided that the total increase in efficiency meets or exceeds the cumulative goal (100%+ of Title 24) for the entire project (Title 24, Part 6 of the California Code of Regulations; Energy Efficiency Standards for Residential and Non Residential Buildings, as amended January 24, 2013; Cool Roof Coatings performance standards as amended January 24, 2013):

- Incorporate dual paned or other energy efficient windows,
- Incorporate energy efficient space heating and cooling equipment,
- Incorporate energy efficient light fixtures, photocells, and motion detectors,
- Incorporate energy efficient appliances,
- Incorporate energy efficient domestic hot water systems,
- Incorporate solar panels into the electrical system,
- Incorporate cool roofs/light colored roofing,
- Incorporate other measures that will increase energy efficiency.
- Increase insulation to reduce heat transfer and thermal bridging.
- Limit air leakage throughout the structure and within the heating and cooling distribution system to minimize energy consumption.

b) Plumbing. All plumbing shall incorporate the following:

- All showerheads, lavatory faucets, and sink faucets shall comply with the California Energy Conservation flow rate standards.
- Low flush toilets shall be installed where applicable as specified in California State Health and Safety Code Section 17921.3.
- All hot water piping and storage tanks shall be insulated.

Energy efficient boilers shall be used.

- *Lighting. Lighting design for building interiors shall support the use of:*
 - *Compact fluorescent light bulbs or equivalently efficient lighting.*
 - *Natural day lighting through site orientation and the use of reflected light.*
 - *Skylight/roof window systems.*
 - *Light colored building materials and finishes shall be used to reflect natural and artificial light with greater efficiency and less glare.*
 - *A multi-zone programmable dimming system shall be used to control lighting to maximize the energy efficiency of lighting requirements at various times of the day.*
 - *Provide a minimum of 2.5 percent of the project's electricity needs by on-site solar panels.*
- c) *Building Design. Building design and construction shall incorporate the following elements:*
 - *Orient building locations to best utilize natural cooling/heating with respect to the sun and prevailing winds/natural convection to take advantage of shade, day lighting and natural cooling opportunities.*
 - *Utilize natural, low maintenance building materials that do not require finishes and regular maintenance.*
 - *Roofing materials shall have a solar reflectance index of 78 or greater.*
 - *All supply duct work shall be sealed and leak-tested. Oval or round ducts shall be used for at least 75 percent of the supply duct work, excluding risers.*
 - *Energy Star or equivalent appliances shall be installed.*
 - *A building automation system including outdoor temperature/humidity sensors will control public area heating, vent, and air conditioning units*
- d) *Landscaping. The developer shall submit for review and obtain approval from County Planning of landscape and irrigation plans that are designed to include drought tolerant and smog tolerant trees, shrubs, and groundcover to ensure the long-term viability and to conserve water and energy. The landscape plans shall include shade trees around main buildings, particularly along southern and western elevations, where practical.*

Irrigation. The developer shall submit irrigation plans that are designed, so that all common area irrigation areas shall be capable of being operated by a computerized irrigation system, which includes either an on-site weather station, ET gauge or ET-based controller capable of reading current weather data and making automatic adjustments to independent run times for each irrigation valve based on changes in temperature, solar radiation, relative humidity, rain and wind. In addition, the computerized irrigation system shall be equipped with flow sensing capabilities, thus automatically shutting down the irrigation system in the event of a mainline break or broken head. These features will assist in conserving water, eliminating the potential of slope failure due to mainline breaks and eliminating over-watering and flooding due to pipe and/or head breaks.

- e) Recycling. Exterior storage areas for recyclables and green waste shall be provided. Where recycling pickup is available, adequate recycling containers shall be located in public areas. Construction and operation waste shall be collected for reuse and recycling.*
- f) Transportation Demand Management (TDM) Program. The project shall include adequate bicycle parking near building entrances to promote cyclist safety, security, and convenience. Preferred carpool/vanpool spaces shall be provided and, if available, mass transit facilities shall be provided (e.g. bus stop bench/shelter). The developer shall demonstrate that the TDM program has been instituted for the project or that the buildings will join an existing program located within a quarter mile radius from the project site that provides a cumulative 20% reduction in unmitigated employee commute trips. The TDM Program shall publish ride-sharing information for ride-sharing vehicles and provide a website or message board for coordinating rides. The Program shall ensure that appropriate bus route information is placed in each building.”*

San Bernardino County Transportation Authority

In response to AB 32, an informal project partnership, led by the San Bernardino Association of Governments (now SBCTA), is cooperating in compiling an inventory of GHG emissions and an evaluation of reduction measures that could be adopted by the 21 Partnership Cities of San

Bernardino County. SBCTA developed the San Bernardino County Regional GHG Reduction Plan (Reduction Plan) to reduce GHG emission within the County and includes the 2008 GHG inventory (SBCTA 2014). The Reduction Plan summarizes the actions that each city has selected in order to reduce GHG emissions, state-mandated actions, GHG emissions avoided in 2020 associated with each local and state action, and each city's predicted progress towards their selected GHG reduction goal.

Thresholds of Significance

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

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

Global climate change is a cumulative impact; a proposed project participates in this potential impact through its incremental contribution combined with the cumulative increase of all other sources of GHGs. In addition, while GHG impacts are recognized exclusively as cumulative impacts (CAPCOA 2008), GHG emissions impacts must also be evaluated on a proposed project-level under CEQA.

County of San Bernardino

The County of San Bernardino Climate Action Plan (CAP) includes measures developed in order to reduce 4,288,863 MT CO₂e per year from new development by 2020 as compared to the 2020 unmitigated conditions. Mitigation of GHG emissions impacts during the development review process of projects provides a cost-effective way of implementing the GHG reduction strategies for reducing community-wide emissions associated with new development (County of San Bernardino 2015a). The development review process procedures for evaluating GHG impacts and determining significance for CEQA purposes will be streamlined by (1) applying an emissions level that is determined to be less than significant for small projects, and (2) utilizing the Screening Tables to mitigate project GHG emissions that exceed the threshold level. Projects will have the option of preparing a project-specific technical analysis to quantify and mitigate GHG emissions. The CAP determined that the 90th percentile of projects ranged from 2,983 MT to 3,143 MT CO₂e per year. The 3,000 MT CO₂e per year value is the low end value within that range rounded to the nearest hundred tons of emissions and is used in defining small projects that are considered less than significant and do not need to use the Screening Tables. A threshold level above 3,000 MT CO₂e per year will be used to identify projects that require the use of

Screening Tables or a project-specific technical analysis to quantify and mitigate project emissions.

MDAQMD

The CEQA guidelines for projects that fall within the MDAQMD boundary are found in the August 2016 version of the MDAQMD CEQA and Federal Conformity Guidelines. Under CEQA, the MDAQMD is an expert commenting agency on air quality and related matters within its jurisdiction or impacting on its jurisdiction. Under the Federal Clean Air Act the District has adopted federal attainment plans for O₃ and PM₁₀. The District has dedicated assets to reviewing projects to ensure that they will not: (1) cause or contribute to any new violation of any air quality standard; (2) increase the frequency or severity of any existing violation of any air quality standard; or (3) delay timely attainment of any air quality standard or any required interim emission reductions or other milestones of any federal attainment plan. These Guidelines are intended to assist persons preparing environmental analysis or review documents for any project within the jurisdiction of the District by providing background information and guidance on the preferred analysis approach.

Any project is significant if it triggers or exceeds the most appropriate evaluation criteria. The District will clarify upon request which threshold is most appropriate for a given project; in general, the emissions comparison (criteria number 1) is sufficient:

1. Generates total emissions (direct and indirect) in excess of the threshold;
2. Generates a violation of any ambient air quality standard when added to the local background;
3. Does not conform with the applicable attainment or maintenance plan(s);
4. Exposes sensitive receptors to substantial pollutant concentrations, including those resulting in a cancer risk greater than or equal to 10 in a million and/or a Hazard Index (HI) (non-cancerous) greater than or equal to 1.

