CALIFORNIA ENVIRONMENTAL QUALITY ACT INITIAL STUDY

The Department of Toxic Substances Control (DTSC) has completed the following document for this project in accordance with the California Environmental Quality Act (CEQA) [Pub. Resources Code, div. 13, § 21000 *et. seq.*] and accompanying Guidelines [Cal. Code Regs., tit. 14, § 15000 *et. seq.*].

| PROJECT TITLE: | CALSTARS CODING: | |
|---|---|----------------|
| Removal Action at LeFiell Manufacturing Company | | |
| PROJECT ADDRESS: | CITY: | COUNTY: |
| 13700 Firestone Boulevard | Santa Fe Springs | Los Angeles |
| PROJECT SPONSOR: | CONTACT: | PHONE: |
| LeFiell Manufacturing Company | George Ray, LeFiell Manufacturing Company | (562) 921-3411 |
| | Marina Grigorova, Tetra Tech BAS | (951) 836-2712 |

| APPROVAL ACTION UNDER | CONSIDERATION BY DTSC: | | |
|-------------------------|------------------------|---------------------|--------------|
| Initial Permit Issuance | Permit Renewal | Permit Modification | Closure Plan |
| Removal Action Workplan | Remedial Action Plan | Interim Removal | Regulations |
| Other (specify): | | | |
| | | | |

STATUTORY AUTHORITY:

| California H&SC, Chap. 6.5 | California H&SC, Chap. 6 | .8 Other (specify): |
|----------------------------|--------------------------|---------------------|
|----------------------------|--------------------------|---------------------|

| DTSC PROGRAM/ ADDRESS: Site Mitigation and Restoration Program 9211 Oakdale Avenue Chatsworth, CA 91311 | CONTACT: Tajinder Gill, P.E. | PHONE: (818) 717-6586 |
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|--|--|------------------------------|

PROJECT DESCRIPTION:

Introduction

The Department of Toxic Substances Control (DTSC) is proposing to approve a Removal Action Work Plan (RAW) for the LeFiell Manufacturing Company (Site) pursuant to Chapter 6.8, Division 20, Sections 25323.1 and 25356.1 of the California Health & Safety Code. The RAW, incorporated herein by reference, provides a scope of work for remediation of soil, soil vapor and groundwater underlying the Site, which are impacted with a variety of Volatile Organic Compounds (VOCs). The RAW evaluates remediation action alternatives and identifies preferred actions to reduce concentrations of VOCs in the subsurface thereby reducing the risk to human health of Site workers and the environment (groundwater). Upon approval of the RAW, its objectives will be accomplished by implementing air sparge (AS) and soil vapor extraction (SVE) within the Building F area of the Site, SVE within Site Building H of the Site, and, as necessary and appropriate, further Site-wide groundwater assessment, pilot testing and corrective action.

LeFiell Manufacturing Company is conducting investigation and remediation of its property with DTSC oversight under Voluntary Cleanup Agreement Number (No.) HSA VCA 09/10-067.

Project Location and Setting

The Site is an industrial property located at 13700-13770 Firestone Boulevard, in the City of Santa Fe Springs, California (Attachment A, Figure 1, Site Location and Vicinity Map). The Site is bordered by Firestone Boulevard and Marquardt Avenue, with Interstate Highway 5 (I-5) immediately beyond to the northeast; Alondra Boulevard to the south, and Union Pacific Railroad to the southwest. The Site is located within an area encompassing other industrial properties. No residential properties exist adjacent to the Site. The nearest residential property is located approximately 1/3-mile south of the Site.

The entire Site covers approximately 9.5 acres. As shown on Figure 1, the southeastern portion of the Site is currently leased to Budget Truck Rentals and is operated separately. The LeFiell Manufacturing Company facility occupies the northern approximately 7.5 acres of the property (corresponding to 13700 and 13750 Firestone Boulevard). In order to accommodate expansion of the I-5 Freeway, in May 2010, the California Department of Transportation (Caltrans) acquired a strip of the property adjacent to Firestone Boulevard. As a result, the LeFiell Manufacturing Company facilities have recently undergone redevelopment, including demolition of some Site structures, new construction, and expansion of other structures. Site redevelopment was completed in the early summer of 2015. Current Site layout is depicted on Figure 2 (Site Plan). As shown on Figure 2, the Site is fully developed with various manufacturing and support structures, as well as associated staging and parking areas. The Site is fully paved, aside from landscaping along the Firestone Boulevard frontage.

Environmental Setting

The Site is located in the southeastern part of Los Angeles County, California, in the northeast portion of the Central Plain of the Los Angeles Basin (the Basin).

Based on investigations conducted at the Site, the Site is underlain by alluvial soils, which mostly consist of sand and silty sand to 15 feet below ground surface (bgs), and primarily silt and lesser amounts of clay to the maximum depth explored (approximately 36 feet bgs). These findings are consistent with available literature for this area of the Los Angeles Basin, including publicly available information for other sites in the vicinity of LeFiell Manufacturing Company. Groundwater beneath the Site is first encountered at approximately 20 to 24 feet bgs. Since April 2011, groundwater elevations have fallen by an average of more than five feet across the Site. The shallow groundwater at the Site flows towards the east/northeast at an average rate of approximately 10 feet/year.

The ground surface at the Site slopes gently to the east with an observed elevation difference of approximately seven feet. The elevation of the Site is approximately 70 feet above mean sea level (MSL).

Project Background

LeFiell Manufacturing Company designs and manufactures precision tubular products for the commercial airplane, defense and aerospace industries with a smaller portion of operations involving the manufacture of masts for sailing vessels. Until LeFiell Manufacturing Company began operations at the Site in 1958, it was unimproved agricultural land.

Since 2004, the Site has been the subject of various investigations, which identified VOC impacts to soil, soil vapor and groundwater. The primary constituents of concern (COCs) identified through these investigations are tetrachloroethene (PCE); trichloroethene (TCE); 1,1,1-trichloroethane (1,1,1-TCA); 1,1-dichloroethene (1,1-DCE); 1,1-dichloroethane (1,1-DCA); and cis-1,2-dichloroethene (cis-1,2-DCE). Site investigations included assessments of all of the known potential contaminant sources at the Site and resulted in identification of two areas of concern, which require remediation:

- Building F area, where PCE and 1,1,1-TCA were previously used in a former open-air degreaser; and
- Building H area, including an area near the currently operating TCE-based parts cleaner, and an area near the recently removed hydraulic press (referred to as the Rujak press).

In addition, groundwater beneath certain areas of the Site, most notably downgradient from Building F, is also impacted with a variety of VOCs. Once more critical remedial actions are underway in areas of Buildings F and H, assessment of groundwater conditions beneath the entire Site will be completed and, as necessary and appropriate, additional pilot testing implemented and/or a remedial approach developed to address Site-wide groundwater impacts.

As Lead Agency for the approval of the RAW, DTSC prepared this Initial Study to address the potential environmental impacts associated with implementation of the proposed removal actions upon approval of the RAW and CEQA environmental documentation.

Remedy Selection

The draft RAW and associated Remedial Investigation Report, incorporated herein by reference, evaluated potential impacts to human health and the environment from VOCs detected in the soil, soil gas and groundwater at the Site, and provide technical and operational guidelines for implementation of remedial actions.

The RAW includes removal action objectives (RAOs) for impacted soil, soil gas and groundwater at the Site that are selected to mitigate the threat to human health and the environment in a manner consistent with current and anticipated future industrial use of the Site. The RAOs for the Site are as follows:

- Building F reduce subsurface (soil, soil vapor and groundwater) concentrations and control migration of VOCs; thus reducing the potential for intrusion of VOCs into breathable air, as well as reducing the inhalation exposure and associated human health risk to levels within the established thresholds and/or risk management range; and
- Building H reduce subsurface soil and soil vapor concentrations, thus reducing the VOCs available to impact the underlying groundwater.
- Groundwater (Site-wide) control the expansion of the groundwater plume and reduce the concentrations of VOCs in groundwater such that they no longer present a risk to either the human health or the environment.

The RAW proposes Soil Vapor Extraction (SVE) and air sparge (AS). SVE is based on extracting contaminants from impacted soil in vapor form. Typically, the extracted vapors are subsequently treated to control the associated air emissions. Treatment methods for extracted vapors most commonly include thermal destruction (oxidation) and adsorption by Granular Activated Carbon (GAC). Along with excavation and off-site disposal, SVE is one of the preferred remedial alternatives for clean-up of subsurface chlorinated VOC contamination, and is considered to be a presumptive remedy by both DTSC and Federal EPA for sites with chlorinated VOC impacts. A typical SVE system consists of soil vapor extraction well(s), a vacuum blower, thermal oxidizer or GAC vessels to control extracted vapors, conveyance piping for extracted vapors, and support appurtenances and instrumentation.

AS is the process of injecting air directly into groundwater. AS (sometimes also referred to as in-situ air stripping) promotes volatilization of contaminants from the groundwater into a vapor phase within the unsaturated zone (i.e., soil). As the contaminants move into the soil, a SVE system is usually used to remove vapors. A typical AS system consists of air sparge well(s), an air compressor, conveyance piping for compressed air, and support appurtenances and instrumentation.

The RAW evaluated the following remedial alternatives for groundwater remediation – pump-and-treat, dualphase extraction (DPE), in-situ chemical oxidation (ISCO), bioremediation, and AS.

With regard to groundwater remediation, biological treatment was not selected due to the presence of 1,1,1-TCA, a known inhibitor of biological activity. Effective groundwater pumping (as would be necessary for implementation of a pump-and-treat approach) was not found to be feasible based on the results of aquifer testing. Therefore, pump-and-treat was likewise determined to be not implementable (at least, at this time). Due to the extensive and costly permitting process associated with DPE and ISCO, these technologies were deemed to be less cost-effective than AS. Based on preliminary discussions with DTSC, monitored natural attenuation (MNA) is likely to be a viable option for addressing Site-wide groundwater impacts following implementation of AS/SVE in the Building F area and SVE in the Building H area of the Site.

The Building F area AS/SVE system is proposed to consist of five (5) vapor extraction wells, six (6) air sparge wells, all of which have already been installed, a blower, an air compressor, three GAC canisters, and conveyance piping. The majority of conveyance piping was constructed for pilot testing, and only minimal additional construction is anticipated. To minimize interference with on-site operations, the conveyance piping is installed primarily aboveground. Less than 10 feet of underground pipe installation is anticipated to be required for construction of the Building F AS/SVE system. Trenches will be 18 to 24 inches deep. Construction of the AS/SVE system in the Building F area of the Site is anticipated to take 2 to 3 working days. The Building F AS/SVE system is expected to operate for 24 to 36 months.

The Building H area SVE system is proposed to consist of five (5) existing vapor extraction wells, a blower, three GAC canisters, and conveyance piping. To minimize interference with on-site operations, the conveyance piping will be installed primarily aboveground and overhead. Less than 20 feet of underground pipe installation is anticipated to be required for construction of the Building H SVE system. Trenches will be 18 to 24 inches deep.

Construction of the SVE system in the Building H area of the Site is anticipated to take 1 to 2 weeks. The Building H SVE system is expected to operate for less than 12 months.

Locations of the proposed treatment systems are shown on Figure 3 included in Attachment A.

The proposed project does not include any remedial soil excavation, or off-site transport and disposal of soil (except for minimal quantities of soil cuttings generated during construction of remediation wells).

This Initial Study and the Subsequent Negative Declaration (ND) have been prepared to identify and evaluate the potential environmental impacts associated with implementing the RAW. The Initial Study did not identify any significant impacts or impacts that require additional mitigation measures to reduce impacts to a less than significant level; therefore, DTSC has determined that an Initial Study and Subsequent ND are the appropriate CEQA documents to address the RAW pursuant to Title 14, California Code of Regulations (California Code Regulations [CEQA Guidelines], Title 14, §15162). A Notice of Determination will be filed with the State of California Office of Planning and Research (OPR), State Clearinghouse.

ENVIRONMENTAL IMPACT ANALYSIS:

1. Aesthetics

Project Activities Likely to Create an Impact: NONE

Description of Baseline Environmental Conditions: The Site is currently fully developed with manufacturing and support buildings. It is used as an industrial facility. Except for small areas of landscaping along Firestone Boulevard, the Site is completely paved or covered by slab-on-grade buildings. Interstate Freeway I-5 and rail-road neighbor the Site on the northeast and southwest, respectively.

Analysis as to whether or not project activities would:

a. Have a substantial adverse effect on a scenic vista.

Impact Analysis: There are no scenic vistas on or around the Site. No state scenic highways are located near the Site. The California Scenic Highway Mapping System indicates that State Route 2 is the only Officially Designated State Scenic Highway in Los Angeles County. Route 2 is located more than 40 miles north of the Site. In addition, the proposed remediation activities and areas would generally not be visible from anywhere off of the Site. Therefore, no impacts to scenic vistas would occur as a result of the project, and further analysis of this issue is not necessary.

Conclusion:

- Potentially Significant Impact
- Potentially Significant Unless Mitigated
- Less Than Significant Impact
- No Impact
- b. Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings and historic buildings within a state scenic highway.

Impact Analysis: There are no scenic resources on or around the Site. Therefore, no impacts to scenic resources are expected to occur as a result of the project, and further analysis of this issue is not necessary.

Conclusion:

- Potentially Significant Impact
- Potentially Significant Unless Mitigated
- Less Than Significant Impact

No Impact

c. Substantially degrade the existing visual character or quality of the Site and its surroundings.

Impact Analysis: The proposed remedial systems would not alter the visual character of the Site. All activities and equipment would be installed in inconspicuous areas outside of existing buildings, and, in Building H area, would be visually screened with a protective enclosure; similar to other enclosures, which already exist at the Site. In addition, none of the proposed remediation activities would be visible from any properties surrounding the Site. Therefore, none of these activities would result in a significant permanent change to the visual character of the Site.

Conclusion:

- Potentially Significant Impact
- Potentially Significant Unless Mitigated
- Less Than Significant Impact
- No Impact

d. Create a new source of substantial light of glare that would adversely affect day or nighttime views in the area.

Impact Analysis: Project implementation is not expected to introduce new sources of light or glare on the Site. Existing Site lighting is expected to be sufficient for the remedial systems construction and operation, which would be installed and monitored during daytime hours. In addition, it is anticipated that the vehicles associated with the project would travel on, and to and from, the Site during daytime hours. Overall, the project would not alter existing light and glare experienced on the Site or in the vicinity during the remedy or following remedy completion.

Conclusion:

Potentially Significant Impact
 Potentially Significant Unless Mitigated
 Less Than Significant Impact
 No Impact

References Used:

1. Caltrans Scenic Highway Mapping System http://www.dot.ca.gov/hq/LandArch/16_livability/scenic_highways/index.htm

2. Agricultural Resources

Project Activities Likely to Create an Impact: NONE

Description of Baseline Environmental Conditions: The proposed project is not located in or near any agricultural resources. The Site is zoned for Heavy Manufacturing use (with Freeway Overlay, M-2-FOZ) and has been used for manufacturing operations for over 50 years. There are no properties zoned for agricultural use within the City of Santa Fe Springs. Therefore, no impact to agricultural resources would occur. For these reasons, no further analysis of impacts to this resource category is deemed necessary.

Analysis as to whether or not project activities would:

a. Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland) as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use.

Impact Analysis:

Conclusion:

- Potentially Significant Impact
- Potentially Significant Unless Mitigated
- Less Than Significant Impact
- No Impact
- b. Conflict with existing zoning or agriculture use, or Williamson Act contract.

Impact Analysis:

Conclusion:

- Potentially Significant Impact
- Potentially Significant Unless Mitigated
- Less Than Significant Impact
- No Impact
- c. Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural uses.

Impact Analysis:

Conclusion:

- Potentially Significant Impact
- Potentially Significant Unless Mitigated
- Less Than Significant Impact
- No Impact

References Used:

1. City of Santa Fe Springs Zoning Map, 2007

3. Air Quality

Project Activities Likely to Create an Impact: Remediation system construction, operation, maintenance and monitoring (OM&M) activities. Specifically:

- Passenger vehicle emissions associated with worker travel to and from the Site
- Commercial vehicle emissions associated with the deliveries of supplies and removal of wastes
- Indirect emissions resulting from use of utilities (electricity, water, sewer, etc.)
- Emissions from construction, including construction equipment and fugitive dust
- Emissions from OM&M of the remedial systems, including vehicle and indirect emissions noted above

Description of Baseline Environmental Conditions: The Site and the proposed project are located within the South Coast Air Basin, which is under the jurisdiction of the South Coast Air Quality Management District (SCAQMD). To improve air quality in the South Coast Air Basin, SCAQMD has prepared an Air Quality Management Plan (AQMP), which is updated every three years. The current AQMP (SCAQMD, 2016) is SCAQMD's most recent plan update, adopted in 2017. The 2016 AQMP provides a comprehensive list of pollution control strategies aimed at reducing criteria pollutant concentration and achieving attainment status.

