AIR QUALITY IMPACT ANALYSIS

WAKERIDER BEACH RESORT

CITY OF LAKE ELSINORE, CALIFORNIA

Prepared for:

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INTRODUCTION

The Wakerider Beach Resort project development includes single-tenant office space, a fast-food restaurant, a 50-room resort hotel, a quality sit down restaurant and a marina dock. Access for the main site is proposed via an access driveway onto Grand Avenue. Access to the marina would be along Serena Way for vehicles delivering their boats to the dock.

Daily project construction emissions were calculated and compared with the applicable South Coast Air Quality Management District (SCAQMD) CEQA significance construction thresholds for primary pollutants. As shown in this report, project construction emissions are anticipated to be less than their applicable thresholds.

Project operational emission sources are primarily derived from vehicular travel. Operational emissions for all the Wakerider Beach Resort uses were calculated using trip data from the project Traffic Report and compared with the SCAQMD daily operational emissions thresholds. Project operational emissions were shown to be less than their thresholds.

Project associated Green House Gas (GHG) emissions were also calculated for both annual construction and operation uses. Operational uses include regional vehicular travel as well as energy, water and wastewater use associated with operation of the proposed-on-site buildings. These emissions were compared to the applicable interim SCAQMD thresholds and were also found to be less than significant.

METEOROLOGY CLIMATE

The climate of the Lake Elsinore area in Riverside County, technically called an interior valley sub-climate of Southern California's Mediterranean-type climate, is characterized by warm summers, mild winters, infrequent rainfall, moderate afternoon breezes, and generally fair weather. The clouds and fog that form along the area's coastline rarely extend as far inland as the project area, and if they do, they usually burn off quickly after sunrise. The most important weather pattern is associated with the warm season airflow across populated areas of the Los Angeles Basin that brings polluted air into western Riverside County late in the afternoon. This transport pattern creates unhealthful air quality when the fringes of this "urban smog cloud" extend to the project site during the summer months.

Temperatures in the project area average a very comfortable 65ºF year-round, with warm summer afternoons (95+ degrees) and often cool winter mornings (around 35 degrees). Rainfall in the project area varies considerably in both time and space. Almost all the annual rainfall comes from the fringes of mid-latitude storms from late November to early April with summers often completely dry. Rainfall in the Lake Elsinore area averages 11.6 inches per year, but varies markedly from one year to the next.

Winds are an important factor in characterizing the local air quality environment because they both determine the regional pattern of air pollution transport and control the local rate of pollution dispersion. Daytime winds are from the NW at 6-8 mph as air moves regionally onshore from the cool Pacific Ocean to the warm Mojave Desert interior of Southern California. These winds allow for good local mixing, but they may bring air pollutants from urbanized coastal areas into interior valleys. Strong thermal convection in the summer ultimately dilutes the smog cloud from urbanized development, but the project area is too close to Los Angeles Basin emissions sources to completely escape the regional air quality degradation.

Light nocturnal winds result mainly from drainage of cool air off mountains toward the valley floor. Such winds are characterized by stagnation and poor local mixing. However, the origin of these winds in unpopulated mountain areas does not generally impair air quality.

In addition to winds that control the rate and direction of pollution dispersal, Southern California is notorious for strong temperature inversions that limit the vertical depth through which pollution can be mixed. In summer, coastal areas are characterized by a sharp discontinuity between the cool marine air at the surface and the warm, sinking air aloft within the high pressure cell over the ocean to the west. This marine/subsidence inversion allows for good local mixing, but acts like a giant lid over the basin.

A second inversion type forms on clear winter nights when cold air off the mountains sinks to the valley floor while the air aloft over the valley remains warm. This forms radiation inversions. These inversions, in conjunction with calm winds, trap pollutants such as automobile exhaust near their source. While these inversions may lead to air pollution "hot spots" in heavily developed coastal areas of the basin, there is not enough traffic in inland valleys to cause any winter air pollution problems. Thus, while summers are periods of hazy visibility and occasionally unhealthful air, winter is often a period of spectacular visibility and excellent air quality in the project area.

AIR QUALITY SETTING

AMBIENT AIR QUALITY STANDARDS (AAQS)

In order to gauge the significance of the air quality impacts of the Wakerider Beach Resort project, those impacts, together with existing background air quality levels, must be compared to the applicable ambient air quality standards. These standards are the levels of air quality considered safe, with an adequate margin of safety, to protect the public health and welfare. They are designed to protect those people most susceptible to further respiratory distress such as asthmatics, the elderly, very young children, people already weakened by other disease or illness, and persons engaged in strenuous work or exercise, called "sensitive receptors." Healthy adults can tolerate occasional exposure to air pollutant concentrations considerably above these minimum standards before adverse effects are observed. Recent research has shown, however, that chronic exposure to ozone (the primary ingredient in photochemical smog) may lead to adverse respiratory health even at concentrations close to the ambient standard.

National AAQS were established in 1971 for six pollution species with states retaining the option to add other pollutants, require more stringent compliance, or to include different exposure periods. The initial attainment deadline of 1977 was extended several times in air quality problem areas like Southern California. In 2003, the Environmental Protection Agency (EPA) adopted a rule, which extended and established a new attainment deadline for ozone for the year 2021. Because the State of California had established AAQS several years before the federal action and because of unique air quality problems introduced by the restrictive dispersion meteorology, there is considerable difference between state and national clean air standards. Those standards currently in effect in California are shown in Table 1. Sources and health effects of various pollutants are shown in Table 2.

The Federal Clean Air Act Amendments (CAAA) of 1990 required that the U.S. Environmental Protection Agency (EPA) review all national AAQS in light of currently known health effects. EPA was charged with modifying existing standards or promulgating new ones where appropriate. EPA subsequently developed standards for chronic ozone exposure (8+ hours per day) and for very small diameter particulate matter (called "PM-2.5"). New national AAQS were adopted in 1997 for these pollutants.

Planning and enforcement of the federal standards for PM-2.5 and for ozone (8-hour) were challenged by trucking and manufacturing organizations. In a unanimous decision, the U.S. Supreme Court ruled that EPA did not require specific congressional authorization to adopt national clean air standards. The Court also ruled that health-based standards did not require preparation of a cost-benefit analysis. The Court did find, however, that there was some inconsistency between existing and "new" standards in their required attainment schedules. Such attainment-planning schedule inconsistencies centered mainly on the 8-hour ozone standard. EPA subsequently agreed to downgrade the attainment designation for a large number of communities to “non-attainment” for the 8-hour ozone standard.

Table 1

Ambient Air Quality Standards						
Pollutant	**Averaging Time**	**California Standards** [1]		**National Standards** [2]		
		Concentration [3]	**Method** [4]	**Primary** [3,5]	**Secondary** [3,6]	**Method** [7]
Ozone (O_3)	1 Hour	0.09 ppm (180 µg/m^3)	Ultraviolet Photometry	—	Same as Primary Standard	Ultraviolet Photometry
	8 Hour	0.070 ppm (137 µg/m^3)		0.075 ppm (147 µg/m^3)		
Respirable Particulate Matter (PM10)[8]	24 Hour	50 µg/m^3	Gravimetric or Beta Attenuation	150 µg/m^3	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	20 µg/m^3		—		
Fine Particulate Matter (PM2.5)[8]	24 Hour	—	—	35 µg/m^3	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	12 µg/m^3	Gravimetric or Beta Attenuation	12.0 µg/m^3	15 µg/m^3	
Carbon Monoxide (CO)	1 Hour	20 ppm (23 mg/m^3)	Non-Dispersive Infrared Photometry (NDIR)	35 ppm (40 mg/m^3)	—	Non-Dispersive Infrared Photometry (NDIR)
	8 Hour	9.0 ppm (10 mg/m^3)		9 ppm (10 mg/m^3)	—	
	8 Hour (Lake Tahoe)	6 ppm (7 mg/m^3)		—	—	
Nitrogen Dioxide (NO_2)[9]	1 Hour	0.18 ppm (339 µg/m^3)	Gas Phase Chemiluminescence	100 ppb (188 µg/m^3)	—	Gas Phase Chemiluminescence
	Annual Arithmetic Mean	0.030 ppm (57 µg/m^3)		0.053 ppm (100 µg/m^3)	Same as Primary Standard	
Sulfur Dioxide (SO_2)[10]	1 Hour	0.25 ppm (655 µg/m^3)	Ultraviolet Fluorescence	75 ppb (196 µg/m^3)	—	Ultraviolet Flourescence; Spectrophotometry (Pararosaniline Method)
	3 Hour	—		—	0.5 ppm (1300 µg/m^3)	
	24 Hour	0.04 ppm (105 µg/m^3)		0.14 ppm (for certain areas)[10]	—	
	Annual Arithmetic Mean	—		0.030 ppm (for certain areas)[10]	—	
Lead[11,12]	30 Day Average	1.5 µg/m^3	Atomic Absorption	—	—	High Volume Sampler and Atomic Absorption
	Calendar Quarter	—		1.5 µg/m^3 (for certain areas)[12]	Same as Primary Standard	
	Rolling 3-Month Average	—		0.15 µg/m^3		
Visibility Reducing Particles[13]	8 Hour	See footnote 13	Beta Attenuation and Transmittance through Filter Tape	**No National Standards**		
Sulfates	24 Hour	25 µg/m^3	Ion Chromatography			
Hydrogen Sulfide	1 Hour	0.03 ppm (42 µg/m^3)	Ultraviolet Fluorescence			
Vinyl Chloride[11]	24 Hour	0.01 ppm (26 µg/m^3)	Gas Chromatography			

See footnotes on next page …

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Table 1 (continued)

1. California standards for ozone, carbon monoxide (except 8-hour Lake Tahoe), sulfur dioxide (1 and 24 hour), nitrogen dioxide, and particulate matter (PM10, PM2.5, and visibility reducing particles), are values that are not to be exceeded. All others are not to be equaled or exceeded. California ambient air quality standards are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations.

2. National standards (other than ozone, particulate matter, and those based on annual arithmetic mean) are not to be exceeded more than once a year. The ozone standard is attained when the fourth highest 8-hour concentration measured at each site in a year, averaged over three years, is equal to or less than the standard. For PM10, the 24 hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 $\mu g/m^3$ is equal to or less than one. For PM2.5, the 24 hour standard is attained when 98 percent of the daily concentrations, averaged over three years, are equal to or less than the standard. Contact the U.S. EPA for further clarification and current national policies.

3. Concentration expressed first in units in which it was promulgated. Equivalent units given in parentheses are based upon a reference temperature of 25°C and a reference pressure of 760 torr. Most measurements of air quality are to be corrected to a reference temperature of 25°C and a reference pressure of 760 torr; ppm in this table refers to ppm by volume, or micromoles of pollutant per mole of gas.

4. Any equivalent measurement method which can be shown to the satisfaction of the ARB to give equivalent results at or near the level of the air quality standard may be used.

5. National Primary Standards: The levels of air quality necessary, with an adequate margin of safety to protect the public health.

6. National Secondary Standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.

7. Reference method as described by the U.S. EPA. An "equivalent method" of measurement may be used but must have a "consistent relationship to the reference method" and must be approved by the U.S. EPA.

8. On December 14, 2012, the national annual PM2.5 primary standard was lowered from 15 $\mu g/m^3$ to 12.0 $\mu g/m^3$. The existing national 24-hour PM2.5 standards (primary and secondary) were retained at 35 $\mu g/m^3$, as was the annual secondary standard of 15 $\mu g/m^3$. The existing 24-hour PM10 standards (primary and secondary) of 150 $\mu g/m^3$ also were retained. The form of the annual primary and secondary standards is the annual mean, averaged over 3 years.

9. To attain the 1-hour national standard, the 3-year average of the annual 98th percentile of the 1-hour daily maximum concentrations at each site must not exceed 100 ppb. Note that the national 1-hour standard is in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the national 1-hour standard to the California standards the units can be converted from ppb to ppm. In this case, the national standard of 100 ppb is identical to 0.100 ppm.

10. On June 2, 2010, a new 1-hour SO_2 standard was established and the existing 24-hour and annual primary standards were revoked. To attain the 1-hour national standard, the 3-year average of the annual 99th percentile of the 1-hour daily maximum concentrations at each site must not exceed 75 ppb. The 1971 SO_2 national standards (24-hour and annual) remain in effect until one year after an area is designated for the 2010 standard, except that in areas designated nonattainment for the 1971 standards, the 1971 standards remain in effect until implementation plans to attain or maintain the 2010 standards are approved.

    Note that the 1-hour national standard is in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the 1-hour national standard to the California standard the units can be converted to ppm. In this case, the national standard of 75 ppb is identical to 0.075 ppm.

11. The ARB has identified lead and vinyl chloride as 'toxic air contaminants' with no threshold level of exposure for adverse health effects determined. These actions allow for the implementation of control measures at levels below the ambient concentrations specified for these pollutants.

12. The national standard for lead was revised on October 15, 2008 to a rolling 3-month average. The 1978 lead standard (1.5 $\mu g/m^3$ as a quarterly average) remains in effect until one year after an area is designated for the 2008 standard, except that in areas designated nonattainment for the 1978 standard, the 1978 standard remains in effect until implementation plans to attain or maintain the 2008 standard are approved.

13. In 1989, the ARB converted both the general statewide 10-mile visibility standard and the Lake Tahoe 30-mile visibility standard to instrumental equivalents, which are "extinction of 0.23 per kilometer" and "extinction of 0.07 per kilometer" for the statewide and Lake Tahoe Air Basin standards, respectively.

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Table 2
Health Effects of Major Criteria Pollutants

Pollutants	Sources	Primary Effects
Carbon Monoxide (CO)	• Incomplete combustion of fuels and other carbon-containing substances, such as motor exhaust. • Natural events, such as decomposition of organic matter.	• Reduced tolerance for exercise. • Impairment of mental function. • Impairment of fetal development. • Death at high levels of exposure. • Aggravation of some heart diseases (angina).
Nitrogen Dioxide (NO_2)	• Motor vehicle exhaust. • High temperature stationary combustion. • Atmospheric reactions.	• Aggravation of respiratory illness. • Reduced visibility. • Reduced plant growth. • Formation of acid rain.
Ozone (O_3)	• Atmospheric reaction of organic gases with nitrogen oxides in sunlight.	• Aggravation of respiratory and cardiovascular diseases. • Irritation of eyes. • Impairment of cardiopulmonary function. • Plant leaf injury.
Lead (Pb)	• Contaminated soil.	• Impairment of blood function and nerve construction. • Behavioral and hearing problems in children.
Fine Particulate Matter (PM-10)	• Stationary combustion of solid fuels. • Construction activities. • Industrial processes. • Atmospheric chemical reactions.	• Reduced lung function. • Aggravation of the effects of gaseous pollutants. • Aggravation of respiratory and cardio respiratory diseases. • Increased cough and chest discomfort. • Soiling. • Reduced visibility.
Fine Particulate Matter (PM-2.5)	• Fuel combustion in motor vehicles, equipment, and industrial sources. • Residential and agricultural burning. • Industrial processes. • Also, formed from photochemical reactions of other pollutants, including NOx, sulfur oxides, and organics.	• Increases respiratory disease. • Lung damage. • Cancer and premature death. • Reduces visibility and results in surface soiling.
Sulfur Dioxide (SO_2)	• Combustion of sulfur-containing fossil fuels. • Smelting of sulfur-bearing metal ores. • Industrial processes.	• Aggravation of respiratory diseases (asthma, emphysema). • Reduced lung function. • Irritation of eyes. • Reduced visibility. • Plant injury. • Deterioration of metals, textiles, leather, finishes, coatings, etc.

Source: California Air Resources Board, 2002.

Evaluation of the most current data on the health effects of inhalation of fine particulate matter prompted the California Air Resources Board (ARB) to recommend adoption of the statewide PM-2.5 standard that is more stringent than the federal standard. This standard was adopted in 2002. The State PM-2.5 standard is more of a goal in that it does not have specific attainment planning requirements like a federal clean air standard, but only requires continued progress towards attainment.

Similarly, the ARB extensively evaluated health effects of ozone exposure. A new state standard for an 8-hour ozone exposure was adopted in 2005, which aligned with the exposure period for the federal 8-hour standard. The California 8-hour ozone standard of 0.07 ppm is more stringent than the federal 8-hour standard of 0.075 ppm. The state standard, however, does not have a specific attainment deadline. California air quality jurisdictions are required to make steady progress towards attaining state standards, but there are no hard deadlines or any consequences of non-attainment. During the same re-evaluation process, the ARB adopted an annual state standard for nitrogen dioxide ($NO_{2)}$ that is more stringent than the corresponding federal standard, and strengthened the state one-hour NO_2 standard.

As part of EPA's 2002 consent decree on clean air standards, a further review of airborne particulate matter (PM) and human health was initiated. A substantial modification of federal clean air standards for PM was promulgated in 2006. Standards for PM-2.5 were strengthened, a new class of PM in the 2.5 to 10 micron size was created, some PM-10 standards were revoked, and a distinction between rural and urban air quality was adopted. In December, 2012, the federal annual standard for PM-2.5 was reduced from 15 $\mu g/m^3$ to 12 $\mu g/m^3$ which matches the California AAQS. The severity of the basin's non-attainment status for PM-2.5 may be increased by this action and thus require accelerated planning for future PM-2.5 attainment.

In response to continuing evidence that ozone exposure at levels just meeting federal clean air standards is demonstrably unhealthful, EPA had proposed a further strengthening of the 8-hour standard. Draft standards were published. The anticipated future 8-hour standard was 0.065 ppm. Environmental organizations generally praised this proposal. Most manufacturing, transportation or power generation groups opposed the new standard as economically unwise in an uncertain fiscal climate. In recognition of the fact that a stronger ozone standard could adversely impact employment, that proposal has been placed on indefinite hold.

A new federal one-hour standard for nitrogen dioxide (NO_2) has also recently been adopted. This standard is more stringent than the existing state standard. Based upon air quality monitoring data in the South Coast Air Basin, the California Air Resources Board has requested the EPA to designate the basin as being in attainment for this standard. The federal standard for sulfur dioxide (SO_2) was also recently revised. However, with minimal combustion of coal and mandatory use of low sulfur fuels in California, SO_2 is typically not a problem pollutant.

BASELINE AIR QUALITY

Long-term air quality monitoring is carried out by the South Coast Air Quality Management District (SCAQMD) at various monitoring stations. There are no nearby stations that monitor the full spectrum of pollutants. Ozone, carbon monoxide and nitrogen oxides are monitored at the Lake Elsinore facility, while 10-micron diameter particulate matter (PM-10) is measured at the Perris Valley station. The closest data resource for other particulate species is in Riverside. Table 3 summarizes the last five years of monitoring data from a composite of available data resources.

