

The Junipers Project
Environmental Impact Report
SCH No. 2018041032 - Project No. 586670

Appendix D

Air Quality Technical Report

February 2020

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Air Quality Technical Report

December 2019 | LEN-84

Prepared for:

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TABLE OF CONTENTS

<u>Section</u>	<u>Page</u>
EXECUTIVE SUMMARY	ES-1
1.0 INTRODUCTION	1
1.1 Project Location	1
1.2 Project Description	1
1.3 Construction Best Management Practices	2
1.4 Project Design Features	3
1.4.1 Area Source Reductions	3
1.4.2 Energy Efficiencies	3
1.4.3 Mobile Source Reductions	3
2.0 REGULATORY SETTING	4
2.1 Criteria Pollutants	4
2.1.1 Pollutants of Concern	4
2.2 Toxic Air Contaminants	7
3.0 EXISTING CONDITIONS	8
3.1 Climate and Meteorology	8
3.2 Existing Air Quality	8
3.2.1 Criteria Pollutants	8
4.0 METHODOLOGY AND SIGNIFICANCE CRITERIA	9
4.1 Methodology	9
4.1.1 Construction Emissions	10
4.1.2 Operation Emissions	11
4.1.3 Toxic Air Contaminants	12
4.2 Significance Criteria	12
4.2.1 Air Quality	12
5.0 AIR QUALITY IMPACT ANALYSIS	14
5.1 Consistency with Air Quality Plans	14
5.2 Conformance to Federal and State Air Quality Standards	16
5.2.1 Construction	16
5.2.2 Operation	17
5.3 Cumulatively Considerable Net Increase of Nonattainment Criteria Pollutants	18
5.4 Impacts to Sensitive Receptors	18
5.4.1 Carbon Monoxide Hot Spots	18
5.4.2 Exposure to TACs	18
5.5 Odors	20
6.0 LIST OF PREPARERS	21
7.0 REFERENCES	22

TABLE OF CONTENTS (cont.)

LIST OF APPENDICES

A	CalEEMod Output
B	HRA Modeling
C	SANDAG Series 13 Data

LIST OF FIGURES

<u>No.</u>	<u>Title</u>	<u>Follows Page</u>
1	Regional Location.....	2
2	Project Vicinity	2
3	Site Plan	2
4	Residential Health Risk Analysis Results	20

LIST OF TABLES

<u>No.</u>	<u>Title</u>	<u>Page</u>
1	Ambient Air Quality Standards	6
2	San Diego Air Basin Attainment Status	7
3	Air Quality Monitoring Data.....	9
4	Construction Equipment Assumptions	10
5	Anticipated Construction Schedule	11
6	Screening-Level Thresholds for Air Quality Impact Analysis.....	14
7	Maximum Daily Construction Emissions.....	17
8	Maximum Daily Operational Emissions	17

LIST OF ACRONYMS AND ABBREVIATIONS

AAM	Annual Arithmetic Mean
AB	Assembly Bill
ADTs	average daily trips
APCD	Air Pollution Control District
AR-1-1	Agricultural-Residential zone
BMPs	best management practices
C&D	Construction and Demolition
CAA	Clean Air Act
CAAQS	California Ambient Air Quality Standards
CalEEMod	California Emissions Estimator Model
CALGreen	California Green Building Standards Code
CAPCOA	California Air Pollution Control Officers Association
CARB	California Air Resources Board
CCAA	California Clean Air Act
CEQA	California Environmental Quality Act
CO	carbon monoxide
DPM	diesel particulate matter
EMFAC	emission factors
g/L	grams per liter
HRA	Health Risk Assessment
HVAC	heating, ventilation, and air conditioning
IEM	Iowa Environmental Mesonet
km	kilometer
LLG	Linscott, Law & Greenspan Engineers
LOS	Level of Service
MEI	maximally exposed individual
mg/m ³	milligrams per cubic meter
mph	miles per hour
NAAQS	National Ambient Air Quality Standards
NO	nitrogen oxide
NO ₂	nitrogen dioxide
NO _x	nitrogen oxides

LIST OF ACRONYMS AND ABBREVIATIONS (cont.)

O ₃	ozone
Pb	lead
PM	particulate matter
PM ₁₀	particulate matter less than 10 microns
PM _{2.5}	particulate matter less than 2.5 microns
ppm	parts per million
RAQS	Regional Air Quality Strategies
ROGs	reactive organic gases
SANDAG	San Diego Association of Governments
SCAQMD	South Coast Air Quality Management District
SDAB	San Diego Air Basin
SDAPCD	San Diego Air Pollution Control District
SDMC	San Diego Municipal Code
SIP	State Implementation Plan
SMAQMD	Sacramento Metropolitan Air Quality Management District
SO ₂	sulfur dioxide
SO _x	sulfur oxides
TACs	toxic air contaminants
T-BACT	Toxics-Best Available Control Technology
USEPA	U.S. Environmental Protection Agency
VOC	volatile organic compound
WRCC	Western Regional Climate Center

EXECUTIVE SUMMARY

This report presents an assessment of potential air quality impacts during construction and operation of the proposed Junipers Project (Project), located in the City of San Diego.

The Project would result in emissions of criteria air pollutants during construction and operation. Construction emission sources include fugitive dust, heavy construction equipment exhaust, and vehicle trips associated with workers commuting to and from the site and trucks hauling materials. In accordance with San Diego Air Pollution Control District (SDAPCD) Rule 55, fugitive dust control measures including the use of an on-site water truck to water down active grading areas and unpaved and paved roads at least twice daily are incorporated into the Project design. Operational sources of emissions include area (e.g., landscape equipment, architectural coatings, and consumer product use), on-site energy use, and transportation. Project emissions of criteria pollutants during construction and operations would remain below SDAPCD emissions thresholds.

The Project would be consistent with air quality policies set forth by the SDAPCD as presented in the most recent Regional Air Quality Strategies (RAQS).

Project-generated traffic would not result in a carbon monoxide hot spot. Construction and operation of the Project would not result in exposure of sensitive receptors to significant quantities of toxic air contaminants (TACs). In addition, evaluation of potential odors from the Project indicated that associated impacts would be less than significant.

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1.0 INTRODUCTION

1.1 PROJECT LOCATION

The Junipers Project (Project) is located on an approximately 112.3-acre property at 14455 Peñasquitos Drive (Assessor's Parcel Numbers [APNs] 313-011-06, 313-011-07, 313-011-10, and 313-060-10) in the Rancho Peñasquitos Community Plan Area. The Project is located west of Interstate 15 (I-15), north of Carmel Mountain Road, and east of Peñasquitos Drive. Surrounding uses include single- and multi-family residential to the west and north, and a hotel (Hotel Karlan) immediately to the south. A large commercial shopping area is located beyond I-15, east of the site along Carmel Mountain Road. Black Mountain Open Space Park is located farther west of the Project site, west of Peñasquitos Drive.

The majority of the site is zoned as Residential (RS-1-14), and is designated as Park, Open Space, and Recreation in the City General Plan, and Open Space / Golf Course in the Rancho Peñasquitos Community Plan. The southernmost area of the site (existing tennis courts and shed) is zoned as Commercial-Visitor (CV-1-1), and is designated as Commercial Employment, Retail and Services. Refer to Figure 1, *Regional Location*, and Figure 2, *Project Vicinity*.

1.2 PROJECT DESCRIPTION

The Project entails the development of a vacant property formerly used as a golf course to create a residential subdivision with a total of 536 units. The Project would include 455 attached and detached, multi-family, age-restricted residences, 81 affordable age-restricted multi-family apartments, a public park, publicly-accessible trails, open space/parks for development use, and internal private streets. As part of the Project approval, zoning would be changed to RM-1-1 and RM-3-7 residential zones as well as OR-1-1 and OP-1-1 open space zones. A General Plan Amendment would change the land use designation to Residential. An approximately 2.75-mile, publicly accessible "social loop" pedestrian and bike trail would be developed and privately maintained around the perimeter of the Project. The Project would include a public park in excess of 3 acres to provide opportunities for recreation, gathering, and social interaction. A mobility zone and bicycle hub are proposed within a privately owned, privately maintained park with a public access easement. This park will be located in the southeastern portion of the site near the transit stops at Carmel Mountain Road.

Vehicular access to the Project site would be provided from Peñasquitos Drive at the existing intersection with Janal Way, and from a new right-in only access road off of Carmel Mountain Road (with an emergency egress right-out lane onto Carmel Mountain Road). The access road would terminate at a roundabout from which one private street would extend north to connect with the residences in the western portion of the site, and a second private road would extend east leading to another roundabout from which one street would extend north to connect to with the residences within the eastern portion of the site. There is one cul-de-sac proposed in the northernmost portion of the Project site. All other proposed private roadways would be interconnected within the Project site. Pedestrian and other non-vehicular (e.g., bicycle) circulation would be accommodated throughout the site. Refer to Figure 3, *Site Plan*.

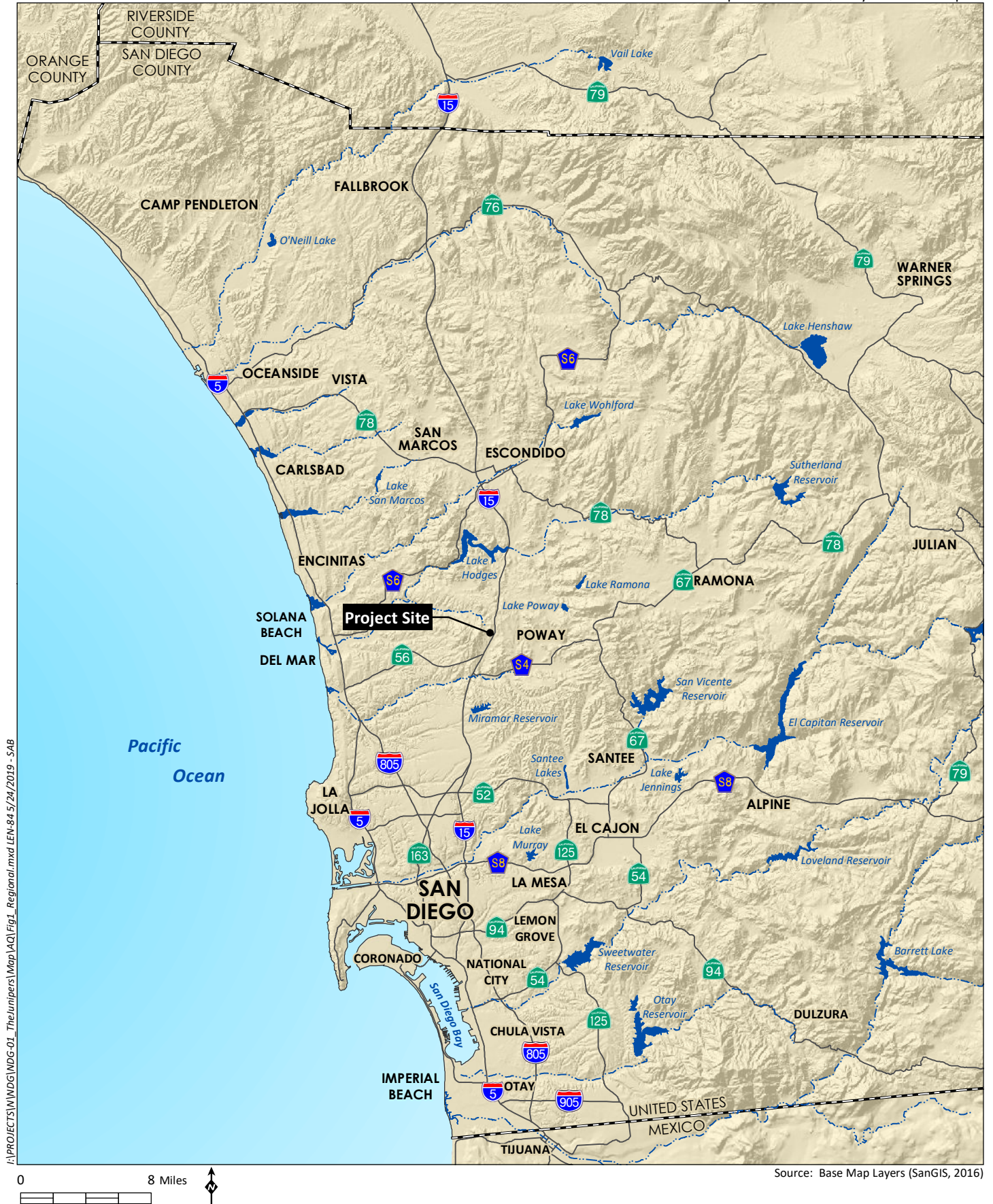
1.3 CONSTRUCTION BEST MANAGEMENT PRACTICES

The Project would incorporate best management practices (BMPs) during construction to reduce emissions of fugitive dust. San Diego Air Pollution Control District (SDAPCD) Rule 55 – Fugitive Dust Control states that no dust and/or dirt shall leave the property line. SDAPCD Rule 55 requires the following:

- (1) **Airborne Dust Beyond the Property Line:** No person shall engage in construction or demolition activity subject to this rule in a manner that discharges visible dust emissions into the atmosphere beyond the property line for a period or periods aggregating more than 3 minutes in any 60-minute period.
- (2) **Track-Out/Carry-Out:** Visible roadway dust as a result of active operations, spillage from transport trucks, erosion, or track-out/carry-out shall:
 - (i) be minimized by the use of any of the following or equally effective trackout/carry-out and erosion control measures that apply to the Project or operation:
 - (a) track-out grates or gravel beds at each egress point,
 - (b) wheel-washing at each egress during muddy conditions, soil binders, chemical soil stabilizers, geotextiles, mulching, or seeding; and for outbound transport trucks;
 - (c) using secured tarps or cargo covering, watering, or treating of transported material; and
 - (ii) be removed at the conclusion of each work day when active operations cease, or every 24 hours for continuous operations. If a street sweeper is used to remove any track-out/carry-out, only PM₁₀-efficient (particulate matter less than 10 microns) street sweepers certified to meet the most current South Coast Air Quality Management District (SCAQMD) Rule 1186 requirements shall be used. The use of blowers for removal of track-out/carry-out is prohibited under any circumstances.

The control measures listed below are the BMPs that the Project would incorporate for dust control:

- A minimum of two applications of water during grading between dozer/scrapper passes;
- Paving, chip sealing, or chemical stabilization of internal roadways after completion of grading;
- Termination of grading if winds exceed 25 miles per hour (mph);
- Ensure that all exposed surfaces maintain a minimum soil moisture of 12 percent;
- Stabilization of dirt storage piles by chemical binders, tarps, fencing, or other erosion control; and
- Vehicle speeds would be limited on unpaved roads to 15 mph.





SITE PLAN
THE JUNIPERS
CITY OF SAN DIEGO, CALIFORNIA

DESCRIPTION	UNIT COUNT	% OF SITE
SINGLE DETACHED - 1 ①	36	27%
SINGLE DETACHED - 2 ②	32	24%
SINGLE DETACHED - 3 ③	32	24%
SINGLE DETACHED - 4 ④	33	25%
SUB-TOTAL	133	-
DUPLEX - 1	46	34%
DUPLEX - 2	45	33%
DUPLEX - 3	45	33%
SUB-TOTAL	136	-
6-PLEX - P1	62	32%
6-PLEX - P2	31	17%
6-PLEX - P2X	31	17%
6-PLEX - P3	31	17%
6-PLEX - P3X	31	17%
SUB-TOTAL	186	-
FOR SALE SUB-TOTAL	455	-
AFFORDABLE UNITS	81	-
TOTAL	536	-

① SINGLE FAMILY TWO IS DETACHED CONDOMINIUM
②-④ NO TWO SINGLE UNITS ARE CURRENTLY PROPOSED



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Source: Hunsaker & Associates 8/2019

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1.4 PROJECT DESIGN FEATURES

1.4.1 Area Source Reductions

- Use of low volatile organic compound (VOC) coatings in accordance with, or exceeding, SDAPCD Rule 67.
 - Residential interior VOC coatings are to be less than or equal to 50 grams per liter (g/L).
 - Residential exterior coatings are to be less than or equal to 100 g/L.
- Natural gas fireplace will be installed in each of the 133 single detached units with 4 additional natural gas fireplaces in and around the Clubhouse. No other fireplaces or hearths would be installed.

1.4.2 Energy Efficiencies

- The Project would be designed to meet 2016 Title 24 energy efficiency standards.
- The Project would install light-colored stone pavers and heat-reflecting roofing to reduce heat absorption.
- The Project would install rooftop photovoltaic (PV) solar systems for a combined total system size of at least 1,396 direct current (DC) kilowatts (kW).

1.4.3 Mobile Source Reductions

- Pre-wiring (i.e., cabinets and conduits provided for future wiring) of 3 percent of parking required (a total of 36 spaces for the future installation of electric vehicle (EV) charging stations, with 50 percent of that number (18 of the 36 spaces) to contain additional necessary equipment to be create active vehicle charging stations consistent with the City Climate Action Plan. The project proposes the 18 fully active EV charging stations to be located at the private “Mobility Hub” and also would provide EV-ready pre-wiring in all 455 market-rate residential garages (exceeding the requirement by 419 spaces).
- The Project is designed to comply with the following measures as described by the California Air Pollution Control Officers Association (CAPCOA; 2010).
 - *LUT-5 Increased Transit Accessibility* – Locating a project near transit will facilitate the use of transit by people traveling to or from the project site. The use of transit results in a mode shift and therefore reduced vehicle miles traveled (VMT). The Project site is located adjacent to San Diego Metropolitan Transit System Line 20, with a stop on both sides of Carmel Mountain Road at the intersection of Carmel Mountain Road and Peñasquitos Drive, within approximately 0.5 mile of the center of the Project site.
 - *LUT-6 Integrate Affordable and Below Market Rate Housing* – Income has a statistically significant effect on the probability that a commuter will take transit or walk to work. The Project would provide 81 affordable apartment units.

- *SDT-1 Neighborhood/Site Enhancements* – Providing a pedestrian access network to link areas of the project site encourages people to walk instead of drive. This mode shift results in people driving less and thus a reduction in VMT. The Project would provide a pedestrian access network that internally links all uses and connects to all existing or planned external streets and pedestrian facilities contiguous with the Project site. The linkages would be ADA compliant, generally level (overall developed portions of the site range less than 40 feet in elevation), and would connect to Carmel Mountain Road via a 10-foot wide sidewalk connecting to sidewalks/paths linking all project residences.

2.0 REGULATORY SETTING

2.1 CRITERIA POLLUTANTS

2.1.1 Pollutants of Concern

Criteria pollutants are defined by state and federal law as a risk to the health and welfare of the general public. In general, air pollutants include the following compounds:

- Ozone (O₃)
- Reactive Organic Gases (ROGs) or Volatile Organic Compounds (VOCs)
- Carbon Monoxide (CO)
- Nitrogen Dioxide (NO₂)
- Respirable Particulate Matter and Fine Particulate Matter (PM₁₀ and PM_{2.5})
- Sulfur Dioxide (SO₂)
- Lead (Pb)

Air pollutants are categorized into primary and secondary pollutants. Primary air pollutants are those that are emitted directly from sources. Primary criteria pollutants are: CO; SO₂; PM₁₀; PM_{2.5}; and lead. Secondary pollutants are formed in the atmosphere through chemical and photochemical reactions of pollutant precursors. Secondary criteria pollutants are ozone, NO₂, PM₁₀, and PM_{2.5} formed by reactions of the principal pollutant precursors ROG, nitrogen oxides (NO_x), and sulfur oxides (SO_x). Note that PM₁₀ and PM_{2.5} can be both primary pollutants and secondary pollutants.

Adverse health effects to specific individuals or population groups induced by criteria pollutant emissions are highly dependent on a multitude of interconnected variables (e.g., cumulative concentrations, local meteorology and atmospheric conditions, and the number and character of exposed individuals [e.g., age, gender]). Criteria pollutant precursors (ROG and NO_x) affect air quality on a regional scale, typically after significant delay and distance from the pollutant source emissions. Health effects related to ozone, NO₂, and secondary PM are, therefore, the product of emissions generated by numerous sources throughout a region. As such, specific health effects from these criteria pollutant emissions cannot be directly correlated to the incremental contribution from a single project. The following specific descriptions of health effects for each of the air pollutants potentially associated with Project construction and operation are based on information provided by the U.S. Environmental Protection Agency (USEPA; 2007) and the California Air Resources Board (CARB; 2009).

Ozone. Ozone is considered a photochemical oxidant, which is a chemical that is formed when VOCs and nitrogen oxides (NO_x), both by-products of fuel combustion, react in the presence of ultraviolet light. Ozone is considered a respiratory irritant and prolonged exposure can reduce lung function, aggravate asthma, and increase susceptibility to respiratory infections. Children and those with existing respiratory diseases are at greatest risk from exposure to ozone.

Reactive Organic Gases. ROG (also known as VOCs) are compounds composed primarily of hydrogen and carbon atoms. Internal combustion associated with motor vehicle usage is the major source of ROG. Other sources of ROG include evaporative emissions from paints and solvents, the application of asphalt paving, and the use of household consumer products such as aerosols. Adverse effects on human health are not caused directly by ROG, but rather by reactions of ROG to form secondary pollutants such as ozone.

Carbon Monoxide. CO is a product of fuel combustion. CO is an odorless, colorless gas. CO affects red blood cells in the body by binding to hemoglobin and reducing the amount of oxygen that can be carried to the body's organs and tissues. CO can cause health effects to those with cardiovascular disease and can also affect mental alertness and vision.

Nitrogen Dioxide. NO₂ is also a by-product of fuel combustion and is formed both directly as a product of combustion and in the atmosphere through the reaction of nitrogen oxide (NO) with oxygen. NO₂ is a respiratory irritant and may affect those with existing respiratory illness, including asthma. NO₂ can also increase the risk of respiratory illness.

Respirable Particulate Matter and Fine Particulate Matter. Respirable particulate matter, or PM₁₀, refers to particulate matter with an aerodynamic diameter of 10 microns or less. Fine particulate matter, or PM_{2.5}, refers to particulate matter with an aerodynamic diameter of 2.5 microns or less. Particulate matter in these size ranges have been determined to have the potential to lodge in the lungs and contribute to respiratory problems. PM₁₀ and PM_{2.5} arise from a variety of sources, including road dust, diesel exhaust, fuel combustion, tire and brake wear, construction operations, and windblown dust. PM₁₀ and PM_{2.5} can increase susceptibility to respiratory infections and can aggravate existing respiratory diseases such as asthma and chronic bronchitis. PM_{2.5} is considered to have the potential to lodge deeper in the lungs. Diesel particulate matter (DPM) is classified a carcinogen by CARB.

Sulfur dioxide. SO₂ is a colorless, reactive gas that is produced from the burning of sulfur-containing fuels such as coal and oil and by other industrial processes. Generally, the highest concentrations of SO₂ are found near large industrial sources. SO₂ is a respiratory irritant that can cause narrowing of the airways leading to wheezing and shortness of breath. Long-term exposure to SO₂ can cause respiratory illness and aggravate existing cardiovascular disease.

Lead. Lead in the atmosphere occurs as particulate matter. With the phase-out of leaded gasoline, large manufacturing facilities are the sources of the largest amounts of lead emissions. Lead has the potential to cause gastrointestinal, central nervous system, kidney and blood diseases upon prolonged exposure. Lead is also classified as a probable human carcinogen. Because emissions of lead are found only in projects that are permitted by the local air district, lead is not an air quality of concern for the proposed Project.

Air quality is defined by ambient air concentrations of specific pollutants identified by the USEPA to be of concern with respect to health and welfare of the general public. The USEPA is responsible for enforcing the Federal Clean Air Act (CAA) of 1970 and its 1977 and 1990 Amendments. The CAA required

the USEPA to establish National Ambient Air Quality Standards (NAAQS), which identify concentrations of pollutants in the ambient air below which no adverse effects on the public health and welfare are anticipated. In response, the USEPA established both primary and secondary standards for several criteria pollutants, which are introduced above. Table 1, *Ambient Air Quality Standards*, shows the federal and state ambient air quality standards for these pollutants.

Table 1
AMBIENT AIR QUALITY STANDARDS

Pollutant	Averaging Time	California Standards	Federal Standards	
			Primary ¹	Secondary ²
O ₃	1 Hour	0.09 ppm (180 µg/m³)	–	–
	8 Hour	0.070 ppm (137 µg/m³)	0.070 ppm (137 µg/m³)	Same as Primary
PM ₁₀	24 Hour	50 µg/m³	150 µg/m³	Same as Primary
	AAM	20 µg/m³	–	Same as Primary
PM _{2.5}	24 Hour	–	35 µg/m³	Same as Primary
	AAM	12 µg/m³	12.0 µg/m³	15.0 µg/m³
CO	1 Hour	20 ppm (23 mg/m³)	35 ppm (40 mg/m³)	–
	8 Hour	9.0 ppm (10 mg/m³)	9 ppm (10 mg/m³)	–
	8 Hour (Lake Tahoe)	6 ppm (7 mg/m³)	–	–
NO ₂	1 Hour	0.18 ppm (339 µg/m³)	0.100 ppm (188 µg/m³)	–
	AAM	0.030 ppm (57 µg/m³)	0.053 ppm (100 µg/m³)	Same as Primary
SO ₂	1 Hour	0.25 ppm (655 µg/m³)	0.075 ppm (196 µg/m³)	–
	3 Hour	–	–	0.5 ppm (1,300 µg/m³)
	24 Hour	0.04 ppm (105 µg/m³)	–	–
			Primary ¹	Secondary ²
Lead	30-day Avg.	1.5 µg/m³	–	–
	Calendar Quarter	–	1.5 µg/m³	Same as Primary
	Rolling 3-month Avg.	–	0.15 µg/m³	
Visibility Reducing Particles	8 Hour	Extinction coefficient of 0.23 per km – visibility ≥ 10 miles (0.07 per km – ≥30 miles for Lake Tahoe)	No Federal Standards	
Sulfates	24 Hour	25 µg/m³		
Hydrogen Sulfide	1 Hour	0.03 ppm (42 µg/m³)		
Vinyl Chloride	24 Hour	0.01 ppm (26 µg/m³)		

Source: CARB 2016

¹ National Primary Standards: The levels of air quality necessary, within an adequate margin of safety, to protect the public health.

² National Secondary Standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.

Note: More detailed information of the data presented in this table can be found at the CARB website (www.arb.ca.gov).

O₃ = ozone; ppm = parts per million; µg/m³ = micrograms per cubic meter; PM₁₀ = large particulate matter;

AAM = Annual Arithmetic Mean; PM_{2.5} = fine particulate matter; CO = carbon monoxide; mg/m³ = milligrams per cubic meter;

NO₂ = nitrogen dioxide; SO₂ = sulfur dioxide; km = kilometer; – = No Standard.

The CAA allows states to adopt ambient air quality standards and other regulations provided they are at least as stringent as federal standards. CARB has established the more stringent California Ambient Air Quality Standards (CAAQS) for the six criteria pollutants through the California Clean Air Act of 1988 (CCAA), and also has established CAAQS for additional pollutants, including sulfates, hydrogen sulfide (H₂S), vinyl chloride, and visibility-reducing particles. Areas that do not meet the NAAQS or the CAAQS for a particular pollutant are considered to be “nonattainment areas” for that pollutant. On June 4, 2018, the San Diego Air Basin (SDAB) was classified as a moderate nonattainment area for the 2015 8-hour NAAQS for ozone (USEPA 2018). The SDAB is an attainment area for the NAAQS for all other criteria pollutants including PM₁₀ and PM_{2.5}. The SDAB is currently classified as a nonattainment area under the CAAQS for ozone, PM₁₀, and PM_{2.5} (SDAPCD 2017).

The SDAPCD is the local agency responsible for the administration and enforcement of air quality regulations for the County. The SDAPCD and San Diego Association of Governments (SANDAG) are responsible for developing and implementing the clean air plan for attainment and maintenance of the ambient air quality standards in the SDAB. The County’s RAQS were initially adopted in 1991 and is updated on a triennial basis. The most recent version of the RAQS was adopted by the SDAPCD in 2016 (SDAPCD 2016). The local RAQS, in combination with those from all other California nonattainment areas with serious (or worse) air quality problems, is submitted to CARB, which develops the California State Implementation Plan (SIP). The SIP relies on the same information from SANDAG to develop emission inventories and emission reduction strategies that are included in the attainment demonstration for the air basin. The current federal and state attainment status for San Diego County is presented in Table 2, *San Diego Air Basin Attainment Status*.