A significant project must incorporate mitigation sufficient to reduce its impact to a level that is not significant. A project that cannot be mitigated to a level that is not significant must incorporate all feasible mitigation. Note that the emission thresholds are given as a daily value and an annual value, so that multi-phased project (such as project with a construction phase and a separate operational phase) with phases shorter than one year can be compared to the daily value. The threshold of significance for GHG emissions for MDAQMD is 100,000 tons (90,718 MT) of CO₂e per year and 548,000 pounds of CO₂e per day.

Impact Analysis

Construction GHG Emissions. Construction of the proposed project would result in GHG emissions, which are primarily associated with use of off-road construction equipment, on-road hauling and vendor trucks, and worker vehicles.

CalEEMod Version 2016.3.2 was used to calculate the annual GHG emissions based on the construction scenario described in Section 3b, Air Quality. The GHG emissions are expressed in units of MT CO₂e per construction year. On-site sources of GHG emissions include off-road equipment and off-site source; include hauling and vendor trucks and worker vehicles. Construction of the project also includes the initial filling of the water storage tank. The filling of the tank will be performed by the existing Reservoir 2A booster pump. Table 7a-1, Estimated Annual Construction GHG Emissions, presents construction emissions for the proposed project. The duration of construction is estimated at approximately six months with in the 2019 year.

Table 7a-1
Estimated Annual Construction GHG Emissions

Year 2019	CO ₂	CH ₄	N ₂ O	CO ₂ e
	<i>Metric Tons per Year</i>			
Construction (CalEEMod)	205.53	0.03	0.00	206.36
Initial Tank Filling	0.75	0.00	0.00	0.76
			<i>Total</i>	<i>207.12</i>
			<i>30-year amortization of construction emissions</i>	<i>6.90</i>

Notes: GHG = greenhouse gas; CO₂ = carbon dioxide; CH₄ = methane; N₂O = nitrous oxide; CO₂e = carbon dioxide equivalent. See Appendix A for complete results.

As shown in Table 7a-1, the estimated total GHG emissions during construction of the project would be approximately 207 MT CO₂e in 2019. Total emissions annualized over 30 years—the estimated lifespan for a public infrastructure project—would be approximately 7 MT CO₂e per year.

In addition, as with project-generated construction air quality pollutant emissions, GHG emissions sources used during construction of the proposed project would be short term in nature, lasting only for the duration of the construction period; they would not represent a long-term source of GHG emissions. As there is no construction only GHG emissions threshold, the amortized construction emissions were added to the operational emissions and the significance was determined below.

Operational GHG Emissions. Operation of the proposed project would result in minimal GHG emissions from the proposed additional facilities associated with the new storage tank. The CalEEMod estimated operational project-generated GHG emissions from energy use (onsite lighting), in 2020 (first full year of operation) are presented in Table 7a-2. The annualized GHG

construction emissions from Table 7a-1 have been added to the annual operational emissions for comparison with the significance threshold of 3,000 MT CO₂e per year.

Table 7a-2
Estimated Annual Operational GHG Emissions

Category	CO ₂	CH ₄	N ₂ O	CO ₂ e
	<i>Metric Tons per Year</i>			
Energy (CalEEMod)	206.11	0.01	0.00	206.84
<i>30-year amortization of construction emissions</i>				6.90
Total operational emissions				213.74

Notes: GHG = greenhouse gas; CO₂ = carbon dioxide; CH₄ = methane; N₂O = nitrous oxide; CO₂e = carbon dioxide equivalent. See Appendix A for complete results.

As shown in Table 7a-2, the estimated total GHG emissions (annualized construction emissions plus emissions associated with operational activities) would be 214 MT CO₂e per year. As shown, the total annual emissions would not exceed the GHG significance threshold of 3,000 MT CO₂e per year.

Because the project’s construction and operational GHG emissions would not result in a cumulatively considerable contribution, the project would result in a cumulative impact in terms of climate change that is less than significant.

Mitigation Measures

None required.

Level of Significance After Mitigation

Impacts would be less than significant without mitigation.

b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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7b. Response (Source:)

Consistency with the County of San Bernardino GHG Reduction Plan

The San Bernardino GHG Reduction Plan is a qualified GHG reduction plan according to CEQA Guidelines Section 15183.5 and thus can be used in a cumulative impacts analysis to determine significance. As shown in Section 7a, the project would not exceed the 3,000 MT CO₂e threshold established by the Reduction Plan. Table 7b-1 provides an overview of the measures and goals within the CAP that are applicable to the proposed project and the project’s consistency with them. As shown in Table 7b-1, the proposed project does not conflict with any of the GHG reducing measures or goals within the Reduction Plan and thus is consistent with the plan. It should also be noted that the project would not inhibit the County from implementing any of the measures not listed in Table 7b-1, because they do not apply to the proposed project.

Table 7b-1

Project Consistency with the County Reduction Plan GHG Emission Reduction Strategies

Measure Number	Measure Description	Project Consistency
R2-T1	Employment Based Trip and VMT Reduction	This measure would not apply to the project as it does not introduce additional VMT during operation. The project would not inhibit the County from implementing this measure.
R2-T2	Increased Residential Density	This measure does not apply to the project. The project would not inhibit the County from implementing this measure.
R2-T3	Mixed Use Development	This measure does not apply to the project. The project would not inhibit the County from implementing this measure.
R2-T4	Preferential Parking	This measure does not apply to the project. The project would not inhibit the County from implementing this measure.
R2-T5	Roadway Improvements including Signal Synchronization and Transportation Flow Management	This measure does not apply to the project. The project would not inhibit the County from implementing this measure.
R2-T6	Provide a Comprehensive System of Facilities for Non-Motorized Transportation	This measure does not apply to the project. The project would not inhibit the County from implementing this measure.
R2-T7	Expand Renewable Fuel/Low-Emission Vehicle Use	This measure does not apply to the project. The project would not inhibit the County from implementing this measure.

Measure Number	Measure Description	Project Consistency
R2-T8	Anti-Idling Enforcement	Consistent. The project would ensure that all heavy-duty diesel vehicles adhere to CARB's anti-idling policy during construction.
R2-T9	Increase Public Transit	This measure does not apply to the project. The project would not inhibit the County from implementing this measure.
R2-T10	Employee Commute Alternative Schedule	This measure does not apply to the project. The project would not inhibit the County from implementing this measure.
R3-T1	Regional Land Use and Transportation Coordination	This measure does not apply to the project. The project would not inhibit the County from implementing this measure.
R3-T2	Government Fleet Alternative Vehicles	This measure does not apply to the project. The project would not inhibit the County from implementing this measure.
R2-E1	Residential Energy Efficiency Program	This measure does not apply to the project. The project would not inhibit the County from implementing this measure.
R2-E2	Residential Renewable Energy Program	This measure does not apply to the project. The project would not inhibit the County from implementing this measure.
R2-E3	Residential Retrofit Implementation Program	This measure does not apply to the project. The project would not inhibit the County from implementing this measure.
R2-E4	Residential Renewable Retrofit Program	This measure does not apply to the project. The project would not inhibit the County from implementing this measure.
R2-E5	Commercial Energy Efficiency Program	This measure does not apply to the project. The project would not inhibit the County from implementing this measure.
R2-E6	Commercial/Industrial Renewable Energy Program	This measure does not apply to the project. The project would not inhibit the County from implementing this measure.
R2-E7	Commercial/Industrial Retrofit Program	This measure does not apply to the project. The project would not inhibit the County from implementing this measure.
R2-E8	Induction Streetlight Retrofits	This measure does not apply to the project. The project would not inhibit the County from implementing this measure.
R2-E9	Increase Gas to Energy Production from Landfills	This measure does not apply to the project. The project would not inhibit the County from implementing this measure.
R3-E1	Energy Efficient Development, and Renewable Energy Deployment Facilitation and Streamlining	This measure does not apply to the project. The project would not inhibit the County from implementing this measure.
R3-E2	Energy Efficiency Training and Public Education	This measure does not apply to the project. The project would not inhibit the County from implementing this measure.