1. Photochemical smog (ozone) levels often exceed standards. The 1-hour state standard was violated of six percent of all days in the last five years near Lake Elsinore. The 8-hour state ozone standard has been exceeded 15 percent of all days in the past five years. The Federal eight-hour ozone standard has averaged around 9 percent of the time during this period. While ozone levels are still high, they are much lower than 10 to 20 years ago. Attainment of all clean air standards in the project vicinity is not likely to occur soon, but the severity and frequency of violations is expected to continue to slowly decline during the current decade.

2. Carbon monoxide (CO) measurements at the Lake Elsinore station have declined throughout the last decade. Federal and state CO standards have not been exceeded in the last 10+ years. Despite continued basin-wide growth, maximum one- or 8-hour CO levels at the closest air monitoring station average less the 10 percent of their most stringent standards because of continued vehicular improvements. These data suggests that baseline CO levels in the project area are generally healthful and can accommodate a reasonable level of additional traffic emissions before any adverse air quality effects would be expected.

3. PM-10 levels as measured at Perris, periodically exceed the state 24-hour standard, but no measurements in excess of the national 24-hour particulate standard has been recorded in the last five years. Particulate levels have traditionally been high in Riverside County because of agricultural activities, dry soil conditions and upwind industrial development. State PM-10 standards are exceeded an average of seven percent of all days per year.

4. A substantial fraction of PM-10 is comprised of ultra-small diameter particulates capable of being inhaled into deep lung tissue (PM-2.5). Year 2010 showed the fewest violations in recent years. Both the frequency of violations of particulate standards, as well as high percentage of PM-2.5, are air quality concerns in the project area. Slightly less than three percent of all days exceeded the current national 24-hour standard of 35 $\mu g/m^3$.

5. More localized pollutants such as nitrogen oxides, lead, etc. are very low near the project site because background levels even near downtown Riverside never exceed allowable levels, and there are only limited sources of such emissions near the project site. There is substantial excess dispersive capacity to accommodate localized vehicular air pollutants such as NOx without any threat of violating the applicable standards.

Table 3

Project Area Air Quality Monitoring Summary – 2008-2012
(Days Standards Were Exceeded and Maximum Observed Levels)

Pollutant/Standard	2008	2009	2010	2011	2012
Ozone[1]					
1-Hour > 0.09 ppm (S)	49	24	15	19	10
8-Hour > 0.07 ppm (S)	91	65	40	45	32
8-Hour > 0.075 ppm (F)	69	35	24	28	17
Max. 1-Hour Conc. (ppm)	0.139	0.128	0.107	0.133	0.111
Max. 8-Hour Conc. (ppm)	0.119	0.106	0.092	0.107	0.089
Carbon Monoxide[1]					
1-Hour > 20. ppm (S)	0	0	0	0	0
1-Hour > 9. ppm (S, F)	0	0	0	0	0
Max 1-Hour Conc. (ppm)	1.1	1.0	1.1	2.7	xx
Max 8-Hour Conc. (ppm)	0.8	0.7	0.7	0.7	0.5
Nitrogen Dioxide[1]					
1-Hour > 0.18 ppm (S)	0	0	0	0	0
Max. 1-Hour Conc. (ppm)	0.055	0.055	0.051	0.050	0.048
Inhalable Particulates (PM-10)[2]					
24-Hour > 50 $\mu g/m^3$ (S)	8/45	6/58	0/61	2/60	1/60
24-Hour > 150 $\mu g/m^3$ (F)	0/45	0/58	0/61	0/60	0/60
Max. 24-Hr. Conc. ($\mu g/m^3$)	87.	76.	48.	62.	62.
Ultra-Fine Particulates (PM-2.5)[3]					
24-Hour > 35 $\mu g/m^3$ (F)	14/342	15/364	4/365	5/365	7/352
Max. 24-Hr. Conc. ($\mu g/m^3$)	57.6	54.4	58.5	73.7	38.1

xx=data not available

S=State Standard
F=Federal Standard

Source: South Coast AQMD – Source: South Coast AQMD – [1]Lake Elsinore, [2]Perris and [3]Rubidoux Air Monitoring Station Data Summaries.
data: WWW.ARB.CA.GOV/ADAM/

AIR QUALITY PLANNING

The Federal Clean Air Act (1977 Amendments) required that designated agencies in any area of the nation not meeting national clean air standards must prepare a plan demonstrating the steps that would bring the area into compliance with all national standards. The SCAB could not meet the deadlines for ozone, nitrogen dioxide, carbon monoxide, or PM-10. In the SCAB, the agencies designated by the governor to develop regional air quality plans are the SCAQMD and the Southern California Association of Governments (SCAG). The two agencies first adopted an Air Quality Management Plan (AQMP) in 1979 and revised it several times as earlier attainment forecasts were shown to be overly optimistic.

The 1990 Federal Clean Air Act Amendment (CAAA) required that all states with air-sheds with "serious" or worse ozone problems submit a revision to the State Implementation Plan (SIP). Amendments to the SIP have been proposed, revised and approved over the past decade. The most current regional attainment emissions forecast for ozone precursors (ROG and NOx) and for carbon monoxide (CO) and for particulate matter are shown in Table 4. Substantial reductions in emissions of ROG, NOx and CO are forecast to continue throughout the next several decades. Unless new particulate control programs are implemented, PM-10 and PM-2.5 are forecast to slightly increase.

The Air Quality Management District (AQMD) adopted an updated clean air "blueprint" in August 2003. The 2003 Air Quality Management Plan (AQMP) was approved by the EPA in 2004. The AQMP outlined the air pollution measures needed to meet federal health-based standards for ozone by 2010 and for particulates (PM-10) by 2006. The 2003 AQMP was based upon the federal one-hour ozone standard which was revoked late in 2005 and replaced by an 8-hour federal standard. Because of the revocation of the hourly standard, a new air quality planning cycle was initiated.

With re-designation of the air basin as non-attainment for the 8-hour ozone standard, a new attainment plan was developed. This plan shifted most of the one-hour ozone standard attainment strategies to the 8-hour standard. As previously noted, the attainment date was to "slip" from 2010 to 2021. The updated attainment plan also includes strategies for ultimately meeting the federal PM-2.5 standard.

Because projected attainment by 2021 requires control technologies that do not exist yet, the SCAQMD requested a voluntary "bump-up" from a "severe non-attainment" area to an "extreme non-attainment" designation for ozone. The extreme designation will allow a longer time period for these technologies to develop. If attainment cannot be demonstrated within the specified deadline without relying on "black-box" measures, EPA would have been required to impose sanctions on the region had the bump-up request not been approved. In April 2010, the EPA approved the change in the non-attainment designation from "severe-17" to "extreme." This reclassification sets a later attainment deadline (2024), but also requires the air basin to adopt even more stringent emissions controls.

Table 4

South Coast Air Basin Emissions Forecasts (Emissions in tons/day)

Pollutant	2008[a]	2010[b]	2015[b]	2020[b]
NOx	917	836	667	561
ROG	632	596	545	525
CO	3,344	3,039	2,556	2,281
PM-10	308	314	328	340
PM-2.5	110	110	111	113

[a]2008 Base Year.
[b]With current emissions reduction programs and adopted growth forecasts.

Source: California Air Resources Board, California Emissions Projection Analysis Model, 2009

In other air quality attainment plan reviews, EPA has disapproved part of the SCAB PM-2.5 attainment plan included in the AQMP. EPA has stated that the current attainment plan relies on PM-2.5 control regulations that have not yet been approved or implemented. It is expected that a number of rules that are pending approval will remove the identified issues. The recently adopted 2012 AQMP being readied for ARB submittal to EPA as part of the California State Implementation Plan (SIP) is expected to remedy identified PM-2.5 planning deficiencies.

The federal Clean Air Act requires that non-attainment air basins have EPA approved attainment plans in place. This requirement includes the federal one-hour ozone standard even though that standard was revoked around eight years ago. There was no approved attainment plan for the one-hour federal standard at the time of revocation. Through a legal quirk, the SCAQMD is now forced to develop an AQMP for the long since revoked one-hour federal ozone standard.

Projects such as the proposed Wakerider Beach Resort project do not directly relate to the AQMP in that there are no specific air quality programs or regulations governing general development. Conformity with adopted plans, forecasts and programs relative to population, housing, employment and land use is the primary yardstick by which impact significance of planned growth is determined. The SCAQMD, however, while acknowledging that the AQMP is a growth-accommodating document, does not favor designating regional impacts as less-than-significant just because the proposed development is consistent with regional growth projections. Air quality impact significance for the proposed project has therefore been analyzed on a project-specific basis.

AIR QUALITY IMPACT

STANDARDS OF SIGNIFICANCE

Air quality impacts are considered "significant" if they cause clean air standards to be violated where they are currently met, or if they "substantially" contribute to an existing violation of standards. Any substantial emissions of air contaminants for which there is no safe exposure, or nuisance emissions such as dust or odors, would also be considered a significant impact.

Appendix G of the California CEQA Guidelines offers the following five tests of air quality impact significance. A project would have a potentially significant impact if it:

a. Conflicts with or obstructs implementation of the applicable air quality plan.

b. Violates any air quality standard or contributes substantially to an existing or projected air quality violation.

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

d. Exposes sensitive receptors to substantial pollutant concentrations.

e. Creates objectionable odors affecting a substantial number of people.

Primary Pollutants

Air quality impacts generally occur on two scales of motion. Near an individual source of emissions or a collection of sources such as a crowded intersection or parking lot, levels of those pollutants that are emitted in their already unhealthful form will be highest. Carbon monoxide (CO) is an example of such a pollutant. Primary pollutant impacts can generally be evaluated directly in comparison to appropriate clean air standards. Violations of these standards where they are currently met, or a measurable worsening of an existing or future violation, would be considered a significant impact. Many particulates, especially fugitive dust emissions, are also primary pollutants. Because of the non-attainment status of the South Coast Air Basin (SCAB) for PM-10, an aggressive dust control program is required to control fugitive dust during project construction.

Secondary Pollutants

Many pollutants, however, require time to transform from a more benign form to a more unhealthful contaminant. Their impact occurs regionally far from the source. Their incremental regional impact is minute on an individual basis and cannot be quantified except through complex photochemical computer models. Analysis of significance of such emissions is based

upon a specified amount of emissions (pounds, tons, etc.) even though there is no way to translate those emissions directly into a corresponding ambient air quality impact.

Because of the chemical complexity of primary versus secondary pollutants, the SCAQMD has designated significant emissions levels as surrogates for evaluating regional air quality impact significance independent of chemical transformation processes. Projects with daily emissions that exceed any of the following emission thresholds are recommended by the SCAQMD to be considered significant under CEQA guidelines:

Pollutant	Construction	Operations*
ROG	75	55
NOx	100	55
CO	550	550
PM-10	150	150
PM-2.5	55	55
SOx	150	150
Lead	3	3

Source: SCAQMD CEQA Air Quality Handbook, November, 1993 Rev.
*Project operations have no air quality impacts, only construction was evaluated

Additional Indicators

In its CEQA Handbook, the SCAQMD also states that additional indicators should be used as screening criteria to determine the need for further analysis with respect to air quality. The additional indicators are as follows:

- Project could interfere with the attainment of the federal or state ambient air quality standards by either violating or contributing to an existing or projected air quality violation

- Project could result in population increases within the regional statistical area which would be in excess of that projected in the AQMP and in other than planned locations for the project's build-out year.

- Project could generate vehicle trips that cause a CO hot spot.

The SCAQMD CEQA Handbook also identifies various secondary significance criteria related to toxic, hazardous or odorous air contaminants. Except for the small diameter particulate matter ("PM-2.5") fraction of diesel exhaust generated by heavy construction equipment, there are no secondary impact indicators associated with project construction.

CONSTRUCTION ACTIVITY IMPACTS

Dust is typically the primary concern during construction of new buildings. Because such emissions are not amenable to collection and discharge through a controlled source, they are called "fugitive emissions." Emission rates vary as a function of many parameters (soil silt, soil moisture, wind speed, area disturbed, number of vehicles, depth of disturbance or excavation, etc.). These parameters are not known with any reasonable certainty prior to project development and may change from day to day. Any assignment of specific parameters to an unknown future date is speculative and conjectural.

Because of the inherent uncertainty in the predictive factors for estimating fugitive dust generation, regulatory agencies typically use one universal "default" factor based on the area disturbed assuming that all other input parameters into emission rate prediction fall into midrange average values. This assumption may or may not be totally applicable to site-specific conditions on the proposed project site. As noted previously, emissions estimation for project-specific fugitive dust sources is therefore characterized by a considerable degree of imprecision.

Average daily PM-10 emissions during site grading and other disturbance are shown in the CalEEMod2013.2.2 computer model to be about 10 pounds per acre. This estimate presumes the use of reasonably available control measures (RACMs). The SCAQMD requires the use of best available control measures (BACMs) for fugitive dust from construction activities.

Current research in particulate-exposure health suggests that the most adverse effects derive from ultra-small diameter particulate matter comprised of chemically reactive pollutants such as sulfates, nitrates or organic material. A national clean air standard for particulate matter of 2.5 microns or smaller in diameter (called "PM-2.5") was adopted in 1997. A limited amount of construction activity particulate matter is in the PM-2.5 range. PM-2.5 emissions are estimated to comprise 10-20 percent of PM-10.

In addition to fine particles that remain suspended in the atmosphere semi-indefinitely, construction activities generate many larger particles with shorter atmospheric residence times. This dust is comprised mainly of large diameter inert silicates that are chemically non-reactive and are further readily filtered out by human breathing passages. These fugitive dust particles are therefore more of a potential soiling nuisance as they settle out on parked cars, outdoor furniture or landscape foliage rather than any adverse health hazard.

Exhaust emissions will result from on and off-site heavy equipment. The types and numbers of equipment will vary among contractors such that such emissions cannot be quantified with certainty. Default equipment use factors contains an appropriate emissions calculation models have therefore been used.

CalEEMod was developed by the SCAQMD and provides a model by which to calculate both construction emissions and operational emissions from a land use project. It calculates both the daily maximum and annual average for criteria pollutants as well as total or annual greenhouse gas (GHG) emissions.

The project proposes the following uses:

2,163 square feet of office use
2,164 square feet of fast food restaurant
7,022 square feet quality restaurant
50 room hotel
44,960 square feet of paved area including parking

The CalEEMod 2013.2.2 computer model was used to calculate emissions from the indicated default prototype construction equipment fleet and schedule anticipated by CalEEMod for the uses indicated above:

Site Preparation (3 days)	1 Scraper
	1 Grader
	1 Tractor/Loader/Backhoe
Grading (6 days)	1 Grader
	1 Dozer
	2 Tractor/Loader/Backhoes
Construction (220 days)	1 Crane
	2 Forklifts
	1 Generator Set
	3 Welder
	1 Tractor/Loader/Backhoe
Paving (10 days)	1 Cement Mortar Mixer
	1 Paver
	1 Paving Equipment
	2 Rollers
	1 Tractor/Loader/Backhoe

Utilizing this equipment fleet the following worst case daily emissions are calculated by CalEEMod:

Construction Activity Emissions
Maximum Daily Emissions (pounds/day)

Activity	ROG	NOx	CO	SO_2	PM-10	PM-2.5
2014						
Unmitigated	50.4	33.1	23.4	0.0	8.4	5.0
Mitigated	50.4	33.1	23.4	0.0	4.4	0.3
2015						
Unmitigated	50.3	2.6	2.6	0.0	0.3	3.0
Mitigated	50.3	2.6	2.6	0.0	0.3	0.3
SCAQMD Thresholds	75	100	550	150	150	55

Source: CalEEMod.2013.2.2 output in appendix

Peak daily construction activity emissions will be below SCAQMD CEQA thresholds. Recommended dust mitigation measures are provided in the appendix, but only the following measures were modeled in CalEEMod for this project:

- Water exposed areas 3 times per day

Construction equipment exhaust contains carcinogenic compounds within the diesel exhaust particulates. The toxicity of diesel exhaust is evaluated relative to a 24-hour per day, 365 days per year, 70-year lifetime exposure. Public exposure to heavy equipment emissions will be an extremely small fraction of the above dosage assumption. Diesel equipment is also becoming progressively "cleaner" in response to air quality rules on new off-road equipment. Any public health risk associated with project-related heavy equipment operations exhaust is therefore not quantifiable, but small.

LOCAL SIGNIFICANCE THRESHOLDS

The SCAQMD has developed analysis parameters to evaluate ambient air quality on a local level in addition to the more regional emissions-based thresholds of significance. These analysis elements are called Localized Significance Thresholds (LSTs). LSTs were developed in response to Governing Board's Environmental Justice Enhancement Initiative 1-4 and the LST methodology was provisionally adopted in October 2003 and formally approved by SCAQMD's Mobile Source Committee in February 2005.

Use of an LST analysis for a project is optional. For the proposed project, the primary source of possible LST impact would be during construction. LSTs are applicable for a sensitive receptor

where it is possible that an individual could remain for 24 hours such as a residence, hospital or convalescent facility.

LST screening tables are available for 25, 50, 100, 200 and 500 meter source-receptor distances. For this project the nearest sensitive use would be the residences adjacent to the project site such that the 25 meter distance thresholds were utilized.

LSTs are only applicable to the following criteria pollutants: oxides of nitrogen (NOx), carbon monoxide (CO), and particulate matter (PM-10 and PM-2.5). LSTs represent the maximum emissions from a project that are not expected to cause or contribute measurably to an exceedance of the most stringent applicable federal or state ambient air quality standard, and are developed based on the ambient concentrations of that pollutant for each source receptor area and distance to the nearest sensitive receptor.

The SCAQMD has issued guidance on applying CalEEMod to LSTs. LST pollutant screening level concentration data is currently published for 1, 2 and 5 acre disturbance sites for varying distances. Since CalEEMod calculates construction emissions based on the number of equipment hours and the maximum daily soil disturbance activity possible for each piece of equipment, the following tables should be used to determine the maximum daily disturbed-acreage for comparison to LSTs.

Maximum Daily Disturbed Acreage per Equipment Type

Equipment Type	Acres/8-hr-day
Crawler Tractor	0.5
Graders	0.5
Rubber Tired Dozers	0.5
Scrapers	1

Based on this table and the CalEEMod default equipment fleet for the proposed project will result in 1.5 disturbed daily acre during peak construction grading activity:

(1 scraper x 1.0 + 1 grader x 0.5 = 1.5 acres disturbed).

The applicable thresholds and emissions are shown in Table 6.