Pollutant concentrations within the South Coast Air Basin are assessed relative to both the federal and state ambient air quality standards. National Ambient Air Quality Standards (NAAQS) have been established by US EPA for so-called "criteria" pollutants and the State of California has established more stringent standards for these pollutants. The criteria pollutants include nitrogen dioxide (NO₂), carbon monoxide (CO), sulfur oxides (SOx), ground level ozone (O₃), particulate matter, and lead. According to the October 2016 Revised Draft AQMP, ozone and fine particulate matter (PM2.5, particles less than 2.5 microns in diameter) are the pollutants of primary concern within the Basin. For these, the U.S. EPA has designated the Basin as a nonattainment area for the NAAQS. The Basin had the highest number of days exceeding the federal ozone NAAQS of any urban area nationwide in 2015. State standards for ozone, PM2.5, and PM10 (respirable particulate matter less than 10 microns in diameter) are also not met in the Basin. The Basin is in attainment of the PM10 NAAQS. Nitrogen dioxide, carbon monoxide, and sulfur dioxide (SO₂) levels are in attainment with both the federal and the State standards. The Basin was in attainment of the lead (Pb) NAAQS throughout the 2012 through 2015 time period, and SCAQMD is anticipated to request that U.S. EPA re-designate the Los Angeles County portion of the Basin as attainment for lead. The Basin is also in attainment of the state standards for lead, sulfates (SO₄²⁻), and hydrogen sulfide (H₂S).

Analysis as to whether or not project activities would:

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

Impact Analysis: The proposed project is within the SCAQMD. The AQMP incorporates emissions projections based on growth forecasts accounted for in local general plans. A proposed project that is inconsistent with a local general plan is also inconsistent with the AQMP. A proposed project would be inconsistent with a general plan if it resulted in a land use re-designation, causing a general plan amendment. The proposed project is within the boundary line of the City of Santa Fe Springs. The applicable general plan element is the City of Santa Fe Springs General Plan. The proposed project would not result in an increase of either population or long-term emission sources and does not require a general plan amendment. Therefore, the proposed project would be consistent with and have no impact on the implementation of the AQMP.

Conclusion:

Potentially Significant Impact
 Potentially Significant Unless Mitigated
 Less Than Significant Impact
 No Impact

b. Violate any air quality standard or contribute substantially to an existing or projected air quality violation.

Impact Analysis: The proposed project is anticipated to generate air emissions during both the remediation system construction (and decommissioning) and the operation of the treatment systems (OM&M). Emissions of criteria pollutants resulting from construction and operation of the proposed project were estimated using CalEEMod version 2016.3.1 (SCAQMD, 2016). CalEEMod is a land use emissions computer model used to quantify potential criteria pollutant and greenhouse gas (GHG) emissions associated with both construction and operations from a variety of projects. A copy of the CalEEMod output file is provided in Attachment B.

Construction emissions would result from employee commutes on paved roads, construction of potential new wells (all wells required at this time were constructed during Site investigation activities), installation of minimal amounts of underground piping (most of piping will be aboveground and overhead), soil and debris disposal, and transportation of construction materials and equipment. The overall duration of construction activities is projected to be from several days to several weeks (if construction during regular business hours is limited). A summary of the estimated emissions from the construction phase of the project is provided below. As shown in the table below, construction emissions would have less than significant impacts on air quality.

Project Construction Emissions of Criteria Pollutants (lb/day)

| Project Phase | CO | VOCs | NOx | SO ₂ | PM10 | PM2.5 |
|---|----------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| Construction, including decommissioning | 1.4x10 ⁻⁶ | 2x10 ⁻⁷ | 2x10⁻ ⁶ | 4x10 ⁻⁹ | 1x10 ⁻⁷ | 1x10 ⁻⁷ |
| Significance Threshold | 550 | 75 | 100 | 150 | 150 | 55 |
| Significant? | No | No | No | No | No | No |

It should be further noted that because LeFiell Manufacturing Company is an active operating facility, most of the treatment system construction will have to take place while the facility is not operating (e.g., during annual holiday break at the end of the year, or after normal business hours). Therefore, the net effect of the proposed project construction on air emissions is anticipated to be even lower than estimated. The proposed project construction will not contribute to any air quality violations.

Air emissions from operation of the project would occur over a period of several years and would include emissions resulting from vehicle trips, as well as from actual operation of the treatment systems. A summary of the estimated emissions from the operation phase of the project is provided below. As shown in the table below, operational emissions would have less than significant impacts on air quality.

| Project Phase | СО | VOCs | NOx | SO ₂ | PM10 | PM2.5 |
|------------------------|--------------------|--|----------------------|----------------------|--------------------|--------------------|
| OM&M | 9x10 ⁻⁶ | 2.7x10 ⁻⁶ Plus see further below | 1.6x10 ⁻⁵ | 2.4x10 ⁻⁵ | 8x10 ⁻⁷ | 8x10 ⁻⁷ |
| Significance Threshold | 550 | 55 | 55 | 150 | 150 | 55 |
| Significant? | No | No | No | No | No | No |

Project Operational Emissions of Criteria Pollutants (lb/day)

Emissions resulting from the operation of the treatment systems would consist of VOCs, an ozone precursor, and occur on a continuous basis. Based on SCAQMD permit limitations, the maximum amount of VOCs, which could be emitted from the systems while still meeting permitting limitations, would be 0.14 lbs/day. This is 400 times less than the threshold of significance of 55 lbs/day. During the pilot testing and intermitted operation of the SVE system in the Building F area of the Site, VOC emissions varied from 0.00019 lbs/day to 0.1009 lbs/day, averaging 0.0171 lbs/day. Therefore, operational emissions would have less than significant impacts on air quality.

Conclusion:

Potentially Significant Impact

Potentially Significant Unless Mitigated

Less Than Significant Impact

No Impact

c. Result in cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors).

Impact Analysis: The proposed project will not cause any long-term increase in, or modify air emissions of, any criteria pollutants nor will it affect the attainment status for any criteria pollutants under any applicable federal or state ambient air quality standard. The proposed project would result in significant cumulative impacts only if it exceeds daily thresholds established by SCAQMD. As summarized in item 3.b.above, the project emissions would be significantly less than established thresholds. The size of the project is very limited and thus any incremental emissions associated with the project would be insignificant.

Conclusion:

- Potentially Significant Impact
- Potentially Significant Unless Mitigated
- Less Than Significant Impact
- No Impact
- d. Expose sensitive receptors to substantial pollutant concentrations.

Impact Analysis: The project will not increase or modify air emissions beyond the thresholds of significance nor will it affect the attainment status for any criteria pollutants and therefore will not affect sensitive receptors. Additionally, the project is located in an industrial area. There are no residential areas adjacent to the Site, which is bordered by a freeway on one side and a railroad on the other. There are no schools or daycare facilities within ³/₄ miles of the Site (closest of these facilities is located on the other side of I-5 Freeway); and no retirement or convalescent homes are located within 1 mile of the Site.

Conclusion:

- Potentially Significant Impact
- Potentially Significant Unless Mitigated
- Less Than Significant Impact
- No Impact
- e. Create objectionable odors affecting a substantial number of people.

Impact Analysis: The proposed remedial action has little potential to create objectionable odors during its construction and operation (OM&M) phases. Odors generated during construction would be very short-term and no more objectionable than existing odors at the facility and surrounding area (if any). As described above, the facility is located in an industrial area, so there are no substantial numbers of people at or around the facility. The OM&M emissions resulting from vehicle trips would be minimal, compared to existing traffic at and around the Site. The OM&M emissions resulting from operation of the treatment systems would be regulated by the SCAQMD permit. SCAQMD permit limitations are on sub-ppm (ppb) level for regulated VOCs, thus, even if VOCs are not 100% captured by the treatment system, their odors would typically be non-detectable.

| Conclusion: | |
|-----------------|---------------------------|
| Potentially Sig | nificant Impact |
| Potentially Sig | nificant Unless Mitigated |
| Less Than Sig | nificant Impact |
| No Impact | - |

f. Result in human exposure to Naturally Occurring Asbestos (see also Geology and Soils, f.).

Impact Analysis: The project is not located in an area containing naturally occurring asbestos. Further analysis of this issue is not necessary.

Conclusion:

- Potentially Significant Impact
- Potentially Significant Unless Mitigated
- Less Than Significant Impact

No Impact

References Used:

- 1. South Coast Air Quality Management District (SCAQMD), http://www.aqmd.gov
- 2. SCAQMD. National Ambient Air Quality Standards (NAAQS) and California Ambient Air Quality Standards (CAAQS) Attainment Status for South Coast Air Basin. February 2016
- 3. SCAQMD. Revised Draft 2016 AQMP, October 2016
- 4. SCAQMD. Permit to Operate G33288.
- 5. California Department of Conservation. Map Sheet 59 Plate (Reported Historic Asbestos Mines, Historic Asbestos Prospects, and Other Natural Occurrences of Asbestos in California). Accessed December 2016. http://www.conservation.ca.gov/cgs/minerals/hazardous_minerals/asbestos/Pages/index.aspx

4. Biological Resources

Project Activities Likely to Create an Impact: NONE. All project activities would occur on paved, impervious surfaces and there would be no loss of habitat or impact to biological resources.

Description of Baseline Environmental Conditions: Currently, the Site is fully developed with industrial, support and office buildings. Except for small areas of landscape vegetation, the Site is completely paved or covered by slab-ongrade buildings. Therefore, there are no biological resources present on the Site. In addition, the properties surrounding the Site are fully developed and do not contain any biological resources. No impact to any sensitive species would occur, and further analysis of this issue is not necessary.

Analysis as to whether or not project activities would:

a. Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service.

Impact Analysis:

- Conclusion:
- Potentially Significant Impact
- Potentially Significant Unless Mitigated
- Less Than Significant Impact
- No Impact
- b. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service.

Impact Analysis:

Conclusion:

- Potentially Significant Impact
- Potentially Significant Unless Mitigated
- Less Than Significant Impact
- No Impact
- c. Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.

Impact Analysis:

Conclusion:

- Potentially Significant Impact
- Potentially Significant Unless Mitigated
- Less Than Significant Impact
- No Impact

d. Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.

Impact Analysis:

| Conclusion: | |
|--------------------------------|-----------|
| Potentially Significant Impact | |
| Potentially Significant Unless | Mitigated |
| Less Than Significant Impact | - |
| No Impact | |

e. Conflict with local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.

Impact Analysis:

Conclusion:

Potentially Significant Impact

Potentially Significant Unless Mitigated

Less Than Significant Impact

No Impact

f. Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

Impact Analysis:

Conclusion:

- Potentially Significant Impact
- Potentially Significant Unless Mitigated
- Less Than Significant Impact

No Impact

5. Cultural Resources

Project Activities Likely to Create an Impact: NONE

Description of Baseline Environmental Conditions: As described above, the Site is a fully developed manufacturing facility, located in an area of other industrial/commercial properties. As part of recent facility redevelopment (refer to *Project Location and Setting* section), a new fence wall was constructed around the facility, a new office was built and the pre-existing Site's structures were retrofitted with new facades, matching the appearance of the new wall and office building. The facility does not meet the definition of a historical resource as defined in §15064.5.

According to the information provided by the City of Santa Fe Springs, there are only four (4) historical points of interest within the City:

- 1. Clarke Estate, a historic landmark, located at 10211 Pioneer Blvd.
- 2. Hathaway Ranch Museum, a private museum, located at 11901 E. Florence Avenue.
- 3. Heritage Park, a reconstructed ranch estate from the late 1800s, located at 12100 Mora Drive.
- 4. Historical Railroad Exhibit, located within the Heritage Park.

All four of these points of interest are located approximately 5 miles north-northwest of the Site. Of these Sites, only the Clarke Estate is registered on the National Register of Historic Places (NRHP). The Heritage Park was nominated to the NRHP as a Hawkins-Nimocks Estate/Patricio Ontiveros Adobe (aka Slusher Estate) in the early 1980s, but ultimately was not listed and was turned into the current park.

No sites located within the City of Santa Fe Springs are designated as State Historic Landmarks.

Analysis as to whether or not project activities would:

a. Cause a substantial adverse change in the significance of a historical resource as defined in 15064.5.

Impact Analysis: No known historic resources as defined in 15064.5 have been recorded at or near the project Site. Due to its limited extent, the proposed project is unlikely to disturb any historical resources. No excavation is proposed. Trenching, associated with the construction of the treatment systems, will be very limited. A total of less than 30 linear feet of trench, approximately 18 to 24 inches deep, will be required for construction of the remedial systems. The AS/SVE wells will be connected to treatment systems via mostly above-ground piping. Although there are structures on Site, which are older than 45 years of age, they have been recently remodeled and project activities do not include the destruction or demolition of any structures or buildings. Additionally, existing structures currently cover a significant portion of the Site, and serve to protect any historic features, if they exist at depth. There will be no changes to those structures, and there is limited potential to impact any historic structures that might exist.

It is not anticipated that historical resources will be identified or impacted. However, if historical resources are discovered during implementation of the project, activities in the area will cease and an appropriately licensed professional will inspect the area to determine the appropriate method to remove or preserve the historical resource.

Conclusion:

- Potentially Significant Impact
- Potentially Significant Unless Mitigated
- Less Than Significant Impact

No Impact

b. Cause a substantial adverse change in the significance of an archeological resource pursuant to 15064.5.

Impact Analysis: Given the current development of the Site, as well as previous investigation activities implemented at the Site, the potential for project implementation to impact an unidentified archeological resource is negligible. However, if archeological resources are discovered during implementation of the project, activities in the area will cease and an Archeologist will inspect the area to determine the appropriate method to remove or preserve the archeological resource.

Conclusion:

- Potentially Significant Impact
- Potentially Significant Unless Mitigated
- Less Than Significant Impact
- No Impact
- c. Directly or indirectly destroy a unique paleontological resource or Site or unique geologic feature.

Impact Analysis: Given the current development of the Site, as well as previous investigation activities implemented at the Site, the potential for project implementation to impact an unidentified paleontological resource or unique geologic feature is negligible. However, if such resource/feature are discovered during implementation of the project, activities in the area will cease and a Paleontologist will inspect the area to determine the appropriate method to remove or preserve the resource.

Conclusion:

- Potentially Significant Impact
- Potentially Significant Unless Mitigated
- Less Than Significant Impact
- No Impact

d. Disturb any human remains, including those interred outside of formal cemeteries.

Impact Analysis: No human remains are known to exist at or in close proximity to the Site. Based on previous developments of the Site, including Site investigations, discovery of human remains is unlikely. In the event that human remains are discovered, all work shall immediately cease in the area and the county coroner and/or police will be notified within 24 hours and the Project Manager shall comply with CEQA Guidelines CCR section 15064.5 and all other applicable federal, state, and local laws and regulations.

Conclusion:

- Potentially Significant Impact
- Potentially Significant Unless Mitigated
- Less Than Significant Impact

No Impact

References Used:

- 1. City of Santa Fe Springs. <u>http://www.santafesprings.org/about/history/default.asp</u>
- 2. National Park Service. http://npgallery.nps.gov/
- 3. California Office of Historic Preservation. <u>http://ohp.parks.ca.gov/?page_id=21427</u>

6. Energy

Project Activities Likely to Create an Impact: Installation of a AS that would involve heavy construction equipment, operation of the SVE system and AS, and worker commute in trucks and/or passenger vehicles for routine groundwater sampling and maintenance of the SVE system and AS.

Description of Baseline Environmental Conditions:

Originally developed in 2003 and updated in 2005 and 2008, the California Energy Action Plan identifies specific action areas to ensure that California's energy resources are adequate, affordable, technologically advanced, and environmentally sound. The plan's first-priority actions to address California's increasing energy demands are energy efficiency and demand response (i.e., reduction of customer energy usage during peak periods to address system reliability and support the best use of energy infrastructure). Additional priorities include the use of renewable sources of power and distributed generation.

Analysis as to whether or not project activities would:

a. Result in potentially significant impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?

Activities that could potentially generate air pollutant emissions over the course of this project includes construction of the AS, long-term operation of the SVE system and AS and routine groundwater sampling. The Building F area AS/SVE system is proposed to consist of five (5) vapor extraction wells, six (6) air sparge wells, all of which have already been installed, a blower, an air compressor, three GAC canisters, and conveyance piping. The majority of conveyance piping was constructed for pilot testing, and only minimal additional construction is anticipated. To minimize interference with on-site operations, the conveyance piping is installed primarily aboveground. Less than 10 feet of underground pipe installation is anticipated to be required for construction of the Building F AS/SVE system. Trenches will be 18 to 24 inches deep. Construction of the AS/SVE system in the Building F area of the Site is anticipated to take 2 to 3 working days. The Building F AS/SVE system is expected to operate for 24 to 36 months.

The Building H area SVE system is proposed to consist of five (5) existing vapor extraction wells, a blower, three GAC canisters, and conveyance piping. To minimize interference with on-site operations, the conveyance piping will be installed primarily aboveground and overhead. Less than 20 feet of underground pipe installation is anticipated to be required for construction of the Building H SVE system. Trenches will be 18 to 24 inches deep.

