Initial Study/Mitigated Negative Declaration
Appendices

Silver Lake and Ivanhoe Reservoirs Aeration and Recirculation System Project

Los Angeles Department of Water and Power
Environmental Planning and Assessment
111 North Hope Street, Room 1044
Los Angeles, California 90012

May 2020

TECHNICAL APPENDICES
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APPENDIX A
Air Quality Assessment

Technical Memorandum

TO: Cristina Lowery
AECOM

FROM: Terry A. Hayes Associates Inc.

DATE: February 12, 2020

RE: Silver Lake and Ivanhoe Reservoirs Aeration and Recirculation System Project – Air Quality Assessment

Introduction

Terry A. Hayes Associates Inc. (TAHA) has completed an Air Quality Assessment for the Silver Lake and Ivanhoe Reservoirs Aeration and Recirculation System Project (proposed project) in accordance with the provisions of the California Environmental Quality Act (CEQA) Statutes and Guidelines. The Air Quality Assessment is organized as follows:

- Project Description
- Air Quality Topical Information
- Regulatory Framework
- Existing Setting
- Significance Thresholds
- Methodology
- Impact Assessment
- References

Project Description

The Los Angeles Department of Water and Power (LADWP) proposes to implement the Silver Lake and Ivanhoe Reservoirs Aeration and Recirculation System Project (proposed project) within its Silver Lake Reservoir Complex (SLRC), which comprises the Silver Lake and Ivanhoe Reservoirs (the reservoirs).

The proposed project would be located in the Silver Lake community of the City of Los Angeles, approximately five miles north of downtown Los Angeles. **Figure 1** shows the regional vicinity of the project site. **Figure 2** shows the project location. The reservoirs require an aeration and recirculation system to ensure that reasonable water quality parameters are met for visual aesthetics and controlling odors. The proposed project would include the installation of a bubble plume aeration system and a recirculation pipe system to ensure oxygenation and destratification of the reservoirs. Destratification allows for the mixing of the reservoir water to allow for oxygen levels to be maintained throughout the reservoir. **Figure 3** shows the aeration and recirculation systems proposed to be installed in the reservoirs. The proposed project would be implemented in two phases as described below.

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Source: Esri Maps & Data, 2019.

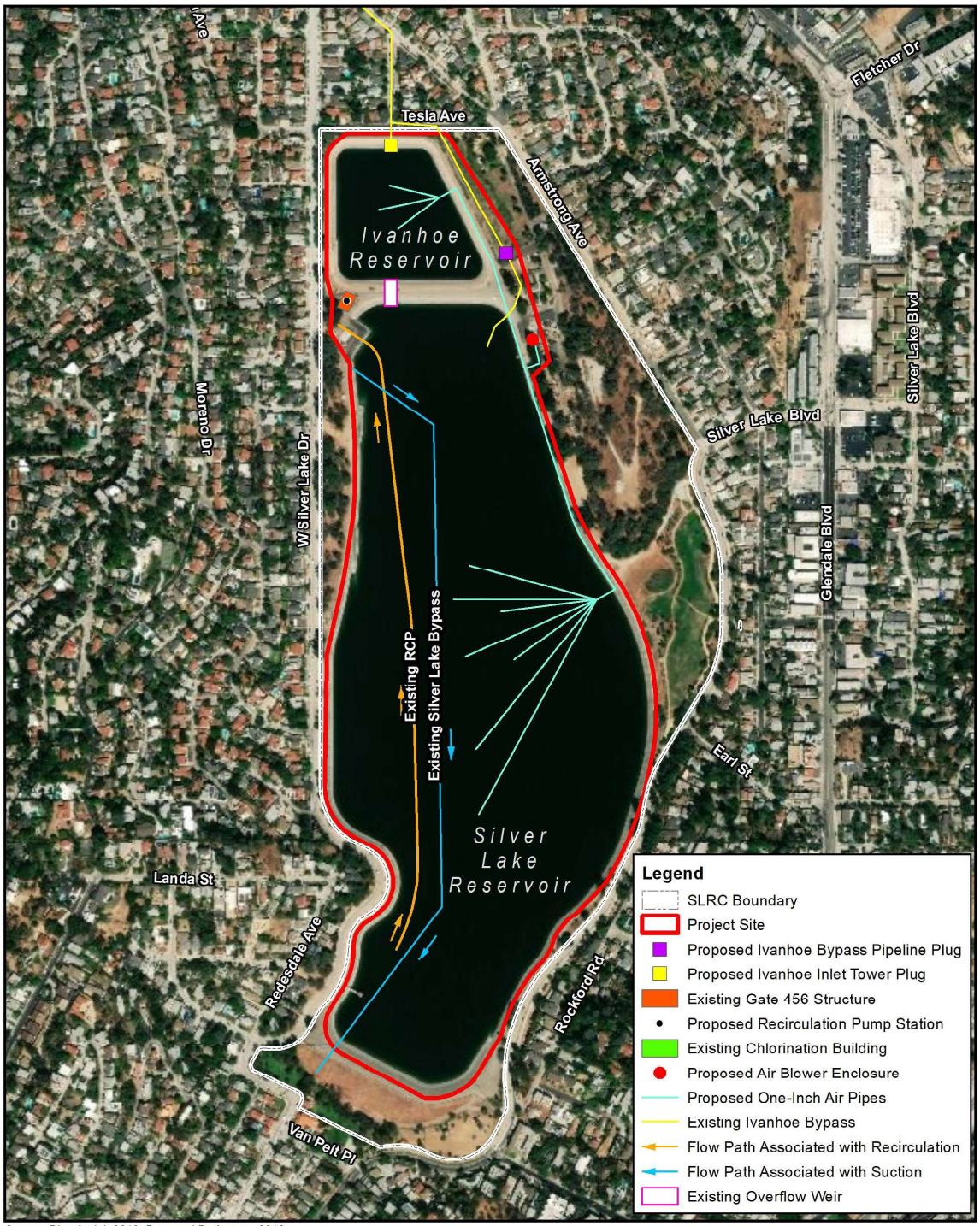
Figure 1
Regional Map

Source: Esri, 2020; Prepared By AECOM, 2020.

0 250 500 1,000 Feet

SLRC Boundary
Project Site

Figure 2
Project Location Map



Source: Bing Aerial, 2019; Prepared By Aecom, 2019.

0 250 500 1,000 Feet

Figure 3
Proposed Project
Aeration and Recirculation System

Phase 1 would include installation of an aeration system consisting of air blowers, air piping to each of the reservoirs, bubble plume system diffusers in each of the reservoirs, and aftercoolers. Two air blowers would be installed for each reservoir, including one in continuous operation and one to serve as a backup. The air blowers would be housed in an enclosure with ventilation and sound insulation. The air blower package enclosure would be located inside an existing chlorination building in the northeast portion of the SLRC between the two reservoirs.

Phase 2 would include the installation of a recirculation system consisting of a recirculation pump station, recirculation piping, and inflow from Ivanhoe Reservoir to Silver Lake Reservoir via the existing overflow weir. Additionally, two concrete plugs and approximately 400 feet of new recirculation piping would be installed within Ivanhoe Reservoir. The concrete plugs would be installed at the existing Ivanhoe Bypass and Ivanhoe Inlet Tower. The recirculation pump equipment would be installed at the existing Gate 456 structure, which is a fenced gate structure on the northwest corner of Silver Lake Reservoir that was historically used for water bypass when both Silver Lake and Ivanhoe Reservoirs were connected to the potable water system. Two submersible recirculation pumps would be installed along the depths of both Silver Lake and Ivanhoe Reservoirs and within the Gate 456 structure, with one pump on duty and the other on standby during normal operations. Both pumps would have the flexibility to operate simultaneously under special conditions. Suction intake would be located at the south end of the Silver Lake Reservoir along the existing Silver Lake Bypass pipeline and discharge would occur at the north end of Ivanhoe Reservoir. The recirculation piping would be connected to the recirculation pump to transfer water from Silver Lake Reservoir to Ivanhoe Reservoir over a partition wall within the Gate 456 structure. Inflow from Ivanhoe Reservoir to Silver Lake Reservoir would occur via the existing weir over the Silver Lake North Dam between the reservoirs.

Construction Activities and Schedule

Construction of Phase 1 is anticipated to begin in November 2020 and take approximately 13 months to complete, concluding in December 2021. Construction of Phase 2 is anticipated to begin at the end of Phase 1 and take approximately 16 months to complete. Construction activities would occur Mondays through Friday from 7:00 a.m. to 3:00 p.m. Construction vehicle access would be available via the existing driveway at the northeastern corner of the SLRC near the intersection of Tesla Avenue and Armstrong Avenue. It is anticipated that haul trucks and construction workers would travel south to the project site from Sun Valley using Interstate 5 (I-5), then travel south on Riverside Drive to Glendale Boulevard, and then west on Lakewood Avenue to Armstrong Avenue. All construction activities would occur completely within the boundaries of the SLRC. Construction staging and laydown areas would also occur within the SLRC.

Phase 1 – Reservoir Aeration. Construction activities at each reservoir would consist of construction of the aeration header at the existing chlorination building, installation of the pre-assembled air blower enclosures for the aeration system, installation of the pipeline connections, and assembly of the diffusers. As previously discussed, the air blowers for the aeration system would be housed in a sound-insulated enclosure. Site preparation for the enclosure would include demolition of existing concrete slabs, installation of 40 polyvinyl chloride (PVC) conduits, and construction and casting of concrete and equipment pads. The concrete and equipment pads would require the site to be cleared, excavated up to three feet, and graded. The enclosure units would be installed within the existing chlorination building behind its concrete walls.

Following construction of the air blower enclosures, air pipes would be installed from the air blowers to diffuser systems at each reservoir. The pipes would be installed underground utilizing trenching and backfilling methods, with the exception of self-weighted lines that would extend within the reservoir.

Approximately 1,021 linear feet of pipeline would be required for Ivanhoe Reservoir and approximately 1,076 linear feet of pipeline would be required for Silver Lake Reservoir. As previously discussed, the diffusers would consist of a diffuser and a manifold, which would be strategically placed across the reservoirs for optimal aeration. After installation of the pipelines and diffuser systems, the existing control panel would be moved from the existing chlorination building to the newly constructed enclosures. The air blowers and associated piping and supports and ventilation system would be installed within the enclosure. Aftercoolers would be located outside of the enclosures, and a sunshade and would be constructed to protect the equipment.

It is anticipated that approximately 1,102 cubic yards of materials would be imported to the project site, including 684 cubic yards of crushed aggregate base, 78 cubic yards of asphalt, 98 cubic yards of concrete, and 233 cubic yards of slurry. Additionally, approximately 1,045 cubic yards of materials would be excavated and exported from the project site, including 982 cubic yards of soil, 35 cubic yards of asphalt, and 28 cubic yards of concrete. Materials required for construction would be stored on site, with the exception of asphalt and concrete. Construction of Phase 1 of the proposed project would require a total of approximately 277 truck trips consisting of 101 trips for imported materials, 88 trips for exported materials, and 88 additional haul truck trips.

The estimated daily average of on-site workers would consist of a peak of 29 workers per day. Construction worker vehicle trips would account for approximately 277 roundtrips for the duration of 13 months, with an average of approximately 22 roundtrips per month.

Construction activities for Phase 1 would require approximately 10 pieces of equipment, including an asphalt paver, backhoe loader, barge, butt fusion machine, crane, front end loader, fork lift, generator, roller, and vibrating plate as well as maintenance and dump trucks. All equipment would be stored on site. The estimated daily peak number of equipment on site would be three pieces with an average of two pieces. The estimated daily peak number of trucks on-site would be six trucks during the construction of the air blowers and enclosures and four trucks during installation of the pipelines, with a daily average of three trucks on site for the entire duration of Phase 1.

Phase 2 - Recirculation System. Construction activities for Phase 2 include installation of pipeline in Ivanhoe Reservoir, installation of concrete plugs at the existing Ivanhoe Bypass and Ivanhoe Inlet tower, demolition of the existing equipment in the Gate 456 structure, installation of a suction intake on the existing Silver Lake bypass pipeline, and construction of the recirculation pump station within the Gate 456 structure, including a partition wall. Demolition would involve removal of existing electrical and mechanical equipment and an existing concrete slab within the Gate 456 structure.

Prior to installation of the concrete plugs, the water from Ivanhoe Reservoir would be pumped into Silver Lake Reservoir. Following draining of the water, 400 linear feet of pipeline would be placed and casted with concrete within Ivanhoe Reservoir to recirculate water within this reservoir. The concrete plugs would be formed on-site, placed in the Ivanhoe Bypass and then the Ivanhoe Tower Inlet, and finished with additional concrete.

The recirculation pump station equipment would be located within the Gate 456 structure adjacent to the equipment enclosures associated with the Silver Lake Regulating Station. Construction activities for the recirculation pump station would include excavation up to four feet for a 15-foot by 27-foot duct bank, construction of 40 PVC conduits, casting equipment pads and concrete slabs for a 6-foot by 3-foot sized enclosure, installation of the control system, and connecting the control panel to the equipment and pipes. The pumps would be placed below-grade within a hydraulic structure, which would be shielded from view at the property line.

Approximately 100 feet of piping would be installed within the Gate 456 structure, which would pump water from Silver Lake Reservoir over a partition wall to Ivanhoe Reservoir. Inflow from Ivanhoe Reservoir to Silver Lake Reservoir would occur via the existing weir over the Silver Lake North Dam between the reservoirs. Following installation of the piping, Ivanhoe Reservoir would be refilled via gravity through the existing Gate 456 structure.

It is anticipated that approximately 167 cubic yards of materials would be imported to the project site consisting of 21 cubic yards of crushed aggregate base, 5 cubic yards of asphalt, 141 cubic yards of concrete, and 8 cubic yards of slurry. Additionally, approximately 64 cubic yards of materials would be exported from the project site consisting of 35 cubic yards of soil, 2 cubic yards of asphalt, and 27 cubic yards of concrete. Materials required for construction, except for asphalt and concrete, would be stored on site. Construction of Phase 2 of the proposed project would require a total of approximately 81 truck trips consisting of 45 trips for imported materials, 8 trips for exported materials, and 28 additional haul truck trips.

The estimated daily peak number of on-site workers would be 22 workers. Construction worker vehicle trips would account for approximately 278 roundtrips for the duration of 16 months, with an average of approximately 18 roundtrips per month.

Construction activities for Phase 2 of the proposed project would require approximately 10 pieces of equipment, including an asphalt paver, backhoe loader, barge, butt fusion machine, crane, front end loader, fork lift, generator, roller, and vibrating plate as well as maintenance and dump trucks. All equipment would be stored on site. The estimated daily peak number of equipment on-site would be three pieces with an average of two pieces. The estimated daily peak number of trucks on-site would be six trucks with a daily average of three trucks on-site for the entire duration of Phase 2.

An appropriate combination of monitoring and resource impact avoidance would be employed during all the construction activities, including implementation of the following best management practices:

- The proposed project would implement Rule 403 dust control measures required by the SCAQMD, which would include the following:
    - Water shall be applied to exposed surfaces at least two times per day to prevent generation of dust plumes.
    - All haul trucks hauling soil, sand, and other loose materials shall be covered (e.g., with tarps or other enclosures that would reduce fugitive dust emissions).
    - Construction activity on exposed or unpaved dirt surfaces shall be suspended when wind speed exceeds 25 miles per hour.
    - Ground cover in disturbed areas shall be replaced in a timely fashion when work is completed in the area.
    - A community liaison shall be identified to address concerns regarding on-site construction activity including resolution of issues related to dust generation.
    - Apply non-toxic soil stabilizers according to manufacturers' specifications to all inactive construction areas (previously graded areas inactive for ten days or more).
    - Sweep streets at the end of the day if visible soil is carried onto adjacent public paved roads. If feasible, use water sweepers with reclaimed water.

Air Quality Topical Information

Air quality is typically characterized by ambient air concentrations of seven specific pollutants identified by the United States Environmental Protection Agency (USEPA) to be of concern with respect to health and welfare of the general public. These specific pollutants, known as criteria air pollutants, are pollutants for which the federal and State governments have established ambient air quality standards, or criteria, for outdoor concentrations to protect public health. These pollutants are common byproducts of human activities and have been documented through scientific research to cause adverse health effects. The federal ambient concentration criteria are known as the National Ambient Air Quality Standards (NAAQS), and the California ambient concentration criteria are referred to as the California Ambient Air Quality Standards (CAAQS). Federal criteria air pollutants include ground-level ozone (O_3), nitrogen dioxide (NO_2), carbon monoxide (CO), sulfur dioxide (SO_2), respirable particulate matter ten microns or less in diameter (PM_{10}), fine particulate matter 2.5 microns or less in diameter ($PM_{2.5}$), and lead. In addition to the federal criteria pollutants, the state regulates visibility-reducing particles, sulfates, hydrogen sulfide, and vinyl chloride.

Air toxics are generally defined as those contaminants that are known or suspected to cause serious health problems, but do not have a corresponding ambient air quality standard. Air toxics are also defined as an air pollutant that may increase a person's risk of developing cancer and/or other serious health effects; however, the emission of a toxic chemical does not automatically create a health hazard. Air toxics include, but are not limited to, diesel PM, metals, gases absorbed by particles, and certain vapors from fuels and other sources.

Regulatory Framework

The following discussion includes relevant regulations, policies, and programs that have been adopted by federal, state, and local agencies to protect air quality and public health.

Federal

The Clean Air Act (CAA) governs air quality at the national level and the USEPA is responsible for enforcing the regulations provided in the CAA. Under the CAA, the USEPA is authorized to establish NAAQS that set protective limits on concentrations of air pollutants in ambient air. Enforcement of the NAAQS is required under the 1977 CAA and subsequent amendments. As required by the CAA, NAAQS have been established for the seven criteria air pollutants: O_3, NO_2, CO, SO_2, PM_{10}, $PM_{2.5}$, and Pb. These pollutants are common byproducts of human activities and have been documented through scientific research to cause adverse health effects. The CAA grants the USEPA authority to designate areas as attainment, nonattainment, or maintenance (previously nonattainment and currently attainment) for each criteria pollutant based on whether the NAAQS concentrations have been met on a regional scale relying upon air monitoring data from the most recent three-year period. The NAAQS are summarized in **Table 1**.