Table 2
SAN DIEGO AIR BASIN ATTAINMENT STATUS

Criteria Pollutant	Federal Designation	State Designation
O ₃ (1-hour)	(No federal standard)	Nonattainment
O ₃ (8-hour)	Moderate Nonattainment	Nonattainment
CO	Attainment	Attainment
PM ₁₀	Unclassifiable	Nonattainment
PM _{2.5}	Attainment	Nonattainment
NO ₂	Attainment	Attainment
SO ₂	Attainment	Attainment
Lead	Attainment	Attainment
Sulfates	(No federal standard)	Attainment
Hydrogen Sulfide	(No federal standard)	Unclassifiable
Visibility	(No federal standard)	Unclassifiable

Source: SDAPCD 2017 and EPA 2018

2.2 TOXIC AIR CONTAMINANTS

Toxic Air Contaminants (TACs) are a category of air pollutants that have been shown to have an impact on human health but are not classified as criteria pollutants. Examples include certain aromatic and chlorinated hydrocarbons, certain metals, and asbestos. Air toxics are generated by a number of sources, including stationary ones such as dry cleaners, gas stations, combustion sources, and laboratories; mobile ones such as automobiles; and area sources such as farms, landfills, construction sites, and residential areas. Adverse health effects of TACs can be carcinogenic (cancer-causing),

short-term (acute) noncarcinogenic, and long-term (chronic) noncarcinogenic. Public exposure to TACs is a significant environmental health issue in California.

3.0 EXISTING CONDITIONS

3.1 CLIMATE AND METEOROLOGY

The climate in southern California, including the SDAB, is controlled largely by the strength and position of the subtropical high-pressure cell over the Pacific Ocean. Areas within 30 miles of the coast experience moderate temperatures and comfortable humidity.

The predominant wind direction in the vicinity of Project site is from the west-northwest and the average wind speed is approximately five miles per hour (Iowa Environmental Mesonet [IEM] 2017). The annual average maximum temperature in the Project area is approximately 75 F, and the annual average minimum temperature is approximately 50°F. Total precipitation in the Project area averages approximately 13 inches annually. Precipitation occurs mostly during the winter and relatively infrequently during the summer (Western Regional Climate Center [WRCC] 2018).

Due to its climate, the SDAB experiences frequent temperature inversions (temperature increases as altitude increases, which is the opposite of general patterns). Temperature inversions prevent air close to the ground from mixing with the air above it. As a result, air pollutants are trapped near the ground. During the summer, air quality problems are created due to the interaction between the ocean surface and the lower layer of the atmosphere, creating a moist marine layer. An upper layer of warm air mass forms over the cool marine layer, preventing air pollutants from dispersing upward. Additionally, hydrocarbons and NO₂ react under strong sunlight, creating smog. Light, daytime winds, predominantly from the west, further aggravate the condition by driving the air pollutants inland, toward the foothills. During the fall and winter, air quality problems are created due to CO and NO₂ emissions. High NO₂ levels usually occur during autumn or winter, on days with summer-like conditions.

3.2 EXISTING AIR QUALITY

3.2.1 Criteria Pollutants

3.2.1.1 Attainment Designations

Attainment designations are discussed in Section 2.1.1 and Table 2. The SDAB is classified as a marginal nonattainment area for the 8-hour NAAQS for ozone. The SDAB is currently classified as a nonattainment area under the CAAQS for ozone (serious nonattainment), PM₁₀, and PM_{2.5}. The SDAB is an attainment area for all other criteria pollutants.

3.2.1.2 Monitored Air Quality

The SDAPCD operates a network of ambient air monitoring stations throughout the County. The purpose of the monitoring stations is to measure ambient concentrations of the pollutants and determine whether the ambient air quality meets the CAAQS and the NAAQS. The nearest ambient monitoring stations to the Project site is the San Diego-Kearny Villa Road monitoring station located at

6125A Kearny Villa Road in San Diego, approximately 10 miles south of the Project site. Air quality data for this monitoring station are shown in Table 3, Air Quality Monitoring Data.

Monitoring data at the San Diego-Kearny Villa Road station has had acceptable levels of the criteria air pollutants CO (8-hour), NO₂, PM_{2.5} and PM₁₀. The state 8-hour ozone standard was violated three times in 2016 and six times in 2017. The federal 8-hour ozone standard was violated four times in 2017. The 1-hour ozone standard was violated twice in 2017.

Table 3
AIR QUALITY MONITORING DATA

Pollutant	2015	2016	2017
Ozone (O₃)			
Maximum 1-hour concentration (ppm)	0.077	0.087	0.097
Days above 1-hour state standard (>0.09 ppm)	0	0	2
Maximum 8-hour concentration (ppm)	0.070	0.075	0.083
Days above 8-hour state standard (>0.070 ppm)	0	3	6
Days above 8-hour federal standard (>0.075 ppm)	0	0	4
Carbon Monoxide (CO)			
Maximum 8-hour concentration (ppm)	*	*	*
Days above state or federal standard (>9.0 ppm)	0	0	0
Respirable Particulate Matter (PM₁₀)			
Maximum 24-hour concentration (µg/m ³)	39.0	36.0	46.0
Days above state standard (>50 µg/m ³)	0	0	0
Days above federal standard (>150 µg/m ³)	0	0	0
Fine Particulate Matter (PM_{2.5})			
Maximum 24-hour concentration (µg/m ³)	25.7	19.4	27.5
Days above federal standard (>35 µg/m ³)	0	0	0
Nitrogen Dioxide (NO₂)			
Maximum 1-hour concentration (ppm)	0.051	0.053	0.054
Days above state 1-hour standard (0.18 ppm)	0	0	0

Source: CARB (2019)

ppm = parts per million, µg/m³ = micrograms per cubic meter

*Insufficient data available

4.0 METHODOLOGY AND SIGNIFICANCE CRITERIA

4.1 METHODOLOGY

Criteria pollutant emissions were calculated using the California Emissions Estimator Model (CalEEMod), Version 2016.3.2 (CAPCOA 2017). CalEEMod is a computer model used to estimate criteria air pollutant and GHG emissions resulting from construction and operation of land development projects throughout the state of California. CalEEMod was developed by the SCAMQD with the input of several air quality management and pollution control districts. The input data and subsequent construction and operation emission estimates for the proposed Project are discussed below. CalEEMod output files are included in Appendix A.

4.1.1 Construction Emissions

As described above, construction emissions are assessed using the CalEEMod, Version 2016.3.2. CalEEMod contains OFFROAD2011 emission factors and EMFAC2014 emission factors from CARB's models for off-road equipment and on-road vehicles, respectively. The construction analysis included modeling of the projected construction equipment that would be used during each construction activity and quantities of earth and debris to be moved. The model calculates emissions of CO, PM₁₀, PM_{2.5}, SO₂, and the ozone precursors VOC and NO_x.

Construction would require heavy equipment during site preparation, mass grading, underground utilities, building construction, and paving. Construction equipment estimates are based on default values in CalEEMod, Version 2016.3.2. Table 4, *Construction Equipment Assumptions*, presents a summary of the assumed equipment that would be involved in each stage of construction.

Table 4
CONSTRUCTION EQUIPMENT ASSUMPTIONS

Construction Phase	Equipment	Number
Demolition	Concrete/Industrial Saws	1
	Excavators	3
	Rubber Tired Dozers	2
Site Preparation	Rubber Tired Dozers	3
	Tractors/Loaders/Backhoes	4
Grading	Excavators	2
	Graders	1
	Rubber Tired Dozers	1
	Scrapers	2
	Tractors/Loaders/Backhoes	2
Building Construction	Cranes	1
	Forklifts	3
	Generator Sets	1
	Tractors/Loaders/Backhoes	3
	Welders	1
Paving	Pavers	2
	Paving Equipment	2
	Rollers	2
Architectural Coating	Air Compressors	1

Source: CalEEMod (output data, including equipment horsepower, is provided in Appendix A)

The construction schedule was determined by using CalEEMod defaults, input from the Project Applicant, and standard assumptions for similarly sized projects, taking into consideration the size of the Project in order to estimate necessary construction activities and length of days per construction activity. As shown in Table 5, *Anticipated Construction Schedule*, Project development was assumed to start in November 2019 and is projected to end February 2023.

Table 5
ANTICIPATED CONSTRUCTION SCHEDULE

Construction Activity	Construction Period		
	Start	End	Number of Working Days
Demolition	11/1/2019	11/30/2019	21
Site Preparation	12/1/2019	2/28/2020	65
Grading	3/1/2020	5/29/2020	65
Building Construction	6/1/2020	9/30/2022	610
Paving	10/1/2022	11/30/2022	43
Architectural Coating	12/1/2022	2/28/2023	64

Source: CalEEMod (output data is provided in Appendix A)

The quantity, duration, and the intensity of construction activity have an effect on the amount of construction emissions and their related pollutant concentrations that occur at any one time. As such, the emission forecasts provided herein reflect a specific set of conservative assumptions based on the expected construction scenario wherein a relatively large amount of construction is occurring in a relatively intensive manner. Because of this conservative assumption, actual emissions could be less than those forecasted. If construction is delayed or occurs over a longer time period, emissions could be reduced because of (1) a more modern and cleaner-burning construction equipment fleet mix than incorporated in the CalEEMod, and/or (2) a less intensive buildout schedule (i.e., fewer daily emissions occurring over a longer time interval). A complete listing of the assumptions used in the analysis and model output is provided in Appendix A of this report.

CalEEMod has the capability to calculate reductions in construction emissions from the effects of dust control, diesel-engine classifications, and other selected emissions reduction measures. Construction emission calculations presented herein assume the implementation of standard dust control measures listed in Section 1.3, including watering two times daily during grading, ensuring that all exposed surfaces maintain a minimum soil moisture of 12 percent, and limiting vehicle speeds on unpaved roads to 15 mph.

The Project would also conform to the VOC limits included in SDAPCD Rule 67 (as described in Section 1.4). According to Rule 67, residential interior coatings must have a VOC content less than or equal to 50 g/L and residential exterior coatings must have a content less than or equal to 100 g/L. The quantities of coatings that would be applied to the interior and exterior of the new buildings were estimated according to CalEEMod default assumptions.

4.1.2 Operation Emissions

Operational impacts were estimated using CalEEMod. Operational sources of emissions include area, energy, and mobile sources. Operational emissions from energy sources include the combustion of natural gas for heating and hot water. Area source emissions include engine emissions from landscape maintenance equipment, and VOC emissions from repainting of buildings.

Operational emissions from mobile sources are associated with Project-related vehicle trip generation (Linscott, Law & Greenspan Engineers [LLG] 2019). Annual VMT was assumed to be approximately 3.4 million miles per year based on location, type (age-restricted with an affordable component) and

design (e.g., connectivity elements and electrical vehicle support through an aggressive EV-pre-wired program in every for-sale home) (Appendices A and C).

Operational emission estimates with Project design features take into account energy efficiency in accordance 2016 Title 24 standards.

4.1.3 Toxic Air Contaminants

TAC impacts were analyzed in accordance with the methods from the Office of Environmental Health and Hazards Assessment (OEHHA) *Air Toxics Hot Spots Program Risk Assessment Guidelines* (OEHHA 2015). The primary health risk from on-road vehicles is DPM in diesel truck exhaust. According to the OEHHA, when conducting a health risk assessment (HRA), DPM is the surrogate for whole diesel exhaust and is used as the basis for the potential health risk calculations (OEHHA 2015). Further, the potential incremental cancer risk from inhalation exposure to DPM would outweigh the potential noncancerous health impacts. When comparing diesel exhaust to the individual chemical compounds within exhaust, potential cancer risk from inhalation exposure to whole diesel exhaust would outweigh the multi-pathway cancer risk from the individual chemical compounds.¹ For this reason, there are few situations where an analysis of multi-pathway risk is necessary. The HRA provided herein assesses complete diesel exhaust emissions as DPM.

Improvements to diesel fuel and diesel engines have reduced emissions of some of the contaminants. As of 2015, these improvements have already resulted in a 75 percent reduction in particle emissions from diesel-powered trucks and other equipment (as compared to 2000 levels), and by 2020, when fully implemented, they would result in an 85 percent reduction. These improvements are anticipated to continue into the foreseeable future. However, to be conservative, other than what is built into the EMFAC2017 model, none of these anticipated improvements are included in the HRA prepared for the project.

Emissions of DPM were first calculated using emission factors from EMFAC2017 and vehicle count data available from the California Department of Transportation (Caltrans). Emissions were then modeled using the USEPA-developed AERMOD air dispersion model using a receptor spacing of 328 feet (100 meters). These concentrations were then incorporated into the Hotspots Analysis Reporting Program (HARP) model to determine individual health risk levels. Health risk modeling files are included as Appendix B.

4.2 SIGNIFICANCE CRITERIA

4.2.1 Air Quality

The City (2016) has approved guidelines for determining significance based on Appendix G of the State California Environmental Quality Act (CEQA) Guidelines, which provide guidance that a project would have a significant air quality environmental impact if it would:

¹ Speciation, as used in air quality analysis, is the process of defining the components or chemical compositions of a pollutant (CARB 2017).

1. Conflict with or obstruct implementation of the San Diego RAQS or applicable portions of the SIP;
2. Violate any air quality standard or contribute substantially to an existing or projected air quality violation;
3. Result in a cumulatively considerable net increase of any criteria pollutant for which the SDAB is nonattainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors);
4. Expose sensitive receptors (i.e., day care centers, schools, retirement homes, and hospitals or medical patients in residential homes which could be impacted by air pollutants) to substantial pollutant concentrations;
5. Create objectionable odors affecting a substantial number of people; or
6. Release substantial quantities of air contaminants beyond the boundaries of the premises upon which the stationary source emitting the contaminants is located.

To determine whether a project would (a) result in emissions that would violate any air quality standard or contribute substantially to an existing or projected air quality violation, or (b) result in a cumulatively considerable net increase of PM_{10} or exceed quantitative thresholds for ozone precursors (i.e., NO_x and VOCs), project emissions may be evaluated based on the quantitative emission thresholds established by the SDAPCD. As part of its air quality permitting process, the SDAPCD has established thresholds in Rule 20.2 for the preparation of Air Quality Impact Assessments (AQIAs). In the absence of a SDAPCD adopted threshold for $PM_{2.5}$, the SCAQMD's screening threshold of 55 pounds per day or 10 tons per year is used.

For CEQA purposes, these screening criteria can be used as numeric methods to demonstrate that a project's total emissions would not result in a significant impact to air quality. The screening thresholds are included in Table 6, *Screening-level Thresholds for Air Quality Impact Analysis*.

Table 6
SCREENING-LEVEL THRESHOLDS FOR AIR QUALITY IMPACT ANALYSIS

Pollutant		Total Emissions	
Construction Emissions (Pounds per Day)			
Respirable Particulate Matter (PM ₁₀)		100	
Fine Particulate Matter (PM _{2.5})		55	
Oxides of Nitrogen (NO _x)		250	
Oxides of Sulfur (SO _x)		250	
Carbon Monoxide (CO)		550	
Volatile Organic Compounds (VOCs)		75	
Operational Emissions			
	Pounds per Hour	Pounds per Day	Tons per Year
Respirable Particulate Matter (PM ₁₀)	---	100	15
Fine Particulate Matter (PM _{2.5})	---	55	10
Oxides of Nitrogen (NO _x)	25	250	40
Oxides of Sulfur (SO _x)	25	250	40
Carbon Monoxide (CO)	100	550	100
Lead and Lead Compounds	---	3.2	0.6
Volatile Organic Compounds (VOC)	---	75	13.7
Toxic Air Contaminant Emissions			
Excess Cancer Risk	1 in 1 million 10 in 1 million with T-BACT		
Non-Cancer Hazard	1.0		

Source: SDACPD Rule 20.2 and Rule 1210.

T-BACT = Toxics-Best Available Control Technology

The State of California Health and Safety Code Sections 41700 and 41705, and SDAPCD Rule 51, commonly referred to as public nuisance law, prohibits emissions from any source whatsoever in such quantities of air contaminants or other material, which cause injury, detriment, nuisance, or annoyance to the public health or damage to property. The provisions of these regulations do not apply to odors emanating from agricultural operations necessary for the growing of crops or the raising of fowl or animals. It is generally accepted that the considerable number of persons requirement in Rule 1 is normally satisfied when 10 different individuals/households have made separate complaints within 90 days. Odor complaints from a “considerable” number of persons or businesses in the area will be considered to be a significant, adverse odor impact. Therefore, any unreasonable odor discernible at the property line of the campus will be considered a significant odor impact.

5.0 AIR QUALITY IMPACT ANALYSIS

This section evaluates potential direct impacts of the proposed Project related to the air pollutant emissions.

5.1 CONSISTENCY WITH AIR QUALITY PLANS

The SDAPCD is required, pursuant to the federal CAA, to reduce emissions of criteria pollutants for which the SDAB is in nonattainment. Strategies to achieve these emissions reductions are developed in the RAQS and SIP, prepared by the SDAPCD for the region. Both the RAQS and SIP are based on SANDAG

population projections, as well as land use designations and population projections included in general plans for those communities located within the County. A project would be inconsistent with the RAQS/SIP if it is inconsistent with the assumptions within the General Plan.

The Project would redevelop a former golf course site that is currently not in use or accessible to the public, as well as the tennis courts and maintenance yard in the southwest portion of the site. The Project proposes a General Plan Amendment (GPA) to re-designate the site from the General Plan designations of Park, Open Space, and Recreation (with a small area of Commercial Employment, Retail, and Services on the southeastern edge of the site) to allow low-medium density residential development. The Project also proposes a Community Plan Amendment (CPA) to re-designate the site from the RPCP designation of Open Space/Golf Course (with small areas of Swimming and Tennis Club and Commercial Recreation on the southwestern edge of the site), to Low-Medium Density Residential. The proposed change of land use designations would be consistent with surrounding RPCP land uses. The Project also would be consistent with the number of residences assumed under existing zoning (Residential-Single Unit; RS-1-14), which, assuming an 85 percent building efficiency to account for 15 percent of the approximately 112.3-acre site to be developed as internal roadways and landscaping, would allow for up to 831 single-family dwelling units; or 295 units more than zoning build out than are proposed by the Project.

The Project would be consistent with applicable environmental goals and objectives contained in the General Plan and RPCP. The Project would consist of redevelopment in the vicinity of (i.e., immediately across I-15 from) an identified SANDAG Smart Growth Area (Potential Community Center). In addition, the southeastern portion of the Project site would be within a SANDAG-identified Transit Oriented District. The City's map of Transit Priority Areas per SB 743 indicates that the Project site is approximately 0.7 mile from a City-identified Transit Priority Area. The proposed increase in multi-family age-restricted market rate and affordable housing in this area would increase residents' access to nearby businesses while helping to reduce the number and distance of auto trips, which would in turn help reduce emissions. Additionally, the proposed residential uses would have access to transit via the Rancho Bernardo Transit Station and the Sabre Springs/Peñasquitos Transit Station and Parking Structure, both of which provide BRT access to commercial and employment centers throughout the region. The Project also would include improvements to pedestrian and bicycle connections to transit for users of the site and residents of the surrounding area. These connections would incorporate a series of public spaces, including a public park and other common open spaces. Thus, the Project would contribute to the goal of focusing growth into mixed-use activity centers that are pedestrian-friendly and linked to the regional transit system.

The Project would implement the City's General Plan mobility and conservation policies through a combination of vehicular, bicycle, and pedestrian circulation improvements that would enhance movement within the Project and encourage alternative methods of travel, furthering City policies for sustainable methods of transportation to reduce energy use, emissions, and traffic. In terms of the urban design, new structures, hardscape, and landscape elements would be designed in accordance with the City's policies and guidelines, replacing a defunct golf course with new housing opportunities, including affordable housing units, as well as parks and open space amenities available to the public. The enhanced design would contribute to a cohesive environment, with less focus on the automobile and more focus on provision of pedestrian-oriented features. Adequate public facilities and services would be provided consistent with the General Plan policies. Sustainability practices would be expanded, as included above and described in detail in Section 3.0 of the Environmental Impact Report prepared for

the Project, and features would be integrated into the Project to minimize its carbon dioxide footprint within the City and region.

The Project would include a GPA/CPA to change the land use designation of the site, and add residential units (including affordable housing units), open space, and a public park. These proposed uses would be consistent with the intention of the Regional Plan and the General Plan to focus growth into sustainable, mixed-use activity centers linked to the regional transit system. The Project would not result in an inconsistency or conflict with the environmental goals, objectives, or guidelines of the General Plan, RPCP, and other applicable plans, see EIR Section 5.1 for additional detail. The Project would conform to the most applicable policies and standards of the General Plan, RPCP (as amended) and San Diego Municipal Code (SDMC).

Furthermore, as detailed in Section 5.2, below, the project would not result in a significant air quality impact with regards to construction- and operational-related emissions of ozone precursors or criteria air pollutants. The Project would also comply with all existing and new rules and regulations as they are implemented by the SDAPCD, CARB, and/or USEPA related to emissions generated during construction. Therefore, the Project would not conflict with the applicable air quality attainment plan, and impacts to regional air quality would be less than significant.

5.2 CONFORMANCE TO FEDERAL AND STATE AIR QUALITY STANDARDS

The Project would generate criteria pollutants in the short term during construction and the long term during operation. To determine whether a project would result in emissions that would violate an air quality standard or contribute substantially to an existing or projected air quality violation, a project's emissions are evaluated based on the quantitative emission thresholds established by the SDAPCD (as shown in Table 6).

5.2.1 Construction

5.2.1.1 Project Emissions

The Project's construction emissions were estimated using the CalEEMod model as described in Section 4.1.1. Project-specific input was based on general information provided in Section 1.0 and default model settings to estimate reasonably conservative conditions. Additional details of phasing, selection of construction equipment, and other input parameters, including CalEEMod data, are included in Appendix A.

The results of the calculations for Project construction are shown in Table 7, *Maximum Daily Construction Emissions*. The data are presented as the maximum anticipated daily emissions for comparison with the SDAPCD thresholds.

Table 7
MAXIMUM DAILY CONSTRUCTION EMISSIONS

Phase	Pollutant Emissions (pounds per day)					
	VOC	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}
Demolition	4	52	26	<0.5	8	3
Site Preparation	5	51	24	<0.5	11	7
Grading	5	50	32	<0.5	6	4
Building Construction	4	27	29	<0.5	5	2
Paving	1	11	15	<0.5	1	1
Architectural Coatings	66	2	4	<0.5	1	<0.5
Maximum Daily Emissions	66	52	32	<0.5	11	7
<i>SDAPCD Thresholds</i>	<i>75</i>	<i>250</i>	<i>550</i>	<i>250</i>	<i>100</i>	<i>55</i>
Significant Impact?	No	No	No	No	No	No

Source: CalEEMod (output data is provided in Appendix A)

As shown in Table 7, emissions of all criteria pollutants related to Project construction would be below the SDAPCD's significance thresholds. Therefore, direct impacts from criteria pollutants generated during construction would be less than significant and is not expected to result in any adverse health effects.

5.2.2 Operation

The Project's construction emissions were estimated using the CalEEMod model as described in Section 4.1.2. Operational emission calculations and model outputs are provided in Appendix A. Table 8, *Maximum Daily Operational Emissions*, presents the summary of operational emissions for the Project.

Table 8
MAXIMUM DAILY OPERATIONAL EMISSIONS

Category	Pollutant Emissions (pounds per day)					
	VOC	NO _x	CO	SO ₂	PM ₁₀	PM _{2.5}
Area	18	3	45	<0.5	<0.5	<0.5
Energy	<0.5	2	1	<0.5	<0.5	<0.5
Mobile	2	9	24	<0.5	7	2
Total Daily Emissions	20	13	70	<0.5	8	3
<i>SDAPCD Thresholds</i>	<i>75</i>	<i>250</i>	<i>550</i>	<i>250</i>	<i>100</i>	<i>55</i>
Significant Impact?	No	No	No	No	No	No

Note: Totals may not add due to rounding.

Source: CalEEMod (output data is provided in Appendix A)

As shown in Table 8, Project emissions of all criteria pollutants during operation would be below the daily thresholds. Therefore, operation of the Project would not be considered a significant impact on air quality and is not expected to result in any adverse health effects. Impacts would be less than significant.

5.3 CUMULATIVELY CONSIDERABLE NET INCREASE OF NONATTAINMENT CRITERIA POLLUTANTS

The region is a federal and/or state nonattainment area for PM₁₀, PM_{2.5}, and ozone. The Project would contribute particulates and the ozone precursors VOC and NO_x to the area during Project construction and operation. As described in Section 5.2, emissions during construction would not violate any air quality standard or contribute substantially to an existing or projected air quality violation. Therefore, construction emissions would not be cumulatively considerable, and the impact would be less than significant.

Long-term emissions, as shown above in Table 8, would be well below regional thresholds and, therefore, not cumulatively considerable. The long-term cumulative impact would be less than significant.

5.4 IMPACTS TO SENSITIVE RECEPTORS

Impacts to sensitive receptors are typically analyzed for operational period CO hotspots and exposure to TACs. An analysis of the Project's potential to expose sensitive receptors to these pollutants is provided below.

5.4.1 Carbon Monoxide Hot Spots

A CO hot spot is an area of localized CO pollution caused by severe vehicle congestion on major roadways, typically near intersections. A quantitative screening is required in two instances: (1) if a project increases the average delay at signalized intersections operating at Level of Service (LOS) E or F; or (2) if a project causes an intersection that would operate at LOS D or better without the Project to operate at LOS E or F with the Project. According to the Traffic Impact Analysis (LLG 2019), with the addition of Project traffic and the installation of roundabout control at the intersection of Peñasquitos Drive/Janal Way and a traffic signal at Peñasquitos Drive/Cuca Street, no intersection would operate at LOS E or F and experience an increase in delay from the Project.

There would be no potential for a project-related CO hot spot or exceedance of State or Federal CO ambient air quality standard. Therefore, air quality impacts related to the exposure of sensitive receptors to substantial pollutant concentrations would be less than significant.

5.4.2 Exposure to TACs

5.4.2.1 Construction

Construction activities would result in short-term Project-generated emissions of diesel PM from the exhaust of off-road, heavy-duty diesel equipment. CARB identified diesel PM as a TAC in 1998. The dose to which receptors are exposed is the primary factor used to determine health risk. Dose is a function of the concentration of a substance or substances in the environment and the duration of exposure to the substance. Thus, the risks estimated for a maximally exposed individual (MEI) are higher if a fixed exposure occurs over a longer time period. According to the Office of Environmental Health Hazard Assessment, Health Risk Assessments (HRAs), which determine the exposure of sensitive receptors to TAC emissions, should be based on a 30-year exposure period; however, such assessments should be limited to the period/duration of activities associated with the Project.

There would be relatively few pieces of off-road, heavy-duty diesel equipment used during construction, and the construction period would be relatively short, especially when compared to 30 years. Combined with the highly dispersive properties of diesel PM and additional reductions in exhaust emissions from improved equipment, construction-related emissions would not expose sensitive receptors to substantial emissions of TACs. Impacts from construction emissions would be less than significant.

5.4.2.2 Operation

Exposure to DPM generated by traffic on roadways is a concern identified in the CARB *Air Quality and Land Use Handbook* (CARB 2005). The CARB guidelines indicate that siting new sensitive land uses (such as housing) within 500 feet of a freeway or an urban road with 100,000 vehicles per day should be avoided. The Project is located adjacent the I-15 freeway. Because the Project would cite new residences within the 500-foot buffer, a health risk analysis is required.

Acute Project-Related Emission Impacts

Exposure to diesel exhaust can result in immediate health effects. Diesel exhaust can irritate the eyes, nose, throat, and lungs, and it can cause coughs, headaches, lightheadedness, and nausea. In studies with human volunteers, diesel exhaust particles made people with allergies more susceptible to the materials to which they are allergic, such as dust and pollen. Exposure to diesel exhaust also causes inflammation in the lungs, which may aggravate chronic respiratory symptoms and increase the frequency or intensity of asthma attacks. However, according to the rulemaking on *Identifying Particulate Emissions from Diesel-Fueled Engines as a Toxic Air Contaminant* (CARB 2010), the available data from studies of humans exposed to diesel exhaust are not sufficient for deriving an acute non-cancer health risk guidance value. While the lung is a major target organ for diesel exhaust, studies of the gross respiratory effects of diesel exhaust in exposed workers have not provided sufficient exposure information to establish a short-term non-cancer health risk guidance value for respiratory effects. Since there are no significant emissions of toxic air pollutants that cause short-term acute health effects in the project vicinity, the potential for short-term acute exposure would be less than significant.

Carcinogenic and Chronic Project-Related Emission Impacts

The first step of the HRA is to characterize the project-related vehicle emissions. The daily truck activity along the portion of I-15 adjacent the Project site was obtained by examining Caltrans published traffic counts (Caltrans 2017). For the assessment, emissions were modeled as line volume sources along I-15.

Emission factors were derived from the CARB model EMFAC2017 to determine the total diesel exhaust emissions of PM₁₀ along I-15. See Appendix B for the details of this emissions factor derivation.

Receptors were placed on a grid with 328-foot (100-meter) spacing to characterize the regional risk levels. Five years of meteorological data for the Marine Corp Air Station as recorded by the SDAPCD were used to represent the atmospheric conditions at the project site. These emissions sources, parameters, and receptor data were modeled using the AERMOD air dispersion model to produce concentrations at receptors of interest. These concentrations were then incorporated into the HARP model to determine individual health risk levels. The modeling output is included in Appendix B.