Construction of the SVE system in the Building H area of the Site is anticipated to take 1 to 2 weeks. The Building H SVE system is expected to operate for less than 12 months.

The Proposed activities would not result in wasteful, inefficient, or unnecessary consumption of energy resources. Construction of the project will require consumption of fuel to run construction vehicles and equipment. However, the work will be short-term and temporary. Implementation of best management practices, which minimize unnecessary construction vehicle idling time, will further reduce energy consumption. Therefore, impacts will be less than significant.

Impact Analysis:

There will be no conflict or obstruction to state or local energy plans for renewable energy or energy efficiency from the Proposed Project activities.

Potentially Significant Impact
 Potentially Significant Unless Mitigated
 Less Than Significant Impact
 No Impact

b. Conflict with or obstruct a state or local plan for renewable energy or energy

efficiency? Impact Analysis:

There will be no conflict or obstruction to state or local energy plans for renewable energy or energy efficiency from the Proposed Project activities.

Conclusion:

- Potentially Significant Impact
- Potentially Significant Unless Mitigated
- Less Than Significant Impact
- No Impact

References Used:

- U.S. Department of Energy 2019. 2009 American Recovery and Reinvestment Act Overview. Accessed on April 19, 2019. Retrieved from: <u>https://www.energy.gov/oe/information-center/recovery-act</u>

7. Geology and Soils

Project Activities Likely to Create an Impact: Remediation System Construction, specifically, drilling and trenching.

Description of Baseline Environmental Conditions: The Site is located in the southeastern part of Los Angeles County, California, in the northeast portion of the Central Plain of the Los Angeles Basin (the Basin). The Basin is situated within the northwest portion of the Peninsular Geomorphic Province of California.

The subsurface lithology in the area of the Site includes non-marine and marine sediments to depths in excess of 2.5 miles below ground surface (bgs). Based on investigations conducted at the Site, the lithology encountered below the Site consists of interbedded deposits of sand, silty sand, silt and clay, to approximately 36 feet bgs (the maximum depth explored).

The topography of the Site and immediate surrounding area is relatively flat. The ground surface at the Site slopes gently to the east with an observed elevation difference of approximately seven feet. The elevation of the Site is approximately 70 feet above mean sea level (MSL).

The Site is located between two fault zones: the Los Alamitos Fault, less than 6 miles to the southwest, and the Whittier Fault, approximately 6 ¼ miles northeast of the Site.

The Site is mapped by the State of California as being in an area with a historic occurrence of liquefaction, or having local geological, geotechnical, and groundwater conditions that indicate a potential for permanent ground displacements such that mitigation as defined in Public Resources Code Section 2693(c) would be required (CDC).

Analysis as to whether or not project activities would:

- a. Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:
 - Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault. (Refer to Division of Mines and Geology Special Publication 42).
 - Strong seismic ground shaking.
 - Seismic-related ground failure, including liquefaction.

Landslides.

Impact Analysis: The nearest known fault to the Site is the Los Alamitos Fault, northern extent of which is approximately 6 miles southwest of the Site. There is no significant relief at the Site or on the contiguous properties, and coupled with the distance to known faults described above, no instability is anticipated. No structures are planned to be constructed at the Site as part of the proposed project. The project involves construction of two, relatively small remediation systems. The risks of exposure of human life to hazards related to earthquakes are considered very minor because the Site is located in a heavily industrial area, the number of people at the Site during construction and operation would not be materially different from normal facility operations. Therefore, no significant number of people or significant structures would be exposed to potential substantial adverse effects as a result of this proposed project.

The Site, including the proposed remedial systems, could be exposed to strong seismic ground shaking, seismic-related ground failure, and/or liquefaction, if an earthquake occurs during implementation of the proposed remediation activities. However, engineering, construction, and systems operation implemented in accordance with federal, state, and local rules and regulations should mitigate any potential significant impacts. It is not anticipated that strong seismic ground shaking would represent a significant impact during construction or operation of remedial systems.

The Site is located in an area of low topographic relief; no historic occurrence of landslide movement has been mapped by State of California Department of Conservation (CDC). It is not anticipated that landslides would represent a significant impact during construction or remedial systems operation.

Conclusion:

- Potentially Significant Impact
- Potentially Significant Unless Mitigated
- Less Than Significant Impact
- No Impact
- b. Result in substantial soil erosion or the loss of topsoil.

Impact Analysis: Aside from the landscaped area along Firestone Boulevard, the entire Site is either paved or covered with buildings. Therefore, the project will not result in any soil erosion or the loss of topsoil.

Conclusion:

- Potentially Significant Impact
- Potentially Significant Unless Mitigated
- Less Than Significant Impact
- No Impact
- c. Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on or off-site landslide, lateral spreading, subsidence, liquefaction or collapse.

Impact Analysis: There is no significant topographic relief at or nearby the Site. The Site has been fully developed for at least 50 years. The proposed project involves construction of two, relatively small remediation systems, and no structures or buildings. Therefore, no instability is anticipated as a result of the project.

Conclusion:

- Potentially Significant Impact
- Potentially Significant Unless Mitigated
- Less Than Significant Impact
- No Impact
- d. Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property.

Impact Analysis: Based on soil sampling conducted at the Site, the project would not be based on expansive soil. Soil underlying the Site is described as mostly sand, silt and silty sand.

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- Potentially Significant Impact
- Potentially Significant Unless Mitigated
- Less Than Significant Impact
- No Impact
- e. Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of water.

Impact Analysis: The project would not involve the use of septic systems or alternative wastewater disposal systems. During project implementation, on-site sanitary facilities would be used by project personnel. These facilities are maintained by the LeFiell company and are connected to the sewer system operated by the Los Angeles County Sanitation District. No impact would occur.

Conclusion:

| Potentially Significant Impact | |
|----------------------------------|----|
| Potentially Significant Unless M | it |

Potentially Significant Unless Mitigated

Less Than Significant Impact

No Impact

f. Be located in an area containing naturally occurring asbestos (see also Air Quality, f.).

Impact Analysis: The project is not located in an area containing naturally occurring asbestos. Further analysis of this issue is not necessary.

Conclusion:

- Potentially Significant Unless Mitigated
- Less Than Significant Impact
- No Impact

References Used:

- 1. Tetra Tech BAS, Remedial Investigation Report, LeFiell Manufacturing, 2017
- 2. Southern California Earthquake Data Center. http://scedc.caltech.edu/significant/index.html
- 3. California Department of Conservation (CDC). Seismic Hazard Zones, Whittier Quadrangle. http://gmw.consrv.ca.gov/shmp/download/pdf/ozn_whitt.pdf
- 4. CDC, California Geological Survey (CGS), CGS Information Warehouse http://maps.conservation.ca.gov/cgs/informationwarehouse/index.html?map=landslides

8. Greenhouse Gas Emissions

Project Activities Likely to Create an Impact: Remediation system construction and OM&M, specifically:

- Indirect emissions resulting from electricity use, i.e. from electricity generation by utility (SCE).
- Vehicle emissions associated with trips to and from the Site.

Description of Baseline Environmental Conditions: Greenhouse gases (GHGs) are gases that trap the heat in the lower atmosphere. Many greenhouse gases occur naturally in the atmosphere, such as carbon dioxide (CO_2), methane (CH_4), water vapor, and nitrous oxide (NO_2), while others are man-made (anthropogenic). The anthropogenic GHGs include the chlorofluorocarbons (CFCs), hydrofluorocarbons (HFCs) and perfluorocarbons (PFCs), as well as sulfur hexafluoride (SF_6). Atmospheric concentrations of both the natural and man-made gases have been rising over the last few centuries due to the industrial revolution. The largest anthropogenic source of GHGs is the combustion of fossil fuels, which results primarily in emissions of CO_2 . Prior to the industrial revolution, concentrations of CO_2 were fairly stable at 280ppm. Today, they are around 400 ppm.

At this time, regulated GHGs include CO₂, CH₄, NO₂, HFCs, PFCs, and SF₆. To account for the differences in the warming effect of various GHGs, emissions of various gases are often expressed in units of CO₂ equivalents (CO2e). According to the California Air Resources Board (ARB), in 2014, total California emissions were 441.5 million metric tons (MMT) CO2e. CO₂ accounted for over 84% of these emissions.

To provide guidance on determining significance for GHG emissions for CEQA purposes, in December 2008, the SCAQMD adopted an interim GHG significance threshold for projects within the SCAQMD jurisdiction. The significance threshold is applicable to stationary sources and can be used for determining significant impacts for proposed projects. Under the interim significance thresholds projects can emit up to 10,000 metric tons per year (MT/yr) of CO2e before being deemed as having significant air quality impacts.

The Site is located in an urbanized area of Los Angeles County, surrounded by other industrial properties. The Site is bordered by a railroad on one side and I-5 Freeway on the other, which are the most significant nearby greenhouse gas emission sources to the Site.

Analysis as to whether or not project activities would:

a. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment.

Impact Analysis: The project construction and treatment system OM&M will result in greenhouse gas emissions. However, due to their minor scale, impacts will be less than significant.

Emissions of GHGs resulting from construction of the proposed project were estimated using CalEEMod version 2016.3.1 (SCAQMD, 2016). The quantities of carbon dioxide equivalent emissions for the construction and O&M phases are estimated at approximately four (4) MT/yr and approximately 184 MT/yr, respectively (Attachment B); well below SCAQMD's significance threshold of 10,000 MT/yr. No significant impact is expected.

Conclusion:

- Potentially Significant Impact
- Potentially Significant Unless Mitigated
- Less Than Significant Impact
- No Impact
- b. Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases.

Impact Analysis: The greenhouse gas emissions resulting from the construction and operation of the proposed project are expected to be significantly less than the SCAQMD interim thresholds of significance for greenhouse gases (i.e., 10,000 MT/yr). Furthermore, the proposed project is not expected to result in a significant increase of either population or emissions sources and does not require a general plan amendment. Therefore, the proposed project would have a less than significant impact.

Conclusion:

- Potentially Significant Impact
- Potentially Significant Unless Mitigated
- Less Than Significant Impact
- No Impact

References Used:

- 1. National Oceanic and Atmospheric Administration, National Centers for Environmental Information <u>https://www.ncdc.noaa.gov/monitoring-references/faq/greenhouse-gases.php</u>
- 2. US EPA. https://www.epa.gov/ghgemissions/overview-greenhouse-gases
- 3. California Air Resources Board. California Greenhouse Gas Emission Inventory, 2016 Edition https://www.arb.ca.gov/cc/inventory/data/data.htm
- 4. SCAQMD. Greenhouse Gases (GHG) CEQA Significance Thresholds <u>http://www.aqmd.gov/home/regulations/ceqa/air-quality-analysis-handbook/ghg-significance-thresholds/page/2</u>
- 5. SCAQMD, California Emission Estimator Model (CalEEMod), version 2016.3.1 http://www.aqmd.gov/caleemod

9. Hazards and Hazardous Materials

Project Activities Likely to Create an Impact: Remediation system construction and OM&M

Description of Baseline Environmental Conditions: As described above, the Site has been the subject of various investigations since 2004. These investigations identified VOC impacts to soil, soil vapor and groundwater. The primary COCs are PCE; TCE; 1,1,1-TCA; 1,1-DCA; 1,1-DCE; and cis-1,2-DCE. Isolated detections of benzene, a few other VOCs, and 1,4-dioxane were also reported for several locations/samples. Concentrations of primary COCs are generally above action levels for soil gas and groundwater, but mostly below screening levels for soil. Based on the results of analytical testing, waste soil (e.g., soil cuttings) and groundwater (e.g., purge or rinse water), generated during investigations to date (i.e., investigation derived waste, IDW) was all classified as non-hazardous. All IDW to date has been either disposed of or treated (in case of water) as non-hazardous waste at appropriately permitted and licensed off-site facilities. Any future IDW or construction-related waste is likewise anticipated to be profiled as non-hazardous.

Analysis as to whether or not project activities would:

a. Create a significant hazard to the public or the environment throughout the routine transport, use or disposal of hazardous materials.

Impact Analysis: Project construction may include the installation and development of remediation wells. Soil cuttings and groundwater generated during well installation would be profiled and disposed or treated off-site at an appropriately licensed facility permitted to accept such waste. Based on previous instances of IDW disposal, soil and water wastes are anticipated to be classified as non-hazardous.

Project construction will also include minimal trenching. Soil excavated during trenching will be temporarily placed on plastic alongside the trench for re-use as backfill. If excavated soil is found to be unsuitable for re-use (due to environmental, geotechnical or other reasons), it will be handled in the same manner as soil cuttings.

Project operation includes remediation activities associated with on-site treatment of soil, soil vapor and groundwater. All of the proposed activities would be performed on-site, using common, industry standard practices and procedures. Spent treatment system materials (i.e., spent GAC) will be removed by a qualified vendor for off-site regeneration at a properly licensed facility. Proper planning, permitting, and execution would mitigate the hazards to on-site workers or the public.

Aside from temporary storage of IDW, pending off-site disposal, no storage of hazardous materials or wastes, is anticipated to be necessary during operation of the treatment systems. Compliance with applicable federal, state, and local codes and regulations for the handling and storage of hazardous materials would apply throughout the length of the project. Compliance with these regulations would help to ensure the safety of on-site workers. Project compliance with applicable regulations would reduce or limit the impact of the remediation activities with regard to the routine transport, use and disposal of the hazardous materials.

The LeFiell Manufacturing Company facility is a secured facility, closed to the public. Similarly, any disposal or treatment facility, which would accept project waste, is closed to the public. Transportation of waste from the Site to a treatment facility would be performed in compliance with applicable Department of Transportation regulations. Therefore, no significant hazard to the public or the environment is anticipated.

Conclusion:

- Potentially Significant Impact
- Potentially Significant Unless Mitigated
- Less Than Significant Impact
- No Impact
- b. Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment.

Impact Analysis: During construction, potential upsets associated with hazardous materials could include the accidental release of contaminated Site materials during the removal, management, or transportation of these materials, or the accidental release of construction-related hazardous materials such as fuel. The potential for the latter scenario is minimal, as all vehicle fueling will typically occur off-site. If any on-site fueling is performed (e.g., for a backhoe), the amount of fuel involved would be limited, and since the public is not allowed to be at

the project Site, no members of the public would be exposed to any hazard associated with such an accident. As noted above, in item 9a, proper execution of the project in accordance with industry standards and applicable regulations will significantly limit the potential for any upset or accidental release of the hazardous materials.

During the OM&M phase of the project, the foreseeable upset condition is associated with increased air emissions from the SVE systems, which may result from treatment media (GAC) breakthrough. However, operation of the SVE systems in accordance with the SCAQMD permit, and associated monitoring and sampling, will significantly limit the potential for media breakthrough. Even if breakthrough occurs, the increase in air emissions would be negligible in terms of both concentrations and duration. The maximum frequency of SVE system monitoring is weekly. Furthermore, as stated above, no members of the public would be exposed to such an event due to the project's location at a secure Site in an industrial area.

Conclusion:

- Potentially Significant Impact
- Potentially Significant Unless Mitigated
- 🛛 Less Than Significant Impact
- No Impact
- c. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances or waste within one-quarter mile of an existing or proposed school.

Impact Analysis: No hazardous emissions are anticipated during construction or operation of the proposed project. No hazardous or acutely hazardous materials, substances or waste will be handled as part of the project. There are no existing schools or other sensitive receptors within one-quarter mile of the Site. Is it highly unlikely that any schools would be proposed for an area within one-quarter mile of the Site as that area is fully developed with other industrial facilities.

Conclusion:

- Potentially Significant Impact
- Potentially Significant Unless Mitigated
- Less Than Significant Impact
- No Impact
- d. Be located on a Site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to public or the environment.

Impact Analysis: The project Site is not on the DTSC's, or any other California Environmental Protection Agency departments' Hazardous Waste and Substances Site Lists (Cortese Lists) or the United States Environmental Protection Agency (US EPA) National Priorities List (Superfund).

The purpose of the project is to remediate the Site. As a result, the overall risk to human health and the environment will be reduced.

Conclusion:

- Potentially Significant Impact
- Potentially Significant Unless Mitigated
- K Less Than Significant Impact
- No Impact
- e. Impair implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan.