TABLE 1: AMBIENT AIR QUALITY STANDARDS AND ATTAINMENT STATUS DESIGNATIONS

Pollutant	Averaging Period	California		Federal	
		Standards (CAAQS)	Attainment Status	Standards (NAAQS)	Attainment Status
Ozone (O_3)	1-Hour Average	0.09 ppm (180 µg/m^3)	Nonattainment	--	--
	8-Hour Average	0.070 ppm (137 µg/m^3)	Nonattainment	0.070 ppm (137 µg/m^3)	Pending – Nonattainment
Carbon Monoxide (CO)	1-Hour Average	20 ppm (23 mg/m^3)	Attainment	35.0 ppm (40 mg/m^3)	Attainment
	8-Hour Average	9.0 ppm (10 mg/m^3)	Attainment	9.0 ppm (10 mg/m^3)	Attainment
Nitrogen Dioxide (NO_2)	1-Hour Average	0.18 ppm (338 µg/m^3)	Attainment	0.10 ppm (188 µg/m^3)	Attainment
	Annual Arithmetic Mean	0.03 ppm (57 µg/m^3)	Attainment	0.053 ppm (100 µg/m^3)	Attainment
Sulfur Dioxide (SO_2)	1-Hour Average	0.25 ppm (655 µg/m^3)	Attainment	0.075 ppm (196 µg/m^3)	Pending – Attainment
	24-Hour Average	0.04 ppm (105 µg/m^3)	Attainment	0.14 ppm (365 µg/m^3)	Attainment
	Annual Arithmetic Mean	--	--	0.030 ppm (80 µg/m^3)	Attainment
Respirable Particulate Matter (PM_{10})	24-Hour Average	50 µg/m^3	Nonattainment	150 µg/m^3	Attainment (Maintenance)
	Annual Arithmetic Mean	20 µg/m^3	Nonattainment	--	--
Fine Particulate Matter ($PM_{2.5}$)	24-Hour Average	--	--	35 µg/m^3	Nonattainment
	Annual Arithmetic Mean	12 µg/m^3	Nonattainment	12.0 µg/m^3	Nonattainment
Lead (Pb)	30-day Average	1.5 µg/m^3	Attainment	--	--
	Calendar Quarter	--	--	1.5 µg/m^3	Unclassified/ Attainment
	Rolling 3-Month Average	--	--	0.15 µg/m^3	Unclassified/ Attainment
Sulfates	24-Hour Average	25 µg/m^3	Attainment	**No Federal Standards**	
Hydrogen Sulfide	1-Hour Average	0.03 ppm (42 µg/m^3)	Attainment		
Vinyl Chloride	24-Hour Average	0.01 ppm (26 µg/m^3)	Attainment		

CAAQS = California Ambient Air Quality Standard; NAAQS = National Ambient Air Quality Standard; ppm = parts per million; µg/m^3 = micrograms per cubic meter.

SOURCE: SCAQMD, *NAAQS and CAAQS Attainment Status for South Coast Air Basin*, February 2016.

State

Air quality in California is also governed by more stringent regulations under the California Clean Air Act (CCAA). The CCAA is administered by the California Air Resources Board (CARB) at the state level and by the air quality management districts at the regional and local levels. The CCAA requires all areas of the state to achieve and maintain the CAAQS by the earliest feasible date, which is determined in the most recent State Implementation Plan (SIP) based on existing emissions and reasonably foreseeable control measures that will be implemented in the future. The CAAQS are also summarized in **Table 1**, which also presents the attainment status designations for the Los Angeles County portion of the South Coast Air Basin (Basin).

The CARB's statewide comprehensive air toxics program was established in the early 1980s. The Toxic Air Contaminant Identification and Control Act created California's program to reduce exposure to air toxics. Under the Toxic Air Contaminant Identification and Control Act, the CARB is required to prioritize the identification and control of air toxics emissions. In selecting substances for review, the CARB must consider criteria relating to the risk of harm to public health, such as amount or potential amount of emissions, manner of and exposure to usage of the substance in California, persistence in the atmosphere, and ambient concentrations in the community.

Regional

The 1977 Lewis Air Quality Management Act established the SCAQMD in order to coordinate air quality planning efforts throughout Southern California. The SCAQMD has jurisdiction over a total area of 10,743 square miles, consisting of the Basin—which comprises 6,745 square miles including Orange County and the non-desert portions of Los Angeles, Riverside, and San Bernardino counties—and the Riverside County portion of the Salton Sea and Mojave Desert Air Basins. The proposed project would be located in the neighborhoods of West Hills and Woodland Hills, which are situated in the Basin portion of Los Angeles County and are within the jurisdiction of the SCAQMD.

The SCAQMD is tasked with preparing regional programs and policies designed to improve air quality within the Basin, which are assessed and published in the form of the Air Quality Management Plan (AQMP). The AQMP is updated every four years to evaluate the effectiveness of the adopted programs and policies and to forecast attainment dates for nonattainment pollutants to support the SIP based on measured regional air quality and anticipated implementation of new technologies and emissions reductions. The most recent publication is the 2016 AQMP, which is intended to serve as a regional blueprint for achieving the federal air quality standards and healthful air.

The 2016 AQMP represents a thorough analysis of existing and potential regulatory control options, and includes available, proven, and cost-effective strategies to pursue multiple goals in promoting reductions in greenhouse gas (GHG) emissions and toxic risk, as well as efficiencies in energy use, transportation, and goods movement. The 2016 AQMP focuses on demonstrating NAAQS attainment dates for the 2008 8-hour O_3 standard, the 2012 annual $PM_{2.5}$ standard, and the 2006 24-hour $PM_{2.5}$ standard. The 2016 AQMP acknowledged that the most significant air quality challenge in the Basin is the reduction of nitrogen oxides (NO_X) emissions sufficient to meet the upcoming ozone standard deadlines. The 2016 AQMP includes both stationary and mobile source strategies to ensure that rapidly approach attainment deadlines are met, that public health is protected to the maximum extent feasible, and that the region is not faced with burdensome sanctions if the NAAQS are not met by the established date.

The 2016 AQMP includes an element that is related to transportation and sustainable communities planning. Pursuant to California Health and Safety Code Section 40450, the Southern California Association of Governments (SCAG)—the Metropolitan Planning Organization (MPO) for Southern California—has the responsibility of preparing and approving the portions of the 2016 AQMP relating to regional demographic projections and integrated regional land use, housing, employment, and transportation programs, measures, and strategies. The analysis incorporated into the 2016 AQMP is based on the forecasts contained within the SCAG 2016–2040 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS). Land use strategies outlined in the 2016–2040 RTP/SCS that will contribute to regional air quality improvements include: focusing new growth around transit/high quality transit areas (HQTAs), planning for growth around livable corridors, providing more options for short trips/neighborhood mobility areas, and supporting local sustainability planning.

The SCAQMD has also established various rules to manage and improve air quality in the Basin. The project proponent shall comply with all applicable SCAQMD Rules and Regulations pertaining to construction activities, including, but not limited to:

- Rule 402 (Nuisance) states that a person should not emit air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or which endanger the comfort, repose, health or safety of any such persons or the public, or which cause, or have a natural tendency to cause, injury or damage to business or property.
- Rule 403 (Fugitive Dust) controls fugitive dust through various requirements including, but not limited to, applying water in sufficient quantities to prevent the generation of visible dust plumes, applying soil binders to uncovered areas, reestablishing ground cover as quickly as possible, utilizing a wheel washing system to remove bulk material from tires and vehicle undercarriages before vehicles exit the project site, limiting vehicle speeds on unpaved roads to 15 miles per hour, and maintaining effective cover over exposed areas. Rule 403 also prohibits the release of fugitive dust emissions from any active operation, open storage piles, or disturbed surface area beyond the property line of the emission source and prohibits particulate matter deposits on public roadways.

Existing Setting

The Basin is subject to high levels of air pollution due to the immense magnitude of emissions sources and the combination of topography, low mean atmospheric mixing height, and abundant sunshine. Although the Basin has a semiarid climate, air near the surface is generally moist because of the presence of a shallow marine layer. With very low average wind speeds, there is a limited capacity to disperse air contaminants horizontally. The mountains and hills surrounding the Basin contribute to the variation of rainfall, temperature, and winds throughout the region. During the spring and early summer, pollution produced during any one day is typically blown out of the Basin through mountain passes or lifted by warm, vertical currents adjacent to mountain slopes. The vertical dispersion of air pollutants in the Basin is limited by temperature inversions in the atmosphere close to the Earth's surface. The combination of stagnant wind conditions and low inversions produces the greatest pollutant concentrations. On days of no inversion or high wind speeds, ambient air pollutant concentrations are lowest. During periods of low inversions and low wind speeds, air pollutants become more concentrated in urbanized areas with pollution sources of greater magnitude.

Air quality within the Basin region is characterized by concentrations of air pollutants measured at 37 monitoring stations located throughout the SCAQMD jurisdiction. The Basin is divided geographically into 38 source receptors areas (SRAs), each of which contains an air quality monitoring station excluding SRA 7. The SRA boundaries were drawn based on proximity to the nearest air monitoring station, the local emission inventories, and surrounding topography. The proposed project site is located in SRA 1 (Central Los Angeles County). Ambient concentrations of O_3 and $PM_{2.5}$ exceed the associated NAAQS and CAAQS numerous times over the three-year period. Additionally, concentrations of PM_{10} exceeded the CAAQS in all three years. The data demonstrate the ongoing challenges that the region faces with regards to improving air quality and bringing the Basin into attainment of the federal and state standards.

Some land uses are considered more sensitive to changes in air quality than others, depending on the population groups and the activities involved. The CARB has identified the following groups who are most likely to experience adverse health effects due to exposure to air pollution: children less than 14 years of age, the elderly over 65 years of age, athletes, and people with cardiovascular and chronic respiratory diseases. According to the SCAQMD, land uses that constitute sensitive receptors include residences, schools, playgrounds, childcare centers, athletic facilities, long-term health care facilities, rehabilitation centers, convalescent centers, and retirement homes. The SCAQMD has established 500 meters, or 1,640 feet, as the distance for assessing localized air quality impacts. The project is located in an urban environment and many sensitive receptors are located near construction zones. The project area is densely populated with residences. The Neighborhood Nursery School is located just east of the Ivanhoe Reservoir and both reservoirs are surrounded by recreational open space.

Significance Thresholds

This Impact Assessment was undertaken to determine whether construction or operation of the proposed project would have the potential to result in significant environmental impacts related to Air Quality in the context of the Appendix G Environmental Checklist criteria of the CEQA Statute and Guidelines. Implementation of the proposed project may result in a significant environmental impact related to Air Quality if the proposed project would:

a) Conflict with or obstruct implementation of the applicable air quality plan;

b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or state ambient air quality standard;

c) Expose sensitive receptors to substantial pollutant concentrations; and/or,

d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.

The SCAQMD published a CEQA Air Quality Handbook to guide air quality assessments for CEQA projects within its jurisdiction. SCAQMD methodologies recommend that air pollutant emissions be analyzed in both regional and local contexts. Regional emissions refer to all emissions that would be associated with construction and operation of a project, while localized emissions refer to only those emissions that would be produced by sources located on the project site. To assist in the assessment of air pollutant emissions under impact criteria a), b), and c) above, the SCAQMD established maximum daily threshold values for air pollutant emissions from CEQA projects within the Basin. The mass daily thresholds were derived using regional emissions modeling techniques to prevent the occurrence of air quality violations that would obstruct implementation of the regional AQMP and hinder efforts to improve regional air quality.

Table 2 shows regional and localized significance thresholds for volatile organic compounds (VOC), NO_X, CO, sulfur oxides (SO_X), and particulate matter (PM_{10} and $PM_{2.5}$). The localized air quality significance thresholds are specific to SRA 1 for a one-acre construction site with sensitive receptors within 80 feet (approximately 25 meters) and were obtained from the SCAQMD Localized Significance Threshold (LST) guidance document. The LST methodology document contains SRA-specific values for maximum allowable on-site emissions (i.e., construction equipment and fugitive dust) during construction based on locally monitored air quality, the size of maximum daily disturbed area, and the proximity of sensitive receptors. Maximum on-site emissions resulting from construction activities were quantified and assessed against the applicable LST values for a one-acre project site having sensitive receptors within 80 feet (approximately 25 meters) of the project site boundary in SRA 1.

TABLE 2: SCAQMD AIR QUALITY SIGNIFICANCE THRESHOLDS – MASS DAILY EMISSIONS

Pollutant	VOC	NO_X	CO	SO_X	PM_{10}	$PM_{2.5}$
CONSTRUCTION						
Regional Threshold (lbs/day)	75	100	550	150	150	55
Localized Threshold (lbs/day)	--	74	680	--	5	3
OPERATIONS						
Regional Threshold (lbs/day)	55	55	550	150	150	55
Localized Threshold (lbs/day)	--	74	680	--	2	1

Note: LST values selected for one-acre daily disturbance based on equipment inventory and 25-meter receptor distance in SRA 1.
SOURCE: SCAQMD, 2015.

Regarding substantial pollutant concentrations, a significant air quality impact would occur if the proposed project resulted in a residential carcinogenic risk above 10 excess cancers per million, or an acute hazard index (HI) equal to or greater than 1.0.

Methodology

The air quality analysis conducted for the proposed project is consistent with the methods described in the SCAQMD CEQA Air Quality Handbook (1993 edition), as well as the updates to the CEQA Air Quality Handbook, as provided on the SCAQMD website. The SCAQMD recommends the use of the California Emissions Estimator Model (CalEEMod, version 2016.3.1) as a tool for quantifying emissions of air pollutants that will be generated by constructing and operating development projects under CEQA. The detailed CalEEMod output files disclosing estimated air pollutant emissions can be found in the Appendix.

The SCAQMD recommends that air pollutant emissions generated by construction activities be assessed for potentially significant air quality impacts at regional and local scales. Regional emissions include air pollutant emissions from all sources associated with construction activities, while localized emissions refer specifically to those emissions generated by sources on the project site. Maximum daily emissions were quantified for each construction activity based on the number and type of equipment required and daily hours of use, in addition to vehicle trips to and from the project site. The CalEEMod model provides regionally-specific default values for daily equipment usage rates and worker trip lengths, as well as emissions factors for heavy duty equipment

and passenger vehicles that have been derived by the CARB through extensive air quality investigations and surveys. The default values were used in conjunction with project-specific information to determine reasonable estimates of daily construction activities.

Localized air pollutant emissions from construction activities were analyzed in accordance with the SCAQMD LST methodology. The LST methodology was devised to prevent small-scale hot spot concentrations of air pollutants from exceeding ambient air quality standards at nearby sensitive receptors. The LST methodology document contains SRA-specific values for maximum allowable on-site emissions (i.e., construction equipment and fugitive dust) during construction based on locally monitored air quality, the size of maximum daily disturbed area, and the proximity of sensitive receptors. Maximum on-site emissions resulting from construction activities were quantified and assessed against the applicable LST values for a one-acre project site having sensitive receptors within 50 feet (approximately 25 meters) of the project site boundary in SRA 1.

Impact Assessment

a) Would the proposed project conflict with or obstruct implementation of the applicable air quality plan? (Less-Than-Significant Impact)

The following analysis addresses the consistency with applicable SCAQMD and SCAG policies, including the SCAQMD's 2016 AQMP and growth projections within the SCAG's 2016–2040 RTP/SCS. Although the SCAG has published the Draft 2020-2045 RTP/SCS, it has not been formally adopted by SCAG and therefore not considered in this analysis. In accordance with the procedures established in the SCAQMD's CEQA Air Quality Handbook, the following criteria are required to be addressed in order to determine the consistency with applicable SCAQMD and SCAG policies:

- Would the proposed project result in any of the following?
  - An increase in the frequency or severity of existing air quality violations;
  - Cause or contribute to new air quality violations; or,
  - Delay timely attainment of air quality standards or the interim emission reductions specified in the AQMP.
- Would the proposed project exceed the assumptions utilized in preparing the AQMP?
  - Is the project consistent with the population and employment growth projections upon which AQMP forecasted emission levels are based;
  - Does the project include air quality mitigation measures; or,
  - To what extent is project development consistent with the AQMP land use policies?

The first indicator is assessed by comparing emissions of air pollutants that would be produced by construction and operation of the proposed project to the SCAQMD significance thresholds, both on regional and localized scales. The regional and localized air quality significance thresholds were designed to prevent the occurrence and exacerbation of air quality violations resulting from construction and operation of individual CEQA projects in the context of existing ambient air quality conditions. The second indicator is assessed by determining consistency of permanent operations with population, housing, and employment assumptions that were used in the development of the AQMP and the RTP/SCS.

Construction

Construction of the proposed project has the potential to create air quality impacts through the use of heavy-duty construction equipment and through vehicle trips by construction workers and haul trucks traveling to and from the project site. Fugitive dust emissions would primarily result from site preparation (e.g., clearing,

grading, excavation, and loading) activities. NO_X emissions would predominantly result from the use of construction equipment and haul truck trips. The assessment of construction air quality impacts considers all of these emissions sources. Construction emissions can vary substantially from day to day, depending on the level of activity, the specific type of operation and, for dust, the prevailing weather conditions.

It is mandatory for all construction projects in the Basin to comply with SCAQMD Rule 403 for Fugitive Dust. Rule 403 control requirements include measures to prevent the generation of visible dust plumes. Measures include, but are not limited to, applying soil binders to uncovered areas, reestablishing ground cover as quickly as possible, utilizing a wheel washing system or other control measures to remove bulk material from tires and vehicle undercarriages before vehicles exit the project site, and maintaining effective cover over exposed areas. Compliance with the provisions and best management practices propagated by Rule 403—such as the application of water as a dust suppressant to exposed stockpiles and disturbed ground surfaces—would reduce regional fugitive dust PM_{10} and $PM_{2.5}$ emissions associated with construction activities by approximately 61 percent.

Daily emissions of VOC, NO_X, CO, SO_X, PM_{10}, and $PM_{2.5}$ were estimated using CalEEMod. **Tables 4** and **5** show the maximum unmitigated daily regional emissions for each construction activity for each phase of the project, including emissions from sources located both on- and off-site. As stated above, the unmitigated emissions account for the provisions of SCAQMD Rule 403, which requires best management practice in fugitive dust control that achieve a 61 percent reduction from on-site fugitive dust sources including disturbed ground surface and material stockpiles. Maximum daily emissions of all air pollutants would remain below all applicable regional SCAQMD thresholds during construction of the proposed project, and air quality impacts would be less than significant.

TABLE 4: ESTIMATED DAILY CONSTRUCTION EMISSIONS (PHASE 1)

Phase	Daily Emissions (Pounds Per Day)					
	VOC	NO_X	CO	SO_X	PM_{10}	$PM_{2.5}$
DEMOLITION						
On-Site Emissions	1.1	9.6	9.4	<0.1	0.6	0.5
Off-Site Emissions	0.2	11	1.8	<0.1	0.5	0.1
Total	***1.3***	***20.6***	***11.2***	***<0.1***	***1.1***	***0.6***
SITE PREPARATION						
On-Site Emissions	3.2	27	22	<0.1	1.9	1.8
Off-Site Emissions	0.4	0.9	3.3	<0.1	1.0	0.3
Total	***3.6***	***27.9***	***25.5***	***<0.1***	***2.9***	***2.1***
CONSTRUCTION						
On-Site Emissions	1.4	13	13	<0.1	0.7	0.7
Off-Site Emissions	0.3	0.2	2.1	<0.1	0.7	0.2
Total	***1.7***	***13.2***	***15.1***	***<0.1***	***1.4***	***0.9***
REGIONAL ANALYSIS						
Maximum Regional Daily Emissions	**3.6**	**27.9**	**25.5**	**<0.1**	**2.9**	**2.1**
Regional Significance Threshold	75	100	550	150	150	55
Exceed Regional Threshold?	**No**	**No**	**No**	**No**	**No**	**No**
LOCALIZED ANALYSIS						
Maximum Localized Daily Emissions	**--**	**27**	**22**	**--**	**1.9**	**1.8**
Localized Significance Threshold	--	74	680	--	5	3
Exceed Localized Threshold?	**--**	**No**	**No**	**--**	**No**	**No**

Note: Emissions modeling files can be found in the **Appendix**.
SOURCE: TAHA, 2020.