Measure Number	Measure Description	Project Consistency
R3-E3	Energy Efficiency and Solar Energy Financing	This measure does not apply to the project. The project would not inhibit the County from implementing this measure.
R3-E4	Cross-Jurisdictional Coordination	This measure does not apply to the project. The project would not inhibit the County from implementing this measure.
R2-L1	Electric Landscaping Equipment	This measure does not apply to the project. The project would not inhibit the County from implementing this measure.
R2-L2 & R2-L3	MDAQMD Healthy Hearths	This measure does not apply to the project. The project would not inhibit the County from implementing this measure.
R3-L1	Expand County Tree Planting	This measure does not apply to the project. The project would not inhibit the County from implementing this measure.
R3-L2	Heat Island Plan	This measure does not apply to the project. The project would not inhibit the County from implementing this measure.
R1-W1	Renewable Portfolio Standard Related to Water Supply and Conveyance	This measure does not apply to the project. The project would not inhibit the County from implementing this measure.
R2-W1	Water Use Reduction Initiative	This measure does not apply to the project. The project would not inhibit the County from implementing this measure.
R2-W2	Increase Reclaimed Water Use	This measure does not apply to the project. The project would not inhibit the County from implementing this measure.
R2-S1	County Diversion Program	This measure does not apply to the project. The project would not inhibit the County from implementing this measure.
R2-S2	Construction Diversion Program	Consistent. The project would divert at least 60% of its waste during construction in accordance with this goal.
R3-S1	Encourage Increased Efficiency of the Gas to Energy System at Landfills	This measure does not apply to the project. The project would not inhibit the County from implementing this measure.
R3-S2	Waste Education Program	This measure does not apply to the project. The project would not inhibit the County from implementing this measure.
R3-S3	On-Site Diversion and Conversion at County Landfills	This measure does not apply to the project. The project would not inhibit the County from implementing this measure.
R3-A1	Promote Soil Management Practices	This measure does not apply to the project. The project would not inhibit the County from implementing this measure.

Source: County of San Bernardino 2011.

Notes: GHG = greenhouse gas; VMT = vehicle miles traveled; CARB = California Air Resources Board; MW = megawatt; MDAQMD = Mojave Desert Air Quality Management District

Consistency with the SBCTA Reduction Plan

The SBCTA Reduction Plan provided the 21 Participating Cities with an inventory of GHG emissions, targets, and provided reduction strategies for each City, which are the first two steps in a six step process of climate action planning.

In addition, the CAP Implementation Tools Project, sponsored by the Southern California Association of Governments, provided vital tools for the Participating Cities to use in the development, adoption, implementation, and monitoring of city-specific CAPs, which will fulfill the remaining steps in the climate action planning process. Table 7b-2 provides an overview of the measures and goals within the SBCTA Reduction Plan that are applicable to the proposed project and the project’s consistency with them. As shown in Table 7b-2, the proposed project does not conflict with any of the GHG reducing measures or goals within the SBCTA Reduction Plan and thus is consistent with the plan.

Table 7b-2

Project Consistency with the SBCTA Reduction Plan GHG Emission Reduction Strategies

Measure Number	Measure Description	Project Consistency
County-1	The County would install landfill gas controls on the following County-owned and operated landfill: 95% capture at Mid-Valley landfills; 85% capture at Milliken and Colton landfills; and 75% capture at Barstow and Landers landfill.	This measure does not apply to the project. The project would not inhibit the County from implementing this measure.
Energy-1	Energy efficiency incentives and programs to promote energy efficiency for existing buildings	This measure does not apply to the project. The project would not inhibit the County from implementing this measure.
Energy-2	Outdoor lighting upgrades for existing development.	This measure does not apply to the project. The project would not inhibit the County from implementing this measure.
Energy-3	Green building ordinance for new buildings.	This measure does not apply to the project. The project would not inhibit the County from implementing this measure.
Energy-4	Solar installations in new housing developments.	This measure does not apply to the project. The project would not inhibit the County from implementing this measure.
Energy-5	Solar installations for new commercial/industrial development.	This measure does not apply to the project. The project would not inhibit the County from implementing this measure.
Energy-6	Onsite solar energy for new and existing warehouse space.	This measure does not apply to the project. The project would not inhibit the County from implementing this measure.
Energy-7	Solar installations for existing housing.	This measure does not apply to the project. The project would not inhibit the County from implementing this measure.
Energy-8	Solar installations for existing commercial/industrial buildings	This measure does not apply to the project. The project would not inhibit the County from implementing this measure.

Measure Number	Measure Description	Project Consistency
Energy-10	Install co-generation facilities.	This measure does not apply to the project. The project would not inhibit the County from implementing this measure.
On Road-1	SB 375 sustainable communities strategy	This measure does not apply to the project. The project would not inhibit the County from implementing this measure.
On Road-2	"Smart Bus" technologies	This measure does not apply to the project. The project would not inhibit the County from implementing this measure.
Off-Road Equipment-1	Electric-powered construction equipment	This measure does not apply to the project. This goal requires the County to develop a goal for introducing electrically-powered construction equipment. The project would not inhibit the County from implementing this measure.
Off-Road Equipment-2	Idling ordinance	Consistent. All heavy-duty diesel vehicles and construction equipment will not exceed the idling requirements in the County's idling ordinance.
Off-Road Equipment-3	Electric landscaping equipment	This measure does not apply to the project. The project would not inhibit the County from implementing this measure.
Agriculture-1	Methane capture at large dairies.	This measure does not apply to the project. The project would not inhibit the County from implementing this measure.
Agriculture-2	Utilize methane captured at dairies	This measure does not apply to the project. The project would not inhibit the County from implementing this measure.
Land Use-1	Tree planting programs	This measure does not apply to the project. The project would not inhibit the County from implementing this measure
Land Use-2	Promote rooftop gardens	This measure does not apply to the project. The project would not inhibit the County from implementing this measure.
Waste-1	Increased waste diversion	Consistent. The project would comply with all local and statewide solid waste diversion requirements during construction of the project and would divert as much material as practical.
Wastewater-1	Methane recovery	This measure does not apply to the project. The project would not inhibit the County from implementing this measure.
Wastewater-2	Energy efficiency equipment upgrades at wastewater treatment plants	This measure does not apply to the project. The project would not inhibit the County from implementing this measure.
Wastewater-3	Recycled water	This measure does not apply to the project. The project would not inhibit the County from implementing this measure.
Water-1	Require adoption of the voluntary CALGreen water efficiency measures for new construction	This measure does not apply to the project. The project would not inhibit the County from implementing this measure.

Measure Number	Measure Description	Project Consistency
Water-2	Implement a program to renovate existing buildings to achieve higher levels of water efficiency	This measure does not apply to the project. The project would not inhibit the County from implementing this measure.
Water-3	Encourage water-efficient landscaping practices	This measure does not apply to the project. The project would not inhibit the County from implementing this measure.
PS-1	GHG performance standard for new development	Consistent. The project would not exceed 3,000 MT CO _{2e} per year during operation.

Source: SBCTA 2014.

Notes: SBCTA = San Bernardino County Transportation Authority; GHG = greenhouse gas; MW = megawatt; SB = Senate Bill; CALGreen = California's Green Building Standards; MT CO_{2e} = metric tons carbon dioxide equivalent.