The approach to estimating cancer risk from long-term inhalation exposure to carcinogens requires calculating a range of potential doses and multiplying by cancer potency factors in units of inverse dose to obtain a range of cancer risks. For cancer risk, the risk for each age group is calculated using the

appropriate breathing rates, age sensitivity factors, exposure duration, and cancer risks calculated for individual age groups, which are summed to estimate cancer risk for each receptor. To accurately estimate the cancer risk associated with the age-restricted population, the age at which exposure begins was set to 55 years old. The exposure duration was set to the regulatory default 30 years.

With the conservative modeling technique used (i.e., assuming that an individual stays outdoors at his or her residence 24 hours per day for 30 years, which is the State-required period of time that HRAs must use for analysis), the maximally exposed individual sensitive receptor would be exposed to an incremental inhalation cancer risk of no more than 7.75 in 1 million, which is lower than the threshold of 10 in 1 million. Figure 4, *Residential Health Risk Analysis Results*, shows the modeled sources and the 10 and 1 in 1 million incremental cancer risk contours. The Chronic Hazard Index would be 0.016, which is lower than the threshold of 1.0.

The cancer burden is an estimate of the number of cancer cases expected from a 30-year exposure to project TAC emissions. The cancer burden is calculated by multiplying the number of people exposed by the cancer risk at the maximum individual exposed resident, which is 7.75×10^{-6} . In this case, the number of people exposed is the number of people living in the residences within the 1 per 1 million contour. As shown in Figure 4, the entire Project falls within this contour. Assuming a standard occupancy rate of 1.7 persons per dwelling unit, the population of the Project would be 911 persons resulting in a cancer burden of 0.007, which is less than the threshold of 0.5. Thus, no significant health risk would occur from exposure to freeway DPM emissions, and no mitigation is necessary.

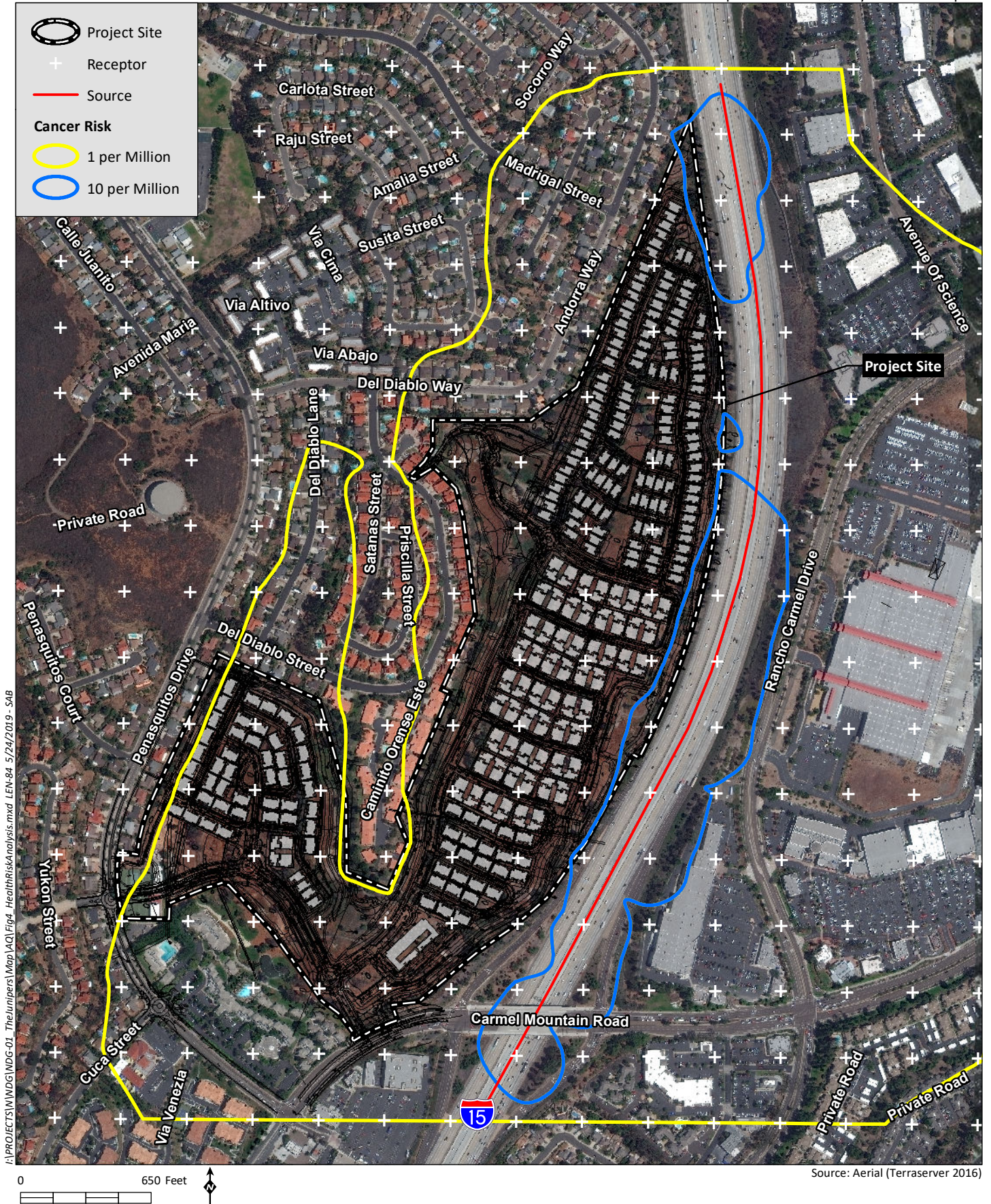
5.5 ODORS

As discussed above, the State of California Health and Safety Code Sections 41700 and 41705, and SDAPCD Rule 51, prohibit emissions from any source whatsoever in such quantities of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to the public health or damage to property. Any unreasonable odor discernible at the property line of the Project site will be considered a significant odor impact.

The Project could produce odors during proposed construction activities resulting from construction equipment exhaust, application of asphalt, and/or the application of architectural coatings; however, standard construction practices would minimize the odor emissions and their associated impacts. Furthermore, any odors emitted during construction would be temporary, short-term, and intermittent in nature, and would cease upon the completion of the respective phase of construction. Accordingly, the proposed Project would not create objectionable odors affecting a substantial number of people during construction, and short-term impacts would be less than significant.

During Project operation, the temporary storage of refuse could be a potential source of odor; however, Project-generated refuse is required to be stored in covered containers and removed at regular intervals in compliance with the City's Municipal Code solid waste regulations, thereby precluding significant odor impacts.

The Project would provide a community composting area at a location approximately 150 feet from the nearest on-site residences, and approximately 300 feet from the nearest off-site residences. The approximately 400-square foot composting site would require collection of both food waste and some landscape trimmings from project's households and Homeowner's Association (HOA) maintained



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landscaping areas, respectively. When handled properly, the composting of food scraps would not cause odors (USEPA 2016).

The Project would require the future HOA to maintain the composting process. The HOA would be required to contract or agreement with a contractor that would provide food waste bins that would minimize misuse or contamination, collect food waste for delivery directly to the on-site composting area, and maintain the composting area to prevent odors. Due to the small nature of the composting facility, and the maintenance that would be required, no odors are expected for nearby residences.

Furthermore, the proposed Project would be required to comply with the aforementioned SDAPCD Rule 51 which prohibits the discharge of odorous emissions that would create a public nuisance. As such, long-term operation of the proposed Project would not create objectionable odors affecting a substantial number of people.

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Appendix A

CalEEMod Output

The Junipers - San Diego County, Winter

The Junipers
San Diego County, Winter**1.0 Project Characteristics**

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Retirement Community	536.00	Dwelling Unit	112.30	536,000.00	1533

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.6	Precipitation Freq (Days)	40
Climate Zone	13			Operational Year	2024
Utility Company	San Diego Gas & Electric				
CO2 Intensity (lb/MWhr)	720.49	CH4 Intensity (lb/MWhr)	0.029	N2O Intensity (lb/MWhr)	0.006

1.3 User Entered Comments & Non-Default Data

The Junipers - San Diego County, Winter

Project Characteristics -

Land Use - 536 DU on 112.3 acres

Construction Phase - Construction schedule adjusted for 2023 buildout

Demolition - 10,983 of demo debris per Waste Management Plan

Grading - 12,100 tons of vegetation per Waste Management Plan

Balanced Grading per Hunsaker

Architectural Coating - Rule 67 Compliance

Vehicle Trips - Trip Rate: LLG2019

Trip Distance: SANDAG Series 13

Woodstoves - 137 NG fireplaces included in Single Detached and Clubhouse

Solid Waste - 322 tons of waste sent to landfills per Waste Management Plan

Construction Off-road Equipment Mitigation -

Mobile Land Use Mitigation - LUT-5: 0.5 mile from center of Project.

LUT-6: 81 affordable units (81/536=0.15).

SDT-1: pedestrian access network connects offsite.

Area Mitigation -

Energy Mitigation - SunStreet2019 - Project will provide 1,396.22 kW DC or larger onsite PV system.

Berkeley Lab, Utility-Scale Solar 2018 Edition states CA average PV Capacity Factor is 28.9%

 $1,396.22 \text{ kW} * 24 \text{ hr/day} * 365.24 \text{ days/yr} * 28.9\% = 3,537,050.60 \text{ kWh/yr}$

Water Mitigation -

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Residential_Exterior	250.00	100.00
tblArchitecturalCoating	EF_Residential_Interior	250.00	50.00
tblConstDustMitigation	WaterUnpavedRoadMoistureContent	0	12
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	220.00	64.00
tblConstructionPhase	NumDays	3,100.00	610.00
tblConstructionPhase	NumDays	200.00	21.00
tblConstructionPhase	NumDays	310.00	65.00

The Junipers - San Diego County, Winter

tblConstructionPhase	NumDays	220.00	43.00
tblConstructionPhase	NumDays	120.00	65.00
tblFireplaces	FireplaceWoodMass	3,078.40	0.00
tblFireplaces	NumberGas	294.80	137.00
tblFireplaces	NumberNoFireplace	53.60	399.00
tblFireplaces	NumberWood	187.60	0.00
tblGrading	MaterialExported	0.00	12,100.00
tblLandUse	LotAcreage	107.20	112.30
tblSolidWaste	SolidWasteGenerationRate	246.56	322.00
tblVehicleTrips	DV_TP	11.00	0.00
tblVehicleTrips	HO_TTP	39.60	0.00
tblVehicleTrips	HS_TTP	18.80	0.00
tblVehicleTrips	HW_TL	10.80	4.84
tblVehicleTrips	HW_TTP	41.60	100.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	86.00	100.00
tblVehicleTrips	ST_TR	2.03	4.00
tblVehicleTrips	SU_TR	1.95	4.00
tblVehicleTrips	WD_TR	2.40	4.00
tblWoodstoves	NumberCatalytic	26.80	0.00
tblWoodstoves	NumberNoncatalytic	26.80	0.00
tblWoodstoves	WoodstoveWoodMass	3,019.20	0.00

2.0 Emissions Summary

The Junipers - San Diego County, Winter

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					
2019	4.5792	51.5219	26.0921	0.0804	19.0318	2.4128	21.4446	10.1779	2.2205	12.3984	0.0000	8,339.8507	8,339.8507	1.4762	0.0000	8,376.7558
2020	4.5332	50.2530	32.4928	0.0728	18.6808	2.2152	20.8960	10.0917	2.0386	12.1303	0.0000	7,239.6670	7,239.6670	1.9472	0.0000	7,260.8217
2021	3.5967	24.1946	27.8461	0.0716	3.5568	0.9932	4.5500	0.9522	0.9336	1.8857	0.0000	7,122.2875	7,122.2875	0.8268	0.0000	7,142.9583
2022	65.9964	21.9700	26.8529	0.0703	3.5568	0.8414	4.3981	0.9522	0.7913	1.7435	0.0000	6,999.6073	6,999.6073	0.8116	0.0000	7,019.8966
2023	65.9690	1.4646	3.4623	8.4400e-003	0.6325	0.0750	0.7076	0.1678	0.0747	0.2425	0.0000	826.9131	826.9131	0.0310	0.0000	827.6879
Maximum	65.9964	51.5219	32.4928	0.0804	19.0318	2.4128	21.4446	10.1779	2.2205	12.3984	0.0000	8,339.8507	8,339.8507	1.9472	0.0000	8,376.7558

The Junipers - San Diego County, Winter

2.1 Overall Construction (Maximum Daily Emission)**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					
2019	4.5792	51.5219	26.0921	0.0804	9.0840	2.4128	11.4968	4.7143	2.2205	6.9348	0.0000	8,339.850 7	8,339.850 7	1.4762	0.0000	8,376.755 8
2020	4.5332	50.2530	32.4928	0.0728	8.7330	2.2152	10.9481	4.6281	2.0386	6.6667	0.0000	7,239.667 0	7,239.667 0	1.9472	0.0000	7,260.821 7
2021	3.5967	24.1946	27.8461	0.0716	3.5568	0.9932	4.5500	0.9522	0.9336	1.8857	0.0000	7,122.287 5	7,122.287 5	0.8268	0.0000	7,142.958 3
2022	65.9964	21.9700	26.8529	0.0703	3.5568	0.8414	4.3981	0.9522	0.7913	1.7435	0.0000	6,999.607 3	6,999.607 3	0.8116	0.0000	7,019.896 6
2023	65.9690	1.4646	3.4623	8.4400e-003	0.6325	0.0750	0.7076	0.1678	0.0747	0.2425	0.0000	826.9131	826.9131	0.0310	0.0000	827.6879
Maximum	65.9964	51.5219	32.4928	0.0804	9.0840	2.4128	11.4968	4.7143	2.2205	6.9348	0.0000	8,339.850 7	8,339.850 7	1.9472	0.0000	8,376.755 8

	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
Percent Reduction	0.00	0.00	0.00	0.00	43.77	0.00	38.26	48.91	0.00	38.48	0.00	0.00	0.00	0.00	0.00	0.00

The Junipers - San Diego County, Winter

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	17.6598	2.7819	45.1691	0.0168		0.4287	0.4287		0.4287	0.4287	0.0000	2,980.8005	2,980.8005	0.1320	0.0532	2,999.9507
Energy	0.1778	1.5192	0.6465	9.7000e-003		0.1228	0.1228		0.1228	0.1228		1,939.3594	1,939.3594	0.0372	0.0356	1,950.8841
Mobile	2.5193	9.4741	25.4951	0.0843	8.0078	0.0688	8.0766	2.1399	0.0640	2.2039		8,594.1649	8,594.1649	0.4676		8,605.8543
Total	20.3568	13.7751	71.3107	0.1108	8.0078	0.6203	8.6282	2.1399	0.6155	2.7555	0.0000	13,514.3248	13,514.3248	0.6368	0.0887	13,556.6891

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	17.6598	2.7819	45.1691	0.0168		0.4287	0.4287		0.4287	0.4287	0.0000	2,980.8005	2,980.8005	0.1320	0.0532	2,999.9507
Energy	0.1778	1.5192	0.6465	9.7000e-003		0.1228	0.1228		0.1228	0.1228		1,939.3594	1,939.3594	0.0372	0.0356	1,950.8841
Mobile	2.4394	9.0684	23.7519	0.0764	7.1891	0.0630	7.2521	1.9211	0.0586	1.9797		7,794.4499	7,794.4499	0.4329		7,805.2732
Total	20.2769	13.3694	69.5675	0.1029	7.1891	0.6145	7.8036	1.9211	0.6101	2.5313	0.0000	12,714.6098	12,714.6098	0.6021	0.0887	12,756.1079

The Junipers - San Diego County, Winter

	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
Percent Reduction	0.39	2.95	2.44	7.09	10.22	0.94	9.56	10.22	0.88	8.14	0.00	5.92	5.92	5.44	0.00	5.91

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	11/1/2019	11/29/2019	5	21	
2	Site Preparation	Site Preparation	12/1/2019	2/28/2020	5	65	
3	Grading	Grading	3/1/2020	5/29/2020	5	65	
4	Building Construction	Building Construction	6/1/2020	9/30/2022	5	610	
5	Paving	Paving	10/1/2022	11/30/2022	5	43	
6	Architectural Coating	Architectural Coating	12/1/2022	2/28/2023	5	64	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 162.5

Acres of Paving: 0

Residential Indoor: 1,085,400; Residential Outdoor: 361,800; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0
(Architectural Coating – sqft)

OffRoad Equipment

The Junipers - San Diego County, Winter

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

The Junipers - San Diego County, Winter

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	1,086.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	1,196.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	386.00	57.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	77.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Water Unpaved Roads

Reduce Vehicle Speed on Unpaved Roads

3.2 Demolition - 2019**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					11.3313	0.0000	11.3313	1.7160	0.0000	1.7160			0.0000			0.0000
Off-Road	3.5134	35.7830	22.0600	0.0388		1.7949	1.7949		1.6697	1.6697		3,816.899 4	3,816.899 4	1.0618		3,843.445 1
Total	3.5134	35.7830	22.0600	0.0388	11.3313	1.7949	13.1262	1.7160	1.6697	3.3856		3,816.899 4	3,816.899 4	1.0618		3,843.445 1

The Junipers - San Diego County, Winter

3.2 Demolition - 2019**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.4615	15.6928	3.5934	0.0403	0.9037	0.0600	0.9637	0.2477	0.0574	0.3051		4,400.414 3	4,400.414 3	0.4104		4,410.674 8
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	0.0666	0.0462	0.4386	1.2300e-003	0.1232	8.8000e-004	0.1241	0.0327	8.1000e-004	0.0335		122.5371	122.5371	3.9500e-003		122.6359
Total	0.5282	15.7389	4.0320	0.0416	1.0269	0.0609	1.0878	0.2803	0.0582	0.3385		4,522.951 4	4,522.951 4	0.4144		4,533.310 7

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					5.0991	0.0000	5.0991	0.7722	0.0000	0.7722			0.0000			0.0000
Off-Road	3.5134	35.7830	22.0600	0.0388		1.7949	1.7949		1.6697	1.6697	0.0000	3,816.899 4	3,816.899 4	1.0618		3,843.445 1
Total	3.5134	35.7830	22.0600	0.0388	5.0991	1.7949	6.8940	0.7722	1.6697	2.4419	0.0000	3,816.899 4	3,816.899 4	1.0618		3,843.445 1

The Junipers - San Diego County, Winter

3.2 Demolition - 2019**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.4615	15.6928	3.5934	0.0403	0.9037	0.0600	0.9637	0.2477	0.0574	0.3051		4,400.414 3	4,400.414 3	0.4104		4,410.674 8
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	0.0666	0.0462	0.4386	1.2300e-003	0.1232	8.8000e-004	0.1241	0.0327	8.1000e-004	0.0335		122.5371	122.5371	3.9500e-003		122.6359
Total	0.5282	15.7389	4.0320	0.0416	1.0269	0.0609	1.0878	0.2803	0.0582	0.3385		4,522.951 4	4,522.951 4	0.4144		4,533.310 7

3.3 Site Preparation - 2019**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0870	0.0000	18.0870	9.9338	0.0000	9.9338			0.0000			0.0000
Off-Road	4.3350	45.5727	22.0630	0.0380		2.3904	2.3904		2.1991	2.1991		3,766.452 9	3,766.452 9	1.1917		3,796.244 5
Total	4.3350	45.5727	22.0630	0.0380	18.0870	2.3904	20.4773	9.9338	2.1991	12.1330		3,766.452 9	3,766.452 9	1.1917		3,796.244 5

The Junipers - San Diego County, Winter

3.3 Site Preparation - 2019**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1642	5.5835	1.2786	0.0144	0.7970	0.0213	0.8184	0.2048	0.0204	0.2252		1,565.672 3	1,565.672 3	0.1460		1,569.323 0
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	0.0799	0.0554	0.5263	1.4800e-003	0.1479	1.0500e-003	0.1489	0.0392	9.7000e-004	0.0402		147.0445	147.0445	4.7400e-003		147.1631
Total	0.2442	5.6389	1.8049	0.0158	0.9449	0.0224	0.9673	0.2440	0.0214	0.2654		1,712.716 7	1,712.716 7	0.1508		1,716.486 1

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					8.1391	0.0000	8.1391	4.4702	0.0000	4.4702			0.0000			0.0000
Off-Road	4.3350	45.5727	22.0630	0.0380		2.3904	2.3904		2.1991	2.1991	0.0000	3,766.452 9	3,766.452 9	1.1917		3,796.244 5
Total	4.3350	45.5727	22.0630	0.0380	8.1391	2.3904	10.5295	4.4702	2.1991	6.6694	0.0000	3,766.452 9	3,766.452 9	1.1917		3,796.244 5

The Junipers - San Diego County, Winter

3.3 Site Preparation - 2019**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1642	5.5835	1.2786	0.0144	0.7970	0.0213	0.8184	0.2048	0.0204	0.2252		1,565.672 3	1,565.672 3	0.1460		1,569.323 0
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	0.0799	0.0554	0.5263	1.4800e-003	0.1479	1.0500e-003	0.1489	0.0392	9.7000e-004	0.0402		147.0445	147.0445	4.7400e-003		147.1631
Total	0.2442	5.6389	1.8049	0.0158	0.9449	0.0224	0.9673	0.2440	0.0214	0.2654		1,712.716 7	1,712.716 7	0.1508		1,716.486 1

3.3 Site Preparation - 2020**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0870	0.0000	18.0870	9.9338	0.0000	9.9338			0.0000			0.0000
Off-Road	4.0765	42.4173	21.5136	0.0380		2.1974	2.1974		2.0216	2.0216		3,685.101 6	3,685.101 6	1.1918		3,714.897 5
Total	4.0765	42.4173	21.5136	0.0380	18.0870	2.1974	20.2844	9.9338	2.0216	11.9554		3,685.101 6	3,685.101 6	1.1918		3,714.897 5

The Junipers - San Diego County, Winter

3.3 Site Preparation - 2020**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	0.1495	5.1823	1.2424	0.0142	0.4460	0.0167	0.4627	0.1187	0.0160	0.1347		1,548.609 2	1,548.609 2	0.1435		1,552.197 8
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	0.0748	0.0500	0.4810	1.4300e-003	0.1479	1.0400e-003	0.1489	0.0392	9.6000e-004	0.0402		142.4038	142.4038	4.2900e-003		142.5109
Total	0.2243	5.2323	1.7235	0.0156	0.5939	0.0178	0.6116	0.1579	0.0170	0.1748		1,691.012 9	1,691.012 9	0.1478		1,694.708 8

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					8.1391	0.0000	8.1391	4.4702	0.0000	4.4702			0.0000			0.0000
Off-Road	4.0765	42.4173	21.5136	0.0380		2.1974	2.1974		2.0216	2.0216	0.0000	3,685.101 6	3,685.101 6	1.1918		3,714.897 5
Total	4.0765	42.4173	21.5136	0.0380	8.1391	2.1974	10.3365	4.4702	2.0216	6.4918	0.0000	3,685.101 6	3,685.101 6	1.1918		3,714.897 5

The Junipers - San Diego County, Winter

3.3 Site Preparation - 2020**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	0.1495	5.1823	1.2424	0.0142	0.4460	0.0167	0.4627	0.1187	0.0160	0.1347		1,548.609 2	1,548.609 2	0.1435		1,552.197 8
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	0.0748	0.0500	0.4810	1.4300e-003	0.1479	1.0400e-003	0.1489	0.0392	9.6000e-004	0.0402		142.4038	142.4038	4.2900e-003		142.5109
Total	0.2243	5.2323	1.7235	0.0156	0.5939	0.0178	0.6116	0.1579	0.0170	0.1748		1,691.012 9	1,691.012 9	0.1478		1,694.708 8

3.4 Grading - 2020**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	4.4501	50.1975	31.9583	0.0620		2.1739	2.1739		2.0000	2.0000		6,005.865 3	6,005.865 3	1.9424		6,054.425 7
Total	4.4501	50.1975	31.9583	0.0620	8.6733	2.1739	10.8472	3.5965	2.0000	5.5965		6,005.865 3	6,005.865 3	1.9424		6,054.425 7

The Junipers - San Diego County, Winter

3.4 Grading - 2020**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	0.0831	0.0555	0.5345	1.5900e-003	0.1643	1.1500e-003	0.1655	0.0436	1.0600e-003	0.0446		158.2264	158.2264	4.7600e-003		158.3455
Total	0.0831	0.0555	0.5345	1.5900e-003	0.1643	1.1500e-003	0.1655	0.0436	1.0600e-003	0.0446		158.2264	158.2264	4.7600e-003		158.3455

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					3.9030	0.0000	3.9030	1.6184	0.0000	1.6184			0.0000			0.0000
Off-Road	4.4501	50.1975	31.9583	0.0620		2.1739	2.1739		2.0000	2.0000	0.0000	6,005.8653	6,005.8653	1.9424		6,054.4257
Total	4.4501	50.1975	31.9583	0.0620	3.9030	2.1739	6.0769	1.6184	2.0000	3.6184	0.0000	6,005.8653	6,005.8653	1.9424		6,054.4257

The Junipers - San Diego County, Winter

3.4 Grading - 2020**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	0.0831	0.0555	0.5345	1.5900e-003	0.1643	1.1500e-003	0.1655	0.0436	1.0600e-003	0.0446		158.2264	158.2264	4.7600e-003		158.3455
Total	0.0831	0.0555	0.5345	1.5900e-003	0.1643	1.1500e-003	0.1655	0.0436	1.0600e-003	0.0446		158.2264	158.2264	4.7600e-003		158.3455

3.5 Building Construction - 2020**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.1198	19.1860	16.8485	0.0269		1.1171	1.1171		1.0503	1.0503		2,553.0631	2,553.0631	0.6229		2,568.6345
Total	2.1198	19.1860	16.8485	0.0269		1.1171	1.1171		1.0503	1.0503		2,553.0631	2,553.0631	0.6229		2,568.6345

The Junipers - San Diego County, Winter

3.5 Building Construction - 2020**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	0.2231	6.4220	1.8172	0.0152	0.3859	0.0320	0.4179	0.1111	0.0307	0.1417		1,632.834 6	1,632.834 6	0.1314		1,636.119 4
Worker	1.6042	1.0715	10.3157	0.0307	3.1709	0.0223	3.1932	0.8411	0.0205	0.8616		3,053.769 3	3,053.769 3	0.0919		3,056.067 9
Total	1.8273	7.4936	12.1329	0.0459	3.5568	0.0543	3.6111	0.9522	0.0512	1.0033		4,686.604 0	4,686.604 0	0.2233		4,692.187 2

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	2.1198	19.1860	16.8485	0.0269		1.1171	1.1171		1.0503	1.0503	0.0000	2,553.063 1	2,553.063 1	0.6229		2,568.634 5
Total	2.1198	19.1860	16.8485	0.0269		1.1171	1.1171		1.0503	1.0503	0.0000	2,553.063 1	2,553.063 1	0.6229		2,568.634 5

The Junipers - San Diego County, Winter

3.5 Building Construction - 2020**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	0.2231	6.4220	1.8172	0.0152	0.3859	0.0320	0.4179	0.1111	0.0307	0.1417		1,632.834 6	1,632.834 6	0.1314		1,636.119 4
Worker	1.6042	1.0715	10.3157	0.0307	3.1709	0.0223	3.1932	0.8411	0.0205	0.8616		3,053.769 3	3,053.769 3	0.0919		3,056.067 9
Total	1.8273	7.4936	12.1329	0.0459	3.5568	0.0543	3.6111	0.9522	0.0512	1.0033		4,686.604 0	4,686.604 0	0.2233		4,692.187 2

3.5 Building Construction - 2021**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.9009	17.4321	16.5752	0.0269		0.9586	0.9586		0.9013	0.9013		2,553.363 9	2,553.363 9	0.6160		2,568.764 3
Total	1.9009	17.4321	16.5752	0.0269		0.9586	0.9586		0.9013	0.9013		2,553.363 9	2,553.363 9	0.6160		2,568.764 3

The Junipers - San Diego County, Winter

3.5 Building Construction - 2021**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	0.1817	5.7888	1.6470	0.0150	0.3859	0.0127	0.3986	0.1111	0.0121	0.1232		1,617.770 0	1,617.770 0	0.1260		1,620.920 7
Worker	1.5141	0.9737	9.6239	0.0296	3.1709	0.0219	3.1928	0.8411	0.0202	0.8613		2,951.153 6	2,951.153 6	0.0848		2,953.273 3
Total	1.6958	6.7625	11.2709	0.0447	3.5568	0.0346	3.5914	0.9522	0.0323	0.9845		4,568.923 6	4,568.923 6	0.2108		4,574.194 0

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	1.9009	17.4321	16.5752	0.0269		0.9586	0.9586		0.9013	0.9013	0.0000	2,553.363 9	2,553.363 9	0.6160		2,568.764 3
Total	1.9009	17.4321	16.5752	0.0269		0.9586	0.9586		0.9013	0.9013	0.0000	2,553.363 9	2,553.363 9	0.6160		2,568.764 3