TABLE 5: ESTIMATED DAILY CONSTRUCTION EMISSIONS (PHASE 2)

Phase	Daily Emissions (Pounds Per Day)					
	VOC	NO_X	CO	SO_X	PM_{10}	$PM_{2.5}$
DEMOLITION						
On-Site Emissions	1.0	8.8	9.4	<0.1	0.5	0.5
Off-Site Emissions	0.1	0.2	1.1	<0.1	<0.0	0.1
Total	***1.1***	***9.1***	***10.5***	***<0.1***	***0.5***	***0.6***
SITE PREPARATION						
On-Site Emissions	1.4	12	11	<0.1	0.8	0.7
Off-Site Emissions	0.1	0.2	1.0	<0.1	0.3	0.1
Total	***1.5***	***12.2***	***12***	***<0.1***	***1.1***	***0.8***
CONSTRUCTION						
On-Site Emissions	2.3	23	25	<0.1	1.2	1.1
Off-Site Emissions	0.4	0.3	2.9	<0.1	1.0	0.3
Total	***2.7***	***23.3***	***27.9***	***<0.1***	***2.2***	***1.4***
REGIONAL ANALYSIS						
Maximum Regional Daily Emissions	**2.7**	**23.3**	**27.9**	**<0.1**	**2.2**	**1.4**
Regional Significance Threshold	75	100	550	150	150	55
Exceed Regional Threshold?	**No**	**No**	**No**	**No**	**No**	**No**
LOCALIZED ANALYSIS						
Maximum Localized Daily Emissions	**--**	**23**	**25**	**<0.1**	**1.2**	**1.1**
Localized Significance Threshold	--	74	680	--	5	3
Exceed Localized Threshold?	**--**	**No**	**No**	**--**	**No**	**No**

Note: Emissions modeling files can be found in the **Appendix**.
SOURCE: TAHA, 2020.

In addition to maximum daily regional emissions, maximum localized (on-site) emissions were quantified for each construction activity. Sources of emissions located on the project site include heavy-duty equipment exhaust and fugitive dust. As mentioned previously, LST values have only been derived for the pollutants NO_X, CO, PM_{10}, and $PM_{2.5}$. The LST values selected for the screening analysis are applicable to a one-acre daily disturbance area in SRA 1 within 25 meters of sensitive receptors. **Tables 4** and **5** present the results of emissions modeling from on-site construction sources and analysis in the context of the LST methodology, which is designed to prevent the occurrence of substantially elevated small-scale concentrations in close proximity to construction sites.

Maximum on-site emissions during project construction would not exceed the applicable LST values, therefore construction of the proposed project would not result in a significant localized air quality impact related to the frequency or severity of air quality violations. With respect to the first criterion, localized concentrations of nitrogen dioxide as NO_X, CO, PM_{10}, and $PM_{2.5}$ have been analyzed for the proposed project. Sulfur dioxide (SO_2) emissions, assessed as SO_X within the SCAQMD thresholds, would be negligible during construction, and, therefore, would not have the potential to cause or affect a violation of the SO_2 ambient air quality standard. Since VOCs are not a criteria pollutant, there is no ambient standard or localized threshold for VOCs.

Due to the role VOCs play in ozone formation, it is classified as a precursor pollutant, and only a regional emissions threshold has been established.

Operations

Operational activities associated with the proposed project would be minimal. Implementation of the proposed project would require one maintenance trip three times per week. Indirect emissions would be related to electricity consumption to power mechanical equipment. Both sources of emissions generate pollution off the project site, which means they are not localized sources of pollution. **Table 6** shows that operational emissions would not exceed the SCAQMD thresholds. Operation of the proposed project would not have any potential to exacerbate the frequency or severity of air quality violations and would result in a less-than-significant air quality impact related to air quality violations.

TABLE 6: ESTIMATED DAILY OPERATIONAL EMISSIONS

	Daily Emissions (Pounds Per Day)					
Source	**VOC**	**NO_X**	**CO**	**SO_X**	**PM_{10}**	**$PM_{2.5}$**
Maintenance Trips (Off-Site Emissions)	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Energy Use (Off-Site Emissions)	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Total	***0.1***	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**
REGIONAL ANALYSIS						
Maximum Regional Daily Emissions	*0.1*	<0.1	<0.1	<0.1	<0.1	<0.1
Regional Significance Threshold	55	55	550	150	150	55
Exceed Regional Threshold?	**No**	**No**	**No**	**No**	**No**	**No**
LOCALIZED ANALYSIS						
Maximum Localized Daily Emissions	**--**	**<0.1**	**<0.1**	**--**	**<0.1**	**<0.1**
Localized Significance Threshold	--	74	680	--	2	1
Exceed Localized Threshold?	**--**	**No**	**No**	**--**	**No**	**No**

Note: Emissions modeling files can be found in the **Appendix**.
SOURCE: TAHA, 2020.

The second consistency criterion requires that the proposed project not exceed the assumptions in the AQMP, thereby rendering the regional emissions inventory inaccurate. Implementation of the proposed project would not introduce new population, housing, and employment projections for the region would not be affected. The proposed project would not have any potential to result in growth that would exceed the projections incorporated into the AQMP or the 2016–2040 RTP/SCS. The proposed project would not interfere with air pollution control measures listed in the 2016 AQMP and would not conflict with the goals of the General Plan Air Quality Element. Therefore, impacts related to conflict with or obstruction of the applicable air quality plan would be less than significant.

Mitigation Measures

No mitigation measures are required.

b) Would the proposed project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or state ambient air quality standard? (Less-than-Significant Impact)

The Basin is currently designated nonattainment for O_3, PM_{10}, and $PM_{2.5}$ under the state standards and nonattainment for O_3 and $PM_{2.5}$ under the federal standards. Therefore, a project may result in a cumulatively considerable air quality impact under this criterion if daily emissions of ozone precursors (VOC and NO_X) or particulate matter (PM_{10} and $PM_{2.5}$) exceed applicable air quality thresholds of significance established by the SCAQMD. The SCAQMD designed the regional mass daily thresholds and LST values to prevent projects from exceeding the ambient air quality standards and potentially resulting in air quality violations. The SCAQMD suggests that if any quantitative air quality significance threshold is exceeded by an individual project during construction activities or operation, that project is considered cumulatively considerable and would be required to implement effective and feasible mitigation measures to reduce air quality impacts.

Conversely, the SCAQMD propagates the guidance that if an individual project would not exceed the regional mass daily thresholds or LST values, then it is generally not considered to be cumulatively significant. This method of impact determination allows for the screening of individual projects that would not represent substantial new sources of emissions in the Basin; it also serves to exclude smaller projects from the responsibility of identifying potentially concurrent new or proposed construction and operation emissions nearby since the incremental contribution to regional emissions is minor. As shown above, implementation of the proposed project would not exceed any applicable SCAQMD regional mass daily thresholds or LST values during construction or operation. Therefore, the proposed project would not generate cumulatively considerable emissions of ozone precursors or particulate matter and impacts would be less than significant.

Mitigation Measures

No mitigation measures are required.

c) Would the proposed project expose sensitive receptors to substantial pollutant concentrations? (Less-Than-Significant Impact)

The SCAQMD devised its LST values to prevent the occurrence of localized hot spots of criteria pollutant concentrations at sensitive receptor locations surrounding the project site. The LST values were determined using emissions modeling based on ambient air quality measured throughout the South Coast Air Basin. If maximum daily emissions remain below the LST values during construction activities, it is highly unlikely that air pollutant concentrations in ambient air would reach substantial levels sufficient to create public health concerns for sensitive receptors. As shown in **Tables 4** and **5**, maximum daily emissions of criteria pollutants and O_3 precursors from sources located on the project site would not exceed any applicable LST values. Therefore, construction of the proposed project would not result in exposure of sensitive receptors to substantial concentrations of criteria pollutants.

With regards to emissions of air toxics, carcinogenic risks, and non-carcinogenic hazards, the use of heavy-duty construction equipment and haul trucks during construction activities would release diesel PM to the atmosphere through exhaust emissions. Diesel PM is a known carcinogen, and extended exposure to elevated concentrations of diesel PM can increase excess cancer risks in individuals. However, carcinogenic risks are typically assessed over timescales of several years to decades, as the carcinogenic dose response is cumulative in nature. Short term exposures to diesel PM would have to involve extremely high concentrations in order to exceed the SCAQMD Air Quality Significance Threshold of 10 excess cancers per million.

Over the course of construction activities, average diesel PM emissions from on-site equipment would be approximately 0.65 pounds per day. It is highly unlikely that diesel PM concentrations would be of any public health concern, and diesel PM emissions would cease upon completion of construction activities. Therefore, this impact would be less than significant and no mitigation is required.

Mitigation Measures

No mitigation measures are required.

d) Would the proposed project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people? (Less-than-Significant Impact)

Construction

Odors are the only potential construction emissions other than the sources addressed above. Potential sources that may produce objectionable odors during construction activities include equipment exhaust, application of asphalt and architectural coatings, and other interior and exterior finishes. Odors from these sources would be localized and generally confined to the immediate area surrounding the project site, would be temporary in nature, and would not persist beyond the termination of construction activities. The proposed project would utilize standard construction techniques, and the odors would be typical of most construction sites. In addition, as construction-related emissions dissipate away from the construction area, the odors associated with these emissions would also decrease and would be quickly diluted. LADWP would ensure that activities comply with SCAQMD Rules 402 (Nuisance) and 401 (Visible Emissions) to prevent the occurrence of public nuisances and visible dust plumes traveling off-site. Therefore, the proposed project would result in a less-than-significant impact related to construction odors and other nuisances.

Operations

Odors are the only potential operational emissions other than the sources addressed above. One objective of the proposed project is to control algal growth and associated odors at Silver Lake and Ivanhoe Reservoirs by installing an aeration and recirculation system to properly mix and destratify the water body and ensure full water transfer between both basins. As such, operation of the proposed project would result in a beneficial impact related to odors and would have no potential to generate new, adverse odors. In addition, land uses and industrial operations that are associated with odor complaints include agricultural uses, wastewater treatment plants, food processing plants, chemical plants, composting, refineries, landfills, dairies and fiberglass molding.[1] The proposed project would not include any of these uses. Therefore, the proposed project would result in a less-than-significant impact related to operational odors or other emissions that may have the potential to cause a public nuisance.

Mitigation Measures

No mitigation measures are required.

[1]SCAQMD, *CEQA Air Quality Handbook*, 1993.

References

California Air Pollution Control Officers Association, *California Emissions Estimator Model (CalEEMod v2016.3.2) User's Guide*, November 2017.

California Air Resources Board, *Ambient Air Quality Standards*, May 2016.

South Coast Air Quality Management District, *CEQA Air Quality Handbook*, 1993.

South Coast Air Quality Management District, *Fact Sheet for Applying CalEEMod to Localized Significance Thresholds*, 2013.

South Coast Air Quality Management District, *Final Localized Significance Threshold Methodology Appendix C Mass Rate Lookup Tables*, updated October 21, 2009.

South Coast Air Quality Management District, *SCAQMD Air Quality Significance Thresholds*, March 2015.

Southern California Association of Governments, *2016–2040 Regional Transportation Plan/Sustainable Communities Strategy*, April 2016.

United States Environmental Protection Agency, *The Green Book Nonattainment Areas for Criteria Pollutants*, https://www.epa.gov/green-book, January 2020.

Phase 1 Silver Lake and Ivanhoe Reservoirs Aeration and Recirculation System

Los Angeles-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	5.00	1000sqft	0.11	5,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	12			**Operational Year**	2021
Utility Company	Los Angeles Department of Water & Power				
CO2 Intensity (lb/MWhr)	1227.89	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Phase 1 Silver Lake and Ivanhoe Reservoirs Aeration and Recirculation System - Los Angeles-South Coast County, Winter

Project Characteristics -

Land Use -

Construction Phase - From PD

Off-road Equipment - From PD. Other Construction Equipment is "barge".

Off-road Equipment - From PD

Off-road Equipment - From PD

Trips and VMT - From PD

Demolition - 28 cubic yards of concrete demolished

Grading - From PD

Vehicle Trips - 3 trips/week; 156 annual trips

Energy Use - Project produces 82.2 MWh annually

Construction Off-road Equipment Mitigation - SCAQMD Rule 403

Mobile Land Use Mitigation -

Energy Mitigation -

Water And Wastewater - No water use on site

Solid Waste - No waste generated on site

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	100.00	225.00
tblConstructionPhase	NumDays	1.00	60.00
tblEnergyUse	T24E	2.25	7.60
tblGrading	AcresOfGrading	30.00	0.50
tblGrading	MaterialExported	0.00	1,045.00
tblGrading	MaterialImported	0.00	1,102.00
tblOffRoadEquipment	HorsePower	187.00	84.00
tblOffRoadEquipment	HorsePower	84.00	81.00

tblOffRoadEquipment	HorsePower	46.00	97.00
tblOffRoadEquipment	LoadFactor	0.41	0.74
tblOffRoadEquipment	LoadFactor	0.74	0.73
tblOffRoadEquipment	LoadFactor	0.45	0.37
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblSolidWaste	SolidWasteGenerationRate	6.20	0.00
tblTripsAndVMT	HaulingTripLength	20.00	12.40
tblTripsAndVMT	HaulingTripLength	20.00	12.40
tblTripsAndVMT	HaulingTripLength	20.00	12.40
tblTripsAndVMT	HaulingTripNumber	4.00	44.00
tblTripsAndVMT	HaulingTripNumber	268.00	0.00
tblTripsAndVMT	VendorTripNumber	0.00	3.00
tblTripsAndVMT	VendorTripNumber	1.00	0.00
tblTripsAndVMT	WorkerTripNumber	10.00	40.00
tblTripsAndVMT	WorkerTripNumber	8.00	40.00
tblTripsAndVMT	WorkerTripNumber	2.00	58.00
tblVehicleTrips	ST_TR	1.32	0.00
tblVehicleTrips	SU_TR	0.68	0.00
tblVehicleTrips	WD_TR	6.97	0.08
tblWater	ElectricityIntensityFactorForWastewaterTreatment	1,911.00	0.00
tblWater	ElectricityIntensityFactorToDistribute	1,272.00	0.00
tblWater	ElectricityIntensityFactorToSupply	9,727.00	0.00
tblWater	ElectricityIntensityFactorToTreat	111.00	0.00
tblWater	IndoorWaterUseRate	1,156,250.00	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2020	1.8942	14.5170	12.6823	0.0226	0.5787	1.0165	1.4957	0.1444	0.9510	1.0766	0.0000	2,203.5561	2,203.5561	0.3181	0.0000	2,208.8275
2021	1.7326	13.5963	14.8443	0.0265	0.6483	0.9084	1.3876	0.1719	0.8492	0.9749	0.0000	2,572.3510	2,572.3510	0.5562	0.0000	2,586.2558
Maximum	**1.8942**	**14.5170**	**14.8443**	**0.0265**	**0.6483**	**1.0165**	**1.4957**	**0.1719**	**0.9510**	**1.0766**	**0.0000**	**2,572.3510**	**2,572.3510**	**0.5562**	**0.0000**	**2,586.2558**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2020	1.8942	14.5170	12.6823	0.0226	0.5276	1.0165	1.4879	0.1366	0.9510	1.0757	0.0000	2,203.5561	2,203.5561	0.3181	0.0000	2,208.8275
2021	1.7326	13.5963	14.8443	0.0265	0.6483	0.9084	1.3839	0.1719	0.8492	0.9739	0.0000	2,572.3510	2,572.3510	0.5562	0.0000	2,586.2558
Maximum	**1.8942**	**14.5170**	**14.8443**	**0.0265**	**0.6483**	**1.0165**	**1.4879**	**0.1719**	**0.9510**	**1.0757**	**0.0000**	**2,572.3510**	**2,572.3510**	**0.5562**	**0.0000**	**2,586.2558**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**4.17**	**0.00**	**0.40**	**2.45**	**0.00**	**0.09**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.1118	0.0000	5.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.0900e-003	1.0900e-003	0.0000		1.1700e-003
Energy	2.6700e-003	0.0243	0.0204	1.5000e-004		1.8500e-003	1.8500e-003		1.8500e-003	1.8500e-003		29.1700	29.1700	5.6000e-004	5.3000e-004	29.3434
Mobile	8.6000e-004	4.4400e-003	0.0126	4.0000e-005	3.7700e-003	4.0000e-005	3.8100e-003	1.0100e-003	4.0000e-005	1.0400e-003		4.5543	4.5543	2.4000e-004		4.5603
Total	**0.1153**	**0.0288**	**0.0335**	**1.9000e-004**	**3.7700e-003**	**1.8900e-003**	**5.6600e-003**	**1.0100e-003**	**1.8900e-003**	**2.8900e-003**		**33.7254**	**33.7254**	**8.0000e-004**	**5.3000e-004**	**33.9049**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.1118	0.0000	5.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.0900e-003	1.0900e-003	0.0000		1.1700e-003
Energy	2.6700e-003	0.0243	0.0204	1.5000e-004		1.8500e-003	1.8500e-003		1.8500e-003	1.8500e-003		29.1700	29.1700	5.6000e-004	5.3000e-004	29.3434
Mobile	8.6000e-004	4.4400e-003	0.0126	4.0000e-005	3.7700e-003	4.0000e-005	3.8100e-003	1.0100e-003	4.0000e-005	1.0400e-003		4.5543	4.5543	2.4000e-004		4.5603
Total	**0.1153**	**0.0288**	**0.0335**	**1.9000e-004**	**3.7700e-003**	**1.8900e-003**	**5.6600e-003**	**1.0100e-003**	**1.8900e-003**	**2.8900e-003**		**33.7254**	**33.7254**	**8.0000e-004**	**5.3000e-004**	**33.9049**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	11/2/2020	11/13/2020	5	10	
2	Site Preparation	Site Preparation	11/16/2020	2/5/2021	5	60	
3	Building Construction	Building Construction	2/8/2021	12/17/2021	5	225	

Acres of Grading (Site Preparation Phase): 0.5

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase 1 Silver Lake and Ivanhoe Reservoirs Aeration and Recirculation System - Los Angeles-South Coast County, Winter