Impact Analysis: Due to the short-term duration of construction and small scale of the treatment systems for the OM&M portion of the project, the project will not impair the implementation of, or physically interfere with, any established emergency response or evacuation plans. In the event of an emergency associated with the project implementation, the Site-specific Health and Safety Plan will be implemented to control and mitigate the situation, including evacuation and coordination with outside emergency responders when necessary.

| Conclusion: |
|--|
| Potentially Significant Impact |
| Potentially Significant Unless Mitigated |
| Less Than Significant Impact |
| No Impact |

References Used:

1. Tetra Tech BAS, Remedial Investigation Report, LeFiell Manufacturing, 2017

10. Hydrology and Water Quality

Project Activities Likely to Create an Impact: Remediation system construction and OM&M

Description of Baseline Environmental Conditions: The Site is located within the Central Subbasin pressure area of the Coastal Plain of Los Angeles Groundwater Basin. The Central Subbasin, known as the Central Basin, contains many aquifers of permeable sand and gravels separated by semi-permeable to impermeable sandy clay to clay. These aquifers extend to about 2,200 feet bgs. Throughout the Central Basin, the aquifers are confined, but areas with semi-permeable aquicludes allow some aquifer interaction. The near surface Bellflower aquiclude restricts vertical percolation into the Holocene-age Gasper aquifer and other underlying aquifers creating local semi-perched groundwater conditions. According to the Los Angeles Regional Water Quality Control Board (LA-RWQCB), the Los Angeles Groundwater Basin is designated for various beneficial uses, including municipal, agricultural, and industrial.

Based on investigations conducted at the Site, groundwater beneath the Site is first encountered at approximately 20 to 24 feet bgs. Since April 2011, groundwater elevations have decreased by an average of more than five feet across the Site. The shallow groundwater at the Site flows towards the east/northeast at an average rate of approximately 10 feet/year.

Groundwater beneath the Site is impacted by variety of VOCs, concentrations of which exceed maximum contaminant levels (MCLs) at most groundwater monitoring wells, located in the central portion of the Site. Groundwater at the Site is monitored on a quarterly basis.

No surface water bodies are present on or adjacent to the Site. The nearest surface water body to the Site is La Mirada creek, located approximately ½ mile east of the Site. No other surface water bodies are located within a one-mile radius of the project Site. No part of the Site is located within a 100-year floodplain. The Site is located within FEMA Zone X, an area of minimal flood hazard.

Analysis as to whether or not project activities would:

a. Violate any water quality standards or waste discharge requirements.

Impact Analysis: Construction of the remediation systems would be conducted in accordance with all required federal, state, and local permits. Surface water discharges during construction would be controlled through the implementation of Best Management Practices (BMPs), such as covering soil stockpiles with plastic sheeting or using erosion control measures around trenches, to reduce or eliminate storm water pollution. No significant impacts to surface water would occur. Operation of the remediation systems, while it includes groundwater treatment via AS/SVE, will not involve groundwater extraction. No waste discharge requirements are anticipated to be required for operation of the remediation systems. The project is aimed at improving the water quality.

Conclusion:

- Potentially Significant Impact
- Potentially Significant Unless Mitigated
- Less Than Significant Impact
- No Impact
- b. Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficient in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted).

Impact Analysis: The project includes groundwater treatment for a period of several years through use of AS/SVE (i.e., no groundwater extraction). Groundwater beneath the Site is impacted by various contaminants and the project is intended to remediate such impacts. Water supply in the area is generally derived from significantly deeper aquifers, which are not expected to be impacted by project-related groundwater treatment at shallow depths. Although the project would result in minor fluctuations of the water table, those would be highly localized, as well as limited in duration. Therefore, groundwater treatment is not expected to result in significant impacts to groundwater supply.

Conclusion:

- Potentially Significant Impact
- Potentially Significant Unless Mitigated
- Less Than Significant Impact
- No Impact
- c. Substantially alter the existing drainage pattern of the Site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on or off-site.

Impact Analysis: The proposed project would not alter local drainage patterns. BMPs would be implemented to eliminate or reduce storm water pollution. Project activities will not result in substantial erosion or siltation on or off Site.

Conclusion:

- Potentially Significant Impact
- Potentially Significant Unless Mitigated
- Less Than Significant Impact
- No Impact
- d. Substantially alter the existing drainage pattern of the Site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on or off-site.

Impact Analysis: The proposed project would not alter the existing drainage pattern associated with the Site or increase surface water runoff.

Conclusion:

- Potentially Significant Impact
- Potentially Significant Unless Mitigated
- Less Than Significant Impact
- No Impact
- e. Create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff.

Impact Analysis: The overall scale of the proposed project is small. No significant changes in surface materials or topography are anticipated as a result of the remedial activities. As discussed previously, BMPs would be implemented to reduce or eliminate storm water pollution due to construction activities.

Conclusion:

- Potentially Significant Impact
- Potentially Significant Unless Mitigated
- Less Than Significant Impact
- No Impact
- f. Otherwise substantially degrade water quality.

Impact Analysis: The purpose of the project is to improve water quality. No degradation of water quality is anticipated.

Conclusion:

- Potentially Significant Impact
- Potentially Significant Unless Mitigated
- Less Than Significant Impact
- No Impact
- g. Place within a 100-flood hazard area structures which would impede or redirect flood flows.

Impact Analysis: The Site is not located within a 100-year flood hazard area and no new structures are proposed as part of the project.

Conclusion:

- Potentially Significant Impact
- Potentially Significant Unless Mitigated
- Less Than Significant Impact
- No Impact
- h. Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam.

Impact Analysis: The project is not located in or near an area with a significant risk of flooding, and does not include structures that would affect flood flows.

Conclusion:

- Potentially Significant Impact
- Potentially Significant Unless Mitigated
- Less Than Significant Impact

No Impact

i. Inundation by seiche, tsunami or mudflow.

Impact Analysis: There are no reservoirs or closed bodies of water at or near the Site, which could produce a seiche. The Site is not located in a coastal zone, so impacts from tsunamis are not anticipated. The Site is located in an area of low topographic relief, so impacts from mudflows would not occur.

Conclusion:

- Potentially Significant Impact
- Potentially Significant Unless Mitigated
- Less Than Significant Impact
- No Impact

References Used:

- 1. Tetra Tech BAS, Remedial Investigation Report, LeFiell Manufacturing, 2017
- 2. California Department of Water Resources (CDWR), 1961. Planned Utilization of the Ground Water Basins of the Coastal Plain of Los Angeles County, Appendix A: Ground Water Geology. California Department of Water Resources Bulletin 104, June 1961.
- 3. Federal Emergency Management Administration. Flood Map Service Center. Accessed November 2016. <u>https://msc.fema.gov/portal/search?AddressQuery=13700%20firestone%20boulevard%2C%20santa%20fe</u> %20springs%2C%20ca#searchresultsanchor

11. Land Use and Planning

Project Activities Likely to Create an Impact: NONE

Description of Baseline Environmental Conditions: The Site is a manufacturing facility, located in an area of other industrial properties. The Site is fully developed with manufacturing and support buildings. The City of Santa Fe Springs has zoned the Site Heavy Manufacturing (with Freeway Overlay, M-2-FOZ).

Analysis as to whether or not project activities would:

a. Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect.

Impact Analysis: The City of Santa Fe Springs General Plan and Zoning designations identify the Site for heavy industrial use. The current use of the Site is consistent with these designations. The proposed remedy for the Site would not include additional development or require a change in the current land use designations. Therefore, there would be no land use impact resulting from the project.

Conclusion:

- Potentially Significant Impact
- Potentially Significant Unless Mitigated
- Less Than Significant Impact
- No Impact
- b. Conflict with any applicable habitat conservation plan or natural community conservation plan.

Impact Analysis: The Site is not located in or near an area subject to a habitat conservation plan or natural community conservation plan. Implementation of project activities would not have any effect on any habitat conservation plan or natural community conservation plan.

Conclusion:

- Potentially Significant Impact
- Potentially Significant Unless Mitigated
- Less Than Significant Impact
- No Impact

References Used:

1. City of Santa Fe Springs Zoning Map, 2007

12. Mineral Resources

Project Activities Likely to Create an Impact: NONE

Description of Baseline Environmental Conditions: The project Site is fully developed and is inaccessible for mining of such resources as sand, gravel or rock, even if those resources existed at the Site, which is unlikely. The Site is located outside of any designated oil field. No oil or gas wells are known to have ever existed at the Site, and no known active wells are located in a vicinity of the Site. The only vicinity oil field, which is still identified by the California Department of Oil, Gas and Geothermal Resources, as active (i.e., not abandoned) is the Santa Fe Springs oil field, which is located approximately 3 miles north of the Site.

Analysis as to whether or not project activities would:

a. Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state.

Impact Analysis: Project activities would not result in the loss of any known or previously unidentified mineral resources at the Site.

Conclusion: Potentially Significant Impact Potentially Significant Unless Mitigated Less Than Significant Impact No Impact

b. Result in the loss of availability of a locally-important mineral resource recovery Site delineated on a local general plan, specific plan or other land use plan.

Impact Analysis: The City of Santa Fe Springs General Plan does not identify the Site as being in an area of important mineral resources, including petroleum deposits. Therefore, the project would not result in the loss of such an area.

Conclusion:

- Potentially Significant Impact
- Potentially Significant Unless Mitigated
- Less Than Significant Impact
- 🛛 No Impact

References Used:

1. CDC, Department of Oil, Gas and Geothermal Resources. http://maps.conservation.ca.gov/doggr

13. Noise

Project Activities Likely to Create an Impact:

- Remediation system construction, including noise from drilling operations
- Remediation system OM&M, including noise from treatment systems' blowers/compressor

Description of Baseline Environmental Conditions: As described previously, the Site is a developed and operational manufacturing facility. The noise environment at the Site is typical of industrial uses, such as use of air compressors, on-site equipment (forklifts), machinery and other tools and/or equipment. Typical noise levels within the open exterior areas of the facility (i.e., neither inside the office building nor in the immediate proximity to operating facility equipment) are in the range of 65-68 dB(A). Along frontage of the Site, which faces I-5 Freeway (no sound wall), noise levels were measured to be slightly above 70 dB(A), i.e., higher than within the Site. This property boundary noise level is consistent with published levels for highway traffic noise at a distance of 50 feet from the highway. Hearing protection is typically required for situations where noise levels exceed 85 dB(A). The nearest sensitive receptors to the Site are a school, located approximately 3/4 mile north of the Site on the other side of I-5 freeway, and a residential neighborhood, located approximately 1/3 mile south of the Site.

Analysis as to whether or not project activities would:

a. Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.

Impact Analysis: Project implementation has the potential to increase noise levels temporarily during construction from the drilling of wells and installation of equipment in the immediate vicinity of those installations. In the immediate vicinity of a drill rig (i.e., within 5 feet), noise levels can reach 100 dBA (similar to a gas lawnmower); however, noise levels attenuate to less than 80 dBA within 50 feet. It should be noted that all wells anticipated to be required for implementation of the remedial action at the Site at this time have already been installed as part of Site investigation activities; and significant number of new wells, if any, is not anticipated. A negligible increase in worker trips would also add noise to the project Site. However, these new noise sources would be temporary and, given the industrial nature of the Site, would not adversely affect people or sensitive receptors.

The treatment systems would include blowers, air compressor, and potentially other equipment that would add to noise at the project Site during the OM&M period. Unmitigated, remediation equipment can produce noise levels in the range of 75 to 90 dB(A). However, all noise-generating equipment will be installed within specially designed enclosures, which would attenuate any project-related noises to ambient facility levels within the facility boundaries. In the immediate vicinity of the enclosed equipment, noise levels are estimated at approximately 80 dB(A), attenuating to approximately 75 dB(A) within 30 feet and to ambient levels (see above) within 50 feet. As noted before, the facility is located between the I-5 Freeway and a railroad. Both of these features impact the ambient noise levels in the general area of the facility, as well as along facility boundary. Given the industrial nature of the overall project area, exposure of the general population will not be any different from current conditions and no plans, ordinances or standards will be exceeded.

Conclusion:

- Potentially Significant Impact
- Potentially Significant Unless Mitigated
- Less Than Significant Impact
- No Impact
- b. Exposure of persons to or generation of excessive ground borne vibration or ground borne noise levels.

Impact Analysis: Use of drill rigs for installation of remediation wells could result in localized ground borne vibration and elevated noise levels. However, well installation activities require only 2-3 days to complete, and drilling impacts would be limited to the immediate vicinity of each well location. The only persons who may be close enough to a drill rig to experience vibration or elevated noise levels, are drillers, field geologists or engineers, who are trained to exercise appropriate personal protective measures. The impact to others would be negligible.

Conclusion:

- Potentially Significant Impact
- Potentially Significant Unless Mitigated
- Less Than Significant Impact
- No Impact
- c. A substantial permanent increase in ambient noise levels in the vicinity above levels existing without the project.

Impact Analysis: Refer to discussion under 13a. Although project implementation would result in a slight increase in noise levels in areas close to remediation construction activities and treatment system compounds, these new noise sources would be limited in duration and would comply with applicable local noise standards. The project is not anticipated to result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project.

Conclusion:

Potentially Significant Impact
 Potentially Significant Unless Mitigated
 Less Than Significant Impact
 No Impact

d. A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project.

Impact Analysis: Refer to discussion under 13a. Although project implementation would result in a slight increase in noise levels in areas close to remediation construction activities and treatment system compounds, these new noise sources would be limited in duration and would comply with applicable local noise standards. The project is not anticipated to result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project.

Conclusion:

- Potentially Significant Impact
- Potentially Significant Unless Mitigated
- Less Than Significant Impact
- No Impact

References Used:

1. California Department of Transportation. https://www.fhwa.dot.gov/environment/noise/construction_noise/handbook/handbook09.cfm

14. Population and Housing

Project Activities Likely to Create an Impact: NONE

Description of Baseline Environmental Conditions: The Site is an industrial facilities, located in an area of other industrial properties. The Site is bordered by I-5 Freeway on one side and a railroad on another. There are no

residential properties on-site or adjacent to the Site. The nearest residential development is more than 1/3-mile south of the Site.

Analysis as to whether or not project activities would:

a. Induce substantial population growth in area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure).

Impact Analysis: The project does not include development of new homes or businesses that could potentially induce population growth in the area, nor does it include plans to extend roads or major infrastructure that could indirectly induce population growth. Furthermore, while limited new employment opportunities would be created by the project, it is expected that the employees would be drawn from the existing local labor force and would not require relocation or place a demand for housing in the area. Thus, no impacts on area population growth would occur with project implementation and, therefore, no further analysis of this issue is required.

Conclusion:

- Potentially Significant Impact
- Potentially Significant Unless Mitigated
- Less Than Significant Impact
- No Impact
- b. Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere.

Impact Analysis: The Site is an industrial facility with no on-site housing. Implementation of project activities is not expected to have any effect on housing resources.

Conclusion:

Potentially Significant Impact

Potentially Significant Unless Mitigated

Less Than Significant Impact

No Impact

c. Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere.

Impact Analysis: The project will not displace any people.

Conclusion:

Potentially Significant Impact

Potentially Significant Unless Mitigated

- Less Than Significant Impact
- No Impact

15. Public Services

Project Activities Likely to Create an Impact: NONE

Description of Baseline Environmental Conditions: The Site is an industrial facility, located in an area of other industrial properties. There are no parks, hospitals or daycare centers adjacent or nearby the Site. The nearest community park (Joe A. Gonsalves Park) is located approximately ½-mile south of the Site. The closest hospital, Norwalk Community Hospital, is approximately 2 miles from the Site. The nearest school, Ramona Head Start Preschool, is 3/4 miles north from the Site, on the other side of I-5 Freeway. The closest Los Angeles County Sheriff facility to the Site is the Cerritos Sheriff Station, more than 2 miles southwest of the Site. The Los Angeles County Fire Department Station #35 is approximately 1 mile south of the Site.

Analysis as to whether or not project activities would:

a. Result in substantial adverse physical impacts associated with the provision of new or physically altered government facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the following public services:

- Fire protection
- Police protection
- Schools
- Parks
- Other public facilities

Impact Analysis: No public facilities are present at the Site or on contiguous properties. There are no parks, hospitals or daycare centers in the immediate vicinity of the Site. The proposed project will not result in an increase in population or an increase in demand on local fire protection, police protection, schools, parks or other public facilities. Remedial activities would be similar to investigation and/or pilot activities at the Site. All workers at the Site would be required to follow standard procedures for fire safety. Security of workers and equipment would generally be the responsibility of the contractors at the Site. Therefore, this proposed project would not alter or require any new public service facilities.

Conclusion:

Potentially Significant Impact
 Potentially Significant Unless Mitigated
 Less Than Significant Impact
 No Impact

16. Recreation

Project Activities Likely to Create an Impact: NONE

Description of Baseline Environmental Conditions: The Site is an industrial facility, located in an area of other industrial properties. There are no recreational facilities at, adjacent or nearby the Site. The nearest community park (Joe A. Gonsalves Park) is located approximately ½-mile south of the Site.

Analysis as to whether or not project activities would:

a. Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated.

Impact Analysis: Project implementation would not induce population growth and would not, therefore, increase the use of existing local or regional parks or other recreational facilities.

Conclusion:

Potentially Significant Impact
 Potentially Significant Unless Mitigated
 Less Than Significant Impact
 No Impact

b. Include recreational facilities or require construction or expansion of recreational facilities which might have an adverse physical effect on the environment.

Impact Analysis: The project does not include construction or expansion of recreational facilities.