The Junipers - San Diego County, Winter

3.5 Building Construction - 2021**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	0.1817	5.7888	1.6470	0.0150	0.3859	0.0127	0.3986	0.1111	0.0121	0.1232		1,617.770 0	1,617.770 0	0.1260		1,620.920 7
Worker	1.5141	0.9737	9.6239	0.0296	3.1709	0.0219	3.1928	0.8411	0.0202	0.8613		2,951.153 6	2,951.153 6	0.0848		2,953.273 3
Total	1.6958	6.7625	11.2709	0.0447	3.5568	0.0346	3.5914	0.9522	0.0323	0.9845		4,568.923 6	4,568.923 6	0.2108		4,574.194 0

3.5 Building Construction - 2022**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612		2,554.333 6	2,554.333 6	0.6120		2,569.632 2
Total	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612		2,554.333 6	2,554.333 6	0.6120		2,569.632 2

The Junipers - San Diego County, Winter

3.5 Building Construction - 2022**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	0.1690	5.4667	1.5594	0.0149	0.3859	0.0109	0.3968	0.1111	0.0105	0.1215		1,602.2849	1,602.2849	0.1220		1,605.3351
Worker	1.4348	0.8877	8.9301	0.0285	3.1709	0.0214	3.1923	0.8411	0.0197	0.8608		2,842.9888	2,842.9888	0.0776		2,844.9293
Total	1.6038	6.3544	10.4895	0.0434	3.5568	0.0324	3.5891	0.9522	0.0302	0.9823		4,445.2737	4,445.2737	0.1996		4,450.2644

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	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612	0.0000	2,554.3336	2,554.3336	0.6120		2,569.6322
Total	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612	0.0000	2,554.3336	2,554.3336	0.6120		2,569.6322

The Junipers - San Diego County, Winter

3.5 Building Construction - 2022**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	0.1690	5.4667	1.5594	0.0149	0.3859	0.0109	0.3968	0.1111	0.0105	0.1215		1,602.2849	1,602.2849	0.1220		1,605.3351
Worker	1.4348	0.8877	8.9301	0.0285	3.1709	0.0214	3.1923	0.8411	0.0197	0.8608		2,842.9888	2,842.9888	0.0776		2,844.9293
Total	1.6038	6.3544	10.4895	0.0434	3.5568	0.0324	3.5891	0.9522	0.0302	0.9823		4,445.2737	4,445.2737	0.1996		4,450.2644

3.6 Paving - 2022**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1028	11.1249	14.5805	0.0228		0.5679	0.5679		0.5225	0.5225		2,207.6603	2,207.6603	0.7140		2,225.5104
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	1.1028	11.1249	14.5805	0.0228		0.5679	0.5679		0.5225	0.5225		2,207.6603	2,207.6603	0.7140		2,225.5104

The Junipers - San Diego County, Winter

3.6 Paving - 2022**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	0.0558	0.0345	0.3470	1.1100e-003	0.1232	8.3000e-004	0.1241	0.0327	7.7000e-004	0.0335		110.4788	110.4788	3.0200e-003		110.5543
Total	0.0558	0.0345	0.3470	1.1100e-003	0.1232	8.3000e-004	0.1241	0.0327	7.7000e-004	0.0335		110.4788	110.4788	3.0200e-003		110.5543

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	1.1028	11.1249	14.5805	0.0228		0.5679	0.5679		0.5225	0.5225	0.0000	2,207.6603	2,207.6603	0.7140		2,225.5104
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	1.1028	11.1249	14.5805	0.0228		0.5679	0.5679		0.5225	0.5225	0.0000	2,207.6603	2,207.6603	0.7140		2,225.5104

The Junipers - San Diego County, Winter

3.6 Paving - 2022**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	0.0558	0.0345	0.3470	1.1100e-003	0.1232	8.3000e-004	0.1241	0.0327	7.7000e-004	0.0335		110.4788	110.4788	3.0200e-003		110.5543
Total	0.0558	0.0345	0.3470	1.1100e-003	0.1232	8.3000e-004	0.1241	0.0327	7.7000e-004	0.0335		110.4788	110.4788	3.0200e-003		110.5543

3.7 Architectural Coating - 2022**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	65.5056					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2045	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817		281.4481	281.4481	0.0183		281.9062
Total	65.7101	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817		281.4481	281.4481	0.0183		281.9062

The Junipers - San Diego County, Winter

3.7 Architectural Coating - 2022**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	0.2862	0.1771	1.7814	5.6900e-003	0.6325	4.2700e-003	0.6368	0.1678	3.9400e-003	0.1717		567.1247	567.1247	0.0155		567.5118
Total	0.2862	0.1771	1.7814	5.6900e-003	0.6325	4.2700e-003	0.6368	0.1678	3.9400e-003	0.1717		567.1247	567.1247	0.0155		567.5118

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	65.5056					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2045	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817	0.0000	281.4481	281.4481	0.0183		281.9062
Total	65.7101	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817	0.0000	281.4481	281.4481	0.0183		281.9062

The Junipers - San Diego County, Winter

3.7 Architectural Coating - 2022**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	0.2862	0.1771	1.7814	5.6900e-003	0.6325	4.2700e-003	0.6368	0.1678	3.9400e-003	0.1717		567.1247	567.1247	0.0155		567.5118
Total	0.2862	0.1771	1.7814	5.6900e-003	0.6325	4.2700e-003	0.6368	0.1678	3.9400e-003	0.1717		567.1247	567.1247	0.0155		567.5118

3.7 Architectural Coating - 2023**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	65.5056					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708		281.4481	281.4481	0.0168		281.8690
Total	65.6973	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708		281.4481	281.4481	0.0168		281.8690

The Junipers - San Diego County, Winter

3.7 Architectural Coating - 2023**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	0.2718	0.1617	1.6512	5.4700e-003	0.6325	4.1900e-003	0.6367	0.1678	3.8600e-003	0.1716		545.4651	545.4651	0.0142		545.8189
Total	0.2718	0.1617	1.6512	5.4700e-003	0.6325	4.1900e-003	0.6367	0.1678	3.8600e-003	0.1716		545.4651	545.4651	0.0142		545.8189

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	65.5056					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708	0.0000	281.4481	281.4481	0.0168		281.8690
Total	65.6973	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708	0.0000	281.4481	281.4481	0.0168		281.8690

The Junipers - San Diego County, Winter

3.7 Architectural Coating - 2023**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	0.2718	0.1617	1.6512	5.4700e-003	0.6325	4.1900e-003	0.6367	0.1678	3.8600e-003	0.1716		545.4651	545.4651	0.0142		545.8189
Total	0.2718	0.1617	1.6512	5.4700e-003	0.6325	4.1900e-003	0.6367	0.1678	3.8600e-003	0.1716		545.4651	545.4651	0.0142		545.8189

4.0 Operational Detail - Mobile**4.1 Mitigation Measures Mobile**

Increase Transit Accessibility

Integrate Below Market Rate Housing

Improve Pedestrian Network

The Junipers - San Diego County, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	2.4394	9.0684	23.7519	0.0764	7.1891	0.0630	7.2521	1.9211	0.0586	1.9797		7,794.449 9	7,794.449 9	0.4329		7,805.273 2
Unmitigated	2.5193	9.4741	25.4951	0.0843	8.0078	0.0688	8.0766	2.1399	0.0640	2.2039		8,594.164 9	8,594.164 9	0.4676		8,605.854 3

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Retirement Community	2,144.00	2,144.00	2144.00	3,777,213	3,391,026
Total	2,144.00	2,144.00	2,144.00	3,777,213	3,391,026

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Retirement Community	4.84	7.30	7.50	100.00	0.00	0.00	100	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Retirement Community	0.606234	0.039465	0.179154	0.102641	0.014368	0.005395	0.016820	0.024508	0.001929	0.001857	0.005869	0.000761	0.000998

5.0 Energy Detail

Historical Energy Use: N

The Junipers - San Diego County, Winter

5.1 Mitigation Measures Energy

Kilowatt Hours of Renewable Electricity Generated

	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	0.1778	1.5192	0.6465	9.7000e-003		0.1228	0.1228		0.1228	0.1228		1,939.3594	1,939.3594	0.0372	0.0356	1,950.8841
NaturalGas Unmitigated	0.1778	1.5192	0.6465	9.7000e-003		0.1228	0.1228		0.1228	0.1228		1,939.3594	1,939.3594	0.0372	0.0356	1,950.8841

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					
Retirement Community	16484.6	0.1778	1.5192	0.6465	9.7000e-003		0.1228	0.1228		0.1228	0.1228		1,939.3594	1,939.3594	0.0372	0.0356	1,950.8841
Total		0.1778	1.5192	0.6465	9.7000e-003		0.1228	0.1228		0.1228	0.1228		1,939.3594	1,939.3594	0.0372	0.0356	1,950.8841

The Junipers - San Diego County, Winter

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					
Retirement Community	16.4846	0.1778	1.5192	0.6465	9.7000e-003		0.1228	0.1228		0.1228	0.1228		1,939.3594	1,939.3594	0.0372	0.0356	1,950.8841
Total		0.1778	1.5192	0.6465	9.7000e-003		0.1228	0.1228		0.1228	0.1228		1,939.3594	1,939.3594	0.0372	0.0356	1,950.8841

6.0 Area Detail**6.1 Mitigation Measures Area**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	17.6598	2.7819	45.1691	0.0168		0.4287	0.4287		0.4287	0.4287	0.0000	2,980.8005	2,980.8005	0.1320	0.0532	2,999.9507
Unmitigated	17.6598	2.7819	45.1691	0.0168		0.4287	0.4287		0.4287	0.4287	0.0000	2,980.8005	2,980.8005	0.1320	0.0532	2,999.9507

The Junipers - San Diego County, Winter

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	4.5944					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	11.4704					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.2659	2.2726	0.9671	0.0145		0.1837	0.1837		0.1837	0.1837	0.0000	2,901.1765	2,901.1765	0.0556	0.0532	2,918.4167
Landscaping	1.3291	0.5093	44.2021	2.3400e-003		0.2450	0.2450		0.2450	0.2450		79.6240	79.6240	0.0764		81.5340
Total	17.6598	2.7819	45.1692	0.0169		0.4287	0.4287		0.4287	0.4287	0.0000	2,980.8005	2,980.8005	0.1320	0.0532	2,999.9507

The Junipers - San Diego County, Winter

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	4.5944					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	11.4704					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.2659	2.2726	0.9671	0.0145		0.1837	0.1837		0.1837	0.1837	0.0000	2,901.1765	2,901.1765	0.0556	0.0532	2,918.4167
Landscaping	1.3291	0.5093	44.2021	2.3400e-003		0.2450	0.2450		0.2450	0.2450		79.6240	79.6240	0.0764		81.5340
Total	17.6598	2.7819	45.1692	0.0169		0.4287	0.4287		0.4287	0.4287	0.0000	2,980.8005	2,980.8005	0.1320	0.0532	2,999.9507

7.0 Water Detail**7.1 Mitigation Measures Water**

Apply Water Conservation Strategy

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
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The Junipers - San Diego County, Winter

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

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

Equipment Type	Number
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11.0 Vegetation

The Junipers
San Diego County, Mitigation Report

Construction Mitigation Summary

Phase	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction												
Architectural Coating	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Building Construction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Demolition	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grading	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Site Preparation	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

OFFROAD Equipment Mitigation

Equipment Type	Fuel Type	Tier	Number Mitigated	Total Number of Equipment	DPF	Oxidation Catalyst
Air Compressors	Diesel	No Change	0	1	No Change	0.00
Concrete/Industrial Saws	Diesel	No Change	0	1	No Change	0.00
Cranes	Diesel	No Change	0	1	No Change	0.00
Excavators	Diesel	No Change	0	5	No Change	0.00
Forklifts	Diesel	No Change	0	3	No Change	0.00
Generator Sets	Diesel	No Change	0	1	No Change	0.00
Graders	Diesel	No Change	0	1	No Change	0.00
Pavers	Diesel	No Change	0	2	No Change	0.00
Paving Equipment	Diesel	No Change	0	2	No Change	0.00
Rollers	Diesel	No Change	0	2	No Change	0.00
Rubber Tired Dozers	Diesel	No Change	0	6	No Change	0.00
Scrapers	Diesel	No Change	0	2	No Change	0.00
Tractors/Loaders/Backhoes	Diesel	No Change	0	9	No Change	0.00
Welders	Diesel	No Change	0	1	No Change	0.00

Equipment Type	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Unmitigated tons/yr							Unmitigated mt/yr					
Air Compressors	6.27000E-003	4.28600E-002	5.79800E-002	1.00000E-004	2.39000E-003	2.39000E-003	0.00000E+000	8.17041E+000	8.17041E+000	5.00000E-004	0.00000E+000	8.18300E+000
Concrete/Industrial Saws	4.85000E-003	3.76800E-002	3.88700E-002	7.00000E-005	2.41000E-003	2.41000E-003	0.00000E+000	5.64540E+000	5.64540E+000	4.00000E-004	0.00000E+000	5.65534E+000
Cranes	1.09520E-001	1.27396E+000	5.30380E-001	1.54000E-003	5.22800E-002	4.81000E-002	0.00000E+000	1.35284E+002	1.35284E+002	4.37500E-002	0.00000E+000	1.36377E+002
Excavators	2.41400E-002	2.41300E-001	3.15200E-001	5.00000E-004	1.16700E-002	1.07400E-002	0.00000E+000	4.40966E+001	4.40966E+001	1.41600E-002	0.00000E+000	4.44506E+001
Forklifts	1.17130E-001	1.06991E+000	1.06732E+000	1.40000E-003	7.55400E-002	6.94900E-002	0.00000E+000	1.22877E+002	1.22877E+002	3.97400E-002	0.00000E+000	1.23870E+002
Generator Sets	1.09540E-001	9.66540E-001	1.12459E+000	2.01000E-003	5.13200E-002	5.13200E-002	0.00000E+000	1.72388E+002	1.72388E+002	8.83000E-003	0.00000E+000	1.72609E+002
Graders	1.54600E-002	2.05580E-001	5.89700E-002	2.20000E-004	6.57000E-003	6.05000E-003	0.00000E+000	1.89496E+001	1.89496E+001	6.13000E-003	0.00000E+000	1.91028E+001
Pavers	8.90000E-003	9.02500E-002	1.24010E-001	2.00000E-004	4.29000E-003	3.94000E-003	0.00000E+000	1.77591E+001	1.77591E+001	5.74000E-003	0.00000E+000	1.79027E+001
Paving Equipment	7.66000E-003	7.47200E-002	1.09480E-001	1.80000E-004	3.64000E-003	3.35000E-003	0.00000E+000	1.53878E+001	1.53878E+001	4.98000E-003	0.00000E+000	1.55122E+001
Rollers	7.15000E-003	7.42100E-002	7.99900E-002	1.10000E-004	4.28000E-003	3.93000E-003	0.00000E+000	9.91232E+000	9.91232E+000	3.21000E-003	0.00000E+000	9.99247E+000
Rubber Tired Dozers	1.65980E-001	1.75125E+000	6.32110E-001	1.29000E-003	8.56200E-002	7.87700E-002	0.00000E+000	1.14219E+002	1.14219E+002	3.66500E-002	0.00000E+000	1.15136E+002
Scrapers	6.45400E-002	7.63890E-001	4.84810E-001	9.80000E-004	2.97900E-002	2.74100E-002	0.00000E+000	8.65055E+001	8.65055E+001	2.79800E-002	0.00000E+000	8.72049E+001
Tractors/Loaders/Backhoes	1.90530E-001	1.92452E+000	2.25338E+000	3.09000E-003	1.15230E-001	1.06010E-001	0.00000E+000	2.72079E+002	2.72079E+002	8.79100E-002	0.00000E+000	2.74277E+002
Welders	9.28200E-002	4.60540E-001	5.25710E-001	7.80000E-004	2.25900E-002	2.25900E-002	0.00000E+000	5.74073E+001	5.74073E+001	7.54000E-003	0.00000E+000	5.75957E+001

Equipment Type	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Mitigated tons/yr							Mitigated mt/yr					
Air Compressors	6.27000E-003	4.28600E-002	5.79800E-002	1.00000E-004	2.39000E-003	2.39000E-003	0.00000E+000	8.17040E+000	8.17040E+000	5.00000E-004	0.00000E+000	8.18299E+000
Concrete/Industrial Saws	4.85000E-003	3.76800E-002	3.88700E-002	7.00000E-005	2.41000E-003	2.41000E-003	0.00000E+000	5.64539E+000	5.64539E+000	4.00000E-004	0.00000E+000	5.65533E+000
Cranes	1.09520E-001	1.27396E+000	5.30380E-001	1.54000E-003	5.22800E-002	4.81000E-002	0.00000E+000	1.35283E+002	1.35283E+002	4.37500E-002	0.00000E+000	1.36377E+002
Excavators	2.41400E-002	2.41300E-001	3.15200E-001	5.00000E-004	1.16700E-002	1.07400E-002	0.00000E+000	4.40965E+001	4.40965E+001	1.41600E-002	0.00000E+000	4.44505E+001
Forklifts	1.17130E-001	1.06991E+000	1.06732E+000	1.40000E-003	7.55400E-002	6.94900E-002	0.00000E+000	1.22876E+002	1.22876E+002	3.97400E-002	0.00000E+000	1.23870E+002
Generator Sets	1.09540E-001	9.66540E-001	1.12459E+000	2.01000E-003	5.13200E-002	5.13200E-002	0.00000E+000	1.72388E+002	1.72388E+002	8.83000E-003	0.00000E+000	1.72609E+002
Graders	1.54600E-002	2.05580E-001	5.89700E-002	2.20000E-004	6.57000E-003	6.05000E-003	0.00000E+000	1.89496E+001	1.89496E+001	6.13000E-003	0.00000E+000	1.91028E+001
Pavers	8.90000E-003	9.02500E-002	1.24010E-001	2.00000E-004	4.29000E-003	3.94000E-003	0.00000E+000	1.77591E+001	1.77591E+001	5.74000E-003	0.00000E+000	1.79027E+001
Paving Equipment	7.66000E-003	7.47200E-002	1.09480E-001	1.80000E-004	3.64000E-003	3.35000E-003	0.00000E+000	1.53878E+001	1.53878E+001	4.98000E-003	0.00000E+000	1.55122E+001
Rollers	7.15000E-003	7.42100E-002	7.99900E-002	1.10000E-004	4.28000E-003	3.93000E-003	0.00000E+000	9.91231E+000	9.91231E+000	3.21000E-003	0.00000E+000	9.99246E+000
Rubber Tired Dozers	1.65980E-001	1.75124E+000	6.32110E-001	1.29000E-003	8.56200E-002	7.87700E-002	0.00000E+000	1.14219E+002	1.14219E+002	3.66500E-002	0.00000E+000	1.15136E+002
Scrapers	6.45400E-002	7.63880E-001	4.84810E-001	9.80000E-004	2.97900E-002	2.74100E-002	0.00000E+000	8.65054E+001	8.65054E+001	2.79800E-002	0.00000E+000	8.72048E+001
Tractors/Loaders/Balckhoes	1.90530E-001	1.92451E+000	2.25338E+000	3.09000E-003	1.15230E-001	1.06010E-001	0.00000E+000	2.72079E+002	2.72079E+002	8.79100E-002	0.00000E+000	2.74277E+002
Welders	9.28200E-002	4.60540E-001	5.25710E-001	7.80000E-004	2.25900E-002	2.25900E-002	0.00000E+000	5.74072E+001	5.74072E+001	7.54000E-003	0.00000E+000	5.75956E+001

Equipment Type	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction												
Air Compressors	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.22393E-006	1.22393E-006	0.00000E+000	0.00000E+000	1.22205E-006
Concrete/Industrial Saws	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.77135E-006	1.77135E-006	0.00000E+000	0.00000E+000	1.76824E-006
Cranes	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.25662E-006	1.25662E-006	0.00000E+000	0.00000E+000	1.17321E-006
Excavators	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.13388E-006	1.13388E-006	0.00000E+000	0.00000E+000	1.12485E-006
Forklifts	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.22074E-006	1.22074E-006	0.00000E+000	0.00000E+000	1.21095E-006
Generator Sets	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.16017E-006	1.16017E-006	0.00000E+000	0.00000E+000	1.15869E-006
Graders	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.05543E-006	1.05543E-006	0.00000E+000	0.00000E+000	1.57045E-006
Pavers	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.12618E-006	1.12618E-006	0.00000E+000	0.00000E+000	1.11715E-006
Paving Equipment	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.29973E-006	1.29973E-006	0.00000E+000	0.00000E+000	6.44653E-007
Rollers	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.00885E-006	1.00885E-006	0.00000E+000	0.00000E+000	1.00075E-006
Rubber Tired Dozers	0.00000E+000	5.71021E-006	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.13816E-006	1.13816E-006	0.00000E+000	0.00000E+000	1.12910E-006
Scrapers	0.00000E+000	1.30909E-005	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.15600E-006	1.15600E-006	0.00000E+000	0.00000E+000	1.14672E-006
Tractors/Loaders/Backhoes	0.00000E+000	5.19610E-006	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.17613E-006	1.17613E-006	0.00000E+000	0.00000E+000	1.16670E-006
Welders	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.21936E-006	1.21936E-006	0.00000E+000	0.00000E+000	1.21537E-006

Fugitive Dust Mitigation

Yes/No	Mitigation Measure	Mitigation Input	Mitigation Input	Mitigation Input
No	Soil Stabilizer for unpaved Roads	PM10 Reduction	0.00	PM2.5 Reduction
No	Replace Ground Cover of Area Disturbed	PM10 Reduction	0.00	PM2.5 Reduction
Yes	Water Exposed Area	PM10 Reduction	55.00	PM2.5 Reduction
				Frequency (per day)
				2.00

Yes	Unpaved Road Mitigation	Moisture Content %	12.00	Vehicle Speed (mph)	15.00		
No	Clean Paved Road	% PM Reduction	0.00				

Phase	Source	Unmitigated		Mitigated		Percent Reduction	
		PM10	PM2.5	PM10	PM2.5	PM10	PM2.5
Architectural Coating	Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00
Architectural Coating	Roads	0.02	0.01	0.02	0.01	0.00	0.00
Building Construction	Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00
Building Construction	Roads	1.06	0.28	1.06	0.28	0.00	0.00
Demolition	Fugitive Dust	0.12	0.02	0.05	0.01	0.55	0.55
Demolition	Roads	0.01	0.00	0.01	0.00	0.00	0.00
Grading	Fugitive Dust	0.28	0.12	0.13	0.05	0.55	0.55
Grading	Roads	0.01	0.00	0.01	0.00	0.00	0.00
Paving	Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00
Paving	Roads	0.00	0.00	0.00	0.00	0.00	0.00
Site Preparation	Fugitive Dust	0.59	0.32	0.26	0.15	0.55	0.55
Site Preparation	Roads	0.02	0.01	0.02	0.01	0.00	0.00

Operational Percent Reduction Summary

Category	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction												
Architectural Coating	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electricity	0.00	0.00	0.00	0.00	0.00	0.00	0.00	148.80	148.80	148.80	148.84	148.80
Hearth	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Landscaping	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mobile	3.27	4.25	7.02	9.29	8.43	8.46	0.00	9.27	9.27	7.53	0.00	9.26
Natural Gas	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Water Indoor	0.00	0.00	0.00	0.00	0.00	0.00	20.00	20.00	20.00	20.00	19.99	20.00
Water Outdoor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Operational Mobile Mitigation

Project Setting: Suburban Center

Mitigation	Category	Measure	% Reduction	Input Value 1	Input Value 2	Input Value
No	Land Use	Increase Density	0.00	0.00	0.00	
No	Land Use	Increase Diversity	-0.01	0.13		
No	Land Use	Improve Walkability Design	0.00	0.00		
No	Land Use	Improve Destination Accessibility	0.00	0.00		
Yes	Land Use	Increase Transit Accessibility	0.08	0.50		
Yes	Land Use	Integrate Below Market Rate Housing	0.01	15.00		
	Land Use	Land Use SubTotal	0.08			

Yes	Neighborhood Enhancements	Improve Pedestrian Network	2.00	Project Site and Connecting Off-Site		
No	Neighborhood Enhancements	Provide Traffic Calming Measures			25.00	
No	Neighborhood Enhancements	Implement NEV Network	0.00			
	Neighborhood Enhancements	Neighborhood Enhancements Subtotal	0.02			
No	Parking Policy Pricing	Limit Parking Supply	0.00	0.00		
No	Parking Policy Pricing	Unbundle Parking Costs	0.00	0.00		
No	Parking Policy Pricing	On-street Market Pricing	0.00	0.00		
	Parking Policy Pricing	Parking Policy Pricing Subtotal	0.00			
No	Transit Improvements	Provide BRT System	0.00	0.00		
No	Transit Improvements	Expand Transit Network	0.00	0.00		
No	Transit Improvements	Increase Transit Frequency	0.00		0.00	
	Transit Improvements	Transit Improvements Subtotal	0.00			
		Land Use and Site Enhancement Subtotal	0.10			
No	Commute	Implement Trip Reduction Program				
No	Commute	Transit Subsidy				
No	Commute	Implement Employee Parking "Cash Out"	4.50			
No	Commute	Workplace Parking Charge		0.00		
No	Commute	Encourage Telecommuting and Alternative Work Schedules	0.00			
No	Commute	Market Commute Trip Reduction Option	0.00			
No	Commute	Employee Vanpool/Shuttle	0.00		2.00	
No	Commute	Provide Ride Sharing Program	10.00			
	Commute	Commute Subtotal	0.00			

No	School Trip	Implement School Bus Program	0.00			
		Total VMT Reduction	0.10			

Area Mitigation

Measure Implemented	Mitigation Measure	Input Value
No	Only Natural Gas Hearth	
No	No Hearth	
No	Use Low VOC Cleaning Supplies	
No	Use Low VOC Paint (Residential Interior)	250.00
No	Use Low VOC Paint (Residential Exterior)	250.00
No	Use Low VOC Paint (Non-residential Interior)	250.00
No	Use Low VOC Paint (Non-residential Exterior)	250.00
No	Use Low VOC Paint (Parking)	250.00
No	% Electric Lawnmower	0.00
No	% Electric Leafblower	0.00
No	% Electric Chainsaw	0.00

Energy Mitigation Measures

Measure Implemented	Mitigation Measure	Input Value 1	Input Value 2
No	Exceed Title 24	0.00	
No	Install High Efficiency Lighting	0.00	
Yes	On-site Renewable	3,537,050.60	0.00

Appliance Type	Land Use Subtype	% Improvement
ClothWasher		30.00
DishWasher		15.00
Fan		50.00
Refrigerator		15.00

Water Mitigation Measures

Measure Implemented	Mitigation Measure	Input Value 1	Input Value 2
Yes	Apply Water Conservation on Strategy	20.00	20.00
No	Use Reclaimed Water	0.00	0.00
No	Use Grey Water	0.00	
No	Install low-flow bathroom faucet	32.00	
No	Install low-flow Kitchen faucet	18.00	
No	Install low-flow Toilet	20.00	
No	Install low-flow Shower	20.00	
No	Turf Reduction	0.00	
No	Use Water Efficient Irrigation Systems	6.10	
No	Water Efficient Landscape	0.00	0.00

Solid Waste Mitigation

Mitigation Measures	Input Value
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Institute Recycling and Composting Services Percent Reduction in Waste Disposed	
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Appendix B

HRA Modeling

The Junipers Project AERMOD Output File

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**
*****
**
** AERMOD Input Produced by:
** AERMOD View Ver. 9.3.0
** Lakes Environmental Software Inc.
** Date: 4/12/2018
** File: E:\Work\NDG 01 - The Junipers\Analysis\AERMOD\NDG01_Junipers\NDG01_Junipers.ADI
**
*****
**
**
*****
** AERMOD Control Pathway
*****
**
**
CO STARTING
  TITLEONE E:\Work\NDG 01 - The Junipers\Analysis\AERMOD\NDG01_Junipers\NDG01_J
  MODELOPT DFAULT CONC
  AVERTIME 1 PERIOD
  POLLUTID DPM
  FLAGPOLE 1.80
  RUNORNOT RUN
  ERRORFIL NDG01_Junipers.err
CO FINISHED
**
*****
** AERMOD Source Pathway
*****
**
**
SO STARTING
** Source Location **
** Source ID - Type - X Coord. - Y Coord. **
**
*****
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = I15
** DESCRSRC Interstate 15
** PREFIX I15
** Length of Side = 10.00
** Configuration = Adjacent
** Emission Rate = 1.0
** Vertical Dimension = 3.40
** SZINIT = 1.58
** Nodes = 11
** 492202.509, 3650366.553, 225.01, 1.70, 4.65
** 492256.982, 3650065.884, 216.93, 1.70, 4.65
** 492266.925, 3649975.598, 215.90, 1.70, 4.65
** 492268.741, 3649888.439, 212.74, 1.70, 4.65
** 492265.563, 3649793.108, 210.63, 1.70, 4.65
** 492257.344, 3649711.618, 205.97, 1.70, 4.65
** 492237.238, 3649615.484, 203.88, 1.70, 4.65
** 492195.140, 3649474.738, 197.06, 1.70, 4.65
** 492160.058, 3649388.483, 195.25, 1.70, 4.65
** 491955.843, 3648995.764, 191.60, 1.70, 4.65
** 491848.414, 3648797.731, 185.85, 1.70, 4.65
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LOCATION I1500001 VOLUME 492203.400 3650361.633 225.27
LOCATION I1500002 VOLUME 492205.183 3650351.793 224.77
LOCATION I1500003 VOLUME 492206.966 3650341.954 224.10