Table 6
LST and Project Emissions (pounds/day)

LST 1.5 acres/ 25 meters Lake Elsinore	CO	NOx	PM-10	PM-2.5
Max On-Site Emissions *	925	198	6	4
Site Prep				
Unmitigated	19	33	3	2
Mitigated	19	33	2	2
Grading				
Unmitigated	20	32	8	5
Mitigated	20	32	4	3
Construction				
Unmitigated	17	27	2	2
Mitigated	17	27	2	2
Paving				
Unmitigated	12	20	2	2
Mitigated	12	20	2	2

CalEEMod Output in Appendix
*excludes construction commuting, vendor deliveries and emissions associated with haul trucking.

LSTs were compared to the maximum daily construction activities. As seen above, mitigated emissions are below the LST thresholds for construction. LST impacts are less-than-significant. The only mitigation measure applied was the following dust suppression measure:

- Water exposed surfaces at least 3 times per day for fugitive dust suppression

Although the two project sites have a small separation, they were modeled as one source. Dispersion provided by distance separation would make this a worst case estimate.

OPERATIONAL IMPACTS

The project will generate 2,085 average daily trips (ADT). Commercial uses also generate small quantities of "area source emissions" derived from organic compounds from cleaning products, landscape maintenance, etc. The contribution of these sources is small.

Operational emissions for project-related traffic were calculated using CalEEMod 2013.2.2 for an assumed project build-out year of 2015. As seen in Table 7, project development will not cause the SCAQMD's recommended threshold levels to be exceeded. Operational emissions will be at a less-than-significant level.

Table 7
Wakerider Daily Operational Impacts

Source	ROG	NOx	CO	SO2	PM-10	PM-2.5	CO_2
Area	3.1	0.0	0.0	0.0	0.0	0.0	0.0
Energy	0.2	2.0	1.6	0.0	0.1	0.1	2,310.1
Mobile	7.1	13.4	52.8	0.1	6.3	1.8	8,374.0
Total	**10.4**	**15.4**	**54.4**	**0.1**	**6.4**	**1.9**	**10,684.1**
SCAQMD Threshold	55	55	550	150	150	55	-
Exceeds Threshold?	No	No	No	No	No	No	NA

Source: CalEEMod 2013.2.2 Output in Appendix

MICROSCALE IMPACT ANALYSIS

There is a direct relationship between traffic/circulation congestion and CO impacts since exhaust fumes from vehicular traffic are the primary source of CO. CO is a localized gas that dissipates very quickly under normal meteorological conditions. Therefore, CO concentrations decrease substantially as distance from the source (intersection) increases. The highest CO concentrations are typically found in areas directly adjacent to congested roadway intersections. These areas of vehicle congestion have the potential to create pockets of elevated levels of CO which are called "hot spots ".

Micro-scale air quality impacts have traditionally been analyzed in environmental documents when the air basin was a non-attainment area for carbon monoxide (CO). However, the SCAQMD has demonstrated in the CO attainment redesignation request to EPA that there are no "hot spots", i.e., locations where emission concentrations expose individuals to elevated risks of adverse health effects, anywhere in the SCAB.

To verify this conclusion, a CO screening analysis was performed at a variety of nearby intersections for which the project traffic report provided data. The one-hour CO concentration was calculated on the sidewalk adjacent to these intersections. The maximum opening year 1-hour CO exposure is estimated to be 1.9 ppm. The significance of localized project impacts depends on whether the project would cause substantial concentrations of CO.

A project is considered to have significant impacts if project-related mobile-source emissions result in an exceedance of the California one-hour and eight-hour CO standards, which are:

- 1-hour = 20 ppm
- 8-hour = 9 ppm

Calculations were made for existing traffic time frame with and without project for the morning and evening peak hours. The results of the microscale impact analysis are shown in Tables 8a and 8b.

The existing peak one-hour local CO background level in 2011 in the project area vicinity was 2.7 ppm. With project implementation, in the existing time frame, inclusive of the local concentration, maximum one-hour concentration is estimated to be 3.6 ppm, which is well below the one-hour standard of 20 ppm. The 8-hour concentration was derived from hourly data presuming a 60 percent persistence factor of the a.m. or p.m. 1-hour peak. The maximum ambient 8-hour CO concentration in 2011 was 0.7 ppm. Maximum with project 8-hour CO concentration of 1.2 ppm (inclusive of the background concentration) were compared to the 9 ppm significance threshold. Micro-scale air quality impacts are not significant.

Table 8a
One-Hour CO Concentrations (ppm)

Intersections	Existing	Existing + Project
AM Peak Hours		
Grand Ave (SR-74)/ Mobile Home Pk Dwy	3.3	3.4
Grand Ave (SR-74)/ Project Access	NA	3.5
Grand Ave (SR-74)/ Serena Way	3.3	3.4
PM Peak Hours		
Grand Ave (SR-74)/ Mobile Home Pk Dwy	3.4	3.5
Grand Ave (SR-74)/ Project Access	NA	3.6
Grand Ave (SR-74)/ Serena Way	3.4	3.5

*including 2.7 ppm background concentration

Table 8b
8-Hour CO Concentrations (ppm)

Intersections	Existing	Existing + Project
Grand Ave (SR-74)/ Mobile Home Pk Dwy	1.1	1.2
Grand Ave (SR-74)/ Project Access	NA	1.2
Grand Ave (SR-74)/ Serena Way	1.1	1.2

*including 0.7 ppm background concentration

ODORS

The proposed project contains two restaurant sites that may generate cooking odors, and possibly from the disposal of biodegradable refuse in outside containers. Most cooking odor is captures by stove/grill hoods that are discharged outside the building. Because charbroilers discharge a combination of smoke particles, reactive organic gases and odors, charbroiler installations usually require use of best available technology (BACT) on new installations.

Most fast food operations are required to comply with SCAQMD Rule 1138 "Control of Emissions from Restaurant Operations." The rule is designed to reduce particulate matter (smoke) and volatile organic compounds (volatized animal fat). A by-product of such control is odor reduction. SCAQMD Rule 402 further prohibits creation of an odor nuisance. If the cooking activity discharge were to create objectionable odor, there is substantial recourse to abate any possible nuisance. The CUP required to be issued by the City will specifically be conditioned that any restaurant operator utilize BACT to control cooking odor. Both the City and SCAQMD have compliance enforcement power. Several control mechanisms exist to effectively treat cooking odor if fan discharge by itself is not adequate to disperse the odor. The SCAQMD staff report on the recommended strengthening of Rule 1138 (2009) reported on emissions control tests that reduced smoke and odor by 85 percent (wet scrubbers). Proper ventilation design will likely maintain restaurant cooking odor impacts at less-than-significant levels. Failing that, additional enforcement mechanisms exist and control equipment is reasonably available to further guarantee that finding.

Operation of the beach park for picnic and tent camping uses may also entail use of portable cooking devices such as charcoal grills. Prevailing afternoon winds from the NW to SE will typically carry cooking odors away from most surrounding residences. There are no provisions for open fires at the park that might produce smoke and odor nuisance such that park activities are not likely to have a significant odor impact.

BOAT HAUL EMISSIONS

As a worst case scenario, access to the proposed Wakerider Beach Park would be on or adjacent to Serena Way. The proposed Marina is expected to generate 54 trips per day with a peak hour traffic volume of 4 vehicles. It is assumed that medium-light trucks or RVs will be used to pull boat trailers. Emissions associated with vehicular boat haul were calculated for residences along Serena Way.

EMFAC2011, the California Air Resources Board tool for estimating emissions from on-road vehicles, was used to calculate vehicular emissions associated with boat tow travel. EMFAC2011 emissions calculations were made for a travel distance of 1,000 feet (the impact envelope for a single residence) for a medium weight or a light duty truck or RV with a weight class of 3,750-5,750 lbs and with a 20 mph travel speed (lbs per day).

Source	ROG	NOx	CO	PM-10	PM-2.5
Daily (54 trucks)	1.8E-03	5.9E-03	5.5E-02	8.8E-05	8.1E-05
Peak Hour (4 trucks)	1.4E-04	4.4E-04	4.1E-03	6.5E-06	6.0E-06

Using the above concentrations, a screening-level dispersion analysis was conducted to determine the maximum concentration from truck exhaust for each of the above pollutants. The EPA AERSCREEN air dispersion model was used to evaluate these concentrations from light-duty truck exhaust. The AERSCREEN model was developed to provide an easy to use method of obtaining pollutant concentration estimates and is a single source Gaussian plume model which provides a maximum one-hour ground-level concentration. The model output for this analysis is included in the appendix.

The AERSCREEN pollutant concentrations were compared to a threshold of local significance based upon five percent of the National and State Standards consistent with SCAQMD Rule 1303 the screening level findings presented in Table 1 of this report. The AERSCREEN derived pollutant concentrations and the applicable threshold comparison is presented below:

Pollutant/Standard	**Threshold ($\mu g/m^3$)**	**Local Impact ($\mu g/m^3$)**	**Exceeds**
Carbon Monoxide			
1-Hour > 23,000 $\mu g/m^3$ (S)	1150	1.159	No
8-Hour > 10,000 $\mu g/m^3$ (S, F)	500	0.695	No
Nitrogen Dioxide			
1-Hour > 339 $\mu g/m^3$S)	17	0.113	No
Inhalable Particulates (PM-10)			
24-Hour > 50 $\mu g/m^3$ (S)	2.5	0.001	No
24-Hour > 150 $\mu g/m^3$ (F)	7.5	0.001	No
Ultra-Fine Particulates (PM-2.5)			
24-Hour > 35 $\mu g/m^3$ (F)	1.75	0.001	No

Persistence factor for hourly concentrations = 0.4
Persistence factor for 24-hour concentrations = 0.6

As shown, air quality emissions deriving from trucks pulling boats on trailers via light trucks or RVs would not exceed any air quality concentration threshold.

BOATING EMISSIONS

An analysis of emissions related to boating at the marina was performed assuming that all 54 daily vehicular trips would be bringing or departing with a small marine vessel (boat) or personal watercraft devices such as a jet ski. If there are 54 daily trips entering and leaving the marina, it is possible for 27 boats or devices to be launched each day.

Emission rates for 2-stroke outboard engines were obtained from the Marina Island Training and Testing EIR published in September, 2013 (Table D.1-1 Appendix D). These emission rates are in a grams per horsepower(HP) hour metric. It was assumed that each vehicle would have a 50 HP engine and would idle at the dock in proximity to residential use for 10 minutes each. The following emissions are calculated:

Rate	NOx	CO	ROG	SOx
Grams per HP hour	0.018	0.63	0.25	0.00108
Pounds/Day	0.009	0.312	0.124	0.001

Emissions from recreational boating use at the small project marina are so minor as to preclude further analysis.

GREENHOUSE GAS EMISSIONS

"Greenhouse gases" (so called because of their role in trapping heat near the surface of the earth) emitted by human activity are implicated in global climate change, commonly referred to as "global warming." These greenhouse gases contribute to an increase in the temperature of the earth's atmosphere by transparency to short wavelength visible sunlight, but near opacity to outgoing terrestrial long wavelength heat radiation in some parts of the infrared spectrum. The principal greenhouse gases (GHGs) are carbon dioxide, methane, nitrous oxide, ozone, and water vapor. For purposes of planning and regulation, Section 15364.5 of the California Code of Regulations defines GHGs to include carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons and sulfur hexafluoride. Fossil fuel consumption in the transportation sector (on-road motor vehicles, off-highway mobile sources, and aircraft) is the single largest source of GHG emissions, accounting for approximately half of GHG emissions globally. Industrial and commercial sources are the second largest contributors of GHG emissions with about one-fourth of total emissions.

California has passed several bills and the Governor has signed at least three executive orders regarding greenhouse gases. GHG statues and executive orders (EO) include AB 32, SB 1368, EO S-03-05, EO S-20-06 and EO S-01-07.

AB 32 is one of the most significant pieces of environmental legislation that California has adopted. Among other things, it is designed to maintain California's reputation as a "national and international leader on energy conservation and environmental stewardship." It will have wide-ranging effects on California businesses and lifestyles as well as far reaching effects on other states and countries. A unique aspect of AB 32, beyond its broad and wide-ranging mandatory provisions and dramatic GHG reductions are the short time frames within which it must be implemented. Major components of the AB 32 include:

- Require the monitoring and reporting of GHG emissions beginning with sources or categories of sources that contribute the most to statewide emissions.
- Requires immediate "early action" control programs on the most readily controlled GHG sources.
- Mandates that by 2020, California's GHG emissions be reduced to 1990 levels.
- Forces an overall reduction of GHG gases in California by 25-40%, from business as usual, to be achieved by 2020.
- Must complement efforts to achieve and maintain federal and state ambient air quality standards and to reduce toxic air contaminants.

Statewide, the framework for developing the implementing regulations for AB 32 is under way. Maximum GHG reductions are expected to derive from increased vehicle fuel efficiency, from greater use of renewable energy and from increased structural energy efficiency. Additionally, through the California Climate Action Registry (CCAR now called the Climate Action Reserve), general and industry-specific protocols for assessing and reporting GHG emissions have been developed. GHG sources are categorized into direct sources (i.e. company owned) and indirect

sources (i.e. not company owned). Direct sources include combustion emissions from on-and off-road mobile sources, and fugitive emissions. Indirect sources include off-site electricity generation and non-company owned mobile sources.

Greenhouse Gas Emissions Significance Thresholds

In response to the requirements of SB97, the State Resources Agency developed guidelines for the treatment of GHG emissions under CEQA. These new guidelines became state laws as part of Title 14 of the California Code of Regulations in March, 2010. The CEQA Appendix G guidelines were modified to include GHG as a required analysis element. A project would have a potentially significant impact if it:

- Generates GHG emissions, directly or indirectly, that may have a significant impact on the environment, or,

- Conflicts with an applicable plan, policy or regulation adopted to reduce GHG emissions.

Section 15064.4 of the Code specifies how significance of GHG emissions is to be evaluated. The process is broken down into quantification of project-related GHG emissions, making a determination of significance, and specification of any appropriate mitigation if impacts are found to be potentially significant. At each of these steps, the new GHG guidelines afford the lead agency with substantial flexibility.

Emissions identification may be quantitative, qualitative or based on performance standards. CEQA guidelines allow the lead agency to "select the model or methodology it considers most appropriate." The most common practice for transportation/combustion GHG emissions quantification is to use a computer model such as CalEEMod, as was used in the ensuing analysis.

The significance of those emissions then must be evaluated; the selection of a threshold of significance must take into consideration what level of GHG emissions would be cumulatively considerable. The guidelines are clear that they do not support a zero net emissions threshold. If the lead agency does not have sufficient expertise in evaluating GHG impacts, it may rely on thresholds adopted by an agency with greater expertise.

On December 5, 2008 the SCAQMD Governing Board adopted an Interim quantitative GHG Significance Threshold for industrial projects where the SCAQMD is the lead agency (e.g., stationary source permit projects, rules, plans, etc.) of 10,000 Metric Tons (MT) CO_2 equivalent/year. In September 2010, the Working Group released revisions which recommended a threshold of 3,000 MT CO_2e for mixed use projects. This 3,000 MT/year recommendation has been used as a guideline for this analysis.

PROJECT RELATED GHG EMISSIONS GENERATION

Construction Activity GHG Emissions

The build-out timetable for this project is estimated by CalEEMod to be less than 2 years. During project construction, the CalEEMod 2013.2.2 computer model predicts that the construction activities will generate the annual CO_2(e) emissions identified below.

Construction Emissions (Metric Tons CO_2(e))

	CO_2(e)
Year 2014	363.0
Year 2015	6.9
Overall Total	**369.9**
Amortized	**12.3**

*CalEEMod Output provided in appendix

SCAQMD GHG emissions policy from construction activities is to amortize emissions over a 30-year lifetime. The amortized level is also provided. GHG impacts from construction are considered individually less-than-significant.

Project Operational GHG Emissions

The input assumptions for operational GHG emissions calculations, and the GHG conversion from consumption to annual regional CO_2(e) emissions are summarized in the CalEEMod 2013.2.2 output files found in the appendix of this report.

The total operational and annualized construction emissions are identified below.

Operational Emissions

Consumption Source	**MT CO_2(e) tons/year**
Area Sources	0.003
Energy Utilization	962.1
Mobile Source	1297.8
Solid Waste Generation	27.6
Water Consumption	23.9
Annualized Construction	12.3
Total	**2,323.6**
Significance Threshold	3,000

Total annual project GHG emissions are less than the proposed significance threshold of 3,000 MT. GHG emissions impacts for the proposed project are less than significant.

CONSISTENCY WITH GHG PLANS, PROGRAMS AND POLICIES

A determination of project consistency with GHG plans, programs and policies is often difficult because there are multiple governing jurisdictions with a wide array of implementation responsibilities. This process is somewhat streamlined in Lake Elsinore through the existence of a climate action plan (CAP) adopted in late 2011. The CAP incorporates all the applicable GHG plans, programs and policies. Project consistency with the CAP is presumptive evidence of consistency with all applicable state and local GHG emissions reduction requirements.

The City of Lake Elsinore CAP is a long-range plan to reduce community- wide greenhouse gas (GHG) emissions from activities within the City limits. The CAP is designed to establish GHG emissions reduction strategies and measures to reduce the City's proportionate share of emissions to meet the statewide targets identified in Assembly Bill (AB) 32 and Executive Order S-3-05.

The CAP is not intended to limit future development or economic growth within Lake Elsinore, nor is it intended to stop any individual project (as prescribed by the City's General Plan) from moving forward. The CAP is a strategy for Lake Elsinore to grow in a sustainable way that meets GHG reduction targets.

The CAP identifies a combination of state-level regulations and local strategies and measures in the focus areas of Transportation and Land Use, Energy, Solid Waste, and Public Education and Outreach. Each focus area includes emissions reduction strategies with a series of implementation measures. Measures define the programs, policies, and projects that the City will implement to accomplish its reduction targets. Each measure is presented with its GHG emissions reduction potential, performance criteria to track progress, and estimated implementation costs and savings.