Conclusion: Potentially Significant Impact Potentially Significant Unless Mitigated Less Than Significant Impact No Impact

17. Transportation and Traffic

Project Activities Likely to Create an Impact: Remediation system construction and OM&M. Specifically:

- Worker travel to and from the Site. Fewer than 10 workers a day are anticipated to travel to and from the Site during construction, and fewer than two workers per week for the OM&M of remedial systems.
- Transport and use of heavy equipment to construct the remedial systems, including but not limited to drill rigs, back hoes, and forklifts.
- Deliveries of materials and supplies and removal of minor quantities of waste from the Site.

Description of Baseline Environmental Conditions: As mentioned throughout this Initial Study, the Site is located on Firestone Boulevard. Firestone Boulevard is located just north-northeast of the project Site, provides access to the Site, and also separates the Site from the I-5 Freeway, which lies immediately northeast of Firestone Boulevard.

The transportation system in the project area is composed of numerous highways (both freeways and arterial highways), as well as numerous Los Angeles County and Cities of Santa Fe Springs and Cerritos routes. The City of Santa Fe Springs is served by two major freeways, the I-5 and I-605 Freeways, connecting the City to adjoining parts of Los Angeles County. These freeways converge approximately 5 miles northwest of the project Site. The City of Santa Fe Springs' 105.5-mile road system includes 31.5 miles of arterial highways, 74 miles of local roads, and 22 bridges (Emergency Planning Consultants 2006). Major highways in the vicinity of the project Site include Alondra Boulevard to the south and Carmenita Road to the west. Marquardt Avenue, located east of the Site, is classified as a secondary highway (City of Santa Fe Springs 2007). Alondra Boulevard is shown as one of the evacuation routes in the City's Hazard's Mitigation Plan (Emergency Planning Consultants 2006). In addition to the I-5 Freeway and Firestone Boulevard, the Site can be accessed via the I-605 Freeway, located approximately 3.5 miles west of the Site, or via the 91 Freeway, located less than 2 miles south of the Site.

As mentioned in the beginning of this document, a portion of the Site was acquired by Caltrans for the widening and related reconstruction of the I-5 Freeway. Caltrans work in the immediate vicinity of the Site is performed as part of two projects: an Interstate 5 Corridor Improvement Project and a Carmenita Road Interchange Project. The I-5 Improvement Project includes replacement of the Alondra/I-5 bridge (south of the Site), which was reopened in 2014 (Caltrans 2015a). Improvements to the Carmenita Road overcrossing structure and ramps (northeast of the Site) began in 2011 and were mostly completed in July 2016 (Caltrans 2016a). Approximately 0.5 mile south of the Site, construction of the Valley View Avenue Interchange Project will begin in late 2016 and is planned for completion in late 2019 (Caltrans 2016b). Due to these improvements, temporary closures of portions of the I-5 Freeway and surrounding roads in the project area have occurred and will continued to occur until the improvements are completed. In addition, as a result of roadwork conducted by Caltrans, including reconstruction of Carmenita Interchange immediately north of the Site, access to the Site from I-5 Freeway is only via north (northeast) bound Firestone Boulevard (from Alondra Boulevard). Currently, there are only three businesses located along Firestone Boulevard between Carmenita Road and Alondra Boulevard: the LeFiell Manufacturing Company, a Ryder Truck rental facility and a small motel. Typical traffic to and from these facilities is limited. Due to widening of the I-5 Freeway, Firestone Boulevard now provides only local access to businesses along this road and there is practically no "through" traffic.

According to the Final EIR/EIS for the Interstate 5 Corridor Improvement Project, prior to Caltrans' I-5 reconstruction, the Levels of Service (LOS) for ramps and adjacent intersections (within one major street of the I-5 corridor) ranged from LOS A (free-flow conditions) to LOS F (severely congested conditions) (Caltrans and FHWA 2007). Several of the I-5 Freeway on- and off-ramps for both southbound and northbound directions were assessed at LOS "F" in the 2007 Final EIR/EIS. LOS F is considered overcapacity with a condition of excessively high delay. Completion of the Interstate 5 Corridor Improvement Project is expected to improve the traffic LOS at most intersections in the vicinity of the project Site to a Level E or above.

According to the City of Santa Fe Springs 2009 Traffic Volumes Map (Minager 2009), traffic volumes were 20,000 to 30,000 vehicles per day along Alondra Boulevard; 10,000 to 20,000 vehicles per day on Carmenita Road; and 5,000 to 10,000 vehicles per day on the portion of Firestone Boulevard immediately adjacent to the Site. As discussed above, the current Firestone Boulevard traffic volumes are expected to be lower due to recent road realignment.

A network of public bus routes provides access to employment, schools, shopping, and recreational areas within the City. Regional bus service is provided by the Los Angeles County Metropolitan Transportation Authority (MTA). Sub regional bus service is provided by the City of Norwalk. Additionally, the City of Santa Fe Springs contracts with the City of Norwalk for a local, fixed-route circulator. The Cities of Norwalk and Santa Fe Springs jointly own and operate a Metrolink station known as the Norwalk/Santa Fe Springs Transportation Station, which provides rail service for long-distance commuters traveling between Santa Fe Springs and other locations in the Counties of Los Angeles, Orange and Riverside. The Union Pacific, Burlington Northern/Santa Fe, and Metrolink Railways serve the City with tracks running from the northwest to the southeast, and from the north to the southwest. The railroad tracks are located just southwest of the project Site (Emergency Planning Consultants 2006).

Analysis as to whether or not project activities would:

a. Cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections).

Impact Analysis: Construction activities associated with project implementation would result in the temporary and short-term generation of relatively few trips associated with the activities identified above. The average number of vehicle trips per day, to and from the project Site, would be 3-4 trips per day during the 3- to 4-week construction period; 1 trip per week during the OM&M period; 2 trips per day during the 1-week decommissioning period; and 2-4 trips per quarter during post-remediation monitoring period. The number of working days per month, on average, is approximately 5 days, with working hours extending from 7:00 AM to 4:00 PM Monday to Friday. Most vehicle trips would occur between 6:00 am to 7:00 am and 3:00 pm to 4:00 pm Monday through Friday, with some trips possible outside of those times (e.g., on weekends or later in the afternoon) in a less concentrated pattern.

Transport and use of heavy equipment will be necessary to construct the remedial systems for the project, including but not limited to drill rig(s), back hoe(s), and/or forklift(s). Transport of heavy equipment will be confined to times and routes that would create the least impact on surrounding roadways.

As also mentioned in Section 3b, because LeFiell Manufacturing company is an active operating facility, most of treatment system construction will have to take place while the facility is not operating (e.g., during annual holiday break at the end of the year, or after normal business hours). In addition, as noted in the description of baseline environmental conditions above, the transportation system serving the highly urbanized project area is extensive - two major freeways (I-5 and I-605), arterial highways, and numerous County and City routes. The estimated project vehicle trips would be in keeping with the industrial character and industrial traffic of the area and would be temporary. Therefore, the net effect of construction-related traffic is considered negligible. Post-construction trips, also considered negligible, would be limited to ongoing maintenance and operation of the remedial systems. Both the construction and post-construction operations would have less than significant impacts on the local and regional transportation networks.

Conclusion:

- Potentially Significant Impact
- Potentially Significant Unless Mitigated
- Less Than Significant Impact
- No Impact
- b. Exceed, either individually or cumulatively, a level of service standard established by the country congestion management agency for designated roads or highway.

Impact Analysis: Refer to the response provided above under item 17.a. Based on project trip volume and an extensive roadway system in the project area, both the construction and post-construction operations are not expected to result in significant traffic impacts in the area.

Conclusion:

- Potentially Significant Impact
- Potentially Significant Unless Mitigated
- Less Than Significant Impact
- No Impact
- c. Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).

Impact Analysis: Project implementation does not include creating any new roads or upgrading any existing roads, nor would it create any incompatible uses. Therefore, the project would not result in any increase in road hazards and further analysis of this issue is not necessary.

Conclusion:

- Potentially Significant Impact
- Potentially Significant Unless Mitigated
- Less Than Significant Impact

No Impact

d. Result in inadequate emergency access.

Impact Analysis: All remediation activities associated with the project would be conducted within the project Site boundaries and would not change the current Site access nor would it result in inadequate emergency access. No impact will be experienced. Further analysis of this issue is, therefore, not necessary.

Conclusion:

Potentially Significant Impact
 Potentially Significant Unless Mitigated
 Less Than Significant Impact
 No Impact

e. Result in inadequate parking capacity.

Impact Analysis: There is ample parking at the facility, including separate employee parking and designated visitor parking. Limited vehicle trips are anticipated during construction and O&M at any given time; hence, none of the proposed project activities would significantly affect parking capacity at or around the Site.

Conclusion:

- Potentially Significant Impact
- Potentially Significant Unless Mitigated
- Less Than Significant Impact
- No Impact
- f. Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks).

Impact Analysis: The proposed project would not affect public transportation or alternative transportation modes in the area of the Site.

Conclusion:

- Potentially Significant Impact
- Potentially Significant Unless Mitigated
- Less Than Significant Impact
- No Impact

References Used:

- California Department of Transportation (Caltrans). 2015a. Alondra Bridge Project Fact Sheet. http://my5la.com/wp-content/uploads/2011/05/Alondra-Blvd-Bridge-Project_Fact-Sheet.pdf. Accessed October 2016.
- Caltrans. 2015b. 2014 Traffic Volumes on California State Highways. Annual Average Daily Traffic (Annual ADT). http://www.dot.ca.gov/trafficops/census/docs/2014_aadt_volumes.pdf. Accessed October 2016.
- Caltrans. 2016a. Carmenita Road Interchange Project October 30, 2016. http://www.my5la.com/carmenita-road-interchange-project-october-30-2016/. Accessed October 2016.
- 4. Caltrans. 2016b. Valley View Avenue Interchange. http://my5la.com/valley-view-avenue/. Accessed October 2016.
- Caltrans and U.S. Department of Transportation Federal Highway Administration (FHWA). 2007. Interstate 5 Corridor Improvement Project, Los Angeles and Orange Counties, California, Final EIR/EIS. Report Number: FHWA-CA-EIS-06-11-F, SCH Number: 2001111151. http://www.dot.ca.gov/dist07/travel/projects/I-5/. Accessed October 2016.
- City of Santa Fe Springs. 2007. Arterial Highway System Map. http://www.santafesprings.org/civica/filebank/blobdload.asp?BlobID=2912. Accessed October 2016.
- 7. Emergency Planning Consultants. 2006. City of Santa Fe Springs Natural Hazards Mitigation Plan. Adopted: October 11, 2004. Revised on October 12, 2006.
- http://www.santafesprings.org/civica/filebank/blobdload.asp?BlobID=2511. Accessed October 2016.
 8. Minager and Associates, Inc. 2009. 2009 Traffic Volumes Map. City of Santa Fe Springs 2009 Citywide Engineering & Traffic Survey. July 3.

http://www.santafesprings.org/civica/filebank/blobdload.asp?BlobID=3900. Accessed October 2016.

18. Tribal Cultural Resources

Project Activities Likely to Create an Impact:

- Installation of groundwater air sparging/soil vapor extraction piping (less than 30 feet) will be installed underground
- Trenching for these purposes will be to a depth of 18 to 24 inches deep

Description of Baseline Environmental Conditions: The Site is located in the southeastern part of Los Angeles County, California, in the northeast portio of the Central Plain of the Los Angeles Basin. Based on investigations conducted at the Site, the Site is underlain by alluvial soils, which mostly consist of sand and silty sand to 15 feet below ground surface, and primarily silt and lesser amounts of clay to the maximum depth explored. These findings are consistent with available literature for this area of the Los Angeles Basin, including publically available information for other sites in the vicinity.

Groundwater beneath the Site is first encountrered at approximately 20 to 24 feet below ground surface. Since April 2011, groundwater elevations have decreased by an average of almost five feet across the Site. The shallow groundwater at the Site flows toward the northeast at an average rate of approximately 10 feet per year. The ground surface at the Site slopes gently to the east with an observed elevation difference of approximately seven feet. The elevation of the Site is approximately 70 feet above mean sea Level.

DTSC's Office of Environmental Justice and Tribal Affairs (EJTA) contacted the Native American Heritage Commission (NAHC) about this Site and received a response, dated April 25, 2017, indicating that a search of NAHC's Sacred Lands File was negative for the area in which the Site is located. NAHC included a Native American Contacts List for the area of the Site. DTSC sent letters of inquiry, dated May 19, 2017, specific to the Site to the five Tribal Contacts provided by NAHC. EJTA has followed up with all of the five contacts to assure that the letters of inquiry were received and that there were no concerns regarding Tribal Cultural Resources at the Site. No response has been received from any of the five Tribal Contacts, or any others, indicating an interest in this Site.

As a precaution, the Removal Action Workplan (RAW) includes the following recommendation: If any potential prehistoric or historic-era materials are discovered during excavation activities, all work in that area will be halted or diverted until a qualified archaeologist can evaluate the nature and significance of the finds. If the materials are found to be Native American in origin, immediately contact any of the Tribal Contacts on the list provided by NAHC to alert them of the discovery. DTSC staff and property owner are also to be immediately notified and informed of this situation. After discussion with any of the Tribal Contacts and/or their respective Cultural Resources Managers and in collaboration with DTSC (including the Office of Environmental Justice and Tribal Affairs) and the property owner, implement any measures deemed necessary to record and/or protect the pre-historic or historic resources.

In addition, the contractors performing the remedial activities on the Site are to be alerted to be observant and aware that they may encounter potential Native American cultural or archaeological resources and/or human remains.

In the event of accidental discovery or recognition of any human remains during ground disturbing activities, excavation or disturbance of the Site or any nearby area shall stop immediately and the County Coroner notified to determine its origin. The coroner will determine disposition within 48 hours. If the remains are Native American, the coroner will be responsible for contacting the NAHC within 24 hours. The NAHC will identify and notify the person(s) who might be the most likely descendent (MLD) who will make recommendations for the appropriate and dignified treatment of the remains (Public Resources Code, section 5097.98). The descendants shall complete their inspection and make recommendations or preferences for treatment within 48 hours of being granted access to the Site (CEQA Guidelines, CCR section 15064.5(e); HSC section 7050.5).

In the event of accidental discovery of potential cultural or archaeological resources, immediately suspend excavation activities in the immediate area and surrounding 50 feet until a qualified archaeologist can evaluate the nature and significance of the discovery. Immediately contact any of the Tribal Contacts on the list provided by NAHC to alert them of the discovery. DTSC staff and property owner are also to be immediately notified and informed of this situation. After discussion with any of the Tribal Contacts and/or their respective Cultural Resources Managers and in collaboration with DTSC (including the Office of Environmental Justice and Tribal Affairs) and the property owner, implement any measures deemed necessary to record and/or protect the cultural or archaeological resources.

Analysis as to whether or not project activities would:

a. Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a Site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:

b.

i. Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or

Impact Analysis: The Site is an industrial property located in the City of Santa Fe Springs. There are two locations listed on the National Registry for Historic Places in the City of Santa Fe Springs but are not near the Site.

The Native American Heritage Commission identified several potential Native American Tribes interested in the Site. DTSC sent letters to Tribal Contacts on May 19, 2017 and consulted with one Native American Tribe. DTSC will consult with any Native American Tribe requesting consultation on the Site. If requested by one of the tribes, tribal monitoring will be present during project activities. If any archaeological resources are uncovered during Site work, project activities will be halted and a Tribal representative(s) and/or a qualified archaeologist will be contacted immediately. Finding archeological resources is unlikely, so no impact is expected.

Conclusion:

Potentially Significant Impact

Less Than Significant With Mitigation Incorporated

Less Than Significant Impact

No Impact

ii. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resource Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

Impact Analysis: No significant Tribal Cultural Resources have been identified at the Site. The Native American Heritage Commission identified several potential Native American Tribes interested in the Site. DTSC sent letters to Tribal Contacts on May 19, 2017 and consulted with one Native American Tribe. DTSC will consult with any Native American Tribe requesting consultation on the Site. If requested by one of the tribes, tribal monitoring will be present during project activities. If any archaeological resources are uncovered during Site work, project activities will be halted and a Tribal representative(s) and/or a qualified archaeologist will be contacted immediately. Finding archeological resources is unlikely, so no impact is expected.

Conclusion:

- Potentially Significant Impact
- Less Than Significant With Mitigation Incorporated
- Less Than Significant Impact

No Impact

References Used:

- 1. Correspondence with the Tribal governments.
- 2. National Register of Historic Places

19. Utilities and Service Systems

Project Activities Likely to Create an Impact: Remediation system construction and OM&M. Specifically, a minor increased electrical demand to operate remediation systems.

Description of Baseline Environmental Conditions: The Site is a fully developed industrial facility, served by various municipal and private entities for water, wastewater, storm drain and solid waste.

Analysis as to whether or not project activities would:

a. Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board.

Impact Analysis: Project implementation will not require waste water treatment, except indirectly, as a result of incidental use of restroom facilities by construction and OM&M personnel. Refer to Section 9 for details

regarding disposal of non-hazardous purge/rinse water, which will be generated during development and sampling of groundwater monitoring wells.