LOCATION I1500004 VOLUME 492208.748 3650332.114 223.51
LOCATION I1500005 VOLUME 492210.531 3650322.274 223.16
LOCATION I1500006 VOLUME 492212.314 3650312.434 223.13
LOCATION I1500007 VOLUME 492214.097 3650302.594 223.16
LOCATION I1500008 VOLUME 492215.879 3650292.755 223.22
LOCATION I1500009 VOLUME 492217.662 3650282.915 223.23
LOCATION I1500010 VOLUME 492219.445 3650273.075 223.26
LOCATION I1500011 VOLUME 492221.227 3650263.235 223.32
LOCATION I1500012 VOLUME 492223.010 3650253.395 223.27
LOCATION I1500013 VOLUME 492224.793 3650243.555 223.17
LOCATION I1500014 VOLUME 492226.576 3650233.716 223.02
LOCATION I1500015 VOLUME 492228.358 3650223.876 222.84
LOCATION I1500016 VOLUME 492230.141 3650214.036 222.65
LOCATION I1500017 VOLUME 492231.924 3650204.196 222.38
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LOCATION I1500019 VOLUME 492235.489 3650184.517 221.01
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LOCATION I1500021 VOLUME 492239.054 3650164.837 219.74
LOCATION I1500022 VOLUME 492240.837 3650154.997 219.17
LOCATION I1500023 VOLUME 492242.620 3650145.157 218.65
LOCATION I1500024 VOLUME 492244.403 3650135.317 218.59
LOCATION I1500025 VOLUME 492246.185 3650125.478 218.54
LOCATION I1500026 VOLUME 492247.968 3650115.638 218.50
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LOCATION I1500028 VOLUME 492251.533 3650095.958 218.60
LOCATION I1500029 VOLUME 492253.316 3650086.118 218.61
LOCATION I1500030 VOLUME 492255.099 3650076.279 218.28
LOCATION I1500031 VOLUME 492256.881 3650066.439 217.88
LOCATION I1500032 VOLUME 492258.015 3650056.505 217.36
LOCATION I1500033 VOLUME 492259.110 3650046.565 217.30
LOCATION I1500034 VOLUME 492260.204 3650036.625 217.29
LOCATION I1500035 VOLUME 492261.299 3650026.685 217.32
LOCATION I1500036 VOLUME 492262.394 3650016.745 217.20
LOCATION I1500037 VOLUME 492263.488 3650006.805 217.10
LOCATION I1500038 VOLUME 492264.583 3649996.865 217.03
LOCATION I1500039 VOLUME 492265.678 3649986.925 216.86
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LOCATION I1500041 VOLUME 492267.104 3649966.996 216.40
LOCATION I1500042 VOLUME 492267.313 3649956.998 216.18
LOCATION I1500043 VOLUME 492267.521 3649947.000 215.97
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LOCATION I1500052 VOLUME 492267.694 3649857.030 213.01
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LOCATION I1500055 VOLUME 492266.695 3649827.047 212.75
LOCATION I1500056 VOLUME 492266.361 3649817.052 212.62
LOCATION I1500057 VOLUME 492266.028 3649807.058 212.10
LOCATION I1500058 VOLUME 492265.695 3649797.063 211.55
LOCATION I1500059 VOLUME 492264.957 3649787.096 210.95
LOCATION I1500060 VOLUME 492263.953 3649777.147 210.37
LOCATION I1500061 VOLUME 492262.950 3649767.197 209.80
LOCATION I1500062 VOLUME 492261.946 3649757.247 209.23
LOCATION I1500063 VOLUME 492260.943 3649747.298 208.44
LOCATION I1500064 VOLUME 492259.939 3649737.348 207.64
```

The Junipers Project AERMOD Output File

LOCATION I1500065	VOLUME	492258.936	3649727.399	206.83
LOCATION I1500066	VOLUME	492257.933	3649717.449	206.66
LOCATION I1500067	VOLUME	492256.497	3649707.567	206.52
LOCATION I1500068	VOLUME	492254.450	3649697.778	206.28
LOCATION I1500069	VOLUME	492252.403	3649687.990	206.14
LOCATION I1500070	VOLUME	492250.355	3649678.202	206.04
LOCATION I1500071	VOLUME	492248.308	3649668.414	205.98
LOCATION I1500072	VOLUME	492246.261	3649658.626	205.93
LOCATION I1500073	VOLUME	492244.214	3649648.837	205.89
LOCATION I1500074	VOLUME	492242.167	3649639.049	205.85
LOCATION I1500075	VOLUME	492240.119	3649629.261	205.36
LOCATION I1500076	VOLUME	492238.072	3649619.473	204.73
LOCATION I1500077	VOLUME	492235.540	3649609.808	204.16
LOCATION I1500078	VOLUME	492232.674	3649600.227	203.55
LOCATION I1500079	VOLUME	492229.809	3649590.646	202.98
LOCATION I1500080	VOLUME	492226.943	3649581.066	202.56
LOCATION I1500081	VOLUME	492224.078	3649571.485	202.22
LOCATION I1500082	VOLUME	492221.212	3649561.904	201.84
LOCATION I1500083	VOLUME	492218.346	3649552.324	201.39
LOCATION I1500084	VOLUME	492215.481	3649542.743	200.80
LOCATION I1500085	VOLUME	492212.615	3649533.163	200.07
LOCATION I1500086	VOLUME	492209.749	3649523.582	199.32
LOCATION I1500087	VOLUME	492206.884	3649514.001	198.61
LOCATION I1500088	VOLUME	492204.018	3649504.421	198.15
LOCATION I1500089	VOLUME	492201.153	3649494.840	197.74
LOCATION I1500090	VOLUME	492198.287	3649485.260	197.35
LOCATION I1500091	VOLUME	492195.421	3649475.679	196.97
LOCATION I1500092	VOLUME	492191.742	3649466.385	196.75
LOCATION I1500093	VOLUME	492187.975	3649457.122	196.60
LOCATION I1500094	VOLUME	492184.207	3649447.858	196.17
LOCATION I1500095	VOLUME	492180.440	3649438.595	195.83
LOCATION I1500096	VOLUME	492176.672	3649429.332	195.61
LOCATION I1500097	VOLUME	492172.904	3649420.069	195.55
LOCATION I1500098	VOLUME	492169.137	3649410.806	195.48
LOCATION I1500099	VOLUME	492165.369	3649401.543	195.36
LOCATION I1500100	VOLUME	492161.602	3649392.280	195.25
LOCATION I1500101	VOLUME	492157.335	3649383.247	195.18
LOCATION I1500102	VOLUME	492152.721	3649374.375	194.98
LOCATION I1500103	VOLUME	492148.108	3649365.503	194.70
LOCATION I1500104	VOLUME	492143.494	3649356.631	194.02
LOCATION I1500105	VOLUME	492138.881	3649347.759	193.30
LOCATION I1500106	VOLUME	492134.267	3649338.886	192.53
LOCATION I1500107	VOLUME	492129.654	3649330.014	191.65
LOCATION I1500108	VOLUME	492125.040	3649321.142	191.00
LOCATION I1500109	VOLUME	492120.427	3649312.270	190.49
LOCATION I1500110	VOLUME	492115.813	3649303.398	190.19
LOCATION I1500111	VOLUME	492111.200	3649294.526	190.18
LOCATION I1500112	VOLUME	492106.586	3649285.653	190.18
LOCATION I1500113	VOLUME	492101.973	3649276.781	190.20
LOCATION I1500114	VOLUME	492097.359	3649267.909	190.20
LOCATION I1500115	VOLUME	492092.746	3649259.037	190.22
LOCATION I1500116	VOLUME	492088.132	3649250.165	190.25
LOCATION I1500117	VOLUME	492083.518	3649241.293	190.25
LOCATION I1500118	VOLUME	492078.905	3649232.420	190.25
LOCATION I1500119	VOLUME	492074.291	3649223.548	190.24
LOCATION I1500120	VOLUME	492069.678	3649214.676	190.24
LOCATION I1500121	VOLUME	492065.064	3649205.804	190.24
LOCATION I1500122	VOLUME	492060.451	3649196.932	190.24
LOCATION I1500123	VOLUME	492055.837	3649188.060	190.26
LOCATION I1500124	VOLUME	492051.224	3649179.187	190.32
LOCATION I1500125	VOLUME	492046.610	3649170.315	190.41

LOCATION I1500126	VOLUME	492041.997	3649161.443	190.52
LOCATION I1500127	VOLUME	492037.383	3649152.571	190.67
LOCATION I1500128	VOLUME	492032.770	3649143.699	190.86
LOCATION I1500129	VOLUME	492028.156	3649134.827	191.05
LOCATION I1500130	VOLUME	492023.543	3649125.954	191.24
LOCATION I1500131	VOLUME	492018.929	3649117.082	191.39
LOCATION I1500132	VOLUME	492014.316	3649108.210	191.52
LOCATION I1500133	VOLUME	492009.702	3649099.338	191.64
LOCATION I1500134	VOLUME	492005.089	3649090.466	191.77
LOCATION I1500135	VOLUME	492000.475	3649081.594	191.90
LOCATION I1500136	VOLUME	491995.861	3649072.721	191.99
LOCATION I1500137	VOLUME	491991.248	3649063.849	192.08
LOCATION I1500138	VOLUME	491986.634	3649054.977	192.19
LOCATION I1500139	VOLUME	491982.021	3649046.105	192.30
LOCATION I1500140	VOLUME	491977.407	3649037.233	192.40
LOCATION I1500141	VOLUME	491972.794	3649028.361	192.43
LOCATION I1500142	VOLUME	491968.180	3649019.488	192.37
LOCATION I1500143	VOLUME	491963.567	3649010.616	192.19
LOCATION I1500144	VOLUME	491958.953	3649001.744	191.76
LOCATION I1500145	VOLUME	491954.289	3648992.899	191.01
LOCATION I1500146	VOLUME	491949.521	3648984.109	190.07
LOCATION I1500147	VOLUME	491944.752	3648975.319	189.36
LOCATION I1500148	VOLUME	491939.984	3648966.529	189.27
LOCATION I1500149	VOLUME	491935.216	3648957.739	189.09
LOCATION I1500150	VOLUME	491930.447	3648948.949	188.83
LOCATION I1500151	VOLUME	491925.679	3648940.159	188.69
LOCATION I1500152	VOLUME	491920.911	3648931.369	188.62
LOCATION I1500153	VOLUME	491916.142	3648922.579	188.57
LOCATION I1500154	VOLUME	491911.374	3648913.789	188.47
LOCATION I1500155	VOLUME	491906.605	3648905.000	188.31
LOCATION I1500156	VOLUME	491901.837	3648896.210	188.06
LOCATION I1500157	VOLUME	491897.069	3648887.420	187.72
LOCATION I1500158	VOLUME	491892.300	3648878.630	187.35
LOCATION I1500159	VOLUME	491887.532	3648869.840	187.08
LOCATION I1500160	VOLUME	491882.764	3648861.050	187.05
LOCATION I1500161	VOLUME	491877.995	3648852.260	186.89
LOCATION I1500162	VOLUME	491873.227	3648843.470	186.65
LOCATION I1500163	VOLUME	491868.458	3648834.680	186.46
LOCATION I1500164	VOLUME	491863.690	3648825.890	186.31
LOCATION I1500165	VOLUME	491858.922	3648817.100	186.16
LOCATION I1500166	VOLUME	491854.153	3648808.311	186.12
LOCATION I1500167	VOLUME	491849.385	3648799.521	186.09

** End of LINE VOLUME Source ID = I15

** Source Parameters **

** LINE VOLUME Source ID = I15

SRCPARAM I1500001	0.005988024	1.70	4.65	1.58
SRCPARAM I1500002	0.005988024	1.70	4.65	1.58
SRCPARAM I1500003	0.005988024	1.70	4.65	1.58
SRCPARAM I1500004	0.005988024	1.70	4.65	1.58
SRCPARAM I1500005	0.005988024	1.70	4.65	1.58
SRCPARAM I1500006	0.005988024	1.70	4.65	1.58
SRCPARAM I1500007	0.005988024	1.70	4.65	1.58
SRCPARAM I1500008	0.005988024	1.70	4.65	1.58
SRCPARAM I1500009	0.005988024	1.70	4.65	1.58
SRCPARAM I1500010	0.005988024	1.70	4.65	1.58
SRCPARAM I1500011	0.005988024	1.70	4.65	1.58
SRCPARAM I1500012	0.005988024	1.70	4.65	1.58
SRCPARAM I1500013	0.005988024	1.70	4.65	1.58
SRCPARAM I1500014	0.005988024	1.70	4.65	1.58
SRCPARAM I1500015	0.005988024	1.70	4.65	1.58
SRCPARAM I1500016	0.005988024	1.70	4.65	1.58

[illegible]

The Junipers Project AERMOD Output File

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SRCPARAM I1500139 0.005988024 1.70 4.65 1.58
SRCPARAM I1500140 0.005988024 1.70 4.65 1.58
SRCPARAM I1500141 0.005988024 1.70 4.65 1.58
SRCPARAM I1500142 0.005988024 1.70 4.65 1.58
SRCPARAM I1500143 0.005988024 1.70 4.65 1.58
SRCPARAM I1500144 0.005988024 1.70 4.65 1.58
SRCPARAM I1500145 0.005988024 1.70 4.65 1.58
SRCPARAM I1500146 0.005988024 1.70 4.65 1.58
SRCPARAM I1500147 0.005988024 1.70 4.65 1.58
SRCPARAM I1500148 0.005988024 1.70 4.65 1.58
SRCPARAM I1500149 0.005988024 1.70 4.65 1.58
SRCPARAM I1500150 0.005988024 1.70 4.65 1.58
SRCPARAM I1500151 0.005988024 1.70 4.65 1.58
SRCPARAM I1500152 0.005988024 1.70 4.65 1.58
SRCPARAM I1500153 0.005988024 1.70 4.65 1.58
SRCPARAM I1500154 0.005988024 1.70 4.65 1.58
SRCPARAM I1500155 0.005988024 1.70 4.65 1.58
SRCPARAM I1500156 0.005988024 1.70 4.65 1.58
SRCPARAM I1500157 0.005988024 1.70 4.65 1.58
SRCPARAM I1500158 0.005988024 1.70 4.65 1.58
SRCPARAM I1500159 0.005988024 1.70 4.65 1.58
SRCPARAM I1500160 0.005988024 1.70 4.65 1.58
SRCPARAM I1500161 0.005988024 1.70 4.65 1.58
SRCPARAM I1500162 0.005988024 1.70 4.65 1.58
SRCPARAM I1500163 0.005988024 1.70 4.65 1.58
SRCPARAM I1500164 0.005988024 1.70 4.65 1.58
SRCPARAM I1500165 0.005988024 1.70 4.65 1.58
SRCPARAM I1500166 0.005988024 1.70 4.65 1.58
SRCPARAM I1500167 0.005988024 1.70 4.65 1.58
**
-----
SRCGROUP ALL
SO FINISHED
**
*****
** AERMOD Receptor Pathway
*****
**
**
RE STARTING
  INCLUDED NDG01_Junipers.rou
RE FINISHED
**
*****
** AERMOD Meteorology Pathway
*****
**
**
ME STARTING
  SURFFILE ..\MetData\722931.SFC
  PROFILE ..\MetData\722931.PFL
  SURFDATA 93107 2009
  UAIRDATA 3190 2009
  PROFBASE 145.4 METERS
ME FINISHED
**
*****
** AERMOD Output Pathway
*****
**
**
OU STARTING

```

```

RECTABLE ALLAVE 1ST
RECTABLE 1 1ST
** Auto-Generated Plotfiles
PLOTFILE 1 ALL 1ST NDG01_Junipers.AD\01H1GALL.PLT 31
PLOTFILE PERIOD ALL NDG01_Junipers.AD\PE00GALL.PLT 32
SUMMFILE NDG01_Junipers.sum
OU FINISHED

```

```

*****
*** SETUP Finishes Successfully ***
*****

```

The Junipers Project AERMOD Output File

*** AERMOD - VERSION 16216r *** *** E:\Work\NDG 01 - The Junipers\Analysis\AERMOD\NDG01_Junipers\NDG01_J ***
04/12/18

*** AERMET - VERSION 14134 *** *** 16:39:12

*** MODELOPTs: RegDEFAULT CONC ELEV FLGPOL RURAL PAGE 1

*** MODEL SETUP OPTIONS SUMMARY ***

**Model Is Setup For Calculation of Average CONcEntration Values.

-- DEPOSITION LOGIC --

**NO GAS DEPOSITION Data Provided.

**NO PARTICLE DEPOSITION Data Provided.

**Model Uses NO DRY DEPLETION. DRYDPLT = F

**Model Uses NO WET DEPLETION. WETDPLT = F

**Model Uses RURAL Dispersion Only.

**Model Uses Regulatory DEFAULT Options:

1. Stack-tip Downwash.
2. Model Accounts for ELEVated Terrain Effects.
3. Use Calms Processing Routine.
4. Use Missing Data Processing Routine.
5. No Exponential Decay.

**Other Options Specified:

CCVR_Sub - Meteorological data includes CCVR substitutions

TEMP_Sub - Meteorological data includes TEMP substitutions

**Model Accepts FLAGPOLE Receptor Heights.

**The User Specified a Pollutant Type of: DPM

**Model Calculates 1 Short Term Average(s) of: 1-HR
and Calculates PERIOD Averages

**This Run Includes: 167 Source(s); 1 Source Group(s); and 494 Receptor(s)

with: 0 POINT(s), including
0 POINTCAP(s) and 0 POINTHOR(s)
and: 167 VOLUME source(s)
and: 0 AREA type source(s)
and: 0 LINE source(s)
and: 0 OPENPIT source(s)
and: 0 BUOYANT LINE source(s) with 0 line(s)

**Model Set To Continue RUNning After the Setup Testing.

**The AERMET Input Meteorological Data Version Date: 14134

**Output Options Selected:

Model Outputs Tables of PERIOD Averages by Receptor

Model Outputs Tables of Highest Short Term Values by Receptor (RECTABLE Keyword)

Model Outputs External File(s) of High Values for Plotting (PLOTFILE Keyword)

Model Outputs Separate Summary File of High Ranked Values (SUMMFILE Keyword)

**NOTE: The Following Flags May Appear Following CONC Values: c for Calm Hours
m for Missing Hours
b for Both Calm and Missing Hours

**Misc. Inputs: Base Elev. for Pot. Temp. Profile (m MSL) = 145.40 ; Decay Coef. = 0.000 ; Rot. Angle = 0.0
Emission Units = GRAMS/SEC ; Emission Rate Unit Factor = 0.10000E+07
Output Units = MICROGRAMS/M**3

**Approximate Storage Requirements of Model = 3.6 MB of RAM.

**Detailed Error/Message File: NDG01_Junipers.err

**File for Summary of Results: NDG01_Junipers.sum

The Junipers Project AERMOD Output File

*** AERMOD - VERSION 16216r *** *** E:\Work\INDG 01 - The Junipers\Analysis\AERMOD\INDG01_Junipers\INDG01_J ***
04/12/18

*** AERMET - VERSION 14134 *** *** PAGE 2 16:39:12

*** MODELOPTs: RegDEFAULT CONC ELEV FLGPOL RURAL

*** VOLUME SOURCE DATA ***

NUMBER	EMISSION RATE	BASE	RELEASE	INIT.	INIT.	URBAN	EMISSION RATE		
SOURCE	PART. (GRAMS/SEC)	X	Y	ELEV.	HEIGHT	SY	SZ	SOURCE	SCALAR VARY
ID	CATS.	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	BY	
I1500001	0	0.59880E-02	492203.4	3650361.6	225.3	1.70	4.65	1.58	NO
I1500002	0	0.59880E-02	492205.2	3650351.8	224.8	1.70	4.65	1.58	NO
I1500003	0	0.59880E-02	492207.0	3650342.0	224.1	1.70	4.65	1.58	NO
I1500004	0	0.59880E-02	492208.7	3650332.1	223.5	1.70	4.65	1.58	NO
I1500005	0	0.59880E-02	492210.5	3650322.3	223.2	1.70	4.65	1.58	NO
I1500006	0	0.59880E-02	492212.3	3650312.4	223.1	1.70	4.65	1.58	NO
I1500007	0	0.59880E-02	492214.1	3650302.6	223.2	1.70	4.65	1.58	NO
I1500008	0	0.59880E-02	492215.9	3650292.8	223.2	1.70	4.65	1.58	NO
I1500009	0	0.59880E-02	492217.7	3650282.9	223.2	1.70	4.65	1.58	NO
I1500010	0	0.59880E-02	492219.4	3650273.1	223.3	1.70	4.65	1.58	NO
I1500011	0	0.59880E-02	492221.2	3650263.2	223.3	1.70	4.65	1.58	NO
I1500012	0	0.59880E-02	492223.0	3650253.4	223.3	1.70	4.65	1.58	NO
I1500013	0	0.59880E-02	492224.8	3650243.6	223.2	1.70	4.65	1.58	NO
I1500014	0	0.59880E-02	492226.6	3650233.7	223.0	1.70	4.65	1.58	NO
I1500015	0	0.59880E-02	492228.4	3650223.9	222.8	1.70	4.65	1.58	NO
I1500016	0	0.59880E-02	492230.1	3650214.0	222.7	1.70	4.65	1.58	NO
I1500017	0	0.59880E-02	492231.9	3650204.2	222.4	1.70	4.65	1.58	NO
I1500018	0	0.59880E-02	492233.7	3650194.4	221.7	1.70	4.65	1.58	NO
I1500019	0	0.59880E-02	492235.5	3650184.5	221.0	1.70	4.65	1.58	NO
I1500020	0	0.59880E-02	492237.3	3650174.7	220.3	1.70	4.65	1.58	NO
I1500021	0	0.59880E-02	492239.1	3650164.8	219.7	1.70	4.65	1.58	NO
I1500022	0	0.59880E-02	492240.8	3650155.0	219.2	1.70	4.65	1.58	NO
I1500023	0	0.59880E-02	492242.6	3650145.2	218.7	1.70	4.65	1.58	NO
I1500024	0	0.59880E-02	492244.4	3650135.3	218.6	1.70	4.65	1.58	NO
I1500025	0	0.59880E-02	492246.2	3650125.5	218.5	1.70	4.65	1.58	NO
I1500026	0	0.59880E-02	492248.0	3650115.6	218.5	1.70	4.65	1.58	NO
I1500027	0	0.59880E-02	492249.8	3650105.8	218.5	1.70	4.65	1.58	NO
I1500028	0	0.59880E-02	492251.5	3650096.0	218.6	1.70	4.65	1.58	NO
I1500029	0	0.59880E-02	492253.3	3650086.1	218.6	1.70	4.65	1.58	NO
I1500030	0	0.59880E-02	492255.1	3650076.3	218.3	1.70	4.65	1.58	NO
I1500031	0	0.59880E-02	492256.9	3650066.4	217.9	1.70	4.65	1.58	NO
I1500032	0	0.59880E-02	492258.0	3650056.5	217.4	1.70	4.65	1.58	NO
I1500033	0	0.59880E-02	492259.1	3650046.6	217.3	1.70	4.65	1.58	NO
I1500034	0	0.59880E-02	492260.2	3650036.6	217.3	1.70	4.65	1.58	NO
I1500035	0	0.59880E-02	492261.3	3650026.7	217.3	1.70	4.65	1.58	NO
I1500036	0	0.59880E-02	492262.4	3650016.7	217.2	1.70	4.65	1.58	NO
I1500037	0	0.59880E-02	492263.5	3650006.8	217.1	1.70	4.65	1.58	NO
I1500038	0	0.59880E-02	492264.6	3649996.9	217.0	1.70	4.65	1.58	NO
I1500039	0	0.59880E-02	492265.7	3649986.9	216.9	1.70	4.65	1.58	NO
I1500040	0	0.59880E-02	492266.8	3649977.0	216.7	1.70	4.65	1.58	NO

*** AERMOD - VERSION 16216r *** *** E:\Work\INDG 01 - The Junipers\Analysis\AERMOD\INDG01_Junipers\INDG01_J ***
04/12/18

*** AERMET - VERSION 14134 *** *** PAGE 3 16:39:12

*** MODELOPTs: RegDEFAULT CONC ELEV FLGPOL RURAL

*** VOLUME SOURCE DATA ***

NUMBER	EMISSION RATE	BASE	RELEASE	INIT.	INIT.	URBAN	EMISSION RATE		
SOURCE	PART. (GRAMS/SEC)	X	Y	ELEV.	HEIGHT	SY	SZ	SOURCE	SCALAR VARY
ID	CATS.	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	BY	
I1500041	0	0.59880E-02	492267.1	3649967.0	216.4	1.70	4.65	1.58	NO
I1500042	0	0.59880E-02	492267.3	3649957.0	216.2	1.70	4.65	1.58	NO
I1500043	0	0.59880E-02	492267.5	3649947.0	216.0	1.70	4.65	1.58	NO
I1500044	0	0.59880E-02	492267.7	3649937.0	215.8	1.70	4.65	1.58	NO
I1500045	0	0.59880E-02	492267.9	3649927.0	215.2	1.70	4.65	1.58	NO
I1500046	0	0.59880E-02	492268.1	3649917.0	214.6	1.70	4.65	1.58	NO
I1500047	0	0.59880E-02	492268.4	3649907.0	214.1	1.70	4.65	1.58	NO
I1500048	0	0.59880E-02	492268.6	3649897.0	213.7	1.70	4.65	1.58	NO
I1500049	0	0.59880E-02	492268.7	3649887.0	213.4	1.70	4.65	1.58	NO
I1500050	0	0.59880E-02	492268.8	3649877.0	213.1	1.70	4.65	1.58	NO
I1500051	0	0.59880E-02	492268.9	3649867.0	213.0	1.70	4.65	1.58	NO
I1500052	0	0.59880E-02	492267.7	3649857.0	213.0	1.70	4.65	1.58	NO
I1500053	0	0.59880E-02	492267.4	3649847.0	213.0	1.70	4.65	1.58	NO
I1500054	0	0.59880E-02	492267.0	3649837.0	212.9	1.70	4.65	1.58	NO
I1500055	0	0.59880E-02	492266.7	3649827.0	212.8	1.70	4.65	1.58	NO
I1500056	0	0.59880E-02	492266.4	3649817.1	212.6	1.70	4.65	1.58	NO
I1500057	0	0.59880E-02	492266.0	3649807.1	212.1	1.70	4.65	1.58	NO
I1500058	0	0.59880E-02	492265.7	3649797.1	211.6	1.70	4.65	1.58	NO
I1500059	0	0.59880E-02	492265.0	3649787.1	211.0	1.70	4.65	1.58	NO
I1500060	0	0.59880E-02	492264.0	3649777.1	210.4	1.70	4.65	1.58	NO
I1500061	0	0.59880E-02	492263.0	3649767.2	209.8	1.70	4.65	1.58	NO
I1500062	0	0.59880E-02	492261.9	3649757.2	209.2	1.70	4.65	1.58	NO
I1500063	0	0.59880E-02	492260.9	3649747.3	208.4	1.70	4.65	1.58	NO
I1500064	0	0.59880E-02	492259.9	3649737.3	207.6	1.70	4.65	1.58	NO
I1500065	0	0.59880E-02	492258.9	3649727.4	206.8	1.70	4.65	1.58	NO
I1500066	0	0.59880E-02	492257.9	3649717.4	206.7	1.70	4.65	1.58	NO
I1500067	0	0.59880E-02	492256.5	3649707.6	206.5	1.70	4.65	1.58	NO
I1500068	0	0.59880E-02	492254.5	3649697.8	206.3	1.70	4.65	1.58	NO
I1500069	0	0.59880E-02	492252.4	3649688.0	206.1	1.70	4.65	1.58	NO
I1500070	0	0.59880E-02	492250.4	3649678.2	206.0	1.70	4.65	1.58	NO
I1500071	0	0.59880E-02	492248.3	3649668.4	206.0	1.70	4.65	1.58	NO
I1500072	0	0.59880E-02	492246.3	3649658.6	205.9	1.70	4.65	1.58	NO
I1500073	0	0.59880E-02	492244.2	3649648.8	205.9	1.70	4.65	1.58	NO
I1500074	0	0.59880E-02	492242.2	3649639.0	205.9	1.70	4.65	1.58	NO
I1500075	0	0.59880E-02	492240.1	3649629.3	205.4	1.70	4.65	1.58	NO
I1500076	0	0.59880E-02	492238.1	3649619.5	204.7	1.70	4.65	1.58	NO
I1500077	0	0.59880E-02	492235.5	3649609.8	204.2	1.70	4.65	1.58	NO
I1500078	0	0.59880E-02	492232.7	3649600.2	203.6	1.70	4.65	1.58	NO
I1500079	0	0.59880E-02	492229.8	3649590.6	203.0	1.70	4.65	1.58	NO
I1500080	0	0.59880E-02	492226.9	3649581.1	202.6	1.70	4.65	1.58	NO