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Generator Sets	1	8.00	81	0.73
Demolition	Rubber Tired Dozers	1	1.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Site Preparation	Generator Sets	1	8.00	84	0.74
Site Preparation	Graders	1	8.00	84	0.74
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Building Construction	Cranes	1	4.00	231	0.29
Building Construction	Forklifts	1	6.00	89	0.20
Building Construction	Other Construction Equipment	1	8.00	172	0.42
Building Construction	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Welders	1	8.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	4	40.00	0.00	44.00	14.70	6.90	12.40	LD_Mix	HDT_Mix	HHDT
Site Preparation	3	40.00	3.00	0.00	14.70	6.90	12.40	LD_Mix	HDT_Mix	HHDT
Building Construction	6	58.00	0.00	0.00	14.70	6.90	12.40	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Demolition - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0839	0.0000	0.0839	0.0127	0.0000	0.0127			0.0000			0.0000
Off-Road	1.0899	9.6030	9.4377	0.0159		0.5540	0.5540		0.5405	0.5405		1,514.3235	1,514.3235	0.1773		1,518.7565
Total	**1.0899**	**9.6030**	**9.4377**	**0.0159**	**0.0839**	**0.5540**	**0.6379**	**0.0127**	**0.5405**	**0.5532**		**1,514.3235**	**1,514.3235**	**0.1773**		**1,518.7565**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0276	0.9491	0.2121	2.2700e-003	0.0477	2.6400e-003	0.0504	0.0131	2.5200e-003	0.0156		246.2645	246.2645	0.0196		246.7538
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2044	0.1450	1.6040	4.4500e-003	0.4471	3.7400e-003	0.4508	0.1186	3.4400e-003	0.1220		442.9682	442.9682	0.0140		443.3172
Total	**0.2320**	**1.0941**	**1.8161**	**6.7200e-003**	**0.4948**	**6.3800e-003**	**0.5012**	**0.1317**	**5.9600e-003**	**0.1376**		**689.2326**	**689.2326**	**0.0335**		**690.0710**

3.2 Demolition - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0327	0.0000	0.0327	4.9500e-003	0.0000	4.9500e-003			0.0000			0.0000
Off-Road	1.0899	9.6030	9.4377	0.0159		0.5540	0.5540		0.5405	0.5405	0.0000	1,514.3235	1,514.3235	0.1773		1,518.7565
Total	**1.0899**	**9.6030**	**9.4377**	**0.0159**	**0.0327**	**0.5540**	**0.5867**	**4.9500e-003**	**0.5405**	**0.5455**	**0.0000**	**1,514.3235**	**1,514.3235**	**0.1773**		**1,518.7565**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0276	0.9491	0.2121	2.2700e-003	0.0477	2.6400e-003	0.0504	0.0131	2.5200e-003	0.0156		246.2645	246.2645	0.0196		246.7538
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2044	0.1450	1.6040	4.4500e-003	0.4471	3.7400e-003	0.4508	0.1186	3.4400e-003	0.1220		442.9682	442.9682	0.0140		443.3172
Total	**0.2320**	**1.0941**	**1.8161**	**6.7200e-003**	**0.4948**	**6.3800e-003**	**0.5012**	**0.1317**	**5.9600e-003**	**0.1376**		**689.2326**	**689.2326**	**0.0335**		**690.0710**

3.3 Site Preparation - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0129	0.0000	0.0129	1.5700e-003	0.0000	1.5700e-003			0.0000			0.0000
Off-Road	1.6786	14.0529	10.9860	0.0150		1.0113	1.0113		0.9461	0.9461		1,438.3443	1,438.3443	0.2988		1,445.8135
Total	**1.6786**	**14.0529**	**10.9860**	**0.0150**	**0.0129**	**1.0113**	**1.0241**	**1.5700e-003**	**0.9461**	**0.9476**		**1,438.3443**	**1,438.3443**	**0.2988**		**1,445.8135**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0112	0.3191	0.0922	7.6000e-004	0.0192	1.5300e-003	0.0207	5.5300e-003	1.4600e-003	6.9900e-003		80.8347	80.8347	5.4100e-003		80.9699
Worker	0.2044	0.1450	1.6040	4.4500e-003	0.4471	3.7400e-003	0.4508	0.1186	3.4400e-003	0.1220		442.9682	442.9682	0.0140		443.3172
Total	**0.2156**	**0.4640**	**1.6963**	**5.2100e-003**	**0.4663**	**5.2700e-003**	**0.4716**	**0.1241**	**4.9000e-003**	**0.1290**		**523.8029**	**523.8029**	**0.0194**		**524.2871**

3.3 Site Preparation - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					5.0200e-003	0.0000	5.0200e-003	6.1000e-004	0.0000	6.1000e-004			0.0000			0.0000
Off-Road	1.6786	14.0529	10.9860	0.0150		1.0113	1.0113		0.9461	0.9461	0.0000	1,438.3443	1,438.3443	0.2988		1,445.8135
Total	**1.6786**	**14.0529**	**10.9860**	**0.0150**	**5.0200e-003**	**1.0113**	**1.0163**	**6.1000e-004**	**0.9461**	**0.9467**	**0.0000**	**1,438.3443**	**1,438.3443**	**0.2988**		**1,445.8135**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0112	0.3191	0.0922	7.6000e-004	0.0192	1.5300e-003	0.0207	5.5300e-003	1.4600e-003	6.9900e-003		80.8347	80.8347	5.4100e-003		80.9699
Worker	0.2044	0.1450	1.6040	4.4500e-003	0.4471	3.7400e-003	0.4508	0.1186	3.4400e-003	0.1220		442.9682	442.9682	0.0140		443.3172
Total	**0.2156**	**0.4640**	**1.6963**	**5.2100e-003**	**0.4663**	**5.2700e-003**	**0.4716**	**0.1241**	**4.9000e-003**	**0.1290**		**523.8029**	**523.8029**	**0.0194**		**524.2871**

3.3 Site Preparation - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0129	0.0000	0.0129	1.5700e-003	0.0000	1.5700e-003			0.0000			0.0000
Off-Road	1.5323	12.8736	10.8255	0.0150		0.9042	0.9042		0.8453	0.8453		1,438.1831	1,438.1831	0.2954		1,445.5688
Total	**1.5323**	**12.8736**	**10.8255**	**0.0150**	**0.0129**	**0.9042**	**0.9171**	**1.5700e-003**	**0.8453**	**0.8469**		**1,438.1831**	**1,438.1831**	**0.2954**		**1,445.5688**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	9.5700e-003	0.2907	0.0842	7.5000e-004	0.0192	6.1000e-004	0.0198	5.5300e-003	5.9000e-004	6.1200e-003		80.2037	80.2037	5.1800e-003		80.3331
Worker	0.1907	0.1305	1.4730	4.3000e-003	0.4471	3.6100e-003	0.4507	0.1186	3.3300e-003	0.1219		428.9004	428.9004	0.0126		429.2160
Total	**0.2003**	**0.4211**	**1.5573**	**5.0500e-003**	**0.4663**	**4.2200e-003**	**0.4705**	**0.1241**	**3.9200e-003**	**0.1280**		**509.1041**	**509.1041**	**0.0178**		**509.5491**

3.3 Site Preparation - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					5.0200e-003	0.0000	5.0200e-003	6.1000e-004	0.0000	6.1000e-004			0.0000			0.0000
Off-Road	1.5323	12.8736	10.8255	0.0150		0.9042	0.9042		0.8453	0.8453	0.0000	1,438.1831	1,438.1831	0.2954		1,445.5688
Total	**1.5323**	**12.8736**	**10.8255**	**0.0150**	**5.0200e-003**	**0.9042**	**0.9092**	**6.1000e-004**	**0.8453**	**0.8459**	**0.0000**	**1,438.1831**	**1,438.1831**	**0.2954**		**1,445.5688**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	9.5700e-003	0.2907	0.0842	7.5000e-004	0.0192	6.1000e-004	0.0198	5.5300e-003	5.9000e-004	6.1200e-003		80.2037	80.2037	5.1800e-003		80.3331
Worker	0.1907	0.1305	1.4730	4.3000e-003	0.4471	3.6100e-003	0.4507	0.1186	3.3300e-003	0.1219		428.9004	428.9004	0.0126		429.2160
Total	**0.2003**	**0.4211**	**1.5573**	**5.0500e-003**	**0.4663**	**4.2200e-003**	**0.4705**	**0.1241**	**3.9200e-003**	**0.1280**		**509.1041**	**509.1041**	**0.0178**		**509.5491**

3.4 Building Construction - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3580	13.4071	12.7084	0.0202		0.7303	0.7303		0.6812	0.6812		1,950.4454	1,950.4454	0.5379		1,963.8927
Total	**1.3580**	**13.4071**	**12.7084**	**0.0202**		**0.7303**	**0.7303**		**0.6812**	**0.6812**		**1,950.4454**	**1,950.4454**	**0.5379**		**1,963.8927**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2766	0.1892	2.1359	6.2400e-003	0.6483	5.2400e-003	0.6535	0.1719	4.8300e-003	0.1768		621.9056	621.9056	0.0183		622.3631
Total	**0.2766**	**0.1892**	**2.1359**	**6.2400e-003**	**0.6483**	**5.2400e-003**	**0.6535**	**0.1719**	**4.8300e-003**	**0.1768**		**621.9056**	**621.9056**	**0.0183**		**622.3631**

3.4 Building Construction - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3580	13.4071	12.7084	0.0202		0.7303	0.7303		0.6812	0.6812	0.0000	1,950.4454	1,950.4454	0.5379		1,963.8927
Total	**1.3580**	**13.4071**	**12.7084**	**0.0202**		**0.7303**	**0.7303**		**0.6812**	**0.6812**	**0.0000**	**1,950.4454**	**1,950.4454**	**0.5379**		**1,963.8927**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2766	0.1892	2.1359	6.2400e-003	0.6483	5.2400e-003	0.6535	0.1719	4.8300e-003	0.1768		621.9056	621.9056	0.0183		622.3631
Total	**0.2766**	**0.1892**	**2.1359**	**6.2400e-003**	**0.6483**	**5.2400e-003**	**0.6535**	**0.1719**	**4.8300e-003**	**0.1768**		**621.9056**	**621.9056**	**0.0183**		**622.3631**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	8.6000e-004	4.4400e-003	0.0126	4.0000e-005	3.7700e-003	4.0000e-005	3.8100e-003	1.0100e-003	4.0000e-005	1.0400e-003		4.5543	4.5543	2.4000e-004		4.5603
Unmitigated	8.6000e-004	4.4400e-003	0.0126	4.0000e-005	3.7700e-003	4.0000e-005	3.8100e-003	1.0100e-003	4.0000e-005	1.0400e-003		4.5543	4.5543	2.4000e-004		4.5603

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	0.40	0.00	0.00	1,265	1,265
Total	0.40	0.00	0.00	1,265	1,265

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Light Industry	16.60	8.40	6.90	59.00	28.00	13.00	92	5	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Light Industry	0.547192	0.045177	0.202743	0.121510	0.016147	0.006143	0.019743	0.029945	0.002479	0.002270	0.005078	0.000682	0.000891

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	2.6700e-003	0.0243	0.0204	1.5000e-004		1.8500e-003	1.8500e-003		1.8500e-003	1.8500e-003		29.1700	29.1700	5.6000e-004	5.3000e-004	29.3434
NaturalGas Unmitigated	2.6700e-003	0.0243	0.0204	1.5000e-004		1.8500e-003	1.8500e-003		1.8500e-003	1.8500e-003		29.1700	29.1700	5.6000e-004	5.3000e-004	29.3434

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Light Industry	247.945	2.6700e-003	0.0243	0.0204	1.5000e-004		1.8500e-003	1.8500e-003		1.8500e-003	1.8500e-003		29.1700	29.1700	5.6000e-004	5.3000e-004	29.3434
Total		**2.6700e-003**	**0.0243**	**0.0204**	**1.5000e-004**		**1.8500e-003**	**1.8500e-003**		**1.8500e-003**	**1.8500e-003**		**29.1700**	**29.1700**	**5.6000e-004**	**5.3000e-004**	**29.3434**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Light Industry	0.247945	2.6700e-003	0.0243	0.0204	1.5000e-004		1.8500e-003	1.8500e-003		1.8500e-003	1.8500e-003		29.1700	29.1700	5.6000e-004	5.3000e-004	29.3434
Total		**2.6700e-003**	**0.0243**	**0.0204**	**1.5000e-004**		**1.8500e-003**	**1.8500e-003**		**1.8500e-003**	**1.8500e-003**		**29.1700**	**29.1700**	**5.6000e-004**	**5.3000e-004**	**29.3434**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.1118	0.0000	5.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.0900e-003	1.0900e-003	0.0000		1.1700e-003
Unmitigated	0.1118	0.0000	5.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.0900e-003	1.0900e-003	0.0000		1.1700e-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	lb/day										lb/day					
Architectural Coating	0.0127					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0990					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	5.0000e-005	0.0000	5.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.0900e-003	1.0900e-003	0.0000		1.1700e-003
Total	**0.1118**	**0.0000**	**5.1000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**1.0900e-003**	**1.0900e-003**	**0.0000**		**1.1700e-003**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0127					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0990					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	5.0000e-005	0.0000	5.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.0900e-003	1.0900e-003	0.0000		1.1700e-003
Total	**0.1118**	**0.0000**	**5.1000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**1.0900e-003**	**1.0900e-003**	**0.0000**		**1.1700e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Phase 2 Silver Lake and Ivanhoe Reservoirs Aeration and Recirculation System

Los Angeles-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	5.00	1000sqft	0.11	5,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	12			**Operational Year**	2023
Utility Company	Los Angeles Department of Water & Power				
CO2 Intensity (lb/MWhr)	1227.89	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Phase 2 Silver Lake and Ivanhoe Reservoirs Aeration and Recirculation System - Los Angeles-South Coast County, Winter

Project Characteristics -

Land Use -

Construction Phase - From PD

Off-road Equipment - From PD. Other Construction Equipment is "barge".

Off-road Equipment - From PD

Off-road Equipment - From PD

Trips and VMT - From PD

Demolition - 27 cubic yards of concrete demolished

Grading - From PD

Vehicle Trips - 3 trips/week; 156 annual trips

Energy Use - Project produces 82.2 MWh annually

Construction Off-road Equipment Mitigation - SCAQMD Rule 403

Mobile Land Use Mitigation -

Energy Mitigation -

Water And Wastewater - No water usage on site

Solid Waste - No solid waste generated on site

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblEnergyUse	T24E	2.25	7.60
tblFleetMix	HHD	0.03	0.03
tblFleetMix	LDA	0.55	0.55
tblFleetMix	LDT1	0.04	0.05
tblFleetMix	LDT2	0.21	0.20
tblFleetMix	LHD1	0.02	0.02
tblFleetMix	LHD2	6.2270e-003	6.1430e-003
tblFleetMix	MCY	5.1840e-003	5.0780e-003

tblFleetMix	MDV	0.12	0.12
tblFleetMix	MH	8.6200e-004	8.9100e-004
tblFleetMix	MHD	0.02	0.02
tblFleetMix	OBUS	2.5460e-003	2.4790e-003
tblFleetMix	SBUS	6.9200e-004	6.8200e-004
tblFleetMix	UBUS	2.1330e-003	2.2700e-003
tblGrading	AcresOfGrading	35.00	0.50
tblGrading	MaterialExported	0.00	64.00
tblGrading	MaterialImported	0.00	167.00
tblOffRoadEquipment	HorsePower	187.00	84.00
tblOffRoadEquipment	HorsePower	84.00	81.00
tblOffRoadEquipment	HorsePower	46.00	97.00
tblOffRoadEquipment	LoadFactor	0.41	0.74
tblOffRoadEquipment	LoadFactor	0.74	0.73
tblOffRoadEquipment	LoadFactor	0.45	0.37
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblSolidWaste	SolidWasteGenerationRate	6.20	0.00
tblTripsAndVMT	HaulingTripLength	20.00	12.40
tblTripsAndVMT	HaulingTripLength	20.00	12.40
tblTripsAndVMT	HaulingTripLength	20.00	12.40
tblTripsAndVMT	HaulingTripNumber	4.00	14.00
tblTripsAndVMT	HaulingTripNumber	29.00	0.00
tblTripsAndVMT	VendorTripNumber	0.00	1.00
tblTripsAndVMT	VendorTripNumber	1.00	0.00
tblTripsAndVMT	WorkerTripNumber	10.00	30.00
tblTripsAndVMT	WorkerTripNumber	8.00	30.00

tblTripsAndVMT	WorkerTripNumber	2.00	44.00
tblVehicleEF	HHD	0.48	0.65
tblVehicleEF	HHD	0.09	0.09
tblVehicleEF	HHD	0.07	0.09
tblVehicleEF	HHD	1.63	2.61
tblVehicleEF	HHD	1.06	1.16
tblVehicleEF	HHD	3.33	3.36
tblVehicleEF	HHD	4,465.78	4,729.35
tblVehicleEF	HHD	1,572.96	1,660.44
tblVehicleEF	HHD	10.75	10.55
tblVehicleEF	HHD	14.30	21.63
tblVehicleEF	HHD	2.12	4.20
tblVehicleEF	HHD	19.50	19.57
tblVehicleEF	HHD	0.01	0.02
tblVehicleEF	HHD	0.06	0.06
tblVehicleEF	HHD	0.04	0.04
tblVehicleEF	HHD	6.2960e-003	0.02
tblVehicleEF	HHD	9.1000e-005	8.8000e-005
tblVehicleEF	HHD	9.6000e-003	0.02
tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	8.8400e-003	8.8360e-003
tblVehicleEF	HHD	6.0240e-003	0.02
tblVehicleEF	HHD	8.3000e-005	8.1000e-005
tblVehicleEF	HHD	1.0300e-004	1.1100e-004
tblVehicleEF	HHD	4.5010e-003	4.8720e-003
tblVehicleEF	HHD	0.41	0.65
tblVehicleEF	HHD	7.8000e-005	8.3000e-005

tblVehicleEF	HHD	0.09	0.15
tblVehicleEF	HHD	3.7200e-004	4.3200e-004
tblVehicleEF	HHD	0.08	0.09
tblVehicleEF	HHD	0.04	0.04
tblVehicleEF	HHD	0.01	0.02
tblVehicleEF	HHD	1.6200e-004	1.6100e-004
tblVehicleEF	HHD	1.0300e-004	1.1100e-004
tblVehicleEF	HHD	4.5010e-003	4.8720e-003
tblVehicleEF	HHD	0.49	0.76
tblVehicleEF	HHD	7.8000e-005	8.3000e-005
tblVehicleEF	HHD	0.20	0.26
tblVehicleEF	HHD	3.7200e-004	4.3200e-004
tblVehicleEF	HHD	0.08	0.10
tblVehicleEF	HHD	0.45	0.61
tblVehicleEF	HHD	0.09	0.09
tblVehicleEF	HHD	0.07	0.08
tblVehicleEF	HHD	1.19	1.90
tblVehicleEF	HHD	1.07	1.17
tblVehicleEF	HHD	3.16	3.19
tblVehicleEF	HHD	4,731.10	5,008.69
tblVehicleEF	HHD	1,572.96	1,660.44
tblVehicleEF	HHD	10.75	10.55
tblVehicleEF	HHD	14.76	22.32
tblVehicleEF	HHD	2.01	3.97
tblVehicleEF	HHD	19.49	19.56
tblVehicleEF	HHD	8.4600e-003	0.01
tblVehicleEF	HHD	0.06	0.06