Conclusion:

- Potentially Significant Impact
- Potentially Significant Unless Mitigated
- Less Than Significant Impact
- No Impact
- b. Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.

Impact Analysis: Project implementation will not require or result in the construction or expansion of water or wastewater treatment facilities.

Conclusion:

- Potentially Significant Impact
- Potentially Significant Unless Mitigated
- Less Than Significant Impact
- No Impact
- c. Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.

Impact Analysis: Project implementation will not require or result in the construction or expansion of storm water drainage facilities.

Conclusion:

- Potentially Significant Impact
- Potentially Significant Unless Mitigated
- Less Than Significant Impact

No Impact

d. Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed.

Impact Analysis: The amount of water needed for project activities is expected to be nominal as it would be limited primarily to dust control (if any is necessary) and similar activities during construction, and personal use during operation.

Conclusion:

- Potentially Significant Impact
- Potentially Significant Unless Mitigated
- Less Than Significant Impact
- No Impact
- e. Result in determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the projects projected demand in addition to the providers existing commitments.

Impact Analysis: Project implementation will not include generation of wastewater, aside from purge/rinse groundwater, which would be containerized and disposed of and/or treated off-site.

Conclusion:

- Potentially Significant Impact
 Potentially Significant Unless Mitigated
 Less Than Significant Impact
 No Impact
- f. Be served by a landfill with sufficient permitted capacity to accommodate the projects solid waste disposal needs.

Impact Analysis: The amount of municipal solid waste (i.e., trash, debris, etc.), expected to be generated by project activities, would be minimal during construction and negligible during the OM&M phase of the project. During construction, the amount of municipal solid waste would be less than a typical trash dumpster of 3 cubic yard capacity. During the OM&M phase of the project, trash generated once a week would typically fit inside a 1-gallon zip-lock bag. Refer to Section 9 for further detail on non-hazardous solid waste, such as soil or groundwater, which would be generated during project implementation. Such wastes will be disposed of and/or treated off-site at properly licensed and permitted facilities, only upon receipt of acceptance from such facilities. Therefore, project implementation impacts pertaining to being served by a landfill with sufficient permitted capacity to accommodate the project solid waste disposal needs would be less than significant.

| - | | | |
|--------|------|------|----|
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| ~ ~ | | | |

- Potentially Significant Impact
- Potentially Significant Unless Mitigated
- Less Than Significant Impact
- No Impact
- g. Comply with federal, state, and local statutes and regulations related to solid waste.

Impact Analysis: As stated throughout this document, the project will comply with applicable solid waste regulations.



20. Wildfire

Project Activities Likely to Create an Impact:

If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project: The project is not in or near a state responsibility area or lands classified as very high fire hazard severity zones; consequently, no additional analysis is required.

Analysis as to whether or not project activities would:

a. Substantially impair an adopted emergency response plan or emergency evacuation

plan? Impact Analysis:

Conclusion: Potentially Significant Impact Potentially Significant Unless Mitigated Less Than Significant Impact No Impact

b. Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?

Impact Analysis:

Conclusion: Potentially Significant Impact Potentially Significant Unless Mitigated Less Than Significant Impact No Impact

c. Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water

sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?

Impact Analysis:

Conclusion: Potentially Significant Impact Potentially Significant Unless Mitigated Less Than Significant Impact No Impact

Mandatory Findings of Significance

Based on evidence provided in this Initial Study, DTSC makes the following findings:

- a. The project \Box has \boxtimes does not have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory.
- b. The project in has does not have impacts that are individually limited but cumulatively considerable. "Cumulatively considerable" means that the incremental effects of an individual project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.
- c. The project has 🛛 does not have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly.

Determination of Appropriate Environmental Document:

Based on evidence provided in this Initial Study, DTSC makes the following determination:

The proposed project COULD NOT HAVE a significant effect on the environment. A **Negative Declaration** will be prepared.

The proposed project COULD HAVE a significant effect on the environment. However, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A **Mitigated Negative Declaration** will be prepared.

The proposed project MAY HAVE a significant effect on the environment. An **Environmental Impact Report** is required.

The proposed project MAY HAVE a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An **Environmental Impact Report** is required, but it must analyze only the effects that remain to be addressed.

The proposed project COULD HAVE a significant effect on the environment. However, all potentially significant effects (a) have been analyzed adequately in an earlier Environmental Impact Report or Negative Declaration pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier Environmental Impact Report or Negative Declaration, including revisions or mitigation measures that are imposed upon the proposed project. Therefore, nothing further is required.

Certification:

I hereby certify that the statements furnished above and in the attached exhibits, present the data and information required for this initial study evaluation to the best of my ability and that the facts, statements and information presented are true and correct to the best of my knowledge and belief.

State of California - California Environmental Protection Agency

Taj Gill

Preparer's Signature

Department of Toxic Substances Control

Date

Tajinder Gill

Preparer's Name

(818) 717_6586 Phone #

Date

Branch or Unit Chief Signature

Haissam Y. Salloum, P.E. Branch or Unit Chief Name Supervising Hazardous Substances Engineer II Branch or Unit Chief Title

Preparer's Title

Hazardous Substances Engineer

(818) 717-6538 Phone #
ATTACHMENT A

FIGURES







PROPOSED TREATMENT SYSTEM LOCATIONS

909-860-7777

FILE: J:\Le Fiell\IS\Fig 3- Rem System Locs

ATTACHMENT B

CalEEMOD CALCULATIONS

DTSC 1324 (08/09/2007)

LeFiell RAW Implementation

Los Angeles-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

| Land Uses | Size | Metric | Lot Acreage | Floor Surface Area | Population |
|---------------|------|----------|-------------|--------------------|------------|
| Manufacturing | 1.00 | 1000sqft | 0.02 | 1,000.00 | 0 |

1.2 Other Project Characteristics

| Urbanization | Urban | Wind Speed (m/s) | 2.2 | Precipitation Freq (Days) | 33 |
|----------------------------|----------------------------|----------------------------|-------|---------------------------|-------|
| Climate Zone | 9 | | | Operational Year | 2018 |
| Utility Company | Southern California Edison | | | | |
| CO2 Intensity (Ib/MWhr) | 702.44 | CH4 Intensity (lb/MWhr) | 0.029 | N2O Intensity (Ib/MWhr) | 0.006 |

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Operations will immediately follow construction.

Land Use -

Construction Phase - No demolition prior to system construction and OM&M. Demolition is assumed to be system decomissioning following OM&M. No grading, no building construction and no coatings.

Off-road Equipment - no coatings

Off-road Equipment - No buildings, no coatings

Off-road Equipment - Minimal sawcutting of concrete and pipe; mostly loading equipment onto truck(s) for removal from site.

Off-road Equipment - No grading required.

Off-road Equipment - Minor concrete patching for a few linear feet of trenching

Off-road Equipment - Minimal concrete cutting for few feet of underground pipe installation/trenching

Trips and VMT -

Demolition - No demolition other than decomissioning included in construction

Grading - No grading

Energy Use -

Water And Wastewater - No additional indoor water use for the project

Mobile Land Use Mitigation -

Operational Off-Road Equipment - Actual system data

| Table Name | Column Name | Default Value | New Value |
|-------------------------|------------------------------|---------------|------------|
| tblArchitecturalCoating | EF_Parking | 100.00 | 0.00 |
| tblAreaCoating | Area_EF_Parking | 100 | 0 |
| tblConstDustMitigation | WaterUnpavedRoadVehicleSpeed | 40 | 0 |
| tblConstructionPhase | NumDays | 5.00 | 0.00 |
| tblConstructionPhase | NumDays | 100.00 | 0.00 |
| tblConstructionPhase | NumDays | 10.00 | 5.00 |
| tblConstructionPhase | NumDays | 2.00 | 0.00 |
| tblConstructionPhase | NumDays | 5.00 | 1.00 |
| tblConstructionPhase | PhaseEndDate | 11/1/2017 | 10/25/2017 |

| tblConstructionPhase | PhaseEndDate | 10/18/2017 | 5/31/2017 |
|----------------------|----------------------------|---------------------|-----------|
| tblConstructionPhase | PhaseEndDate | 5/26/2017 | 5/22/2020 |
| tblConstructionPhase | PhaseEndDate | 5/31/2017 | 5/29/2017 |
| tblConstructionPhase | PhaseEndDate | 10/25/2017 | 5/19/2017 |
| tblConstructionPhase | PhaseEndDate | 5/29/2017 | 5/15/2017 |
| tblConstructionPhase | PhaseStartDate | 5/15/2017 | 5/18/2020 |
| tblConstructionPhase | PhaseStartDate | 10/19/2017 | 5/19/2017 |
| tblConstructionPhase | PhaseStartDate | 5/27/2017 | 5/15/2017 |
| tblConsumerProducts | ROG_EF | 1.98E-05 | 2.14E-05 |
| tblOffRoadEquipment | HorsePower | 89.00 | 187.00 |
| tblOffRoadEquipment | HorsePower | 89.00 | 247.00 |
| tblOffRoadEquipment | LoadFactor | 0.20 | 0.41 |
| tblOffRoadEquipment | LoadFactor | 0.20 | 0.40 |
| tblOffRoadEquipment | OffRoadEquipmentType | Graders | Forklifts |
| tblOffRoadEquipment | OffRoadEquipmentType | Rubber Tired Dozers | Forklifts |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 4.00 | 1.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 2.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 2.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 2.00 | 1.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 2.00 | 0.00 |
| tblOffRoadEquipment | UsageHours | 6.00 | 4.00 |

| tblOperationalOffRoadEquipment | OperDaysPerYear | 260.00 | 365.00 |
|--------------------------------|----------------------------|--------|------------|
| tblOperationalOffRoadEquipment | OperDaysPerYear | 260.00 | 365.00 |
| tblOperationalOffRoadEquipment | OperFuelType | Diesel | Electrical |
| tblOperationalOffRoadEquipment | OperFuelType | Diesel | Electrical |
| tblOperationalOffRoadEquipment | OperHorsePower | 78.00 | 10.00 |
| tblOperationalOffRoadEquipment | OperHorsePower | 84.00 | 20.00 |
| tblOperationalOffRoadEquipment | OperHoursPerDay | 8.00 | 24.00 |
| tblOperationalOffRoadEquipment | OperHoursPerDay | 8.00 | 24.00 |
| tblOperationalOffRoadEquipment | OperOffRoadEquipmentNumber | 0.00 | 1.00 |
| tblOperationalOffRoadEquipment | OperOffRoadEquipmentNumber | 0.00 | 2.00 |
| tblTripsAndVMT | WorkerTripNumber | 10.00 | 8.00 |
| tblTripsAndVMT | WorkerTripNumber | 8.00 | 5.00 |

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

| | ROG | NOx | со | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---------|-----------------|---------|-----------------|-----------------|------------------|-----------------|-----------------|-------------------|------------------|-----------------|----------|-----------|-----------|-----------------|--------|--------|
| Year | | tons/yr | | | | | | | | | | | MT | /yr | | |
| 2017 | 9.5000e- 004 | 0.0106 | 5.0500e- 003 | 1.0000e- 005 | 3.2000e- 004 | 5.1000e- 004 | 8.3000e- 004 | 4.0000e- 005 | 4.7000e- 004 | 5.2000e- 004 | 0.0000 | 0.9593 | 0.9593 | 2.8000e- 004 | 0.0000 | 0.9662 |
| 2020 | 3.0100e- 003 | 0.0286 | 0.0205 | 5.0000e- 005 | 2.2000e- 004 | 1.3900e- 003 | 1.6000e- 003 | 6.0000e- 005 | 1.3100e- 003 | 1.3700e- 003 | 0.0000 | 3.9946 | 3.9946 | 8.8000e- 004 | 0.0000 | 4.0167 |
| Maximum | 3.0100e- 003 | 0.0286 | 0.0205 | 5.0000e- 005 | 3.2000e- 004 | 1.3900e- 003 | 1.6000e- 003 | 6.0000e- 005 | 1.3100e- 003 | 1.3700e- 003 | 0.0000 | 3.9946 | 3.9946 | 8.8000e- 004 | 0.0000 | 4.0167 |

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 | 2 Total CO2 | CH4 | N2O | CO2e |
|----------------------|-----------------|--------|-----------------|-----------------|------------------|-----------------|-----------------|-------------------|------------------|-----------------|----------|-----------|-------------|-----------------|--------|--------|
| Year | | | | | tor | MT/yr | | | | | | | | | | |
| 2017 | 9.5000e- 004 | 0.0106 | 5.0500e- 003 | 1.0000e- 005 | 3.2000e- 004 | 5.1000e- 004 | 8.3000e- 004 | 4.0000e- 005 | 4.7000e- 004 | 5.2000e- 004 | 0.0000 | 0.9593 | 0.9593 | 2.8000e- 004 | 0.0000 | 0.9662 |
| 2020 | 3.0100e- 003 | 0.0286 | 0.0205 | 5.0000e- 005 | 2.2000e- 004 | 1.3900e- 003 | 1.6000e- 003 | 6.0000e- 005 | 1.3100e- 003 | 1.3700e- 003 | 0.0000 | 3.9946 | 3.9946 | 8.8000e- 004 | 0.0000 | 4.0167 |
| Maximum | 3.0100e- 003 | 0.0286 | 0.0205 | 5.0000e- 005 | 3.2000e- 004 | 1.3900e- 003 | 1.6000e- 003 | 6.0000e- 005 | 1.3100e- 003 | 1.3700e- 003 | 0.0000 | 3.9946 | 3.9946 | 8.8000e- 004 | 0.0000 | 4.0167 |
| | ROG | NOx | со | 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 |

| Quarter | Start Date | End Date | Maximum Unmitigated ROG + NOX (tons/quarter) | Maximum Mitigated ROG + NOX (tons/quarter) |
|---------|------------|-----------|--|--|
| 1 | 5-15-2017 | 8-14-2017 | 0.0083 | 0.0083 |
| 13 | 5-15-2020 | 8-14-2020 | 0.0226 | 0.0226 |
| | | Highest | 0.0226 | 0.0226 |

2.2 Overall Operational

Unmitigated Operational

| | ROG | NOx | со | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|----------|-----------------|-----------------|-----------------|-----------------|------------------|-----------------|-----------------|-------------------|------------------|-----------------|----------|-----------------|-----------------|-----------------|-----------------|-----------------|
| Category | | | | | ton | s/yr | | | | | | | MT | ī/yr | | |
| Area | 4.3700e- 003 | 0.0000 | 1.0000e- 005 | 0.0000 | 1 1 1 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 2.0000e- 005 | 2.0000e- 005 | 0.0000 | 0.0000 | 3.0000e- 005 |
| Energy | 1.0000e- 004 | 8.9000e- 004 | 7.5000e- 004 | 1.0000e- 005 | | 7.0000e- 005 | 7.0000e- 005 | | 7.0000e- 005 | 7.0000e- 005 | 0.0000 | 4.5727 | 4.5727 | 1.7000e- 004 | 5.0000e- 005 | 4.5914 |
| Mobile | 1.5300e- 003 | 7.9100e- 003 | 0.0232 | 7.0000e- 005 | 5.0900e- 003 | 8.0000e- 005 | 5.1800e- 003 | 1.3700e- 003 | 8.0000e- 005 | 1.4400e- 003 | 0.0000 | 6.2125 | 6.2125 | 3.8000e- 004 | 0.0000 | 6.2218 |
| Offroad | 0.2662 | 1.5530 | 0.8894 | 2.3700e- 003 | 1 | 0.0782 | 0.0782 | | 0.0782 | 0.0782 | 0.0000 | 171.2535 | 171.2535 | 0.0216 | 0.0000 | 171.7928 |
| Waste | n | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.2517 | 0.0000 | 0.2517 | 0.0149 | 0.0000 | 0.6236 |
| Water | n | | | | 1 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0734 | 0.9594 | 1.0328 | 7.5700e- 003 | 1.9000e- 004 | 1.2776 |
| Total | 0.2722 | 1.5618 | 0.9134 | 2.4500e- 003 | 5.0900e- 003 | 0.0783 | 0.0834 | 1.3700e- 003 | 0.0783 | 0.0797 | 0.3251 | 182.9981 | 183.3231 | 0.0446 | 2.4000e- 004 | 184.5072 |