Consistency with CARB's Scoping Plan

Potential Effects of Climate Change, the Scoping Plan (approved by CARB in 2008 and updated in 2014 and 2017) provides a framework for actions to reduce California's GHG emissions and requires CARB and other state agencies to adopt regulations and other initiatives to reduce GHGs. The Scoping Plan is not directly applicable to specific proposed projects, nor is it intended to be used for proposed project-level evaluations.² Under the Scoping Plan, however, there are several state regulatory measures aimed at the identification and reduction of GHG emissions. CARB and other state agencies have adopted many of the measures identified in the Scoping Plan. Most of these measures focus on area source emissions (e.g., energy usage, high-GWP GHGs in consumer products) and changes to the vehicle fleet (i.e., hybrid, electric, and more fuel-efficient vehicles) and associated fuels (e.g., LCFS), among others.

The Scoping Plan recommends strategies for implementation at the statewide level to meet the goals of AB 32 and establishes an overall framework for the measures that will be adopted to reduce California's GHG emissions. Table 7b-3 highlights measures that have been, or will be, developed under the Scoping Plan and the proposed project's consistency with Scoping Plan measures. To the extent that these regulations are applicable to the Project, its inhabitants, or uses, the proposed project would comply with all regulations adopted in furtherance of the Scoping Plan to the extent required by law.

² The Final Statement of Reasons for the amendments to the CEQA Guidelines reiterates the statement in the Initial Statement of Reasons that "[t]he Scoping Plan may not be appropriate for use in determining the significance of individual projects because it is conceptual at this stage and relies on the future development of regulations to implement the strategies identified in the Scoping Plan" (CNRA 2009b).

Table 7b-3

Project Consistency with Scoping Plan GHG Emission Reduction Strategies

Scoping Plan Measure	Measure Number	Project Consistency
<i>Transportation Sector</i>		
Advanced Clean Cars	T-1	Consistent. The project's employees would purchase vehicles in compliance with CARB vehicle standards that are in effect at the time of vehicle purchase.
Low-Carbon Fuel Standard	T-2	Consistent. Motor vehicles driven by the project's employees would use compliant fuels.
Regional Transportation-Related GHG Targets	T-3	Not applicable. The project would not prevent CARB from implementing this measure.
Advanced Clean Transit	N/A	Not applicable. The project would not prevent CARB from implementing this measure.
Last-Mile Delivery	N/A	Not applicable. The project would not prevent CARB from implementing this measure.
Reduction in VMT	N/A	Not applicable. The project would not prevent CARB from implementing this measure.
Vehicle Efficiency Measures <ol style="list-style-type: none"> 1. Tire Pressure 2. Fuel Efficiency Tire Program 3. Low-Friction Oil 4. Solar-Reflective Automotive Paint and Window Glazing 	T-4	Not applicable. The project would not prevent CARB from implementing this measure.
Ship Electrification at Ports (Shore Power)	T-5	Not applicable. The project would not prevent CARB from implementing this measure.
Goods Movement Efficiency Measures <ol style="list-style-type: none"> 1. Port Drayage Trucks 2. Transport Refrigeration Units Cold Storage Prohibition 3. Cargo Handling Equipment, Anti-Idling, Hybrid, Electrification 4. Goods Movement Systemwide Efficiency Improvements 5. Commercial Harbor Craft Maintenance and Design Efficiency 6. Clean Ships 7. Vessel Speed Reduction 	T-6	Not applicable. The project would not prevent CARB from implementing this measure.
Heavy-Duty Vehicle GHG Emission Reduction <ol style="list-style-type: none"> 1. Tractor-Trailer GHG Regulation 2. Heavy-Duty Greenhouse Gas Standards for New Vehicle and Engines (Phase I) 	T-7	Not applicable. The project would not prevent CARB from implementing this measure.
Medium- and Heavy-Duty Vehicle Hybridization Voucher Incentive Proposed Project	T-8	Not applicable. The project would not prevent CARB from implementing this measure.
Medium and Heavy-Duty GHG Phase 2	N/A	Not applicable. The project would not prevent CARB from implementing this measure.

Scoping Plan Measure	Measure Number	Project Consistency
High-Speed Rail	T-9	Not applicable. The project would not prevent CARB from implementing this measure.
<i>Electricity and Natural Gas Sector</i>		
Energy Efficiency Measures (Electricity)	E-1	Not applicable. The project would not prevent CARB from implementing this measure.
Energy Efficiency (Natural Gas)	CR-1	Not applicable. The project would not prevent CARB from implementing this measure.
Solar Water Heating (California Solar Initiative Thermal Program)	CR-2	Not applicable. The project would not prevent CARB from implementing this measure.
Combined Heat and Power	E-2	Not applicable. The project would not prevent CARB from implementing this measure.
Renewables Portfolio Standard (33% by 2020)	E-3	Not applicable. The project would not prevent CARB from implementing this measure.
Renewables Portfolio Standard (50% by 2050)	N/A	Not applicable. The project would not prevent CARB from implementing this measure.
SB 1 Million Solar Roofs (California Solar Initiative, New Solar Home Partnership, Public Utility Programs) and Earlier Solar Programs	E-4	Not applicable. The project would not prevent CARB from implementing this measure.
<i>Water Sector</i>		
Water Use Efficiency	W-1	Not applicable. The project would not prevent CARB from implementing this measure.
Water Recycling	W-2	Not applicable. The project would not prevent CARB from implementing this measure.
Water System Energy Efficiency	W-3	Not applicable. The project would not prevent CARB from implementing this measure.
Reuse Urban Runoff	W-4	Not applicable. The project would not prevent CARB from implementing this measure.
Renewable Energy Production	W-5	Not applicable. The project would not prevent CARB from implementing this measure.
<i>Green Buildings</i>		
1. State Green Building Initiative: Leading the Way with State Buildings (Greening New and Existing State Buildings)	GB-1	Not applicable. The project would not prevent CARB from implementing this measure.
2. Green Building Standards Code (Greening New Public Schools, Residential and Commercial Buildings)	GB-1	Not applicable. The project would not prevent CARB from implementing this measure.
3. Beyond Code: Voluntary Programs at the Local Level (Greening New Public Schools, Residential and Commercial Buildings)	GB-1	Not applicable. The project would not prevent CARB from implementing this measure.
4. Greening Existing Buildings (Greening Existing Homes and Commercial Buildings)	GB-1	Not applicable. The project would not prevent CARB from implementing this measure.
<i>Industry Sector</i>		
Energy Efficiency and Co-Benefits Audits for Large Industrial Sources	I-1	Not applicable. The project would not prevent CARB from implementing this measure.