tblVehicleEF	HHD	0.04	0.04
tblVehicleEF	HHD	6.2960e-003	0.02
tblVehicleEF	HHD	9.1000e-005	8.8000e-005
tblVehicleEF	HHD	8.0940e-003	0.01
tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	8.8400e-003	8.8360e-003
tblVehicleEF	HHD	6.0240e-003	0.02
tblVehicleEF	HHD	8.3000e-005	8.1000e-005
tblVehicleEF	HHD	1.5600e-004	1.7000e-004
tblVehicleEF	HHD	4.6140e-003	4.9980e-003
tblVehicleEF	HHD	0.39	0.61
tblVehicleEF	HHD	1.1200e-004	1.2100e-004
tblVehicleEF	HHD	0.09	0.15
tblVehicleEF	HHD	3.6000e-004	4.2100e-004
tblVehicleEF	HHD	0.07	0.08
tblVehicleEF	HHD	0.04	0.05
tblVehicleEF	HHD	0.01	0.02
tblVehicleEF	HHD	1.5900e-004	1.5800e-004
tblVehicleEF	HHD	1.5600e-004	1.7000e-004
tblVehicleEF	HHD	4.6140e-003	4.9980e-003
tblVehicleEF	HHD	0.46	0.72
tblVehicleEF	HHD	1.1200e-004	1.2100e-004
tblVehicleEF	HHD	0.20	0.26
tblVehicleEF	HHD	3.6000e-004	4.2100e-004
tblVehicleEF	HHD	0.08	0.09
tblVehicleEF	HHD	0.52	0.70
tblVehicleEF	HHD	0.09	0.09

tblVehicleEF	HHD	0.07	0.09
tblVehicleEF	HHD	2.25	3.58
tblVehicleEF	HHD	1.06	1.16
tblVehicleEF	HHD	3.36	3.39
tblVehicleEF	HHD	4,099.40	4,343.58
tblVehicleEF	HHD	1,572.96	1,660.44
tblVehicleEF	HHD	10.75	10.55
tblVehicleEF	HHD	13.67	20.67
tblVehicleEF	HHD	2.09	4.13
tblVehicleEF	HHD	19.50	19.57
tblVehicleEF	HHD	0.01	0.02
tblVehicleEF	HHD	0.06	0.06
tblVehicleEF	HHD	0.04	0.04
tblVehicleEF	HHD	6.2960e-003	0.02
tblVehicleEF	HHD	9.1000e-005	8.8000e-005
tblVehicleEF	HHD	0.01	0.02
tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	8.8400e-003	8.8360e-003
tblVehicleEF	HHD	6.0240e-003	0.02
tblVehicleEF	HHD	8.3000e-005	8.1000e-005
tblVehicleEF	HHD	1.0000e-004	1.1000e-004
tblVehicleEF	HHD	4.7840e-003	5.2380e-003
tblVehicleEF	HHD	0.45	0.70
tblVehicleEF	HHD	7.6000e-005	8.1000e-005
tblVehicleEF	HHD	0.09	0.15
tblVehicleEF	HHD	4.0500e-004	4.6800e-004
tblVehicleEF	HHD	0.08	0.09

tblVehicleEF	HHD	0.04	0.04
tblVehicleEF	HHD	0.01	0.02
tblVehicleEF	HHD	1.6300e-004	1.6100e-004
tblVehicleEF	HHD	1.0000e-004	1.1000e-004
tblVehicleEF	HHD	4.7840e-003	5.2380e-003
tblVehicleEF	HHD	0.53	0.82
tblVehicleEF	HHD	7.6000e-005	8.1000e-005
tblVehicleEF	HHD	0.20	0.26
tblVehicleEF	HHD	4.0500e-004	4.6800e-004
tblVehicleEF	HHD	0.08	0.10
tblVehicleEF	LDA	4.8310e-003	5.9160e-003
tblVehicleEF	LDA	4.7360e-003	6.1880e-003
tblVehicleEF	LDA	0.61	0.71
tblVehicleEF	LDA	1.04	1.27
tblVehicleEF	LDA	263.16	285.63
tblVehicleEF	LDA	54.94	59.19
tblVehicleEF	LDA	0.05	0.06
tblVehicleEF	LDA	0.06	0.08
tblVehicleEF	LDA	2.1170e-003	2.2290e-003
tblVehicleEF	LDA	2.2400e-003	2.3010e-003
tblVehicleEF	LDA	1.9520e-003	2.0560e-003
tblVehicleEF	LDA	2.0590e-003	2.1160e-003
tblVehicleEF	LDA	0.04	0.04
tblVehicleEF	LDA	0.10	0.11
tblVehicleEF	LDA	0.03	0.04
tblVehicleEF	LDA	0.01	0.01
tblVehicleEF	LDA	0.04	0.04

tblVehicleEF	LDA	0.06	0.08
tblVehicleEF	LDA	2.6360e-003	2.8620e-003
tblVehicleEF	LDA	5.6700e-004	6.1400e-004
tblVehicleEF	LDA	0.04	0.04
tblVehicleEF	LDA	0.10	0.11
tblVehicleEF	LDA	0.03	0.04
tblVehicleEF	LDA	0.02	0.02
tblVehicleEF	LDA	0.04	0.04
tblVehicleEF	LDA	0.07	0.09
tblVehicleEF	LDA	5.1340e-003	6.2800e-003
tblVehicleEF	LDA	4.2110e-003	5.4950e-003
tblVehicleEF	LDA	0.67	0.78
tblVehicleEF	LDA	0.89	1.09
tblVehicleEF	LDA	275.40	298.94
tblVehicleEF	LDA	54.94	59.19
tblVehicleEF	LDA	0.04	0.05
tblVehicleEF	LDA	0.06	0.07
tblVehicleEF	LDA	2.1170e-003	2.2290e-003
tblVehicleEF	LDA	2.2400e-003	2.3010e-003
tblVehicleEF	LDA	1.9520e-003	2.0560e-003
tblVehicleEF	LDA	2.0590e-003	2.1160e-003
tblVehicleEF	LDA	0.06	0.07
tblVehicleEF	LDA	0.10	0.11
tblVehicleEF	LDA	0.05	0.06
tblVehicleEF	LDA	0.01	0.02
tblVehicleEF	LDA	0.04	0.04
tblVehicleEF	LDA	0.06	0.07

tblVehicleEF	LDA	2.7590e-003	2.9960e-003
tblVehicleEF	LDA	5.6400e-004	6.1000e-004
tblVehicleEF	LDA	0.06	0.07
tblVehicleEF	LDA	0.10	0.11
tblVehicleEF	LDA	0.05	0.06
tblVehicleEF	LDA	0.02	0.02
tblVehicleEF	LDA	0.04	0.04
tblVehicleEF	LDA	0.06	0.08
tblVehicleEF	LDA	4.7330e-003	5.7950e-003
tblVehicleEF	LDA	4.8460e-003	6.3340e-003
tblVehicleEF	LDA	0.59	0.68
tblVehicleEF	LDA	1.08	1.31
tblVehicleEF	LDA	258.68	280.76
tblVehicleEF	LDA	54.94	59.19
tblVehicleEF	LDA	0.05	0.06
tblVehicleEF	LDA	0.06	0.08
tblVehicleEF	LDA	2.1170e-003	2.2290e-003
tblVehicleEF	LDA	2.2400e-003	2.3010e-003
tblVehicleEF	LDA	1.9520e-003	2.0560e-003
tblVehicleEF	LDA	2.0590e-003	2.1160e-003
tblVehicleEF	LDA	0.04	0.04
tblVehicleEF	LDA	0.10	0.12
tblVehicleEF	LDA	0.03	0.04
tblVehicleEF	LDA	0.01	0.01
tblVehicleEF	LDA	0.04	0.05
tblVehicleEF	LDA	0.07	0.09
tblVehicleEF	LDA	2.5910e-003	2.8130e-003

tblVehicleEF	LDA	5.6700e-004	6.1400e-004
tblVehicleEF	LDA	0.04	0.04
tblVehicleEF	LDA	0.10	0.12
tblVehicleEF	LDA	0.03	0.04
tblVehicleEF	LDA	0.02	0.02
tblVehicleEF	LDA	0.04	0.05
tblVehicleEF	LDA	0.07	0.09
tblVehicleEF	LDT1	0.01	0.02
tblVehicleEF	LDT1	0.01	0.02
tblVehicleEF	LDT1	1.52	1.84
tblVehicleEF	LDT1	2.49	3.09
tblVehicleEF	LDT1	330.49	351.43
tblVehicleEF	LDT1	67.47	71.32
tblVehicleEF	LDT1	0.14	0.17
tblVehicleEF	LDT1	0.14	0.18
tblVehicleEF	LDT1	3.3520e-003	3.7390e-003
tblVehicleEF	LDT1	3.2790e-003	3.5990e-003
tblVehicleEF	LDT1	3.0870e-003	3.4440e-003
tblVehicleEF	LDT1	3.0150e-003	3.3100e-003
tblVehicleEF	LDT1	0.12	0.14
tblVehicleEF	LDT1	0.25	0.28
tblVehicleEF	LDT1	0.10	0.11
tblVehicleEF	LDT1	0.03	0.04
tblVehicleEF	LDT1	0.16	0.18
tblVehicleEF	LDT1	0.17	0.21
tblVehicleEF	LDT1	3.3240e-003	3.5380e-003
tblVehicleEF	LDT1	7.1800e-004	7.6700e-004

tblVehicleEF	LDT1	0.12	0.14
tblVehicleEF	LDT1	0.25	0.28
tblVehicleEF	LDT1	0.10	0.11
tblVehicleEF	LDT1	0.05	0.06
tblVehicleEF	LDT1	0.16	0.18
tblVehicleEF	LDT1	0.18	0.24
tblVehicleEF	LDT1	0.01	0.02
tblVehicleEF	LDT1	0.01	0.01
tblVehicleEF	LDT1	1.65	1.99
tblVehicleEF	LDT1	2.11	2.62
tblVehicleEF	LDT1	344.92	366.73
tblVehicleEF	LDT1	67.47	71.32
tblVehicleEF	LDT1	0.12	0.15
tblVehicleEF	LDT1	0.13	0.16
tblVehicleEF	LDT1	3.3520e-003	3.7390e-003
tblVehicleEF	LDT1	3.2790e-003	3.5990e-003
tblVehicleEF	LDT1	3.0870e-003	3.4440e-003
tblVehicleEF	LDT1	3.0150e-003	3.3100e-003
tblVehicleEF	LDT1	0.19	0.21
tblVehicleEF	LDT1	0.26	0.30
tblVehicleEF	LDT1	0.14	0.16
tblVehicleEF	LDT1	0.04	0.05
tblVehicleEF	LDT1	0.15	0.17
tblVehicleEF	LDT1	0.15	0.19
tblVehicleEF	LDT1	3.4700e-003	3.6940e-003
tblVehicleEF	LDT1	7.1200e-004	7.5900e-004
tblVehicleEF	LDT1	0.19	0.21

tblVehicleEF	LDT1	0.26	0.30
tblVehicleEF	LDT1	0.14	0.16
tblVehicleEF	LDT1	0.05	0.07
tblVehicleEF	LDT1	0.15	0.17
tblVehicleEF	LDT1	0.16	0.21
tblVehicleEF	LDT1	0.01	0.02
tblVehicleEF	LDT1	0.01	0.02
tblVehicleEF	LDT1	1.47	1.79
tblVehicleEF	LDT1	2.57	3.19
tblVehicleEF	LDT1	325.20	345.81
tblVehicleEF	LDT1	67.47	71.32
tblVehicleEF	LDT1	0.14	0.17
tblVehicleEF	LDT1	0.15	0.18
tblVehicleEF	LDT1	3.3520e-003	3.7390e-003
tblVehicleEF	LDT1	3.2790e-003	3.5990e-003
tblVehicleEF	LDT1	3.0870e-003	3.4440e-003
tblVehicleEF	LDT1	3.0150e-003	3.3100e-003
tblVehicleEF	LDT1	0.12	0.14
tblVehicleEF	LDT1	0.28	0.32
tblVehicleEF	LDT1	0.10	0.11
tblVehicleEF	LDT1	0.03	0.04
tblVehicleEF	LDT1	0.19	0.21
tblVehicleEF	LDT1	0.17	0.22
tblVehicleEF	LDT1	3.2700e-003	3.4810e-003
tblVehicleEF	LDT1	7.1900e-004	7.6900e-004
tblVehicleEF	LDT1	0.12	0.14
tblVehicleEF	LDT1	0.28	0.32

tblVehicleEF	LDT1	0.10	0.11
tblVehicleEF	LDT1	0.05	0.06
tblVehicleEF	LDT1	0.19	0.21
tblVehicleEF	LDT1	0.19	0.24
tblVehicleEF	LDT2	6.6130e-003	7.8740e-003
tblVehicleEF	LDT2	5.6850e-003	7.2440e-003
tblVehicleEF	LDT2	0.79	0.90
tblVehicleEF	LDT2	1.23	1.49
tblVehicleEF	LDT2	368.32	395.42
tblVehicleEF	LDT2	75.43	80.68
tblVehicleEF	LDT2	0.07	0.09
tblVehicleEF	LDT2	0.09	0.12
tblVehicleEF	LDT2	2.1490e-003	2.1620e-003
tblVehicleEF	LDT2	2.3760e-003	2.3490e-003
tblVehicleEF	LDT2	1.9770e-003	1.9880e-003
tblVehicleEF	LDT2	2.1840e-003	2.1600e-003
tblVehicleEF	LDT2	0.04	0.05
tblVehicleEF	LDT2	0.09	0.11
tblVehicleEF	LDT2	0.04	0.05
tblVehicleEF	LDT2	0.02	0.02
tblVehicleEF	LDT2	0.06	0.06
tblVehicleEF	LDT2	0.08	0.10
tblVehicleEF	LDT2	3.6890e-003	3.9620e-003
tblVehicleEF	LDT2	7.7500e-004	8.3200e-004
tblVehicleEF	LDT2	0.04	0.05
tblVehicleEF	LDT2	0.09	0.11
tblVehicleEF	LDT2	0.04	0.05

tblVehicleEF	LDT2	0.02	0.03
tblVehicleEF	LDT2	0.06	0.06
tblVehicleEF	LDT2	0.08	0.11
tblVehicleEF	LDT2	7.0150e-003	8.3450e-003
tblVehicleEF	LDT2	5.0630e-003	6.4440e-003
tblVehicleEF	LDT2	0.87	0.99
tblVehicleEF	LDT2	1.06	1.27
tblVehicleEF	LDT2	384.82	413.17
tblVehicleEF	LDT2	75.43	80.68
tblVehicleEF	LDT2	0.06	0.08
tblVehicleEF	LDT2	0.09	0.11
tblVehicleEF	LDT2	2.1490e-003	2.1620e-003
tblVehicleEF	LDT2	2.3760e-003	2.3490e-003
tblVehicleEF	LDT2	1.9770e-003	1.9880e-003
tblVehicleEF	LDT2	2.1840e-003	2.1600e-003
tblVehicleEF	LDT2	0.07	0.07
tblVehicleEF	LDT2	0.10	0.11
tblVehicleEF	LDT2	0.06	0.07
tblVehicleEF	LDT2	0.02	0.02
tblVehicleEF	LDT2	0.06	0.06
tblVehicleEF	LDT2	0.07	0.09
tblVehicleEF	LDT2	3.8550e-003	4.1400e-003
tblVehicleEF	LDT2	7.7200e-004	8.2800e-004
tblVehicleEF	LDT2	0.07	0.07
tblVehicleEF	LDT2	0.10	0.11
tblVehicleEF	LDT2	0.06	0.07
tblVehicleEF	LDT2	0.03	0.03

tblVehicleEF	LDT2	0.06	0.06
tblVehicleEF	LDT2	0.07	0.10
tblVehicleEF	LDT2	6.4820e-003	7.7190e-003
tblVehicleEF	LDT2	5.8190e-003	7.4150e-003
tblVehicleEF	LDT2	0.76	0.87
tblVehicleEF	LDT2	1.27	1.54
tblVehicleEF	LDT2	362.26	388.90
tblVehicleEF	LDT2	75.43	80.68
tblVehicleEF	LDT2	0.07	0.09
tblVehicleEF	LDT2	0.09	0.12
tblVehicleEF	LDT2	2.1490e-003	2.1620e-003
tblVehicleEF	LDT2	2.3760e-003	2.3490e-003
tblVehicleEF	LDT2	1.9770e-003	1.9880e-003
tblVehicleEF	LDT2	2.1840e-003	2.1600e-003
tblVehicleEF	LDT2	0.04	0.05
tblVehicleEF	LDT2	0.10	0.12
tblVehicleEF	LDT2	0.04	0.04
tblVehicleEF	LDT2	0.02	0.02
tblVehicleEF	LDT2	0.07	0.07
tblVehicleEF	LDT2	0.08	0.10
tblVehicleEF	LDT2	3.6280e-003	3.8960e-003
tblVehicleEF	LDT2	7.7500e-004	8.3300e-004
tblVehicleEF	LDT2	0.04	0.05
tblVehicleEF	LDT2	0.10	0.12
tblVehicleEF	LDT2	0.04	0.04
tblVehicleEF	LDT2	0.02	0.03
tblVehicleEF	LDT2	0.07	0.07

tblVehicleEF	LDT2	0.09	0.11
tblVehicleEF	LHD1	5.2860e-003	6.0120e-003
tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	0.15	0.16
tblVehicleEF	LHD1	0.75	0.94
tblVehicleEF	LHD1	2.58	3.04
tblVehicleEF	LHD1	8.94	8.91
tblVehicleEF	LHD1	595.21	612.93
tblVehicleEF	LHD1	32.17	34.52
tblVehicleEF	LHD1	0.07	0.07
tblVehicleEF	LHD1	0.86	1.05
tblVehicleEF	LHD1	0.95	1.07
tblVehicleEF	LHD1	8.3300e-004	8.1600e-004
tblVehicleEF	LHD1	0.01	9.9780e-003
tblVehicleEF	LHD1	8.8370e-003	9.4020e-003
tblVehicleEF	LHD1	9.4800e-004	1.0850e-003
tblVehicleEF	LHD1	7.9700e-004	7.8100e-004
tblVehicleEF	LHD1	2.5350e-003	2.4950e-003
tblVehicleEF	LHD1	8.4300e-003	8.9670e-003
tblVehicleEF	LHD1	8.7200e-004	9.9800e-004
tblVehicleEF	LHD1	2.9730e-003	3.3130e-003
tblVehicleEF	LHD1	0.10	0.11
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	1.8290e-003	1.9910e-003
tblVehicleEF	LHD1	0.06	0.07
tblVehicleEF	LHD1	0.30	0.32