2.2 Overall Operational

Mitigated Operational

| | ROG | NOx | CC | C | SO2 | Fugiti PM1 | ve 0 | Exhaust PM10 | PM10 Total | Fugi PM | tive 2.5 | Exhaust PM2.5 | PM2.5 Total | В | io- CO2 | NBio- CO2 | 2 Tota | I CO2 | CH | 4 | N2O | CO2e |
|----------------------|-----------------|----------------|----------------|-----------|-----------------|---------------|-------------|-------------------|-------------------|------------------|---------------|-------------------|----------------|---------------|---------|-----------------|-----------|-------------|--------------|------------|----------------|-----------------|
| Category | | | | | | | tons | :/yr | | | | | | | | | | MT/ | /yr | | | |
| Area | 4.3700e- 003 | 0.0000 | 0 1.000 | 00e- 5 | 0.0000 | | | 0.0000 | 0.0000 | | | 0.0000 | 0.0000 | (| 0.0000 | 2.0000e- 005 | 2.00 0 | 000e- 05 | 0.000 | 00 | 0.0000 | 3.0000e- 005 |
| Energy | 1.0000e- 004 | 8.9000e 004 | e- 7.500 00 | 00e- 4 | 1.0000e- 005 | | | 7.0000e- 005 | 7.0000e- 005 | 1 1 1 1 | | 7.0000e- 005 | 7.0000e 005 | | 0.0000 | 4.5727 | 4.5 | 5727 | 1.700 004 | 0e- 5 4 | .0000e- 005 | 4.5914 |
| Mobile | 1.5300e- 003 | 7.9100 003 | e- 0.02 | 232 | 7.0000e- 005 | 5.090 003 | 0e- 3 | 8.0000e- 005 | 5.1800e- 003 | 1.370 00 | 00e-)3 | 8.0000e- 005 | 1.4400e 003 | - (| 0.0000 | 6.2125 | 6.2 | 2125 | 3.800 004 | 0e- 1 | 0.0000 | 6.2218 |
| Offroad | 0.2662 | 1.5530 | 0 0.88 | 394 | 2.3700e- 003 | | | 0.0782 | 0.0782 | | | 0.0782 | 0.0782 | (| 0.0000 | 171.2535 | 171. | .2535 | 0.02 | 16 | 0.0000 | 171.7928 |
| Waste | F; | | | | | | | 0.0000 | 0.0000 | | | 0.0000 | 0.0000 | | 0.2517 | 0.0000 | 0.2 | 2517 | 0.014 | 49 | 0.0000 | 0.6236 |
| Water | F; | | | | | | | 0.0000 | 0.0000 | | | 0.0000 | 0.0000 | | 0.0734 | 0.9594 | 1.0 | 328 | 7.570 003 | 0e- 1 3 | .9000e- 004 | 1.2776 |
| Total | 0.2722 | 1.5618 | 8 0.91 | 34 | 2.4500e- 003 | 5.090 003 | 0e- } | 0.0783 | 0.0834 | 1.370 00 | 00e- 13 | 0.0783 | 0.0797 | | 0.3251 | 182.9981 | 183. | .3231 | 0.044 | 46 2 | .4000e- 004 | 184.5072 |
| | ROG | | NOx | CO |) S(| 02 | Fugit PM | tive Exh 10 PN | aust PM /10 To | /10 otal | Fugiti PM2 | ive Exh 1.5 PN | Aust P M2.5 | M2.5 Fotal | Bio- (| CO2 NBio | -CO2 | Total C | 02 | CH4 | N2 | 0 CO2e |
| Percent Reduction | 0.00 | | 0.00 | 0.00 | 0 0. | 00 | 0.0 | 0 0. | .00 0 | .00 | 0.00 | 0 0 | .00 | 0.00 | 0.0 | 0 0. | 00 | 0.00 | D | 0.00 | 0.0 | 0 0.00 |

3.0 Construction Detail

Construction Phase

| Phase Number | Phase Name | Phase Type | Start Date | End Date | Num Days Week | Num Days | Phase Description |
|-----------------|-----------------------|-----------------------|------------|------------|------------------|----------|-------------------|
| 1 | Site Preparation | Site Preparation | 5/15/2017 | 5/15/2017 | 5 | 1 | |
| 2 | Paving | Paving | 5/19/2017 | 5/19/2017 | 5 | 1 | |
| 3 | Grading | Grading | 5/30/2017 | 5/29/2017 | 5 | 0 | |
| 4 | Building Construction | Building Construction | 6/1/2017 | 5/31/2017 | 5 | 0 | |
| 5 | Architectural Coating | Architectural Coating | 10/26/2017 | 10/25/2017 | 5 | 0 | |
| 6 | Demolition | Demolition | 5/18/2020 | 5/22/2020 | 5 | 5 | |

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: 1,500; Non-Residential Outdoor: 500; 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 | Forklifts | 1 | 8.00 | 247 | 0.40 |
| Demolition | Tractors/Loaders/Backhoes | 1 | 4.00 | 97 | 0.37 |
| Site Preparation | Forklifts | 1 | 8.00 | 187 | 0.41 |
| Site Preparation | Tractors/Loaders/Backhoes | 1 | 8.00 | 97 | 0.37 |
| Grading | Concrete/Industrial Saws | 0 | 8.00 | 81 | 0.73 |
| Grading | Rubber Tired Dozers | 0 | 1.00 | 247 | 0.40 |
| Grading | Tractors/Loaders/Backhoes | 0 | 6.00 | 97 | 0.37 |
| Building Construction | Cranes | 0 | 4.00 | 231 | 0.29 |
| Building Construction | Forklifts | 0 | 6.00 | 89 | 0.20 |
| Building Construction | Tractors/Loaders/Backhoes | 0 | 8.00 | 97 | 0.37 |
| Paving | Cement and Mortar Mixers | 1 | 6.00 | 9 | 0.56 |
| Paving | Pavers | 0 | 7.00 | 130 | 0.42 |
| Paving | Rollers | 0 | 7.00 | 80 | 0.38 |
| Paving | Tractors/Loaders/Backhoes | 1 | 7.00 | 97 | 0.37 |
| Architectural Coating | Air Compressors | 0 | 6.00 | 78 | 0.48 |
| Site Preparation | Graders | 1 | 8.00 | 187 | 0.41 |
| Demolition | Rubber Tired Dozers | 1 | 1.00 | 247 | 0.40 |

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 | 8.00 | 0.00 | 0.00 | 14.70 | 6.90 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Site Preparation | 3 | 5.00 | 0.00 | 0.00 | 14.70 | 6.90 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Grading | 0 | 0.00 | 0.00 | 0.00 | 14.70 | 6.90 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Building Construction | 0 | 0.00 | 0.00 | 0.00 | 14.70 | 6.90 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Paving | 2 | 5.00 | 0.00 | 0.00 | 14.70 | 6.90 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Architectural Coating | 0 | 0.00 | 0.00 | 0.00 | 14.70 | 6.90 | 20.00 | LD_Mix | HDT_Mix | HHDT |

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2017

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 | | | | | ton | s/yr | | | | | | | MT | 7/yr | | |
| Fugitive Dust | | 1 | | | 2.7000e- 004 | 0.0000 | 2.7000e- 004 | 3.0000e- 005 | 0.0000 | 3.0000e- 005 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 7.6000e- 004 | 9.1500e- 003 | 3.5900e- 003 | 1.0000e- 005 | | 4.1000e- 004 | 4.1000e- 004 | | 3.7000e- 004 | 3.7000e- 004 | 0.0000 | 0.7598 | 0.7598 | 2.3000e- 004 | 0.0000 | 0.7656 |
| Total | 7.6000e- 004 | 9.1500e- 003 | 3.5900e- 003 | 1.0000e- 005 | 2.7000e- 004 | 4.1000e- 004 | 6.8000e- 004 | 3.0000e- 005 | 3.7000e- 004 | 4.0000e- 004 | 0.0000 | 0.7598 | 0.7598 | 2.3000e- 004 | 0.0000 | 0.7656 |

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3.2 Site Preparation - 2017

Unmitigated Construction Off-Site

| | ROG | NOx | со | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|----------|-----------------|-----------------|-----------------|--------|------------------|-----------------|-----------------|-------------------|------------------|-----------------|----------|-----------|-----------|--------|--------|--------|
| Category | | | | | ton | s/yr | | | | | | | МТ | '/yr | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | 2.0000e- 005 | 1.0000e- 005 | 1.5000e- 004 | 0.0000 | 3.0000e- 005 | 0.0000 | 3.0000e- 005 | 1.0000e- 005 | 0.0000 | 1.0000e- 005 | 0.0000 | 0.0280 | 0.0280 | 0.0000 | 0.0000 | 0.0280 |
| Total | 2.0000e- 005 | 1.0000e- 005 | 1.5000e- 004 | 0.0000 | 3.0000e- 005 | 0.0000 | 3.0000e- 005 | 1.0000e- 005 | 0.0000 | 1.0000e- 005 | 0.0000 | 0.0280 | 0.0280 | 0.0000 | 0.0000 | 0.0280 |

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 | | | | | ton | s/yr | | | | | | | МТ | /yr | | |
| Fugitive Dust | | | | | 2.7000e- 004 | 0.0000 | 2.7000e- 004 | 3.0000e- 005 | 0.0000 | 3.0000e- 005 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 7.6000e- 004 | 9.1500e- 003 | 3.5900e- 003 | 1.0000e- 005 | | 4.1000e- 004 | 4.1000e- 004 | | 3.7000e- 004 | 3.7000e- 004 | 0.0000 | 0.7598 | 0.7598 | 2.3000e- 004 | 0.0000 | 0.7656 |
| Total | 7.6000e- 004 | 9.1500e- 003 | 3.5900e- 003 | 1.0000e- 005 | 2.7000e- 004 | 4.1000e- 004 | 6.8000e- 004 | 3.0000e- 005 | 3.7000e- 004 | 4.0000e- 004 | 0.0000 | 0.7598 | 0.7598 | 2.3000e- 004 | 0.0000 | 0.7656 |

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3.2 Site Preparation - 2017

Mitigated Construction Off-Site

| | ROG | NOx | со | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|----------|-----------------|-----------------|-----------------|--------|------------------|-----------------|-----------------|-------------------|------------------|-----------------|----------|-----------|-----------|--------|--------|--------|
| Category | | | | | ton | s/yr | | | | | | | МТ | /yr | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | 2.0000e- 005 | 1.0000e- 005 | 1.5000e- 004 | 0.0000 | 3.0000e- 005 | 0.0000 | 3.0000e- 005 | 1.0000e- 005 | 0.0000 | 1.0000e- 005 | 0.0000 | 0.0280 | 0.0280 | 0.0000 | 0.0000 | 0.0280 |
| Total | 2.0000e- 005 | 1.0000e- 005 | 1.5000e- 004 | 0.0000 | 3.0000e- 005 | 0.0000 | 3.0000e- 005 | 1.0000e- 005 | 0.0000 | 1.0000e- 005 | 0.0000 | 0.0280 | 0.0280 | 0.0000 | 0.0000 | 0.0280 |

3.3 Paving - 2017

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 | | | | | ton | s/yr | | | | | | | МТ | ī/yr | | |
| Off-Road | 1.6000e- 004 | 1.4700e- 003 | 1.1600e- 003 | 0.0000 | | 1.1000e- 004 | 1.1000e- 004 | | 1.0000e- 004 | 1.0000e- 004 | 0.0000 | 0.1435 | 0.1435 | 4.0000e- 005 | 0.0000 | 0.1445 |
| Paving | 0.0000 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Total | 1.6000e- 004 | 1.4700e- 003 | 1.1600e- 003 | 0.0000 | | 1.1000e- 004 | 1.1000e- 004 | | 1.0000e- 004 | 1.0000e- 004 | 0.0000 | 0.1435 | 0.1435 | 4.0000e- 005 | 0.0000 | 0.1445 |

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3.3 Paving - 2017

Unmitigated Construction Off-Site

| | ROG | NOx | со | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|----------|-----------------|-----------------|-----------------|--------|------------------|-----------------|-----------------|-------------------|------------------|-----------------|----------|-----------|-----------|--------|--------|--------|
| Category | | | | | ton | s/yr | | | | | | | МТ | /yr | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | 2.0000e- 005 | 1.0000e- 005 | 1.5000e- 004 | 0.0000 | 3.0000e- 005 | 0.0000 | 3.0000e- 005 | 1.0000e- 005 | 0.0000 | 1.0000e- 005 | 0.0000 | 0.0280 | 0.0280 | 0.0000 | 0.0000 | 0.0280 |
| Total | 2.0000e- 005 | 1.0000e- 005 | 1.5000e- 004 | 0.0000 | 3.0000e- 005 | 0.0000 | 3.0000e- 005 | 1.0000e- 005 | 0.0000 | 1.0000e- 005 | 0.0000 | 0.0280 | 0.0280 | 0.0000 | 0.0000 | 0.0280 |

Mitigated Construction On-Site

| | ROG | NOx | СО | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|----------|-----------------|-----------------|-----------------|--------|------------------|-----------------|-----------------|-------------------|------------------|-----------------|----------|-----------|-----------|-----------------|--------|--------|
| Category | | | | | ton | s/yr | | | | | | | MT | /yr | | |
| Off-Road | 1.6000e- 004 | 1.4700e- 003 | 1.1600e- 003 | 0.0000 | | 1.1000e- 004 | 1.1000e- 004 | | 1.0000e- 004 | 1.0000e- 004 | 0.0000 | 0.1435 | 0.1435 | 4.0000e- 005 | 0.0000 | 0.1445 |
| Paving | 0.0000 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Total | 1.6000e- 004 | 1.4700e- 003 | 1.1600e- 003 | 0.0000 | | 1.1000e- 004 | 1.1000e- 004 | | 1.0000e- 004 | 1.0000e- 004 | 0.0000 | 0.1435 | 0.1435 | 4.0000e- 005 | 0.0000 | 0.1445 |

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3.3 Paving - 2017

Mitigated Construction Off-Site

| | ROG | NOx | со | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|----------|-----------------|-----------------|-----------------|--------|------------------|-----------------|-----------------|-------------------|------------------|-----------------|----------|-----------|-----------|--------|--------|--------|
| Category | | | | | ton | s/yr | | | | | | | МТ | /yr | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | 2.0000e- 005 | 1.0000e- 005 | 1.5000e- 004 | 0.0000 | 3.0000e- 005 | 0.0000 | 3.0000e- 005 | 1.0000e- 005 | 0.0000 | 1.0000e- 005 | 0.0000 | 0.0280 | 0.0280 | 0.0000 | 0.0000 | 0.0280 |
| Total | 2.0000e- 005 | 1.0000e- 005 | 1.5000e- 004 | 0.0000 | 3.0000e- 005 | 0.0000 | 3.0000e- 005 | 1.0000e- 005 | 0.0000 | 1.0000e- 005 | 0.0000 | 0.0280 | 0.0280 | 0.0000 | 0.0000 | 0.0280 |

3.4 Grading - 2017

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 | | | | | ton | s/yr | | | | | | | MT | /yr | | |
| Fugitive Dust | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Total | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |

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3.4 Grading - 2017

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 | | | | | ton | s/yr | | | | | | | MT | /yr | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Total | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |

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 | | | | | ton | s/yr | | | | | | | МТ | /yr | | |
| Fugitive Dust | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Total | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |

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3.4 Grading - 2017

Mitigated Construction Off-Site

| | ROG | NOx | со | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|----------|--------|--------|--------|--------|------------------|-----------------|---------------|-------------------|------------------|----------------|----------|-----------|-----------|--------|--------|--------|
| Category | | | | | ton | s/yr | | | | | | | МТ | /yr | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Total | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |

3.5 Building Construction - 2017

Unmitigated Construction On-Site

| | ROG | NOx | СО | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|----------|--------|--------|--------|--------|------------------|-----------------|---------------|-------------------|------------------|----------------|----------|-----------|-----------|--------|--------|--------|
| Category | | | | | ton | s/yr | | | | | | | MT | '/yr | | |
| Off-Road | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Total | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |

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3.5 Building Construction - 2017

Unmitigated Construction Off-Site

| | ROG | NOx | со | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|----------|--------|--------|--------|--------|------------------|-----------------|---------------|-------------------|------------------|----------------|----------|-----------|-----------|--------|--------|--------|
| Category | | | | | ton | s/yr | | | | | | | MT | /yr | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Total | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |

Mitigated Construction On-Site

| | ROG | NOx | СО | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|----------|--------|--------|--------|--------|------------------|-----------------|---------------|-------------------|------------------|----------------|----------|-----------|-----------|--------|--------|--------|
| Category | | | | | ton | s/yr | | | | | | | MT | /yr | | |
| Off-Road | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Total | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |

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3.5 Building Construction - 2017

Mitigated Construction Off-Site

| | ROG | NOx | со | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|----------|--------|--------|--------|--------|------------------|-----------------|---------------|-------------------|------------------|----------------|----------|-----------|-----------|--------|--------|--------|
| Category | | | | | ton | s/yr | | | | | | | МТ | /yr | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Total | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |

3.6 Architectural Coating - 2017

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 | | | | | ton | s/yr | | | | | | | MT | /yr | | |
| Archit. Coating | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Total | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |

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3.6 Architectural Coating - 2017

Unmitigated Construction Off-Site

| | ROG | NOx | СО | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|----------|--------|--------|--------|--------|------------------|-----------------|---------------|-------------------|------------------|----------------|----------|-----------|-----------|--------|--------|--------|
| Category | | | | | ton | s/yr | | | | | | | МТ | /yr | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Total | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |

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 | | | | | ton | s/yr | | | | | | | МТ | /yr | | |
| Archit. Coating | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Total | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |

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3.6 Architectural Coating - 2017

Mitigated Construction Off-Site

| | ROG | NOx | СО | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|----------|--------|--------|--------|--------|------------------|-----------------|---------------|-------------------|------------------|----------------|----------|-----------|-----------|--------|--------|--------|
| Category | | | | | ton | s/yr | | | | | | | МТ | /yr | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Total | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |

3.7 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 | | | | | ton | s/yr | | | | | | | МТ | '/yr | | |
| Off-Road | 2.9200e- 003 | 0.0285 | 0.0196 | 4.0000e- 005 | | 1.3800e- 003 | 1.3800e- 003 | | 1.3100e- 003 | 1.3100e- 003 | 0.0000 | 3.7903 | 3.7903 | 8.8000e- 004 | 0.0000 | 3.8122 |
| Total | 2.9200e- 003 | 0.0285 | 0.0196 | 4.0000e- 005 | | 1.3800e- 003 | 1.3800e- 003 | | 1.3100e- 003 | 1.3100e- 003 | 0.0000 | 3.7903 | 3.7903 | 8.8000e- 004 | 0.0000 | 3.8122 |

3.7 Demolition - 2020

Unmitigated Construction Off-Site

| | ROG | NOx | со | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|----------|-----------------|-----------------|-----------------|--------|------------------|-----------------|-----------------|-------------------|------------------|-----------------|----------|-----------|-----------|-----------------|--------|--------|
| Category | | | | | ton | s/yr | | | | | | | МТ | '/yr | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | 9.0000e- 005 | 7.0000e- 005 | 8.2000e- 004 | 0.0000 | 2.2000e- 004 | 0.0000 | 2.2000e- 004 | 6.0000e- 005 | 0.0000 | 6.0000e- 005 | 0.0000 | 0.2043 | 0.2043 | 1.0000e- 005 | 0.0000 | 0.2044 |
| Total | 9.0000e- 005 | 7.0000e- 005 | 8.2000e- 004 | 0.0000 | 2.2000e- 004 | 0.0000 | 2.2000e- 004 | 6.0000e- 005 | 0.0000 | 6.0000e- 005 | 0.0000 | 0.2043 | 0.2043 | 1.0000e- 005 | 0.0000 | 0.2044 |

Mitigated Construction On-Site

| | ROG | NOx | СО | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|----------|-----------------|--------|--------|-----------------|------------------|-----------------|-----------------|-------------------|------------------|-----------------|----------|-----------|-----------|-----------------|--------|--------|
| Category | | | | | ton | s/yr | | | | | | | МТ | /yr | | |
| Off-Road | 2.9200e- 003 | 0.0285 | 0.0196 | 4.0000e- 005 | | 1.3800e- 003 | 1.3800e- 003 | | 1.3100e- 003 | 1.3100e- 003 | 0.0000 | 3.7903 | 3.7903 | 8.8000e- 004 | 0.0000 | 3.8122 |
| Total | 2.9200e- 003 | 0.0285 | 0.0196 | 4.0000e- 005 | | 1.3800e- 003 | 1.3800e- 003 | | 1.3100e- 003 | 1.3100e- 003 | 0.0000 | 3.7903 | 3.7903 | 8.8000e- 004 | 0.0000 | 3.8122 |

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3.7 Demolition - 2020

Mitigated Construction Off-Site

| | ROG | NOx | со | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|----------|-----------------|-----------------|-----------------|--------|------------------|-----------------|-----------------|-------------------|------------------|-----------------|----------|-----------|-----------|-----------------|--------|--------|
| Category | | | | | ton | s/yr | | | | | | | МТ | '/yr | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | 9.0000e- 005 | 7.0000e- 005 | 8.2000e- 004 | 0.0000 | 2.2000e- 004 | 0.0000 | 2.2000e- 004 | 6.0000e- 005 | 0.0000 | 6.0000e- 005 | 0.0000 | 0.2043 | 0.2043 | 1.0000e- 005 | 0.0000 | 0.2044 |
| Total | 9.0000e- 005 | 7.0000e- 005 | 8.2000e- 004 | 0.0000 | 2.2000e- 004 | 0.0000 | 2.2000e- 004 | 6.0000e- 005 | 0.0000 | 6.0000e- 005 | 0.0000 | 0.2043 | 0.2043 | 1.0000e- 005 | 0.0000 | 0.2044 |

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

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| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|-------------|-----------------|-----------------|--------|-----------------|------------------|-----------------|-----------------|-------------------|------------------|-----------------|----------|-----------|-----------|-----------------|--------|--------|
| Category | | | | | ton | s/yr | | | | | | | МТ | /yr | | |
| Mitigated | 1.5300e- 003 | 7.9100e- 003 | 0.0232 | 7.0000e- 005 | 5.0900e- 003 | 8.0000e- 005 | 5.1800e- 003 | 1.3700e- 003 | 8.0000e- 005 | 1.4400e- 003 | 0.0000 | 6.2125 | 6.2125 | 3.8000e- 004 | 0.0000 | 6.2218 |
| Unmitigated | 1.5300e- 003 | 7.9100e- 003 | 0.0232 | 7.0000e- 005 | 5.0900e- 003 | 8.0000e- 005 | 5.1800e- 003 | 1.3700e- 003 | 8.0000e- 005 | 1.4400e- 003 | 0.0000 | 6.2125 | 6.2125 | 3.8000e- 004 | 0.0000 | 6.2218 |

4.2 Trip Summary Information

| | Aver | age Daily Trip Ra | ite | Unmitigated | Mitigated |
|---------------|---------|-------------------|--------|-------------|------------|
| Land Use | Weekday | Saturday | Sunday | Annual VMT | Annual VMT |
| Manufacturing | 3.82 | 1.49 | 0.62 | 13,418 | 13,418 |
| Total | 3.82 | 1.49 | 0.62 | 13,418 | 13,418 |

4.3 Trip Type Information

| | | Miles | | | Trip % | | | Trip Purpos | e % |
|---------------|------------|------------|-------------|------------|------------|-------------|---------|-------------|---------|
| 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 |
| Manufacturing | 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 |
|---------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| Manufacturing | 0.547972 | 0.046127 | 0.199330 | 0.125604 | 0.017697 | 0.005953 | 0.018360 | 0.027618 | 0.002341 | 0.002583 | 0.004804 | 0.000667 | 0.000944 |

5.0 Energy Detail

Historical Energy Use: N

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5.1 Mitigation Measures Energy

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|----------------------------|-----------------|-----------------|-----------------|-----------------|------------------|-----------------|-----------------|---------------------|------------------|-----------------|----------|-----------|-----------|-----------------|-----------------|--------|
| Category | | | | | ton | s/yr | | | | | | | MT | /yr | | |
| Electricity Mitigated | | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 3.6036 | 3.6036 | 1.5000e- 004 | 3.0000e- 005 | 3.6165 |
| Electricity Unmitigated | Fi | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 3.6036 | 3.6036 | 1.5000e- 004 | 3.0000e- 005 | 3.6165 |
| NaturalGas Mitigated | 1.0000e- 004 | 8.9000e- 004 | 7.5000e- 004 | 1.0000e- 005 | | 7.0000e- 005 | 7.0000e- 005 | | 7.0000e- 005 | 7.0000e- 005 | 0.0000 | 0.9691 | 0.9691 | 2.0000e- 005 | 2.0000e- 005 | 0.9749 |
| NaturalGas Unmitigated | 1.0000e- 004 | 8.9000e- 004 | 7.5000e- 004 | 1.0000e- 005 | | 7.0000e- 005 | 7.0000e- 005 | | 7.0000e- 005 | 7.0000e- 005 | 0.0000 | 0.9691 | 0.9691 | 2.0000e- 005 | 2.0000e- 005 | 0.9749 |

5.2 Energy by Land Use - NaturalGas

<u>Unmitigated</u>

| | NaturalGa s 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 | | | | | ton | s/yr | | | | | | | MT | /yr | | |
| Manufacturing | 18160 | 1.0000e- 004 | 8.9000e- 004 | 7.5000e- 004 | 1.0000e- 005 | | 7.0000e- 005 | 7.0000e- 005 | | 7.0000e- 005 | 7.0000e- 005 | 0.0000 | 0.9691 | 0.9691 | 2.0000e- 005 | 2.0000e- 005 | 0.9749 |
| Total | | 1.0000e- 004 | 8.9000e- 004 | 7.5000e- 004 | 1.0000e- 005 | | 7.0000e- 005 | 7.0000e- 005 | | 7.0000e- 005 | 7.0000e- 005 | 0.0000 | 0.9691 | 0.9691 | 2.0000e- 005 | 2.0000e- 005 | 0.9749 |

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5.2 Energy by Land Use - NaturalGas

Mitigated

| | NaturalGa s 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 | | | | | ton | s/yr | | | | | | | MT | /yr | | |
| Manufacturing | 18160 | 1.0000e- 004 | 8.9000e- 004 | 7.5000e- 004 | 1.0000e- 005 | | 7.0000e- 005 | 7.0000e- 005 | | 7.0000e- 005 | 7.0000e- 005 | 0.0000 | 0.9691 | 0.9691 | 2.0000e- 005 | 2.0000e- 005 | 0.9749 |
| Total | | 1.0000e- 004 | 8.9000e- 004 | 7.5000e- 004 | 1.0000e- 005 | | 7.0000e- 005 | 7.0000e- 005 | | 7.0000e- 005 | 7.0000e- 005 | 0.0000 | 0.9691 | 0.9691 | 2.0000e- 005 | 2.0000e- 005 | 0.9749 |

5.3 Energy by Land Use - Electricity

<u>Unmitigated</u>

| | Electricity Use | Total CO2 | CH4 | N2O | CO2e |
|---------------|--------------------|-----------|-----------------|-----------------|--------|
| Land Use | kWh/yr | | MT | /yr | |
| Manufacturing | 11310 | 3.6036 | 1.5000e- 004 | 3.0000e- 005 | 3.6165 |
| Total | | 3.6036 | 1.5000e- 004 | 3.0000e- 005 | 3.6165 |

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5.3 Energy by Land Use - Electricity

Mitigated

| | Electricity Use | Total CO2 | CH4 | N2O | CO2e |
|---------------|--------------------|-----------|-----------------|-----------------|--------|
| Land Use | kWh/yr | | ΜT | /yr | |
| Manufacturing | 11310 | 3.6036 | 1.5000e- 004 | 3.0000e- 005 | 3.6165 |
| Total | | 3.6036 | 1.5000e- 004 | 3.0000e- 005 | 3.6165 |

6.0 Area Detail

6.1 Mitigation Measures Area

| | ROG | NOx | со | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|-------------|-----------------|--------|-----------------|--------|------------------|-----------------|---------------|-------------------|------------------|----------------|----------|-----------------|-----------------|--------|--------|-----------------|
| Category | | | | | ton | s/yr | | | | | | | МТ | /yr | | |
| Mitigated | 4.3700e- 003 | 0.0000 | 1.0000e- 005 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 2.0000e- 005 | 2.0000e- 005 | 0.0000 | 0.0000 | 3.0000e- 005 |
| Unmitigated | 4.3700e- 003 | 0.0000 | 1.0000e- 005 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 2.0000e- 005 | 2.0000e- 005 | 0.0000 | 0.0000 | 3.0000e- 005 |

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6.2 Area by SubCategory

<u>Unmitigated</u>

| | ROG | NOx | со | SO2 | 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 | | | | | ton | s/yr | | | | | | | МТ | /yr | | |
| Architectural Coating | 4.6000e- 004 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Consumer Products | 3.9100e- 003 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Landscaping | 0.0000 | 0.0000 | 1.0000e- 005 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 2.0000e- 005 | 2.0000e- 005 | 0.0000 | 0.0000 | 3.0000e- 005 |
| Total | 4.3700e- 003 | 0.0000 | 1.0000e- 005 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 2.0000e- 005 | 2.0000e- 005 | 0.0000 | 0.0000 | 3.0000e- 005 |

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 | | | | | ton | s/yr | | | | | | | МТ | /yr | | |
| Architectural Coating | 4.6000e- 004 | | , , , | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Consumer Products | 3.9100e- 003 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Landscaping | 0.0000 | 0.0000 | 1.0000e- 005 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 2.0000e- 005 | 2.0000e- 005 | 0.0000 | 0.0000 | 3.0000e- 005 |
| Total | 4.3700e- 003 | 0.0000 | 1.0000e- 005 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 2.0000e- 005 | 2.0000e- 005 | 0.0000 | 0.0000 | 3.0000e- 005 |

7.0 Water Detail

7.1 Mitigation Measures Water

| | Total CO2 | CH4 | N2O | CO2e | | | | |
|-------------|-----------|-----------------|-----------------|--------|--|--|--|--|
| Category | MT/yr | | | | | | | |
| Mitigated | 1.0328 | 7.5700e- 003 | 1.9000e- 004 | 1.2776 | | | | |
| Unmitigated | 1.0328 | 7.5700e- 003 | 1.9000e- 004 | 1.2776 | | | | |

7.2 Water by Land Use

<u>Unmitigated</u>

| | Indoor/Out door Use | Total CO2 | CH4 | N2O | CO2e | | | |
|---------------|------------------------|-----------|-----------------|-----------------|--------|--|--|--|
| Land Use | Mgal | MT/yr | | | | | | |
| Manufacturing | 0.23125 / 0 | 1.0328 | 7.5700e- 003 | 1.9000e- 004 | 1.2776 | | | |
| Total | | 1.0328 | 7.5700e- 003 | 1.9000e- 004 | 1.2776 | | | |

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7.2 Water by Land Use

Mitigated

| | Indoor/Out door Use | Total CO2 | CH4 | N2O | CO2e | | | |
|---------------|------------------------|-----------|-----------------|-----------------|--------|--|--|--|
| Land Use | Mgal | MT/yr | | | | | | |
| Manufacturing | 0.23125 / 0 | 1.0328 | 7.5700e- 003 | 1.9000e- 004 | 1.2776 | | | |
| Total | | 1.0328 | 7.5700e- 003 | 1.9000e- 004 | 1.2776 | | | |

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

| | Total CO2 | CH4 | N2O | CO2e | | | | | |
|-------------|-----------|--------|--------|--------|--|--|--|--|--|
| | MT/yr | | | | | | | | |
| Mitigated | 0.2517 | 0.0149 | 0.0000 | 0.6236 | | | | | |
| Unmitigated | 0.2517 | 0.0149 | 0.0000 | 0.6236 | | | | | |

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8.2 Waste by Land Use

<u>Unmitigated</u>

| | Waste Disposed | Total CO2 | CH4 | N2O | CO2e | | | | |
|---------------|-------------------|-----------|--------|--------|--------|--|--|--|--|
| Land Use | tons | MT/yr | | | | | | | |
| Manufacturing | 1.24 | 0.2517 | 0.0149 | 0.0000 | 0.6236 | | | | |
| Total | | 0.2517 | 0.0149 | 0.0000 | 0.6236 | | | | |

Mitigated

| | Waste Disposed | Total CO2 | CH4 | N2O | CO2e | | | | |
|---------------|-------------------|-----------|--------|--------|--------|--|--|--|--|
| Land Use | tons | | MT/yr | | | | | | |
| Manufacturing | 1.24 | 0.2517 | 0.0149 | 0.0000 | 0.6236 | | | | |
| Total | | 0.2517 | 0.0149 | 0.0000 | 0.6236 | | | | |

9.0 Operational Offroad

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| Equipment Type | Number | Hours/Day | Days/Year | Horse Power | Load Factor | Fuel Type |
|-----------------|--------|-----------|-----------|-------------|-------------|------------|
| Air Compressors | 1 | 24.00 | 365 | 10 | 0.48 | Electrical |
| Pumps | 2 | 24.00 | 365 | 20 | 0.74 | Electrical |

UnMitigated/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 |
|-----------------|--------|--------|--------|-----------------|------------------|-----------------|---------------|-------------------|------------------|----------------|----------|-----------|-----------|-----------------|--------|----------|
| Equipment Type | | | | | ton | s/yr | | | | | | | MT | /yr | | |
| Air Compressors | 0.0355 | 0.2207 | 0.1659 | 3.7000e- 004 | | 0.0119 | 0.0119 | | 0.0119 | 0.0119 | 0.0000 | 23.8958 | 23.8958 | 2.9000e- 003 | 0.0000 | 23.9684 |
| Pumps | 0.2307 | 1.3322 | 0.7234 | 2.0000e- 003 | | 0.0663 | 0.0663 | | 0.0663 | 0.0663 | 0.0000 | 147.3577 | 147.3577 | 0.0187 | 0.0000 | 147.8244 |
| Total | 0.2662 | 1.5530 | 0.8894 | 2.3700e- 003 | | 0.0782 | 0.0782 | | 0.0782 | 0.0782 | 0.0000 | 171.2535 | 171.2535 | 0.0216 | 0.0000 | 171.7928 |

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
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