Transportation and Land Use

Transportation-related emissions make up the largest part of Lake Elsinore's GHG emissions inventory. The majority of these emissions result from the use of fuel (e.g., gasoline, diesel, etc.) to power cars and trucks within Lake Elsinore. The transportation and land use emissions reduction measures set forth in the CAP are organized under the following strategies to reduce transportation-related emissions:

- Increase bicycle, pedestrian and public transit travel
- Manage vehicle parking
- Increase efficiency of land use patterns
- Reduce trips
- Increase the use of low- and zero-emissions vehicles

Energy

Energy-related emissions make up the second largest part of Lake Elsinore's emissions inventory. These emissions result from use of fossil fuels, including coal, oil and gas for energy production, which is used to heat, cool and provide power to residential, commercial and

industrial buildings. The energy-related reduction measures set forth in the CAP are organized under the following strategies to reduce energy- related emissions:

- Increase energy efficiency of new construction
- Increase energy efficiency of existing buildings
- Increase energy efficiency of municipal buildings and facilities
- Reduce water consumption
- Increase the use of renewable energy

Solid Waste

Solid waste results in GHG emissions as it is transported to and decomposes in landfills. The solid waste-related reduction measures set forth in the CAP are organized under the following strategies to reduce related emissions:

- Increase solid waste diversion
- Decrease solid waste generated

Community Education and Outreach

Education and outreach are key components of climate action planning because of the changes in citizen behavior that are needed to reduce emissions. The community education and outreach measures identified in the CAP are organized under the following strategy:

- Expand community education and outreach

In order to ensure that Lake Elsinore is achieving its targeted level of emissions, City staff will monitor plan performance over time and alter or amend the plan if it is not achieving the proposed reduction targets. This will enable the City to identify any need for adjustments to the emissions reduction measures.

As noted above, the CAP is not intended to be a mechanism to limit planned growth. Its purpose is to minimize the carbon footprint of that growth through reasonably available control measures. The process of evaluating CAP consistency for an individual project proceeds as follows:

1. Is the project consistent with the General Plan land use designation?

2. Is the project consistent with the General Plan population and employment projections for the site, upon which the CAP modeling is based?

3. Does the project incorporate the applicable CAP measures as binding and enforceable components of the project? Until these measures have been formally adopted by the City and incorporated in to applicable codes, the requirements must be incorporated as mitigation measures applicable to the project (CEQA Guidelines, Section 15183.5(b)(2)).

The CAP Implementation Plan (CAP, Chapter 6.1) contains 38 separate measures. Only a few can be directly incorporated into a mixed use project with any substantial GHG reduction benefit from the business-as-usual baseline. Those measures that should be included into project planning to achieve CAP consistency include:

Measure T-1.2	Provide pedestrian infrastructure within the development
Measure T-1.4	Insure project connectivity to any area wide bikeway networks
Measure E-1.1	Provide 15-gallon umbrella-form trees within the landscaping
Measure E-1.3	Construct new homes to exceed the California Energy Code requirements by 15% based on the 2008 Energy Efficiency standards as a baseline.
Measure E-4.2	Comply with any anticipated City Uniform Building Code requirements to reduce indoor water consumption by 30% from the existing default baseline

With incorporation of these measures into project design to the extent feasible, one may conclude that the proposed project is consistent with applicable plans, policies and regulations adopted to reduce GHG emissions.

CONSTRUCTION EMISSIONS MITIGATION

Construction activities are not anticipated to cause dust emissions to exceed SCAQMD CEQA thresholds. Nevertheless, mitigation through enhanced dust control measures is recommended for use because of the non-attainment status of the air basin. Recommended mitigation includes:

Fugitive Dust Control

- Suspend the use of all construction equipment during first-stage smog alerts.
- Apply soil stabilizers or moisten inactive disturbed areas.
- Prepare and implement a high wind dust control plan.
- Stabilize previously disturbed areas if subsequent construction is delayed.
- Apply water three times daily, or non-toxic soil stabilizers according to manufacturers' specifications, to all unpaved parking or staging areas, unpaved road surfaces, and active construction areas.
- Cover all stock piles with tarps at the end of each day or as needed.
- Provide water spray during loading and unloading of earthen materials.
- Minimize in-out traffic from construction zone
- Cover all trucks hauling dirt, sand, or loose material or require all trucks to maintain at least two feet of freeboard
- Sweep streets daily if visible soil material is carried out from the construction site

Similarly, ozone precursor emissions (ROG and NOx) are calculated to be below SCAQMD CEQA thresholds. However, because of the regional non-attainment for photochemical smog, the use of reasonably available control measures for diesel exhaust is recommended. Combustion emissions control includes:

Exhaust Emissions Control

- Utilize well-tuned off-road construction equipment.
- Establish a preference for contractors using Tier 3 or better heavy equipment.
- Enforce 5-minute idling limits for both on-road trucks and off-road equipment.

APPENDIX

CalEEMod 2013.2.2 Computer Model Output

- **Daily Construction Emissions**
- **Annual Construction Emissions**

AERSCREEN Output

Wakerider Beach Resort

Riverside-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	2.16	1000sqft	0.05	2,163.00	0
Parking Lot	44.96	1000sqft	1.03	44,960.00	0
Unenclosed Parking Structure	0.76	1000sqft	0.02	755.00	0
Fast Food Restaurant with Drive Thru	2.16	1000sqft	0.05	2,164.00	0
Hotel	50.00	Room	1.67	72,600.00	0
Quality Restaurant	7.02	1000sqft	0.16	7,022.00	0
User Defined Recreational	12.00	User Defined Unit	0.00	0.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.4	**Precipitation Freq (Days)**	28
Climate Zone	10			**Operational Year**	2015
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	630.89	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase - Site Prep 3 days, Grading 6 days, Construction 220 days, Paving 10 days

Vehicle Trips - Trip rates provided by project traffic consultant

Construction Off-road Equipment Mitigation -

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	10.00	40.00
tblLandUse	LandUseSquareFeet	2,160.00	2,163.00
tblLandUse	LandUseSquareFeet	760.00	755.00
tblLandUse	LandUseSquareFeet	2,160.00	2,164.00
tblLandUse	LandUseSquareFeet	7,020.00	7,022.00
tblProjectCharacteristics	OperationalYear	2014	2015
tblVehicleTrips	CC_TTP	0.00	78.80
tblVehicleTrips	CNW_TTP	0.00	19.00
tblVehicleTrips	CW_TTP	0.00	2.20
tblVehicleTrips	DV_TP	0.00	21.00
tblVehicleTrips	PB_TP	0.00	50.00
tblVehicleTrips	PR_TP	0.00	29.00
tblVehicleTrips	ST_TR	722.03	496.12
tblVehicleTrips	ST_TR	8.19	6.00
tblVehicleTrips	ST_TR	94.36	90.00
tblVehicleTrips	ST_TR	0.00	4.50
tblVehicleTrips	SU_TR	542.72	496.12
tblVehicleTrips	SU_TR	72.16	90.00
tblVehicleTrips	SU_TR	0.00	4.50
tblVehicleTrips	WD_TR	496.12	496.30
tblVehicleTrips	WD_TR	11.01	11.60
tblVehicleTrips	WD_TR	8.17	6.00
tblVehicleTrips	WD_TR	89.95	90.00
tblVehicleTrips	WD_TR	0.00	4.50

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2014	50.3555	33.1346	23.3726	0.0366	6.6641	1.9361	8.4409	3.3971	1.8564	5.0318	0.0000	3,478.9296	3,478.9296	0.7538	0.0000	3,494.7584
2015	50.3101	2.6259	2.5960	4.4500e-003	0.1230	0.2217	0.3446	0.0326	0.2216	0.2542	0.0000	408.1165	408.1165	0.0424	0.0000	409.0071
Total	**100.6656**	**35.7605**	**25.9686**	**0.0411**	**6.7871**	**2.1578**	**8.7856**	**3.4297**	**2.0780**	**5.2860**	**0.0000**	**3,887.0461**	**3,887.0461**	**0.7962**	**0.0000**	**3,903.7655**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2014	50.3555	33.1346	23.3726	0.0366	2.6672	1.9361	4.4440	1.3430	1.8564	2.9776	0.0000	3,478.9296	3,478.9296	0.7538	0.0000	3,494.7584
2015	50.3101	2.6259	2.5960	4.4500e-003	0.1230	0.2217	0.3446	0.0326	0.2216	0.2542	0.0000	408.1165	408.1165	0.0424	0.0000	409.0071
Total	**100.6656**	**35.7605**	**25.9686**	**0.0411**	**2.7901**	**2.1578**	**4.7886**	**1.3756**	**2.0780**	**3.2319**	**0.0000**	**3,887.0461**	**3,887.0461**	**0.7962**	**0.0000**	**3,903.7655**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**58.89**	**0.00**	**45.49**	**59.89**	**0.00**	**38.86**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	3.1150	1.2000e-004	0.0126	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005		0.0261	0.0261	8.0000e-005		0.0276
Energy	0.2105	1.9134	1.6073	0.0115		0.1454	0.1454		0.1454	0.1454		2,296.0973	2,296.0973	0.0440	0.0421	2,310.0709
Mobile	7.0555	13.4264	52.8221	0.0930	6.1028	0.1811	6.2839	1.6285	0.1664	1.7949		8,367.3735	8,367.3735	0.3177		8,374.0456
Total	**10.3809**	**15.3399**	**54.4420**	**0.1045**	**6.1028**	**0.3266**	**6.4294**	**1.6285**	**0.3119**	**1.9404**		**10,663.4968**	**10,663.4968**	**0.3618**	**0.0421**	**10,684.1442**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	3.1150	1.2000e-004	0.0126	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005		0.0261	0.0261	8.0000e-005		0.0276
Energy	0.2105	1.9134	1.6073	0.0115		0.1454	0.1454		0.1454	0.1454		2,296.0973	2,296.0973	0.0440	0.0421	2,310.0709
Mobile	7.0555	13.4264	52.8221	0.0930	6.1028	0.1811	6.2839	1.6285	0.1664	1.7949		8,367.3735	8,367.3735	0.3177		8,374.0456
Total	**10.3809**	**15.3399**	**54.4420**	**0.1045**	**6.1028**	**0.3266**	**6.4294**	**1.6285**	**0.3119**	**1.9404**		**10,663.4968**	**10,663.4968**	**0.3618**	**0.0421**	**10,684.1442**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	1/29/2014	1/31/2014	5	3	
2	Grading	Grading	2/1/2014	2/10/2014	5	6	
3	Building Construction	Building Construction	2/11/2014	12/15/2014	5	220	
4	Paving	Paving	12/16/2014	12/29/2014	5	10	
5	Architectural Coating	Architectural Coating	12/30/2014	2/23/2015	5	40	

Acres of Grading (Site Preparation Phase): 4.5

Acres of Grading (Grading Phase): 3

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 129,079; Non-Residential Outdoor: 43,026 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Graders	1	8.00	174	0.41
Site Preparation	Scrapers	1	8.00	361	0.48
Site Preparation	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Grading	Graders	1	8.00	174	0.41
Grading	Rubber Tired Dozers	1	8.00	255	0.40
Grading	Tractors/Loaders/Backhoes	2	7.00	97	0.37
Building Construction	Cranes	1	8.00	226	0.29
Building Construction	Forklifts	2	7.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Building Construction	Welders	3	8.00	46	0.45
Paving	Cement and Mortar Mixers	1	8.00	9	0.56
Paving	Pavers	1	8.00	125	0.42
Paving	Paving Equipment	1	8.00	130	0.36
Paving	Rollers	2	8.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	3	8.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	8	54.00	21.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	11.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 Site Preparation - 2014

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.5908	0.0000	1.5908	0.1718	0.0000	0.1718			0.0000			0.0000
Off-Road	2.8511	33.0890	19.0044	0.0239		1.6257	1.6257		1.4956	1.4956		2,534.9389	2,534.9389	0.7491		2,550.6700
Total	**2.8511**	**33.0890**	**19.0044**	**0.0239**	**1.5908**	**1.6257**	**3.2164**	**0.1718**	**1.4956**	**1.6674**		**2,534.9389**	**2,534.9389**	**0.7491**		**2,550.6700**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0383	0.0456	0.5666	1.0800e-003	0.0894	6.3000e-004	0.0901	0.0237	5.7000e-004	0.0243		95.9639	95.9639	4.6500e-003		96.0616
Total	**0.0383**	**0.0456**	**0.5666**	**1.0800e-003**	**0.0894**	**6.3000e-004**	**0.0901**	**0.0237**	**5.7000e-004**	**0.0243**		**95.9639**	**95.9639**	**4.6500e-003**		**96.0616**

3.2 Site Preparation - 2014

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.6204	0.0000	0.6204	0.0670	0.0000	0.0670			0.0000			0.0000
Off-Road	2.8511	33.0890	19.0044	0.0239		1.6257	1.6257		1.4956	1.4956	0.0000	2,534.9389	2,534.9389	0.7491		2,550.6700
Total	**2.8511**	**33.0890**	**19.0044**	**0.0239**	**0.6204**	**1.6257**	**2.2461**	**0.0670**	**1.4956**	**1.5626**	**0.0000**	**2,534.9389**	**2,534.9389**	**0.7491**		**2,550.6700**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0383	0.0456	0.5666	1.0800e-003	0.0894	6.3000e-004	0.0901	0.0237	5.7000e-004	0.0243		95.9639	95.9639	4.6500e-003		96.0616
Total	**0.0383**	**0.0456**	**0.5666**	**1.0800e-003**	**0.0894**	**6.3000e-004**	**0.0901**	**0.0237**	**5.7000e-004**	**0.0243**		**95.9639**	**95.9639**	**4.6500e-003**		**96.0616**

3.3 Grading - 2014

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.5523	0.0000	6.5523	3.3675	0.0000	3.3675			0.0000			0.0000
Off-Road	2.9828	31.6276	20.3007	0.0206		1.7760	1.7760		1.6340	1.6340		2,187.3730	2,187.3730	0.6464		2,200.9472
Total	**2.9828**	**31.6276**	**20.3007**	**0.0206**	**6.5523**	**1.7760**	**8.3284**	**3.3675**	**1.6340**	**5.0014**		**2,187.3730**	**2,187.3730**	**0.6464**		**2,200.9472**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0478	0.0570	0.7082	1.3500e-003	0.1118	7.8000e-004	0.1126	0.0296	7.2000e-004	0.0304		119.9548	119.9548	5.8200e-003		120.0769
Total	**0.0478**	**0.0570**	**0.7082**	**1.3500e-003**	**0.1118**	**7.8000e-004**	**0.1126**	**0.0296**	**7.2000e-004**	**0.0304**		**119.9548**	**119.9548**	**5.8200e-003**		**120.0769**

3.3 Grading - 2014

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.5554	0.0000	2.5554	1.3133	0.0000	1.3133			0.0000			0.0000
Off-Road	2.9828	31.6276	20.3007	0.0206		1.7760	1.7760		1.6340	1.6340	0.0000	2,187.3729	2,187.3729	0.6464		2,200.9472
Total	**2.9828**	**31.6276**	**20.3007**	**0.0206**	**2.5554**	**1.7760**	**4.3314**	**1.3133**	**1.6340**	**2.9473**	**0.0000**	**2,187.3729**	**2,187.3729**	**0.6464**		**2,200.9472**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0478	0.0570	0.7082	1.3500e-003	0.1118	7.8000e-004	0.1126	0.0296	7.2000e-004	0.0304		119.9548	119.9548	5.8200e-003		120.0769
Total	**0.0478**	**0.0570**	**0.7082**	**1.3500e-003**	**0.1118**	**7.8000e-004**	**0.1126**	**0.0296**	**7.2000e-004**	**0.0304**		**119.9548**	**119.9548**	**5.8200e-003**		**120.0769**

3.4 Building Construction - 2014

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	4.3480	26.9541	17.3783	0.0249		1.8799	1.8799		1.8047	1.8047		2,375.6923	2,375.6923	0.5925		2,388.1357
Total	**4.3480**	**26.9541**	**17.3783**	**0.0249**		**1.8799**	**1.8799**		**1.8047**	**1.8047**		**2,375.6923**	**2,375.6923**	**0.5925**		**2,388.1357**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.2137	2.3157	2.1700	4.4500e-003	0.1321	0.0520	0.1841	0.0377	0.0478	0.0856		455.4813	455.4813	3.7700e-003		455.5604
Worker	0.2582	0.3076	3.8243	7.2800e-003	0.6036	4.2300e-003	0.6078	0.1601	3.8600e-003	0.1639		647.7560	647.7560	0.0314		648.4154
Total	**0.4719**	**2.6233**	**5.9944**	**0.0117**	**0.7357**	**0.0562**	**0.7919**	**0.1978**	**0.0517**	**0.2495**		**1,103.2373**	**1,103.2373**	**0.0352**		**1,103.9759**

3.4 Building Construction - 2014

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	4.3480	26.9541	17.3783	0.0249		1.8799	1.8799		1.8047	1.8047	0.0000	2,375.6923	2,375.6923	0.5925		2,388.1357
Total	**4.3480**	**26.9541**	**17.3783**	**0.0249**		**1.8799**	**1.8799**		**1.8047**	**1.8047**	**0.0000**	**2,375.6923**	**2,375.6923**	**0.5925**		**2,388.1357**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.2137	2.3157	2.1700	4.4500e-003	0.1321	0.0520	0.1841	0.0377	0.0478	0.0856		455.4813	455.4813	3.7700e-003		455.5604
Worker	0.2582	0.3076	3.8243	7.2800e-003	0.6036	4.2300e-003	0.6078	0.1601	3.8600e-003	0.1639		647.7560	647.7560	0.0314		648.4154
Total	**0.4719**	**2.6233**	**5.9944**	**0.0117**	**0.7357**	**0.0562**	**0.7919**	**0.1978**	**0.0517**	**0.2495**		**1,103.2373**	**1,103.2373**	**0.0352**		**1,103.9759**

3.5 Paving - 2014

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.9808	20.3743	12.2558	0.0176		1.2745	1.2745		1.1738	1.1738		1,841.4815	1,841.4815	0.5346		1,852.7078
Paving	0.2699					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**2.2507**	**20.3743**	**12.2558**	**0.0176**		**1.2745**	**1.2745**		**1.1738**	**1.1738**		**1,841.4815**	**1,841.4815**	**0.5346**		**1,852.7078**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0717	0.0855	1.0623	2.0200e-003	0.1677	1.1800e-003	0.1688	0.0445	1.0700e-003	0.0455		179.9322	179.9322	8.7200e-003		180.1154
Total	**0.0717**	**0.0855**	**1.0623**	**2.0200e-003**	**0.1677**	**1.1800e-003**	**0.1688**	**0.0445**	**1.0700e-003**	**0.0455**		**179.9322**	**179.9322**	**8.7200e-003**		**180.1154**