tblVehicleEF	LHD1	0.24	0.29
tblVehicleEF	LHD1	5.8400e-003	6.0260e-003
tblVehicleEF	LHD1	3.7000e-004	4.0200e-004
tblVehicleEF	LHD1	2.9730e-003	3.3130e-003
tblVehicleEF	LHD1	0.10	0.11
tblVehicleEF	LHD1	0.02	0.03
tblVehicleEF	LHD1	1.8290e-003	1.9910e-003
tblVehicleEF	LHD1	0.07	0.09
tblVehicleEF	LHD1	0.30	0.32
tblVehicleEF	LHD1	0.27	0.32
tblVehicleEF	LHD1	5.2860e-003	6.0120e-003
tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	0.15	0.16
tblVehicleEF	LHD1	0.76	0.96
tblVehicleEF	LHD1	2.46	2.90
tblVehicleEF	LHD1	8.94	8.91
tblVehicleEF	LHD1	595.21	612.93
tblVehicleEF	LHD1	32.17	34.52
tblVehicleEF	LHD1	0.07	0.07
tblVehicleEF	LHD1	0.81	0.98
tblVehicleEF	LHD1	0.91	1.03
tblVehicleEF	LHD1	8.3300e-004	8.1600e-004
tblVehicleEF	LHD1	0.01	9.9780e-003
tblVehicleEF	LHD1	8.8370e-003	9.4020e-003
tblVehicleEF	LHD1	9.4800e-004	1.0850e-003
tblVehicleEF	LHD1	7.9700e-004	7.8100e-004

tblVehicleEF	LHD1	2.5350e-003	2.4950e-003
tblVehicleEF	LHD1	8.4300e-003	8.9670e-003
tblVehicleEF	LHD1	8.7200e-004	9.9800e-004
tblVehicleEF	LHD1	4.4450e-003	4.9680e-003
tblVehicleEF	LHD1	0.10	0.11
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	2.5600e-003	2.8120e-003
tblVehicleEF	LHD1	0.06	0.07
tblVehicleEF	LHD1	0.29	0.31
tblVehicleEF	LHD1	0.23	0.28
tblVehicleEF	LHD1	5.8400e-003	6.0270e-003
tblVehicleEF	LHD1	3.6700e-004	3.9900e-004
tblVehicleEF	LHD1	4.4450e-003	4.9680e-003
tblVehicleEF	LHD1	0.10	0.11
tblVehicleEF	LHD1	0.02	0.03
tblVehicleEF	LHD1	2.5600e-003	2.8120e-003
tblVehicleEF	LHD1	0.08	0.09
tblVehicleEF	LHD1	0.29	0.31
tblVehicleEF	LHD1	0.26	0.31
tblVehicleEF	LHD1	5.2860e-003	6.0120e-003
tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	0.15	0.16
tblVehicleEF	LHD1	0.74	0.94
tblVehicleEF	LHD1	2.59	3.06
tblVehicleEF	LHD1	8.94	8.91
tblVehicleEF	LHD1	595.21	612.93

tblVehicleEF	LHD1	32.17	34.52
tblVehicleEF	LHD1	0.07	0.07
tblVehicleEF	LHD1	0.85	1.03
tblVehicleEF	LHD1	0.95	1.08
tblVehicleEF	LHD1	8.3300e-004	8.1600e-004
tblVehicleEF	LHD1	0.01	9.9780e-003
tblVehicleEF	LHD1	8.8370e-003	9.4020e-003
tblVehicleEF	LHD1	9.4800e-004	1.0850e-003
tblVehicleEF	LHD1	7.9700e-004	7.8100e-004
tblVehicleEF	LHD1	2.5350e-003	2.4950e-003
tblVehicleEF	LHD1	8.4300e-003	8.9670e-003
tblVehicleEF	LHD1	8.7200e-004	9.9800e-004
tblVehicleEF	LHD1	3.1110e-003	3.5020e-003
tblVehicleEF	LHD1	0.11	0.12
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	1.7990e-003	1.9650e-003
tblVehicleEF	LHD1	0.06	0.07
tblVehicleEF	LHD1	0.32	0.34
tblVehicleEF	LHD1	0.25	0.30
tblVehicleEF	LHD1	5.8400e-003	6.0260e-003
tblVehicleEF	LHD1	3.7000e-004	4.0200e-004
tblVehicleEF	LHD1	3.1110e-003	3.5020e-003
tblVehicleEF	LHD1	0.11	0.12
tblVehicleEF	LHD1	0.02	0.03
tblVehicleEF	LHD1	1.7990e-003	1.9650e-003
tblVehicleEF	LHD1	0.07	0.09
tblVehicleEF	LHD1	0.32	0.34

tblVehicleEF	LHD1	0.27	0.32
tblVehicleEF	LHD2	3.7460e-003	4.3410e-003
tblVehicleEF	LHD2	3.7700e-003	5.0230e-003
tblVehicleEF	LHD2	7.4580e-003	9.9030e-003
tblVehicleEF	LHD2	0.13	0.13
tblVehicleEF	LHD2	0.31	0.39
tblVehicleEF	LHD2	1.26	1.51
tblVehicleEF	LHD2	13.57	13.55
tblVehicleEF	LHD2	610.80	625.73
tblVehicleEF	LHD2	26.97	28.89
tblVehicleEF	LHD2	0.09	0.10
tblVehicleEF	LHD2	0.55	0.76
tblVehicleEF	LHD2	0.50	0.61
tblVehicleEF	LHD2	1.1440e-003	1.1760e-003
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	8.4330e-003	9.3050e-003
tblVehicleEF	LHD2	4.4100e-004	5.0600e-004
tblVehicleEF	LHD2	1.0950e-003	1.1250e-003
tblVehicleEF	LHD2	2.6630e-003	2.6430e-003
tblVehicleEF	LHD2	8.0540e-003	8.8870e-003
tblVehicleEF	LHD2	4.0500e-004	4.6500e-004
tblVehicleEF	LHD2	1.0290e-003	1.2670e-003
tblVehicleEF	LHD2	0.03	0.04
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	6.8900e-004	8.0900e-004
tblVehicleEF	LHD2	0.04	0.05
tblVehicleEF	LHD2	0.07	0.10

tblVehicleEF	LHD2	0.10	0.13
tblVehicleEF	LHD2	5.9490e-003	6.1010e-003
tblVehicleEF	LHD2	2.9200e-004	3.1600e-004
tblVehicleEF	LHD2	1.0290e-003	1.2670e-003
tblVehicleEF	LHD2	0.03	0.04
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	6.8900e-004	8.0900e-004
tblVehicleEF	LHD2	0.05	0.06
tblVehicleEF	LHD2	0.07	0.10
tblVehicleEF	LHD2	0.11	0.15
tblVehicleEF	LHD2	3.7460e-003	4.3410e-003
tblVehicleEF	LHD2	3.8180e-003	5.0980e-003
tblVehicleEF	LHD2	7.2080e-003	9.5540e-003
tblVehicleEF	LHD2	0.13	0.13
tblVehicleEF	LHD2	0.31	0.40
tblVehicleEF	LHD2	1.20	1.44
tblVehicleEF	LHD2	13.57	13.55
tblVehicleEF	LHD2	610.80	625.73
tblVehicleEF	LHD2	26.97	28.89
tblVehicleEF	LHD2	0.09	0.10
tblVehicleEF	LHD2	0.52	0.72
tblVehicleEF	LHD2	0.49	0.58
tblVehicleEF	LHD2	1.1440e-003	1.1760e-003
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	8.4330e-003	9.3050e-003
tblVehicleEF	LHD2	4.4100e-004	5.0600e-004
tblVehicleEF	LHD2	1.0950e-003	1.1250e-003

tblVehicleEF	LHD2	2.6630e-003	2.6430e-003
tblVehicleEF	LHD2	8.0540e-003	8.8870e-003
tblVehicleEF	LHD2	4.0500e-004	4.6500e-004
tblVehicleEF	LHD2	1.5320e-003	1.8880e-003
tblVehicleEF	LHD2	0.04	0.04
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	9.5700e-004	1.1340e-003
tblVehicleEF	LHD2	0.04	0.05
tblVehicleEF	LHD2	0.07	0.09
tblVehicleEF	LHD2	0.10	0.13
tblVehicleEF	LHD2	5.9490e-003	6.1010e-003
tblVehicleEF	LHD2	2.9100e-004	3.1500e-004
tblVehicleEF	LHD2	1.5320e-003	1.8880e-003
tblVehicleEF	LHD2	0.04	0.04
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	9.5700e-004	1.1340e-003
tblVehicleEF	LHD2	0.05	0.06
tblVehicleEF	LHD2	0.07	0.09
tblVehicleEF	LHD2	0.11	0.14
tblVehicleEF	LHD2	3.7460e-003	4.3410e-003
tblVehicleEF	LHD2	3.7580e-003	5.0030e-003
tblVehicleEF	LHD2	7.5080e-003	9.9730e-003
tblVehicleEF	LHD2	0.13	0.13
tblVehicleEF	LHD2	0.31	0.39
tblVehicleEF	LHD2	1.27	1.52
tblVehicleEF	LHD2	13.57	13.55
tblVehicleEF	LHD2	610.80	625.73

tblVehicleEF	LHD2	26.97	28.89
tblVehicleEF	LHD2	0.09	0.10
tblVehicleEF	LHD2	0.54	0.75
tblVehicleEF	LHD2	0.51	0.61
tblVehicleEF	LHD2	1.1440e-003	1.1760e-003
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	8.4330e-003	9.3050e-003
tblVehicleEF	LHD2	4.4100e-004	5.0600e-004
tblVehicleEF	LHD2	1.0950e-003	1.1250e-003
tblVehicleEF	LHD2	2.6630e-003	2.6430e-003
tblVehicleEF	LHD2	8.0540e-003	8.8870e-003
tblVehicleEF	LHD2	4.0500e-004	4.6500e-004
tblVehicleEF	LHD2	1.0410e-003	1.3050e-003
tblVehicleEF	LHD2	0.04	0.05
tblVehicleEF	LHD2	0.01	0.02
tblVehicleEF	LHD2	6.6600e-004	7.8800e-004
tblVehicleEF	LHD2	0.04	0.05
tblVehicleEF	LHD2	0.08	0.10
tblVehicleEF	LHD2	0.10	0.13
tblVehicleEF	LHD2	5.9490e-003	6.1010e-003
tblVehicleEF	LHD2	2.9200e-004	3.1700e-004
tblVehicleEF	LHD2	1.0410e-003	1.3050e-003
tblVehicleEF	LHD2	0.04	0.05
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	6.6600e-004	7.8800e-004
tblVehicleEF	LHD2	0.05	0.06
tblVehicleEF	LHD2	0.08	0.10

tblVehicleEF	LHD2	0.11	0.15
tblVehicleEF	MCY	0.54	0.53
tblVehicleEF	MCY	0.15	0.15
tblVehicleEF	MCY	18.72	19.20
tblVehicleEF	MCY	9.68	9.64
tblVehicleEF	MCY	189.29	188.47
tblVehicleEF	MCY	44.13	44.88
tblVehicleEF	MCY	1.13	1.13
tblVehicleEF	MCY	0.31	0.31
tblVehicleEF	MCY	2.4730e-003	2.3830e-003
tblVehicleEF	MCY	3.6800e-003	3.9570e-003
tblVehicleEF	MCY	2.3100e-003	2.2280e-003
tblVehicleEF	MCY	3.4590e-003	3.7290e-003
tblVehicleEF	MCY	1.06	1.07
tblVehicleEF	MCY	0.62	0.65
tblVehicleEF	MCY	0.64	0.65
tblVehicleEF	MCY	2.58	2.61
tblVehicleEF	MCY	0.58	0.62
tblVehicleEF	MCY	2.04	2.06
tblVehicleEF	MCY	6.5900e-004	6.6700e-004
tblVehicleEF	MCY	1.06	1.07
tblVehicleEF	MCY	0.62	0.65
tblVehicleEF	MCY	0.64	0.65
tblVehicleEF	MCY	3.22	3.25
tblVehicleEF	MCY	0.58	0.62
tblVehicleEF	MCY	2.22	2.24
tblVehicleEF	MCY	0.53	0.52

tblVehicleEF	MCY	0.13	0.13
tblVehicleEF	MCY	18.05	18.48
tblVehicleEF	MCY	8.84	8.82
tblVehicleEF	MCY	189.29	188.47
tblVehicleEF	MCY	44.13	44.88
tblVehicleEF	MCY	0.99	0.99
tblVehicleEF	MCY	0.29	0.29
tblVehicleEF	MCY	2.4730e-003	2.3830e-003
tblVehicleEF	MCY	3.6800e-003	3.9570e-003
tblVehicleEF	MCY	2.3100e-003	2.2280e-003
tblVehicleEF	MCY	3.4590e-003	3.7290e-003
tblVehicleEF	MCY	1.72	1.73
tblVehicleEF	MCY	0.68	0.71
tblVehicleEF	MCY	1.06	1.08
tblVehicleEF	MCY	2.52	2.55
tblVehicleEF	MCY	0.54	0.58
tblVehicleEF	MCY	1.82	1.84
tblVehicleEF	MCY	2.2650e-003	2.2640e-003
tblVehicleEF	MCY	6.3900e-004	6.4700e-004
tblVehicleEF	MCY	1.72	1.73
tblVehicleEF	MCY	0.68	0.71
tblVehicleEF	MCY	1.06	1.08
tblVehicleEF	MCY	3.15	3.17
tblVehicleEF	MCY	0.54	0.58
tblVehicleEF	MCY	1.98	2.00
tblVehicleEF	MCY	0.54	0.54
tblVehicleEF	MCY	0.15	0.15

tblVehicleEF	MCY	18.82	19.30
tblVehicleEF	MCY	9.83	9.78
tblVehicleEF	MCY	189.29	188.47
tblVehicleEF	MCY	44.13	44.88
tblVehicleEF	MCY	1.10	1.11
tblVehicleEF	MCY	0.31	0.31
tblVehicleEF	MCY	2.4730e-003	2.3830e-003
tblVehicleEF	MCY	3.6800e-003	3.9570e-003
tblVehicleEF	MCY	2.3100e-003	2.2280e-003
tblVehicleEF	MCY	3.4590e-003	3.7290e-003
tblVehicleEF	MCY	1.15	1.16
tblVehicleEF	MCY	0.80	0.84
tblVehicleEF	MCY	0.61	0.62
tblVehicleEF	MCY	2.59	2.62
tblVehicleEF	MCY	0.67	0.71
tblVehicleEF	MCY	2.08	2.10
tblVehicleEF	MCY	6.6300e-004	6.7100e-004
tblVehicleEF	MCY	1.15	1.16
tblVehicleEF	MCY	0.80	0.84
tblVehicleEF	MCY	0.61	0.62
tblVehicleEF	MCY	3.23	3.26
tblVehicleEF	MCY	0.67	0.71
tblVehicleEF	MCY	2.26	2.29
tblVehicleEF	MDV	0.01	0.02
tblVehicleEF	MDV	0.01	0.02
tblVehicleEF	MDV	1.21	1.56
tblVehicleEF	MDV	2.22	2.79

tblVehicleEF	MDV	495.22	528.65
tblVehicleEF	MDV	99.91	106.35
tblVehicleEF	MDV	0.13	0.17
tblVehicleEF	MDV	0.19	0.25
tblVehicleEF	MDV	2.2990e-003	2.4280e-003
tblVehicleEF	MDV	2.4650e-003	2.5830e-003
tblVehicleEF	MDV	2.1190e-003	2.2400e-003
tblVehicleEF	MDV	2.2660e-003	2.3780e-003
tblVehicleEF	MDV	0.06	0.07
tblVehicleEF	MDV	0.15	0.16
tblVehicleEF	MDV	0.07	0.07
tblVehicleEF	MDV	0.03	0.04
tblVehicleEF	MDV	0.09	0.09
tblVehicleEF	MDV	0.17	0.22
tblVehicleEF	MDV	4.9590e-003	5.2990e-003
tblVehicleEF	MDV	1.0380e-003	1.1130e-003
tblVehicleEF	MDV	0.06	0.07
tblVehicleEF	MDV	0.15	0.16
tblVehicleEF	MDV	0.07	0.07
tblVehicleEF	MDV	0.04	0.06
tblVehicleEF	MDV	0.09	0.09
tblVehicleEF	MDV	0.18	0.24
tblVehicleEF	MDV	0.01	0.02
tblVehicleEF	MDV	0.01	0.01
tblVehicleEF	MDV	1.32	1.69
tblVehicleEF	MDV	1.90	2.39
tblVehicleEF	MDV	516.89	551.85

tblVehicleEF	MDV	99.91	106.35
tblVehicleEF	MDV	0.11	0.15
tblVehicleEF	MDV	0.18	0.23
tblVehicleEF	MDV	2.2990e-003	2.4280e-003
tblVehicleEF	MDV	2.4650e-003	2.5830e-003
tblVehicleEF	MDV	2.1190e-003	2.2400e-003
tblVehicleEF	MDV	2.2660e-003	2.3780e-003
tblVehicleEF	MDV	0.10	0.11
tblVehicleEF	MDV	0.15	0.17
tblVehicleEF	MDV	0.09	0.10
tblVehicleEF	MDV	0.03	0.05
tblVehicleEF	MDV	0.08	0.08
tblVehicleEF	MDV	0.15	0.19
tblVehicleEF	MDV	5.1770e-003	5.5330e-003
tblVehicleEF	MDV	1.0320e-003	1.1050e-003
tblVehicleEF	MDV	0.10	0.11
tblVehicleEF	MDV	0.15	0.17
tblVehicleEF	MDV	0.09	0.10
tblVehicleEF	MDV	0.05	0.06
tblVehicleEF	MDV	0.08	0.08
tblVehicleEF	MDV	0.16	0.21
tblVehicleEF	MDV	0.01	0.01
tblVehicleEF	MDV	0.01	0.02
tblVehicleEF	MDV	1.17	1.52
tblVehicleEF	MDV	2.29	2.88
tblVehicleEF	MDV	487.26	520.14
tblVehicleEF	MDV	99.91	106.35

tblVehicleEF	MDV	0.13	0.17
tblVehicleEF	MDV	0.20	0.26
tblVehicleEF	MDV	2.2990e-003	2.4280e-003
tblVehicleEF	MDV	2.4650e-003	2.5830e-003
tblVehicleEF	MDV	2.1190e-003	2.2400e-003
tblVehicleEF	MDV	2.2660e-003	2.3780e-003
tblVehicleEF	MDV	0.06	0.07
tblVehicleEF	MDV	0.16	0.17
tblVehicleEF	MDV	0.06	0.07
tblVehicleEF	MDV	0.03	0.04
tblVehicleEF	MDV	0.10	0.11
tblVehicleEF	MDV	0.17	0.22
tblVehicleEF	MDV	4.8790e-003	5.2130e-003
tblVehicleEF	MDV	1.0390e-003	1.1140e-003
tblVehicleEF	MDV	0.06	0.07
tblVehicleEF	MDV	0.16	0.17
tblVehicleEF	MDV	0.06	0.07
tblVehicleEF	MDV	0.04	0.06
tblVehicleEF	MDV	0.10	0.11
tblVehicleEF	MDV	0.19	0.24
tblVehicleEF	MH	0.02	0.04
tblVehicleEF	MH	0.02	0.03
tblVehicleEF	MH	1.76	2.77
tblVehicleEF	MH	5.23	6.41
tblVehicleEF	MH	1,125.05	1,135.33
tblVehicleEF	MH	59.88	61.01
tblVehicleEF	MH	1.00	1.17

tblVehicleEF	MH	0.75	0.85
tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	0.02	0.02
tblVehicleEF	MH	1.0430e-003	1.2190e-003
tblVehicleEF	MH	3.2050e-003	3.1990e-003
tblVehicleEF	MH	0.02	0.02
tblVehicleEF	MH	9.5900e-004	1.1210e-003
tblVehicleEF	MH	0.84	1.07
tblVehicleEF	MH	0.06	0.08
tblVehicleEF	MH	0.36	0.45
tblVehicleEF	MH	0.07	0.10
tblVehicleEF	MH	0.02	0.02
tblVehicleEF	MH	0.30	0.36
tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	6.9000e-004	7.2200e-004
tblVehicleEF	MH	0.84	1.07
tblVehicleEF	MH	0.06	0.08
tblVehicleEF	MH	0.36	0.45
tblVehicleEF	MH	0.10	0.14
tblVehicleEF	MH	0.02	0.02
tblVehicleEF	MH	0.33	0.40
tblVehicleEF	MH	0.02	0.04
tblVehicleEF	MH	0.02	0.03
tblVehicleEF	MH	1.81	2.85
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tblVehicleEF	MH	1,125.05	1,135.33
tblVehicleEF	MH	59.88	61.01