Scoping Plan Measure	Measure Number	Project Consistency
Oil and Gas Extraction GHG Emission Reduction	I-2	Not applicable. The project would not prevent CARB from implementing this measure.
Reduce GHG Emissions by 20% in Oil Refinery Sector	N/A	Not applicable. The project would not prevent CARB from implementing this measure.
GHG Emissions Reduction from Natural Gas Transmission and Distribution	I-3	Not applicable. The project would not prevent CARB from implementing this measure.
Refinery Flare Recovery Process Improvements	I-4	Not applicable. The project would not prevent CARB from implementing this measure.
Work with the local air districts to evaluate amendments to their existing leak detection and repair rules for industrial facilities to include methane leaks	I-5	Not applicable. The project would not prevent CARB from implementing this measure.
<i>Recycling and Waste Management Sector</i>		
Landfill Methane Control Measure	RW-1	Not applicable. The project would not prevent CARB from implementing this measure.
Increasing the Efficiency of Landfill Methane Capture	RW-2	Not applicable. The project would not prevent CARB from implementing this measure.
Mandatory Commercial Recycling	RW-3	Not applicable. The project would not prevent CARB from implementing this measure.
Increase Production and Markets for Compost and Other Organics	RW-3	Not applicable. The project would not prevent CARB from implementing this measure.
Anaerobic/Aerobic Digestion	RW-3	Not applicable. The project would not prevent CARB from implementing this measure.
Extended Producer Responsibility	RW-3	Not applicable. The project would not prevent CARB from implementing this measure.
Environmentally Preferable Purchasing	RW-3	Not applicable. The project would not prevent CARB from implementing this measure.
<i>Forests Sector</i>		
Sustainable Forest Target	F-1	Not applicable. The project would not prevent CARB from implementing this measure.
<i>High GWP Gases Sector</i>		
Motor Vehicle Air Conditioning Systems: Reduction of Refrigerant Emissions from Non-Professional Servicing	H-1	Not applicable. The project would not prevent CARB from implementing this measure.
SF ₆ Limits in Non-Utility and Non-Semiconductor Applications	H-2	Not applicable. The project would not prevent CARB from implementing this measure.
Reduction of Perfluorocarbons (PFCs) in Semiconductor Manufacturing	H-3	Not applicable. The project would not prevent CARB from implementing this measure.
Limit High GWP Use in Consumer Products	H-4	Not applicable. The project would not prevent CARB from implementing this measure.
Air Conditioning Refrigerant Leak Test During Vehicle Smog Check	H-5	Not applicable. The project would not prevent CARB from implementing this measure.
Stationary Equipment Refrigerant Management Program – Refrigerant Tracking/Reporting/Repair Program	H-6	Not applicable. The project would not prevent CARB from implementing this measure.
Stationary Equipment Refrigerant Management Program – Specifications for Commercial and Industrial Refrigeration	H-6	Not applicable. The project would not prevent CARB from implementing this measure.

Scoping Plan Measure	Measure Number	Project Consistency
SF ₆ Leak Reduction Gas Insulated Switchgear	H-6	Not applicable. The project would not prevent CARB from implementing this measure.
40% reduction in methane and hydrofluorocarbon (HFC) emissions	N/A	Not applicable. The project would not prevent CARB from implementing this measure.
50% reduction in black carbon emissions	N/A	Not applicable. The project would not prevent CARB from implementing this measure.
<i>Agriculture Sector</i>		
Methane Capture at Large Dairies	A-1	Not applicable. The project would not prevent CARB from implementing this measure.

Based on the analysis in Table 7b-3, the proposed project would be consistent with the applicable strategies and measures in the Scoping Plan.

The proposed project would not interfere with implementation of any of the previously described GHG reduction goals for 2030 or 2050 because the project would not exceed the County’s threshold of 3,000 MT CO₂e per year (MDAQMD 2016). This threshold was established based on the goal of AB 32 to reduce statewide GHG emissions to 1990 levels by 2020. Because the proposed project would not exceed the threshold, this analysis provides support for the conclusion that the project would not impede the state’s trajectory toward the previously described statewide GHG reduction goals for 2030 or 2050.

Based on the considerations previously outlined, the proposed project would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs, and no mitigation is required. This impact would be less than significant.

Mitigation Measures

None required.

Level of Significance After Mitigation

Impacts would be less than significant without mitigation.

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1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	63.73	1000sqft	1.46	63,731.00	0
Other Asphalt Surfaces	6.84	1000sqft	0.16	6,840.00	0

1.2 Other Project Characteristics

Urbanization	Rural	Wind Speed (m/s)	2.6	Precipitation Freq (Days)	30
Climate Zone	10			Operational Year	2020
Utility Company	Southern California Edison				
CO2 Intensity (lb/MW hr)	702.44	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

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Project Characteristics -

Land Use -

Construction Phase - Per applicant specifications

Off-road Equipment - Per applicant information

Off-road Equipment - Other Construction Equipment - Water Truck

Off-road Equipment - Per applicant information

Off-road Equipment - Per applicant information

Off-road Equipment - per applicant information

Off-road Equipment - Per applicant information

Off-road Equipment - Other Construction Equipment - 9-yard concrete truck

Trips and VMT - Per applicant information

Grading - Per applicant

Architectural Coating - Area equal to total surface area of tank including inside and outside surface minus roof.

Vehicle Trips - Unmanned facility no operational trips

Consumer Products - No consumer products

Area Coating -

Landscape Equipment - no landscaping

Energy Use - No natural gas use

Water And Wastewater - No water and wastewater use

Solid Waste - No solid waste

Land Use Change -

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	31,866.00	32,425.00
tblArchitecturalCoating	ConstArea_Nonresidential_Interior	95,597.00	0.00
tblAreaCoating	Area_Nonresidential_Exterior	31866	35285
tblAreaCoating	Area_Nonresidential_Interior	95597	105855

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tblAreaCoating	ReapplicationRatePercent	10	0
tblConstructionPhase	NumDays	200.00	50.00
tblConstructionPhase	NumDays	200.00	20.00
tblConstructionPhase	NumDays	200.00	15.00
tblConstructionPhase	NumDays	4.00	20.00
tblConstructionPhase	NumDays	2.00	10.00
tblEnergyUse	NT24NG	17.13	0.00
tblEnergyUse	T24NG	15.36	0.00
tblGrading	AcresOfGrading	10.00	1.50
tblGrading	MaterialImported	0.00	11,600.00
tblLandUse	LandUseSquareFeet	63,730.00	63,731.00
tblOffRoadEquipment	HorsePower	172.00	320.00
tblOffRoadEquipment	HorsePower	172.00	385.00
tblOffRoadEquipment	LoadFactor	0.42	0.38
tblOffRoadEquipment	LoadFactor	0.42	0.38
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblSolidWaste	SolidWasteGenerationRate	79.03	0.00
tblTripsAndVMT	HaulingTripNumber	1,147.00	580.00
tblTripsAndVMT	HaulingTripNumber	0.00	100.00
tblTripsAndVMT	VendorTripNumber	12.00	14.00

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tblTripsAndVMT	VendorTripNumber	12.00	14.00
tblTripsAndVMT	VendorTripNumber	12.00	14.00
tblTripsAndVMT	WorkerTripNumber	13.00	8.00
tblTripsAndVMT	WorkerTripNumber	30.00	34.00
tblTripsAndVMT	WorkerTripNumber	30.00	34.00
tblTripsAndVMT	WorkerTripNumber	6.00	8.00
tblTripsAndVMT	WorkerTripNumber	30.00	34.00
tblTripsAndVMT	WorkerTripNumber	8.00	14.00
tblVehicleTrips	ST_TR	1.32	0.00
tblVehicleTrips	SU_TR	0.68	0.00
tblVehicleTrips	WD_TR	6.97	0.00
tblWater	IndoorWaterUseRate	14,737,562.50	0.00

2.0 Emissions Summary

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Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	6-3-2019	9-2-2019	0.8465	0.8465
2	9-3-2019	9-30-2019	0.2402	0.2402
		Highest	0.8465	0.8465

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.2494	1.0000e-005	6.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.2600e-003	1.2600e-003	0.0000	0.0000	1.3500e-003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	206.1065	206.1065	8.5100e-003	1.7600e-003	206.8439
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.2494	1.0000e-005	6.5000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	206.1078	206.1078	8.5100e-003	1.7600e-003	206.8452

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2.3 Vegetation

Vegetation

	CO2e
Category	MT
Vegetation Land Change	-23.1660
Total	-23.1660

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	6/3/2019	6/14/2019	5	10	
2	Grading	Grading	6/17/2019	7/12/2019	5	20	
3	Tank Construction	Building Construction	7/15/2019	9/20/2019	5	50	
4	Sandblasting	Building Construction	9/23/2019	10/18/2019	5	20	
5	Tank Coating	Architectural Coating	10/21/2019	11/1/2019	5	10	
6	Piping Installation	Building Construction	11/4/2019	11/22/2019	5	15	
7	Asphalt/Concrete Paving	Paving	11/25/2019	12/6/2019	5	10	

Acres of Grading (Site Preparation Phase): 1.62

Acres of Grading (Grading Phase): 1.5

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Acres of Paving: 0.16

**Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 32,425; Striped Parking Area: 410
(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 Loaders	1	8.00	203	0.36
Site Preparation	Skid Steer Loaders	1	8.00	65	0.37
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Excavators	1	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Other Construction Equipment	1	6.00	320	0.38
Grading	Rollers	1	4.00	80	0.38
Grading	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Tank Construction	Cranes	1	6.00	231	0.29
Tank Construction	Generator Sets	2	8.00	84	0.74
Tank Construction	Other Construction Equipment	1	6.00	385	0.38
Tank Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Tank Construction	Welders	4	8.00	46	0.45
Sandblasting	Aerial Lifts	1	8.00	63	0.31
Sandblasting	Air Compressors	2	8.00	78	0.48
Sandblasting	Generator Sets	1	8.00	84	0.74
Tank Coating	Aerial Lifts	1	8.00	63	0.31
Tank Coating	Air Compressors	2	8.00	78	0.48
Tank Coating	Generator Sets	1	8.00	84	0.74
Piping Installation	Concrete/Industrial Saws	1	6.00	81	0.73
Piping Installation	Generator Sets	1	8.00	84	0.74
Piping Installation	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Piping Installation	Welders	2	8.00	46	0.45
Asphalt/Concrete Paving	Cement and Mortar Mixers	1	6.00	9	0.56
Asphalt/Concrete Paving	Paving Equipment	1	8.00	132	0.36
Asphalt/Concrete Paving	Rollers	1	8.00	80	0.38

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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	3	8.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Grading	5	8.00	0.00	580.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Tank Construction	9	34.00	14.00	100.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Sandblasting	4	34.00	14.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Tank Coating	4	8.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Piping Installation	5	34.00	14.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Asphalt/Concrete Paving	3	14.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					8.6000e-004	0.0000	8.6000e-004	9.0000e-005	0.0000	9.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.5800e-003	0.0415	0.0269	6.0000e-005		1.8500e-003	1.8500e-003		1.7000e-003	1.7000e-003	0.0000	5.1300	5.1300	1.6200e-003	0.0000	5.1705
Total	3.5800e-003	0.0415	0.0269	6.0000e-005	8.6000e-004	1.8500e-003	2.7100e-003	9.0000e-005	1.7000e-003	1.7900e-003	0.0000	5.1300	5.1300	1.6200e-003	0.0000	5.1705

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3.2 Site Preparation - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.6000e-004	2.3000e-004	2.0200e-003	0.0000	5.0000e-004	0.0000	5.0000e-004	1.3000e-004	0.0000	1.4000e-004	0.0000	0.4360	0.4360	2.0000e-005	0.0000	0.4364
Total	2.6000e-004	2.3000e-004	2.0200e-003	0.0000	5.0000e-004	0.0000	5.0000e-004	1.3000e-004	0.0000	1.4000e-004	0.0000	0.4360	0.4360	2.0000e-005	0.0000	0.4364

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					8.6000e-004	0.0000	8.6000e-004	9.0000e-005	0.0000	9.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.5800e-003	0.0415	0.0269	6.0000e-005		1.8500e-003	1.8500e-003		1.7000e-003	1.7000e-003	0.0000	5.1299	5.1299	1.6200e-003	0.0000	5.1705
Total	3.5800e-003	0.0415	0.0269	6.0000e-005	8.6000e-004	1.8500e-003	2.7100e-003	9.0000e-005	1.7000e-003	1.7900e-003	0.0000	5.1299	5.1299	1.6200e-003	0.0000	5.1705

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3.2 Site Preparation - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.6000e-004	2.3000e-004	2.0200e-003	0.0000	5.0000e-004	0.0000	5.0000e-004	1.3000e-004	0.0000	1.4000e-004	0.0000	0.4360	0.4360	2.0000e-005	0.0000	0.4364
Total	2.6000e-004	2.3000e-004	2.0200e-003	0.0000	5.0000e-004	0.0000	5.0000e-004	1.3000e-004	0.0000	1.4000e-004	0.0000	0.4360	0.4360	2.0000e-005	0.0000	0.4364

3.3 Grading - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					8.0000e-004	0.0000	8.0000e-004	9.0000e-005	0.0000	9.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0144	0.1702	0.1075	2.4000e-004		7.1600e-003	7.1600e-003		6.5800e-003	6.5800e-003	0.0000	21.3050	21.3050	6.7400e-003	0.0000	21.4735
Total	0.0144	0.1702	0.1075	2.4000e-004	8.0000e-004	7.1600e-003	7.9600e-003	9.0000e-005	6.5800e-003	6.6700e-003	0.0000	21.3050	21.3050	6.7400e-003	0.0000	21.4735

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3.3 Grading - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.6100e-003	0.0726	8.5200e-003	2.3000e-004	5.0100e-003	2.1000e-004	5.2200e-003	1.3800e-003	2.0000e-004	1.5800e-003	0.0000	22.2125	22.2125	1.4300e-003	0.0000	22.2483
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	5.1000e-004	4.6000e-004	4.0300e-003	1.0000e-005	1.0000e-003	1.0000e-005	1.0100e-003	2.7000e-004	1.0000e-005	2.7000e-004	0.0000	0.8720	0.8720	3.0000e-005	0.0000	0.8728
Total	2.1200e-003	0.0730	0.0126	2.4000e-004	6.0100e-003	2.2000e-004	6.2300e-003	1.6500e-003	2.1000e-004	1.8500e-003	0.0000	23.0844	23.0844	1.4600e-003	0.0000	23.1211

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					8.0000e-004	0.0000	8.0000e-004	9.0000e-005	0.0000	9.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0144	0.1702	0.1075	2.4000e-004		7.1600e-003	7.1600e-003		6.5800e-003	6.5800e-003	0.0000	21.3050	21.3050	6.7400e-003	0.0000	21.4735
Total	0.0144	0.1702	0.1075	2.4000e-004	8.0000e-004	7.1600e-003	7.9600e-003	9.0000e-005	6.5800e-003	6.6700e-003	0.0000	21.3050	21.3050	6.7400e-003	0.0000	21.4735

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3.3 Grading - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.6100e-003	0.0726	8.5200e-003	2.3000e-004	5.0100e-003	2.1000e-004	5.2200e-003	1.3800e-003	2.0000e-004	1.5800e-003	0.0000	22.2125	22.2125	1.4300e-003	0.0000	22.2483
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	5.1000e-004	4.6000e-004	4.0300e-003	1.0000e-005	1.0000e-003	1.0000e-005	1.0100e-003	2.7000e-004	1.0000e-005	2.7000e-004	0.0000	0.8720	0.8720	3.0000e-005	0.0000	0.8728
Total	2.1200e-003	0.0730	0.0126	2.4000e-004	6.0100e-003	2.2000e-004	6.2300e-003	1.6500e-003	2.1000e-004	1.8500e-003	0.0000	23.0844	23.0844	1.4600e-003	0.0000	23.1211

3.4 Tank Construction - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0858	0.6459	0.5337	9.9000e-004		0.0339	0.0339		0.0329	0.0329	0.0000	83.3345	83.3345	0.0164	0.0000	83.7447
Total	0.0858	0.6459	0.5337	9.9000e-004		0.0339	0.0339		0.0329	0.0329	0.0000	83.3345	83.3345	0.0164	0.0000	83.7447

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3.4 Tank Construction - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.8000e-004	0.0125	1.4700e-003	4.0000e-005	8.6000e-004	4.0000e-005	9.0000e-004	2.4000e-004	3.0000e-005	2.7000e-004	0.0000	3.8297	3.8297	2.5000e-004	0.0000	3.8359
Vendor	1.3200e-003	0.0386	9.9500e-003	1.0000e-004	2.1200e-003	2.2000e-004	2.3400e-003	6.1000e-004	2.1000e-004	8.2000e-004	0.0000	9.2174	9.2174	9.1000e-004	0.0000	9.2401
Worker	5.4400e-003	4.8800e-003	0.0428	1.0000e-004	0.0107	7.0000e-005	0.0107	2.8300e-003	6.0000e-005	2.8900e-003	0.0000	9.2650	9.2650	3.4000e-004	0.0000	9.2734
Total	7.0400e-003	0.0560	0.0543	2.4000e-004	0.0136	3.3000e-004	0.0140	3.6800e-003	3.0000e-004	3.9800e-003	0.0000	22.3121	22.3121	1.5000e-003	0.0000	22.3494

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	0.0858	0.6459	0.5337	9.9000e-004		0.0339	0.0339		0.0329	0.0329	0.0000	83.3344	83.3344	0.0164	0.0000	83.7446
Total	0.0858	0.6459	0.5337	9.9000e-004		0.0339	0.0339		0.0329	0.0329	0.0000	83.3344	83.3344	0.0164	0.0000	83.7446

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3.4 Tank Construction - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.8000e-004	0.0125	1.4700e-003	4.0000e-005	8.6000e-004	4.0000e-005	9.0000e-004	2.4000e-004	3.0000e-005	2.7000e-004	0.0000	3.8297	3.8297	2.5000e-004	0.0000	3.8359
Vendor	1.3200e-003	0.0386	9.9500e-003	1.0000e-004	2.1200e-003	2.2000e-004	2.3400e-003	6.1000e-004	2.1000e-004	8.2000e-004	0.0000	9.2174	9.2174	9.1000e-004	0.0000	9.2401
Worker	5.4400e-003	4.8800e-003	0.0428	1.0000e-004	0.0107	7.0000e-005	0.0107	2.8300e-003	6.0000e-005	2.8900e-003	0.0000	9.2650	9.2650	3.4000e-004	0.0000	9.2734
Total	7.0400e-003	0.0560	0.0543	2.4000e-004	0.0136	3.3000e-004	0.0140	3.6800e-003	3.0000e-004	3.9800e-003	0.0000	22.3121	22.3121	1.5000e-003	0.0000	22.3494

3.5 Sandblasting - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0120	0.0935	0.0973	1.6000e-004		5.8600e-003	5.8600e-003		5.8500e-003	5.8500e-003	0.0000	13.9688	13.9688	1.4100e-003	0.0000	14.0041
Total	0.0120	0.0935	0.0973	1.6000e-004		5.8600e-003	5.8600e-003		5.8500e-003	5.8500e-003	0.0000	13.9688	13.9688	1.4100e-003	0.0000	14.0041

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3.5 Sandblasting - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	5.3000e-004	0.0155	3.9800e-003	4.0000e-005	8.5000e-004	9.0000e-005	9.3000e-004	2.4000e-004	8.0000e-005	3.3000e-004	0.0000	3.6870	3.6870	3.6000e-004	0.0000	3.6960
Worker	2.1700e-003	1.9500e-003	0.0171	4.0000e-005	4.2700e-003	3.0000e-005	4.2900e-003	1.1300e-003	2.0000e-005	1.1600e-003	0.0000	3.7060	3.7060	1.4000e-004	0.0000	3.7094
Total	2.7000e-003	0.0174	0.0211	8.0000e-005	5.1200e-003	1.2000e-004	5.2200e-003	1.3700e-003	1.0000e-004	1.4900e-003	0.0000	7.3929	7.3929	5.0000e-004	0.0000	7.4054

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	0.0120	0.0935	0.0973	1.6000e-004		5.8600e-003	5.8600e-003		5.8500e-003	5.8500e-003	0.0000	13.9688	13.9688	1.4100e-003	0.0000	14.0040
Total	0.0120	0.0935	0.0973	1.6000e-004		5.8600e-003	5.8600e-003		5.8500e-003	5.8500e-003	0.0000	13.9688	13.9688	1.4100e-003	0.0000	14.0040

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3.5 Sandblasting - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	5.3000e-004	0.0155	3.9800e-003	4.0000e-005	8.5000e-004	9.0000e-005	9.3000e-004	2.4000e-004	8.0000e-005	3.3000e-004	0.0000	3.6870	3.6870	3.6000e-004	0.0000	3.6960
Worker	2.1700e-003	1.9500e-003	0.0171	4.0000e-005	4.2700e-003	3.0000e-005	4.2900e-003	1.1300e-003	2.0000e-005	1.1600e-003	0.0000	3.7060	3.7060	1.4000e-004	0.0000	3.7094
Total	2.7000e-003	0.0174	0.0211	8.0000e-005	5.1200e-003	1.2000e-004	5.2200e-003	1.3700e-003	1.0000e-004	1.4900e-003	0.0000	7.3929	7.3929	5.0000e-004	0.0000	7.4054

3.6 Tank Coating - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.1902					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.9800e-003	0.0468	0.0486	8.0000e-005		2.9300e-003	2.9300e-003		2.9200e-003	2.9200e-003	0.0000	6.9844	6.9844	7.1000e-004	0.0000	7.0020
Total	0.1962	0.0468	0.0486	8.0000e-005		2.9300e-003	2.9300e-003		2.9200e-003	2.9200e-003	0.0000	6.9844	6.9844	7.1000e-004	0.0000	7.0020

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3.6 Tank Coating - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.6000e-004	2.3000e-004	2.0200e-003	0.0000	5.0000e-004	0.0000	5.0000e-004	1.3000e-004	0.0000	1.4000e-004	0.0000	0.4360	0.4360	2.0000e-005	0.0000	0.4364
Total	2.6000e-004	2.3000e-004	2.0200e-003	0.0000	5.0000e-004	0.0000	5.0000e-004	1.3000e-004	0.0000	1.4000e-004	0.0000	0.4360	0.4360	2.0000e-005	0.0000	0.4364

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	0.1902					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.9800e-003	0.0468	0.0486	8.0000e-005		2.9300e-003	2.9300e-003		2.9200e-003	2.9200e-003	0.0000	6.9844	6.9844	7.1000e-004	0.0000	7.0020
Total	0.1962	0.0468	0.0486	8.0000e-005		2.9300e-003	2.9300e-003		2.9200e-003	2.9200e-003	0.0000	6.9844	6.9844	7.1000e-004	0.0000	7.0020

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3.6 Tank Coating - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.6000e-004	2.3000e-004	2.0200e-003	0.0000	5.0000e-004	0.0000	5.0000e-004	1.3000e-004	0.0000	1.4000e-004	0.0000	0.4360	0.4360	2.0000e-005	0.0000	0.4364
Total	2.6000e-004	2.3000e-004	2.0200e-003	0.0000	5.0000e-004	0.0000	5.0000e-004	1.3000e-004	0.0000	1.4000e-004	0.0000	0.4360	0.4360	2.0000e-005	0.0000	0.4364

3.7 Piping Installation - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0130	0.0860	0.0888	1.4000e-004		5.3600e-003	5.3600e-003		5.2900e-003	5.2900e-003	0.0000	11.6561	11.6561	1.4500e-003	0.0000	11.6923
Total	0.0130	0.0860	0.0888	1.4000e-004		5.3600e-003	5.3600e-003		5.2900e-003	5.2900e-003	0.0000	11.6561	11.6561	1.4500e-003	0.0000	11.6923

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3.7 Piping Installation - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	4.0000e-004	0.0116	2.9800e-003	3.0000e-005	6.3000e-004	7.0000e-005	7.0000e-004	1.8000e-004	6.0000e-005	2.5000e-004	0.0000	2.7652	2.7652	2.7000e-004	0.0000	2.7720
Worker	1.6300e-003	1.4600e-003	0.0129	3.0000e-005	3.2000e-003	2.0000e-005	3.2200e-003	8.5000e-004	2.0000e-005	8.7000e-004	0.0000	2.7795	2.7795	1.0000e-004	0.0000	2.7820
Total	2.0300e-003	0.0131	0.0158	6.0000e-005	3.8300e-003	9.0000e-005	3.9200e-003	1.0300e-003	8.0000e-005	1.1200e-003	0.0000	5.5447	5.5447	3.7000e-004	0.0000	5.5541

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	0.0130	0.0860	0.0888	1.4000e-004		5.3600e-003	5.3600e-003		5.2900e-003	5.2900e-003	0.0000	11.6560	11.6560	1.4500e-003	0.0000	11.6923
Total	0.0130	0.0860	0.0888	1.4000e-004		5.3600e-003	5.3600e-003		5.2900e-003	5.2900e-003	0.0000	11.6560	11.6560	1.4500e-003	0.0000	11.6923

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3.7 Piping Installation - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	4.0000e-004	0.0116	2.9800e-003	3.0000e-005	6.3000e-004	7.0000e-005	7.0000e-004	1.8000e-004	6.0000e-005	2.5000e-004	0.0000	2.7652	2.7652	2.7000e-004	0.0000	2.7720
Worker	1.6300e-003	1.4600e-003	0.0129	3.0000e-005	3.2000e-003	2.0000e-005	3.2200e-003	8.5000e-004	2.0000e-005	8.7000e-004	0.0000	2.7795	2.7795	1.0000e-004	0.0000	2.7820
Total	2.0300e-003	0.0131	0.0158	6.0000e-005	3.8300e-003	9.0000e-005	3.9200e-003	1.0300e-003	8.0000e-005	1.1200e-003	0.0000	5.5447	5.5447	3.7000e-004	0.0000	5.5541

3.8 Asphalt/Concrete Paving - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	2.4200e-003	0.0239	0.0233	4.0000e-005		1.3500e-003	1.3500e-003		1.2500e-003	1.2500e-003	0.0000	3.1792	3.1792	9.7000e-004	0.0000	3.2034
Paving	2.1000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	2.6300e-003	0.0239	0.0233	4.0000e-005		1.3500e-003	1.3500e-003		1.2500e-003	1.2500e-003	0.0000	3.1792	3.1792	9.7000e-004	0.0000	3.2034

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3.8 Asphalt/Concrete Paving - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.5000e-004	4.0000e-004	3.5300e-003	1.0000e-005	8.8000e-004	1.0000e-005	8.8000e-004	2.3000e-004	1.0000e-005	2.4000e-004	0.0000	0.7630	0.7630	3.0000e-005	0.0000	0.7637
Total	4.5000e-004	4.0000e-004	3.5300e-003	1.0000e-005	8.8000e-004	1.0000e-005	8.8000e-004	2.3000e-004	1.0000e-005	2.4000e-004	0.0000	0.7630	0.7630	3.0000e-005	0.0000	0.7637

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	2.4200e-003	0.0239	0.0233	4.0000e-005		1.3500e-003	1.3500e-003		1.2500e-003	1.2500e-003	0.0000	3.1792	3.1792	9.7000e-004	0.0000	3.2034
Paving	2.1000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	2.6300e-003	0.0239	0.0233	4.0000e-005		1.3500e-003	1.3500e-003		1.2500e-003	1.2500e-003	0.0000	3.1792	3.1792	9.7000e-004	0.0000	3.2034

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3.8 Asphalt/Concrete Paving - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.5000e-004	4.0000e-004	3.5300e-003	1.0000e-005	8.8000e-004	1.0000e-005	8.8000e-004	2.3000e-004	1.0000e-005	2.4000e-004	0.0000	0.7630	0.7630	3.0000e-005	0.0000	0.7637
Total	4.5000e-004	4.0000e-004	3.5300e-003	1.0000e-005	8.8000e-004	1.0000e-005	8.8000e-004	2.3000e-004	1.0000e-005	2.4000e-004	0.0000	0.7630	0.7630	3.0000e-005	0.0000	0.7637

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	0.00	0.00	0.00		
Other Asphalt Surfaces	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Light Industry	14.70	6.60	6.60	59.00	28.00	13.00	92	5	3
Other Asphalt Surfaces	14.70	6.60	6.60	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
General Light Industry	0.533808	0.036979	0.174634	0.113643	0.020106	0.005748	0.008732	0.091632	0.001423	0.002308	0.009089	0.000713	0.001184
Other Asphalt Surfaces	0.533808	0.036979	0.174634	0.113643	0.020106	0.005748	0.008732	0.091632	0.001423	0.002308	0.009089	0.000713	0.001184

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5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	206.1065	206.1065	8.5100e-003	1.7600e-003	206.8439
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	206.1065	206.1065	8.5100e-003	1.7600e-003	206.8439
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	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	0.0000

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5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	646870	206.1065	8.5100e-003	1.7600e-003	206.8439
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Total		206.1065	8.5100e-003	1.7600e-003	206.8439

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	646870	206.1065	8.5100e-003	1.7600e-003	206.8439
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Total		206.1065	8.5100e-003	1.7600e-003	206.8439

6.0 Area Detail

6.1 Mitigation Measures Area

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.2494	1.0000e-005	6.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.2600e-003	1.2600e-003	0.0000	0.0000	1.3500e-003
Unmitigated	0.2494	1.0000e-005	6.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.2600e-003	1.2600e-003	0.0000	0.0000	1.3500e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.2493					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	6.0000e-005	1.0000e-005	6.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.2600e-003	1.2600e-003	0.0000	0.0000	1.3500e-003
Total	0.2494	1.0000e-005	6.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.2600e-003	1.2600e-003	0.0000	0.0000	1.3500e-003

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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	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.2493					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	6.0000e-005	1.0000e-005	6.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.2600e-003	1.2600e-003	0.0000	0.0000	1.3500e-003
Total	0.2494	1.0000e-005	6.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.2600e-003	1.2600e-003	0.0000	0.0000	1.3500e-003

7.0 Water Detail

7.1 Mitigation Measures Water

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

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	0 / 0	0.0000	0.0000	0.0000	0.0000
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

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7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	0 / 0	0.0000	0.0000	0.0000	0.0000
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

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

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8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	0	0.0000	0.0000	0.0000	0.0000
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	0	0.0000	0.0000	0.0000	0.0000
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

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

Equipment Type	Number
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11.0 Vegetation

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	Total CO2	CH4	N2O	CO2e
Category	MT			
Unmitigated	-23.1660	0.0000	0.0000	-23.1660

11.1 Vegetation Land Change

Vegetation Type

	Initial/Final	Total CO2	CH4	N2O	CO2e
	Acres	MT			
Scrub	1.62 / 0	-23.1660	0.0000	0.0000	-23.1660
Total		-23.1660	0.0000	0.0000	-23.1660

Table 2. Initial Storage Tank Filling - Energy Consumption and GHG Calculations

Booster Water Pumping						Energy Consumption					SCE Intensity Factors ³		Estimated Emissions			CO2e
Storage Capacity (MG)	Pumping rate ¹ (gpm)	Pump Size ¹ (hp)	Pumping Duration			Storage Capacity (MG)	Pump Energy Use Rate ¹ (ac/ft) ²	Pump Energy Use Rate ¹ (kWhr/ac/ft)	Total Energy		GHG Pollutant	(lb/MWh)	(lb)	(tonne)	(tonne)	
			(min)	(hr)	(days)				(kWhr)	(MWh)						
2	423	40	4,728	79	3.28	2	6.18	383.0	2,367	2.37	CO2	702.44	1662.50	0.75	0.76	
											CH4	0.029	0.07	0.000031		
											N2O	0.006	0.01	0.0000064		

¹ Per design specifications provided by applicant, 11/8/18

² Based on 323,650.8 gallons per ac. ft.

³ Based on CalEEMod Utility Intensity Factors for Southern California Edison