3.5 Paving - 2014

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.9808	20.3743	12.2558	0.0176		1.2745	1.2745		1.1738	1.1738	0.0000	1,841.4815	1,841.4815	0.5346		1,852.7078
Paving	0.2699					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**2.2507**	**20.3743**	**12.2558**	**0.0176**		**1.2745**	**1.2745**		**1.1738**	**1.1738**	**0.0000**	**1,841.4815**	**1,841.4815**	**0.5346**		**1,852.7078**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0717	0.0855	1.0623	2.0200e-003	0.1677	1.1800e-003	0.1688	0.0445	1.0700e-003	0.0455		179.9322	179.9322	8.7200e-003		180.1154
Total	**0.0717**	**0.0855**	**1.0623**	**2.0200e-003**	**0.1677**	**1.1800e-003**	**0.1688**	**0.0445**	**1.0700e-003**	**0.0455**		**179.9322**	**179.9322**	**8.7200e-003**		**180.1154**

3.6 Architectural Coating - 2014

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	49.8567					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.4462	2.7773	1.9216	2.9700e-003		0.2452	0.2452		0.2452	0.2452		281.4481	281.4481	0.0401		282.2905
Total	**50.3029**	**2.7773**	**1.9216**	**2.9700e-003**		**0.2452**	**0.2452**		**0.2452**	**0.2452**		**281.4481**	**281.4481**	**0.0401**		**282.2905**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0526	0.0627	0.7790	1.4800e-003	0.1230	8.6000e-004	0.1238	0.0326	7.9000e-004	0.0334		131.9503	131.9503	6.4000e-003		132.0846
Total	**0.0526**	**0.0627**	**0.7790**	**1.4800e-003**	**0.1230**	**8.6000e-004**	**0.1238**	**0.0326**	**7.9000e-004**	**0.0334**		**131.9503**	**131.9503**	**6.4000e-003**		**132.0846**

3.6 Architectural Coating - 2014

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	49.8567					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.4462	2.7773	1.9216	2.9700e-003		0.2452	0.2452		0.2452	0.2452	0.0000	281.4481	281.4481	0.0401		282.2905
Total	**50.3029**	**2.7773**	**1.9216**	**2.9700e-003**		**0.2452**	**0.2452**		**0.2452**	**0.2452**	**0.0000**	**281.4481**	**281.4481**	**0.0401**		**282.2905**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0526	0.0627	0.7790	1.4800e-003	0.1230	8.6000e-004	0.1238	0.0326	7.9000e-004	0.0334		131.9503	131.9503	6.4000e-003		132.0846
Total	**0.0526**	**0.0627**	**0.7790**	**1.4800e-003**	**0.1230**	**8.6000e-004**	**0.1238**	**0.0326**	**7.9000e-004**	**0.0334**		**131.9503**	**131.9503**	**6.4000e-003**		**132.0846**

3.6 Architectural Coating - 2015

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	49.8567					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.4066	2.5703	1.9018	2.9700e-003		0.2209	0.2209		0.2209	0.2209		281.4481	281.4481	0.0367		282.2177
Total	**50.2633**	**2.5703**	**1.9018**	**2.9700e-003**		**0.2209**	**0.2209**		**0.2209**	**0.2209**		**281.4481**	**281.4481**	**0.0367**		**282.2177**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0469	0.0556	0.6942	1.4800e-003	0.1230	8.0000e-004	0.1238	0.0326	7.3000e-004	0.0333		126.6685	126.6685	5.7600e-003		126.7895
Total	**0.0469**	**0.0556**	**0.6942**	**1.4800e-003**	**0.1230**	**8.0000e-004**	**0.1238**	**0.0326**	**7.3000e-004**	**0.0333**		**126.6685**	**126.6685**	**5.7600e-003**		**126.7895**

3.6 Architectural Coating - 2015

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	49.8567					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.4066	2.5703	1.9018	2.9700e-003		0.2209	0.2209		0.2209	0.2209	0.0000	281.4481	281.4481	0.0367		282.2177
Total	**50.2633**	**2.5703**	**1.9018**	**2.9700e-003**		**0.2209**	**0.2209**		**0.2209**	**0.2209**	**0.0000**	**281.4481**	**281.4481**	**0.0367**		**282.2177**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0469	0.0556	0.6942	1.4800e-003	0.1230	8.0000e-004	0.1238	0.0326	7.3000e-004	0.0333		126.6685	126.6685	5.7600e-003		126.7895
Total	**0.0469**	**0.0556**	**0.6942**	**1.4800e-003**	**0.1230**	**8.0000e-004**	**0.1238**	**0.0326**	**7.3000e-004**	**0.0333**		**126.6685**	**126.6685**	**5.7600e-003**		**126.7895**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Unmitigated	7.0555	13.4264	52.8221	0.0930	6.1028	0.1811	6.2839	1.6285	0.1664	1.7949		8,367.3735	8,367.3735	0.3177		8,374.0456
Mitigated	7.0555	13.4264	52.8221	0.0930	6.1028	0.1811	6.2839	1.6285	0.1664	1.7949		8,367.3735	8,367.3735	0.3177		8,374.0456

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Fast Food Restaurant with Drive Thru	1,072.01	1,071.62	1071.62	1,128,051	1,128,051
General Office Building	25.06	5.12	2.12	60,985	60,985
Hotel	300.00	300.00	297.50	714,999	714,999
Parking Lot	0.00	0.00	0.00		
Quality Restaurant	631.80	631.80	631.80	899,450	899,450
Unenclosed Parking Structure	0.00	0.00	0.00		
User Defined Recreational	54.00	54.00	54.00	56,829	56,829
Total	2,082.86	2,062.54	2,057.04	2,860,314	2,860,314

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Fast Food Restaurant with Drive	16.60	8.40	6.90	2.20	78.80	19.00	29	21	50
General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	77	19	4
Hotel	16.60	8.40	6.90	19.40	61.60	19.00	58	38	4
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Quality Restaurant	16.60	8.40	6.90	12.00	69.00	19.00	38	18	44
Unenclosed Parking Structure	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
User Defined Recreational	16.60	8.40	6.90	2.20	78.80	19.00	29	21	50

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.463772	0.070121	0.176196	0.171120	0.044771	0.007404	0.012633	0.041363	0.000985	0.001063	0.006436	0.000905	0.003230

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.2105	1.9134	1.6073	0.0115		0.1454	0.1454		0.1454	0.1454		2,296.0973	2,296.0973	0.0440	0.0421	2,310.0709
NaturalGas Unmitigated	0.2105	1.9134	1.6073	0.0115		0.1454	0.1454		0.1454	0.1454		2,296.0973	2,296.0973	0.0440	0.0421	2,310.0709

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Office Building	21.63	2.3000e-004	2.1200e-003	1.7800e-003	1.0000e-005		1.6000e-004	1.6000e-004		1.6000e-004	1.6000e-004		2.5447	2.5447	5.0000e-005	5.0000e-005	2.5602
Hotel	12511.1	0.1349	1.2266	1.0303	7.3600e-003		0.0932	0.0932		0.0932	0.0932		1,471.8904	1,471.8904	0.0282	0.0270	1,480.8481
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Quality Restaurant	5338.84	0.0576	0.5234	0.4397	3.1400e-003		0.0398	0.0398		0.0398	0.0398		628.0984	628.0984	0.0120	0.0115	631.9209
Unenclosed Parking Structure	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
User Defined Recreational	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Fast Food Restaurant with Drive Thru	1645.29	0.0177	0.1613	0.1355	9.7000e-004		0.0123	0.0123		0.0123	0.0123		193.5638	193.5638	3.7100e-003	3.5500e-003	194.7418
Total		**0.2105**	**1.9134**	**1.6073**	**0.0115**		**0.1454**	**0.1454**		**0.1454**	**0.1454**		**2,296.0973**	**2,296.0973**	**0.0440**	**0.0421**	**2,310.0709**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Office Building	0.02163	2.3000e-004	2.1200e-003	1.7800e-003	1.0000e-005		1.6000e-004	1.6000e-004		1.6000e-004	1.6000e-004		2.5447	2.5447	5.0000e-005	5.0000e-005	2.5602
Hotel	12.5111	0.1349	1.2266	1.0303	7.3600e-003		0.0932	0.0932		0.0932	0.0932		1,471.8904	1,471.8904	0.0282	0.0270	1,480.8481
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Quality Restaurant	5.33884	0.0576	0.5234	0.4397	3.1400e-003		0.0398	0.0398		0.0398	0.0398		628.0984	628.0984	0.0120	0.0115	631.9209
Unenclosed Parking Structure	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
User Defined Recreational	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Fast Food Restaurant with Drive Thru	1.64529	0.0177	0.1613	0.1355	9.7000e-004		0.0123	0.0123		0.0123	0.0123		193.5638	193.5638	3.7100e-003	3.5500e-003	194.7418
Total		**0.2105**	**1.9134**	**1.6073**	**0.0115**		**0.1454**	**0.1454**		**0.1454**	**0.1454**		**2,296.0973**	**2,296.0973**	**0.0440**	**0.0421**	**2,310.0709**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Unmitigated	3.1150	1.2000e-004	0.0126	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005		0.0261	0.0261	8.0000e-005		0.0276
Mitigated	3.1150	1.2000e-004	0.0126	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005		0.0261	0.0261	8.0000e-005		0.0276

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.5464					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.5674					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.2400e-003	1.2000e-004	0.0126	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005		0.0261	0.0261	8.0000e-005		0.0276
Total	**3.1150**	**1.2000e-004**	**0.0126**	**0.0000**		**5.0000e-005**	**5.0000e-005**		**5.0000e-005**	**5.0000e-005**		**0.0261**	**0.0261**	**8.0000e-005**		**0.0276**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.5464					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.5674					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.2400e-003	1.2000e-004	0.0126	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005		0.0261	0.0261	8.0000e-005		0.0276
Total	**3.1150**	**1.2000e-004**	**0.0126**	**0.0000**		**5.0000e-005**	**5.0000e-005**		**5.0000e-005**	**5.0000e-005**		**0.0261**	**0.0261**	**8.0000e-005**		**0.0276**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Vegetation

Wakerider Beach Resort

Riverside-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	2.16	1000sqft	0.05	2,163.00	0
Parking Lot	44.96	1000sqft	1.03	44,960.00	0
Unenclosed Parking Structure	0.76	1000sqft	0.02	755.00	0
Fast Food Restaurant with Drive Thru	2.16	1000sqft	0.05	2,164.00	0
Hotel	50.00	Room	1.67	72,600.00	0
Quality Restaurant	7.02	1000sqft	0.16	7,022.00	0
User Defined Recreational	12.00	User Defined Unit	0.00	0.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.4	**Precipitation Freq (Days)**	28
Climate Zone	10			**Operational Year**	2015
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	630.89	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase - Site Prep 3 days, Grading 6 days, Construction 220 days, Paving 10 days

Vehicle Trips - Trip rates provided by project traffic consultant

Construction Off-road Equipment Mitigation -

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	10.00	40.00
tblLandUse	LandUseSquareFeet	2,160.00	2,163.00
tblLandUse	LandUseSquareFeet	760.00	755.00
tblLandUse	LandUseSquareFeet	2,160.00	2,164.00
tblLandUse	LandUseSquareFeet	7,020.00	7,022.00
tblProjectCharacteristics	OperationalYear	2014	2015
tblVehicleTrips	CC_TTP	0.00	78.80
tblVehicleTrips	CNW_TTP	0.00	19.00
tblVehicleTrips	CW_TTP	0.00	2.20
tblVehicleTrips	DV_TP	0.00	21.00
tblVehicleTrips	PB_TP	0.00	50.00
tblVehicleTrips	PR_TP	0.00	29.00
tblVehicleTrips	ST_TR	722.03	496.12
tblVehicleTrips	ST_TR	8.19	6.00
tblVehicleTrips	ST_TR	94.36	90.00
tblVehicleTrips	ST_TR	0.00	4.50
tblVehicleTrips	SU_TR	542.72	496.12
tblVehicleTrips	SU_TR	72.16	90.00
tblVehicleTrips	SU_TR	0.00	4.50
tblVehicleTrips	WD_TR	496.12	496.30
tblVehicleTrips	WD_TR	11.01	11.60
tblVehicleTrips	WD_TR	8.17	6.00
tblVehicleTrips	WD_TR	89.95	90.00
tblVehicleTrips	WD_TR	0.00	4.50

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2014	0.6041	3.5192	2.7232	4.1700e-003	0.1031	0.2274	0.3305	0.0322	0.2175	0.2497	0.0000	361.5487	361.5487	0.0680	0.0000	362.9757
2015	0.9558	0.0500	0.0480	8.0000e-005	2.3000e-003	4.2100e-003	6.5100e-003	6.1000e-004	4.2100e-003	4.8200e-003	0.0000	6.8738	6.8738	7.3000e-004	0.0000	6.8891
Total	**1.5599**	**3.5692**	**2.7712**	**4.2500e-003**	**0.1054**	**0.2316**	**0.3370**	**0.0328**	**0.2217**	**0.2545**	**0.0000**	**368.4225**	**368.4225**	**0.0687**	**0.0000**	**369.8648**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2014	0.6041	3.5192	2.7232	4.1700e-003	0.0896	0.2274	0.3170	0.0259	0.2175	0.2434	0.0000	361.5484	361.5484	0.0680	0.0000	362.9754
2015	0.9558	0.0500	0.0480	8.0000e-005	2.3000e-003	4.2100e-003	6.5100e-003	6.1000e-004	4.2100e-003	4.8200e-003	0.0000	6.8738	6.8738	7.3000e-004	0.0000	6.8891
Total	**1.5599**	**3.5692**	**2.7711**	**4.2500e-003**	**0.0919**	**0.2316**	**0.3235**	**0.0265**	**0.2217**	**0.2482**	**0.0000**	**368.4222**	**368.4222**	**0.0687**	**0.0000**	**369.8645**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**12.76**	**0.00**	**3.99**	**19.28**	**0.00**	**2.48**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.5684	2.0000e-005	1.5700e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	2.9500e-003	2.9500e-003	1.0000e-005	0.0000	3.1300e-003
Energy	0.0384	0.3492	0.2933	2.1000e-003		0.0265	0.0265		0.0265	0.0265	0.0000	957.5211	957.5211	0.0338	0.0125	962.0942
Mobile	1.1860	2.5712	9.8125	0.0159	1.0846	0.0329	1.1175	0.2898	0.0302	0.3200	0.0000	1,296.6660	1,296.6660	0.0521	0.0000	1,297.7603
Waste						0.0000	0.0000		0.0000	0.0000	12.3175	0.0000	12.3175	0.7279	0.0000	27.6043
Water						0.0000	0.0000		0.0000	0.0000	1.4082	18.3009	19.7091	0.1455	3.5900e-003	23.8768
Total	**1.7928**	**2.9204**	**10.1074**	**0.0180**	**1.0846**	**0.0594**	**1.1440**	**0.2898**	**0.0568**	**0.3466**	**13.7257**	**2,272.4909**	**2,286.2166**	**0.9594**	**0.0161**	**2,311.3387**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.5684	2.0000e-005	1.5700e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	2.9500e-003	2.9500e-003	1.0000e-005	0.0000	3.1300e-003
Energy	0.0384	0.3492	0.2933	2.1000e-003		0.0265	0.0265		0.0265	0.0265	0.0000	957.5211	957.5211	0.0338	0.0125	962.0942
Mobile	1.1860	2.5712	9.8125	0.0159	1.0846	0.0329	1.1175	0.2898	0.0302	0.3200	0.0000	1,296.6660	1,296.6660	0.0521	0.0000	1,297.7603
Waste						0.0000	0.0000		0.0000	0.0000	12.3175	0.0000	12.3175	0.7279	0.0000	27.6043
Water						0.0000	0.0000		0.0000	0.0000	1.4082	18.3009	19.7091	0.1455	3.5800e-003	23.8745
Total	**1.7928**	**2.9204**	**10.1074**	**0.0180**	**1.0846**	**0.0594**	**1.1440**	**0.2898**	**0.0568**	**0.3466**	**13.7257**	**2,272.4909**	**2,286.2166**	**0.9593**	**0.0160**	**2,311.3364**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.06**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	1/29/2014	1/31/2014	5	3	
2	Grading	Grading	2/1/2014	2/10/2014	5	6	
3	Building Construction	Building Construction	2/11/2014	12/15/2014	5	220	
4	Paving	Paving	12/16/2014	12/29/2014	5	10	
5	Architectural Coating	Architectural Coating	12/30/2014	2/23/2015	5	40	

Acres of Grading (Site Preparation Phase): 4.5

Acres of Grading (Grading Phase): 3

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 129,079; Non-Residential Outdoor: 43,026 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Graders	1	8.00	174	0.41
Site Preparation	Scrapers	1	8.00	361	0.48
Site Preparation	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Grading	Graders	1	8.00	174	0.41
Grading	Rubber Tired Dozers	1	8.00	255	0.40
Grading	Tractors/Loaders/Backhoes	2	7.00	97	0.37
Building Construction	Cranes	1	8.00	226	0.29
Building Construction	Forklifts	2	7.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Building Construction	Welders	3	8.00	46	0.45
Paving	Cement and Mortar Mixers	1	8.00	9	0.56
Paving	Pavers	1	8.00	125	0.42
Paving	Paving Equipment	1	8.00	130	0.36
Paving	Rollers	2	8.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	3	8.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	8	54.00	21.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	11.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 Site Preparation - 2014

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.3900e-003	0.0000	2.3900e-003	2.6000e-004	0.0000	2.6000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.2800e-003	0.0496	0.0285	4.0000e-005		2.4400e-003	2.4400e-003		2.2400e-003	2.2400e-003	0.0000	3.4495	3.4495	1.0200e-003	0.0000	3.4709
Total	**4.2800e-003**	**0.0496**	**0.0285**	**4.0000e-005**	**2.3900e-003**	**2.4400e-003**	**4.8300e-003**	**2.6000e-004**	**2.2400e-003**	**2.5000e-003**	**0.0000**	**3.4495**	**3.4495**	**1.0200e-003**	**0.0000**	**3.4709**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.0000e-005	8.0000e-005	7.6000e-004	0.0000	1.3000e-004	0.0000	1.3000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.1210	0.1210	1.0000e-005	0.0000	0.1211
Total	**5.0000e-005**	**8.0000e-005**	**7.6000e-004**	**0.0000**	**1.3000e-004**	**0.0000**	**1.3000e-004**	**4.0000e-005**	**0.0000**	**4.0000e-005**	**0.0000**	**0.1210**	**0.1210**	**1.0000e-005**	**0.0000**	**0.1211**

3.2 Site Preparation - 2014

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					9.3000e-004	0.0000	9.3000e-004	1.0000e-004	0.0000	1.0000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.2800e-003	0.0496	0.0285	4.0000e-005		2.4400e-003	2.4400e-003		2.2400e-003	2.2400e-003	0.0000	3.4495	3.4495	1.0200e-003	0.0000	3.4709
Total	**4.2800e-003**	**0.0496**	**0.0285**	**4.0000e-005**	**9.3000e-004**	**2.4400e-003**	**3.3700e-003**	**1.0000e-004**	**2.2400e-003**	**2.3400e-003**	**0.0000**	**3.4495**	**3.4495**	**1.0200e-003**	**0.0000**	**3.4709**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.0000e-005	8.0000e-005	7.6000e-004	0.0000	1.3000e-004	0.0000	1.3000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.1210	0.1210	1.0000e-005	0.0000	0.1211
Total	**5.0000e-005**	**8.0000e-005**	**7.6000e-004**	**0.0000**	**1.3000e-004**	**0.0000**	**1.3000e-004**	**4.0000e-005**	**0.0000**	**4.0000e-005**	**0.0000**	**0.1210**	**0.1210**	**1.0000e-005**	**0.0000**	**0.1211**

3.3 Grading - 2014

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0197	0.0000	0.0197	0.0101	0.0000	0.0101	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	8.9500e-003	0.0949	0.0609	6.0000e-005		5.3300e-003	5.3300e-003		4.9000e-003	4.9000e-003	0.0000	5.9531	5.9531	1.7600e-003	0.0000	5.9900
Total	**8.9500e-003**	**0.0949**	**0.0609**	**6.0000e-005**	**0.0197**	**5.3300e-003**	**0.0250**	**0.0101**	**4.9000e-003**	**0.0150**	**0.0000**	**5.9531**	**5.9531**	**1.7600e-003**	**0.0000**	**5.9900**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.3000e-004	1.9000e-004	1.9100e-003	0.0000	3.3000e-004	0.0000	3.3000e-004	9.0000e-005	0.0000	9.0000e-005	0.0000	0.3025	0.3025	2.0000e-005	0.0000	0.3028
Total	**1.3000e-004**	**1.9000e-004**	**1.9100e-003**	**0.0000**	**3.3000e-004**	**0.0000**	**3.3000e-004**	**9.0000e-005**	**0.0000**	**9.0000e-005**	**0.0000**	**0.3025**	**0.3025**	**2.0000e-005**	**0.0000**	**0.3028**

3.3 Grading - 2014

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					7.6700e-003	0.0000	7.6700e-003	3.9400e-003	0.0000	3.9400e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	8.9500e-003	0.0949	0.0609	6.0000e-005		5.3300e-003	5.3300e-003		4.9000e-003	4.9000e-003	0.0000	5.9531	5.9531	1.7600e-003	0.0000	5.9900
Total	**8.9500e-003**	**0.0949**	**0.0609**	**6.0000e-005**	**7.6700e-003**	**5.3300e-003**	**0.0130**	**3.9400e-003**	**4.9000e-003**	**8.8400e-003**	**0.0000**	**5.9531**	**5.9531**	**1.7600e-003**	**0.0000**	**5.9900**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.3000e-004	1.9000e-004	1.9100e-003	0.0000	3.3000e-004	0.0000	3.3000e-004	9.0000e-005	0.0000	9.0000e-005	0.0000	0.3025	0.3025	2.0000e-005	0.0000	0.3028
Total	**1.3000e-004**	**1.9000e-004**	**1.9100e-003**	**0.0000**	**3.3000e-004**	**0.0000**	**3.3000e-004**	**9.0000e-005**	**0.0000**	**9.0000e-005**	**0.0000**	**0.3025**	**0.3025**	**2.0000e-005**	**0.0000**	**0.3028**

3.4 Building Construction - 2014

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.4783	2.9650	1.9116	2.7400e-003		0.2068	0.2068		0.1985	0.1985	0.0000	237.0711	237.0711	0.0591	0.0000	238.3128
Total	**0.4783**	**2.9650**	**1.9116**	**2.7400e-003**		**0.2068**	**0.2068**		**0.1985**	**0.1985**	**0.0000**	**237.0711**	**237.0711**	**0.0591**	**0.0000**	**238.3128**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0248	0.2667	0.2729	4.9000e-004	0.0143	5.7500e-003	0.0201	4.1000e-003	5.2900e-003	9.3900e-003	0.0000	45.2902	45.2902	3.8000e-004	0.0000	45.2982
Worker	0.0257	0.0376	0.3780	7.4000e-004	0.0653	4.7000e-004	0.0658	0.0173	4.3000e-004	0.0178	0.0000	59.8862	59.8862	3.1300e-003	0.0000	59.9520
Total	**0.0505**	**0.3043**	**0.6508**	**1.2300e-003**	**0.0796**	**6.2200e-003**	**0.0858**	**0.0214**	**5.7200e-003**	**0.0272**	**0.0000**	**105.1765**	**105.1765**	**3.5100e-003**	**0.0000**	**105.2502**

3.4 Building Construction - 2014

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.4783	2.9650	1.9116	2.7400e-003		0.2068	0.2068		0.1985	0.1985	0.0000	237.0708	237.0708	0.0591	0.0000	238.3126
Total	**0.4783**	**2.9650**	**1.9116**	**2.7400e-003**		**0.2068**	**0.2068**		**0.1985**	**0.1985**	**0.0000**	**237.0708**	**237.0708**	**0.0591**	**0.0000**	**238.3126**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0248	0.2667	0.2729	4.9000e-004	0.0143	5.7500e-003	0.0201	4.1000e-003	5.2900e-003	9.3900e-003	0.0000	45.2902	45.2902	3.8000e-004	0.0000	45.2982
Worker	0.0257	0.0376	0.3780	7.4000e-004	0.0653	4.7000e-004	0.0658	0.0173	4.3000e-004	0.0178	0.0000	59.8862	59.8862	3.1300e-003	0.0000	59.9520
Total	**0.0505**	**0.3043**	**0.6508**	**1.2300e-003**	**0.0796**	**6.2200e-003**	**0.0858**	**0.0214**	**5.7200e-003**	**0.0272**	**0.0000**	**105.1765**	**105.1765**	**3.5100e-003**	**0.0000**	**105.2502**

3.5 Paving - 2014

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	9.9000e-003	0.1019	0.0613	9.0000e-005		6.3700e-003	6.3700e-003		5.8700e-003	5.8700e-003	0.0000	8.3528	8.3528	2.4200e-003	0.0000	8.4037
Paving	1.3500e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0113**	**0.1019**	**0.0613**	**9.0000e-005**		**6.3700e-003**	**6.3700e-003**		**5.8700e-003**	**5.8700e-003**	**0.0000**	**8.3528**	**8.3528**	**2.4200e-003**	**0.0000**	**8.4037**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.2000e-004	4.7000e-004	4.7700e-003	1.0000e-005	8.2000e-004	1.0000e-005	8.3000e-004	2.2000e-004	1.0000e-005	2.2000e-004	0.0000	0.7561	0.7561	4.0000e-005	0.0000	0.7570
Total	**3.2000e-004**	**4.7000e-004**	**4.7700e-003**	**1.0000e-005**	**8.2000e-004**	**1.0000e-005**	**8.3000e-004**	**2.2000e-004**	**1.0000e-005**	**2.2000e-004**	**0.0000**	**0.7561**	**0.7561**	**4.0000e-005**	**0.0000**	**0.7570**

3.5 Paving - 2014

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	9.9000e-003	0.1019	0.0613	9.0000e-005		6.3700e-003	6.3700e-003		5.8700e-003	5.8700e-003	0.0000	8.3528	8.3528	2.4200e-003	0.0000	8.4037
Paving	1.3500e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0113**	**0.1019**	**0.0613**	**9.0000e-005**		**6.3700e-003**	**6.3700e-003**		**5.8700e-003**	**5.8700e-003**	**0.0000**	**8.3528**	**8.3528**	**2.4200e-003**	**0.0000**	**8.4037**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.2000e-004	4.7000e-004	4.7700e-003	1.0000e-005	8.2000e-004	1.0000e-005	8.3000e-004	2.2000e-004	1.0000e-005	2.2000e-004	0.0000	0.7561	0.7561	4.0000e-005	0.0000	0.7570
Total	**3.2000e-004**	**4.7000e-004**	**4.7700e-003**	**1.0000e-005**	**8.2000e-004**	**1.0000e-005**	**8.3000e-004**	**2.2000e-004**	**1.0000e-005**	**2.2000e-004**	**0.0000**	**0.7561**	**0.7561**	**4.0000e-005**	**0.0000**	**0.7570**

3.6 Architectural Coating - 2014

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.0499					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.5000e-004	2.7800e-003	1.9200e-003	0.0000		2.5000e-004	2.5000e-004		2.5000e-004	2.5000e-004	0.0000	0.2553	0.2553	4.0000e-005	0.0000	0.2561
Total	**0.0503**	**2.7800e-003**	**1.9200e-003**	**0.0000**		**2.5000e-004**	**2.5000e-004**		**2.5000e-004**	**2.5000e-004**	**0.0000**	**0.2553**	**0.2553**	**4.0000e-005**	**0.0000**	**0.2561**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.0000e-005	7.0000e-005	7.0000e-004	0.0000	1.2000e-004	0.0000	1.2000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.1109	0.1109	1.0000e-005	0.0000	0.1110
Total	**5.0000e-005**	**7.0000e-005**	**7.0000e-004**	**0.0000**	**1.2000e-004**	**0.0000**	**1.2000e-004**	**3.0000e-005**	**0.0000**	**3.0000e-005**	**0.0000**	**0.1109**	**0.1109**	**1.0000e-005**	**0.0000**	**0.1110**

3.6 Architectural Coating - 2014

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.0499					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.5000e-004	2.7800e-003	1.9200e-003	0.0000		2.5000e-004	2.5000e-004		2.5000e-004	2.5000e-004	0.0000	0.2553	0.2553	4.0000e-005	0.0000	0.2561
Total	**0.0503**	**2.7800e-003**	**1.9200e-003**	**0.0000**		**2.5000e-004**	**2.5000e-004**		**2.5000e-004**	**2.5000e-004**	**0.0000**	**0.2553**	**0.2553**	**4.0000e-005**	**0.0000**	**0.2561**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.0000e-005	7.0000e-005	7.0000e-004	0.0000	1.2000e-004	0.0000	1.2000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.1109	0.1109	1.0000e-005	0.0000	0.1110
Total	**5.0000e-005**	**7.0000e-005**	**7.0000e-004**	**0.0000**	**1.2000e-004**	**0.0000**	**1.2000e-004**	**3.0000e-005**	**0.0000**	**3.0000e-005**	**0.0000**	**0.1109**	**0.1109**	**1.0000e-005**	**0.0000**	**0.1110**

3.6 Architectural Coating - 2015

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.9473					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	7.7300e-003	0.0488	0.0361	6.0000e-005		4.2000e-003	4.2000e-003		4.2000e-003	4.2000e-003	0.0000	4.8512	4.8512	6.3000e-004	0.0000	4.8645
Total	**0.9550**	**0.0488**	**0.0361**	**6.0000e-005**		**4.2000e-003**	**4.2000e-003**		**4.2000e-003**	**4.2000e-003**	**0.0000**	**4.8512**	**4.8512**	**6.3000e-004**	**0.0000**	**4.8645**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.0000e-004	1.1700e-003	0.0118	3.0000e-005	2.3000e-003	2.0000e-005	2.3100e-003	6.1000e-004	1.0000e-005	6.2000e-004	0.0000	2.0226	2.0226	1.0000e-004	0.0000	2.0247
Total	**8.0000e-004**	**1.1700e-003**	**0.0118**	**3.0000e-005**	**2.3000e-003**	**2.0000e-005**	**2.3100e-003**	**6.1000e-004**	**1.0000e-005**	**6.2000e-004**	**0.0000**	**2.0226**	**2.0226**	**1.0000e-004**	**0.0000**	**2.0247**

3.6 Architectural Coating - 2015

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.9473					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	7.7300e-003	0.0488	0.0361	6.0000e-005		4.2000e-003	4.2000e-003		4.2000e-003	4.2000e-003	0.0000	4.8512	4.8512	6.3000e-004	0.0000	4.8644
Total	**0.9550**	**0.0488**	**0.0361**	**6.0000e-005**		**4.2000e-003**	**4.2000e-003**		**4.2000e-003**	**4.2000e-003**	**0.0000**	**4.8512**	**4.8512**	**6.3000e-004**	**0.0000**	**4.8644**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.0000e-004	1.1700e-003	0.0118	3.0000e-005	2.3000e-003	2.0000e-005	2.3100e-003	6.1000e-004	1.0000e-005	6.2000e-004	0.0000	2.0226	2.0226	1.0000e-004	0.0000	2.0247
Total	**8.0000e-004**	**1.1700e-003**	**0.0118**	**3.0000e-005**	**2.3000e-003**	**2.0000e-005**	**2.3100e-003**	**6.1000e-004**	**1.0000e-005**	**6.2000e-004**	**0.0000**	**2.0226**	**2.0226**	**1.0000e-004**	**0.0000**	**2.0247**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Unmitigated	1.1860	2.5712	9.8125	0.0159	1.0846	0.0329	1.1175	0.2898	0.0302	0.3200	0.0000	1,296.6660	1,296.6660	0.0521	0.0000	1,297.7603
Mitigated	1.1860	2.5712	9.8125	0.0159	1.0846	0.0329	1.1175	0.2898	0.0302	0.3200	0.0000	1,296.6660	1,296.6660	0.0521	0.0000	1,297.7603

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Fast Food Restaurant with Drive Thru	1,072.01	1,071.62	1071.62	1,128,051	1,128,051
General Office Building	25.06	5.12	2.12	60,985	60,985
Hotel	300.00	300.00	297.50	714,999	714,999
Parking Lot	0.00	0.00	0.00		
Quality Restaurant	631.80	631.80	631.80	899,450	899,450
Unenclosed Parking Structure	0.00	0.00	0.00		
User Defined Recreational	54.00	54.00	54.00	56,829	56,829
Total	2,082.86	2,062.54	2,057.04	2,860,314	2,860,314

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Fast Food Restaurant with Drive	16.60	8.40	6.90	2.20	78.80	19.00	29	21	50
General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	77	19	4
Hotel	16.60	8.40	6.90	19.40	61.60	19.00	58	38	4
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Quality Restaurant	16.60	8.40	6.90	12.00	69.00	19.00	38	18	44
Unenclosed Parking Structure	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
User Defined Recreational	16.60	8.40	6.90	2.20	78.80	19.00	29	21	50

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.463772	0.070121	0.176196	0.171120	0.044771	0.007404	0.012633	0.041363	0.000985	0.001063	0.006436	0.000905	0.003230

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
NaturalGas Mitigated	0.0384	0.3492	0.2933	2.1000e-003		0.0265	0.0265		0.0265	0.0265	0.0000	380.1447	380.1447	7.2900e-003	6.9700e-003	382.4582
NaturalGas Unmitigated	0.0384	0.3492	0.2933	2.1000e-003		0.0265	0.0265		0.0265	0.0265	0.0000	380.1447	380.1447	7.2900e-003	6.9700e-003	382.4582
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	577.3764	577.3764	0.0265	5.4900e-003	579.6360
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	577.3764	577.3764	0.0265	5.4900e-003	579.6360

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
General Office Building	7894.95	4.0000e-005	3.9000e-004	3.3000e-004	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.4213	0.4213	1.0000e-005	1.0000e-005	0.4239
Hotel	4.56654e+006	0.0246	0.2239	0.1880	1.3400e-003		0.0170	0.0170		0.0170	0.0170	0.0000	243.6880	243.6880	4.6700e-003	4.4700e-003	245.1710
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Quality Restaurant	1.94868e+006	0.0105	0.0955	0.0802	5.7000e-004		7.2600e-003	7.2600e-003		7.2600e-003	7.2600e-003	0.0000	103.9887	103.9887	1.9900e-003	1.9100e-003	104.6216
Unenclosed Parking Structure	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
User Defined Recreational	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Fast Food Restaurant with Drive Thru	600532	3.2400e-003	0.0294	0.0247	1.8000e-004		2.2400e-003	2.2400e-003		2.2400e-003	2.2400e-003	0.0000	32.0467	32.0467	6.1000e-004	5.9000e-004	32.2417
Total		**0.0384**	**0.3492**	**0.2933**	**2.0900e-003**		**0.0265**	**0.0265**		**0.0265**	**0.0265**	**0.0000**	**380.1447**	**380.1447**	**7.2800e-003**	**6.9800e-003**	**382.4582**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
General Office Building	7894.95	4.0000e-005	3.9000e-004	3.3000e-004	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.4213	0.4213	1.0000e-005	1.0000e-005	0.4239
Hotel	4.56654e+006	0.0246	0.2239	0.1880	1.3400e-003		0.0170	0.0170		0.0170	0.0170	0.0000	243.6880	243.6880	4.6700e-003	4.4700e-003	245.1710
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Quality Restaurant	1.94868e+006	0.0105	0.0955	0.0802	5.7000e-004		7.2600e-003	7.2600e-003		7.2600e-003	7.2600e-003	0.0000	103.9887	103.9887	1.9900e-003	1.9100e-003	104.6216
Unenclosed Parking Structure	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
User Defined Recreational	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Fast Food Restaurant with Drive Thru	600532	3.2400e-003	0.0294	0.0247	1.8000e-004		2.2400e-003	2.2400e-003		2.2400e-003	2.2400e-003	0.0000	32.0467	32.0467	6.1000e-004	5.9000e-004	32.2417
Total		**0.0384**	**0.3492**	**0.2933**	**2.0900e-003**		**0.0265**	**0.0265**		**0.0265**	**0.0265**	**0.0000**	**380.1447**	**380.1447**	**7.2800e-003**	**6.9800e-003**	**382.4582**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Fast Food Restaurant with Drive Thru	113394	32.4495	1.4900e-003	3.1000e-004	32.5765
General Office Building	23122.5	6.6169	3.0000e-004	6.0000e-005	6.6428
Hotel	1.4716e+006	421.1238	0.0194	4.0100e-003	422.7718
Parking Lot	39564.8	11.3221	5.2000e-004	1.1000e-004	11.3665
Quality Restaurant	367953	105.2959	4.8400e-003	1.0000e-003	105.7080
Unenclosed Parking Structure	1985.65	0.5682	3.0000e-005	1.0000e-005	0.5705
User Defined Recreational	0	0.0000	0.0000	0.0000	0.0000
Total		**577.3764**	**0.0265**	**5.5000e-003**	**579.6360**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Fast Food Restaurant with Drive Thru	113394	32.4495	1.4900e-003	3.1000e-004	32.5765
General Office Building	23122.5	6.6169	3.0000e-004	6.0000e-005	6.6428
Hotel	1.4716e+006	421.1238	0.0194	4.0100e-003	422.7718
Parking Lot	39564.8	11.3221	5.2000e-004	1.1000e-004	11.3665
Quality Restaurant	367953	105.2959	4.8400e-003	1.0000e-003	105.7080
Unenclosed Parking Structure	1985.65	0.5682	3.0000e-005	1.0000e-005	0.5705
User Defined Recreational	0	0.0000	0.0000	0.0000	0.0000
Total		**577.3764**	**0.0265**	**5.5000e-003**	**579.6360**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Unmitigated	0.5684	2.0000e-005	1.5700e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	2.9500e-003	2.9500e-003	1.0000e-005	0.0000	3.1300e-003
Mitigated	0.5684	2.0000e-005	1.5700e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	2.9500e-003	2.9500e-003	1.0000e-005	0.0000	3.1300e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0997					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.4685					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.6000e-004	2.0000e-005	1.5700e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	2.9500e-003	2.9500e-003	1.0000e-005	0.0000	3.1300e-003
Total	**0.5684**	**2.0000e-005**	**1.5700e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**	**0.0000**	**2.9500e-003**	**2.9500e-003**	**1.0000e-005**	**0.0000**	**3.1300e-003**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0997					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.4685					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.6000e-004	2.0000e-005	1.5700e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	2.9500e-003	2.9500e-003	1.0000e-005	0.0000	3.1300e-003
Total	**0.5684**	**2.0000e-005**	**1.5700e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**	**0.0000**	**2.9500e-003**	**2.9500e-003**	**1.0000e-005**	**0.0000**	**3.1300e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Unmitigated	19.7091	0.1455	3.5900e-003	23.8768
Mitigated	19.7091	0.1455	3.5800e-003	23.8745

7.2 Water by Land Use

Unmitigated

	Indoor/ Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Fast Food Restaurant with Drive Thru	0.655633 / 0.0418489	2.7841	0.0215	5.3000e-004	3.3992
General Office Building	0.383905 / 0.235297	2.3004	0.0126	3.2000e-004	2.6632
Hotel	1.26834 / 0.140927	5.5765	0.0416	1.0300e-003	6.7672
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Quality Restaurant	2.13081 / 0.136009	9.0482	0.0698	1.7200e-003	11.0473
Unenclosed Parking Structure	0 / 0	0.0000	0.0000	0.0000	0.0000
User Defined Recreational	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**19.7091**	**0.1455**	**3.6000e-003**	**23.8768**

7.2 Water by Land Use

Mitigated

	Indoor/ Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Fast Food Restaurant with Drive Thru	0.655633 / 0.0418489	2.7841	0.0215	5.3000e-004	3.3988
General Office Building	0.383905 / 0.235297	2.3004	0.0126	3.2000e-004	2.6630
Hotel	1.26834 / 0.140927	5.5765	0.0416	1.0200e-003	6.7665
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Quality Restaurant	2.13081 / 0.136009	9.0482	0.0698	1.7200e-003	11.0462
Unenclosed Parking Structure	0 / 0	0.0000	0.0000	0.0000	0.0000
User Defined Recreational	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**19.7091**	**0.1455**	**3.5900e-003**	**23.8745**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	12.3175	0.7279	0.0000	27.6043
Unmitigated	12.3175	0.7279	0.0000	27.6043

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Fast Food Restaurant with Drive Thru	24.88	5.0504	0.2985	0.0000	11.3183
General Office Building	2.01	0.4080	0.0241	0.0000	0.9144
Hotel	27.38	5.5579	0.3285	0.0000	12.4556
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Quality Restaurant	6.41	1.3012	0.0769	0.0000	2.9160
Unenclosed Parking Structure	0	0.0000	0.0000	0.0000	0.0000
User Defined Recreational	0	0.0000	0.0000	0.0000	0.0000
Total		**12.3175**	**0.7279**	**0.0000**	**27.6043**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Fast Food Restaurant with Drive Thru	24.88	5.0504	0.2985	0.0000	11.3183
General Office Building	2.01	0.4080	0.0241	0.0000	0.9144
Hotel	27.38	5.5579	0.3285	0.0000	12.4556
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Quality Restaurant	6.41	1.3012	0.0769	0.0000	2.9160
Unenclosed Parking Structure	0	0.0000	0.0000	0.0000	0.0000
User Defined Recreational	0	0.0000	0.0000	0.0000	0.0000
Total		**12.3175**	**0.7279**	**0.0000**	**27.6043**

9.0 Operational Offroad

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

10.0 Vegetation

AERSCREEN 11126 / AERMOD 1135
12/10/13

11:20:06

TITLE: Wakerider CO

********** AREA PARAMETERS **********

SOURCE EMISSION RATE:	0.517E-03 g/s	0.410E-02 lb/hr
AREA EMISSION RATE:	0.111E-06 g/(s-m2)	0.883E-06 lb/(hr-m2)
AREA HEIGHT:	0.91 meters	3.00 feet
AREA SOURCE LONG SIDE:	304.80 meters	1000.00 feet
AREA SOURCE SHORT SIDE:	15.24 meters	50.00 feet
INITIAL VERTICAL DIMENSION:	3.05 meters	10.00 feet
RURAL OR URBAN:	URBAN	
POPULATION:	10000	
INITIAL PROBE DISTANCE =	5000. meters	16404. feet

********** BUILDING DOWNWASH PARAMETERS **********

BUILDING DOWNWASH NOT USED FOR NON-POINT SOURCES

********** FLOW SECTOR ANALYSIS **********

25 meter receptor spacing: 1. meters - 5000. meters

MAXIMUM IMPACT RECEPTOR

Zo	SURFACE	1-HR CONC	RADIAL	DIST	TEMPORAL

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    SECTOR    ROUGHNESS  (ug/m3)    (deg)    (m)    PERIOD
   ------------------------------------------------------
       1*       1.000     1.159       0   150.0     WIN
 * = worst case diagonal


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 **********************  MAKEMET METEOROLOGY PARAMETERS
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 MIN/MAX TEMPERATURE:    249.8 / 310.9 (K)

 MINIMUM WIND SPEED:       2.0 m/s

 ANEMOMETER HEIGHT:     10.000 meters

 SURFACE CHARACTERISTICS INPUT: AERMET SEASONAL TABLES

 DOMINANT SURFACE PROFILE: Urban
 DOMINANT CLIMATE TYPE:    Average Moisture
 DOMINANT SEASON:          Winter

 ALBEDO:                   0.35
 BOWEN RATIO:              1.50
 ROUGHNESS LENGTH:       1.000 (meters)


        METEOROLOGY CONDITIONS USED TO PREDICT OVERALL MAXIMUM IMPACT
        ------------------------------------------------------------

  YR MO DY JDY HR
  -- -- -- --- --
  10 01 01   1 01

     H0     U*     W*  DT/DZ ZICNV ZIMCH  M-O LEN    Z0  BOWEN ALBEDO
REF WS
  - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- -
 -18.63  0.174 -9.000  0.020 -999.  167.     21.6 1.000   1.50   0.35
2.00

     HT  REF TA     HT
 - - - - - - - - - - -
   10.0   249.8    2.0


        METEOROLOGY CONDITIONS USED TO PREDICT AMBIENT BOUNDARY IMPACT
        -------------------------------------------------------------

  YR MO DY JDY HR
```

```
  -- -- -- --- --
  10 01 01   1 01

     H0     U*     W*  DT/DZ ZICNV ZIMCH  M-O LEN    Z0  BOWEN ALBEDO
REF WS
  - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- -
 -18.63  0.174 -9.000  0.020 -999.  167.     21.6 1.000   1.50   0.35
2.00

     HT  REF TA     HT
 - - - - - - - - - -
   10.0   249.8    2.0



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 ********************** AERSCREEN AUTOMATED DISTANCES
**********************
                    OVERALL MAXIMUM CONCENTRATIONS BY DISTANCE
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```

DIST (m)	MAXIMUM 1-HR CONC (ug/m3)	DIST (m)	MAXIMUM 1-HR CONC (ug/m3)
1.00	1.041	2525.00	0.8386E-02
25.00	1.071	2550.00	0.8278E-02
50.00	1.092	2575.00	0.8172E-02
75.00	1.122	2600.00	0.8069E-02
100.00	1.136	2625.00	0.7968E-02
125.00	1.148	2650.00	0.7870E-02
150.00	1.159	2675.00	0.7774E-02
175.00	0.6652	2700.00	0.7680E-02
200.00	0.4320	2725.00	0.7589E-02
225.00	0.3034	2750.00	0.7500E-02
250.00	0.2486	2775.00	0.7413E-02
275.00	0.2097	2800.00	0.7328E-02
300.00	0.1805	2825.00	0.7245E-02
325.00	0.1580	2850.00	0.7164E-02
350.00	0.1401	2875.00	0.7084E-02
375.00	0.1255	2900.00	0.7007E-02
400.00	0.1135	2925.00	0.6931E-02
425.00	0.1034	2950.00	0.6857E-02
450.00	0.9484E-01	2975.00	0.6785E-02
475.00	0.8744E-01	3000.00	0.6714E-02
500.00	0.8101E-01	3025.00	0.6645E-02
525.00	0.7538E-01	3050.00	0.6578E-02
550.00	0.7040E-01	3075.00	0.6512E-02
575.00	0.6598E-01	3100.00	0.6447E-02
600.00	0.6203E-01	3125.00	0.6384E-02

625.00	0.5847E-01	3150.00	0.6322E-02
650.00	0.5526E-01	3175.00	0.6262E-02
675.00	0.5234E-01	3200.00	0.6202E-02
700.00	0.4953E-01	3225.00	0.6144E-02
725.00	0.4711E-01	3250.00	0.6088E-02
750.00	0.4490E-01	3275.00	0.6032E-02
775.00	0.4286E-01	3300.00	0.5978E-02
800.00	0.4098E-01	3325.00	0.5925E-02
825.00	0.3924E-01	3350.00	0.5873E-02
850.00	0.3762E-01	3375.00	0.5822E-02
875.00	0.3612E-01	3400.00	0.5772E-02
900.00	0.3472E-01	3425.00	0.5723E-02
925.00	0.3341E-01	3450.00	0.5675E-02
950.01	0.3219E-01	3475.00	0.5628E-02
975.00	0.3104E-01	3500.00	0.5582E-02
1000.00	0.2996E-01	3525.00	0.5536E-02
1025.00	0.2895E-01	3550.00	0.5492E-02
1050.00	0.2799E-01	3575.00	0.5449E-02
1075.00	0.2709E-01	3600.00	0.5406E-02
1100.00	0.2624E-01	3625.00	0.5365E-02
1125.00	0.2526E-01	3650.00	0.5324E-02
1150.00	0.2451E-01	3675.00	0.5284E-02
1175.00	0.2380E-01	3700.00	0.5244E-02
1200.00	0.2312E-01	3725.00	0.5206E-02
1225.00	0.2248E-01	3750.00	0.5168E-02
1250.00	0.2186E-01	3775.00	0.5131E-02
1275.00	0.2128E-01	3800.00	0.5094E-02
1300.00	0.2072E-01	3825.00	0.5059E-02
1325.00	0.2018E-01	3850.00	0.5024E-02
1350.00	0.1967E-01	3875.00	0.4989E-02
1375.00	0.1918E-01	3900.00	0.4955E-02
1400.00	0.1871E-01	3925.00	0.4922E-02
1425.00	0.1826E-01	3950.00	0.4890E-02
1450.00	0.1783E-01	3975.00	0.4858E-02
1475.00	0.1742E-01	4000.00	0.4826E-02
1500.00	0.1702E-01	4025.00	0.4795E-02
1525.00	0.1664E-01	4050.00	0.4765E-02
1550.00	0.1627E-01	4075.00	0.4735E-02
1575.00	0.1592E-01	4100.00	0.4706E-02
1600.00	0.1558E-01	4125.00	0.4677E-02
1625.00	0.1525E-01	4150.00	0.4649E-02
1650.00	0.1494E-01	4175.00	0.4621E-02
1675.00	0.1463E-01	4200.00	0.4593E-02
1700.00	0.1434E-01	4225.00	0.4567E-02
1725.00	0.1405E-01	4250.00	0.4540E-02
1750.00	0.1378E-01	4275.00	0.4514E-02
1775.00	0.1351E-01	4300.00	0.4488E-02
1800.00	0.1326E-01	4325.00	0.4463E-02
1825.00	0.1301E-01	4350.00	0.4439E-02
1850.00	0.1277E-01	4375.00	0.4414E-02
1875.00	0.1254E-01	4400.00	0.4390E-02
1900.00	0.1231E-01	4425.00	0.4367E-02
1925.00	0.1210E-01	4450.00	0.4343E-02
1950.00	0.1188E-01	4475.00	0.4320E-02

1975.00	0.1168E-01	4500.00	0.4298E-02
2000.00	0.1148E-01	4525.00	0.4276E-02
2025.00	0.1129E-01	4550.00	0.4254E-02
2050.00	0.1110E-01	4575.00	0.4232E-02
2075.00	0.1092E-01	4600.00	0.4211E-02
2100.00	0.1074E-01	4625.00	0.4190E-02
2125.00	0.1057E-01	4650.00	0.4170E-02
2150.00	0.1041E-01	4675.00	0.4150E-02
2175.00	0.1024E-01	4700.00	0.4130E-02
2200.00	0.1009E-01	4725.00	0.4110E-02
2225.00	0.9934E-02	4750.00	0.4090E-02
2250.00	0.9785E-02	4775.00	0.4071E-02
2275.00	0.9640E-02	4800.00	0.4052E-02
2300.00	0.9499E-02	4825.00	0.4034E-02
2325.00	0.9362E-02	4850.00	0.4016E-02
2350.00	0.9229E-02	4875.00	0.3997E-02
2375.00	0.9099E-02	4900.00	0.3980E-02
2400.00	0.8972E-02	4925.00	0.3962E-02
2425.00	0.8849E-02	4950.00	0.3945E-02
2450.00	0.8729E-02	4975.00	0.3928E-02
2475.00	0.8612E-02	5000.00	0.3911E-02
2500.00	0.8497E-02		

********** AERSCREEN MAXIMUM IMPACT SUMMARY **********

3-hour, 8-hour, and 24-hour scaled
concentrations are equal to the 1-hour concentration as referenced in
SCREENING PROCEDURES FOR ESTIMATING THE AIR QUALITY
IMPACT OF STATIONARY SOURCES, REVISED (Section 4.5.4)
Report number EPA-454/R-92-019
http://www.epa.gov/scram001/guidance_permit.htm
under Screening Guidance

CALCULATION PROCEDURE	MAXIMUM 1-HOUR CONC (ug/m3)	SCALED 3-HOUR CONC (ug/m3)	SCALED 8-HOUR CONC (ug/m3)	SCALED 24-HOUR CONC (ug/m3)	SCALED ANNUAL CONC (ug/m3)
FLAT TERRAIN	1.160	1.160	1.160	1.160	N/A

DISTANCE FROM SOURCE 153.00 meters

IMPACT AT THE AMBIENT BOUNDARY	1.041	1.041	1.041	1.041	N/A

DISTANCE FROM SOURCE 1.00 meters

AERSCREEN 11126 / AERMOD 1135
12/10/13

11:06:48

TITLE: Wakerider NOx

********** AREA PARAMETERS **********

SOURCE EMISSION RATE:	0.504E-04 g/s	0.400E-03 lb/hr
AREA EMISSION RATE:	0.109E-07 g/(s-m2)	0.861E-07 lb/(hr-m2)
AREA HEIGHT:	0.91 meters	3.00 feet
AREA SOURCE LONG SIDE:	304.80 meters	1000.00 feet
AREA SOURCE SHORT SIDE:	15.24 meters	50.00 feet
INITIAL VERTICAL DIMENSION:	3.05 meters	10.00 feet
RURAL OR URBAN:	URBAN	
POPULATION:	10000	
INITIAL PROBE DISTANCE =	5000. meters	16404. feet

********** BUILDING DOWNWASH PARAMETERS **********

BUILDING DOWNWASH NOT USED FOR NON-POINT SOURCES

********** FLOW SECTOR ANALYSIS **********

25 meter receptor spacing: 1. meters - 5000. meters

MAXIMUM IMPACT RECEPTOR

Zo	SURFACE	1-HR CONC	RADIAL	DIST	TEMPORAL

```
    SECTOR    ROUGHNESS  (ug/m3)    (deg)    (m)    PERIOD
   ------------------------------------------------------
       1*       1.000    0.1131       0   150.0     WIN
 * = worst case diagonal


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-----
 **********************  MAKEMET METEOROLOGY PARAMETERS
********************
 ------------------------------------------------------------------------
-----

 MIN/MAX TEMPERATURE:    249.8 / 310.9 (K)

 MINIMUM WIND SPEED:       2.0 m/s

 ANEMOMETER HEIGHT:     10.000 meters

 SURFACE CHARACTERISTICS INPUT: AERMET SEASONAL TABLES

 DOMINANT SURFACE PROFILE: Urban
 DOMINANT CLIMATE TYPE:    Average Moisture
 DOMINANT SEASON:          Winter

 ALBEDO:                   0.35
 BOWEN RATIO:              1.50
 ROUGHNESS LENGTH:       1.000 (meters)


        METEOROLOGY CONDITIONS USED TO PREDICT OVERALL MAXIMUM IMPACT
        ------------------------------------------------------------

  YR MO DY JDY HR
  -- -- -- --- --
  10 01 01   1 01

     H0     U*     W*  DT/DZ ZICNV ZIMCH  M-O LEN    Z0  BOWEN ALBEDO
REF WS
  - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- -
 -18.63  0.174 -9.000  0.020 -999.  167.     21.6 1.000   1.50   0.35
2.00

     HT  REF TA     HT
 - - - - - - - - - - -
   10.0   249.8    2.0


        METEOROLOGY CONDITIONS USED TO PREDICT AMBIENT BOUNDARY IMPACT
        -------------------------------------------------------------

  YR MO DY JDY HR
```

```
  -- -- -- --- --
  10 01 01   1 01

     H0     U*     W*  DT/DZ ZICNV ZIMCH  M-O LEN    Z0  BOWEN ALBEDO
REF WS
   - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- -
 -18.63  0.174 -9.000  0.020 -999.  167.     21.6 1.000   1.50   0.35
2.00

     HT  REF TA     HT
 - - - - - - - - - -
   10.0   249.8    2.0
```

********** AERSCREEN AUTOMATED DISTANCES **********

OVERALL MAXIMUM CONCENTRATIONS BY DISTANCE

DIST (m)	MAXIMUM 1-HR CONC (ug/m3)	DIST (m)	MAXIMUM 1-HR CONC (ug/m3)
1.00	0.1016	2525.00	0.8183E-03
25.00	0.1045	2550.00	0.8077E-03
50.00	0.1065	2575.00	0.7974E-03
75.00	0.1094	2600.00	0.7873E-03
100.00	0.1109	2625.00	0.7775E-03
125.00	0.1120	2650.00	0.7679E-03
150.00	0.1131	2675.00	0.7585E-03
175.00	0.6490E-01	2700.00	0.7494E-03
200.00	0.4216E-01	2725.00	0.7405E-03
225.00	0.2961E-01	2750.00	0.7318E-03
250.00	0.2425E-01	2775.00	0.7233E-03
275.00	0.2046E-01	2800.00	0.7150E-03
300.00	0.1761E-01	2825.00	0.7069E-03
325.00	0.1541E-01	2850.00	0.6990E-03
350.00	0.1367E-01	2875.00	0.6912E-03
375.00	0.1225E-01	2900.00	0.6837E-03
400.00	0.1108E-01	2925.00	0.6763E-03
425.00	0.1009E-01	2950.00	0.6691E-03
450.00	0.9253E-02	2975.00	0.6620E-03
475.00	0.8531E-02	3000.00	0.6551E-03
500.00	0.7904E-02	3025.00	0.6484E-03
525.00	0.7355E-02	3050.00	0.6418E-03
550.00	0.6869E-02	3075.00	0.6354E-03
575.00	0.6438E-02	3100.00	0.6291E-03
600.00	0.6053E-02	3125.00	0.6229E-03

625.00	0.5705E-02	3150.00	0.6169E-03
650.00	0.5392E-02	3175.00	0.6110E-03
675.00	0.5107E-02	3200.00	0.6052E-03
700.00	0.4832E-02	3225.00	0.5995E-03
725.00	0.4597E-02	3250.00	0.5940E-03
750.00	0.4381E-02	3275.00	0.5886E-03
775.00	0.4182E-02	3300.00	0.5833E-03
800.00	0.3998E-02	3325.00	0.5781E-03
825.00	0.3828E-02	3350.00	0.5730E-03
850.00	0.3671E-02	3375.00	0.5680E-03
875.00	0.3524E-02	3400.00	0.5631E-03
900.00	0.3388E-02	3425.00	0.5584E-03
925.00	0.3260E-02	3450.00	0.5537E-03
950.01	0.3140E-02	3475.00	0.5491E-03
975.00	0.3028E-02	3500.00	0.5446E-03
1000.00	0.2923E-02	3525.00	0.5402E-03
1025.00	0.2824E-02	3550.00	0.5359E-03
1050.00	0.2731E-02	3575.00	0.5317E-03
1075.00	0.2643E-02	3600.00	0.5275E-03
1100.00	0.2560E-02	3625.00	0.5234E-03
1125.00	0.2465E-02	3650.00	0.5195E-03
1150.00	0.2392E-02	3675.00	0.5155E-03
1175.00	0.2322E-02	3700.00	0.5117E-03
1200.00	0.2256E-02	3725.00	0.5079E-03
1225.00	0.2193E-02	3750.00	0.5043E-03
1250.00	0.2133E-02	3775.00	0.5006E-03
1275.00	0.2076E-02	3800.00	0.4971E-03
1300.00	0.2021E-02	3825.00	0.4936E-03
1325.00	0.1969E-02	3850.00	0.4902E-03
1350.00	0.1919E-02	3875.00	0.4868E-03
1375.00	0.1871E-02	3900.00	0.4835E-03
1400.00	0.1826E-02	3925.00	0.4803E-03
1425.00	0.1782E-02	3950.00	0.4771E-03
1450.00	0.1740E-02	3975.00	0.4740E-03
1475.00	0.1700E-02	4000.00	0.4709E-03
1500.00	0.1661E-02	4025.00	0.4679E-03
1525.00	0.1624E-02	4050.00	0.4649E-03
1550.00	0.1588E-02	4075.00	0.4620E-03
1575.00	0.1553E-02	4100.00	0.4591E-03
1600.00	0.1520E-02	4125.00	0.4563E-03
1625.00	0.1488E-02	4150.00	0.4536E-03
1650.00	0.1457E-02	4175.00	0.4509E-03
1675.00	0.1428E-02	4200.00	0.4482E-03
1700.00	0.1399E-02	4225.00	0.4456E-03
1725.00	0.1371E-02	4250.00	0.4430E-03
1750.00	0.1345E-02	4275.00	0.4404E-03
1775.00	0.1319E-02	4300.00	0.4379E-03
1800.00	0.1294E-02	4325.00	0.4355E-03
1825.00	0.1269E-02	4350.00	0.4331E-03
1850.00	0.1246E-02	4375.00	0.4307E-03
1875.00	0.1223E-02	4400.00	0.4284E-03
1900.00	0.1201E-02	4425.00	0.4261E-03
1925.00	0.1180E-02	4450.00	0.4238E-03
1950.00	0.1160E-02	4475.00	0.4216E-03

1975.00	0.1140E-02	4500.00	0.4194E-03
2000.00	0.1120E-02	4525.00	0.4172E-03
2025.00	0.1101E-02	4550.00	0.4151E-03
2050.00	0.1083E-02	4575.00	0.4130E-03
2075.00	0.1065E-02	4600.00	0.4109E-03
2100.00	0.1048E-02	4625.00	0.4089E-03
2125.00	0.1032E-02	4650.00	0.4069E-03
2150.00	0.1015E-02	4675.00	0.4049E-03
2175.00	0.9995E-03	4700.00	0.4029E-03
2200.00	0.9842E-03	4725.00	0.4010E-03
2225.00	0.9692E-03	4750.00	0.3991E-03
2250.00	0.9547E-03	4775.00	0.3972E-03
2275.00	0.9406E-03	4800.00	0.3954E-03
2300.00	0.9269E-03	4825.00	0.3936E-03
2325.00	0.9135E-03	4850.00	0.3918E-03
2350.00	0.9005E-03	4875.00	0.3900E-03
2375.00	0.8878E-03	4900.00	0.3883E-03
2400.00	0.8754E-03	4925.00	0.3866E-03
2425.00	0.8634E-03	4950.00	0.3849E-03
2450.00	0.8517E-03	4975.00	0.3832E-03
2475.00	0.8403E-03	5000.00	0.3816E-03
2500.00	0.8291E-03		

********** AERSCREEN MAXIMUM IMPACT SUMMARY **********

3-hour, 8-hour, and 24-hour scaled
concentrations are equal to the 1-hour concentration as referenced in
SCREENING PROCEDURES FOR ESTIMATING THE AIR QUALITY
IMPACT OF STATIONARY SOURCES, REVISED (Section 4.5.4)
Report number EPA-454/R-92-019
http://www.epa.gov/scram001/guidance_permit.htm
under Screening Guidance

CALCULATION PROCEDURE	MAXIMUM 1-HOUR CONC (ug/m3)	SCALED 3-HOUR CONC (ug/m3)	SCALED 8-HOUR CONC (ug/m3)	SCALED 24-HOUR CONC (ug/m3)	SCALED ANNUAL CONC (ug/m3)
FLAT TERRAIN	0.1132	0.1132	0.1132	0.1132	N/A

DISTANCE FROM SOURCE 153.00 meters

IMPACT AT THE AMBIENT BOUNDARY	0.1016	0.1016	0.1016	0.1016	N/A

DISTANCE FROM SOURCE 1.00 meters

```
 AERSCREEN 11126 / AERMOD  1135
12/10/13

11:15:09

 TITLE: Wakerider Particulates


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-----
 ****************************  AREA PARAMETERS
***************************
 ---------------------------------------------------------------------
-----

 SOURCE EMISSION RATE:         0.126E-05 g/s             0.100E-04 lb/hr

 AREA EMISSION RATE:           0.271E-09 g/(s-m2)        0.215E-08
lb/(hr-m2)
 AREA HEIGHT:                       0.91 meters               3.00 feet
 AREA SOURCE LONG SIDE:           304.80 meters            1000.00 feet
 AREA SOURCE SHORT SIDE:           15.24 meters              50.00 feet
 INITIAL VERTICAL DIMENSION:        3.05 meters              10.00 feet
 RURAL OR URBAN:                   URBAN
 POPULATION:                       10000

 INITIAL PROBE DISTANCE =          5000. meters             16404. feet



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-----
 ***********************  BUILDING DOWNWASH PARAMETERS
**********************
 ---------------------------------------------------------------------
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                BUILDING DOWNWASH NOT USED FOR NON-POINT SOURCES



 ---------------------------------------------------------------------
-----
 **************************  FLOW SECTOR ANALYSIS
**************************
                  25 meter receptor spacing: 1. meters - 5000. meters
 ---------------------------------------------------------------------
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    MAXIMUM  IMPACT  RECEPTOR

    Zo        SURFACE   1-HR CONC  RADIAL  DIST   TEMPORAL
```

```
    SECTOR    ROUGHNESS  (ug/m3)    (deg)    (m)    PERIOD
   ------------------------------------------------------
       1*       1.000    0.2828E-02   0   150.0     WIN
 * = worst case diagonal


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-----
 **********************  MAKEMET METEOROLOGY PARAMETERS
********************
 ------------------------------------------------------------------------
-----

 MIN/MAX TEMPERATURE:    249.8 / 310.9 (K)

 MINIMUM WIND SPEED:       2.0 m/s

 ANEMOMETER HEIGHT:     10.000 meters

 SURFACE CHARACTERISTICS INPUT: AERMET SEASONAL TABLES

 DOMINANT SURFACE PROFILE: Urban
 DOMINANT CLIMATE TYPE:    Average Moisture
 DOMINANT SEASON:          Winter

 ALBEDO:                   0.35
 BOWEN RATIO:              1.50
 ROUGHNESS LENGTH:       1.000 (meters)


        METEOROLOGY CONDITIONS USED TO PREDICT OVERALL MAXIMUM IMPACT
        ------------------------------------------------------------

  YR MO DY JDY HR
  -- -- -- --- --
  10 01 01   1 01

     H0     U*     W*  DT/DZ ZICNV ZIMCH  M-O LEN    Z0  BOWEN ALBEDO
REF WS
  - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- -
 -18.63  0.174 -9.000  0.020 -999.  167.     21.6 1.000   1.50   0.35
2.00

     HT  REF TA     HT
 - - - - - - - - - - -
   10.0   249.8    2.0


        METEOROLOGY CONDITIONS USED TO PREDICT AMBIENT BOUNDARY IMPACT
        -------------------------------------------------------------

  YR MO DY JDY HR
```

```
  -- -- -- --- --
  10 01 01   1 01

     H0     U*     W*  DT/DZ ZICNV ZIMCH  M-O LEN    Z0  BOWEN ALBEDO
REF WS
   - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- -
 -18.63  0.174 -9.000  0.020 -999.  167.     21.6 1.000   1.50   0.35
2.00

     HT  REF TA     HT
 - - - - - - - - - -
   10.0   249.8    2.0
```

********** AERSCREEN AUTOMATED DISTANCES **********

OVERALL MAXIMUM CONCENTRATIONS BY DISTANCE

DIST (m)	MAXIMUM 1-HR CONC (ug/m3)	DIST (m)	MAXIMUM 1-HR CONC (ug/m3)
1.00	0.2539E-02	2525.00	0.2046E-04
25.00	0.2612E-02	2550.00	0.2020E-04
50.00	0.2664E-02	2575.00	0.1994E-04
75.00	0.2736E-02	2600.00	0.1969E-04
100.00	0.2772E-02	2625.00	0.1944E-04
125.00	0.2800E-02	2650.00	0.1920E-04
150.00	0.2828E-02	2675.00	0.1897E-04
175.00	0.1623E-02	2700.00	0.1874E-04
200.00	0.1054E-02	2725.00	0.1852E-04
225.00	0.7403E-03	2750.00	0.1830E-04
250.00	0.6064E-03	2775.00	0.1809E-04
275.00	0.5115E-03	2800.00	0.1788E-04
300.00	0.4404E-03	2825.00	0.1768E-04
325.00	0.3854E-03	2850.00	0.1748E-04
350.00	0.3417E-03	2875.00	0.1728E-04
375.00	0.3063E-03	2900.00	0.1710E-04
400.00	0.2770E-03	2925.00	0.1691E-04
425.00	0.2523E-03	2950.00	0.1673E-04
450.00	0.2314E-03	2975.00	0.1655E-04
475.00	0.2133E-03	3000.00	0.1638E-04
500.00	0.1976E-03	3025.00	0.1621E-04
525.00	0.1839E-03	3050.00	0.1605E-04
550.00	0.1718E-03	3075.00	0.1589E-04
575.00	0.1610E-03	3100.00	0.1573E-04
600.00	0.1513E-03	3125.00	0.1558E-04

625.00	0.1427E-03	3150.00	0.1542E-04
650.00	0.1348E-03	3175.00	0.1528E-04
675.00	0.1277E-03	3200.00	0.1513E-04
700.00	0.1208E-03	3225.00	0.1499E-04
725.00	0.1149E-03	3250.00	0.1485E-04
750.00	0.1095E-03	3275.00	0.1472E-04
775.00	0.1046E-03	3300.00	0.1458E-04
800.00	0.9998E-04	3325.00	0.1445E-04
825.00	0.9573E-04	3350.00	0.1433E-04
850.00	0.9179E-04	3375.00	0.1420E-04
875.00	0.8812E-04	3400.00	0.1408E-04
900.00	0.8470E-04	3425.00	0.1396E-04
925.00	0.8151E-04	3450.00	0.1384E-04
950.01	0.7853E-04	3475.00	0.1373E-04
975.00	0.7573E-04	3500.00	0.1362E-04
1000.00	0.7310E-04	3525.00	0.1351E-04
1025.00	0.7062E-04	3550.00	0.1340E-04
1050.00	0.6829E-04	3575.00	0.1329E-04
1075.00	0.6609E-04	3600.00	0.1319E-04
1100.00	0.6401E-04	3625.00	0.1309E-04
1125.00	0.6164E-04	3650.00	0.1299E-04
1150.00	0.5981E-04	3675.00	0.1289E-04
1175.00	0.5807E-04	3700.00	0.1279E-04
1200.00	0.5641E-04	3725.00	0.1270E-04
1225.00	0.5484E-04	3750.00	0.1261E-04
1250.00	0.5334E-04	3775.00	0.1252E-04
1275.00	0.5191E-04	3800.00	0.1243E-04
1300.00	0.5054E-04	3825.00	0.1234E-04
1325.00	0.4924E-04	3850.00	0.1226E-04
1350.00	0.4799E-04	3875.00	0.1217E-04
1375.00	0.4680E-04	3900.00	0.1209E-04
1400.00	0.4565E-04	3925.00	0.1201E-04
1425.00	0.4456E-04	3950.00	0.1193E-04
1450.00	0.4351E-04	3975.00	0.1185E-04
1475.00	0.4250E-04	4000.00	0.1177E-04
1500.00	0.4153E-04	4025.00	0.1170E-04
1525.00	0.4060E-04	4050.00	0.1163E-04
1550.00	0.3970E-04	4075.00	0.1155E-04
1575.00	0.3884E-04	4100.00	0.1148E-04
1600.00	0.3801E-04	4125.00	0.1141E-04
1625.00	0.3721E-04	4150.00	0.1134E-04
1650.00	0.3644E-04	4175.00	0.1127E-04
1675.00	0.3570E-04	4200.00	0.1121E-04
1700.00	0.3498E-04	4225.00	0.1114E-04
1725.00	0.3429E-04	4250.00	0.1108E-04
1750.00	0.3362E-04	4275.00	0.1101E-04
1775.00	0.3297E-04	4300.00	0.1095E-04
1800.00	0.3235E-04	4325.00	0.1089E-04
1825.00	0.3174E-04	4350.00	0.1083E-04
1850.00	0.3116E-04	4375.00	0.1077E-04
1875.00	0.3059E-04	4400.00	0.1071E-04
1900.00	0.3004E-04	4425.00	0.1065E-04
1924.99	0.2951E-04	4450.00	0.1060E-04
1950.00	0.2899E-04	4475.00	0.1054E-04

1975.00	0.2850E-04	4500.00	0.1049E-04
2000.00	0.2801E-04	4525.00	0.1043E-04
2025.00	0.2754E-04	4550.00	0.1038E-04
2050.00	0.2708E-04	4575.00	0.1033E-04
2075.00	0.2664E-04	4600.00	0.1027E-04
2100.00	0.2621E-04	4625.00	0.1022E-04
2125.00	0.2579E-04	4650.00	0.1017E-04
2150.00	0.2539E-04	4675.00	0.1012E-04
2175.00	0.2499E-04	4700.00	0.1008E-04
2200.00	0.2461E-04	4725.00	0.1003E-04
2225.00	0.2424E-04	4750.00	0.9980E-05
2250.00	0.2387E-04	4775.00	0.9933E-05
2275.00	0.2352E-04	4800.00	0.9887E-05
2300.00	0.2318E-04	4825.00	0.9842E-05
2325.00	0.2284E-04	4850.00	0.9797E-05
2350.00	0.2252E-04	4875.00	0.9753E-05
2375.00	0.2220E-04	4900.00	0.9709E-05
2400.00	0.2189E-04	4925.00	0.9666E-05
2425.00	0.2159E-04	4950.00	0.9624E-05
2450.00	0.2130E-04	4975.00	0.9582E-05
2475.00	0.2101E-04	5000.00	0.9541E-05
2500.00	0.2073E-04		

********** AERSCREEN MAXIMUM IMPACT SUMMARY **********

3-hour, 8-hour, and 24-hour scaled
concentrations are equal to the 1-hour concentration as referenced in
SCREENING PROCEDURES FOR ESTIMATING THE AIR QUALITY
IMPACT OF STATIONARY SOURCES, REVISED (Section 4.5.4)
Report number EPA-454/R-92-019
http://www.epa.gov/scram001/guidance_permit.htm
under Screening Guidance

CALCULATION PROCEDURE	MAXIMUM 1-HOUR CONC (ug/m3)	SCALED 3-HOUR CONC (ug/m3)	SCALED 8-HOUR CONC (ug/m3)	SCALED 24-HOUR CONC (ug/m3)	SCALED ANNUAL CONC (ug/m3)
FLAT TERRAIN	0.2831E-02	0.2831E-02	0.2831E-02	0.2831E-02	N/A

DISTANCE FROM SOURCE 153.00 meters

IMPACT AT THE AMBIENT BOUNDARY	0.2539E-02	0.2539E-02	0.2539E-02	0.2539E-02	N/A

DISTANCE FROM SOURCE 1.00 meters