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tblVehicleEF	MH	0.71	0.82
tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	0.02	0.02
tblVehicleEF	MH	1.0430e-003	1.2190e-003
tblVehicleEF	MH	3.2050e-003	3.1990e-003
tblVehicleEF	MH	0.02	0.02
tblVehicleEF	MH	9.5900e-004	1.1210e-003
tblVehicleEF	MH	1.24	1.58
tblVehicleEF	MH	0.06	0.08
tblVehicleEF	MH	0.51	0.65
tblVehicleEF	MH	0.07	0.11
tblVehicleEF	MH	0.02	0.02
tblVehicleEF	MH	0.29	0.35
tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	6.8400e-004	7.1500e-004
tblVehicleEF	MH	1.24	1.58
tblVehicleEF	MH	0.06	0.08
tblVehicleEF	MH	0.51	0.65
tblVehicleEF	MH	0.10	0.15
tblVehicleEF	MH	0.02	0.02
tblVehicleEF	MH	0.31	0.38
tblVehicleEF	MH	0.02	0.04
tblVehicleEF	MH	0.02	0.03
tblVehicleEF	MH	1.75	2.74
tblVehicleEF	MH	5.28	6.46
tblVehicleEF	MH	1,125.05	1,135.33

tblVehicleEF	MH	59.88	61.01
tblVehicleEF	MH	0.98	1.15
tblVehicleEF	MH	0.75	0.86
tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	0.02	0.02
tblVehicleEF	MH	1.0430e-003	1.2190e-003
tblVehicleEF	MH	3.2050e-003	3.1990e-003
tblVehicleEF	MH	0.02	0.02
tblVehicleEF	MH	9.5900e-004	1.1210e-003
tblVehicleEF	MH	0.95	1.21
tblVehicleEF	MH	0.07	0.09
tblVehicleEF	MH	0.37	0.46
tblVehicleEF	MH	0.07	0.10
tblVehicleEF	MH	0.02	0.02
tblVehicleEF	MH	0.30	0.37
tblVehicleEF	MH	0.01	0.01
tblVehicleEF	MH	6.9000e-004	7.2200e-004
tblVehicleEF	MH	0.95	1.21
tblVehicleEF	MH	0.07	0.09
tblVehicleEF	MH	0.37	0.46
tblVehicleEF	MH	0.10	0.14
tblVehicleEF	MH	0.02	0.02
tblVehicleEF	MH	0.33	0.40
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tblVehicleEF	MHD	3.8910e-003	5.7010e-003
tblVehicleEF	MHD	0.05	0.05
tblVehicleEF	MHD	0.36	0.39

tblVehicleEF	MHD	0.32	0.42
tblVehicleEF	MHD	5.63	6.85
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tblVehicleEF	MHD	9.98	9.82
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tblVehicleEF	MHD	2.8420e-003	5.6410e-003
tblVehicleEF	MHD	8.1400e-004	8.9100e-004
tblVehicleEF	MHD	9.7000e-005	2.7300e-004
tblVehicleEF	MHD	2.7140e-003	5.3920e-003
tblVehicleEF	MHD	7.4900e-004	8.1900e-004
tblVehicleEF	MHD	1.0540e-003	1.2390e-003
tblVehicleEF	MHD	0.04	0.05
tblVehicleEF	MHD	0.02	0.03
tblVehicleEF	MHD	7.0500e-004	7.9100e-004
tblVehicleEF	MHD	0.04	0.05
tblVehicleEF	MHD	0.02	0.02
tblVehicleEF	MHD	0.34	0.42
tblVehicleEF	MHD	1.2580e-003	1.2630e-003
tblVehicleEF	MHD	0.01	0.01
tblVehicleEF	MHD	7.2700e-004	7.7100e-004
tblVehicleEF	MHD	1.0540e-003	1.2390e-003
tblVehicleEF	MHD	0.04	0.05
tblVehicleEF	MHD	0.04	0.04

tblVehicleEF	MHD	7.0500e-004	7.9100e-004
tblVehicleEF	MHD	0.04	0.06
tblVehicleEF	MHD	0.02	0.02
tblVehicleEF	MHD	0.38	0.46
tblVehicleEF	MHD	0.01	0.02
tblVehicleEF	MHD	3.9490e-003	5.7940e-003
tblVehicleEF	MHD	0.04	0.05
tblVehicleEF	MHD	0.26	0.28
tblVehicleEF	MHD	0.32	0.43
tblVehicleEF	MHD	5.34	6.50
tblVehicleEF	MHD	138.27	138.77
tblVehicleEF	MHD	1,141.08	1,155.79
tblVehicleEF	MHD	62.84	65.08
tblVehicleEF	MHD	0.36	0.53
tblVehicleEF	MHD	0.71	1.16
tblVehicleEF	MHD	9.94	9.78
tblVehicleEF	MHD	8.6000e-005	2.4100e-004
tblVehicleEF	MHD	2.8420e-003	5.6410e-003
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tblVehicleEF	MHD	1.5770e-003	1.8580e-003
tblVehicleEF	MHD	0.05	0.05
tblVehicleEF	MHD	0.02	0.03
tblVehicleEF	MHD	9.9000e-004	1.1240e-003
tblVehicleEF	MHD	0.04	0.05

tblVehicleEF	MHD	0.02	0.02
tblVehicleEF	MHD	0.33	0.40
tblVehicleEF	MHD	1.3310e-003	1.3360e-003
tblVehicleEF	MHD	0.01	0.01
tblVehicleEF	MHD	7.2200e-004	7.6500e-004
tblVehicleEF	MHD	1.5770e-003	1.8580e-003
tblVehicleEF	MHD	0.05	0.05
tblVehicleEF	MHD	0.03	0.04
tblVehicleEF	MHD	9.9000e-004	1.1240e-003
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tblVehicleEF	MHD	0.02	0.02
tblVehicleEF	MHD	0.36	0.44
tblVehicleEF	MHD	0.02	0.02
tblVehicleEF	MHD	3.8750e-003	5.6760e-003
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tblVehicleEF	MHD	0.50	0.53
tblVehicleEF	MHD	0.32	0.42
tblVehicleEF	MHD	5.68	6.91
tblVehicleEF	MHD	119.87	120.30
tblVehicleEF	MHD	1,141.08	1,155.79
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tblVehicleEF	MHD	0.74	1.21
tblVehicleEF	MHD	9.99	9.83
tblVehicleEF	MHD	1.2400e-004	3.4800e-004
tblVehicleEF	MHD	2.8420e-003	5.6410e-003
tblVehicleEF	MHD	8.1400e-004	8.9100e-004

tblVehicleEF	MHD	1.1800e-004	3.3300e-004
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tblVehicleEF	MHD	7.4900e-004	8.1900e-004
tblVehicleEF	MHD	1.0750e-003	1.2900e-003
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tblVehicleEF	MHD	0.03	0.03
tblVehicleEF	MHD	6.8500e-004	7.7500e-004
tblVehicleEF	MHD	0.04	0.05
tblVehicleEF	MHD	0.02	0.03
tblVehicleEF	MHD	0.35	0.42
tblVehicleEF	MHD	1.1580e-003	1.1630e-003
tblVehicleEF	MHD	0.01	0.01
tblVehicleEF	MHD	7.2800e-004	7.7200e-004
tblVehicleEF	MHD	1.0750e-003	1.2900e-003
tblVehicleEF	MHD	0.05	0.05
tblVehicleEF	MHD	0.04	0.04
tblVehicleEF	MHD	6.8500e-004	7.7500e-004
tblVehicleEF	MHD	0.04	0.06
tblVehicleEF	MHD	0.02	0.03
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tblVehicleEF	OBUS	6.0280e-003	8.8720e-003
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tblVehicleEF	OBUS	0.25	0.29
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tblVehicleEF	OBUS	101.82	111.80

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tblVehicleEF	OBUS	2.52	2.63
tblVehicleEF	OBUS	2.0000e-005	2.0400e-004
tblVehicleEF	OBUS	2.6330e-003	8.7020e-003
tblVehicleEF	OBUS	8.2900e-004	7.8900e-004
tblVehicleEF	OBUS	1.9000e-005	1.9500e-004
tblVehicleEF	OBUS	2.5030e-003	8.3100e-003
tblVehicleEF	OBUS	7.6200e-004	7.2500e-004
tblVehicleEF	OBUS	1.4160e-003	1.4710e-003
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.03	0.04
tblVehicleEF	OBUS	7.6700e-004	7.7800e-004
tblVehicleEF	OBUS	0.04	0.07
tblVehicleEF	OBUS	0.04	0.04
tblVehicleEF	OBUS	0.32	0.36
tblVehicleEF	OBUS	9.8300e-004	1.0790e-003
tblVehicleEF	OBUS	0.01	0.01
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tblVehicleEF	OBUS	1.4160e-003	1.4710e-003
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.05	0.06
tblVehicleEF	OBUS	7.6700e-004	7.7800e-004
tblVehicleEF	OBUS	0.05	0.08
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tblVehicleEF	OBUS	6.1370e-003	9.0250e-003
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tblVehicleEF	OBUS	0.24	0.27
tblVehicleEF	OBUS	0.45	0.61
tblVehicleEF	OBUS	4.89	5.43
tblVehicleEF	OBUS	106.89	117.45
tblVehicleEF	OBUS	1,246.68	1,266.65
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tblVehicleEF	OBUS	0.22	0.60
tblVehicleEF	OBUS	0.64	1.63
tblVehicleEF	OBUS	2.49	2.59
tblVehicleEF	OBUS	1.7000e-005	1.7200e-004
tblVehicleEF	OBUS	2.6330e-003	8.7020e-003
tblVehicleEF	OBUS	8.2900e-004	7.8900e-004
tblVehicleEF	OBUS	1.6000e-005	1.6400e-004
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tblVehicleEF	OBUS	7.6200e-004	7.2500e-004
tblVehicleEF	OBUS	2.0710e-003	2.1550e-003
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	0.03	0.04
tblVehicleEF	OBUS	1.0770e-003	1.1010e-003
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tblVehicleEF	OBUS	2.6330e-003	8.7020e-003
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tblVehicleEF	OBUS	2.3000e-005	2.3700e-004
tblVehicleEF	OBUS	2.5030e-003	8.3100e-003
tblVehicleEF	OBUS	7.6200e-004	7.2500e-004

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tblVehicleEF	OBUS	0.03	0.04
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tblVehicleEF	OBUS	0.33	0.36
tblVehicleEF	OBUS	9.1700e-004	1.0040e-003
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tblVehicleEF	OBUS	7.7000e-004	7.8500e-004
tblVehicleEF	OBUS	1.4400e-003	1.5180e-003
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tblVehicleEF	OBUS	0.05	0.06
tblVehicleEF	OBUS	7.4400e-004	7.5800e-004
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tblVehicleEF	SBUS	0.06	0.07
tblVehicleEF	SBUS	8.28	8.04
tblVehicleEF	SBUS	0.67	0.79
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tblVehicleEF	SBUS	1,105.31	1,136.99
tblVehicleEF	SBUS	1,070.53	1,088.61
tblVehicleEF	SBUS	56.44	53.57
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tblVehicleEF	SBUS	7.7650e-003	0.01
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tblVehicleEF	SBUS	0.02	0.02
tblVehicleEF	SBUS	7.8400e-004	7.1700e-004
tblVehicleEF	SBUS	3.3720e-003	3.3870e-003
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tblVehicleEF	SBUS	0.99	0.97
tblVehicleEF	SBUS	1.8240e-003	1.7160e-003
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tblVehicleEF	SBUS	6.8420e-003	9.0250e-003
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	0.02	0.03
tblVehicleEF	SBUS	8.5300e-004	7.8000e-004
tblVehicleEF	SBUS	6.5460e-003	8.6350e-003
tblVehicleEF	SBUS	2.6580e-003	2.6770e-003
tblVehicleEF	SBUS	0.02	0.02
tblVehicleEF	SBUS	7.8400e-004	7.1700e-004
tblVehicleEF	SBUS	4.9610e-003	4.9940e-003
tblVehicleEF	SBUS	0.03	0.03
tblVehicleEF	SBUS	0.98	0.97
tblVehicleEF	SBUS	2.5750e-003	2.4540e-003
tblVehicleEF	SBUS	0.10	0.11
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	0.34	0.35

tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	6.6600e-004	6.4200e-004
tblVehicleEF	SBUS	4.9610e-003	4.9940e-003
tblVehicleEF	SBUS	0.03	0.03
tblVehicleEF	SBUS	1.42	1.39
tblVehicleEF	SBUS	2.5750e-003	2.4540e-003
tblVehicleEF	SBUS	0.12	0.13
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	0.37	0.38
tblVehicleEF	SBUS	0.84	0.86
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	0.06	0.07
tblVehicleEF	SBUS	8.43	8.21
tblVehicleEF	SBUS	0.66	0.78
tblVehicleEF	SBUS	7.40	7.78
tblVehicleEF	SBUS	1,037.46	1,065.38
tblVehicleEF	SBUS	1,070.53	1,088.61
tblVehicleEF	SBUS	56.44	53.57
tblVehicleEF	SBUS	8.13	9.47
tblVehicleEF	SBUS	3.74	4.47
tblVehicleEF	SBUS	11.85	12.43
tblVehicleEF	SBUS	9.8760e-003	0.01
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	0.02	0.03
tblVehicleEF	SBUS	8.5300e-004	7.8000e-004
tblVehicleEF	SBUS	9.4480e-003	0.01

tblVehicleEF	SBUS	2.6580e-003	2.6770e-003
tblVehicleEF	SBUS	0.02	0.02
tblVehicleEF	SBUS	7.8400e-004	7.1700e-004
tblVehicleEF	SBUS	3.3940e-003	3.5050e-003
tblVehicleEF	SBUS	0.03	0.03
tblVehicleEF	SBUS	0.99	0.97
tblVehicleEF	SBUS	1.7490e-003	1.6510e-003
tblVehicleEF	SBUS	0.10	0.11
tblVehicleEF	SBUS	0.02	0.02
tblVehicleEF	SBUS	0.39	0.40
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	6.9200e-004	6.7000e-004
tblVehicleEF	SBUS	3.3940e-003	3.5050e-003
tblVehicleEF	SBUS	0.03	0.03
tblVehicleEF	SBUS	1.43	1.40
tblVehicleEF	SBUS	1.7490e-003	1.6510e-003
tblVehicleEF	SBUS	0.12	0.13
tblVehicleEF	SBUS	0.02	0.02
tblVehicleEF	SBUS	0.42	0.44
tblVehicleEF	UBUS	2.44	2.78
tblVehicleEF	UBUS	0.05	0.05
tblVehicleEF	UBUS	10.68	11.79
tblVehicleEF	UBUS	8.84	8.90
tblVehicleEF	UBUS	1,951.45	1,987.48
tblVehicleEF	UBUS	100.38	92.58
tblVehicleEF	UBUS	9.33	10.68

tblVehicleEF	UBUS	15.09	15.66
tblVehicleEF	UBUS	0.60	0.62
tblVehicleEF	UBUS	0.12	0.14
tblVehicleEF	UBUS	1.1360e-003	1.0320e-003
tblVehicleEF	UBUS	0.26	0.27
tblVehicleEF	UBUS	0.12	0.13
tblVehicleEF	UBUS	1.0450e-003	9.4900e-004
tblVehicleEF	UBUS	4.1100e-003	4.1600e-003
tblVehicleEF	UBUS	0.07	0.07
tblVehicleEF	UBUS	2.4100e-003	2.3580e-003
tblVehicleEF	UBUS	0.79	0.90
tblVehicleEF	UBUS	0.02	0.02
tblVehicleEF	UBUS	0.68	0.67
tblVehicleEF	UBUS	9.8060e-003	9.9290e-003
tblVehicleEF	UBUS	1.1630e-003	1.0860e-003
tblVehicleEF	UBUS	4.1100e-003	4.1600e-003
tblVehicleEF	UBUS	0.07	0.07
tblVehicleEF	UBUS	2.4100e-003	2.3580e-003
tblVehicleEF	UBUS	3.32	3.79
tblVehicleEF	UBUS	0.02	0.02
tblVehicleEF	UBUS	0.75	0.73
tblVehicleEF	UBUS	2.44	2.78
tblVehicleEF	UBUS	0.05	0.05
tblVehicleEF	UBUS	10.72	11.84
tblVehicleEF	UBUS	7.66	7.71
tblVehicleEF	UBUS	1,951.45	1,987.48
tblVehicleEF	UBUS	100.38	92.58

tblVehicleEF	UBUS	8.79	10.07
tblVehicleEF	UBUS	15.04	15.61
tblVehicleEF	UBUS	0.60	0.62
tblVehicleEF	UBUS	0.12	0.14
tblVehicleEF	UBUS	1.1360e-003	1.0320e-003
tblVehicleEF	UBUS	0.26	0.27
tblVehicleEF	UBUS	0.12	0.13
tblVehicleEF	UBUS	1.0450e-003	9.4900e-004
tblVehicleEF	UBUS	5.8640e-003	5.9260e-003
tblVehicleEF	UBUS	0.07	0.07
tblVehicleEF	UBUS	3.3120e-003	3.2450e-003
tblVehicleEF	UBUS	0.80	0.91
tblVehicleEF	UBUS	0.02	0.02
tblVehicleEF	UBUS	0.63	0.61
tblVehicleEF	UBUS	9.8070e-003	9.9300e-003
tblVehicleEF	UBUS	1.1430e-003	1.0650e-003
tblVehicleEF	UBUS	5.8640e-003	5.9260e-003
tblVehicleEF	UBUS	0.07	0.07
tblVehicleEF	UBUS	3.3120e-003	3.2450e-003
tblVehicleEF	UBUS	3.33	3.80
tblVehicleEF	UBUS	0.02	0.02
tblVehicleEF	UBUS	0.69	0.67
tblVehicleEF	UBUS	2.44	2.78
tblVehicleEF	UBUS	0.05	0.05
tblVehicleEF	UBUS	10.66	11.77
tblVehicleEF	UBUS	9.05	9.11
tblVehicleEF	UBUS	1,951.45	1,987.48