The Junipers Project AERMOD Output File

*** AERMOD - VERSION 16216r *** *** E:\Work\NDG 01 - The Junipers\Analysis\AERMOD\NDG01_Junipers\NDG01_J ***
04/12/18

*** AERMET - VERSION 14134 *** *** PAGE 4 16:39:12

*** MODELOPTs: RegDEFAULT CONC ELEV FLGPOL RURAL

*** VOLUME SOURCE DATA ***

NUMBER	EMISSION RATE	BASE	RELEASE	INIT.	INIT.	URBAN	EMISSION RATE
SOURCE	PART. (GRAMS/SEC)	X	Y	ELEV.	HEIGHT	SY	SZ
ID	CATS.	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)
1500081	0	0.59880E-02	492224.1	3649571.5	202.2	1.70	4.65
1500082	0	0.59880E-02	492221.2	3649561.9	201.8	1.70	4.65
1500083	0	0.59880E-02	492218.3	3649552.3	201.4	1.70	4.65
1500084	0	0.59880E-02	492215.5	3649542.7	200.8	1.70	4.65
1500085	0	0.59880E-02	492212.6	3649533.2	200.1	1.70	4.65
1500086	0	0.59880E-02	492209.7	3649523.6	199.3	1.70	4.65
1500087	0	0.59880E-02	492206.9	3649514.0	198.6	1.70	4.65
1500088	0	0.59880E-02	492204.0	3649504.4	198.2	1.70	4.65
1500089	0	0.59880E-02	492201.2	3649494.8	197.7	1.70	4.65
1500090	0	0.59880E-02	492198.3	3649485.3	197.4	1.70	4.65
1500091	0	0.59880E-02	492195.4	3649475.7	197.0	1.70	4.65
1500092	0	0.59880E-02	492191.7	3649466.4	196.8	1.70	4.65
1500093	0	0.59880E-02	492188.0	3649457.1	196.6	1.70	4.65
1500094	0	0.59880E-02	492184.2	3649447.9	196.2	1.70	4.65
1500095	0	0.59880E-02	492180.4	3649438.6	195.8	1.70	4.65
1500096	0	0.59880E-02	492176.7	3649429.3	195.6	1.70	4.65
1500097	0	0.59880E-02	492172.9	3649420.1	195.6	1.70	4.65
1500098	0	0.59880E-02	492169.1	3649410.8	195.5	1.70	4.65
1500099	0	0.59880E-02	492165.4	3649401.5	195.4	1.70	4.65
1500100	0	0.59880E-02	492161.6	3649392.3	195.2	1.70	4.65
1500101	0	0.59880E-02	492157.3	3649383.2	195.2	1.70	4.65
1500102	0	0.59880E-02	492152.7	3649374.4	195.0	1.70	4.65
1500103	0	0.59880E-02	492148.1	3649365.5	194.7	1.70	4.65
1500104	0	0.59880E-02	492143.5	3649356.6	194.0	1.70	4.65
1500105	0	0.59880E-02	492138.9	3649347.8	193.3	1.70	4.65
1500106	0	0.59880E-02	492134.3	3649338.9	192.5	1.70	4.65
1500107	0	0.59880E-02	492129.7	3649330.0	191.7	1.70	4.65
1500108	0	0.59880E-02	492125.0	3649321.1	191.0	1.70	4.65
1500109	0	0.59880E-02	492120.4	3649312.3	190.5	1.70	4.65
1500110	0	0.59880E-02	492115.8	3649303.4	190.2	1.70	4.65
1500111	0	0.59880E-02	492111.2	3649294.5	190.2	1.70	4.65
1500112	0	0.59880E-02	492106.6	3649285.7	190.2	1.70	4.65
1500113	0	0.59880E-02	492102.0	3649276.8	190.2	1.70	4.65
1500114	0	0.59880E-02	492097.4	3649267.9	190.2	1.70	4.65
1500115	0	0.59880E-02	492092.7	3649259.0	190.2	1.70	4.65
1500116	0	0.59880E-02	492088.1	3649250.2	190.2	1.70	4.65
1500117	0	0.59880E-02	492083.5	3649241.3	190.2	1.70	4.65
1500118	0	0.59880E-02	492078.9	3649232.4	190.2	1.70	4.65
1500119	0	0.59880E-02	492074.3	3649223.5	190.2	1.70	4.65
1500120	0	0.59880E-02	492069.7	3649214.7	190.2	1.70	4.65

*** AERMOD - VERSION 16216r *** *** E:\Work\NDG 01 - The Junipers\Analysis\AERMOD\NDG01_Junipers\NDG01_J ***
04/12/18

*** AERMET - VERSION 14134 *** *** PAGE 5 16:39:12

*** MODELOPTs: RegDEFAULT CONC ELEV FLGPOL RURAL

*** VOLUME SOURCE DATA ***

NUMBER	EMISSION RATE	BASE	RELEASE	INIT.	INIT.	URBAN	EMISSION RATE
SOURCE	PART. (GRAMS/SEC)	X	Y	ELEV.	HEIGHT	SY	SZ
ID	CATS.	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)
1500121	0	0.59880E-02	492065.1	3649205.8	190.2	1.70	4.65
1500122	0	0.59880E-02	492060.5	3649196.9	190.2	1.70	4.65
1500123	0	0.59880E-02	492055.8	3649188.1	190.3	1.70	4.65
1500124	0	0.59880E-02	492051.2	3649179.2	190.3	1.70	4.65
1500125	0	0.59880E-02	492046.6	3649170.3	190.4	1.70	4.65
1500126	0	0.59880E-02	492042.0	3649161.4	190.5	1.70	4.65
1500127	0	0.59880E-02	492037.4	3649152.6	190.7	1.70	4.65
1500128	0	0.59880E-02	492032.8	3649143.7	190.9	1.70	4.65
1500129	0	0.59880E-02	492028.2	3649134.8	191.1	1.70	4.65
1500130	0	0.59880E-02	492023.5	3649126.0	191.2	1.70	4.65
1500131	0	0.59880E-02	492018.9	3649117.1	191.4	1.70	4.65
1500132	0	0.59880E-02	492014.3	3649108.2	191.5	1.70	4.65
1500133	0	0.59880E-02	492009.7	3649099.3	191.6	1.70	4.65
1500134	0	0.59880E-02	492005.1	3649090.5	191.8	1.70	4.65
1500135	0	0.59880E-02	492000.5	3649081.6	191.9	1.70	4.65
1500136	0	0.59880E-02	491995.9	3649072.7	192.0	1.70	4.65
1500137	0	0.59880E-02	491991.2	3649063.8	192.1	1.70	4.65
1500138	0	0.59880E-02	491986.6	3649055.0	192.2	1.70	4.65
1500139	0	0.59880E-02	491982.0	3649046.1	192.3	1.70	4.65
1500140	0	0.59880E-02	491977.4	3649037.2	192.4	1.70	4.65
1500141	0	0.59880E-02	491972.8	3649028.4	192.4	1.70	4.65
1500142	0	0.59880E-02	491968.2	3649019.5	192.4	1.70	4.65
1500143	0	0.59880E-02	491963.6	3649010.6	192.2	1.70	4.65
1500144	0	0.59880E-02	491959.0	3649001.7	191.8	1.70	4.65
1500145	0	0.59880E-02	491954.3	3648992.9	191.0	1.70	4.65
1500146	0	0.59880E-02	491949.5	3648984.1	190.1	1.70	4.65
1500147	0	0.59880E-02	491944.8	3648975.3	189.4	1.70	4.65
1500148	0	0.59880E-02	491940.0	3648966.5	189.3	1.70	4.65
1500149	0	0.59880E-02	491935.2	3648957.7	189.1	1.70	4.65
1500150	0	0.59880E-02	491930.4	3648948.9	188.8	1.70	4.65
1500151	0	0.59880E-02	491925.7	3648940.2	188.7	1.70	4.65
1500152	0	0.59880E-02	491920.9	3648931.4	188.6	1.70	4.65
1500153	0	0.59880E-02	491916.1	3648922.6	188.6	1.70	4.65
1500154	0	0.59880E-02	491911.4	3648913.8	188.5	1.70	4.65
1500155	0	0.59880E-02	491906.6	3648905.0	188.3	1.70	4.65
1500156	0	0.59880E-02	491901.8	3648896.2	188.1	1.70	4.65
1500157	0	0.59880E-02	491897.1	3648887.4	187.7	1.70	4.65
1500158	0	0.59880E-02	491892.3	3648878.6	187.4	1.70	4.65
1500159	0	0.59880E-02	491887.5	3648869.8	187.1	1.70	4.65
1500160	0	0.59880E-02	491882.8	3648861.0	187.1	1.70	4.65

The Junipers Project AERMOD Output File

*** AERMOD - VERSION 16216r *** *** E:\Work\NDG 01 - The Junipers\Analysis\AERMOD\NDG01_Junipers\NDG01_J ***
04/12/18

*** AERMET - VERSION 14134 *** *** 16:39:12

PAGE 6

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL RURAL

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER EMISSION RATE PART. (GRAMS/SEC) CATS.	X (METERS)	Y (METERS)	BASE RELEASE ELEV. (METERS)	INIT. HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN EMISSION RATE SCALAR VARY BY
I1500161	0	0.59880E-02	491878.0	3648852.3	186.9	1.70	4.65	1.58 NO
I1500162	0	0.59880E-02	491873.2	3648843.5	186.7	1.70	4.65	1.58 NO
I1500163	0	0.59880E-02	491868.5	3648834.7	186.5	1.70	4.65	1.58 NO
I1500164	0	0.59880E-02	491863.7	3648825.9	186.3	1.70	4.65	1.58 NO
I1500165	0	0.59880E-02	491858.9	3648817.1	186.2	1.70	4.65	1.58 NO
I1500166	0	0.59880E-02	491854.2	3648808.3	186.1	1.70	4.65	1.58 NO
I1500167	0	0.59880E-02	491849.4	3648799.5	186.1	1.70	4.65	1.58 NO

*** AERMOD - VERSION 16216r *** *** E:\Work\NDG 01 - The Junipers\Analysis\AERMOD\NDG01_Junipers\NDG01_J ***
04/12/18

*** AERMET - VERSION 14134 *** *** 16:39:12

PAGE 7

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL RURAL

*** SOURCE IDs DEFINING SOURCE GROUPS ***

SRCGROUP ID	SOURCE IDs
ALL	I1500001 , I1500002 , I1500003 , I1500004 , I1500005 , I1500006 , I1500007 , I1500008 ,
	I1500009 , I1500010 , I1500011 , I1500012 , I1500013 , I1500014 , I1500015 , I1500016 ,
	I1500017 , I1500018 , I1500019 , I1500020 , I1500021 , I1500022 , I1500023 , I1500024 ,
	I1500025 , I1500026 , I1500027 , I1500028 , I1500029 , I1500030 , I1500031 , I1500032 ,
	I1500033 , I1500034 , I1500035 , I1500036 , I1500037 , I1500038 , I1500039 , I1500040 ,
	I1500041 , I1500042 , I1500043 , I1500044 , I1500045 , I1500046 , I1500047 , I1500048 ,
	I1500049 , I1500050 , I1500051 , I1500052 , I1500053 , I1500054 , I1500055 , I1500056 ,
	I1500057 , I1500058 , I1500059 , I1500060 , I1500061 , I1500062 , I1500063 , I1500064 ,
	I1500065 , I1500066 , I1500067 , I1500068 , I1500069 , I1500070 , I1500071 , I1500072 ,
	I1500073 , I1500074 , I1500075 , I1500076 , I1500077 , I1500078 , I1500079 , I1500080 ,
	I1500081 , I1500082 , I1500083 , I1500084 , I1500085 , I1500086 , I1500087 , I1500088 ,
	I1500089 , I1500090 , I1500091 , I1500092 , I1500093 , I1500094 , I1500095 , I1500096 ,
	I1500097 , I1500098 , I1500099 , I1500100 , I1500101 , I1500102 , I1500103 , I1500104 ,
	I1500105 , I1500106 , I1500107 , I1500108 , I1500109 , I1500110 , I1500111 , I1500112 ,
	I1500113 , I1500114 , I1500115 , I1500116 , I1500117 , I1500118 , I1500119 , I1500120 ,
	I1500121 , I1500122 , I1500123 , I1500124 , I1500125 , I1500126 , I1500127 , I1500128 ,
	I1500129 , I1500130 , I1500131 , I1500132 , I1500133 , I1500134 , I1500135 , I1500136 ,
	I1500137 , I1500138 , I1500139 , I1500140 , I1500141 , I1500142 , I1500143 , I1500144 ,
	I1500145 , I1500146 , I1500147 , I1500148 , I1500149 , I1500150 , I1500151 , I1500152 ,
	I1500153 , I1500154 , I1500155 , I1500156 , I1500157 , I1500158 , I1500159 , I1500160 ,

The Junipers Project AERMOD Output File

*** AERMOD - VERSION 16216r *** *** E:\Work\NDG 01 - The Junipers\Analysis\AERMOD\NDG01_Junipers\NDG01_J ***
04/12/18

*** AERMET - VERSION 14134 *** *** 16:39:12

PAGE 8

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL RURAL

*** SOURCE IDs DEFINING SOURCE GROUPS ***

SRCGROUP ID	SOURCE IDs
-----	-----
I1500161	, I1500162 , I1500163 , I1500164 , I1500165 , I1500166 , I1500167 ,

*** AERMOD - VERSION 16216r *** *** E:\Work\NDG 01 - The Junipers\Analysis\AERMOD\NDG01_Junipers\NDG01_J ***
04/12/18

*** AERMET - VERSION 14134 *** *** 16:39:12

PAGE 9

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL RURAL

*** GRIDDED RECEPTOR NETWORK SUMMARY ***

*** NETWORK ID: UCART1 ; NETWORK TYPE: GRIDCART ***

*** X-COORDINATES OF GRID *** (METERS)

490504.5, 490604.5, 490704.5, 490804.5, 490904.5, 491004.5, 491104.5, 491204.5, 491304.5, 491404.5,
491504.5, 491604.5, 491704.5, 491804.5, 491904.5, 492004.5, 492104.5, 492204.5, 492304.5, 492404.5,
492504.5, 492604.5, 492704.5, 492804.5, 492904.5,

*** Y-COORDINATES OF GRID *** (METERS)

3648790.2, 3648890.2, 3648990.2, 3649090.2, 3649190.2, 3649290.2, 3649390.2, 3649490.2, 3649590.2, 3649690.2,
3649790.2, 3649890.2, 3649990.2, 3650090.2, 3650190.2, 3650290.2, 3650390.2,

The Junipers Project AERMOD Output File

*** AERMOD - VERSION 16216r *** E:\Work\NDG 01 - The Junipers\Analysis\AERMOD\NDG01_Junipers\NDG01_J ***

04/12/18

*** AERMET - VERSION 14134 ***

*** 16:39:12
PAGE 10

*** MODELOPTs: RegDEFAULT CONC ELEV FLGPOL RURAL

*** NETWORK ID: UCART1 ; NETWORK TYPE: GRIDCART ***

* ELEVATION HEIGHTS IN METERS *

Y-COORD	X-COORD (METERS)
(METERS)	
491304.48	490504.48 490604.48 490704.48 490804.48 490904.48 491004.48 491104.48 491204.48

3650390.25	237.40	270.40	297.80	328.60	301.00	249.70	220.00	226.90	228.70
3650290.25	232.30	249.90	278.40	296.30	262.30	240.50	222.30	212.60	220.10
3650190.25	264.00	258.90	302.40	300.10	271.40	241.70	242.80	225.00	217.70
3650090.25	285.70	278.00	314.60	298.30	266.40	268.50	254.80	233.80	224.90
3649990.25	298.70	315.40	329.50	321.90	298.80	273.50	263.60	245.70	231.80
3649890.25	318.50	339.10	351.40	342.40	318.70	306.20	280.90	252.50	240.80
3649790.25	331.90	350.90	366.50	360.00	334.20	308.20	275.50	256.00	260.60
3649690.25	346.40	367.70	371.10	350.30	310.80	290.90	270.00	268.70	270.80
3649590.25	367.60	371.00	363.80	354.30	322.90	275.30	246.10	247.70	253.90
3649490.25	378.40	368.10	331.20	317.20	296.80	265.80	254.90	235.10	236.00
3649390.25	390.80	374.00	349.60	323.60	305.00	279.00	251.80	229.60	222.60
3649290.25	393.50	380.80	358.60	308.30	270.10	252.70	239.40	230.90	217.50
3649190.25	376.80	371.60	338.10	298.70	269.70	246.30	227.70	221.60	212.90
3649090.25	372.20	359.70	349.80	308.30	270.70	251.70	228.70	217.20	207.70
3648990.25	374.60	340.30	340.40	307.60	270.40	256.80	241.70	225.20	204.80
3648890.25	370.00	328.00	322.20	273.00	250.50	236.30	240.70	219.20	201.70
3648790.25	352.40	306.70	337.10	310.30	274.70	238.20	231.60	217.90	211.10

*** AERMOD - VERSION 16216r *** E:\Work\NDG 01 - The Junipers\Analysis\AERMOD\NDG01_Junipers\NDG01_J ***

04/12/18

*** AERMET - VERSION 14134 ***

*** 16:39:12
PAGE 11

*** MODELOPTs: RegDEFAULT CONC ELEV FLGPOL RURAL

*** NETWORK ID: UCART1 ; NETWORK TYPE: GRIDCART ***

* ELEVATION HEIGHTS IN METERS *

Y-COORD	X-COORD (METERS)
(METERS)	
492204.48	491404.48 491504.48 491604.48 491704.48 491804.48 491904.48 492004.48 492104.48

3650390.25	229.00	235.70	239.70	238.40	249.30	251.50	243.70	239.10	226.00
3650290.25	221.40	225.90	229.50	234.80	245.20	234.40	228.60	225.90	222.00
3650190.25	220.90	225.80	231.20	240.80	248.90	230.90	218.60	215.50	219.20
3650090.25	224.70	236.60	244.20	251.60	250.00	230.80	216.70	210.00	214.40
3649990.25	228.30	244.10	250.30	243.50	239.70	232.80	216.70	207.30	209.10
3649890.25	233.00	233.10	232.90	235.50	224.60	224.90	213.50	204.20	208.10
3649790.25	258.00	230.50	224.00	231.70	218.80	212.60	212.40	201.20	206.00
3649690.25	255.70	227.70	218.70	235.60	224.90	210.90	205.50	200.50	201.40
3649590.25	231.90	220.10	217.80	233.40	227.60	212.80	204.70	197.60	202.30
3649490.25	222.70	214.50	219.80	233.60	222.00	209.70	203.00	195.10	197.60
3649390.25	216.50	207.60	218.00	231.30	219.50	208.70	196.70	193.70	194.80
3649290.25	209.90	205.00	216.70	229.50	214.50	205.80	196.90	190.30	192.10
3649190.25	205.40	203.40	216.90	230.80	213.60	205.20	193.20	188.10	188.60
3649090.25	203.80	201.20	210.10	217.20	213.10	204.10	191.80	186.50	185.60
3648990.25	200.90	197.40	202.70	210.20	205.60	193.30	190.90	185.60	184.10
3648890.25	196.60	193.50	195.10	195.50	195.20	188.10	189.30	181.50	186.80
3648790.25	196.00	190.40	189.90	189.20	188.00	183.20	181.10	185.10	190.60

The Junipers Project AERMOD Output File

*** AERMOD - VERSION 16216r *** *** E:\Work\NDG 01 - The Junipers\Analysis\AERMOD\NDG01_Junipers\NDG01_J ***
04/12/18

*** AERMET - VERSION 14134 *** *** PAGE 12 16:39:12

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL RURAL

*** NETWORK ID: UCART1 ; NETWORK TYPE: GRIDCART ***

* ELEVATION HEIGHTS IN METERS *

Y-COORD (METERS)	X-COORD (METERS)						
	492304.48	492404.48	492504.48	492604.48	492704.48	492804.48	492904.48
3650390.25	229.30	244.30	263.10	254.70	252.60	248.20	234.90
3650290.25	240.50	251.10	254.70	245.80	245.20	244.90	234.20
3650190.25	236.90	247.40	245.10	239.40	244.70	245.80	231.30
3650090.25	226.60	239.10	235.80	235.40	245.00	245.60	236.10
3649990.25	225.20	244.90	232.80	233.80	241.50	243.10	228.90
3649890.25	223.50	238.00	226.10	231.20	227.20	238.30	227.40
3649790.25	219.80	219.50	230.10	225.20	218.20	229.90	232.70
3649690.25	212.10	220.30	226.00	217.80	212.30	221.50	225.90
3649590.25	201.90	211.00	217.10	211.80	207.30	212.10	224.00
3649490.25	202.50	213.70	215.40	206.50	205.30	215.90	227.70
3649390.25	205.00	212.20	210.30	200.30	203.40	213.50	224.30
3649290.25	202.00	202.80	198.50	196.80	200.90	208.30	213.20
3649190.25	193.50	193.50	192.50	194.20	197.60	200.10	206.50
3649090.25	187.90	190.50	193.90	200.00	204.20	204.70	207.90
3648990.25	189.30	195.80	199.10	209.90	215.60	213.60	215.90
3648890.25	191.30	201.20	206.10	209.80	226.20	225.90	230.20
3648790.25	197.40	205.20	216.80	226.20	240.70	250.10	252.30

*** AERMOD - VERSION 16216r *** *** E:\Work\NDG 01 - The Junipers\Analysis\AERMOD\NDG01_Junipers\NDG01_J ***
04/12/18

*** AERMET - VERSION 14134 *** *** PAGE 13 16:39:12

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL RURAL

*** NETWORK ID: UCART1 ; NETWORK TYPE: GRIDCART ***

* HILL HEIGHT SCALES IN METERS *

Y-COORD (METERS)	X-COORD (METERS)							
	490504.48	490604.48	490704.48	490804.48	490904.48	491004.48	491104.48	491204.48
491304.48								
3650390.25	477.20	477.20	372.10	330.10	370.00	477.20	477.20	477.20
3650290.25	477.20	477.20	477.20	398.10	477.20	477.20	477.20	477.20
3650190.25	477.20	477.20	399.70	399.70	477.20	477.20	477.20	477.20
3650090.25	477.20	477.20	399.30	400.00	477.20	477.20	477.20	477.20
3649990.25	477.20	400.00	377.50	399.30	400.00	477.20	477.20	477.20
3649890.25	477.20	398.10	371.20	372.10	400.00	400.00	477.20	477.20
3649790.25	400.00	398.10	368.20	368.70	398.10	400.00	415.20	415.20
3649690.25	400.00	367.70	371.10	394.50	400.00	415.20	477.20	415.20
3649590.25	399.70	376.70	398.10	398.10	400.00	477.20	477.20	477.20
3649490.25	399.30	400.00	415.20	415.20	477.20	477.20	477.20	477.20
3649390.25	398.10	400.00	400.00	415.20	415.20	477.20	477.20	477.20
3649290.25	399.70	400.00	400.00	477.20	477.20	477.20	477.20	477.20
3649190.25	400.00	400.00	415.20	477.20	477.20	477.20	477.20	477.20
3649090.25	415.20	415.20	415.20	477.20	477.20	477.20	477.20	477.20
3648990.25	415.20	415.20	415.20	477.20	477.20	477.20	477.20	477.20
3648890.25	415.20	415.20	415.20	477.20	477.20	477.20	477.20	477.20
3648790.25	415.20	477.20	415.20	415.20	477.20	477.20	477.20	477.20

The Junipers Project AERMOD Output File

*** AERMOD - VERSION 16216r *** *** E:\Work\NDG 01 - The Junipers\Analysis\AERMOD\NDG01_Junipers\NDG01_J ***
04/12/18

*** AERMET - VERSION 14134 *** *** 16:39:12

PAGE 14

*** MODELOPTs: RegDEFAULT CONC ELEV FLGPOL RURAL

*** NETWORK ID: UCART1 ; NETWORK TYPE: GRIDCART ***

* HILL HEIGHT SCALES IN METERS *

Y-COORD (METERS)	491404.48	491504.48	491604.48	491704.48	491804.48	491904.48	492004.48	492104.48
492204.48								

3650390.25	400.00	400.00	399.30	372.10	257.60	258.00	246.10	271.20
3650290.25	477.20	400.00	400.00	399.70	371.60	372.10	371.60	258.20
3650190.25	477.20	415.20	400.00	399.70	371.60	398.10	399.70	372.10
3650090.25	477.20	400.00	400.00	398.10	372.10	399.70	400.00	400.00
3649990.25	477.20	400.00	400.00	400.00	400.00	400.00	400.00	399.70
3649890.25	477.20	415.20	415.20	400.00	400.00	400.00	400.00	400.00
3649790.25	415.20	477.20	476.20	415.20	415.20	415.20	400.00	400.00
3649690.25	415.20	477.20	477.20	415.20	415.20	415.20	415.20	400.00
3649590.25	477.20	477.20	477.20	415.20	415.20	415.20	415.20	400.00
3649490.25	477.20	477.20	477.20	415.20	415.20	415.20	415.20	415.20
3649390.25	477.20	477.20	477.20	415.20	415.20	415.20	415.20	415.20
3649290.25	477.20	477.20	477.20	415.20	415.20	415.20	415.20	415.20
3649190.25	477.20	477.20	477.20	415.20	415.20	415.20	415.20	415.20
3649090.25	477.20	477.20	477.20	477.20	415.20	415.20	415.20	415.20
3648990.25	477.20	477.20	477.20	477.20	477.20	415.20	415.20	415.20
3648890.25	477.20	477.20	477.20	477.20	477.20	476.20	415.20	415.20
3648790.25	477.20	477.20	477.20	477.20	477.20	477.20	415.20	415.20

*** AERMOD - VERSION 16216r *** *** E:\Work\NDG 01 - The Junipers\Analysis\AERMOD\NDG01_Junipers\NDG01_J ***
04/12/18

*** AERMET - VERSION 14134 *** *** 16:39:12

PAGE 15

*** MODELOPTs: RegDEFAULT CONC ELEV FLGPOL RURAL

*** NETWORK ID: UCART1 ; NETWORK TYPE: GRIDCART ***

* HILL HEIGHT SCALES IN METERS *

Y-COORD (METERS)	492304.48	492404.48	492504.48	492604.48	492704.48	492804.48	492904.48

3650390.25	271.20	271.20	266.20	271.20	271.00	265.30	270.20
3650290.25	269.70	257.00	261.80	271.20	271.00	244.90	265.30
3650190.25	261.80	247.40	261.80	271.00	244.70	248.10	250.30
3650090.25	268.20	239.10	257.00	235.40	245.00	245.60	236.10
3649990.25	248.80	244.90	245.10	244.30	241.50	244.80	250.30
3649890.25	245.10	245.10	245.10	231.20	248.10	238.30	245.30
3649790.25	245.10	245.10	234.10	234.10	247.60	237.80	232.70
3649690.25	398.10	245.10	226.00	234.10	246.60	237.80	229.80
3649590.25	400.00	228.80	217.10	228.30	238.50	237.80	232.10
3649490.25	400.00	213.70	215.40	215.10	232.50	232.50	231.30
3649390.25	400.00	212.20	212.10	215.80	232.50	232.50	232.50
3649290.25	400.00	399.70	216.00	263.10	263.10	232.50	232.50
3649190.25	415.20	400.00	399.70	263.10	263.10	263.10	263.10
3649090.25	415.20	400.00	398.10	263.10	263.10	263.10	263.10
3648990.25	415.20	400.00	263.10	263.10	263.10	263.10	263.10
3648890.25	415.20	263.10	263.10	263.10	263.10	263.10	263.10
3648790.25	400.00	263.10	263.10	263.10	263.10	263.10	263.10

The Junipers Project AERMOD Output File

*** AERMOD - VERSION 16216r *** *** E:\Work\NDG 01 - The Junipers\Analysis\AERMOD\NDG01_Junipers\NDG01_J ***

04/12/18

*** AERMET - VERSION 14134 *** ***

*** 16:39:12

PAGE 16

*** MODELOPTs: RegDEFAULT CONC ELEV FLGPOL RURAL

*** NETWORK ID: UCART1 ; NETWORK TYPE: GRIDCART ***

* RECEPTOR FLAGPOLE HEIGHTS IN METERS *

Y-COORD	X-COORD (METERS)							
(METERS)	490504.48	490604.48	490704.48	490804.48	490904.48	491004.48	491104.48	491204.48
491304.48								

3650390.25	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80
3650290.25	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80
3650190.25	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80
3650090.25	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80
3649990.25	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80
3649890.25	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80
3649790.25	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80
3649690.25	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80
3649590.25	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80
3649490.25	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80
3649390.25	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80
3649290.25	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80
3649190.25	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80
3649090.25	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80
3648990.25	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80
3648890.25	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80
3648790.25	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80

*** AERMOD - VERSION 16216r *** *** E:\Work\NDG 01 - The Junipers\Analysis\AERMOD\NDG01_Junipers\NDG01_J ***

04/12/18

*** AERMET - VERSION 14134 *** ***

*** 16:39:12

PAGE 17

*** MODELOPTs: RegDEFAULT CONC ELEV FLGPOL RURAL

*** NETWORK ID: UCART1 ; NETWORK TYPE: GRIDCART ***

* RECEPTOR FLAGPOLE HEIGHTS IN METERS *

Y-COORD	X-COORD (METERS)							
(METERS)	491404.48	491504.48	491604.48	491704.48	491804.48	491904.48	492004.48	492104.48
492204.48								

3650390.25	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80
3650290.25	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80
3650190.25	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80
3650090.25	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80
3649990.25	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80
3649890.25	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80
3649790.25	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80
3649690.25	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80
3649590.25	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80
3649490.25	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80
3649390.25	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80
3649290.25	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80
3649190.25	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80
3649090.25	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80
3648990.25	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80
3648890.25	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80
3648790.25	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80

The Junipers Project AERMOD Output File

*** AERMOD - VERSION 16216r *** E:\Work\NDG 01 - The Junipers\Analysis\AERMOD\NDG01_Junipers\NDG01_J ***
04/12/18

*** AERMET - VERSION 14134 *** 16:39:12

*** MODELOPTs: RegDEFAULT CONC ELEV FLGPOL RURAL PAGE 18

*** NETWORK ID: UCART1 ; NETWORK TYPE: GRIDCART ***

* RECEPTOR FLAGPOLE HEIGHTS IN METERS *

Y-COORD	X-COORD (METERS)						
(METERS)	492304.48	492404.48	492504.48	492604.48	492704.48	492804.48	492904.48

3650390.25	1.80	1.80	1.80	1.80	1.80	1.80	1.80
3650290.25	1.80	1.80	1.80	1.80	1.80	1.80	1.80
3650190.25	1.80	1.80	1.80	1.80	1.80	1.80	1.80
3650090.25	1.80	1.80	1.80	1.80	1.80	1.80	1.80
3649990.25	1.80	1.80	1.80	1.80	1.80	1.80	1.80
3649890.25	1.80	1.80	1.80	1.80	1.80	1.80	1.80
3649790.25	1.80	1.80	1.80	1.80	1.80	1.80	1.80
3649690.25	1.80	1.80	1.80	1.80	1.80	1.80	1.80
3649590.25	1.80	1.80	1.80	1.80	1.80	1.80	1.80
3649490.25	1.80	1.80	1.80	1.80	1.80	1.80	1.80
3649390.25	1.80	1.80	1.80	1.80	1.80	1.80	1.80
3649290.25	1.80	1.80	1.80	1.80	1.80	1.80	1.80
3649190.25	1.80	1.80	1.80	1.80	1.80	1.80	1.80
3649090.25	1.80	1.80	1.80	1.80	1.80	1.80	1.80
3648990.25	1.80	1.80	1.80	1.80	1.80	1.80	1.80
3648890.25	1.80	1.80	1.80	1.80	1.80	1.80	1.80
3648790.25	1.80	1.80	1.80	1.80	1.80	1.80	1.80

*** AERMOD - VERSION 16216r *** E:\Work\NDG 01 - The Junipers\Analysis\AERMOD\NDG01_Junipers\NDG01_J ***
04/12/18

*** AERMET - VERSION 14134 *** 16:39:12

*** MODELOPTs: RegDEFAULT CONC ELEV FLGPOL RURAL PAGE 19

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
(METERS)

(492156.7, 3650312.5,	221.4,	271.2,	1.8);	(492203.0, 3649983.4,	208.3,	399.7,	1.8);
(492207.6, 3649948.5,	207.6,	400.0,	1.8);	(492211.2, 3649887.5,	208.5,	400.0,	1.8);
(492211.4, 3649825.7,	208.3,	400.0,	1.8);	(492208.9, 3649773.4,	204.9,	400.0,	1.8);
(492202.9, 3649716.9,	201.2,	400.0,	1.8);	(492198.1, 3649683.5,	200.9,	400.0,	1.8);
(492184.5, 3649613.0,	200.3,	400.0,	1.8);	(492169.3, 3649553.9,	198.1,	415.2,	1.8);
(492145.8, 3649479.7,	195.3,	415.2,	1.8);	(492126.9, 3649431.7,	195.0,	415.2,	1.8);
(492087.4, 3649343.6,	192.4,	415.2,	1.8);	(492077.6, 3649347.9,	192.7,	415.2,	1.8);
(492039.9, 3649276.8,	193.8,	415.2,	1.8);	(492006.5, 3649213.4,	193.6,	415.2,	1.8);
(491948.3, 3649130.0,	199.9,	415.2,	1.8);	(491894.1, 3649066.2,	205.2,	415.2,	1.8);
(491861.8, 3649039.5,	206.5,	415.2,	1.8);	(491831.9, 3649009.6,	205.9,	476.2,	1.8);
(491807.7, 3648985.0,	204.8,	477.2,	1.8);	(491799.5, 3648977.5,	204.5,	477.2,	1.8);
(491787.3, 3648969.8,	204.5,	477.2,	1.8);	(491771.4, 3648961.3,	204.6,	477.2,	1.8);
(491658.8, 3648913.1,	199.9,	477.2,	1.8);	(491617.4, 3648981.8,	204.2,	477.2,	1.8);
(491608.9, 3648980.1,	202.9,	477.2,	1.8);	(491601.1, 3648981.1,	201.9,	477.2,	1.8);
(491591.0, 3648986.8,	200.6,	477.2,	1.8);	(491586.2, 3648995.3,	200.3,	477.2,	1.8);
(491584.2, 3649003.1,	200.4,	477.2,	1.8);	(491583.8, 3649010.2,	200.8,	477.2,	1.8);
(491559.8, 3649074.3,	202.8,	477.2,	1.8);	(491556.0, 3649075.3,	202.7,	477.2,	1.8);
(491549.9, 3649072.6,	202.1,	477.2,	1.8);	(491543.5, 3649069.9,	201.6,	477.2,	1.8);
(491538.1, 3649071.6,	201.5,	477.2,	1.8);	(491534.7, 3649074.3,	201.5,	477.2,	1.8);
(491466.6, 3649145.0,	201.6,	477.2,	1.8);	(491455.7, 3649148.7,	201.7,	477.2,	1.8);
(491375.9, 3649117.3,	205.8,	477.2,	1.8);	(491301.5, 3649103.3,	208.4,	477.2,	1.8);
(491295.0, 3649137.8,	210.1,	477.2,	1.8);	(491296.9, 3649196.2,	213.3,	477.2,	1.8);
(491325.5, 3649193.6,	212.5,	477.2,	1.8);	(491328.1, 3649219.6,	213.5,	477.2,	1.8);
(491338.5, 3649252.7,	213.9,	477.2,	1.8);	(491353.4, 3649291.7,	214.2,	477.2,	1.8);
(491377.4, 3649341.1,	214.6,	477.2,	1.8);	(491446.6, 3649497.6,	219.8,	477.2,	1.8);
(491601.7, 3649428.0,	219.7,	477.2,	1.8);	(491643.6, 3649282.3,	222.7,	477.2,	1.8);
(491645.3, 3649167.5,	222.6,	477.2,	1.8);	(491706.6, 3649141.5,	224.2,	415.2,	1.8);
(491736.4, 3649210.5,	225.5,	415.2,	1.8);	(491719.3, 3649250.8,	229.5,	415.2,	1.8);
(491797.1, 3649439.1,	222.4,	415.2,	1.8);	(491786.1, 3649444.6,	224.6,	415.2,	1.8);
(491836.3, 3649559.4,	222.8,	415.2,	1.8);	(491817.6, 3649703.7,	221.4,	415.2,	1.8);
(491806.6, 3649750.1,	221.1,	415.2,	1.8);	(491772.1, 3649781.5,	224.5,	415.2,	1.8);
(491741.6, 3649761.8,	231.0,	415.2,	1.8);	(491735.1, 3649768.4,	230.8,	415.2,	1.8);
(491757.6, 3649791.4,	226.0,	415.2,	1.8);	(491770.7, 3649812.0,	224.3,	415.2,	1.8);
(491769.5, 3649853.9,	225.7,	411.8,	1.8);	(491919.9, 3649855.1,	221.4,	400.0,	1.8);
(491988.7, 3649905.2,	215.7,	400.0,	1.8);				

The Junipers Project AERMOD Output File

*** AERMOD - VERSION 16216r *** *** E:\Work\NDG 01 - The Junipers\Analysis\AERMOD\NDG01_Junipers\NDG01_J ***
04/12/18

*** AERMET - VERSION 14134 *** *** PAGE 22 16:39:12

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL RURAL

*** UP TO THE FIRST 24 HOURS OF METEOROLOGICAL DATA ***

Surface file: ..\MetData\722931.SFC Met Version: 14134
Profile file: ..\MetData\722931.PFL
Surface format: FREE
Profile format: FREE
Surface station no.: 93107 Upper air station no.: 3190
Name: UNKNOWN Name: UNKNOWN
Year: 2009 Year: 2009

First 24 hours of scalar data
YR MO DY JDY HR H0 U* W* DT/DZ ZICNV ZIMCH M-O LEN Z0 BOWEN ALBEDO REF WS WD HT REF TA
HT

09 01 01 1 01 -5.8 0.103 -9.000 -9.000 -999. -999. -999999.0 0.25 1.32 1.00 1.76 341. 10.0 281.4 2.0
09 01 01 1 02 -999.0 -9.000 -9.000 -9.000 -999. -999. -999999.0 0.25 1.32 1.00 0.00 0. 10.0 281.4 2.0
09 01 01 1 03 -999.0 -9.000 -9.000 -9.000 -999. -999. -999999.0 0.25 1.32 1.00 0.00 0. 10.0 278.1 2.0
09 01 01 1 04 -999.0 -9.000 -9.000 -9.000 -999. -999. -999999.0 0.25 1.32 1.00 0.00 0. 10.0 278.1 2.0
09 01 01 1 05 -13.7 0.126 -9.000 -9.000 -999. 107. 12.9 0.23 1.32 1.00 2.36 43. 10.0 278.8 2.0
09 01 01 1 06 -7.6 0.094 -9.000 -9.000 -999. 69. 9.6 0.23 1.32 1.00 1.76 32. 10.0 278.8 2.0
09 01 01 1 07 -999.0 -9.000 -9.000 -9.000 -999. -999. -999999.0 0.25 1.32 1.00 0.00 0. 10.0 277.0 2.0
09 01 01 1 08 -999.0 -9.000 -9.000 -9.000 -999. -999. -999999.0 0.25 1.32 0.50 0.00 0. 10.0 281.4 2.0
09 01 01 1 09 43.9 0.223 0.454 0.011 76. 252. -22.4 0.21 1.32 0.30 1.76 307. 10.0 284.2 2.0
09 01 01 1 10 97.0 0.297 0.758 0.008 160. 387. -24.0 0.21 1.32 0.23 2.36 331. 10.0 285.4 2.0
09 01 01 1 11 137.1 0.306 0.980 0.008 245. 405. -18.6 0.21 1.32 0.21 2.36 324. 10.0 289.2 2.0
09 01 01 1 12 149.7 0.251 1.157 0.009 369. 303. -9.4 0.21 1.32 0.20 1.76 346. 10.0 291.4 2.0
09 01 01 1 13 147.0 0.402 1.247 0.007 470. 611. -39.2 0.21 1.32 0.20 3.36 323. 10.0 291.4 2.0
09 01 01 1 14 123.1 0.388 1.276 0.007 601. 579. -42.1 0.19 1.32 0.21 3.36 289. 10.0 289.9 2.0
09 01 01 1 15 80.6 0.385 1.155 0.007 681. 574. -63.2 0.21 1.32 0.24 3.36 312. 10.0 289.9 2.0
09 01 01 1 16 21.3 0.314 0.746 0.007 694. 426. -129.9 0.21 1.32 0.33 2.86 304. 10.0 287.5 2.0
09 01 01 1 17 -999.0 -9.000 -9.000 -9.000 -999. -999. -999999.0 0.25 1.32 0.61 999.00 999. -9.0 283.8 2.0
09 01 01 1 18 -999.0 -9.000 -9.000 -9.000 -999. -999. -999999.0 0.25 1.32 1.00 0.00 0. 10.0 283.1 2.0
09 01 01 1 19 -999.0 -9.000 -9.000 -9.000 -999. -999. -999999.0 0.25 1.32 1.00 0.00 0. 10.0 283.1 2.0
09 01 01 1 20 -999.0 -9.000 -9.000 -9.000 -999. -999. -999999.0 0.25 1.32 1.00 0.00 0. 10.0 282.5 2.0
09 01 01 1 21 -999.0 -9.000 -9.000 -9.000 -999. -999. -999999.0 0.25 1.32 1.00 0.00 0. 10.0 282.5 2.0
09 01 01 1 22 -999.0 -9.000 -9.000 -9.000 -999. -999. -999999.0 0.25 1.32 1.00 0.00 0. 10.0 282.5 2.0
09 01 01 1 23 -999.0 -9.000 -9.000 -9.000 -999. -999. -999999.0 0.25 1.32 1.00 0.00 0. 10.0 282.0 2.0
09 01 01 1 24 -999.0 -9.000 -9.000 -9.000 -999. -999. -999999.0 0.25 1.32 1.00 0.00 0. 10.0 282.0 2.0

First hour of profile data
YR MO DY HR HEIGHT F WDIR WSPD AMB_TMP sigmaA sigmaW sigmaV
09 01 01 01 10.0 1 341. 1.76 281.5 99.0 -99.00 -99.00

F indicates top of profile (=1) or below (=0)

*** AERMOD - VERSION 16216r *** *** E:\Work\NDG 01 - The Junipers\Analysis\AERMOD\NDG01_Junipers\NDG01_J ***
04/12/18

*** AERMET - VERSION 14134 *** *** PAGE 23 16:39:12

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL RURAL

*** THE PERIOD (43872 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): I1500001 ,I1500002 ,I1500003 ,I1500004 ,I1500005 ,
I1500006 ,I1500007 ,I1500008 ,I1500009 ,I1500010 ,I1500011 ,I1500012 ,I1500013 ,
I1500014 ,I1500015 ,I1500016 ,I1500017 ,I1500018 ,I1500019 ,I1500020 ,I1500021 ,
I1500022 ,I1500023 ,I1500024 ,I1500025 ,I1500026 ,I1500027 ,I1500028 ,...

*** NETWORK ID: UCART1 ; NETWORK TYPE: GRIDCART ***

** CONC OF DPM IN MICROGRAMS/M**3 **

Y-COORD | X-COORD (METERS)
(METERS) | 490504.48 490604.48 490704.48 490804.48 490904.48 491004.48 491104.48 491204.48
491304.48

3650390.25 | 0.31132 0.12560 0.07562 0.05496 0.08199 0.28132 0.66500 0.66766 0.71218
3650290.25 | 0.39018 0.24906 0.12433 0.09486 0.21083 0.44294 0.74052 0.89401 0.94650
3650190.25 | 0.17883 0.21672 0.09445 0.10525 0.19325 0.48333 0.51065 0.91088 1.11726
3650090.25 | 0.12424 0.15464 0.09462 0.12608 0.25262 0.26150 0.41050 0.86783 1.17056
3649990.25 | 0.11424 0.09978 0.09403 0.11065 0.15728 0.26382 0.36433 0.65675 1.13338
3649890.25 | 0.10114 0.08998 0.08778 0.10345 0.14084 0.17700 0.27496 0.57928 0.90104
3649790.25 | 0.09836 0.09026 0.08575 0.09844 0.13395 0.18673 0.32017 0.54353 0.52457
3649690.25 | 0.09530 0.08690 0.09062 0.11461 0.17510 0.23768 0.36674 0.40573 0.41801
3649590.25 | 0.08635 0.08897 0.09991 0.11484 0.16112 0.31300 0.66905 0.68527 0.61991
3649490.25 | 0.08252 0.09428 0.13572 0.16359 0.21598 0.38287 0.52318 0.99331 1.04292
3649390.25 | 0.07655 0.09223 0.11936 0.15787 0.19966 0.29576 0.56028 1.14487 1.48231
3649290.25 | 0.07674 0.08901 0.11250 0.18512 0.33146 0.51331 0.78672 1.07898 1.63376
3649190.25 | 0.09019 0.09776 0.13619 0.20732 0.33390 0.60021 1.08063 1.35021 1.79588
3649090.25 | 0.09482 0.10947 0.12414 0.18992 0.32704 0.51007 1.02979 1.47405 2.03011
3648990.25 | 0.09318 0.13042 0.13594 0.19268 0.32568 0.44383 0.68052 1.17123 2.17996
3648890.25 | 0.09620 0.14426 0.15891 0.29198 0.47650 0.73170 0.67247 1.31869 2.29352
3648790.25 | 0.10941 0.17020 0.13457 0.17976 0.28443 0.64780 0.81239 1.25911 1.63699

The Junipers Project AERMOD Output File

*** AERMOD - VERSION 16216r *** *** E:\Work\NDG 01 - The Junipers\Analysis\AERMOD\NDG01_Junipers\NDG01_J ***
04/12/18

*** AERMET - VERSION 14134 *** *** PAGE 24 16:39:12

*** MODELOPTs: RegDEFAULT CONC ELEV FLGPOL RURAL

*** THE PERIOD (43872 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): I1500001 ,I1500002 ,I1500003 ,I1500004 ,I1500005 ,
I1500006 ,I1500007 ,I1500008 ,I1500009 ,I1500010 ,I1500011 ,I1500012 ,I1500013 ,
I1500014 ,I1500015 ,I1500016 ,I1500017 ,I1500018 ,I1500019 ,I1500020 ,I1500021 ,
I1500022 ,I1500023 ,I1500024 ,I1500025 ,I1500027 ,I1500028 , . . . ,

*** NETWORK ID: UCART1 ; NETWORK TYPE: GRIDCART ***

** CONC OF DPM IN MICROGRAMS/M**3 **

Y-COORD	X-COORD (METERS)							
(METERS)	491404.48	491504.48	491604.48	491704.48	491804.48	491904.48	492004.48	492104.48

492204.48								

3650390.25	0.78604	0.70189	0.65664	0.78244	0.57931	0.62416	1.03015	1.70127
3650290.25	1.05965	1.14758	1.26102	1.23432	0.96478	2.01391	4.07195	9.07430
3650190.25	1.24707	1.37001	1.46321	1.20574	1.09204	2.99727	5.87205	9.69210
3650090.25	1.35453	1.17103	1.03179	0.93552	1.15142	3.11787	6.07611	8.79169
3649990.25	1.40641	0.96954	0.89764	1.27706	1.69495	2.69881	5.99269	8.41137
3649890.25	1.29400	1.46086	1.67626	1.72747	3.03809	3.64355	6.00941	8.38173
3649790.25	0.61052	1.59555	2.16684	1.94465	3.32822	4.49990	6.00596	8.75601
3649690.25	0.64532	1.71117	2.35925	1.58284	2.70161	4.61101	6.52753	9.87919
3649590.25	1.32887	2.00074	2.37860	1.63082	2.26484	4.42792	6.96015	11.67850
3649490.25	1.66398	2.19031	2.22764	1.53172	2.64478	4.71032	7.65138	15.54361
3649390.25	1.86587	2.47829	2.26594	1.58856	2.74774	4.81687	10.22450	25.21193
3649290.25	2.12537	2.67497	2.28920	1.63180	3.19645	5.44886	12.23991	41.70690
3649190.25	2.38499	2.87517	2.22351	1.53152	3.28077	5.90513	24.22999	31.27821
3649090.25	2.52969	3.14957	2.75130	2.45352	3.44243	7.19765	31.03996	16.56989
3648990.25	2.74650	3.51577	3.63670	3.21194	5.10305	22.91077	28.46143	11.28850
3648890.25	2.92939	3.67206	4.64386	6.30012	10.10339	36.96947	15.08628	7.67070
3648790.25	2.73201	3.40968	4.46693	6.58135	14.33570	15.90365	7.60832	5.64661

*** AERMOD - VERSION 16216r *** *** E:\Work\NDG 01 - The Junipers\Analysis\AERMOD\NDG01_Junipers\NDG01_J ***
04/12/18

*** AERMET - VERSION 14134 *** *** PAGE 25 16:39:12

*** MODELOPTs: RegDEFAULT CONC ELEV FLGPOL RURAL

*** THE PERIOD (43872 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): I1500001 ,I1500002 ,I1500003 ,I1500004 ,I1500005 ,
I1500006 ,I1500007 ,I1500008 ,I1500009 ,I1500010 ,I1500011 ,I1500012 ,I1500013 ,
I1500014 ,I1500015 ,I1500016 ,I1500017 ,I1500018 ,I1500019 ,I1500020 ,I1500021 ,
I1500022 ,I1500023 ,I1500024 ,I1500025 ,I1500026 ,I1500027 ,I1500028 , . . . ,

*** NETWORK ID: UCART1 ; NETWORK TYPE: GRIDCART ***

** CONC OF DPM IN MICROGRAMS/M**3 **

Y-COORD	X-COORD (METERS)							
(METERS)	492304.48	492404.48	492504.48	492604.48	492704.48	492804.48	492904.48	

3650390.25	4.34267	1.47399	0.71707	0.70712	0.63703	0.61727	0.84799	
3650290.25	4.72752	1.84259	1.16016	1.14497	0.93717	0.80605	0.97984	
3650190.25	7.30399	2.68319	1.85877	1.65429	1.11449	0.86389	1.18910	
3650090.25	14.80033	3.94680	2.81221	2.11223	1.21411	0.96404	1.07570	
3649990.25	17.23015	3.60219	3.32011	2.28088	1.40012	1.05878	1.40420	
3649890.25	17.54663	4.45431	4.34837	2.56212	2.22277	1.25020	1.46852	
3649790.25	18.00403	8.75490	3.64914	3.04067	2.81915	1.58299	1.22500	
3649690.25	20.56265	7.36858	4.02712	3.61514	3.03784	1.97134	1.44840	
3649590.25	20.75487	8.44469	4.76544	3.86717	3.13259	2.30860	1.46525	
3649490.25	14.66816	6.41916	4.42722	3.93515	3.07584	2.03981	1.27632	
3649390.25	9.56948	5.55618	4.35646	3.98616	2.99803	2.02759	1.33631	
3649290.25	8.07581	5.85713	4.87037	3.82230	2.92752	2.12875	1.62400	
3649190.25	8.16702	5.92306	4.53123	3.57528	2.84217	2.28462	1.74576	
3649090.25	6.73423	5.15311	4.05190	3.10089	2.39501	1.99350	1.60103	
3648990.25	5.65333	4.29854	3.36077	2.30255	1.77899	1.57369	1.29837	
3648890.25	4.60405	3.24507	2.51470	2.04947	1.31138	1.16171	0.92593	
3648790.25	3.38455	2.44870	1.70356	1.27202	0.82748	0.61117	0.52138	

The Junipers Project AERMOD Output File

*** AERMOD - VERSION 16216r *** *** E:\Work\NDG 01 - The Junipers\Analysis\AERMOD\NDG01_Junipers\NDG01_J ***
04/12/18

*** AERMET - VERSION 14134 *** *** 16:39:12

PAGE 26

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL RURAL

*** THE PERIOD (43872 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): I1500001 ,I1500002 ,I1500003 ,I1500004 ,I1500005 ,
I1500006 ,I1500007 ,I1500008 ,I1500009 ,I1500010 ,I1500011 ,I1500012 ,I1500013 ,
I1500014 ,I1500015 ,I1500016 ,I1500017 ,I1500018 ,I1500019 ,I1500020 ,I1500021 ,
I1500022 ,I1500023 ,I1500024 ,I1500025 ,I1500026 ,I1500027 ,I1500028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF DPM IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
492156.70	3650312.51	18.42869	492203.03	3649983.41	17.27975
492207.64	3649948.51	17.93120	492211.18	3649887.52	19.71014
492211.39	3649825.69	21.00044	492208.94	3649773.40	20.66174
492202.93	3649716.95	20.53812	492198.15	3649683.51	21.26290
492184.48	3649612.96	23.12035	492169.30	3649553.94	24.54073
492145.79	3649479.73	25.91558	492126.93	3649431.73	26.45021
492087.41	3649343.63	27.53916	492077.61	3649347.95	23.29616
492039.86	3649276.78	20.33721	492006.54	3649123.38	20.52900
491948.31	3649130.03	10.72805	491894.08	3649066.22	6.74583
491861.77	3649039.50	5.75615	491831.86	3649009.59	5.45073
491807.66	3648985.01	5.38451	491799.53	3648977.55	5.35645
491787.32	3648969.76	5.14651	491771.39	3648961.28	4.87919
491658.84	3648913.14	4.55300	491617.40	3648981.77	3.50577
491608.92	3648980.07	3.63400	491601.12	3648981.09	3.73226
491590.95	3648986.85	3.83615	491586.21	3648995.33	3.83331
491584.17	3649003.13	3.80258	491583.84	3649010.25	3.74334
491559.76	3649074.32	3.30702	491556.04	3649075.34	3.30195
491549.93	3649072.62	3.32914	491543.49	3649069.91	3.34883
491538.07	3649071.61	3.32497	491534.68	3649074.32	3.30004
491466.59	3649145.00	2.88417	491455.74	3649148.73	2.82283
491375.91	3649117.27	2.31064	491301.45	3649103.35	1.99013
491294.95	3649137.78	1.89640	491296.90	3649196.23	1.76585
491325.48	3649193.63	1.85316	491328.08	3649219.61	1.81716
491338.47	3649252.74	1.81827	491353.41	3649291.71	1.83927
491377.44	3649341.07	1.87226	491446.56	3649497.61	1.85476
491601.69	3649428.04	2.18308	491643.65	3649282.29	1.96502
491645.31	3649167.46	1.89707	491706.59	3649141.51	1.91487
491736.40	3649210.52	1.91472	491719.29	3649250.82	1.64173
491797.13	3649439.08	2.50093	491786.09	3649444.61	2.28814
491836.33	3649559.44	2.79789	491817.62	3649703.69	3.11989
491806.57	3649750.07	3.15513	491772.14	3649781.54	2.75786
491741.64	3649761.83	2.05560	491735.07	3649768.40	2.06686
491757.60	3649791.40	2.57901	491770.74	3649812.05	2.80012
491769.55	3649853.95	2.72904	491919.94	3649855.15	4.13636
491988.74	3649905.16	5.62282			

*** AERMOD - VERSION 16216r *** *** E:\Work\NDG 01 - The Junipers\Analysis\AERMOD\NDG01_Junipers\NDG01_J ***
04/12/18

*** AERMET - VERSION 14134 *** *** 16:39:12

PAGE 27

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL RURAL

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): I1500001 ,I1500002 ,I1500003 ,I1500004 ,I1500005 ,
I1500006 ,I1500007 ,I1500008 ,I1500009 ,I1500010 ,I1500011 ,I1500012 ,I1500013 ,
I1500014 ,I1500015 ,I1500016 ,I1500017 ,I1500018 ,I1500019 ,I1500020 ,I1500021 ,
I1500022 ,I1500023 ,I1500024 ,I1500025 ,I1500026 ,I1500027 ,I1500028 , . . . ,

*** NETWORK ID: UCART1 ; NETWORK TYPE: GRIDCART ***

** CONC OF DPM IN MICROGRAMS/M**3 **

Y-COORD	X-COORD (METERS)				
(METERS)	490504.48	490604.48	490704.48	490804.48	490904.48
3650390.2	12.65121 (11020202)	3.66925 (11010903)	2.66497 (12012008)	2.22296 (12052206)	2.79894
(11010308)					
3650290.2	14.45852 (09021820)	6.88523 (11121122)	3.20424 (12022604)	2.73280 (11010208)	4.65275
(12022604)					
3650190.2	4.09453 (12022602)	4.83614 (10121406)	2.49417 (09012708)	2.61840 (09012708)	3.75830
(13020606)					
3650090.2	2.69270 (09030707)	3.08703 (12010706)	2.25663 (09123008)	2.63207 (11010508)	4.10822
(09120302)					
3649990.2	2.38930 (10011308)	2.18115 (12011408)	2.07734 (10011908)	2.24508 (10011908)	2.66346
(10011308)					
3649890.2	2.06951 (10011908)	1.86420 (09070806)	1.83897 (12120308)	1.98821 (12120308)	2.31390
(10011908)					
3649790.2	1.86609 (10011908)	1.80663 (12120308)	1.80563 (12120308)	1.90372 (12120308)	2.15932
(12012408)					
3649690.2	1.75468 (12012408)	1.73258 (12120308)	1.77768 (12120308)	1.96179 (11121708)	2.40798
(12012408)					
3649590.2	1.66928 (12120308)	1.71343 (12120308)	1.80922 (12120308)	1.93541 (11121708)	2.26635
(11121708)					
3649490.2	1.63924 (12120308)	1.74014 (12120308)	2.03540 (11121708)	2.24954 (12012408)	2.69592
(09121708)					
3649390.2	1.59111 (12120308)	1.74293 (12120308)	1.95802 (11032207)	2.20870 (11032207)	2.74414
(09121708)					
3649290.2	1.61251 (12120308)	1.76194 (12120308)	1.96038 (12120308)	2.58168 (09121708)	3.98268
(12020119)					
3649190.2	1.77969 (12120308)	1.88420 (12120308)	2.16979 (11051606)	2.77405 (09121708)	4.13328
(10122105)					
3649090.2	1.88754 (12120308)	2.05414 (12120308)	2.22177 (12120308)	2.62746 (12120908)	4.11792
(11122708)					
3648990.2	1.98902 (12120308)	2.31639 (12120308)	2.43896 (12120308)	2.80449 (12120308)	4.20550
(12120624)					
3648890.2	2.10921 (12120308)	2.48732 (12120308)	2.64688 (12120308)	3.89247 (12012523)	7.56993
(09011819)					
3648790.2	2.30793 (09121008)	2.82220 (12012408)	2.64595 (09121008)	3.17706 (11121708)	4.09713
(09121708)					

The Junipers Project AERMOD Output File

*** AERMOD - VERSION 16216r *** E:\Work\NDG 01 - The Junipers\Analysis\AERMOD\NDG01_Junipers\NDG01_J ***
04/12/18

*** AERMET - VERSION 14134 *** *** PAGE 28 16:39:12

*** MODELOPTs: RegDEFAULT CONC ELEV FLGPOL RURAL

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): I1500001 ,I1500002 ,I1500003 ,I1500004 ,I1500005 ,
I1500006 ,I1500007 ,I1500008 ,I1500009 ,I1500010 ,I1500011 ,I1500012 ,I1500013 ,
I1500014 ,I1500015 ,I1500016 ,I1500017 ,I1500018 ,I1500019 ,I1500020 ,I1500021 ,
I1500022 ,I1500023 ,I1500024 ,I1500025 ,I1500026 ,I1500027 ,I1500028 , ... ,

*** NETWORK ID: UCART1 ; NETWORK TYPE: GRIDCART ***

** CONC OF DPM IN MICROGRAMS/M**3 **

Y-COORD (METERS)	491004.48	491104.48	491204.48	491304.48	491404.48
3650390.2 (09110123)	7.42685 (11012208)	20.89166 (09110123)	25.42600 (09110123)	26.25127 (09110123)	27.84087
3650290.2 (09110123)	12.15834 (11121122)	23.46985 (09110123)	22.57917 (09110123)	23.54534 (09110123)	26.09081
3650190.2 (09110123)	12.31207 (11011621)	11.36956 (11011621)	23.27736 (09110123)	24.58746 (13123124)	27.50071
3650090.2 (13123124)	4.03050 (09120302)	5.89690 (09120202)	20.41596 (09110219)	27.79721 (13123124)	29.87858
3649990.2 (09110219)	3.64399 (13020701)	4.55706 (13020701)	9.00997 (09110207)	21.61690 (09110207)	25.29959
3649890.2 (09110221)	2.60558 (11010908)	3.39934 (11011008)	6.53890 (10011404)	13.72703 (09110221)	22.51578
3649790.2 (09123024)	2.56691 (12012408)	3.65276 (12120823)	5.78075 (12120823)	5.18664 (11102306)	6.26270
3649690.2 (13010624)	2.88572 (11032407)	3.95151 (11011408)	4.28569 (12120602)	4.40407 (09121708)	6.77874
3649590.2 (09110203)	3.52567 (11011408)	9.14178 (12012402)	8.65036 (11121804)	6.80833 (12020119)	24.10443
3649490.2 (11011702)	4.57478 (09123024)	6.41029 (13010624)	17.85892 (12121019)	19.56904 (09110203)	30.68985
3649390.2 (09110221)	3.55629 (09121708)	7.09330 (10122105)	22.56418 (11011702)	28.61960 (11011702)	29.14581
3649290.2 (09110221)	6.80873 (10122105)	14.79996 (09110203)	22.16256 (09110203)	28.39363 (11011702)	30.89206
3649190.2 (09110221)	9.43653 (11010306)	22.76468 (09110203)	27.54779 (11011702)	28.86039 (11011702)	33.87264
3649090.2 (09110221)	7.42522 (12120624)	21.87114 (09110203)	29.99208 (11011702)	31.66837 (09110221)	37.56668
3648990.2 (11011702)	5.92220 (13012523)	12.74286 (13020320)	23.86185 (09110203)	35.48418 (11011702)	43.21131
3648890.2 (11011702)	15.83691 (12022122)	14.88801 (11011404)	28.51010 (09110203)	43.95905 (11011702)	53.32560
3648790.2 (11011702)	16.22972 (11011404)	22.66642 (11011404)	28.87292 (09110203)	36.95782 (09110203)	67.10553

*** AERMOD - VERSION 16216r *** E:\Work\NDG 01 - The Junipers\Analysis\AERMOD\NDG01_Junipers\NDG01_J ***
04/12/18

*** AERMET - VERSION 14134 *** *** PAGE 29 16:39:12

*** MODELOPTs: RegDEFAULT CONC ELEV FLGPOL RURAL

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): I1500001 ,I1500002 ,I1500003 ,I1500004 ,I1500005 ,
I1500006 ,I1500007 ,I1500008 ,I1500009 ,I1500010 ,I1500011 ,I1500012 ,I1500013 ,
I1500014 ,I1500015 ,I1500016 ,I1500017 ,I1500018 ,I1500019 ,I1500020 ,I1500021 ,
I1500022 ,I1500023 ,I1500024 ,I1500025 ,I1500026 ,I1500027 ,I1500028 , ... ,

*** NETWORK ID: UCART1 ; NETWORK TYPE: GRIDCART ***

** CONC OF DPM IN MICROGRAMS/M**3 **

Y-COORD (METERS)	491504.48	491604.48	491704.48	491804.48	491904.48
3650390.2 (11010823)	21.86652 (11012208)	17.13918 (11012208)	19.52396 (11012208)	10.46633 (11012208)	11.35478
3650290.2 (11012208)	32.47530 (09110123)	30.57542 (13123124)	24.23578 (13123124)	12.09102 (11012208)	26.77825
3650190.2 (09110221)	28.84015 (09110123)	29.30349 (09110219)	13.08615 (09110219)	9.20883 (10030207)	38.75224
3650090.2 (11011702)	19.18308 (09110207)	10.38670 (12120223)	7.94753 (10011404)	8.90114 (12120823)	41.89219
3649990.2 (09110203)	10.34958 (11022224)	7.89736 (12120823)	11.82178 (09123024)	16.02036 (10012702)	33.42342
3649890.2 (11011404)	22.05811 (09110221)	28.88308 (11011702)	23.66734 (09110203)	44.52045 (11011702)	48.15892
3649790.2 (11011702)	29.58127 (11011702)	33.93934 (11011702)	30.05607 (09110203)	43.96847 (11011702)	51.94316
3649690.2 (11011702)	30.95385 (11011702)	34.22604 (11011702)	24.83507 (11011404)	42.09674 (11011404)	54.09903
3649590.2 (11011404)	30.15066 (09110221)	33.68908 (11011702)	29.58500 (11011404)	40.76914 (11011404)	54.61941
3649490.2 (11011702)	32.04807 (11011702)	37.87204 (11011702)	26.99699 (13022420)	47.32877 (11011404)	60.85423
3649390.2 (11011702)	33.16781 (11011702)	37.71242 (11011702)	29.65138 (09010106)	47.88906 (11011404)	66.50327
3649290.2 (11011404)	35.50551 (11011702)	37.41811 (11011702)	31.27614 (09010106)	48.90274 (11011404)	72.60560
3649190.2 (11011404)	39.79660 (09110221)	38.74217 (09110203)	30.56621 (11012119)	59.26429 (11011404)	87.03705
3649090.2 (11011404)	43.54253 (11011702)	44.68937 (09110203)	49.37478 (11011404)	62.73659 (11011404)	111.38233
3648990.2 (11011404)	51.98864 (09110221)	55.52997 (09110203)	59.71062 (11011404)	90.00084 (11011404)	308.91034
3648890.2 (12021707)	69.60949 (11011702)	85.91357 (11011702)	110.18247 (09110203)	208.35779 (11011404)	938.76940
3648790.2 (11012305)	73.34970 (11011702)	92.66701 (11011702)	147.30439 (11011404)	361.51393 (11011404)	287.80967

The Junipers Project AERMOD Output File

*** AERMOD - VERSION 16216r *** E:\Work\NDG 01 - The Junipers\Analysis\AERMOD\NDG01_Junipers\NDG01_J ***
04/12/18

*** AERMET - VERSION 14134 *** *** PAGE 30 16:39:12

*** MODELOPTs: RegDEFAULT CONC ELEV FLGPOL RURAL

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): I1500001 ,I1500002 ,I1500003 ,I1500004 ,I1500005 ,
I1500006 ,I1500007 ,I1500008 ,I1500009 ,I1500010 ,I1500011 ,I1500012 ,I1500013 ,
I1500014 ,I1500015 ,I1500016 ,I1500017 ,I1500018 ,I1500019 ,I1500020 ,I1500021 ,
I1500022 ,I1500023 ,I1500024 ,I1500025 ,I1500026 ,I1500027 ,I1500028 , . . . ,

*** NETWORK ID: UCART1 ; NETWORK TYPE: GRIDCART ***

** CONC OF DPM IN MICROGRAMS/M**3 **

Y-COORD (METERS)	492004.48	492104.48	492204.48	492304.48	492404.48	
3650390.2 (11022506)	18.15089 (12121701)	37.85969 (12112520)	589.63575 (09050724)	126.08904 (11040303)	50.53882	
3650290.2 (11040204)	55.87041 (13123124)	90.83687 (11113024)	557.93576 (09113002)	86.13469 (11012920)	45.28884	
3650190.2 (12050205)	65.66116 (13123124)	93.02108 (11113024)	288.96346 (11011701)	102.65749 (11012920)	53.35535	
3650090.2 (13012704)	64.34523 (13123124)	82.52575 (11011404)	208.54309 (11011701)	182.10224 (11011619)	72.63230	
3649990.2 (11052224)	67.34369 (11011702)	81.35689 (11012119)	172.57032 (11011701)	221.95981 (09010420)	59.49625	
3649890.2 (09012207)	64.43739 (11011702)	79.41833 (11012119)	157.12586 (11011701)	291.50675 (12093023)	61.76819	
3649790.2 (11011619)	66.24839 (11011702)	78.43833 (11012119)	162.71590 (11012119)	358.87477 (11123121)	145.16263	
3649690.2 (09010420)	64.60251 (13123124)	84.10850 (11011404)	195.52580 (11121318)	391.02001 (11123121)	145.55292	
3649590.2 (09010420)	73.13086 (11011702)	110.89603 (13122818)	331.07806 (11012119)	275.80556 (11123121)	142.39331	
3649490.2 (12093023)	87.02587 (11011702)	153.28665 (10021001)	863.11621 (09010518)	235.68171 (13123119)	143.03848	
3649390.2 (10123118)	104.45231 (11011702)	241.68679 (10021001)	408.97958 (11011701)	212.89795 (13123119)	137.11129	
3649290.2 (10123118)	134.87953 (11011404)	894.83560 (09010518)	255.25882 (10021723)	177.29147 (13123119)	124.33429	
3649190.2 (11123121)	265.78446 (11011404)	363.08857 (11122404)	190.97202 (10021723)	141.61736 (13123119)	110.59415	
3649090.2 (11123121)	830.62553 (13010419)	247.87984 (11011701)	151.91673 (10021723)	119.43663 (13123119)	102.82270	
3648990.2 (11123121)	350.11667 (09120406)	200.02928 (11011701)	128.74349 (09120420)	109.86409 (13013119)	99.95324	
3648890.2 (11123121)	232.84450 (11122404)	159.04323 (11011701)	118.05217 (09120420)	102.97340 (13013119)	95.41659	
3648790.2 (11123121)	160.10001 (11020503)	141.77696 (11011701)	110.86411 (09120420)	100.42668 (13013119)	85.64849	

*** AERMOD - VERSION 16216r *** E:\Work\NDG 01 - The Junipers\Analysis\AERMOD\NDG01_Junipers\NDG01_J ***
04/12/18

*** AERMET - VERSION 14134 *** *** PAGE 31 16:39:12

*** MODELOPTs: RegDEFAULT CONC ELEV FLGPOL RURAL

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): I1500001 ,I1500002 ,I1500003 ,I1500004 ,I1500005 ,
I1500006 ,I1500007 ,I1500008 ,I1500009 ,I1500010 ,I1500011 ,I1500012 ,I1500013 ,
I1500014 ,I1500015 ,I1500016 ,I1500017 ,I1500018 ,I1500019 ,I1500020 ,I1500021 ,
I1500022 ,I1500023 ,I1500024 ,I1500025 ,I1500026 ,I1500027 ,I1500028 , . . . ,

*** NETWORK ID: UCART1 ; NETWORK TYPE: GRIDCART ***

** CONC OF DPM IN MICROGRAMS/M**3 **

Y-COORD (METERS)	492504.48	492604.48	492704.48	492804.48	492904.48	
3650390.2 (13020506)	32.73835 (13042406)	31.73775 (11032702)	26.42238 (12033105)	22.50044 (12042302)	24.78062	
3650290.2 (10012818)	36.66499 (13061205)	37.90212 (09012207)	28.41618 (13012703)	22.57987 (11022501)	21.94346	
3650190.2 (09110319)	45.31272 (11032702)	41.39767 (13021901)	24.99054 (09050921)	18.54868 (11032624)	29.53108	
3650090.2 (12093022)	57.24568 (11013003)	38.22078 (13012703)	21.81453 (09032023)	16.20013 (13032603)	21.80724	
3649990.2 (12093022)	52.19181 (13021901)	34.26676 (10020220)	19.35731 (09031504)	14.31523 (09051123)	34.27540	
3649890.2 (09010924)	72.82392 (10120118)	47.17917 (09012903)	46.28524 (09110218)	21.75588 (09110218)	35.07123	
3649790.2 (09110218)	75.55960 (11011619)	61.94539 (09012903)	50.86973 (13020620)	37.58439 (13011918)	30.78897	
3649690.2 (09110218)	100.10858 (11011619)	69.05480 (10010802)	51.42267 (09012903)	43.36475 (09110218)	39.84036	
3649590.2 (13011918)	100.44231 (11011619)	69.08558 (11011619)	49.79851 (10120118)	44.67059 (09012903)	40.51740	
3649490.2 (09012903)	98.95365 (12010206)	73.14147 (11011619)	49.83087 (13121318)	47.78226 (10120118)	40.91915	
3649390.2 (09022519)	94.33798 (09010420)	65.32710 (11011619)	53.96171 (11011619)	48.65545 (10010802)	42.92499	
3649290.2 (10010802)	77.52993 (09010420)	59.31739 (12122218)	56.76503 (11011619)	45.85782 (13121318)	42.37453	
3649190.2 (13121318)	74.92272 (12093023)	59.46939 (12010206)	53.09217 (11011619)	46.49976 (11011619)	39.61781	
3649090.2 (11122305)	74.12001 (12093023)	62.10160 (09010420)	54.07966 (11011619)	51.71418 (11011619)	41.03533	
3648990.2 (11011619)	73.56099 (12093023)	65.44662 (09010420)	55.82490 (12010206)	50.14530 (11011619)	46.86469	
3648890.2 (11011619)	78.33495 (10123118)	61.51824 (12093023)	58.30963 (10020304)	51.29116 (12122218)	41.30709	
3648790.2 (09071021)	79.26829 (10123118)	67.74423 (12093023)	34.92072 (13061523)	20.39964 (13072204)	16.50378	

The Junipers Project AERMOD Output File

*** AERMOD - VERSION 16216r *** E:\Work\NDG 01 - The Junipers\Analysis\AERMOD\NDG01_Junipers\NDG01_J ***
04/12/18

*** AERMET - VERSION 14134 *** *** PAGE 32 16:39:12

*** MODELOPTs: RegDEFAULT CONC ELEV FLGPOL RURAL

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): I1500001 ,I1500002 ,I1500003 ,I1500004 ,I1500005 ,
I1500006 ,I1500007 ,I1500008 ,I1500009 ,I1500010 ,I1500011 ,I1500012 ,I1500013 ,
I1500014 ,I1500015 ,I1500016 ,I1500017 ,I1500018 ,I1500019 ,I1500020 ,I1500021 ,
I1500022 ,I1500023 ,I1500024 ,I1500025 ,I1500026 ,I1500027 ,I1500028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF DPM IN MICROGRAMS/M**3 **

X-COORD (M) (YYMMDDHH)	Y-COORD (M)	CONC (YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC
492156.70	3650312.51	184.58176 (09012223)	492203.03	3649983.41	167.08434 (11011701)
492207.64	3649948.51	170.20567 (11011701)	492211.18	3649887.52	171.72565 (11011701)
492211.39	3649825.69	173.05835 (11012119)	492208.94	3649773.40	174.15851 (11012119)
492202.93	3649716.95	177.53637 (11121318)	492198.15	3649683.51	180.41226 (11121318)
492184.48	3649612.96	182.40676 (11012119)	492169.30	3649553.94	191.32590 (10021001)
492145.79	3649479.73	238.71180 (10021001)	492126.93	3649431.73	239.38017 (10021001)
492087.41	3649343.63	276.26029 (10021001)	492077.61	3649347.95	238.26602 (10021001)
492039.86	3649276.78	219.03511 (10021001)	492006.54	3649213.38	219.79413 (11011404)
491948.31	3649130.03	154.27169 (11011404)	491894.08	3649066.22	100.51243 (11011404)
491861.77	3649039.50	90.14721 (11011404)	491831.86	3649009.59	91.64193 (11011404)
491807.66	3648985.01	94.88139 (11011404)	491799.53	3648977.55	95.23972 (11011404)
491787.32	3648969.76	92.51902 (11011404)	491771.39	3648961.28	88.57752 (11011404)
491658.84	3648913.14	79.27652 (09110203)	491617.40	3648981.77	57.70844 (09110203)
491608.92	3648980.07	57.58415 (09110203)	491601.12	3648981.09	56.16995 (09110203)
491590.95	3648986.85	61.76224 (11011702)	491586.21	3648995.33	62.20125 (11011702)
491584.17	3649003.13	61.47964 (11011702)	491583.84	3649010.25	60.29798 (11011702)
491559.76	3649074.32	52.50472 (11011702)	491556.04	3649075.34	52.01812 (11011702)
491549.93	3649072.62	51.50309 (11011702)	491543.49	3649069.91	50.78512 (11011702)
491538.07	3649071.61	49.87881 (11011702)	491534.68	3649074.32	49.10323 (11011702)
491466.59	3649145.00	39.81649 (09110221)	491455.74	3649148.73	38.97355 (09110221)
491375.91	3649117.27	35.31695 (09110221)	491301.45	3649103.35	31.11545 (09110221)
491294.95	3649137.78	30.42371 (11011702)	491296.90	3649196.23	28.32757 (11011702)
491325.48	3649193.63	29.86608 (11011702)	491328.08	3649219.61	28.72023 (11011702)
491338.47	3649252.74	28.53455 (09110221)	491353.41	3649291.71	29.42418 (09110221)
491377.44	3649341.07	29.90474 (09110221)	491446.56	3649497.61	28.74755 (11011702)
491601.69	3649428.04	37.37341 (11011702)	491643.65	3649282.29	39.49495 (11011404)
491645.31	3649167.46	40.40882 (11011404)	491706.59	3649141.51	36.63728 (09010106)
491736.40	3649210.52	36.86699 (09010106)	491719.29	3649250.82	32.02072 (10010703)
491797.13	3649439.08	46.80085 (11011404)	491786.09	3649444.61	43.78452 (11011404)
491836.33	3649559.44	49.22881 (11011404)	491817.62	3649703.69	45.68447 (11011702)
491806.57	3649750.07	45.50465 (11011702)	491772.14	3649781.54	40.90723 (11011702)
491741.64	3649761.83	31.43913 (12022122)	491735.07	3649768.40	31.50812 (12022021)
491757.60	3649791.40	37.98924 (11011702)	491770.74	3649812.05	42.38215 (11011702)
491769.55	3649853.95	42.11999 (11011702)	491919.94	3649855.15	55.27509 (11011404)
491988.74	3649905.16	63.73942 (11011702)			

*** AERMOD - VERSION 16216r *** E:\Work\NDG 01 - The Junipers\Analysis\AERMOD\NDG01_Junipers\NDG01_J ***
04/12/18

*** AERMET - VERSION 14134 *** *** PAGE 33 16:39:12

*** MODELOPTs: RegDEFAULT CONC ELEV FLGPOL RURAL

*** THE SUMMARY OF MAXIMUM PERIOD (43872 HRS) RESULTS ***

** CONC OF DPM IN MICROGRAMS/M**3 **

GROUP ID	AVERAGE CONC	RECEPTOR (XR, YR, ZELEV, ZHILL, ZFLAG) OF TYPE GRID-ID
ALL	1ST HIGHEST VALUE IS 58.96031 AT (492204.48, 3650290.25, 222.00, 271.20, 1.80) GC UCART1	
	2ND HIGHEST VALUE IS 41.70690 AT (492104.48, 3649290.25, 190.30, 415.20, 1.80) GC UCART1	
	3RD HIGHEST VALUE IS 40.50760 AT (492204.48, 3649590.25, 202.30, 400.00, 1.80) GC UCART1	
	4TH HIGHEST VALUE IS 39.98268 AT (492204.48, 3649490.25, 197.60, 415.20, 1.80) GC UCART1	
	5TH HIGHEST VALUE IS 36.96947 AT (491904.48, 3648890.25, 188.10, 477.20, 1.80) GC UCART1	
	6TH HIGHEST VALUE IS 33.05302 AT (492204.48, 3650190.25, 219.20, 271.20, 1.80) GC UCART1	
	7TH HIGHEST VALUE IS 32.41614 AT (492204.48, 3649390.25, 194.80, 415.20, 1.80) GC UCART1	
	8TH HIGHEST VALUE IS 31.27821 AT (492104.48, 3649190.25, 188.10, 415.20, 1.80) GC UCART1	
	9TH HIGHEST VALUE IS 31.03996 AT (492004.48, 3649090.25, 191.80, 415.20, 1.80) GC UCART1	
	10TH HIGHEST VALUE IS 28.46143 AT (492004.48, 3648990.25, 190.90, 415.20, 1.80) GC UCART1	

*** RECEPTOR TYPES: GC = GRIDCART

GP = GRIDPOLR

DC = DISCCART

DP = DISCPOLR

The Junipers Project AERMOD Output File

```
*** AERMOD - VERSION 16216r *** *** E:\Work\INDG 01 - The Junipers\Analysis\AERMOD\INDG01_Junipers\INDG01_J ***
04/12/18
*** AERMET - VERSION 14134 *** ***
***
*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL RURAL
***
*** THE SUMMARY OF HIGHEST 1-HR RESULTS ***
***
** CONC OF DPM IN MICROGRAMS/M**3 **
***
DATE NETWORK
GROUP ID AVERAGE CONC (YYMMDDHH) RECEPTOR (XR, YR, ZELEV, ZHILL, ZFLAG) OF
TYPE GRID-ID
-----
ALL HIGH 1ST HIGH VALUE IS 938.76940 ON 12021707: AT ( 491904.48, 3648890.25, 188.10, 477.20, 1.80) GC
UCART1

*** RECEPTOR TYPES: GC = GRIDCART
GP = GRIDPOLR
DC = DISCCART
DP = DISCPOLR
```

```
*** AERMOD - VERSION 16216r *** *** E:\Work\INDG 01 - The Junipers\Analysis\AERMOD\INDG01_Junipers\INDG01_J ***
04/12/18
*** AERMET - VERSION 14134 *** ***
***
*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL RURAL
***
*** Message Summary : AERMOD Model Execution ***
----- Summary of Total Messages -----
A Total of 0 Fatal Error Message(s)
A Total of 0 Warning Message(s)
A Total of 11336 Informational Message(s)

A Total of 43872 Hours Were Processed

A Total of 9082 Calm Hours Identified

A Total of 2254 Missing Hours Identified ( 5.14 Percent)

***** FATAL ERROR MESSAGES *****
*** NONE ***

***** WARNING MESSAGES *****
*** NONE ***

*****
*** AERMOD Finishes Successfully ***
*****
```

EMFAC2017 (v1.0.2) Emission Rates

Region Type: County

Region: SAN DIEGO

Calendar Year: 2022

Season: Annual

Vehicle Classification: EMFAC2007 Categories

Units: miles/day for VMT, trips/day for Trips, g/mile for RUNEX,
PMBW and PMTW, g/trip for STREX, HTSK and RUNLS, g/vehicle/day
for IDLEX, RESTL and DIURN

Region	Calendar Year	Vehicle Category	PM10 RUNEX	AADT	PM10 (g/mi)
SAN DIEGO	2022	HHDT	0.03574	5,260	187.97
SAN DIEGO	2022	LHDT1	0.02658	1,733	46.07
SAN DIEGO	2022	LHDT2	0.02420	7,484	181.14
SAN DIEGO	2022	MHDT	0.04095	859	35.17

HARP2 - HRACalc (dated 17023) 4/18/2018 11:59:16 AM - Output Log

GLCs loaded successfully
Pollutants loaded successfully
Pathway receptors loaded successfully

RISK SCENARIO SETTINGS

Receptor Type: Resident
Scenario: All
Calculation Method: Derived

EXPOSURE DURATION PARAMETERS FOR CANCER

Start Age: 55
Total Exposure Duration: 30

Exposure Duration Bin Distribution
3rd Trimester Bin: 0
0<2 Years Bin: 0
2<9 Years Bin: 0
2<16 Years Bin: 0
16<30 Years Bin: 0
16 to 70 Years Bin: 30

PATHWAYS ENABLED

NOTE: Inhalation is always enabled and used for all assessments. The remaining pathways are only used for cancer and noncancer chronic assessments.

Inhalation: True
Soil: True
Dermal: True
Mother's milk: True
Water: False
Fish: False
Homegrown crops: False
Beef: False
Dairy: False
Pig: False
Chicken: False
Egg: False

INHALATION

Daily breathing rate: LongTerm24HR

Worker Adjustment Factors
Worker adjustment factors enabled: NO

Fraction at time at home
3rd Trimester to 16 years: OFF
16 years to 70 years: ON

SOIL & DERMAL PATHWAY SETTINGS

Deposition rate (m/s): 0.05
Soil mixing depth (m): 0.01
Dermal climate: Mixed

TIER 2 SETTINGS

Tier2 adjustments were used in this assessment. Please see the input file for details.

Tier2 - What was changed: ED or start age changed|

Calculating cancer risk

Cancer risk breakdown by pollutant and receptor saved to: E:\Work\NDG 01

- The Junipers\Analysis\HRA\NDG01_JUNIPERS\hra\NDG01_CancerRisk.csv

Cancer risk total by receptor saved to: E:\Work\NDG 01 - The

Junipers\Analysis\HRA\NDG01_JUNIPERS\hra\NDG01_CancerRiskSumByRec.csv

Calculating chronic risk

Chronic risk breakdown by pollutant and receptor saved to: E:\Work\NDG 01

- The Junipers\Analysis\HRA\NDG01_JUNIPERS\hra\NDG01_NCChronicRisk.csv

Chronic risk total by receptor saved to: E:\Work\NDG 01 - The

Junipers\Analysis\HRA\NDG01_JUNIPERS\hra\NDG01_NCChronicRiskSumByRec.csv

Calculating acute risk

Acute risk breakdown by pollutant and receptor saved to: E:\Work\NDG 01 -

The Junipers\Analysis\HRA\NDG01_JUNIPERS\hra\NDG01_NCAcuteRisk.csv

Acute risk total by receptor saved to: E:\Work\NDG 01 - The

Junipers\Analysis\HRA\NDG01_JUNIPERS\hra\NDG01_NCAcuteRiskSumByRec.csv

HRA ran successfully

Appendix C

SANDAG Series 13 Data

Table C

SANDAG Vehicle Miles of Travel Report

Scenario ID 991

Junipers - 2020 Junipers - Project Site

VMT per Resident					
	Residents	Total Trips	Person Miles of Travel	Vehicle Miles of Travel	VMT per Resident
Regionwide	3,435,715	12,302,411	77,559,665	56,353,219	16.4
Jurisdiction San Diego	1,453,025	5,228,315	29,404,995	20,993,979	14.4
CPA Rancho Penasquitos	45,928	171,466	1,190,810	879,796	19.2
Project Site	2,601	10,041	65,988	48,580	18.7

VMT per Employee					
	Employees	Total Trips	Person Miles of Travel	Vehicle Miles of Travel	VMT per Employee
Regionwide	1,444,771	4,995,914	41,235,140	35,989,589	24.9
Jurisdiction San Diego	783,383	2,649,114	21,579,539	18,994,993	24.2
CPA Rancho Penasquitos	5,091	19,414	158,538	132,534	26.0
Project Site	253	944	6,770	5,583	22.1

Report Generated: 01/10/19