tblVehicleEF	UBUS	100.38	92.58
tblVehicleEF	UBUS	9.15	10.47
tblVehicleEF	UBUS	15.10	15.67
tblVehicleEF	UBUS	0.60	0.62
tblVehicleEF	UBUS	0.12	0.14
tblVehicleEF	UBUS	1.1360e-003	1.0320e-003
tblVehicleEF	UBUS	0.26	0.27
tblVehicleEF	UBUS	0.12	0.13
tblVehicleEF	UBUS	1.0450e-003	9.4900e-004
tblVehicleEF	UBUS	4.6290e-003	4.7460e-003
tblVehicleEF	UBUS	0.08	0.09
tblVehicleEF	UBUS	2.5090e-003	2.4840e-003
tblVehicleEF	UBUS	0.79	0.90
tblVehicleEF	UBUS	0.03	0.03
tblVehicleEF	UBUS	0.70	0.68
tblVehicleEF	UBUS	9.8060e-003	9.9290e-003
tblVehicleEF	UBUS	1.1670e-003	1.0900e-003
tblVehicleEF	UBUS	4.6290e-003	4.7460e-003
tblVehicleEF	UBUS	0.08	0.09
tblVehicleEF	UBUS	2.5090e-003	2.4840e-003
tblVehicleEF	UBUS	3.31	3.78
tblVehicleEF	UBUS	0.03	0.03
tblVehicleEF	UBUS	0.76	0.75
tblVehicleTrips	ST_TR	1.32	0.00
tblVehicleTrips	SU_TR	0.68	0.00
tblVehicleTrips	WD_TR	6.97	0.08
tblWater	ElectricityIntensityFactorForWastewaterTreatment	1,911.00	0.00

tblWater	ElectricityIntensityFactorToDistribute	1,272.00	0.00
tblWater	ElectricityIntensityFactorToSupply	9,727.00	0.00
tblWater	ElectricityIntensityFactorToTreat	111.00	0.00
tblWater	IndoorWaterUseRate	1,156,250.00	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	1.6786	13.5506	14.3287	0.0250	0.8981	0.9071	1.8052	0.1520	0.8480	1.0000	0.0000	2,422.2359	2,422.2359	0.5518	0.0000	2,436.0302
2022	1.4159	11.9567	14.0598	0.0248	0.4918	0.6237	1.1155	0.1304	0.5819	0.7124	0.0000	2,406.1863	2,406.1863	0.5487	0.0000	2,419.9037
Maximum	**1.6786**	**13.5506**	**14.3287**	**0.0250**	**0.8981**	**0.9071**	**1.8052**	**0.1520**	**0.8480**	**1.0000**	**0.0000**	**2,422.2359**	**2,422.2359**	**0.5518**	**0.0000**	**2,436.0302**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	1.6786	13.5506	14.3287	0.0250	0.5587	0.9071	1.4659	0.1304	0.8480	0.9626	0.0000	2,422.2359	2,422.2359	0.5518	0.0000	2,436.0302
2022	1.4159	11.9567	14.0598	0.0248	0.4918	0.6237	1.1155	0.1304	0.5819	0.7124	0.0000	2,406.1863	2,406.1863	0.5487	0.0000	2,419.9037
Maximum	**1.6786**	**13.5506**	**14.3287**	**0.0250**	**0.5587**	**0.9071**	**1.4659**	**0.1304**	**0.8480**	**0.9626**	**0.0000**	**2,422.2359**	**2,422.2359**	**0.5518**	**0.0000**	**2,436.0302**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**24.42**	**0.00**	**11.62**	**7.63**	**0.00**	**2.18**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.1118	0.0000	5.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.0900e-003	1.0900e-003	0.0000		1.1700e-003
Energy	2.6700e-003	0.0243	0.0204	1.5000e-004		1.8500e-003	1.8500e-003		1.8500e-003	1.8500e-003		29.1700	29.1700	5.6000e-004	5.3000e-004	29.3434
Mobile	8.6000e-004	4.4400e-003	0.0126	4.0000e-005	3.7700e-003	4.0000e-005	3.8100e-003	1.0100e-003	4.0000e-005	1.0400e-003		4.5543	4.5543	2.4000e-004		4.5603
Total	**0.1153**	**0.0288**	**0.0335**	**1.9000e-004**	**3.7700e-003**	**1.8900e-003**	**5.6600e-003**	**1.0100e-003**	**1.8900e-003**	**2.8900e-003**		**33.7254**	**33.7254**	**8.0000e-004**	**5.3000e-004**	**33.9049**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.1118	0.0000	5.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.0900e-003	1.0900e-003	0.0000		1.1700e-003
Energy	2.6700e-003	0.0243	0.0204	1.5000e-004		1.8500e-003	1.8500e-003		1.8500e-003	1.8500e-003		29.1700	29.1700	5.6000e-004	5.3000e-004	29.3434
Mobile	8.6000e-004	4.4400e-003	0.0126	4.0000e-005	3.7700e-003	4.0000e-005	3.8100e-003	1.0100e-003	4.0000e-005	1.0400e-003		4.5543	4.5543	2.4000e-004		4.5603
Total	**0.1153**	**0.0288**	**0.0335**	**1.9000e-004**	**3.7700e-003**	**1.8900e-003**	**5.6600e-003**	**1.0100e-003**	**1.8900e-003**	**2.8900e-003**		**33.7254**	**33.7254**	**8.0000e-004**	**5.3000e-004**	**33.9049**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	12/6/2021	12/17/2021	5	10	
2	Site Preparation	Site Preparation	12/18/2021	12/20/2021	5	1	
3	Building Construction	Building Construction	12/21/2021	5/9/2022	5	100	

Acres of Grading (Site Preparation Phase): 0.5

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Generator Sets	1	8.00	81	0.73
Demolition	Rubber Tired Dozers	1	1.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Site Preparation	Generator Sets	1	8.00	84	0.74
Site Preparation	Graders	1	8.00	84	0.74
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Building Construction	Cranes	1	4.00	231	0.29
Building Construction	Forklifts	1	6.00	89	0.20
Building Construction	Other Construction Equipment	1	8.00	172	0.42
Building Construction	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Welders	1	8.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	4	30.00	0.00	14.00	14.70	6.90	12.40	LD_Mix	HDT_Mix	HHDT
Site Preparation	3	30.00	1.00	0.00	14.70	6.90	12.40	LD_Mix	HDT_Mix	HHDT
Building Construction	6	44.00	0.00	0.00	14.70	6.90	12.40	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Demolition - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0809	0.0000	0.0809	0.0123	0.0000	0.0123			0.0000			0.0000
Off-Road	0.9961	8.8430	9.3791	0.0159		0.4831	0.4831		0.4710	0.4710		1,514.4234	1,514.4234	0.1711		1,518.7007
Total	**0.9961**	**8.8430**	**9.3791**	**0.0159**	**0.0809**	**0.4831**	**0.5640**	**0.0123**	**0.4710**	**0.4833**		**1,514.4234**	**1,514.4234**	**0.1711**		**1,518.7007**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	8.3600e-003	0.2834	0.0662	7.1000e-004	0.0152	7.5000e-004	0.0159	4.1600e-003	7.2000e-004	4.8800e-003		77.5003	77.5003	6.1000e-003		77.6528
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1431	0.0978	1.1048	3.2300e-003	0.3353	2.7100e-003	0.3380	0.0889	2.5000e-003	0.0914		321.6753	321.6753	9.4700e-003		321.9120
Total	**0.1514**	**0.3812**	**1.1710**	**3.9400e-003**	**0.3505**	**3.4600e-003**	**0.3540**	**0.0931**	**3.2200e-003**	**0.0963**		**399.1756**	**399.1756**	**0.0156**		**399.5648**

3.2 Demolition - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0316	0.0000	0.0316	4.7800e-003	0.0000	4.7800e-003			0.0000			0.0000
Off-Road	0.9961	8.8430	9.3791	0.0159		0.4831	0.4831		0.4710	0.4710	0.0000	1,514.4234	1,514.4234	0.1711		1,518.7007
Total	**0.9961**	**8.8430**	**9.3791**	**0.0159**	**0.0316**	**0.4831**	**0.5146**	**4.7800e-003**	**0.4710**	**0.4758**	**0.0000**	**1,514.4234**	**1,514.4234**	**0.1711**		**1,518.7007**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	8.3600e-003	0.2834	0.0662	7.1000e-004	0.0152	7.5000e-004	0.0159	4.1600e-003	7.2000e-004	4.8800e-003		77.5003	77.5003	6.1000e-003		77.6528
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1431	0.0978	1.1048	3.2300e-003	0.3353	2.7100e-003	0.3380	0.0889	2.5000e-003	0.0914		321.6753	321.6753	9.4700e-003		321.9120
Total	**0.1514**	**0.3812**	**1.1710**	**3.9400e-003**	**0.3505**	**3.4600e-003**	**0.3540**	**0.0931**	**3.2200e-003**	**0.0963**		**399.1756**	**399.1756**	**0.0156**		**399.5648**

3.3 Site Preparation - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.5564	0.0000	0.5564	0.0612	0.0000	0.0612			0.0000			0.0000
Off-Road	1.5323	12.8736	10.8255	0.0150		0.9042	0.9042		0.8453	0.8453		1,438.1831	1,438.1831	0.2954		1,445.5688
Total	**1.5323**	**12.8736**	**10.8255**	**0.0150**	**0.5564**	**0.9042**	**1.4606**	**0.0612**	**0.8453**	**0.9065**		**1,438.1831**	**1,438.1831**	**0.2954**		**1,445.5688**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	3.1900e-003	0.0969	0.0281	2.5000e-004	6.4000e-003	2.0000e-004	6.6100e-003	1.8400e-003	2.0000e-004	2.0400e-003		26.7346	26.7346	1.7300e-003		26.7777
Worker	0.1431	0.0978	1.1048	3.2300e-003	0.3353	2.7100e-003	0.3380	0.0889	2.5000e-003	0.0914		321.6753	321.6753	9.4700e-003		321.9120
Total	**0.1462**	**0.1947**	**1.1329**	**3.4800e-003**	**0.3417**	**2.9100e-003**	**0.3447**	**0.0908**	**2.7000e-003**	**0.0935**		**348.4099**	**348.4099**	**0.0112**		**348.6897**

3.3 Site Preparation - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.2170	0.0000	0.2170	0.0239	0.0000	0.0239			0.0000			0.0000
Off-Road	1.5323	12.8736	10.8255	0.0150		0.9042	0.9042		0.8453	0.8453	0.0000	1,438.1831	1,438.1831	0.2954		1,445.5688
Total	**1.5323**	**12.8736**	**10.8255**	**0.0150**	**0.2170**	**0.9042**	**1.1212**	**0.0239**	**0.8453**	**0.8692**	**0.0000**	**1,438.1831**	**1,438.1831**	**0.2954**		**1,445.5688**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	3.1900e-003	0.0969	0.0281	2.5000e-004	6.4000e-003	2.0000e-004	6.6100e-003	1.8400e-003	2.0000e-004	2.0400e-003		26.7346	26.7346	1.7300e-003		26.7777
Worker	0.1431	0.0978	1.1048	3.2300e-003	0.3353	2.7100e-003	0.3380	0.0889	2.5000e-003	0.0914		321.6753	321.6753	9.4700e-003		321.9120
Total	**0.1462**	**0.1947**	**1.1329**	**3.4800e-003**	**0.3417**	**2.9100e-003**	**0.3447**	**0.0908**	**2.7000e-003**	**0.0935**		**348.4099**	**348.4099**	**0.0112**		**348.6897**

3.4 Building Construction - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3580	13.4071	12.7084	0.0202		0.7303	0.7303		0.6812	0.6812		1,950.4454	1,950.4454	0.5379		1,963.8927
Total	**1.3580**	**13.4071**	**12.7084**	**0.0202**		**0.7303**	**0.7303**		**0.6812**	**0.6812**		**1,950.4454**	**1,950.4454**	**0.5379**		**1,963.8927**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2098	0.1435	1.6203	4.7400e-003	0.4918	3.9700e-003	0.4958	0.1304	3.6600e-003	0.1341		471.7905	471.7905	0.0139		472.1376
Total	**0.2098**	**0.1435**	**1.6203**	**4.7400e-003**	**0.4918**	**3.9700e-003**	**0.4958**	**0.1304**	**3.6600e-003**	**0.1341**		**471.7905**	**471.7905**	**0.0139**		**472.1376**

3.4 Building Construction - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3580	13.4071	12.7084	0.0202		0.7303	0.7303		0.6812	0.6812	0.0000	1,950.4454	1,950.4454	0.5379		1,963.8927
Total	**1.3580**	**13.4071**	**12.7084**	**0.0202**		**0.7303**	**0.7303**		**0.6812**	**0.6812**	**0.0000**	**1,950.4454**	**1,950.4454**	**0.5379**		**1,963.8927**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2098	0.1435	1.6203	4.7400e-003	0.4918	3.9700e-003	0.4958	0.1304	3.6600e-003	0.1341		471.7905	471.7905	0.0139		472.1376
Total	**0.2098**	**0.1435**	**1.6203**	**4.7400e-003**	**0.4918**	**3.9700e-003**	**0.4958**	**0.1304**	**3.6600e-003**	**0.1341**		**471.7905**	**471.7905**	**0.0139**		**472.1376**

3.4 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.2189	11.8271	12.5674	0.0202		0.6199	0.6199		0.5784	0.5784		1,950.9757	1,950.9757	0.5362		1,964.3798
Total	**1.2189**	**11.8271**	**12.5674**	**0.0202**		**0.6199**	**0.6199**		**0.5784**	**0.5784**		**1,950.9757**	**1,950.9757**	**0.5362**		**1,964.3798**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1971	0.1296	1.4924	4.5700e-003	0.4918	3.8500e-003	0.4957	0.1304	3.5500e-003	0.1340		455.2106	455.2106	0.0125		455.5239
Total	**0.1971**	**0.1296**	**1.4924**	**4.5700e-003**	**0.4918**	**3.8500e-003**	**0.4957**	**0.1304**	**3.5500e-003**	**0.1340**		**455.2106**	**455.2106**	**0.0125**		**455.5239**

3.4 Building Construction - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.2189	11.8271	12.5674	0.0202		0.6199	0.6199		0.5784	0.5784	0.0000	1,950.9757	1,950.9757	0.5362		1,964.3798
Total	**1.2189**	**11.8271**	**12.5674**	**0.0202**		**0.6199**	**0.6199**		**0.5784**	**0.5784**	**0.0000**	**1,950.9757**	**1,950.9757**	**0.5362**		**1,964.3798**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1971	0.1296	1.4924	4.5700e-003	0.4918	3.8500e-003	0.4957	0.1304	3.5500e-003	0.1340		455.2106	455.2106	0.0125		455.5239
Total	**0.1971**	**0.1296**	**1.4924**	**4.5700e-003**	**0.4918**	**3.8500e-003**	**0.4957**	**0.1304**	**3.5500e-003**	**0.1340**		**455.2106**	**455.2106**	**0.0125**		**455.5239**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	8.6000e-004	4.4400e-003	0.0126	4.0000e-005	3.7700e-003	4.0000e-005	3.8100e-003	1.0100e-003	4.0000e-005	1.0400e-003		4.5543	4.5543	2.4000e-004		4.5603
Unmitigated	8.6000e-004	4.4400e-003	0.0126	4.0000e-005	3.7700e-003	4.0000e-005	3.8100e-003	1.0100e-003	4.0000e-005	1.0400e-003		4.5543	4.5543	2.4000e-004		4.5603

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	0.40	0.00	0.00	1,265	1,265
Total	0.40	0.00	0.00	1,265	1,265

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Light Industry	16.60	8.40	6.90	59.00	28.00	13.00	92	5	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Light Industry	0.547192	0.045177	0.202743	0.121510	0.016147	0.006143	0.019743	0.029945	0.002479	0.002270	0.005078	0.000682	0.000891

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	2.6700e-003	0.0243	0.0204	1.5000e-004		1.8500e-003	1.8500e-003		1.8500e-003	1.8500e-003		29.1700	29.1700	5.6000e-004	5.3000e-004	29.3434
NaturalGas Unmitigated	2.6700e-003	0.0243	0.0204	1.5000e-004		1.8500e-003	1.8500e-003		1.8500e-003	1.8500e-003		29.1700	29.1700	5.6000e-004	5.3000e-004	29.3434

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Light Industry	247.945	2.6700e-003	0.0243	0.0204	1.5000e-004		1.8500e-003	1.8500e-003		1.8500e-003	1.8500e-003		29.1700	29.1700	5.6000e-004	5.3000e-004	29.3434
Total		**2.6700e-003**	**0.0243**	**0.0204**	**1.5000e-004**		**1.8500e-003**	**1.8500e-003**		**1.8500e-003**	**1.8500e-003**		**29.1700**	**29.1700**	**5.6000e-004**	**5.3000e-004**	**29.3434**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Light Industry	0.247945	2.6700e-003	0.0243	0.0204	1.5000e-004		1.8500e-003	1.8500e-003		1.8500e-003	1.8500e-003		29.1700	29.1700	5.6000e-004	5.3000e-004	29.3434
Total		**2.6700e-003**	**0.0243**	**0.0204**	**1.5000e-004**		**1.8500e-003**	**1.8500e-003**		**1.8500e-003**	**1.8500e-003**		**29.1700**	**29.1700**	**5.6000e-004**	**5.3000e-004**	**29.3434**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.1118	0.0000	5.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.0900e-003	1.0900e-003	0.0000		1.1700e-003
Unmitigated	0.1118	0.0000	5.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.0900e-003	1.0900e-003	0.0000		1.1700e-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	lb/day										lb/day					
Architectural Coating	0.0127					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0990					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	5.0000e-005	0.0000	5.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.0900e-003	1.0900e-003	0.0000		1.1700e-003
Total	**0.1118**	**0.0000**	**5.1000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**1.0900e-003**	**1.0900e-003**	**0.0000**		**1.1700e-003**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0127					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0990					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	5.0000e-005	0.0000	5.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.0900e-003	1.0900e-003	0.0000		1.1700e-003
Total	**0.1118**	**0.0000**	**5.1000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**1.0900e-003**	**1.0900e-003**	**0.0000**		**1.1700e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation