Appendix C2. Health Risk Assessment

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HEALTH RISK ASSESSMENT

FANITA RANCH PROJECT

CITY OF SANTEE

SAN DIEGO COUNTY, CALIFORNIA

LSA

May 2020

HEALTH RISK ASSESSMENT

FANITA RANCH PROJECT
CITY OF SANTEE
SAN DIEGO COUNTY, CALIFORNIA

Prepared for:

City of Santee
10601 Magnolia Avenue
Santee, California 92071

Prepared by:

LSA Associates, Inc.
20 Executive Park, Suite 200
Irvine, California 92614
(949) 553-0666

Project No. HRS1601

LSA

May 2020

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LIST OF ACRONYMS AND ABBREVIATIONS

°F	degree(s) Fahrenheit
AAQS	ambient air quality standards
AB	Assembly Bill
AERMOD	American Meteorological Society/Environmental Protection Agency Regulatory Model
ARB	California Air Resources Board
Basin	San Diego Air Basin
CalEEMod	California Emissions Estimator Model
CalEPA	California Environmental Protection Agency
CAPCOA	California Air Pollution Control Officers Association
CEQA	California Environmental Quality Act
City	City of Santee
CO	carbon monoxide
DPM	diesel particulate matter
EPA	United States Environmental Protection Agency
HARP 2	Hotspots Analysis and Reporting Program Version 2
HI	hazard index
HRA	health risk assessment
MICR	maximum individual cancer risk
MM	mitigation measure
NO_2	nitrogen dioxide
NO_X	nitrogen oxides
O_3	ozone
OEHHA	Office of Environmental Health and Hazards Assessment
PM_{10}	particulate matter smaller than or equal to 10 microns in diameter
project	Fanita Ranch Project
SB	Senate Bill
SDAPCD	San Diego Air Pollution Control District
SR	State Route
TAC	toxic air contaminant

INTRODUCTION

BACKGROUND

LSA was retained to prepare a health risk assessment (HRA) for the development of the Fanita Ranch Project (project) in the City of Santee, San Diego County, California.

An HRA is a process used to estimate the increased risk of health problems in people who are exposed to toxic air contaminants (TACs). An HRA combines the results of studies on the health effects of various animal and human exposures to TACs with the results of studies that estimate the level of people's exposures at different distances from the sources of the pollutants. The purpose of the HRA is to determine the increased cancer and non-cancer health risks from exposure to TACs for future residents of the project and the impact of the project to existing residents.

In 2005, the California Air Resources Board (ARB) developed an *Air Quality and Land Use Handbook* (ARB 2005) to help readers understand the potential cancer risks from some common sources of toxic emissions. ARB has made specific recommendations with respect to siting new sensitive uses near existing TAC-emitting facilities. The ARB's role is advisory and the recommendations for the following buffer zones do not establish regulatory standards or thresholds of significance. ARB recommends that the following buffer distances be observed when locating TAC emitters or sensitive land uses:

- Freeways or major roadways (urban roads with 100,000 vehicles/day, or rural roads with 50,000 vehicles/day): 500 feet.

- Dry cleaners: 500 feet.

- Auto body repair services: 500 feet.

- Gasoline dispensing stations with an annual throughput of less than 3.6 million gallons: 50 feet.

- Gasoline dispensing stations with an annual throughput at or above 3.6 million gallons: 300 feet.

- Other TAC sources including furniture manufacturing and repair services that use methylene chloride or other solvents identified as a TAC: 300 feet.

- Distribution centers with more than 100 trucks per day; more than 40 trucks with operating transport refrigeration units per day; or where transport refrigeration unit operations exceed 300 hours per week: 1,000 feet.

- Rail yards for major service and maintenance operations: 1,000 feet.

- Chrome platers: 1,000 feet.

- Port developments should not site the heavily impacted areas immediately upwind of sensitive land uses.

- Petroleum refineries should not site the heavily impacted areas immediately upwind of sensitive land uses.

The project site is approximately 3 miles from the State Route (SR) 52 and SR-67 freeways. According to the *Transportation Impact Analysis* (LLG 2020), none of the major roadways within 500 feet of the project site would exceed 50,000 vehicles per day. No other TAC-emitting facilities exist in close vicinity of the project site. Therefore, future on-site residents would not be exposed to substantial emissions from existing off-site TAC-emitting sources.

Some TAC-emitting facilities are allowed by the Fanita Ranch Project and would potentially be built on the project site, including gasoline dispensing stations. However, location and operation details of these facilities are currently unknown. Without mitigation the impact from TAC emitting facilities could be potentially significant. To address this potentially significant impact mitigation providing buffers based upon facility size, best available control technology, and other restrictions to reduce health related impacts to less than significant are included below.

Because of the scale and incremental development of the proposed project, the construction period is anticipated to last approximately 12 years, and occupancy of the initial residential units in Phase 1 of the project is likely to occur as construction activities continue through buildout of the project. Therefore, those on-site residences in the initial phase of the project would have the potential to be exposed to construction-generated TACs. In addition, some existing off-site residences located in close vicinity of the project construction area would also have the potential to be exposed to construction-generated TACs. California Code of Regulations Title 14, Section 15126.2(a), recommends that significant environmental effects of a project be assessed when the project brings development and people into an affected area. For the proposed project, construction emissions are a potential concern, and relevant thresholds and standards are used to determine the impact of construction emissions on an exposed population. As such, this HRA was prepared to assess the impact of these on-site construction emissions on future initial residents within the proposed project site and existing residents in close vicinity of the proposed project site.

In 2009, the California Air Pollution Control Officers Association (CAPCOA) published guidance (CAPCOA 2009) on assessing the health risk impacts from and to proposed land use projects, focusing on the acute, chronic, and cancer impacts of sources addressed by the California Environmental Quality Act (CEQA). This guidance recommends procedures to identify when a project should undergo further risk evaluation, how to conduct the HRA, how to engage the public, what to do with the results from the HRA, and what mitigation measures may be appropriate for various land use projects. In 2015, six years after the CAPCOA guidance document was released, an important CEQA case (*California Building Industry Association v. Bay Area Air Quality Management District* [2015], 62 Cal.4th 369) (FindLaw 2015) established that CEQA does not require analysis of the existing air environment on a project. Accordingly, this HRA does not analyze the impacts of existing air quality environment on the proposed project.

Finally, the SDAPCD has its own risk assessment guidelines and required assumptions (SDAPCD 2019). These guidelines incorporate the Office of Environmental Health and Hazards Assessment (OEHHA) guidance. Even though this guidance is intended to be used for new TACs source review, it is also applicable to assessing the impacts of TACs emissions from project construction equipment exhaust to future on-site residents and existing off-site residents.

As such, this HRA follows the ARB Handbook, CAPCOA, and SDAPCD guidance and recommendations. It examines the potential health effects from TAC emissions from the proposed project, particularly construction equipment exhaust during construction of the proposed project.

PROJECT DESCRIPTION

The project site consists of approximately 2,638 acres located in the northwest quadrant of the City of Santee (City) in eastern San Diego County. The project lies north of SR-52 and west of SR-67 and would be accessed from the future northerly extension of Fanita Parkway and Cuyamaca Street via Mast Boulevard and the future extension of Magnolia Avenue to Cuyamaca Street. These roadway extensions would be constructed during the first three years of project construction. Figure 1 shows the project location.

The proposed project would be a master planned community consisting of up to 2,949 housing units with a K-8 school, or 3,008 units without a K-8 school, up to 80,000 square feet of commercial uses, parks, open space, and agriculture uses. Development within the proposed project would be clustered, preserving more than 63 percent of the site as Habitat Preserve. The bulk of the preserve area, approximately 900 acres, would be located in the southern portion of the site and include a network of trails. The existing project site is currently vacant. Figure 2 illustrates the conceptual site plan.

Construction of the proposed project would be divided into four phases and is anticipated to begin in summer 2021 with a buildout of approximately 12 years. The construction phasing plan is included in Appendix D.

EXISTING LAND USES IN THE PROJECT AREA

The project site is bordered by Marine Corps Air Station Miramar and Padre Dam Municipal Water District (PDMWD) facilities, including Santee Lakes Recreation Preserve to the west; open space/recreational areas, including Goodan Ranch Regional Park and Sycamore Canyon County Preserve, to the north and west; existing City residential neighborhoods to the south; and Eucalyptus Hills, an existing residential community in the unincorporated County, to the east.

EMISSIONS SOURCES

To ensure a thorough analysis, all stationary TAC-emitting sources within 0.2 mile (or 1,000 feet) of the project should be addressed in an HRA (ARB 2005). PDMWD's Roy Stoyer Water Recycling Facility (WRF) is located on Fanita Parkway to the west of the project site. The facility treats sewage and the process includes the use of chlorine and sulfur dioxide gas, which would potentially generate TACs emissions. However, both chemicals are housed in separate buildings on the property. The Risk Management Plan for the Ray Stoyer WRF lays out a comprehensive plan for the protection of public health and relates the chemicals of concern associated with the facility. Therefore, it is not analyzed in this report. A survey of an aerial map of the project area shows that there are no other facilities with potential emissions of TACs within 0.2-mile range.

The project site is approximately 3 miles from the SR-52 and SR-67 freeways, and according to the *Traffic Impact Analysis* (LLG 2020), none of the major roadways within 500 feet of the project site

would exceed 50,000 vehicles per day; therefore, the traffic exhaust emissions from freeways and roadways were not analyzed. For this HRA, exhaust emissions from all diesel-powered off-road construction equipment and heavy trucks operating on-site were included in the construction analysis.

KEY MAP

RAMONA

POWAY

FERNBROOK

GOODAN RANCH/
SYCAMORE CANYON
COUNTY PRESERVE

SAN VICENTE
RESERVOIR

MIRA MESA

FANITA RANCH
SPECIFIC PLAN AREA

MIRAMAR

MARINE
CORPS.
AIR STATION
MIRAMAR

SANTEE
LAKES
PRESERVE

EUCALYPTUS
HILLS

LOUIS STELZER
COUNTY PARK

LAKE
JENNINGS

PADRE
DAM

SANTEE

MISSIONTRAILS
REGIONAL PARK

GILLESPIE
FIELD

GRANITE
HILLS

EL CAJON

SPRING
VALLEY

SAN DIEGO

SWEETWATER
RESERVOIR

PACIFIC
OCEAN

BONITA

LSA

N

FIGURE 1

Fanita Ranch Specific Plan
Health Risk Assessment Report
Project Location
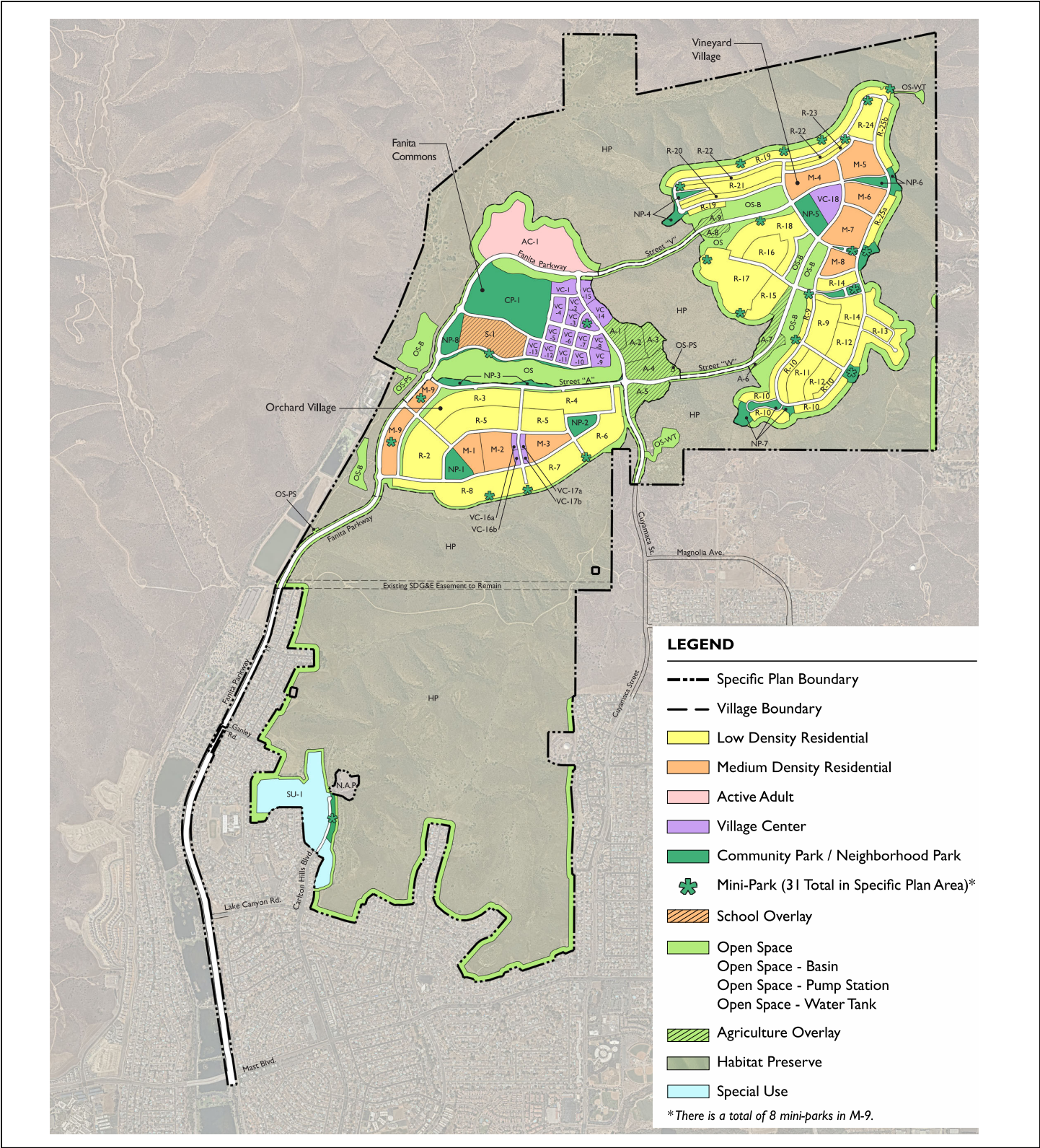
LEGEND

▪–▪–▪ Specific Plan Boundary

▪ — ▪ Village Boundary

Low Density Residential

Medium Density Residential

Active Adult

Village Center

Community Park / Neighborhood Park

✳ Mini-Park (31 Total in Specific Plan Area)*

School Overlay

Open Space
Open Space - Basin
Open Space - Pump Station
Open Space - Water Tank

Agriculture Overlay

Habitat Preserve

Special Use

*There is a total of 8 mini-parks in M-9.

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FIGURE 2

Fanita Ranch Specific Plan
Health Risk Assessment Report
Project Site Plan

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PROJECT SETTING

The project site is located in Santee, within the San Diego Air Basin (Basin) and is under the jurisdiction of the SDAPCD.

REGIONAL AIR QUALITY AND CLIMATE/METEOROLOGY

Air quality in the planning area is not only affected by various emission sources (mobile, industry, etc.), but also by atmospheric conditions such as wind speed, wind direction, temperature, and rainfall.

The weather in the Basin, as in most of Southern California, is influenced by the Pacific Ocean and its semi-permanent high-pressure systems that result in dry, warm summers and mild, occasionally wet winters. The average temperature ranges from the mid-40s to the high 90s, measured in degrees Fahrenheit (°F). Most of the region's precipitation falls from November to April, with infrequent (approximately 10 percent) precipitation during the summer. The average seasonal precipitation along the coast is approximately 10 inches, which increases with elevation as moist air is lifted over the mountains.

The topography in the Basin varies greatly, from beaches on the west to mountains and desert on the east; along with local meteorology, topography influences the dispersal and movement of pollutants in the Basin. The mountains to the east prohibit dispersal of pollutants in that direction and help trap them in inversion layers.

The interaction of ocean, land, and the Pacific High Pressure Zone maintains clear skies for much of the year and influences the direction of prevailing winds (westerly to northwesterly). Local terrain is often the dominant factor inland, and winds in inland mountainous areas tend to blow through the valleys during the day and down the hills and valleys at night.

The Basin experiences frequent temperature inversions. Subsidence inversions occur during the warmer months as descending air associated with the Pacific High Pressure Zone meets cool marine air. The boundary between the two layers of air creates a temperature inversion that traps pollutants. The other type of inversion, a radiation inversion, develops on winter nights when air near the ground cools by heat radiation and air aloft remains warm. The shallow inversion layer formed between these two air masses can also trap pollutants. As the pollutants become more concentrated in the atmosphere, photochemical reactions occur that produce ozone (O_3), commonly known as smog.

Light daytime winds, predominantly from the west, further aggravate these conditions by driving air pollutants inland, toward the mountains. During the fall and winter, air quality problems are created due to carbon monoxide (CO) and nitrogen oxides (NOx) emissions. CO concentrations are generally higher in the morning and late evening. In the morning, CO levels are elevated due to cold temperatures and the large number of motor vehicles traveling. Higher CO levels during the late evenings are a result of stagnant atmospheric conditions trapping CO in the area. Since CO is produced almost entirely from automobiles, the highest CO concentrations in the Basin are

associated with heavy traffic. Nitrogen dioxide (NO_2) levels are also generally higher during fall and winter days.

Under certain conditions, atmospheric oscillation results in the offshore transport of air from the Los Angeles region to San Diego County. This often produces high O_3 concentrations, as measured at air pollutant monitoring stations within the county. The transport of air pollutants from Los Angeles to San Diego has also occurred within the stable layer of the elevated subsidence inversion, where high levels of O_3 are transported.

Toxic Air Contaminants

The public's exposure to TACs is a significant environmental health issue in California. In 1983, the State Legislature enacted a program to identify the health effects of TACs and to reduce exposure to these contaminants to protect public health. The Health and Safety Code defines a TAC as "an air pollutant which may cause or contribute to an increase in mortality or in serious illness, or which may pose a present or potential hazard to human health." A substance that is listed as a hazardous air pollutant pursuant to Subsection (b) of Section 112 of the Federal Clean Air Act (United States Code [USC] Title 42, Section 7412[b]) is a TAC. Under State law, the California Environmental Protection Agency (CalEPA), acting through the ARB, is authorized to identify a substance as a TAC if it determines the substance is an air pollutant that may cause or contribute to an increase in mortality or an increase in serious illness, or that may pose a present or potential hazard to human health.

California regulates TACs primarily through Assembly Bill (AB) 1807 (Tanner Air Toxics Act), AB 2588 (Air Toxics "Hot Spot" Information and Assessment Act of 1987), and Senate Bill (SB) 25, the Children's Environmental Health Protection Act. The Tanner Air Toxics Act sets forth a formal procedure for the ARB to designate substances as TACs. To date, the ARB has designated nearly 200 compounds as TACs. The majority of the estimated health risks from TACs can be attributed to a relatively small number of compounds, the most important being particulate matter from diesel-fueled engines (i.e., diesel particulate matter, or DPM).

THRESHOLDS OF SIGNIFICANCE

Both the State and the federal governments have established health-based ambient air quality standards (AAQS) for seven air pollutants. For other air pollutants without defined significance standards, the definition of substantial pollutant concentrations varies. For TACs, "substantial" is taken to mean the health risk to any individual exceeds a threshold considered to be a prudent risk management level (ARB 2005).

The following limits for maximum individual cancer risk (MICR) and non-cancer acute and chronic hazard index (HI) from concentrations of TACs have been published by the SDAPCD for projects generating emissions of TACs (SDAPCD 2015). The following limits are considered appropriate for use in determining the health risk for individuals in the Basin:

- **MICR:** MICR is the estimated probability of an individual contracting cancer as a result of exposure to TACs over a period of 30 years for adult residents and 9 years for children. The MICR calculations include multipathway consideration when applicable.

The cancer risk would be considered significant if the increase in total cancer risk due to total TAC emissions would exceed 10 in 1 million (1.0 × 10^{-5}) for any individual.

- **Chronic Health Index (HI):** Chronic HI is the ratio of the estimated long-term level of exposure to a TAC for an individual to its chronic reference exposure level. The chronic HI calculations include multipathway consideration when applicable.

  The chronic risk would be considered significant if the cumulative increase in total chronic HI for any target organ system due to total TAC emissions would exceed 1.0 for any individual.

IMPACTS AND MITIGATION

For the purposes of an HRA, long-term (multiyear) concentrations are of concern for analyzing chronic and carcinogenic health risk levels. This HRA has been conducted with the inhalation pathway only. This technique was chosen as prescribed in the SDAPCD's *Supplemental Guidelines for Submission of Rule 1200 Health Risk Assessments (HRAs)* (SDAPCD 2019).

CONSTRUCTION HEALTH RISK IMPACTS

Construction of the proposed project would include the use of diesel-powered off-road equipment that releases DPM, a TAC with known carcinogenic and chronic health effects (OEHHA 2015). For construction analyses, the emissions of DPM are included in the particulate matter smaller than or equal to 10 microns in diameter (PM_{10}) exhaust emissions. Based on the modeling results in the *Air Quality Analysis* (LSA 2020), construction during Phase 1 and Phase 2 would overlap in the year of 2024 and would emit the highest level of on-site exhaust PM_{10}, so the year of 2024 is analyzed in this report as a worst-case scenario. As calculated from the latest version (Version 2016.3.25) of the California Emissions Estimator Model (CalEEMod) output, the daily maximum on-site exhaust PM_{10} emission for Phase 1 surface improvement and building construction is 0.3710 pounds per day and the daily maximum on-site exhaust PM_{10} emission for Phase 2 site preparation and grading is 7.8382 pounds per day.

In addition, there are existing off-site sensitive receptors that would be located in close proximity to the future off-site roadways that would be constructed as part of the proposed project, including Fanita Ranch Parkway, Cuyamaca Street, and Magnolia Avenue. Because roadway construction would occur at the beginning of the project construction and would not last until 2024 to overlap with the worst-case scenario of on-site construction, in order to evaluate the health impacts on the off-site sensitive receptors more accurately, a separate model was conducted using CalEEMod to estimate the on-site exhaust PM_{10} emissions during roadway construction, which is 0.8127 pounds per day. CalEEMod emission modeling output files for construction are provided in Appendix A.

EXPOSURE QUANTIFICATION

The SDAPCD published the Supplemental Guidelines for Submission of Air Toxics Program Health Risk Assessments (HRAs) in May 2019. These guidelines require HRAs to address both off-site sensitive receptors and proposed on-site receptors in the HRA. To assess the impact of TAC emissions on the off-site sensitive receptors during roadway construction and on-site residents that would live in the Village Center in Fanita Commons[1] during the construction of later phases of the project, air dispersion modeling utilizing the American Meteorological Society/Environmental Protection Agency Regulatory Model (AERMOD) was performed. The model is approved by the Environmental Protection Agency (EPA) when estimating the air quality impacts associated with point and fugitive sources in simple and complex terrain. The model was used to calculate the annual average and short duration (i.e., 1-hour) pollutant concentrations associated with each

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[1]   It was assumed that the first residents would move into the Village Center in Fanita Commons because it would be built in Phase 1 and would be a mixed-use land use with all necessary amenities for residents.

emitting source. The meteorological data between the years of 2010 and 2012 at the El Cajon Meteorological Station was provided by SDAPCD and used in the AERMOD modeling.

According to the Fanita Ranch Specific Plan Section 10.3, Phasing, and measured from the map, the construction area during Phase 1 is approximately 339 acres, including an approximately 50-acre early-occupied receptor area within the Village Center in Fanita Commons. When the residences move into the Village Center in Fanita Commons, the remaining Phase 1 construction area would be reduced to 289 acres, which was set as an *Area Source*[1] in AERMOD. The construction area during Phase 2 is approximately 149 acres, which was also set as an *Area Source* in AERMOD. The area sources designation is shown in Figure 3. During the construction period, construction equipment would be moving across the entire construction area (i.e. the *Area Sources* in AERMOD) within each phase. To simulate the dispersion of emissions during construction, even though the Phase 1 daily maximum emission of on-site exhaust PM_{10} would only occur on limited number of days, as a worst-case scenario it was used over the 10-year construction period after residents moving in. In addition, it was assumed that over the 10-year construction period, the total emissions would spread evenly across the 289-acre Phase 1 construction area, which is 1.66×10^{-9} pounds per hour per square foot. Similarly, the Phase 2 daily maximum emission of on-site exhaust PM_{10} was assumed to spread evenly across the 149-acre Phase 2 construction area, which is 6.83×10^{-8} pounds per hour per square foot. In reality, construction activities would fluctuate between the daily maximum and lower levels of emissions from day to day and move gradually farther and farther away from the early-occupied receptor area. The analysis simplified this actual activity by using the daily maximum emissions distributed across the nearest construction areas (289 acres and 149 acres) to the on-site receptors to depict a worst-case approximation of health risks during the 10 years of construction after residents move in.

Similarly, two *Area Sources*, one for Fanita Ranch Parkway and the other for Cuyamaca Street and Magnolia Avenue, were set in AERMOD representing the roadway construction area. The daily maximum on-site emission of exhaust PM_{10} during roadway construction was used over the three-year roadway construction period and over that time was assumed to spread evenly across the total of 80 acres of the two *Area Sources*, which is 1.33×10^{-8} pounds per hour per square foot. The *Area Sources* designation is shown in Figure 4. Details of the model inputs are provided in Appendix B.

Construction Cancer Risk

The cancer risk for DPM is determined by the concentration multiplied by the exposure factor, inhalation absorption factor, and cancer potency factor. The concentration results from AERMOD dispersion modeling were used to determine cancer risk. Figure 5 depicts the DPM concentrations during Phase 1 and Phase 2 construction at the on-site early-occupied project area sensitive receptors and off-site sensitive receptors at 5 feet above ground level. Figure 6 depicts the DPM concentrations from just the off-site roadway construction at the off-site sensitive receptors at 5 feet above ground level, which corresponds to the approximate height of an average person when standing outside a ground floor residential unit.

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[1] An area source is used to model releases that occur over an area, rather than from one stationary point.

Because the Phase 1 and Phase 2 construction and roadway construction would potentially overlap, as a worst-case scenario, the modeled DPM concentrations at off-site receptors were combined. Roadway construction would not impact on-site receptors because residents would not be able to move in until roadway construction is completed. Table A shows the potential cancer risks for representative discrete receptor locations, including five on-site receptors with highest cancer risks (Receptors 12, 22, 13, 4, and 23), on-site receptors located at the corners of the early-occupied project area (Receptors 72, 75, and 11), and all three off-site receptors (Receptors 1, 2, and 3).
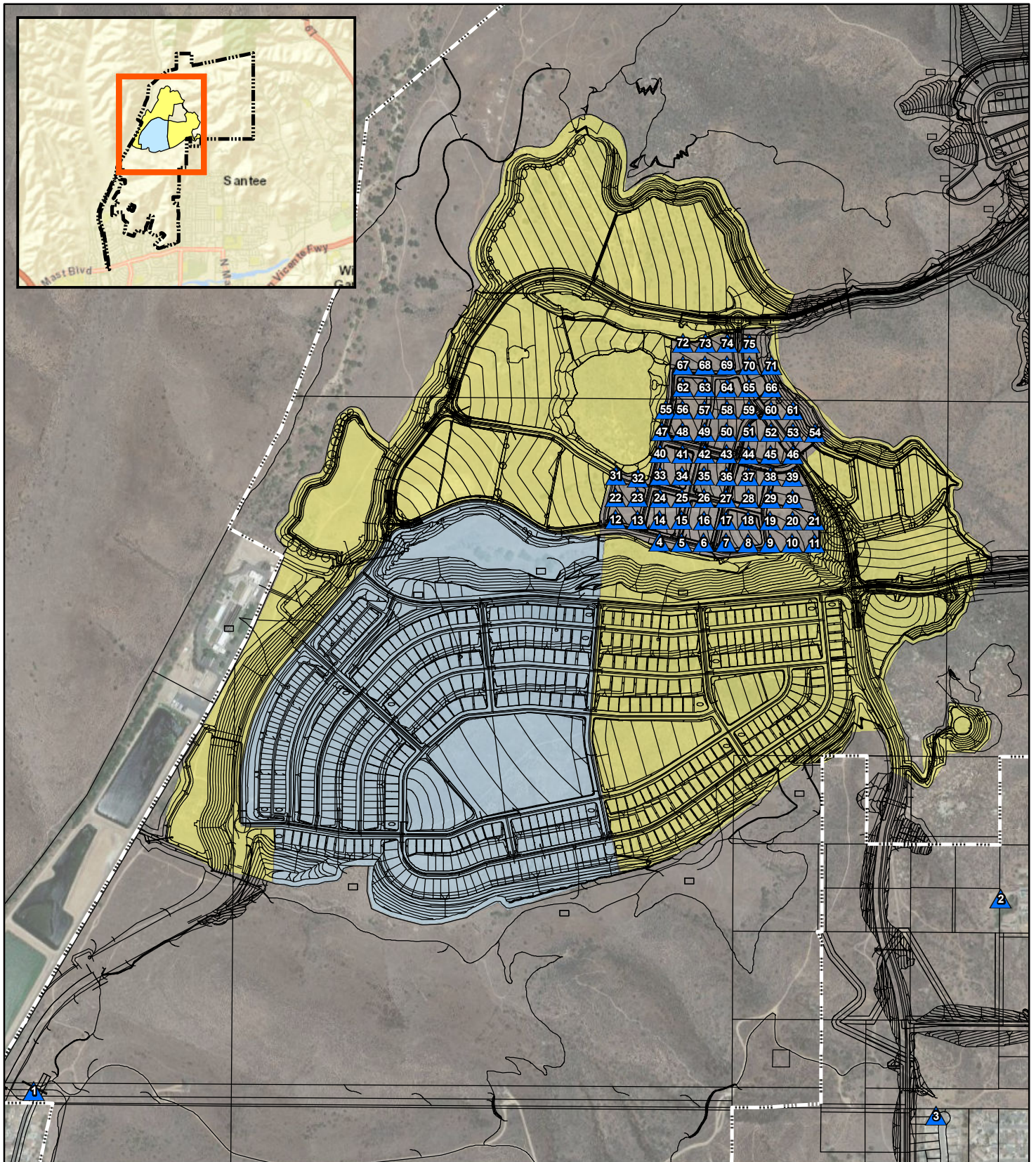
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LEGEND

△ Receptors

— Land Use Plan

▨ Specific Plan Boundary

Area Sources

▨ Area Source – Phase 1

▨ Area Source – Phase 2

N

0   500   1000
FEET

SOURCE: Google (08/18)

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FIGURE 3

Fanita Ranch Specific Plan
Health Risk Assessment Report

AERMOD Modeling Setup
Phase 1 and Phase 2 Construction

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LEGEND

▲ Receptors

—— Land Use Plan

—— Area Sources

FIGURE 4

Fanita Ranch Specific Plan
Health Risk Assessment Report

AERMOD Modeling Setup
Roadway Construction
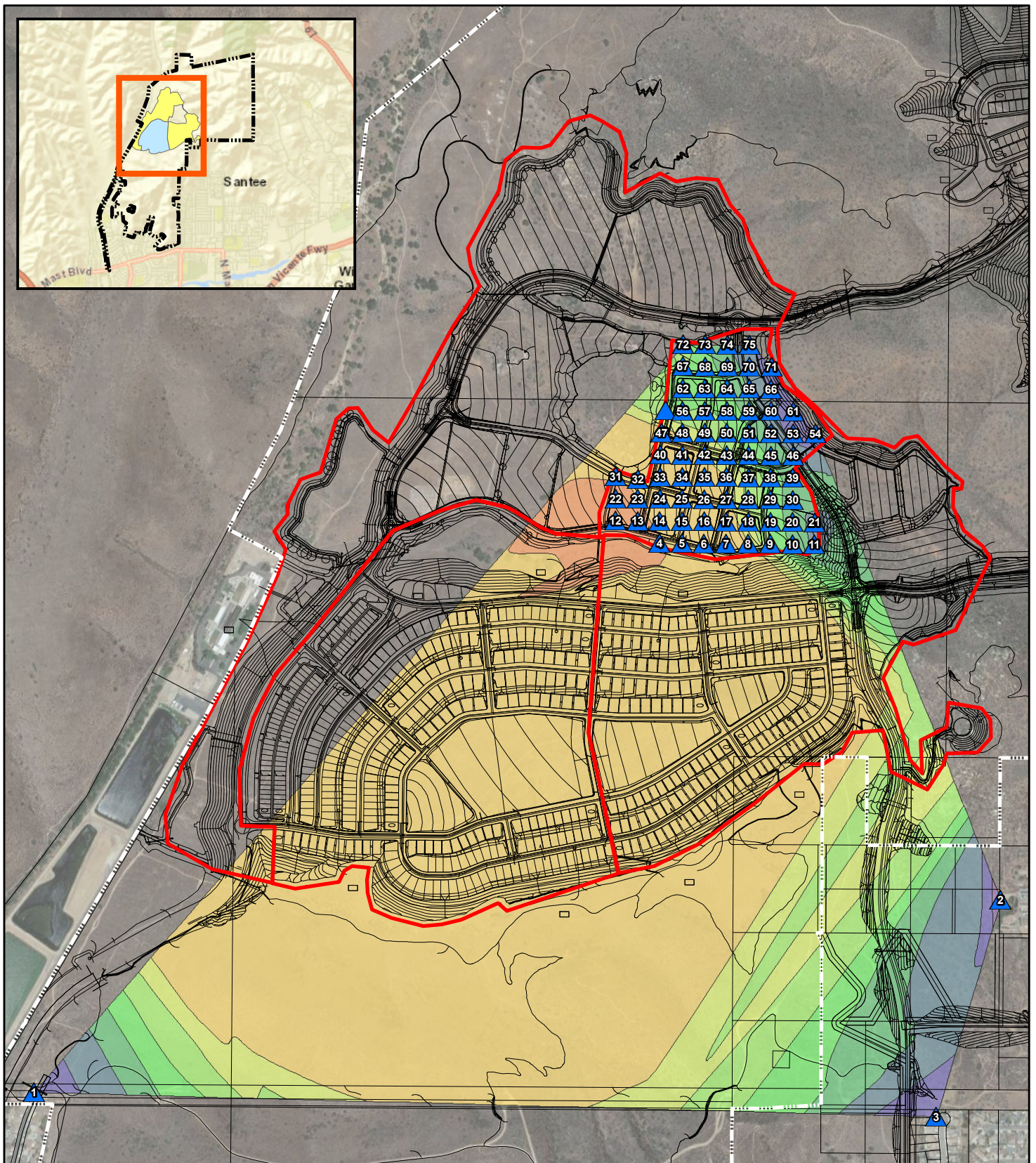
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
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LEGEND

▲ Receptors

— Land Use Plan

Specific Plan Boundary

Area Sources

Annual DPM Concentration (ug/m3)

0.033 0.040 0.050 0.060 0.070 0.080 0.090 0.100 0.200 0.262

FIGURE 5

Fanita Ranch Specific Plan
Health Risk Assessment Report

Phase 1 and Phase 2 Construction
DPM Concentrations

N

0 500 1000
FEET
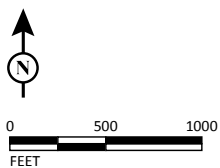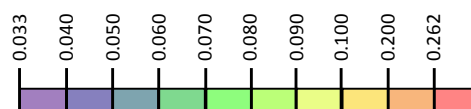
SOURCE: Google (08/18)

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LSA

LEGEND

▲ Receptors

—— Land Use Plan

—— Area Sources

Annual DPM Concentration (ug/m3)

0.0084 0.0090 0.010 0.020 0.030 0.033

FIGURE 6
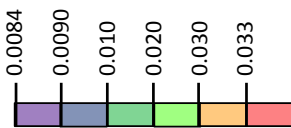
Fanita Ranch Specific Plan
Health Risk Assessment Report

Roadway Construction
DPM Concentrations

Cancer risk calculations are included in Appendix C. The DPM concentrations for all 75 modeled receptors are included in Appendix B. As shown in Table A, the highest potential project construction exposure (from third trimester to 10 years old for Phase 1 and Phase 2 construction and third trimester to 3 years old for roadway construction as a worst-case scenario[1]) cancer risk from DPM is 135.05 per million. This level represents the worst-case for on-site and off-site receptors, because the later construction phases would be further away from the receptors and emit lower levels of DPM. As such, the cancer risk would exceed the 10 in one million threshold and the impact would be potentially significant.

Construction Non-Cancer Risk

The hazard quotient for DPM is determined by dividing the concentration in micrograms per cubic meter ($\mu g/m^3$) by the reference exposure level for the TAC of concern. Table B shows the potential non-cancer risks for the same group of representative discrete receptor locations that were evaluated for Phase 1 and Phase 2 construction and roadway construction combined. Non-cancer risk calculations are included in Appendix C. As shown in Table B, the highest potential non-cancer risk from DPM is 0.05239 at receptor 12. The maximum increases in non-cancer risk would be below the threshold of 1.0. Therefore, the impact would be less than significant.

Table A: Project Construction Cancer Risk (in one million)

Receptor No.	Description	3rd Trimester	0–2 Years	2–16 Years	16–30 Years	Project Construction Exposure[1]
12	On-site – Highest/Southwest Corner	3.03	**73.23**	**89.03**	**13.53**	**135.05**
22	On-site – 2nd Highest	2.62	**63.27**	**76.92**	**11.69**	**116.69**
13	On-site – 3rd Highest	2.54	**61.44**	**74.70**	**11.35**	**113.32**
4	On-site – 4th Highest	2.36	**57.05**	**69.36**	**10.54**	**105.21**
23	On-site – 5th Highest	2.33	**56.37**	**68.54**	**10.42**	**103.97**
72	On-site – Northwest Corner	0.97	**23.43**	**28.48**	4.33	**43.21**
75	On-site – Northeast Corner	0.60	**14.44**	**17.55**	2.67	**26.63**
11	On-site – Southeast Corner	0.67	**16.16**	**19.64**	2.99	**29.80**
1	Off-site – Southwest	0.63	**15.26**	**18.56**	2.82	**26.49**
2	Off-site – Southeast	0.66	**16.05**	**19.51**	2.97	**25.46**
3	Off-site – Southeast	0.86	**20.81**	**25.30**	3.84	**31.82**

Source: AERMOD, OEHHA 2015. Health risk calculations are included in Appendix C. AERMOD model outputs are in Appendix B.
NOTE: [1] Project construction includes Phase 1 and Phase 2 construction and roadway construction. As a worst-case scenario, project construction exposure assumes third trimester to 10 years old for Phase 1 and Phase 2 construction and third trimester to 3 years old for roadway construction.
Bold = Health risk exceeds threshold.

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[1]   According to OEHHA Guidelines (OEHHA 2015), people of younger ages are subject to higher health risks because of higher inhalation absorption factor and cancer potency factor. Adults older than 16-year-old are assumed to be subject to same level of health risks.

Table B: Project Construction Non-Cancer Risk

Receptor No.	Description	Project Construction Chronic Health Index[1]
12	On-site – Highest/Southwest Corner	0.05239
22	On-site – 2nd Highest	0.04527
13	On-site – 3rd Highest	0.04396
4	On-site – 4th Highest	0.04081
23	On-site – 5th Highest	0.04033
72	On-site – Northwest Corner	0.01676
75	On-site – Northeast Corner	0.01033
11	On-site – Southeast Corner	0.01156
1	Off-site – Southwest	0.01092
2	Off-site – Southeast	0.01148
3	Off-site – Southeast	0.01489

Source: AERMOD, OEHHA 2015. Health risk calculations are included in Appendix C. AERMOD model outputs are in Appendix B.
NOTE: [1] Project construction includes Phase 1 and Phase 2 construction and roadway construction.

MITIGATION MEASURES

The estimated project construction residential cancer risks represent a potentially significant impact. Therefore, the following Mitigation Measures (MMs) identified in the *Air Quality Analysis* (LSA 2020) to reduce on-site exhaust emissions from diesel-powered off-road construction equipment would be required :

MM AIR-3   The City of Santee shall require heavy-duty, diesel-powered construction equipment used on the project site during the construction phases be powered by California Air Resources Board-certified Tier 4 (Final) or newer engines and diesel-powered haul trucks be 2010 model year or newer that conform to 2010 U.S. Environmental Protection Agency truck standards. This requirement shall be included in the construction contractor's contract specifications and shall be included in the project construction documents, including the grading plan, which shall be reviewed by the City of Santee prior to issuance of a grading permit. This mitigation measure applies to all construction phases.

MM AIR-4   The City of Santee shall require the project applicants to implement, by contract specifications, that construction equipment engines be maintained in good condition and in proper tune per the manufacturer's specification for the duration of construction. Contract specifications shall be included in project construction documents, which shall be reviewed by the City of Santee prior to issuance of a grading permit.

With the implementation of **MM AIR-3** and **MM AIR-4**, the daily maximum on-site exhaust PM_{10} emissions would be the highest in the year 2025, when Phase 1 building construction and Phase 2 grading and utilities construction overlap. As a worst-case scenario, mitigated daily maximum on-site exhaust PM_{10} emissions in 2025 are used to analyze mitigated health risks.

Because the receptors located at the southwest corner of the Village Center in Fanita Commons would be exposed to the highest level of health risks, after residents occupy the Village Center, no building construction activities shall be performed during Phase 1 within a 300 foot buffer area from the southwest corner of the Village Center, and no grading or utilities construction shall occur during Phase 2 within a 500 foot buffer area from the southwest corner of the Village Center (MM AIR-11).The construction areas excluding the buffer areas are shown in Figure 7. As a result, and as documented in the following mitigation measure, Phase 1 building construction within the buffer area could be prioritized and completed before residents occupy the Village Center, and the Phase 2 grading and utilities construction within the buffer area shall be combined with Phase 1 grading and utilities construction.

MM AIR-11   The City of Santee shall require the applicant to complete Phase 1 earthmoving and asphalt paving activities within 300 feet from the southwestern corner of the Village Center in Fanita Commons before any residents occupy the Village Center. The applicant shall also integrate the Phase 2 grading and utilities activities within 500 feet from the southwestern corner of the Village Center into Phase 1 so that activities are complete prior to occupation of the Fanita Commons Village Center.

Figures 8 and 9 depict the mitigated DPM concentrations during Phase 1 and Phase 2 construction and roadway construction, respectively. Table C shows the mitigated project construction residential cancer risks and demonstrates, with the implementation of **MM AIR-3**, **MM AIR-4**, and **MM AIR-11**. As can be seen below, the cancer risks for off-site and on-site residents would not exceed the 10 in one million threshold. Therefore, the impact would be less than significant with mitigation.

<p style="text-align:center">Table C: Project Construction Mitigated Cancer Risk (in one million)</p>

Receptor No.	Description	3rd Trimester	0–2 Years	2–16 Years	16–30 Years	Project Construction Exposure[1]
12	On-site – Highest/Southwest Corner	0.22	5.40	6.56	1.00	9.96
22	On-site – 2nd Highest	0.20	4.86	5.91	0.90	8.97
13	On-site – 3rd Highest	0.19	4.64	5.64	0.86	8.56
23	On-site – 4th Highest	0.18	4.38	5.33	0.81	8.08
4	On-site – 5th Highest	0.18	4.27	5.19	0.79	7.87
72	On-site – Northwest Corner	0.08	1.88	2.28	0.35	3.46
75	On-site – Northeast Corner	0.05	1.17	1.42	0.22	2.16
11	On-site – Southeast Corner	0.05	1.31	1.60	0.24	2.42
1	Off-site – Southwest	0.06	1.37	1.67	0.25	2.37
2	Off-site – Southeast	0.06	1.42	1.72	0.26	2.23
3	Off-site – Southeast	0.08	1.86	2.27	0.35	2.84

Source: AERMOD, OEHHA 2015. Health risk calculations are included in Appendix C. AERMOD model outputs are in Appendix B.
Note: [1] Project construction includes Phase 1 and Phase 2 construction and roadway construction. As worst-case scenario, project construction exposure assumes third trimester to 10 years old for Phase 1 and Phase 2 construction and third trimester to 3 years old for roadway construction.
The modelled diesel particulate matter concentration and health risks calculation with mitigation measures MM AIR-3 and MM AIR-4 only were provided in Appendix B and Appendix C.

As discussed in the Introduction section, the commercial component of the Fanita Ranch Project does not include specific uses or tenants but does allow the types of businesses, such as gasoline dispensing stations, that could emit TACs. However, location and operational detials of those facilities are currently unknown. Therefore, the following mitigation measure would be required to ensure a specific HRA would be conducted for on-site TAC-emitting facilities:

MM AIR-12   The City of Santee shall require the applicant to avoid siting new on-site toxic air contaminant sources in close vicinity of residences and schools. Gasoline dispensing facilities with a throughput of less than 3.6 million gallons per year must have the gasoline dispensers at least 50 feet from the nearest residential land use, day care center, or school. In addition, gasoline dispensing facilities with a throughput of 3.6 million gallons per year, distribution centers, and dry cleaning operations are prohibited within the project.

With the implementation of **MM AIR-12**, the impacts from on-site TAC-emitting facilities would be reduced to less than significant.
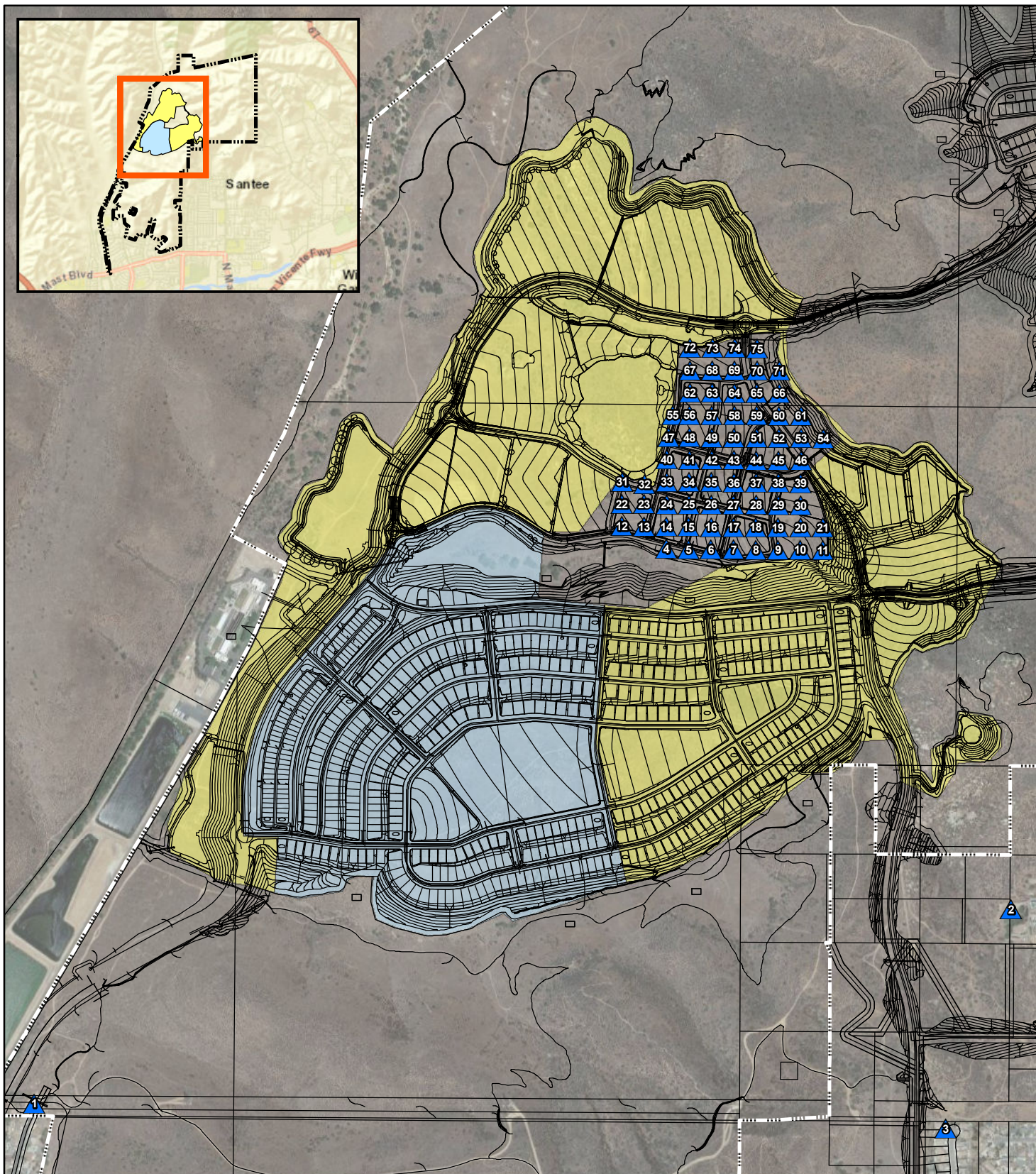
LSA

LEGEND

Receptors (blue triangle)

—— Land Use Plan

Specific Plan Boundary

Area Sources

Area Source – Phase 1 (yellow)

Area Source – Phase 2 (light blue)

FIGURE 7

Fanita Ranch Specific Plan
Health Risk Assessment Report

AERMOD Modeling Setup
Phase 1 and Phase 2 Construction Mitigated

N

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FEET
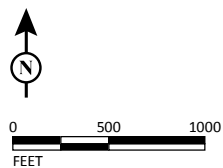
SOURCE: Google (08/18)

I:\HRS1601\GIS\MXD\AERMOD Modeling Setup – Phase 1 and Phase 2 Construction Mitigated.mxd (7/17/2019)

LSA

FIGURE 8

LEGEND

▲ Receptors

— Land Use Plan

▦ Specific Plan Boundary

▭ Area Sources

Annual DPM Concentration (ug/m3)

0.0027 0.0030 0.0040 0.0050 0.0060 0.0070 0.0080 0.0090 0.010 0.019

N

0   500   1000
FEET
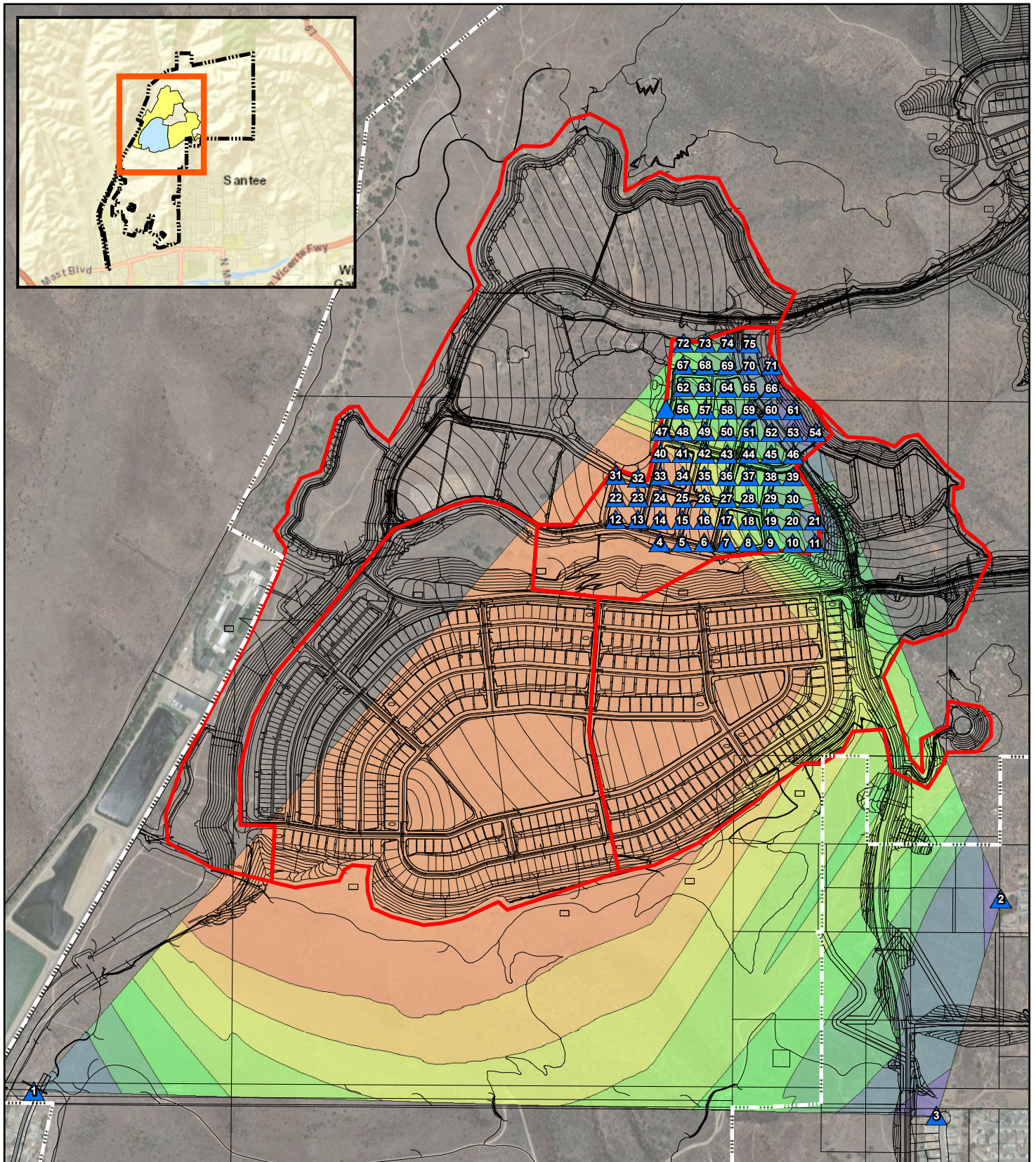
Fanita Ranch Specific Plan
Health Risk Assessment Report
Phase 1 and Phase 2 Construction
Mitigated DPM Concentrations
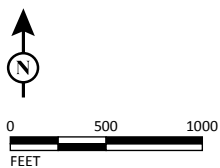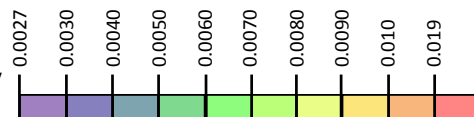
SOURCE: Google (08/18)

I:\HRS1601\GIS\MXD\Phase 1 and Phase 2 Construction Mitigated DPM Concentrations.mxd (9/11/2019)

LSA

N

0   900   1800
FEET

LEGEND

▲ Receptors

——— Land Use Plan

━━━ Area Sources

Annual DPM Concentration (ug/m3)

0.00078 0.00080 0.00090 0.0010 0.0020 0.0030 0.0031

FIGURE 9

Fanita Ranch Specific Plan
Health Risk Assessment Report
Roadway Construction
Mitigated DPM Concentrations
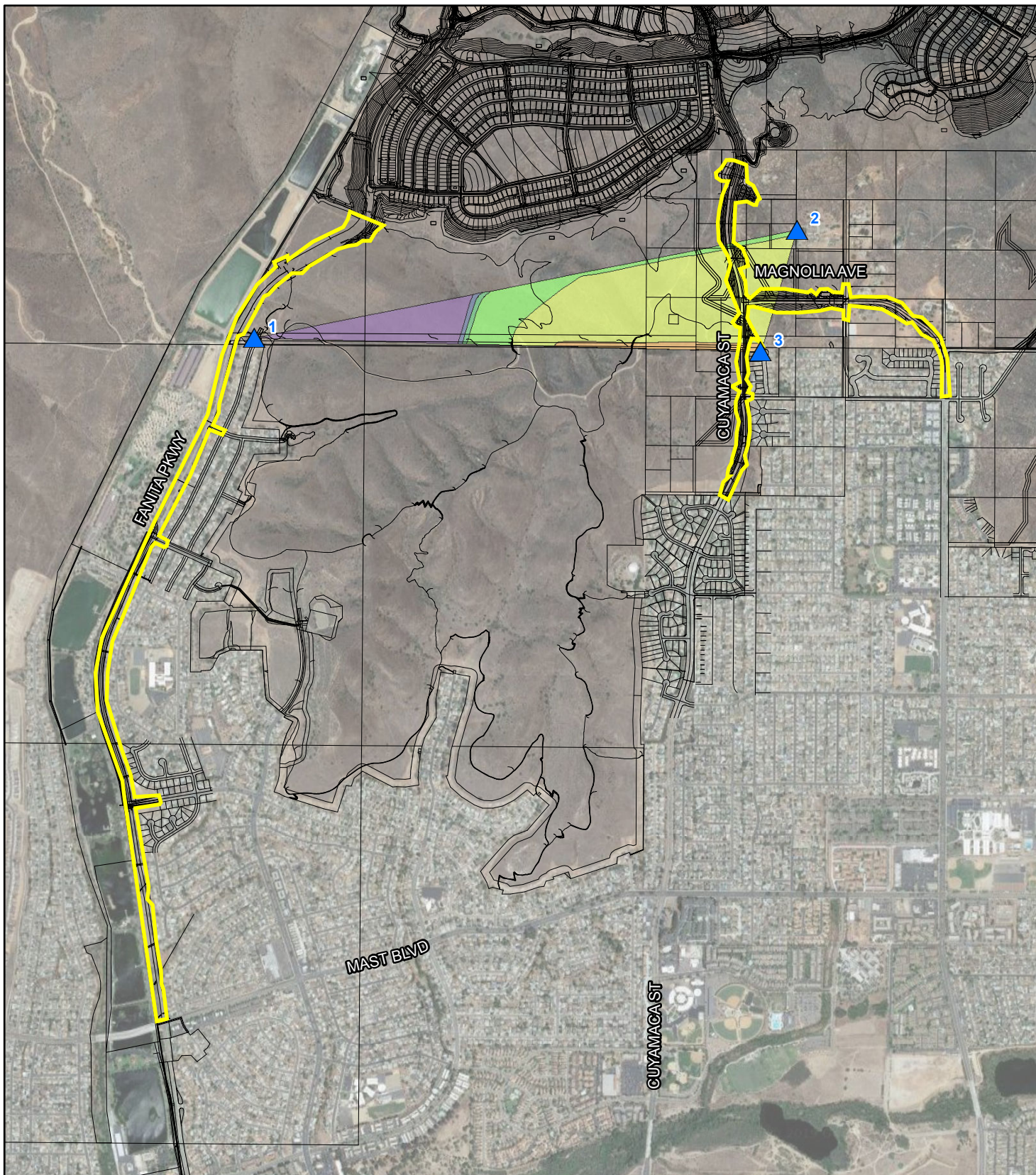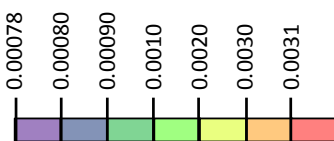
SOURCE: Google (08/18)

I:\HRS1601\GIS\MXD\Roadway Construction Mitigated DPM Concentrations.mxd (9/11/2019)

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APPENDIX A

CALEEMOD MODELING OUTPUT

Fanita Ranch Construction - San Diego County APCD Air District, Summer

Fanita Ranch Construction Roadway
San Diego County APCD Air District, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Elementary School	1,000.00	Student	19.20	83,603.37	0
User Defined Industrial	1.00	User Defined Unit	69.60	0.00	0
City Park	31.40	Acre	31.40	1,367,784.00	0
City Park	28.90	Acre	28.90	1,258,884.00	0
City Park	12.40	Acre	12.40	540,144.00	0
Apartments Low Rise	797.00	Dwelling Unit	63.90	797,000.00	2279
Apartments Low Rise	435.00	Dwelling Unit	27.19	435,000.00	1244
Retirement Community	445.00	Dwelling Unit	30.90	445,000.00	1273
Single Family Housing	1,272.00	Dwelling Unit	248.00	2,289,600.00	3638
Regional Shopping Center	60.00	1000sqft	9.31	60,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.6	**Precipitation Freq (Days)**	40	
Climate Zone	13			**Operational Year**	2035	

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

Project Characteristics -

Land Use - Value changed to reflect the Fanita Ranch Specific Plan

Construction Phase - Construction phasing provided by developer

Off-road Equipment - construction equipment list provided by developer

Off-road Equipment - construction equipment list provided by developer

Off-road Equipment - construction equipment list provided by developer

Off-road Equipment - construction equipment list provided by developer

Off-road Equipment - construction equipment list provided by developer

Trips and VMT - # hauling trips from Aggregate Report

On-road Fugitive Dust - assume 50% onsite roadways for hauling trips are paved

Grading - grading acreage provided by developer

Construction Off-road Equipment Mitigation - fugitive dust control

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tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
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tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	3.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	3.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
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tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
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tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
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tblOffRoadEquipment	PhaseName		Phase 1 Surface Improvements
tblOffRoadEquipment	PhaseName		Phase 1 Utilities
tblOffRoadEquipment	PhaseName		Phase 1 Utilities
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tblOffRoadEquipment	PhaseName		Phase 1 Utilities
tblOffRoadEquipment	PhaseName		Phase 1 Utilities
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tblOffRoadEquipment	PhaseName		Phase 1 Utilities
tblOffRoadEquipment	PhaseName		Phase 1 Utilities
tblOffRoadEquipment	PhaseName		Phase 1 Surface Improvements
tblOffRoadEquipment	PhaseName		Phase 1 Surface Improvements
tblOffRoadEquipment	PhaseName		Phase 1 Surface Improvements
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tblOffRoadEquipment	PhaseName		Phase 1 Utilities
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tblOffRoadEquipment	PhaseName		Phase 1 Surface Improvements
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tblOffRoadEquipment	UsageHours	8.00	0.65
tblOffRoadEquipment	UsageHours	8.00	0.65
tblOffRoadEquipment	UsageHours	8.00	0.65
tblOffRoadEquipment	UsageHours	8.00	0.65
tblOffRoadEquipment	UsageHours	8.00	0.26
tblOffRoadEquipment	UsageHours	8.00	0.26
tblOffRoadEquipment	UsageHours	8.00	0.62
tblOffRoadEquipment	UsageHours	8.00	0.62
tblOffRoadEquipment	UsageHours	8.00	0.62
tblOffRoadEquipment	UsageHours	8.00	1.36

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tblOffRoadEquipment	UsageHours	8.00	0.15
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tblOnRoadDust	HaulingPercentPave	100.00	50.00
tblOnRoadDust	HaulingPercentPave	100.00	50.00
tblOnRoadDust	HaulingPercentPave	100.00	50.00
tblTripsAndVMT	HaulingTripLength	20.00	6.00
tblTripsAndVMT	HaulingTripLength	20.00	6.00
tblTripsAndVMT	HaulingTripLength	20.00	6.00
tblTripsAndVMT	HaulingTripNumber	0.00	40.00
tblTripsAndVMT	HaulingTripNumber	0.00	4,671.00
tblTripsAndVMT	HaulingTripNumber	0.00	130.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year						lb/day							lb/day			
2021	1.8221	19.7221	12.4289	0.0375	228.1572	0.6491	228.8063	24.2389	0.5973	24.8362	0.0000	3,717.2875	3,717.2875	0.8978	0.0000	3,739.7315
2022	1.6780	17.5515	11.5804	0.0372	125.2616	0.5728	125.8343	13.9645	0.5271	14.4916	0.0000	3,686.5650	3,686.5650	0.8939	0.0000	3,708.9137
2023	1.2712	6.4907	10.2522	0.0299	15.2438	0.2702	15.4671	1.6692	0.2486	1.8747	0.0000	2,929.7975	2,929.7975	0.6417	0.0000	2,945.0662
Maximum	**1.8221**	**19.7221**	**12.4289**	**0.0375**	**228.1572**	**0.6491**	**228.8063**	**24.2389**	**0.5973**	**24.8362**	**0.0000**	**3,717.2875**	**3,717.2875**	**0.8978**	**0.0000**	**3,739.7315**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year							lb/day							lb/day		
2021	0.6332	4.0950	14.1838	0.0375	49.4007	0.0517	49.4524	5.3516	0.0512	5.4028	0.0000	3,717.2875	3,717.2875	0.8978	0.0000	3,739.7315
2022	0.6157	3.9252	14.0405	0.0372	27.3272	0.0509	27.3781	3.1469	0.0504	3.1973	0.0000	3,686.5650	3,686.5650	0.8939	0.0000	3,708.9137
2023	0.6937	1.3617	13.8375	0.0299	3.7676	0.0384	3.8060	0.4942	0.0380	0.5321	0.0000	2,929.7975	2,929.7975	0.6417	0.0000	2,945.0662
Maximum	**0.6937**	**4.0950**	**14.1838**	**0.0375**	**49.4007**	**0.0517**	**49.4524**	**5.3516**	**0.0512**	**5.4028**	**0.0000**	**3,717.2875**	**3,717.2875**	**0.8978**	**0.0000**	**3,739.7315**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**59.29**	**78.56**	**-22.77**	**0.00**	**78.17**	**90.55**	**78.21**	**77.45**	**89.84**	**77.84**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category							lb/day							lb/day		
Area	6,494.1758	127.7550	8,140.9098	14.3225		1,108.7741	1,108.7741		1,108.7741	1,108.7741	116,113.6062	49,134.6818	165,248.2880	107.5713	9.1332	170,659.2664
Energy	1.4537	12.4329	5.3606	0.0793		1.0044	1.0044		1.0044	1.0044		15,858.8367	15,858.8367	0.3040	0.2908	15,953.0779
Mobile	0.0000	0.0000	0.0000	0.0000	137.7703	0.0000	137.7703	33.8163	0.0000	33.8163		0.0000	0.0000	0.0000		0.0000
Total	**6,495.6295**	**140.1879**	**8,146.2704**	**14.4017**	**137.7703**	**1,109.7785**	**1,247.5488**	**33.8163**	**1,109.7785**	**1,143.5948**	**116,113.6062**	**64,993.5185**	**181,107.1247**	**107.8752**	**9.4240**	**186,612.3443**

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					
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Area	6,494.1758	127.7550	8,140.9098	14.3225		1,108.7741	1,108.7741		1,108.7741	1,108.7741	116,113.6062	49,134.6818	165,248.2880	107.5713	9.1332	170,659.2664
Energy	1.4537	12.4329	5.3606	0.0793		1.0044	1.0044		1.0044	1.0044		15,858.8367	15,858.8367	0.3040	0.2908	15,953.0779
Mobile	0.0000	0.0000	0.0000	0.0000	137.7703	0.0000	137.7703	33.8163	0.0000	33.8163		0.0000	0.0000	0.0000		0.0000
Total	6,495.6295	140.1879	8,146.2704	14.4017	137.7703	1,109.7785	1,247.5488	33.8163	1,109.7785	1,143.5948	116,113.6062	64,993.5185	181,107.1247	107.8752	9.4240	186,612.3443

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Phase 1 Site Preparation	Site Preparation	7/1/2021	8/25/2021	5	40	
2	Phase 1 Grading	Grading	8/26/2021	8/26/2022	5	262	
3	Phase 1 Utilities	Trenching	8/29/2022	2/24/2023	5	130	
4	Phase 1 Surface Improvements	Paving	2/27/2023	12/29/2023	5	220	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Phase 1 Site Preparation	Rubber Tired Dozers	1	1.36	436	0.40
Phase 1 Site Preparation	Rubber Tired Loaders	1	1.36	249	0.36
Phase 1 Grading	Graders	1	0.62	275	0.41
Phase 1 Grading	Off-Highway Trucks	3	0.62	300	0.38

Phase 1 Grading	Off-Highway Trucks	3	2.00	1025	0.38
Phase 1 Grading	Plate Compactors	1	0.62	554	0.43
Phase 1 Grading	Rubber Tired Dozers	1	0.62	354	0.40
Phase 1 Grading	Rubber Tired Dozers	1	0.62	436	0.40
Phase 1 Grading	Rubber Tired Dozers	1	0.62	600	0.40
Phase 1 Grading	Scrapers	10	0.62	600	0.48
Phase 1 Grading	Tractors/Loaders/Backhoes	1	0.15	249	0.37
Phase 1 Utilities	Excavators	1	1.84	417	0.38
Phase 1 Utilities	Excavators	1	0.92	235	0.38
Phase 1 Utilities	Excavators	1	3.17	235	0.38
Phase 1 Utilities	Excavators	1	0.18	235	0.38
Phase 1 Utilities	Excavators	1	0.35	417	0.38
Phase 1 Utilities	Excavators	1	0.31	235	0.38
Phase 1 Utilities	Excavators	1	0.67	417	0.38
Phase 1 Utilities	Excavators	1	0.33	235	0.38
Phase 1 Utilities	Excavators	1	0.45	235	0.38
Phase 1 Utilities	Excavators	1	2.58	140	0.38
Phase 1 Utilities	Excavators	1	1.55	85	0.38
Phase 1 Utilities	Off-Highway Trucks	1	0.28	450	0.38
Phase 1 Utilities	Off-Highway Trucks	1	0.65	170	0.38
Phase 1 Utilities	Off-Highway Trucks	1	0.48	450	0.38
Phase 1 Utilities	Off-Highway Trucks	1	1.11	170	0.38
Phase 1 Utilities	Off-Highway Trucks	1	0.05	450	0.38
Phase 1 Utilities	Off-Highway Trucks	1	0.12	170	0.38
Phase 1 Utilities	Off-Highway Trucks	1	0.05	450	0.38
Phase 1 Utilities	Off-Highway Trucks	1	0.11	170	0.38
Phase 1 Utilities	Off-Highway Trucks	1	0.10	450	0.38
Phase 1 Utilities	Off-Highway Trucks	1	0.23	170	0.38
Phase 1 Utilities	Off-Highway Trucks	1	0.07	450	0.38
Phase 1 Utilities	Off-Highway Trucks	1	0.16	170	0.38
Phase 1 Utilities	Tractors/Loaders/Backhoes	1	1.38	170	0.37
Phase 1 Utilities	Tractors/Loaders/Backhoes	1	1.58	170	0.37

Phase 1 Utilities	Tractors/Loaders/Backhoes	1	0.26	170	0.37
Phase 1 Utilities	Tractors/Loaders/Backhoes	1	0.15	170	0.37
Phase 1 Utilities	Tractors/Loaders/Backhoes	1	0.50	170	0.37
Phase 1 Utilities	Tractors/Loaders/Backhoes	1	0.22	170	0.37
Phase 1 Utilities	Tractors/Loaders/Backhoes	1	2.19	164	0.37
Phase 1 Surface Improvements	Dumpers/Tenders	22	0.65	515	0.38
Phase 1 Surface Improvements	Graders	1	0.65	150	0.41
Phase 1 Surface Improvements	Graders	1	0.65	150	0.41
Phase 1 Surface Improvements	Off-Highway Trucks	4	1.08	300	0.38
Phase 1 Surface Improvements	Off-Highway Trucks	1	0.11	450	0.38
Phase 1 Surface Improvements	Off-Highway Trucks	1	0.65	170	0.38
Phase 1 Surface Improvements	Off-Highway Trucks	1	0.65	170	0.38
Phase 1 Surface Improvements	Off-Highway Trucks	1	0.26	450	0.38
Phase 1 Surface Improvements	Off-Highway Trucks	17	0.26	450	0.38
Phase 1 Surface Improvements	Pavers	1	0.26	225	0.42
Phase 1 Surface Improvements	Paving Equipment	1	1.08	140	0.36
Phase 1 Surface Improvements	Rollers	1	0.65	102	0.38
Phase 1 Surface Improvements	Rollers	1	0.65	102	0.38
Phase 1 Surface Improvements	Rollers	1	0.65	36	0.38
Phase 1 Surface Improvements	Rollers	1	0.65	36	0.38
Phase 1 Surface Improvements	Rollers	1	0.26	120	0.38
Phase 1 Surface Improvements	Rollers	2	0.26	78	0.38
Phase 1 Surface Improvements	Scrapers	1	0.65	150	0.48
Phase 1 Surface Improvements	Tractors/Loaders/Backhoes	1	0.65	78	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Phase 1 Site Preparation	2	5.00	0.00	40.00	10.80	7.30	6.00	LD_Mix	HDT_Mix	HHDT
Phase 1 Grading	29	73.00	0.00	4,671.00	10.80	7.30	6.00	LD_Mix	HDT_Mix	HHDT
Phase 1 Utilities	43	108.00	0.00	130.00	10.80	7.30	6.00	LD_Mix	HDT_Mix	HHDT

Phase 1 Surface Improvements		60	150.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Use Soil Stabilizer

Replace Ground Cover

Water Exposed Area

Water Unpaved Roads

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

3.2 Phase 1 Site Preparation - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					5.6419	0.0000	5.6419	2.3049	0.0000	2.3049			0.0000			0.0000
Off-Road	0.3289	3.4625	2.4464	3.8900e-003		0.1482	0.1482		0.1364	0.1364		376.6659	376.6659	0.1218		379.7114
Total	**0.3289**	**3.4625**	**2.4464**	**3.8900e-003**	**5.6419**	**0.1482**	**5.7901**	**2.3049**	**0.1364**	**2.4413**		**376.6659**	**376.6659**	**0.1218**		**379.7114**

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	3.3500e-003	0.1425	0.0270	3.0000e-004	4.4183	2.7000e-004	4.4186	0.4415	2.6000e-004	0.4418		33.3493	33.3493	3.5400e-003		33.4378

Category	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
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	0.0173	0.0112	0.1326	4.1000e-004	0.0411	2.8000e-004	0.0414	0.0109	2.6000e-004	0.0112		40.7220	40.7220	1.1600e-003		40.7511
Total	**0.0206**	**0.1537**	**0.1596**	**7.1000e-004**	**4.4594**	**5.5000e-004**	**4.4599**	**0.4524**	**5.2000e-004**	**0.4529**		**74.0713**	**74.0713**	**4.7000e-003**		**74.1889**

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					1.3862	0.0000	1.3862	0.5663	0.0000	0.5663			0.0000			0.0000
Off-Road	0.0475	0.2058	1.7417	3.8900e-003		6.3300e-003	6.3300e-003		6.3300e-003	6.3300e-003	0.0000	376.6659	376.6659	0.1218		379.7114
Total	**0.0475**	**0.2058**	**1.7417**	**3.8900e-003**	**1.3862**	**6.3300e-003**	**1.3926**	**0.5663**	**6.3300e-003**	**0.5727**	**0.0000**	**376.6659**	**376.6659**	**0.1218**		**379.7114**

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	3.3500e-003	0.1425	0.0270	3.0000e-004	0.9488	2.7000e-004	0.9491	0.0951	2.6000e-004	0.0954		33.3493	33.3493	3.5400e-003		33.4378
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	0.0173	0.0112	0.1326	4.1000e-004	0.0318	2.8000e-004	0.0321	8.6200e-003	2.6000e-004	8.8800e-003		40.7220	40.7220	1.1600e-003		40.7511
Total	**0.0206**	**0.1537**	**0.1596**	**7.1000e-004**	**0.9806**	**5.5000e-004**	**0.9812**	**0.1037**	**5.2000e-004**	**0.1042**		**74.0713**	**74.0713**	**4.7000e-003**		**74.1889**

3.3 Phase 1 Grading - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.2748	0.0000	3.2748	1.6785	0.0000	1.6785			0.0000			0.0000
Off-Road	1.5099	17.0178	10.0120	0.0261		0.6402	0.6402		0.5890	0.5890		2,528.1866	2,528.1866	0.8177		2,548.6283
Total	**1.5099**	**17.0178**	**10.0120**	**0.0261**	**3.2748**	**0.6402**	**3.9150**	**1.6785**	**0.5890**	**2.2675**		**2,528.1866**	**2,528.1866**	**0.8177**		**2,548.6283**

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	0.0598	2.5403	0.4807	5.4300e-003	224.2827	4.7600e-003	224.2875	22.4013	4.5500e-003	22.4058		594.5590	594.5590	0.0631		596.1371
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	0.2525	0.1641	1.9362	5.9700e-003	0.5997	4.1400e-003	0.6038	0.1591	3.8200e-003	0.1629		594.5418	594.5418	0.0170		594.9660
Total	**0.3123**	**2.7044**	**2.4169**	**0.0114**	**224.8824**	**8.9000e-003**	**224.8913**	**22.5604**	**8.3700e-003**	**22.5687**		**1,189.1008**	**1,189.1008**	**0.0801**		**1,191.1032**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.8046	0.0000	0.8046	0.4124	0.0000	0.4124			0.0000			0.0000

	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
Off-Road	0.3209	1.3906	11.7669	0.0261		0.0428	0.0428		0.0428	0.0428	0.0000	2,528.1866	2,528.1866	0.8177		2,548.6283
Total	**0.3209**	**1.3906**	**11.7669**	**0.0261**	**0.8046**	**0.0428**	**0.8474**	**0.4124**	**0.0428**	**0.4552**	**0.0000**	**2,528.1866**	**2,528.1866**	**0.8177**		**2,548.6283**

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	0.0598	2.5403	0.4807	5.4300e-003	48.1319	4.7600e-003	48.1366	4.8134	4.5500e-003	4.8179		594.5590	594.5590	0.0631		596.1371
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	0.2525	0.1641	1.9362	5.9700e-003	0.4642	4.1400e-003	0.4683	0.1258	3.8200e-003	0.1296		594.5418	594.5418	0.0170		594.9660
Total	**0.3123**	**2.7044**	**2.4169**	**0.0114**	**48.5961**	**8.9000e-003**	**48.6050**	**4.9392**	**8.3700e-003**	**4.9476**		**1,189.1008**	**1,189.1008**	**0.0801**		**1,191.1032**

3.3 Phase 1 Grading - 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			
Fugitive Dust					3.2748	0.0000	3.2748	1.6785	0.0000	1.6785			0.0000			0.0000
Off-Road	1.3832	15.0169	9.3068	0.0261		0.5647	0.5647		0.5195	0.5195		2,526.3979	2,526.3979	0.8171		2,546.8251
Total	**1.3832**	**15.0169**	**9.3068**	**0.0261**	**3.2748**	**0.5647**	**3.8395**	**1.6785**	**0.5195**	**2.1980**		**2,526.3979**	**2,526.3979**	**0.8171**		**2,546.8251**

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	0.0560	2.3850	0.4731	5.3500e-003	121.3871	4.0200e-003	121.3911	12.1269	3.8500e-003	12.1307		587.4385	587.4385	0.0613		588.9711
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	0.2387	0.1496	1.8005	5.7500e-003	0.5997	4.0500e-003	0.6037	0.1591	3.7300e-003	0.1628		572.7286	572.7286	0.0156		573.1175
Total	**0.2948**	**2.5346**	**2.2736**	**0.0111**	**121.9868**	**8.0700e-003**	**121.9948**	**12.2859**	**7.5800e-003**	**12.2935**		**1,160.1671**	**1,160.1671**	**0.0769**		**1,162.0885**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category						lb/day								lb/day		
Fugitive Dust					0.8046	0.0000	0.8046	0.4124	0.0000	0.4124			0.0000			0.0000
Off-Road	0.3209	1.3906	11.7669	0.0261		0.0428	0.0428		0.0428	0.0428	0.0000	2,526.3979	2,526.3979	0.8171		2,546.8251
Total	**0.3209**	**1.3906**	**11.7669**	**0.0261**	**0.8046**	**0.0428**	**0.8474**	**0.4124**	**0.0428**	**0.4552**	**0.0000**	**2,526.3979**	**2,526.3979**	**0.8171**		**2,546.8251**

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	0.0560	2.3850	0.4731	5.3500e-003	26.0584	4.0200e-003	26.0624	2.6087	3.8500e-003	2.6126		587.4385	587.4385	0.0613		588.9711

	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
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	0.2387	0.1496	1.8005	5.7500e-003	0.4642	4.0500e-003	0.4682	0.1258	3.7300e-003	0.1295		572.7286	572.7286	0.0156		573.1175
Total	**0.2948**	**2.5346**	**2.2736**	**0.0111**	**26.5226**	**8.0700e-003**	**26.5306**	**2.7345**	**7.5800e-003**	**2.7421**		**1,160.1671**	**1,160.1671**	**0.0769**		**1,162.0885**

3.4 Phase 1 Utilities - 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	0.6998	5.9971	7.7716	0.0197		0.2480	0.2480		0.2282	0.2282		1,907.9869	1,907.9869	0.6171		1,923.4140
Total	**0.6998**	**5.9971**	**7.7716**	**0.0197**		**0.2480**	**0.2480**		**0.2282**	**0.2282**		**1,907.9869**	**1,907.9869**	**0.6171**		**1,923.4140**

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	3.1400e-003	0.1338	0.0265	3.0000e-004	6.3814	2.3000e-004	6.3817	0.6375	2.2000e-004	0.6378		32.9499	32.9499	3.4400e-003		33.0358
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	0.3532	0.2213	2.6637	8.5000e-003	0.8872	6.0000e-003	0.8932	0.2353	5.5200e-003	0.2409		847.3245	847.3245	0.0230		847.8998
Total	**0.3563**	**0.3551**	**2.6902**	**8.8000e-003**	**7.2686**	**6.2300e-003**	**7.2748**	**0.8729**	**5.7400e-003**	**0.8786**		**880.2744**	**880.2744**	**0.0265**		**880.9357**

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	0.2433	1.0542	11.3385	0.0197		0.0324	0.0324		0.0324	0.0324	0.0000	1,907.9869	1,907.9869	0.6171		1,923.4140
Total	**0.2433**	**1.0542**	**11.3385**	**0.0197**		**0.0324**	**0.0324**		**0.0324**	**0.0324**	**0.0000**	**1,907.9869**	**1,907.9869**	**0.6171**		**1,923.4140**

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	3.1400e-003	0.1338	0.0265	3.0000e-004	1.3700	2.3000e-004	1.3702	0.1372	2.2000e-004	0.1374		32.9499	32.9499	3.4400e-003		33.0358
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	0.3532	0.2213	2.6637	8.5000e-003	0.6867	6.0000e-003	0.6927	0.1861	5.5200e-003	0.1916		847.3245	847.3245	0.0230		847.8998
Total	**0.3563**	**0.3551**	**2.6902**	**8.8000e-003**	**2.0567**	**6.2300e-003**	**2.0629**	**0.3233**	**5.7400e-003**	**0.3290**		**880.2744**	**880.2744**	**0.0265**		**880.9357**

3.4 Phase 1 Utilities - 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					
Off-Road	0.6620	5.2667	7.7532	0.0197		0.2173	0.2173		0.1999	0.1999		1,909.3663	1,909.3663	0.6175		1,924.8045

	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
Total	**0.6620**	**5.2667**	**7.7532**	**0.0197**		**0.2173**	**0.2173**		**0.1999**	**0.1999**		**1,909.3663**	**1,909.3663**	**0.6175**		**1,924.8045**

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	2.2600e-003	0.1029	0.0246	2.9000e-004	14.3566	1.1000e-004	14.3567	1.4339	1.0000e-004	1.4340		31.8155	31.8155	3.1300e-003		31.8936
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	0.3344	0.2021	2.4744	8.1700e-003	0.8872	5.8800e-003	0.8931	0.2353	5.4100e-003	0.2407		814.9325	814.9325	0.0211		815.4591
Total	**0.3367**	**0.3050**	**2.4990**	**8.4600e-003**	**15.2438**	**5.9900e-003**	**15.2498**	**1.6692**	**5.5100e-003**	**1.6747**		**846.7479**	**846.7479**	**0.0242**		**847.3527**

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	0.2433	1.0542	11.3385	0.0197		0.0324	0.0324		0.0324	0.0324	0.0000	1,909.3663	1,909.3663	0.6175		1,924.8045
Total	**0.2433**	**1.0542**	**11.3385**	**0.0197**		**0.0324**	**0.0324**		**0.0324**	**0.0324**	**0.0000**	**1,909.3663**	**1,909.3663**	**0.6175**		**1,924.8045**

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	2.2600e-003	0.1029	0.0246	2.9000e-004	3.0808	1.1000e-004	3.0809	0.3081	1.0000e-004	0.3082		31.8155	31.8155	3.1300e-003		31.8936
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	0.3344	0.2021	2.4744	8.1700e-003	0.6867	5.8800e-003	0.6926	0.1861	5.4100e-003	0.1915		814.9325	814.9325	0.0211		815.4591
Total	**0.3367**	**0.3050**	**2.4990**	**8.4600e-003**	**3.7676**	**5.9900e-003**	**3.7735**	**0.4942**	**5.5100e-003**	**0.4997**		**846.7479**	**846.7479**	**0.0242**		**847.3527**

3.5 Phase 1 Surface Improvements - 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		
Off-Road	0.8068	6.2100	6.4243	0.0186		0.2620	0.2620		0.2411	0.2411		1,797.9468	1,797.9468	0.5815		1,812.4842
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.8068**	**6.2100**	**6.4243**	**0.0186**		**0.2620**	**0.2620**		**0.2411**	**0.2411**		**1,797.9468**	**1,797.9468**	**0.5815**		**1,812.4842**

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

	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
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	0.4644	0.2807	3.4366	0.0114	1.2322	8.1600e-003	1.2404	0.3268	7.5200e-003	0.3344		1,131.8507	1,131.8507	0.0293		1,132.5821
Total	**0.4644**	**0.2807**	**3.4366**	**0.0114**	**1.2322**	**8.1600e-003**	**1.2404**	**0.3268**	**7.5200e-003**	**0.3344**		**1,131.8507**	**1,131.8507**	**0.0293**		**1,132.5821**

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	0.2293	1.0810	9.5907	0.0186		0.0303	0.0303		0.0303	0.0303	0.0000	1,797.9468	1,797.9468	0.5815		1,812.4842
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.2293**	**1.0810**	**9.5907**	**0.0186**		**0.0303**	**0.0303**		**0.0303**	**0.0303**	**0.0000**	**1,797.9468**	**1,797.9468**	**0.5815**		**1,812.4842**

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	0.4644	0.2807	3.4366	0.0114	0.9538	8.1600e-003	0.9619	0.2585	7.5200e-003	0.2660		1,131.8507	1,131.8507	0.0293		1,132.5821
Total	**0.4644**	**0.2807**	**3.4366**	**0.0114**	**0.9538**	**8.1600e-003**	**0.9619**	**0.2585**	**7.5200e-003**	**0.2660**		**1,131.8507**	**1,131.8507**	**0.0293**		**1,132.5821**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0000	0.0000	0.0000	0.0000	137.7703	0.0000	137.7703	33.8163	0.0000	33.8163		0.0000	0.0000	0.0000		0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	137.7703	0.0000	137.7703	33.8163	0.0000	33.8163		0.0000	0.0000	0.0000		0.0000

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	5,252.23	5,706.52	4837.79	15,012,965	15,012,965
Apartments Low Rise	2,866.65	3,114.60	2640.45	8,194,027	8,194,027
City Park	59.35	714.35	525.64	468,666	468,666
City Park	54.62	657.48	483.79	431,352	431,352
City Park	23.44	282.10	207.58	185,078	185,078
Elementary School	1,290.00	0.00	0.00	2,031,694	2,031,694
Regional Shopping Center	2,562.00	2,998.20	1514.40	4,338,828	4,338,828
Retirement Community	1,068.00	903.35	867.75	2,900,621	2,900,621
Single Family Housing	12,109.44	12,605.52	10964.64	34,311,512	34,311,512
User Defined Industrial	0.00	0.00	0.00		
Total	25,285.72	26,982.12	22,042.03	67,874,743	67,874,743

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Low Rise	10.80	7.30	7.50	41.60	18.80	39.60	86	11	3
Apartments Low Rise	10.80	7.30	7.50	41.60	18.80	39.60	86	11	3
City Park	9.50	7.30	7.30	33.00	48.00	19.00	66	28	6
City Park	9.50	7.30	7.30	33.00	48.00	19.00	66	28	6

City Park	9.50	7.30	7.30	33.00	48.00	19.00	66	28	6
Elementary School	9.50	7.30	7.30	65.00	30.00	5.00	63	25	12
Regional Shopping Center	9.50	7.30	7.30	16.30	64.70	19.00	54	35	11
Retirement Community	10.80	7.30	7.50	41.60	18.80	39.60	86	11	3
Single Family Housing	10.80	7.30	7.50	41.60	18.80	39.60	86	11	3
User Defined Industrial	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Low Rise	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
City Park	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Elementary School	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Regional Shopping Center	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Retirement Community	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Single Family Housing	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
User Defined Industrial	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	1.4537	12.4329	5.3606	0.0793		1.0044	1.0044		1.0044	1.0044		15,858.83 67	15,858.83 67	0.3040	0.2908	15,953.07 79
NaturalGas Unmitigated	1.4537	12.4329	5.3606	0.0793		1.0044	1.0044		1.0044	1.0044		15,858.83 67	15,858.83 67	0.3040	0.2908	15,953.07 79

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			
Apartments Low Rise	13378.3	0.1443	1.2329	0.5246	7.8700e-003		0.0997	0.0997		0.0997	0.0997		1,573.9204	1,573.9204	0.0302	0.0289	1,583.2735
Apartments Low Rise	24511.5	0.2643	2.2589	0.9612	0.0144		0.1826	0.1826		0.1826	0.1826		2,883.7117	2,883.7117	0.0553	0.0529	2,900.8482
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Elementary School	1355.98	0.0146	0.1329	0.1117	8.0000e-004		0.0101	0.0101		0.0101	0.0101		159.5268	159.5268	3.0600e-003	2.9200e-003	160.4748
Regional Shopping Center	366.575	3.9500e-003	0.0359	0.0302	2.2000e-004		2.7300e-003	2.7300e-003		2.7300e-003	2.7300e-003		43.1265	43.1265	8.3000e-004	7.9000e-004	43.3828
Retirement Community	13685.9	0.1476	1.2613	0.5367	8.0500e-003		0.1020	0.1020		0.1020	0.1020		1,610.1025	1,610.1025	0.0309	0.0295	1,619.6706
Single Family Housing	81501.8	0.8789	7.5110	3.1962	0.0479		0.6073	0.6073		0.6073	0.6073		9,588.4488	9,588.4488	0.1838	0.1758	9,645.4281
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**1.4537**	**12.4329**	**5.3606**	**0.0793**		**1.0044**	**1.0044**		**1.0044**	**1.0044**		**15,858.8367**	**15,858.8367**	**0.3040**	**0.2908**	**15,953.0779**

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			
Apartments Low Rise	24.5115	0.2643	2.2589	0.9612	0.0144		0.1826	0.1826		0.1826	0.1826		2,883.7117	2,883.7117	0.0553	0.0529	2,900.8482
Apartments Low Rise	13.3783	0.1443	1.2329	0.5246	7.8700e-003		0.0997	0.0997		0.0997	0.0997		1,573.9204	1,573.9204	0.0302	0.0289	1,583.2735
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

	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
Elementary School	1.35598	0.0146	0.1329	0.1117	8.0000e-004	0.0101	0.0101		0.0101	0.0101		159.5268	159.5268	3.0600e-003	2.9200e-003	160.4748
Regional Shopping Center	0.366575	3.9500e-003	0.0359	0.0302	2.2000e-004	2.7300e-003	2.7300e-003		2.7300e-003	2.7300e-003		43.1265	43.1265	8.3000e-004	7.9000e-004	43.3828
Retirement Community	13.6859	0.1476	1.2613	0.5367	8.0500e-003	0.1020	0.1020		0.1020	0.1020		1,610.1025	1,610.1025	0.0309	0.0295	1,619.6706
Single Family Housing	81.5018	0.8789	7.5110	3.1962	0.0479	0.6073	0.6073		0.6073	0.6073		9,588.4488	9,588.4488	0.1838	0.1758	9,645.4281
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**1.4537**	**12.4329**	**5.3606**	**0.0793**	**1.0044**	**1.0044**		**1.0044**	**1.0044**		**15,858.8367**	**15,858.8367**	**0.3040**	**0.2908**	**15,953.0779**

6.0 Area Detail

6.1 Mitigation Measures Area

Category	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
	lb/day										lb/day					
Mitigated	6,494.1758	127.7550	8,140.9098	14.3225		1,108.7741	1,108.7741		1,108.7741	1,108.7741	116,113.6062	49,134.6818	165,248.2880	107.5713	9.1332	170,659.2664
Unmitigated	6,494.1758	127.7550	8,140.9098	14.3225		1,108.7741	1,108.7741		1,108.7741	1,108.7741	116,113.6062	49,134.6818	165,248.2880	107.5713	9.1332	170,659.2664

6.2 Area by SubCategory

Unmitigated

SubCategory	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
	lb/day										lb/day					

	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
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	88.3350					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	6,398.5814	124.9569	7,898.3537	14.3096		1,107.4245	1,107.4245		1,107.4245	1,107.4245	116,113.6062	48,696.3529	164,809.9591	107.1536	9.1332	170,210.4959
Landscaping	7.2594	2.7981	242.5562	0.0129		1.3496	1.3496		1.3496	1.3496		438.3289	438.3289	0.4177		448.7705
Total	**6,494.1758**	**127.7550**	**8,140.9098**	**14.3225**		**1,108.7741**	**1,108.7741**		**1,108.7741**	**1,108.7741**	**116,113.6062**	**49,134.6818**	**165,248.2880**	**107.5713**	**9.1332**	**170,659.2664**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory						lb/day							lb/day			
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	88.3350					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	6,398.5814	124.9569	7,898.3537	14.3096		1,107.4245	1,107.4245		1,107.4245	1,107.4245	116,113.6062	48,696.3529	164,809.9591	107.1536	9.1332	170,210.4959
Landscaping	7.2594	2.7981	242.5562	0.0129		1.3496	1.3496		1.3496	1.3496		438.3289	438.3289	0.4177		448.7705
Total	**6,494.1758**	**127.7550**	**8,140.9098**	**14.3225**		**1,108.7741**	**1,108.7741**		**1,108.7741**	**1,108.7741**	**116,113.6062**	**49,134.6818**	**165,248.2880**	**107.5713**	**9.1332**	**170,659.2664**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

APPENDIX B

AERMOD MODELING OUTPUT

PHASE 1 AND PHASE 2 CONSTRUCTION

```
                              Fanita Ranch HRA.ADO
**
****************************************
**
** AERMOD Input Produced by:
** AERMOD View Ver. 9.6.5
** Lakes Environmental Software Inc.
** Date: 8/1/2019
** File: C:\Users\ZChen\Desktop\Fanita Ranch HRA\Fanita Ranch HRA.ADI
**
****************************************
**
**
****************************************
** AERMOD Control Pathway
****************************************
**
**
CO STARTING
   TITLEONE C:\Users\ZChen\Desktop\Fanita Ranch HRA\Fanita Ranch HRA.isc
   MODELOPT CONC BETA
   AVERTIME 1 ANNUAL
   POLLUTID DPM
   FLAGPOLE 1.50
   RUNORNOT RUN
   ERRORFIL "Fanita Ranch HRA.err"
CO FINISHED
**
****************************************
** AERMOD Source Pathway
****************************************
**
**
SO STARTING
** Source Location **
** Source ID - Type - X Coord. - Y Coord. **
   LOCATION PHASE1       AREAPOLY   501189.549  3638715.747       172.230
** DESCRSRC Phase1
   LOCATION PHASE2       AREAPOLY   500455.747  3637928.969       149.100
** DESCRSRC Phase2
** Source Parameters **
   SRCPARAM PHASE1       1.6649E-09    0.000        128
   AREAVERT PHASE1       501189.549 3638715.747 501188.193 3638771.361
   AREAVERT PHASE1       501222.104 3638869.026 501296.708 3638843.253
   AREAVERT PHASE1       501337.402 3639027.730 501349.610 3639162.018
   AREAVERT PHASE1       501407.937 3639156.592 501506.958 3639189.147
   AREAVERT PHASE1       501576.136 3639189.147 501567.998 3639144.384
   AREAVERT PHASE1       501601.909 3639062.997 501654.810 3639025.017
   AREAVERT PHASE1       501676.514 3639004.670 501713.138 3638950.412
   AREAVERT PHASE1       501630.394 3638875.808 501667.018 3638820.193
   AREAVERT PHASE1       501681.939 3638767.292 501686.009 3638695.400
   AREAVERT PHASE1       501657.523 3638680.479 501619.543 3638688.618
   AREAVERT PHASE1       501451.343 3638668.271 501322.481 3638694.044
   AREAVERT PHASE1       501256.015 3638721.173 501199.044 3638721.173
   AREAVERT PHASE1       501178.698 3638441.745 501167.846 3638273.545
   AREAVERT PHASE1       501238.381 3637957.493 501318.412 3637973.771
   AREAVERT PHASE1       501418.789 3638025.316 501547.651 3638120.267
   AREAVERT PHASE1       501654.810 3638207.080 501698.217 3638207.080
   AREAVERT PHASE1       501740.267 3638235.565 501763.326 3638278.971
   AREAVERT PHASE1       501832.505 3638284.397 501851.495 3638190.802
   AREAVERT PHASE1       501934.238 3638151.465 501968.150 3638205.723
   AREAVERT PHASE1       501977.645 3638232.852 502046.823 3638235.565
   AREAVERT PHASE1       502076.665 3638269.476 502075.309 3638310.169
   AREAVERT PHASE1       502054.962 3638335.942 501980.358 3638348.150
                                Page 1
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   AREAVERT PHASE1        501976.288 3638292.536 501917.961 3638262.694
   AREAVERT PHASE1        501922.030 3638188.089 501894.901 3638217.931
   AREAVERT PHASE1        501860.990 3638331.873 501832.505 3638402.408
   AREAVERT PHASE1        501875.911 3638485.151 501900.327 3638478.369
   AREAVERT PHASE1        501995.278 3638512.280 502029.190 3638584.172
   AREAVERT PHASE1        502072.596 3638675.054 502054.962 3638702.183
   AREAVERT PHASE1        502011.556 3638737.450 501987.140 3638790.352
   AREAVERT PHASE1        501988.496 3638832.401 502006.130 3638831.045
   AREAVERT PHASE1        502008.843 3638847.322 501969.506 3638881.234
   AREAVERT PHASE1        501905.753 3638950.412 501875.911 3638943.630
   AREAVERT PHASE1        501854.208 3638923.283 501806.732 3638940.917
   AREAVERT PHASE1        501747.049 3638943.630 501677.870 3639012.809
   AREAVERT PHASE1        501627.681 3639056.215 501592.414 3639113.186
   AREAVERT PHASE1        501588.344 3639190.503 501626.325 3639269.177
   AREAVERT PHASE1        501576.136 3639293.593 501523.235 3639388.545
   AREAVERT PHASE1        501508.314 3639437.377 501479.829 3639468.575
   AREAVERT PHASE1        501451.343 3639525.546 501402.511 3639529.615
   AREAVERT PHASE1        501356.392 3639521.476 501319.768 3639539.110
   AREAVERT PHASE1        501241.094 3639495.704 501241.094 3639533.684
   AREAVERT PHASE1        501243.807 3639583.873 501227.530 3639632.705
   AREAVERT PHASE1        501186.836 3639657.121 501161.064 3639669.329
   AREAVERT PHASE1        501113.588 3639655.765 501071.538 3639601.507
   AREAVERT PHASE1        501049.835 3639594.725 501007.785 3639596.081
   AREAVERT PHASE1        500969.805 3639566.239 500956.240 3639497.060
   AREAVERT PHASE1        500887.062 3639366.841 500893.844 3639326.148
   AREAVERT PHASE1        500914.190 3639281.385 500854.507 3639189.147
   AREAVERT PHASE1        500820.596 3639126.750 500774.476 3639037.225
   AREAVERT PHASE1        500710.723 3638925.996 500675.456 3638954.482
   AREAVERT PHASE1        500641.545 3639004.670 500619.842 3639003.314
   AREAVERT PHASE1        500592.713 3638978.898 500557.445 3638858.174
   AREAVERT PHASE1        500512.682 3638841.897 500482.840 3638782.213
   AREAVERT PHASE1        500484.197 3638763.223 500454.355 3638723.886
   AREAVERT PHASE1        500480.128 3638683.192 500462.494 3638626.222
   AREAVERT PHASE1        500396.028 3638475.656 500250.888 3638194.872
   AREAVERT PHASE1        500212.908 3638082.286 500218.333 3638017.177
   AREAVERT PHASE1        500318.710 3637960.206 500452.999 3637930.364
   AREAVERT PHASE1        500459.781 3638056.514 500382.463 3638057.870
   AREAVERT PHASE1        500379.750 3638185.376 500410.949 3638303.387
   AREAVERT PHASE1        500459.781 3638401.051 500530.316 3638485.151
   AREAVERT PHASE1        500720.219 3638726.599 500842.299 3638779.500
   AREAVERT PHASE1        500910.121 3638799.847 500979.300 3638784.926
   AREAVERT PHASE1        501055.261 3638737.450 501089.172 3638723.886
   SRCPARAM PHASE2        6.8262E-08      0.000        29
   AREAVERT PHASE2        500455.747 3637928.969 500507.334 3637917.178
   AREAVERT PHASE2        500606.085 3637933.391 500617.876 3637958.447
   AREAVERT PHASE2        500635.563 3637968.765 500673.885 3637965.817
   AREAVERT PHASE2        500669.463 3637937.813 500670.937 3637908.335
   AREAVERT PHASE2        500681.254 3637871.487 500725.471 3637852.327
   AREAVERT PHASE2        500797.692 3637834.640 500838.961 3637839.061
   AREAVERT PHASE2        500883.178 3637849.379 500965.717 3637887.700
   AREAVERT PHASE2        500986.351 3637870.013 501236.915 3637956.974
   AREAVERT PHASE2        501169.115 3638270.914 501198.593 3638714.558
   AREAVERT PHASE2        501108.685 3638724.876 501090.998 3638723.402
   AREAVERT PHASE2        500980.456 3638782.358 500909.709 3638798.571
   AREAVERT PHASE2        500818.327 3638770.567 500722.523 3638727.823
   AREAVERT PHASE2        500458.695 3638400.618 500408.582 3638297.445
   AREAVERT PHASE2        500379.104 3638186.902 500383.526 3638058.673
   AREAVERT PHASE2        500460.169 3638055.725
   SRCGROUP ALL
SO FINISHED
**
*****************************************
** AERMOD Receptor Pathway
```

```
                                  Fanita Ranch HRA.ADO
****************************************
**
**
RE STARTING
   INCLUDED "Fanita Ranch HRA.rou"
RE FINISHED
**
****************************************
** AERMOD Meteorology Pathway
****************************************
**
**
ME STARTING
   SURFFILE "El Cajon Met Data\ECA_2010_2012_v18081.SFC"
   PROFFILE "El Cajon Met Data\ECA_2010_2012_v18081.PFL"
   SURFDATA 93107 2010
   UAIRDATA 3190 2010
   SITEDATA 3 2010
   PROFBASE 144.0 METERS
ME FINISHED
**
****************************************
** AERMOD Output Pathway
****************************************
**
**
OU STARTING
   RECTABLE ALLAVE 1ST
   RECTABLE 1 1ST
** Auto-Generated Plotfiles
   PLOTFILE 1 ALL 1ST "Fanita Ranch HRA.AD\01H1GALL.PLT" 31
   PLOTFILE ANNUAL ALL "Fanita Ranch HRA.AD\AN00GALL.PLT" 32
   SUMMFILE "Fanita Ranch HRA.sum"
OU FINISHED


  *** Message Summary For AERMOD Model Setup ***

  --------- Summary of Total Messages --------

 A Total of            0 Fatal Error Message(s)
 A Total of            1 Warning Message(s)
 A Total of            0 Informational Message(s)


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


    ********   WARNING MESSAGES   ********
 ME W187      146       MEOPEN: ADJ_U* Beta Option for Low Winds used in AERMET
Non-DFAULT

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

♀ *** AERMOD - VERSION  15181 ***   *** C:\Users\ZChen\Desktop\Fanita Ranch
HRA\Fanita Ranch HRA.isc       ***        08/01/19
 *** AERMET - VERSION  18081 ***   ***
                       ***        10:49:22

                            PAGE   1
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```
 **MODELOPTs:   NonDFAULT CONC      ELEV      FLGPOL    BETA      RURAL      ADJ_U*
```
                                        ***   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 Allows User-Specified 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:
         ADJ_U*   - Use ADJ_U* BETA option for SBL in AERMET
         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 ANNUAL Averages

 **This Run Includes: 2 Source(s);   1 Source Group(s); and   75
Receptor(s)

                 with: 0 POINT(s), including
                            0 POINTCAP(s) and   0 POINTHOR(s)
                  and: 0 VOLUME source(s)
                  and: 2 AREA type source(s)
                  and: 0 LINE source(s)
                  and: 0 OPENPIT source(s)

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

 **The AERMET Input Meteorological Data Version Date: 18081

 **Output Options Selected:
         Model Outputs Tables of ANNUAL 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

Fanita Ranch HRA.ADO
Missing Hours

 **Misc. Inputs: Base Elev. for Pot. Temp. Profile (m MSL) =   144.00 ; 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 =   3.5 MB of RAM.

 **Detailed Error/Message File: Fanita Ranch HRA.err

 **File for Summary of Results: Fanita Ranch HRA.sum

♀ *** AERMOD - VERSION 15181 ***   *** C:\Users\ZChen\Desktop\Fanita Ranch
HRA\Fanita Ranch HRA.isc   ***   08/01/19
 *** AERMET - VERSION 18081 ***   ***
                         ***   10:49:22

                              PAGE   2
 **MODELOPTs: NonDFAULT CONC   ELEV   FLGPOL   BETA   RURAL   ADJ_U*

                                     *** AREAPOLY SOURCE DATA ***

               NUMBER EMISSION RATE   LOCATION OF AREA BASE   RELEASE NUMBER
INIT.   URBAN EMISSION RATE
   SOURCE   PART. (GRAMS/SEC   X   Y   ELEV.   HEIGHT OF VERTS.
   SZ   SOURCE   SCALAR VARY
     ID   CATS.   /METER**2)   (METERS) (METERS) (METERS) (METERS)
(METERS)   BY
- -
- -

 PHASE1   0   0.16649E-08   501189.5 3638715.7   172.2   0.00   128
  0.00   NO
 PHASE2   0   0.68262E-07   500455.7 3637929.0   149.1   0.00   29
  0.00   NO
♀ *** AERMOD - VERSION 15181 ***   *** C:\Users\ZChen\Desktop\Fanita Ranch
HRA\Fanita Ranch HRA.isc   ***   08/01/19
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                              PAGE   3
 **MODELOPTs: NonDFAULT CONC   ELEV   FLGPOL   BETA   RURAL   ADJ_U*

                                     *** SOURCE IDs DEFINING SOURCE GROUPS ***

  SRCGROUP ID   SOURCE IDs
  -----------   ----------

  ALL   PHASE1   , PHASE2   ,
♀ *** AERMOD - VERSION 15181 ***   *** C:\Users\ZChen\Desktop\Fanita Ranch
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 *** AERMET - VERSION 18081 ***   ***
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 **MODELOPTs: NonDFAULT CONC   ELEV   FLGPOL   BETA   RURAL   ADJ_U*

                                     *** DISCRETE CARTESIAN RECEPTORS ***
                              Page 5

(X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
(METERS)

```
    ( 499920.3, 3637453.6,      146.3,      304.6,        1.5);      ( 502101.2,
3637903.5,      191.8,      304.6,      1.5);
    ( 501958.9, 3637412.9,      176.1,      304.6,        1.5);      ( 501325.0,
3638703.8,      177.8,      331.4,      1.5);
    ( 501375.0, 3638703.8,      180.0,      331.4,        1.5);      ( 501425.0,
3638703.8,      182.0,      331.4,      1.5);
    ( 501475.0, 3638703.8,      185.0,      331.4,        1.5);      ( 501525.0,
3638703.8,      188.4,      331.4,      1.5);
    ( 501575.0, 3638703.8,      192.1,      331.4,        1.5);      ( 501625.0,
3638703.8,      195.2,      331.4,      1.5);
    ( 501675.0, 3638703.8,      197.8,      331.4,        1.5);      ( 501225.0,
3638753.8,      174.0,      331.4,      1.5);
    ( 501275.0, 3638753.8,      175.8,      331.4,        1.5);      ( 501325.0,
3638753.8,      178.1,      331.4,      1.5);
    ( 501375.0, 3638753.8,      180.4,      331.4,        1.5);      ( 501425.0,
3638753.8,      183.5,      331.4,      1.5);
    ( 501475.0, 3638753.8,      186.7,      331.4,        1.5);      ( 501525.0,
3638753.8,      189.3,      331.4,      1.5);
    ( 501575.0, 3638753.8,      192.5,      331.4,        1.5);      ( 501625.0,
3638753.8,      195.4,      331.4,      1.5);
    ( 501675.0, 3638753.8,      197.8,      331.4,        1.5);      ( 501225.0,
3638803.8,      174.7,      331.4,      1.5);
    ( 501275.0, 3638803.8,      175.5,      331.4,        1.5);      ( 501325.0,
3638803.8,      177.9,      331.4,      1.5);
    ( 501375.0, 3638803.8,      180.3,      331.4,        1.5);      ( 501425.0,
3638803.8,      184.2,      331.4,      1.5);
    ( 501475.0, 3638803.8,      187.1,      331.4,        1.5);      ( 501525.0,
3638803.8,      189.6,      331.4,      1.5);
    ( 501575.0, 3638803.8,      192.0,      331.4,        1.5);      ( 501625.0,
3638803.8,      194.8,      331.4,      1.5);
    ( 501225.0, 3638853.8,      176.7,      331.4,        1.5);      ( 501275.0,
3638848.0,      176.4,      331.4,      1.5);
    ( 501325.0, 3638853.8,      178.3,      331.4,        1.5);      ( 501375.0,
3638853.8,      181.1,      331.4,      1.5);
    ( 501425.0, 3638853.8,      184.1,      331.4,        1.5);      ( 501475.0,
3638853.8,      186.1,      331.4,      1.5);
    ( 501525.0, 3638853.8,      188.4,      331.4,        1.5);      ( 501575.0,
3638853.8,      191.0,      331.4,      1.5);
    ( 501625.0, 3638853.8,      193.9,      331.4,        1.5);      ( 501325.0,
3638903.8,      180.8,      331.4,      1.5);
    ( 501375.0, 3638903.8,      183.6,      331.4,        1.5);      ( 501425.0,
3638903.8,      185.7,      331.4,      1.5);
    ( 501475.0, 3638903.8,      187.0,      331.4,        1.5);      ( 501525.0,
3638903.8,      189.2,      331.4,      1.5);
    ( 501575.0, 3638903.8,      192.7,      331.4,        1.5);      ( 501625.0,
3638903.8,      193.8,      331.4,      1.5);
    ( 501328.0, 3638953.8,      185.4,      331.4,        1.5);      ( 501375.0,
3638953.8,      186.2,      331.4,      1.5);
    ( 501425.0, 3638953.8,      186.6,      331.4,        1.5);      ( 501475.0,
3638953.8,      188.1,      331.4,      1.5);
    ( 501525.0, 3638953.8,      191.0,      331.4,        1.5);      ( 501575.0,
3638953.8,      195.1,      331.4,      1.5);
    ( 501625.0, 3638953.8,      200.3,      331.4,        1.5);      ( 501675.0,
3638953.8,      207.6,      331.4,      1.5);
    ( 501337.0, 3639003.8,      189.6,      331.4,        1.5);      ( 501375.0,
3639003.8,      189.8,      331.4,      1.5);
    ( 501425.0, 3639003.8,      187.9,      331.4,        1.5);      ( 501475.0,
3639003.8,      189.2,      331.4,      1.5);
    ( 501525.0, 3639003.8,      191.7,      331.4,        1.5);      ( 501575.0,
3639003.8,      196.4,      331.4,      1.5);
```

```
                              Fanita Ranch HRA.ADO
     ( 501625.0, 3639003.8,      204.1,      331.4,        1.5);        ( 501375.0,
3639053.8,      192.8,      331.4,      1.5);
     ( 501425.0, 3639053.8,      188.7,      331.4,        1.5);        ( 501475.0,
3639053.8,      189.6,      331.4,      1.5);
     ( 501525.0, 3639053.8,      192.6,      331.4,        1.5);        ( 501575.0,
3639053.8,      197.5,      331.4,      1.5);
     ( 501375.0, 3639103.8,      187.5,      331.4,        1.5);        ( 501425.0,
3639103.8,      188.7,      331.4,      1.5);
     ( 501475.0, 3639103.8,      191.0,      331.4,        1.5);        ( 501525.0,
3639103.8,      193.8,      331.4,      1.5);
     ( 501575.0, 3639103.8,      199.1,      331.4,        1.5);        ( 501375.0,
3639153.8,      186.1,      331.4,      1.5);
     ( 501425.0, 3639153.8,      189.0,      331.4,        1.5);        ( 501475.0,
3639153.8,      191.9,      331.4,      1.5);
     ( 501525.0, 3639153.8,      194.9,      331.4,        1.5);
```

♀ *** AERMOD - VERSION 15181 ***   *** C:\Users\ZChen\Desktop\Fanita Ranch
HRA\Fanita Ranch HRA.isc   ***   08/01/19
 *** AERMET - VERSION 18081 ***   ***
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  **MODELOPTs: NonDFAULT CONC   ELEV   FLGPOL   BETA   RURAL   ADJ_U*

                              *** METEOROLOGICAL DAYS SELECTED FOR
PROCESSING ***
                                    (1=YES; 0=NO)

```
           1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
           1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
           1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
           1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
           1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
           1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
           1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
           1 1 1 1 1 1 1 1 1  1 1 1 1 1
```

            NOTE: METEOROLOGICAL DATA ACTUALLY PROCESSED WILL ALSO DEPEND ON
WHAT IS INCLUDED IN THE DATA FILE.

                              *** UPPER BOUND OF FIRST THROUGH FIFTH WIND SPEED
CATEGORIES ***
                                    (METERS/SEC)

                              1.54,   3.09,   5.14,   8.23,
10.80,
♀ *** AERMOD - VERSION 15181 ***   *** C:\Users\ZChen\Desktop\Fanita Ranch
HRA\Fanita Ranch HRA.isc   ***   08/01/19
 *** AERMET - VERSION 18081 ***   ***
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  **MODELOPTs: NonDFAULT CONC   ELEV   FLGPOL   BETA   RURAL   ADJ_U*

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

    Surface file: El Cajon Met Data\ECA_2010_2012_v18081.SFC
             Met Version: 18081
    Profile file: El Cajon Met Data\ECA_2010_2012_v18081.PFL

    Surface format: FREE

    Profile format: FREE

    Surface station no.:   93107   Upper air station no.:   3190
             Name: UNKNOWN   Name: UNKNOWN

             Year: 2010   Year: 2010

 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
 -
 - - - - - - - - - - - - - - - - -

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
10 01 01 1 01	-2.2	0.077	-9.000	-9.000	-999.	51.	18.5	0.52	1.19	1.00	0.44	289.	10.0	279.8	10.0
10 01 01 1 02	-2.2	0.077	-9.000	-9.000	-999.	51.	18.5	0.52	1.19	1.00	0.44	287.	10.0	279.2	10.0
10 01 01 1 03	-2.0	0.075	-9.000	-9.000	-999.	50.	18.8	0.46	1.19	1.00	0.44	237.	10.0	279.2	10.0
10 01 01 1 04	-2.2	0.077	-9.000	-9.000	-999.	51.	18.5	0.52	1.19	1.00	0.44	287.	10.0	278.6	10.0
10 01 01 1 05	-2.2	0.077	-9.000	-9.000	-999.	51.	18.5	0.52	1.19	1.00	0.44	279.	10.0	278.1	10.0
10 01 01 1 06	-4.9	0.100	-9.000	-9.000	-999.	76.	18.4	0.34	1.19	1.00	0.89	102.	10.0	277.5	10.0
10 01 01 1 07	-2.2	0.077	-9.000	-9.000	-999.	51.	18.5	0.52	1.19	1.00	0.44	283.	10.0	277.5	10.0
10 01 01 1 08	-1.2	0.063	-9.000	-9.000	-999.	38.	17.6	0.52	1.19	0.49	0.44	269.	10.0	278.1	10.0
10 01 01 1 09	43.1	0.168	0.445	0.009	73.	166.	-9.9	0.46	1.19	0.30	0.89	313.	10.0	281.4	10.0
10 01 01 1 10	92.8	0.184	0.824	0.009	216.	190.	-6.1	0.46	1.19	0.23	0.89	303.	10.0	285.4	10.0
10 01 01 1 11	125.6	0.130	1.130	0.008	413.	113.	-1.6	0.52	1.19	0.21	0.44	270.	10.0	288.6	10.0
10 01 01 1 12	144.0	0.253	1.312	0.008	562.	305.	-10.0	0.46	1.19	0.20	1.34	318.	10.0	292.5	10.0
10 01 01 1 13	142.2	0.252	1.390	0.008	677.	303.	-10.0	0.45	1.19	0.20	1.34	345.	10.0	293.6	10.0
10 01 01 1 14	120.0	0.191	1.370	0.007	767.	201.	-5.2	0.46	1.19	0.21	0.89	309.	10.0	294.8	10.0
10 01 01 1 15	84.7	0.290	1.252	0.007	830.	375.	-25.7	0.46	1.19	0.24	1.78	303.	10.0	295.9	10.0
10 01 01 1 16	16.1	0.308	0.722	0.007	838.	410.	-162.4	0.46	1.19	0.33	2.23	309.	10.0	294.2	10.0
10 01 01 1 17	-13.0	0.175	-9.000	-9.000	-999.	187.	36.9	0.46	1.19	0.61	1.34	320.	10.0	291.4	10.0
10 01 01 1 18	-6.0	0.113	-9.000	-9.000	-999.	92.	21.3	0.46	1.19	1.00	0.89	311.	10.0	290.4	10.0
10 01 01 1 19	-11.0	0.152	-9.000	-9.000	-999.	142.	28.6	0.34	1.19	1.00	1.34	99.	10.0	288.6	10.0
10 01 01 1 20	-5.2	0.104	-9.000	-9.000	-999.	81.	19.5	0.38	1.19	1.00	0.89	135.	10.0	288.1	10.0
10 01 01 1 21	-5.9	0.111	-9.000	-9.000	-999.	89.	20.8	0.44	1.19	1.00	0.89	79.	10.0	286.9	10.0

```
 10 01 01  1 22  -4.8  0.100 -9.000 -9.000 -999.   76.    18.6  0.34  1.19
1.00   0.89 109.   10.0 285.9  10.0
 10 01 01  1 23  -6.1  0.113 -9.000 -9.000 -999.   91.    21.1  0.46  1.19
1.00   0.89 312.   10.0 285.4  10.0
 10 01 01  1 24  -4.8  0.100 -9.000 -9.000 -999.   76.    18.6  0.34  1.19
1.00   0.89 105.   10.0 283.6  10.0


 First hour of profile data
 YR MO DY HR HEIGHT F  WDIR   WSPD AMB_TMP sigmaA  sigmaW  sigmaV
 10 01 01 01   10.0 1 289.   0.44   279.8   99.0  -99.00  -99.00

 F indicates top of profile (=1) or below (=0)
```
♀ *** AERMOD – VERSION 15181 ***   *** C:\Users\ZChen\Desktop\Fanita Ranch
HRA\Fanita Ranch HRA.isc   ***   08/01/19
 *** AERMET – VERSION 18081 ***   ***
                      ***   10:49:22

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 **MODELOPTs: NonDFAULT CONC   ELEV   FLGPOL   BETA   RURAL   ADJ_U*

               *** THE ANNUAL AVERAGE CONCENTRATION   VALUES AVERAGED OVER   3
YEARS FOR SOURCE GROUP: ALL   ***
                      INCLUDING SOURCE(S):   PHASE1   , PHASE2
,

                      *** 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
 -
- -
      499920.29   3637453.58   0.04615   502101.24
3637903.50   0.03631
      501958.90   3637412.91   0.04104   501325.00
3638703.80   0.20407
      501375.00   3638703.80   0.17102   501425.00
3638703.80   0.14688
      501475.00   3638703.80   0.12222   501525.00
3638703.80   0.09989
      501575.00   3638703.80   0.08087   501625.00
3638703.80   0.06743
      501675.00   3638703.80   0.05780   501225.00
3638753.80   0.26195
      501275.00   3638753.80   0.21980   501325.00
3638753.80   0.18405
      501375.00   3638753.80   0.15633   501425.00
3638753.80   0.12948
      501475.00   3638753.80   0.10806   501525.00
3638753.80   0.09219
      501575.00   3638753.80   0.07673   501625.00
3638753.80   0.06464
      501675.00   3638753.80   0.05625   501225.00
3638803.80   0.22634
      501275.00   3638803.80   0.20167   501325.00
3638803.80   0.17094
      501375.00   3638803.80   0.14591   501425.00
3638803.80   0.11861
      501475.00   3638803.80   0.10099   501525.00
```

3638803.80         0.08710
          501575.00     3638803.80          0.07572                               501625.00
3638803.80         0.06425
          501225.00     3638853.80          0.19395                               501275.00
3638848.00         0.18288
          501325.00     3638853.80          0.15694                               501375.00
3638853.80         0.13219
          501425.00     3638853.80          0.11233                               501475.00
3638853.80         0.09956
          501525.00     3638853.80          0.08731                               501575.00
3638853.80         0.07563
          501625.00     3638853.80          0.06446                               501325.00
3638903.80         0.13487
          501375.00     3638903.80          0.11363                               501425.00
3638903.80         0.09978
          501475.00     3638903.80          0.09101                               501525.00
3638903.80         0.08024
          501575.00     3638903.80          0.06713                               501625.00
3638903.80         0.06181
          501328.00     3638953.80          0.10593                               501375.00
3638953.80         0.09709
          501425.00     3638953.80          0.09137                               501475.00
3638953.80         0.08283
          501525.00     3638953.80          0.07102                               501575.00
3638953.80         0.05758
          501625.00     3638953.80          0.04485                               501675.00
3638953.80         0.03322
          501337.00     3639003.80          0.08392                               501375.00
3639003.80         0.07982
          501425.00     3639003.80          0.08271                               501475.00
3639003.80         0.07534
          501525.00     3639003.80          0.06578                               501575.00
3639003.80         0.05218
          501625.00     3639003.80          0.03714                               501375.00
3639053.80         0.06711
          501425.00     3639053.80          0.07652                               501475.00
3639053.80         0.07097
          501525.00     3639053.80          0.06061                               501575.00
3639053.80         0.04805
          501375.00     3639103.80          0.08112                               501425.00
3639103.80         0.07374
          501475.00     3639103.80          0.06463                               501525.00
3639103.80         0.05561
          501575.00     3639103.80          0.04347                               501375.00
3639153.80         0.08381
          501425.00     3639153.80          0.07122                               501475.00
3639153.80         0.06058
          501525.00     3639153.80          0.05165

⚥ *** AERMOD - VERSION  15181 ***    *** C:\Users\ZChen\Desktop\Fanita Ranch
HRA\Fanita Ranch HRA.isc        ***        08/01/19
 *** AERMET - VERSION  18081 ***    ***
                    ***        10:49:22

                              PAGE   8
 **MODELOPTs:   NonDFAULT CONC      ELEV       FLGPOL     BETA      RURAL      ADJ_U*

                         *** THE   1ST HIGHEST  1-HR AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP:  ALL     ***
                         INCLUDING SOURCE(S):     PHASE1      , PHASE2
,

                              *** DISCRETE CARTESIAN RECEPTOR POINTS

***

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

     X-COORD (M)   Y-COORD (M)    CONC     (YYMMDDHH)             X-COORD (M)
Y-COORD (M)         CONC     (YYMMDDHH)
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - -
       499920.29   3637453.58   2.99457   (10010908)             502101.24
3637903.50          1.86709   (10032907)
       501958.90   3637412.91   2.11282   (10122708)             501325.00
3638703.80          2.42602   (12022408)
       501375.00   3638703.80   2.20662   (12022408)             501425.00
3638703.80          2.00966   (10021408)
       501475.00   3638703.80   1.80575   (10021408)             501525.00
3638703.80          1.72937   (10020908)
       501575.00   3638703.80   1.73122   (10020908)             501625.00
3638703.80          1.73414   (10020908)
       501675.00   3638703.80   1.73479   (10020908)             501225.00
3638753.80          2.83074   (11092307)
       501275.00   3638753.80   2.66254   (12022408)             501325.00
3638753.80          2.43550   (12022408)
       501375.00   3638753.80   2.21169   (12022408)             501425.00
3638753.80          1.96577   (10021408)
       501475.00   3638753.80   1.76398   (10021408)             501525.00
3638753.80          1.67559   (10020908)
       501575.00   3638753.80   1.68582   (10020908)             501625.00
3638753.80          1.69445   (10020908)
       501675.00   3638753.80   1.70247   (10020908)             501225.00
3638803.80          2.76608   (11092307)
       501275.00   3638803.80   2.71194   (11092307)             501325.00
3638803.80          2.48636   (12022408)
       501375.00   3638803.80   2.26042   (12022408)             501425.00
3638803.80          1.96084   (10021408)
       501475.00   3638803.80   1.78233   (10021408)             501525.00
3638803.80          1.64067   (11050507)
       501575.00   3638803.80   1.62260   (10020908)             501625.00
3638803.80          1.64147   (10020908)
       501225.00   3638853.80   2.52318   (11092307)             501275.00
3638848.00          2.60365   (11092307)
       501325.00   3638853.80   2.41963   (11092307)             501375.00
3638853.80          2.21249   (12022408)
       501425.00   3638853.80   4.26246   (11012609)             501475.00
3638853.80          1.85394   (10021408)
       501525.00   3638853.80   1.71526   (10021408)             501575.00
3638853.80          1.64744   (11050507)
       501625.00   3638853.80   1.61444   (11050507)             501325.00
3638903.80          2.15399   (11092307)
       501375.00   3638903.80   1.96509   (12022408)             501425.00
3638903.80          1.88353   (12022408)
       501475.00   3638903.80   1.81614   (12022408)             501525.00
3638903.80          1.69431   (10021408)
       501575.00   3638903.80   1.66217   (11050507)             501625.00
3638903.80          1.64757   (11050507)
       501328.00   3638953.80   2.09929   (11021808)             501375.00
3638953.80          1.98769   (11021808)
       501425.00   3638953.80   1.79691   (11021808)             501475.00
3638953.80          1.73683   (12022408)
       501525.00   3638953.80   1.60185   (12022408)             501575.00
3638953.80          1.62418   (11050507)
       501625.00   3638953.80   1.63482   (11050507)             501675.00
3638953.80          1.61875   (11050507)
```

```
        501337.00   3639003.80      2.08518  (11021808)                  501375.00
3639003.80      2.04537  (11021808)
        501425.00   3639003.80      1.90728  (11021808)                  501475.00
3639003.80      1.70091  (11021808)
        501525.00   3639003.80      1.58347  (12011409)                  501575.00
3639003.80      1.51658  (11050507)
        501625.00   3639003.80      1.56919  (11050507)                  501375.00
3639053.80      2.06021  (11021808)
        501425.00   3639053.80      1.99643  (11021808)                  501475.00
3639053.80      1.82163  (11021808)
        501525.00   3639053.80      1.63382  (12011409)                  501575.00
3639053.80      1.56687  (12011409)
        501375.00   3639103.80      2.08082  (11021808)                  501425.00
3639103.80      2.05104  (11021808)
        501475.00   3639103.80      1.92295  (11021808)                  501525.00
3639103.80      1.72517  (11021808)
        501575.00   3639103.80      1.61856  (12011409)                  501375.00
3639153.80      2.08304  (11021808)
        501425.00   3639153.80      2.06900  (11021808)                  501475.00
3639153.80      1.99761  (11021808)
        501525.00   3639153.80      1.83695  (11021808)
```

♀ *** AERMOD - VERSION 15181 ***   *** C:\Users\ZChen\Desktop\Fanita Ranch
HRA\Fanita Ranch HRA.isc   ***   08/01/19
 *** AERMET - VERSION 18081 ***   ***
                         ***   10:49:22

                                  PAGE   9
 **MODELOPTs: NonDFAULT CONC   ELEV   FLGPOL   BETA   RURAL   ADJ_U*

                             *** THE SUMMARY OF MAXIMUM ANNUAL RESULTS
AVERAGED OVER   3 YEARS ***

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

                     NETWORK
GROUP ID   AVERAGE CONC   RECEPTOR (XR, YR, ZELEV,
ZHILL, ZFLAG) OF TYPE GRID-ID
- -
- - - - - - - - - - - - - - - - - -

ALL   1ST HIGHEST VALUE IS   0.26195 AT (501225.00, 3638753.80,   173.97,
   331.43,   1.50) DC
        2ND HIGHEST VALUE IS   0.22634 AT (501225.00, 3638803.80,   174.73,
   331.43,   1.50) DC
        3RD HIGHEST VALUE IS   0.21980 AT (501275.00, 3638753.80,   175.82,
   331.43,   1.50) DC
        4TH HIGHEST VALUE IS   0.20407 AT (501325.00, 3638703.80,   177.78,
   331.43,   1.50) DC
        5TH HIGHEST VALUE IS   0.20167 AT (501275.00, 3638803.80,   175.50,
   331.43,   1.50) DC
        6TH HIGHEST VALUE IS   0.19395 AT (501225.00, 3638853.80,   176.66,
   331.43,   1.50) DC
        7TH HIGHEST VALUE IS   0.18405 AT (501325.00, 3638753.80,   178.07,
   331.43,   1.50) DC
        8TH HIGHEST VALUE IS   0.18288 AT (501275.00, 3638848.00,   176.41,
   331.43,   1.50) DC
        9TH HIGHEST VALUE IS   0.17102 AT (501375.00, 3638703.80,   179.97,
   331.43,   1.50) DC
       10TH HIGHEST VALUE IS   0.17094 AT (501325.00, 3638803.80,   177.86,

Fanita Ranch HRA.ADO
   331.43,   1.50) DC

   *** RECEPTOR TYPES: GC = GRIDCART
                        GP = GRIDPOLR
                        DC = DISCCART
                        DP = DISCPOLR
♀ *** AERMOD - VERSION 15181 ***   *** C:\Users\ZChen\Desktop\Fanita Ranch
HRA\Fanita Ranch HRA.isc   ***   08/01/19
   *** AERMET - VERSION 18081 ***   ***
                         ***   10:49:22

                              PAGE 10
   **MODELOPTs: NonDFAULT CONC   ELEV   FLGPOL   BETA   RURAL   ADJ_U*

                                      *** 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   4.26246 ON 11012609: AT (501425.00,
3638853.80,   184.10,   331.43,   1.50) DC

   *** RECEPTOR TYPES: GC = GRIDCART
                        GP = GRIDPOLR
                        DC = DISCCART
                        DP = DISCPOLR
♀ *** AERMOD - VERSION 15181 ***   *** C:\Users\ZChen\Desktop\Fanita Ranch
HRA\Fanita Ranch HRA.isc   ***   08/01/19
   *** AERMET - VERSION 18081 ***   ***
                         ***   10:49:22

                              PAGE 11
   **MODELOPTs: NonDFAULT CONC   ELEV   FLGPOL   BETA   RURAL   ADJ_U*

   *** Message Summary : AERMOD Model Execution ***

    --------- Summary of Total Messages --------

 A Total of   0 Fatal Error Message(s)
 A Total of   37 Warning Message(s)
 A Total of   1121 Informational Message(s)

 A Total of   26304 Hours Were Processed

 A Total of   753 Calm Hours Identified

 A Total of   368 Missing Hours Identified (1.40 Percent)

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

                              Page 13

Fanita Ranch HRA.ADO

ME W187   146   MEOPEN: ADJ_U* Beta Option for Low Winds used in AERMET
Non-DFAULT
MX W441   14167   METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
11081407
MX W441   14168   METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
11081408
MX W441   14169   METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
11081409
MX W441   14170   METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
11081410
MX W441   14171   METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
11081411
MX W441   14172   METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
11081412
MX W441   14173   METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
11081413
MX W441   14174   METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
11081414
MX W441   14175   METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
11081415
MX W441   14176   METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
11081416
MX W441   14177   METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
11081417
MX W441   14178   METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
11081418
MX W441   14191   METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
11081507
MX W441   14192   METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
11081508
MX W441   14193   METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
11081509
MX W441   14194   METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
11081510
MX W441   14195   METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
11081511
MX W441   14196   METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
11081512
MX W441   14197   METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
11081513
MX W441   14198   METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
11081514
MX W441   14199   METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
11081515
MX W441   14200   METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
11081516
MX W441   14201   METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
11081517
MX W441   14202   METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
11081518
MX W441   14215   METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
11081607
MX W441   14216   METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
11081608
MX W441   14217   METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
11081609
MX W441   14218   METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
11081610
MX W441   14219   METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
11081611
MX W441   14220   METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=

11081612
MX W441   14221   METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
11081613
MX W441   14222   METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
11081614
MX W441   14223   METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
11081615
MX W441   14224   METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
11081616
MX W441   14225   METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
11081617
MX W441   14226   METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
11081618

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

ROADWAY CONSTRUCTION

```
**
****************************************
**
** AERMOD Input Produced by:
** AERMOD View Ver. 9.6.5
** Lakes Environmental Software Inc.
** Date: 8/1/2019
** File: C:\Users\ZChen\Desktop\Fanita Ranch Roadway HRA\Fanita Ranch Roadway
HRA.ADI
**
****************************************
**
**
****************************************
** AERMOD Control Pathway
****************************************
**
**
CO STARTING
   TITLEONE C:\Users\ZChen\Desktop\Fanita Ranch Roadway HRA\Fanita Ranch Roadway
   MODELOPT CONC BETA
   AVERTIME 1 ANNUAL
   POLLUTID DPM
   FLAGPOLE 1.50
   RUNORNOT RUN
   ERRORFIL "Fanita Ranch Roadway HRA.err"
CO FINISHED
**
****************************************
** AERMOD Source Pathway
****************************************
**
**
SO STARTING
** Source Location **
** Source ID - Type - X Coord. - Y Coord. **
   LOCATION ROAD1        AREAPOLY   501847.256  3638181.302       243.230
** DESCRSRC Cuyamaca+Magnolia
   LOCATION ROAD2        AREAPOLY   499589.666  3634708.491       108.920
** DESCRSRC Fanita
** Source Parameters **
   SRCPARAM ROAD1        1.3262E-08     0.000        117
   AREAVERT ROAD1        501847.256 3638181.302 501816.321 3638181.302
   AREAVERT ROAD1        501794.225 3638148.157 501774.338 3638130.480
   AREAVERT ROAD1        501776.548 3638110.594 501796.435 3638097.336
   AREAVERT ROAD1        501822.950 3638097.336 501800.854 3638039.885
   AREAVERT ROAD1        501787.596 3637978.016 501783.177 3637929.404
   AREAVERT ROAD1        501787.596 3637856.486 501825.160 3637794.616
   AREAVERT ROAD1        501836.208 3637761.472 501816.321 3637697.392
   AREAVERT ROAD1        501871.562 3637564.814 501845.047 3637529.460
   AREAVERT ROAD1        501858.305 3637511.783 501875.982 3637507.364
   AREAVERT ROAD1        501873.772 3637452.123 501860.514 3637370.366
   AREAVERT ROAD1        501875.982 3637288.610 501845.047 3637270.933
   AREAVERT ROAD1        501875.982 3637251.046 501860.514 3637209.063
   AREAVERT ROAD1        501860.514 3637171.499 501873.772 3637129.516
   AREAVERT ROAD1        501864.933 3637085.324 501862.724 3637034.502
   AREAVERT ROAD1        501847.256 3636981.471 501845.047 3636963.794
   AREAVERT ROAD1        501833.999 3636941.698 501829.579 3636924.021
   AREAVERT ROAD1        501829.579 3636908.553 501836.208 3636908.553
   AREAVERT ROAD1        501811.902 3636884.247 501798.644 3636833.426
   AREAVERT ROAD1        501833.999 3636813.539 501860.514 3636873.199
   AREAVERT ROAD1        501887.030 3636932.859 501906.916 3636954.955
   AREAVERT ROAD1        501898.078 3636992.519 501911.336 3637032.293
```
Page 1

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AREAVERT ROAD1      501917.965 3637089.743 501915.755 3637149.403
AREAVERT ROAD1      501904.707 3637211.273 501926.803 3637222.321
AREAVERT ROAD1      501929.013 3637239.998 501909.126 3637246.627
AREAVERT ROAD1      501920.174 3637270.933 501902.497 3637299.658
AREAVERT ROAD1      501911.336 3637326.174 501902.497 3637390.253
AREAVERT ROAD1      501913.545 3637438.865 501922.384 3637463.171
AREAVERT ROAD1      501935.642 3637463.171 501959.948 3637447.704
AREAVERT ROAD1      501917.965 3637520.622 501904.707 3637547.137
AREAVERT ROAD1      501906.916 3637562.605 501909.126 3637591.330
AREAVERT ROAD1      501929.013 3637593.539 502021.817 3637569.233
AREAVERT ROAD1      502112.412 3637569.233 502198.588 3637578.072
AREAVERT ROAD1      502242.781 3637589.120 502291.393 3637580.282
AREAVERT ROAD1      502291.393 3637544.928 502311.279 3637540.508
AREAVERT ROAD1      502315.699 3637600.168 502446.067 3637586.911
AREAVERT ROAD1      502501.308 3637555.976 502545.501 3637529.460
AREAVERT ROAD1      502567.597 3637533.879 502607.370 3637485.267
AREAVERT ROAD1      502653.773 3637460.961 502680.288 3637407.930
AREAVERT ROAD1      502689.127 3637374.786 502689.127 3637235.579
AREAVERT ROAD1      502722.271 3637239.998 502711.223 3637390.253
AREAVERT ROAD1      502682.498 3637474.219 502651.563 3637511.783
AREAVERT ROAD1      502607.370 3637553.766 502572.016 3637560.395
AREAVERT ROAD1      502527.823 3637611.217 502465.954 3637635.523
AREAVERT ROAD1      502428.390 3637635.523 502359.891 3637635.523
AREAVERT ROAD1      502320.118 3637633.313 502311.279 3637686.344
AREAVERT ROAD1      502289.183 3637686.344 502284.764 3637650.990
AREAVERT ROAD1      502249.410 3637653.200 502227.313 3637666.457
AREAVERT ROAD1      502196.378 3637664.248 502180.911 3637644.361
AREAVERT ROAD1      502161.024 3637659.828 502147.767 3637650.990
AREAVERT ROAD1      502054.962 3637664.248 501957.738 3637664.248
AREAVERT ROAD1      501915.755 3637626.684 501900.288 3637639.942
AREAVERT ROAD1      501895.868 3637692.973 501873.772 3637743.795
AREAVERT ROAD1      501906.916 3637757.052 501900.288 3637787.987
AREAVERT ROAD1      501882.610 3637825.551 501847.256 3637852.067
AREAVERT ROAD1      501853.885 3638008.951 501898.078 3638015.579
AREAVERT ROAD1      501926.803 3638002.322 501937.851 3638002.322
AREAVERT ROAD1      501942.271 3638019.999 501951.109 3638026.628
AREAVERT ROAD1      501924.594 3638079.659 501900.288 3638095.126
AREAVERT ROAD1      501895.868 3638163.625
SRCPARAM ROAD2      1.3262E-08     0.000         69
AREAVERT ROAD2      499589.666 3634708.491 499548.072 3634698.093
AREAVERT ROAD2      499423.291 3635519.570 499412.892 3635589.759
AREAVERT ROAD2      499402.494 3635665.148 499301.109 3635943.306
AREAVERT ROAD2      499290.711 3636099.283 499316.707 3636239.662
AREAVERT ROAD2      499519.476 3636699.793 499735.244 3637141.727
AREAVERT ROAD2      499792.435 3637383.491 499849.627 3637536.868
AREAVERT ROAD2      499930.215 3637666.848 500005.604 3637739.637
AREAVERT ROAD2      499997.805 3637757.835 500052.397 3637783.831
AREAVERT ROAD2      500054.996 3637768.233 500153.781 3637841.022
AREAVERT ROAD2      500275.963 3637900.813 500294.160 3637932.009
AREAVERT ROAD2      500301.959 3637963.204 500437.139 3637908.612
AREAVERT ROAD2      500408.543 3637885.216 500400.744 3637874.817
AREAVERT ROAD2      500385.147 3637846.222 500353.951 3637846.222
AREAVERT ROAD2      500330.555 3637830.624 500296.760 3637825.425
AREAVERT ROAD2      500255.166 3637812.427 500140.783 3637742.237
AREAVERT ROAD2      500112.188 3637713.641 500070.594 3637713.641
AREAVERT ROAD2      500008.203 3637661.649 499977.008 3637627.854
AREAVERT ROAD2      499958.811 3637620.055 499878.223 3637466.678
AREAVERT ROAD2      499854.826 3637458.880 499782.037 3637183.321
AREAVERT ROAD2      499779.437 3637149.526 499756.041 3637100.133
AREAVERT ROAD2      499805.433 3637079.336 499795.035 3637061.139
AREAVERT ROAD2      499743.043 3637081.936 499667.654 3636897.364
AREAVERT ROAD2      499542.873 3636653.000 499579.267 3636632.203
AREAVERT ROAD2      499574.068 3636611.406 499563.670 3636606.207
```

```
                              Fanita Ranch Roadway HRA.ADO
    AREAVERT ROAD2          499527.275 3636624.404 499511.677 3636606.207
    AREAVERT ROAD2          499394.695 3636312.451 499358.300 3636226.664
    AREAVERT ROAD2          499340.103 3636104.482 499337.504 3635987.500
    AREAVERT ROAD2          499399.894 3635789.929 499436.289 3635688.544
    AREAVERT ROAD2          499451.886 3635600.158 499550.672 3635607.957
    AREAVERT ROAD2          499558.470 3635579.361 499553.271 3635571.562
    AREAVERT ROAD2          499457.086 3635555.964 499511.677 3635238.812
    AREAVERT ROAD2          499506.478 3635189.419 499527.275 3635166.023
    AREAVERT ROAD2          499542.873 3635023.044 499561.070 3634919.060
    AREAVERT ROAD2          499563.670 3634911.261 499566.269 3634848.870
    AREAVERT ROAD2          499574.068 3634825.474
    SRCGROUP ALL
SO FINISHED
**
*****************************************
** AERMOD Receptor Pathway
*****************************************
**
**
RE STARTING
    INCLUDED "Fanita Ranch Roadway HRA.rou"
RE FINISHED
**
*****************************************
** AERMOD Meteorology Pathway
*****************************************
**
**
ME STARTING
    SURFFILE "El Cajon Met Data\ECA_2010_2012_v18081.SFC"
    PROFFILE "El Cajon Met Data\ECA_2010_2012_v18081.PFL"
    SURFDATA 93107 2010
    UAIRDATA 3190 2010
    SITEDATA 3 2010
    PROFBASE 144.0 METERS
ME FINISHED
**
*****************************************
** AERMOD Output Pathway
*****************************************
**
**
OU STARTING
    RECTABLE ALLAVE 1ST
    RECTABLE 1 1ST
** Auto-Generated Plotfiles
    PLOTFILE 1 ALL 1ST "FANITA RANCH ROADWAY HRA.AD\01H1GALL.PLT" 31
    PLOTFILE ANNUAL ALL "FANITA RANCH ROADWAY HRA.AD\AN00GALL.PLT" 32
    SUMMFILE "Fanita Ranch Roadway HRA.sum"
OU FINISHED


  *** Message Summary For AERMOD Model Setup ***

  --------- Summary of Total Messages --------

 A Total of           0 Fatal Error Message(s)
 A Total of           1 Warning Message(s)
 A Total of           0 Informational Message(s)


     ******** FATAL ERROR MESSAGES ********
               ***  NONE  ***
                              Page 3
```

Fanita Ranch Roadway HRA.ADO

     ********   WARNING MESSAGES   ********
 ME W187   161   MEOPEN: ADJ_U* Beta Option for Low Winds used in AERMET
 Non-DFAULT

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

 ♀ *** AERMOD - VERSION 15181 ***   *** C:\Users\ZChen\Desktop\Fanita Ranch Roadway
 HRA\Fanita Ranch Roadway ***   08/01/19
  *** AERMET - VERSION 18081 ***   ***
                         ***   16:09:32

                             PAGE   1
   **MODELOPTs: NonDFAULT CONC   ELEV   FLGPOL   BETA   RURAL   ADJ_U*

                                     ***   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 Allows User-Specified 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:
         ADJ_U*   - Use ADJ_U* BETA option for SBL in AERMET
         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 ANNUAL Averages

   **This Run Includes: 2 Source(s);   1 Source Group(s); and   3
 Receptor(s)

                  with: 0 POINT(s), including
                             0 POINTCAP(s) and   0 POINTHOR(s)
                  and: 0 VOLUME source(s)
                  and: 2 AREA type source(s)
                  and: 0 LINE source(s)
                  and: 0 OPENPIT source(s)

                             Page 4

Fanita Ranch Roadway HRA.ADO
  **Model Set To Continue RUNning After the Setup Testing.

  **The AERMET Input Meteorological Data Version Date: 18081

  **Output Options Selected:
          Model Outputs Tables of ANNUAL 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) =   144.00 ; 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 =   3.5 MB of RAM.

  **Detailed Error/Message File: Fanita Ranch Roadway HRA.err

  **File for Summary of Results: Fanita Ranch Roadway HRA.sum

♀ *** AERMOD - VERSION 15181 ***   *** C:\Users\ZChen\Desktop\Fanita Ranch Roadway
HRA\Fanita Ranch Roadway ***   08/01/19
  *** AERMET - VERSION 18081 ***   ***
                          ***   16:09:32

                                   PAGE   2
  **MODELOPTs: NonDFAULT CONC   ELEV   FLGPOL   BETA   RURAL   ADJ_U*

                                      *** AREAPOLY SOURCE DATA ***

              NUMBER EMISSION RATE   LOCATION OF AREA BASE   RELEASE   NUMBER
INIT.   URBAN   EMISSION RATE
   SOURCE   PART. (GRAMS/SEC   X   Y   ELEV.   HEIGHT   OF VERTS.
   SZ   SOURCE SCALAR VARY
     ID   CATS. /METER**2)   (METERS) (METERS) (METERS) (METERS)
(METERS)   BY
- -
- -

  ROAD1   0   0.13262E-07 501847.3 3638181.3   243.2   0.00   117
   0.00   NO
  ROAD2   0   0.13262E-07 499589.7 3634708.5   108.9   0.00   69
   0.00   NO
♀ *** AERMOD - VERSION 15181 ***   *** C:\Users\ZChen\Desktop\Fanita Ranch Roadway
HRA\Fanita Ranch Roadway ***   08/01/19
  *** AERMET - VERSION 18081 ***   ***
                          ***   16:09:32

                                   PAGE   3
  **MODELOPTs: NonDFAULT CONC   ELEV   FLGPOL   BETA   RURAL   ADJ_U*

                                    Page 5

                              *** SOURCE IDs DEFINING SOURCE GROUPS ***

  SRCGROUP ID   SOURCE IDs
  -----------   ----------

  ALL   ROAD1   , ROAD2   ,
♀ *** AERMOD - VERSION 15181 ***   *** C:\Users\ZChen\Desktop\Fanita Ranch Roadway
HRA\Fanita Ranch Roadway ***   08/01/19
 *** AERMET - VERSION 18081 ***   ***
                         ***   16:09:32

                                   PAGE   4
  **MODELOPTs: NonDFAULT CONC   ELEV   FLGPOL   BETA   RURAL   ADJ_U*

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

     (499920.3, 3637453.6,   146.3,   305.4,   1.5);   (502101.2,
3637903.5,   191.8,   369.6,   1.5);
     (501958.9, 3637412.9,   176.1,   369.6,   1.5);

♀ *** AERMOD - VERSION 15181 ***   *** C:\Users\ZChen\Desktop\Fanita Ranch Roadway
HRA\Fanita Ranch Roadway ***   08/01/19
 *** AERMET - VERSION 18081 ***   ***
                         ***   16:09:32

                                   PAGE   5
  **MODELOPTs: NonDFAULT CONC   ELEV   FLGPOL   BETA   RURAL   ADJ_U*

                                 *** METEOROLOGICAL DAYS SELECTED FOR
PROCESSING ***
                                          (1=YES; 0=NO)

         1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
         1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
         1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
         1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
         1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
         1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
         1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
         1 1 1 1 1 1 1 1 1 1 1 1 1 1

           NOTE: METEOROLOGICAL DATA ACTUALLY PROCESSED WILL ALSO DEPEND ON
WHAT IS INCLUDED IN THE DATA FILE.

                                 *** UPPER BOUND OF FIRST THROUGH FIFTH WIND SPEED
CATEGORIES ***
                                          (METERS/SEC)

                                  1.54,   3.09,   5.14,   8.23,
10.80,
♀ *** AERMOD - VERSION 15181 ***   *** C:\Users\ZChen\Desktop\Fanita Ranch Roadway

  **MODELOPTs: NonDFAULT CONC   ELEV   FLGPOL   BETA   RURAL   ADJ_U*

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

   Surface file: El Cajon Met Data\ECA_2010_2012_v18081.SFC
                Met Version: 18081
   Profile file: El Cajon Met Data\ECA_2010_2012_v18081.PFL

   Surface format: FREE

   Profile format: FREE

   Surface station no.:   93107   Upper air station no.:   3190
                Name: UNKNOWN   Name: UNKNOWN

                Year: 2010   Year: 2010

 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
- -
- - - - - - - - - - - - - - - - -
 10 01 01   1 01   -2.2 0.077 -9.000 -9.000 -999.   51.   18.5 0.52   1.19
1.00   0.44 289.   10.0 279.8   10.0
 10 01 01   1 02   -2.2 0.077 -9.000 -9.000 -999.   51.   18.5 0.52   1.19
1.00   0.44 287.   10.0 279.2   10.0
 10 01 01   1 03   -2.0 0.075 -9.000 -9.000 -999.   50.   18.8 0.46   1.19
1.00   0.44 237.   10.0 279.2   10.0
 10 01 01   1 04   -2.2 0.077 -9.000 -9.000 -999.   51.   18.5 0.52   1.19
1.00   0.44 287.   10.0 278.6   10.0
 10 01 01   1 05   -2.2 0.077 -9.000 -9.000 -999.   51.   18.5 0.52   1.19
1.00   0.44 279.   10.0 278.1   10.0
 10 01 01   1 06   -4.9 0.100 -9.000 -9.000 -999.   76.   18.4 0.34   1.19
1.00   0.89 102.   10.0 277.5   10.0
 10 01 01   1 07   -2.2 0.077 -9.000 -9.000 -999.   51.   18.5 0.52   1.19
1.00   0.44 283.   10.0 277.5   10.0
 10 01 01   1 08   -1.2 0.063 -9.000 -9.000 -999.   38.   17.6 0.52   1.19
0.49   0.44 269.   10.0 278.1   10.0
 10 01 01   1 09   43.1 0.168 0.445 0.009   73. 166.   -9.9 0.46   1.19
0.30   0.89 313.   10.0 281.4   10.0
 10 01 01   1 10   92.8 0.184 0.824 0.009 216. 190.   -6.1 0.46   1.19
0.23   0.89 303.   10.0 285.4   10.0
 10 01 01   1 11 125.6 0.130 1.130 0.008 413. 113.   -1.6 0.52   1.19
0.21   0.44 270.   10.0 288.6   10.0
 10 01 01   1 12 144.0 0.253 1.312 0.008 562. 305.   -10.0 0.46   1.19
0.20   1.34 318.   10.0 292.5   10.0
 10 01 01   1 13 142.2 0.252 1.390 0.008 677. 303.   -10.0 0.45   1.19
0.20   1.34 345.   10.0 293.6   10.0
 10 01 01   1 14 120.0 0.191 1.370 0.007 767. 201.   -5.2 0.46   1.19
0.21   0.89 309.   10.0 294.8   10.0
 10 01 01   1 15   84.7 0.290 1.252 0.007 830. 375.   -25.7 0.46   1.19
0.24   1.78 303.   10.0 295.9   10.0
 10 01 01   1 16   16.1 0.308 0.722 0.007 838. 410.   -162.4 0.46   1.19
0.33   2.23 309.   10.0 294.2   10.0
 10 01 01   1 17 -13.0 0.175 -9.000 -9.000 -999. 187.   36.9 0.46   1.19
0.61   1.34 320.   10.0 291.4   10.0
 10 01 01   1 18   -6.0 0.113 -9.000 -9.000 -999.   92.   21.3 0.46   1.19

```
1.00    0.89  311.   10.0  290.4   10.0
 10 01 01   1 19 -11.0  0.152 -9.000 -9.000 -999.   142.      28.6  0.34    1.19
1.00    1.34   99.   10.0  288.6   10.0
 10 01 01   1 20  -5.2  0.104 -9.000 -9.000 -999.    81.      19.5  0.38    1.19
1.00    0.89  135.   10.0  288.1   10.0
 10 01 01   1 21  -5.9  0.111 -9.000 -9.000 -999.    89.      20.8  0.44    1.19
1.00    0.89   79.   10.0  286.9   10.0
 10 01 01   1 22  -4.8  0.100 -9.000 -9.000 -999.    76.      18.6  0.34    1.19
1.00    0.89  109.   10.0  285.9   10.0
 10 01 01   1 23  -6.1  0.113 -9.000 -9.000 -999.    91.      21.1  0.46    1.19
1.00    0.89  312.   10.0  285.4   10.0
 10 01 01   1 24  -4.8  0.100 -9.000 -9.000 -999.    76.      18.6  0.34    1.19
1.00    0.89  105.   10.0  283.6   10.0


  First hour of profile data
  YR MO DY HR HEIGHT F  WDIR    WSPD AMB_TMP sigmaA  sigmaW  sigmaV
  10 01 01 01   10.0 1  289.    0.44   279.8   99.0  -99.00  -99.00

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

♀ *** AERMOD - VERSION 15181 ***   *** C:\Users\ZChen\Desktop\Fanita Ranch Roadway HRA\Fanita Ranch Roadway ***   08/01/19
 *** AERMET - VERSION 18081 ***   ***
                     ***   16:09:32

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 **MODELOPTs: NonDFAULT CONC   ELEV   FLGPOL   BETA   RURAL   ADJ_U*

               *** THE ANNUAL AVERAGE CONCENTRATION   VALUES AVERAGED OVER   3 YEARS FOR SOURCE GROUP: ALL   ***
                          INCLUDING SOURCE(S):   ROAD1   , ROAD2   ,

                                *** 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
 -
        499920.29   3637453.58   0.00845   502101.24   3637903.50   0.02111
        501958.90   3637412.91   0.03340

♀ *** AERMOD - VERSION 15181 ***   *** C:\Users\ZChen\Desktop\Fanita Ranch Roadway HRA\Fanita Ranch Roadway ***   08/01/19
 *** AERMET - VERSION 18081 ***   ***
                     ***   16:09:32

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 **MODELOPTs: NonDFAULT CONC   ELEV   FLGPOL   BETA   RURAL   ADJ_U*

                    *** THE   1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL   ***
                          INCLUDING SOURCE(S):   ROAD1   , ROAD2   ,

                                *** DISCRETE CARTESIAN RECEPTOR POINTS ***

Fanita Ranch Roadway HRA.ADO
** CONC OF DPM   IN MICROGRAMS/M**3
       **

     X-COORD (M)   Y-COORD (M)   CONC   (YYMMDDHH)   X-COORD (M)
Y-COORD (M)   CONC   (YYMMDDHH)
- -
- -
      499920.29   3637453.58   0.11836 (11121804)   502101.24
3637903.50   0.23446 (11120608)
      501958.90   3637412.91   0.48507 (11093007)

♀ *** AERMOD - VERSION 15181 ***   *** C:\Users\ZChen\Desktop\Fanita Ranch Roadway
HRA\Fanita Ranch Roadway ***   08/01/19
 *** AERMET - VERSION 18081 ***   ***
               ***   16:09:32

                           PAGE   9
 **MODELOPTs: NonDFAULT CONC   ELEV   FLGPOL   BETA   RURAL   ADJ_U*

                        *** THE SUMMARY OF MAXIMUM ANNUAL RESULTS
AVERAGED OVER   3 YEARS ***

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

                     NETWORK
GROUP ID   AVERAGE CONC   RECEPTOR (XR, YR, ZELEV,
ZHILL, ZFLAG) OF TYPE GRID-ID
- -
- - - - - - - - - - - - - - - - -

ALL   1ST HIGHEST VALUE IS   0.03340 AT (501958.90, 3637412.91,   176.11,
  369.58,   1.50) DC
        2ND HIGHEST VALUE IS   0.02111 AT (502101.24, 3637903.50,   191.75,
  369.58,   1.50) DC
        3RD HIGHEST VALUE IS   0.00845 AT (499920.29, 3637453.58,   146.34,
  305.45,   1.50) DC
        4TH HIGHEST VALUE IS   0.00000 AT (0.00,   0.00,   0.00,
   0.00,   0.00)
        5TH HIGHEST VALUE IS   0.00000 AT (0.00,   0.00,   0.00,
   0.00,   0.00)
        6TH HIGHEST VALUE IS   0.00000 AT (0.00,   0.00,   0.00,
   0.00,   0.00)
        7TH HIGHEST VALUE IS   0.00000 AT (0.00,   0.00,   0.00,
   0.00,   0.00)
        8TH HIGHEST VALUE IS   0.00000 AT (0.00,   0.00,   0.00,
   0.00,   0.00)
        9TH HIGHEST VALUE IS   0.00000 AT (0.00,   0.00,   0.00,
   0.00,   0.00)
       10TH HIGHEST VALUE IS   0.00000 AT (0.00,   0.00,   0.00,
   0.00,   0.00)

  *** RECEPTOR TYPES: GC = GRIDCART
                       GP = GRIDPOLR
                       DC = DISCCART
                       DP = DISCPOLR
♀ *** AERMOD - VERSION 15181 ***   *** C:\Users\ZChen\Desktop\Fanita Ranch Roadway
HRA\Fanita Ranch Roadway ***   08/01/19
 *** AERMET - VERSION 18081 ***   ***
               ***   16:09:32
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 **MODELOPTs: NonDFAULT CONC   ELEV   FLGPOL   BETA   RURAL   ADJ_U*

                                        *** 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   0.48507 ON 11093007: AT (501958.90,
3637412.91,   176.11,   369.58,   1.50) DC

  *** RECEPTOR TYPES: GC = GRIDCART
                       GP = GRIDPOLR
                       DC = DISCCART
                       DP = DISCPOLR
♀ *** AERMOD - VERSION 15181 ***   *** C:\Users\ZChen\Desktop\Fanita Ranch Roadway
HRA\Fanita Ranch Roadway ***   08/01/19
  *** AERMET - VERSION 18081 ***   ***
                       ***   16:09:32

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 **MODELOPTs: NonDFAULT CONC   ELEV   FLGPOL   BETA   RURAL   ADJ_U*

 *** Message Summary : AERMOD Model Execution ***

  --------- Summary of Total Messages --------

A Total of   0 Fatal Error Message(s)
A Total of   37 Warning Message(s)
A Total of   1121 Informational Message(s)

A Total of   26304 Hours Were Processed

A Total of   753 Calm Hours Identified

A Total of   368 Missing Hours Identified (1.40 Percent)

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

     ********   WARNING MESSAGES   ********
ME W187   161   MEOPEN: ADJ_U* Beta Option for Low Winds used in AERMET
Non-DFAULT
MX W441   14167   METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
11081407
MX W441   14168   METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
11081408
MX W441   14169   METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
11081409
MX W441   14170   METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=

```
11081410
MX W441   14171        METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
11081411
MX W441   14172        METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
11081412
MX W441   14173        METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
11081413
MX W441   14174        METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
11081414
MX W441   14175        METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
11081415
MX W441   14176        METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
11081416
MX W441   14177        METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
11081417
MX W441   14178        METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
11081418
MX W441   14191        METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
11081507
MX W441   14192        METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
11081508
MX W441   14193        METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
11081509
MX W441   14194        METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
11081510
MX W441   14195        METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
11081511
MX W441   14196        METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
11081512
MX W441   14197        METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
11081513
MX W441   14198        METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
11081514
MX W441   14199        METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
11081515
MX W441   14200        METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
11081516
MX W441   14201        METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
11081517
MX W441   14202        METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
11081518
MX W441   14215        METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
11081607
MX W441   14216        METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
11081608
MX W441   14217        METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
11081609
MX W441   14218        METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
11081610
MX W441   14219        METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
11081611
MX W441   14220        METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
11081612
MX W441   14221        METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
11081613
MX W441   14222        METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
11081614
MX W441   14223        METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
11081615
MX W441   14224        METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
11081616
MX W441   14225        METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
11081617
```

MX W441   14226   METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT= 11081618

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

PHASE 1 AND PHASE 2 CONSTRUCTION WITH MITIGATION MEASURES

MM AIR-3 AND MM AIR-4

```
                              Fanita Ranch HRA.ADO
**
*****************************************
**
** AERMOD Input Produced by:
** AERMOD View Ver. 9.6.5
** Lakes Environmental Software Inc.
** Date: 7/15/2019
** File: C:\Users\ZChen\Desktop\Fanita Ranch HRA\Fanita Ranch HRA.ADI
**
*****************************************
**
**
*****************************************
** AERMOD Control Pathway
*****************************************
**
**
CO STARTING
   TITLEONE C:\Users\ZChen\Desktop\Fanita Ranch HRA\Fanita Ranch HRA.isc
   MODELOPT CONC BETA
   AVERTIME 1 ANNUAL
   POLLUTID DPM
   FLAGPOLE 1.50
   RUNORNOT RUN
   ERRORFIL "Fanita Ranch HRA.err"
CO FINISHED
**
*****************************************
** AERMOD Source Pathway
*****************************************
**
**
SO STARTING
** Source Location **
** Source ID - Type - X Coord. - Y Coord. **
   LOCATION PHASE1        AREAPOLY   501189.549  3638715.747        172.230
** DESCRSRC Phase1
   LOCATION PHASE2        AREAPOLY   500455.747  3637928.969        149.100
** DESCRSRC Phase2
** Source Parameters **
   SRCPARAM PHASE1        1.0277E-10     0.000        128
   AREAVERT PHASE1        501189.549 3638715.747 501188.193 3638771.361
   AREAVERT PHASE1        501222.104 3638869.026 501296.708 3638843.253
   AREAVERT PHASE1        501337.402 3639027.730 501349.610 3639162.018
   AREAVERT PHASE1        501407.937 3639156.592 501506.958 3639189.147
   AREAVERT PHASE1        501576.136 3639189.147 501567.998 3639144.384
   AREAVERT PHASE1        501601.909 3639062.997 501654.810 3639025.017
   AREAVERT PHASE1        501676.514 3639004.670 501713.138 3638950.412
   AREAVERT PHASE1        501630.394 3638875.808 501667.018 3638820.193
   AREAVERT PHASE1        501681.939 3638767.292 501686.009 3638695.400
   AREAVERT PHASE1        501657.523 3638680.479 501619.543 3638688.618
   AREAVERT PHASE1        501451.343 3638668.271 501322.481 3638694.044
   AREAVERT PHASE1        501256.015 3638721.173 501199.044 3638721.173
   AREAVERT PHASE1        501178.698 3638441.745 501167.846 3638273.545
   AREAVERT PHASE1        501238.381 3637957.493 501318.412 3637973.771
   AREAVERT PHASE1        501418.789 3638025.316 501547.651 3638120.267
   AREAVERT PHASE1        501654.810 3638207.080 501698.217 3638207.080
   AREAVERT PHASE1        501740.267 3638235.565 501763.326 3638278.971
   AREAVERT PHASE1        501832.505 3638284.397 501851.495 3638190.802
   AREAVERT PHASE1        501934.238 3638151.465 501968.150 3638205.723
   AREAVERT PHASE1        501977.645 3638232.852 502046.823 3638235.565
   AREAVERT PHASE1        502076.665 3638269.476 502075.309 3638310.169
   AREAVERT PHASE1        502054.962 3638335.942 501980.358 3638348.150
                              Page 1
```

```
     AREAVERT PHASE1       501976.288 3638292.536 501917.961 3638262.694
     AREAVERT PHASE1       501922.030 3638188.089 501894.901 3638217.931
     AREAVERT PHASE1       501860.990 3638331.873 501832.505 3638402.408
     AREAVERT PHASE1       501875.911 3638485.151 501900.327 3638478.369
     AREAVERT PHASE1       501995.278 3638512.280 502029.190 3638584.172
     AREAVERT PHASE1       502072.596 3638675.054 502054.962 3638702.183
     AREAVERT PHASE1       502011.556 3638737.450 501987.140 3638790.352
     AREAVERT PHASE1       501988.496 3638832.401 502006.130 3638831.045
     AREAVERT PHASE1       502008.843 3638847.322 501969.506 3638881.234
     AREAVERT PHASE1       501905.753 3638950.412 501875.911 3638943.630
     AREAVERT PHASE1       501854.208 3638923.283 501806.732 3638940.917
     AREAVERT PHASE1       501747.049 3638943.630 501677.870 3639012.809
     AREAVERT PHASE1       501627.681 3639056.215 501592.414 3639113.186
     AREAVERT PHASE1       501588.344 3639190.503 501626.325 3639269.177
     AREAVERT PHASE1       501576.136 3639293.593 501523.235 3639388.545
     AREAVERT PHASE1       501508.314 3639437.377 501479.829 3639468.575
     AREAVERT PHASE1       501451.343 3639525.546 501402.511 3639529.615
     AREAVERT PHASE1       501356.392 3639521.476 501319.768 3639539.110
     AREAVERT PHASE1       501241.094 3639495.704 501241.094 3639533.684
     AREAVERT PHASE1       501243.807 3639583.873 501227.530 3639632.705
     AREAVERT PHASE1       501186.836 3639657.121 501161.064 3639669.329
     AREAVERT PHASE1       501113.588 3639655.765 501071.538 3639601.507
     AREAVERT PHASE1       501049.835 3639594.725 501007.785 3639596.081
     AREAVERT PHASE1       500969.805 3639566.239 500956.240 3639497.060
     AREAVERT PHASE1       500887.062 3639366.841 500893.844 3639326.148
     AREAVERT PHASE1       500914.190 3639281.385 500854.507 3639189.147
     AREAVERT PHASE1       500820.596 3639126.750 500774.476 3639037.225
     AREAVERT PHASE1       500710.723 3638925.996 500675.456 3638954.482
     AREAVERT PHASE1       500641.545 3639004.670 500619.842 3639003.314
     AREAVERT PHASE1       500592.713 3638978.898 500557.445 3638858.174
     AREAVERT PHASE1       500512.682 3638841.897 500482.840 3638782.213
     AREAVERT PHASE1       500484.197 3638763.223 500454.355 3638723.886
     AREAVERT PHASE1       500480.128 3638683.192 500462.494 3638626.222
     AREAVERT PHASE1       500396.028 3638475.656 500250.888 3638194.872
     AREAVERT PHASE1       500212.908 3638082.286 500218.333 3638017.177
     AREAVERT PHASE1       500318.710 3637960.206 500452.999 3637930.364
     AREAVERT PHASE1       500459.781 3638056.514 500382.463 3638057.870
     AREAVERT PHASE1       500379.750 3638185.376 500410.949 3638303.387
     AREAVERT PHASE1       500459.781 3638401.051 500530.316 3638485.151
     AREAVERT PHASE1       500720.219 3638726.599 500842.299 3638779.500
     AREAVERT PHASE1       500910.121 3638799.847 500979.300 3638784.926
     AREAVERT PHASE1       501055.261 3638737.450 501089.172 3638723.886
     SRCPARAM PHASE2       6.0168E-09     0.000        29
     AREAVERT PHASE2       500455.747 3637928.969 500507.334 3637917.178
     AREAVERT PHASE2       500606.085 3637933.391 500617.876 3637958.447
     AREAVERT PHASE2       500635.563 3637968.765 500673.885 3637965.817
     AREAVERT PHASE2       500669.463 3637937.813 500670.937 3637908.335
     AREAVERT PHASE2       500681.254 3637871.487 500725.471 3637852.327
     AREAVERT PHASE2       500797.692 3637834.640 500838.961 3637839.061
     AREAVERT PHASE2       500883.178 3637849.379 500965.717 3637887.700
     AREAVERT PHASE2       500986.351 3637870.013 501236.915 3637956.974
     AREAVERT PHASE2       501169.115 3638270.914 501198.593 3638714.558
     AREAVERT PHASE2       501108.685 3638724.876 501090.998 3638723.402
     AREAVERT PHASE2       500980.456 3638782.358 500909.709 3638798.571
     AREAVERT PHASE2       500818.327 3638770.567 500722.523 3638727.823
     AREAVERT PHASE2       500458.695 3638400.618 500408.582 3638297.445
     AREAVERT PHASE2       500379.104 3638186.902 500383.526 3638058.673
     AREAVERT PHASE2       500460.169 3638055.725
     SRCGROUP ALL
SO FINISHED
**
******************************************
** AERMOD Receptor Pathway
```

```
                              Fanita Ranch HRA.ADO
*****************************************
**
**
RE STARTING
   INCLUDED "Fanita Ranch HRA.rou"
RE FINISHED
**
*****************************************
** AERMOD Meteorology Pathway
*****************************************
**
**
ME STARTING
   SURFFILE "El Cajon Met Data\ECA_2010_2012_v18081.SFC"
   PROFFILE "El Cajon Met Data\ECA_2010_2012_v18081.PFL"
   SURFDATA 93107 2010
   UAIRDATA 3190 2010
   SITEDATA 3 2010
   PROFBASE 144.0 METERS
ME FINISHED
**
*****************************************
** AERMOD Output Pathway
*****************************************
**
**
OU STARTING
   RECTABLE ALLAVE 1ST
   RECTABLE 1 1ST
** Auto-Generated Plotfiles
   PLOTFILE 1 ALL 1ST "Fanita Ranch HRA.AD\01H1GALL.PLT" 31
   PLOTFILE ANNUAL ALL "Fanita Ranch HRA.AD\AN00GALL.PLT" 32
   SUMMFILE "Fanita Ranch HRA.sum"
OU FINISHED


  *** Message Summary For AERMOD Model Setup ***

  --------- Summary of Total Messages --------

 A Total of            0 Fatal Error Message(s)
 A Total of            1 Warning Message(s)
 A Total of            0 Informational Message(s)


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


    ********   WARNING MESSAGES   ********
 ME W187     146       MEOPEN: ADJ_U* Beta Option for Low Winds used in AERMET
Non-DFAULT

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

♀ *** AERMOD - VERSION  15181 ***   *** C:\Users\ZChen\Desktop\Fanita Ranch
HRA\Fanita Ranch HRA.isc        ***          07/15/19
 *** AERMET - VERSION  18081 ***   ***
                        ***          11:21:19

                              PAGE   1
```

```
**MODELOPTs:   NonDFAULT CONC      ELEV      FLGPOL     BETA      RURAL      ADJ_U*
```
                                    ***   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 Allows User-Specified 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:
         ADJ_U*   - Use ADJ_U* BETA option for SBL in AERMET
         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 ANNUAL Averages

 **This Run Includes: 2 Source(s);   1 Source Group(s); and   75
Receptor(s)

                  with: 0 POINT(s), including
                              0 POINTCAP(s) and   0 POINTHOR(s)
                  and: 0 VOLUME source(s)
                  and: 2 AREA type source(s)
                  and: 0 LINE source(s)
                  and: 0 OPENPIT source(s)

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

 **The AERMET Input Meteorological Data Version Date: 18081

 **Output Options Selected:
         Model Outputs Tables of ANNUAL 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

```
                          Fanita Ranch HRA.ADO
Missing Hours

 **Misc. Inputs:  Base Elev. for Pot. Temp. Profile (m MSL) =   144.00 ;  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 =      3.5 MB of RAM.

 **Detailed Error/Message File:   Fanita Ranch HRA.err

 **File for Summary of Results:   Fanita Ranch HRA.sum

♀ *** AERMOD - VERSION  15181 ***    *** C:\Users\ZChen\Desktop\Fanita Ranch
HRA\Fanita Ranch HRA.isc        ***        07/15/19
 *** AERMET - VERSION  18081 ***    ***
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 **MODELOPTs:   NonDFAULT CONC      ELEV      FLGPOL     BETA      RURAL     ADJ_U*


                                    *** AREAPOLY SOURCE DATA ***

              NUMBER EMISSION RATE   LOCATION OF AREA  BASE      RELEASE  NUMBER
INIT.   URBAN  EMISSION RATE
  SOURCE       PART. (GRAMS/SEC      X       Y     ELEV.    HEIGHT  OF VERTS.
 SZ      SOURCE  SCALAR VARY
    ID          CATS.  /METER**2)  (METERS) (METERS) (METERS) (METERS)
(METERS)         BY
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - -

 PHASE1        0   0.10277E-09  501189.5 3638715.7   172.2    0.00     128
  0.00    NO
 PHASE2        0   0.60168E-08  500455.7 3637929.0   149.1    0.00      29
  0.00    NO
♀ *** AERMOD - VERSION  15181 ***    *** C:\Users\ZChen\Desktop\Fanita Ranch
HRA\Fanita Ranch HRA.isc        ***        07/15/19
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 **MODELOPTs:   NonDFAULT CONC      ELEV      FLGPOL     BETA      RURAL     ADJ_U*


                                    *** SOURCE IDs DEFINING SOURCE GROUPS ***

 SRCGROUP ID                                    SOURCE IDs
 -----------                                    ----------


 ALL         PHASE1      , PHASE2      ,
♀ *** AERMOD - VERSION  15181 ***    *** C:\Users\ZChen\Desktop\Fanita Ranch
HRA\Fanita Ranch HRA.isc        ***        07/15/19
 *** AERMET - VERSION  18081 ***    ***
                         ***        11:21:19

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 **MODELOPTs:   NonDFAULT CONC      ELEV      FLGPOL     BETA      RURAL     ADJ_U*

                                    *** DISCRETE CARTESIAN RECEPTORS ***
                              Page 5
```

```
    ( 499920.3, 3637453.6,      146.3,      304.6,        1.5);        ( 502101.2,
3637903.5,      191.8,      304.6,        1.5);
    ( 501958.9, 3637412.9,      176.1,      304.6,        1.5);        ( 501325.0,
3638703.8,      177.8,      331.4,        1.5);
    ( 501375.0, 3638703.8,      180.0,      331.4,        1.5);        ( 501425.0,
3638703.8,      182.0,      331.4,        1.5);
    ( 501475.0, 3638703.8,      185.0,      331.4,        1.5);        ( 501525.0,
3638703.8,      188.4,      331.4,        1.5);
    ( 501575.0, 3638703.8,      192.1,      331.4,        1.5);        ( 501625.0,
3638703.8,      195.2,      331.4,        1.5);
    ( 501675.0, 3638703.8,      197.8,      331.4,        1.5);        ( 501225.0,
3638753.8,      174.0,      331.4,        1.5);
    ( 501275.0, 3638753.8,      175.8,      331.4,        1.5);        ( 501325.0,
3638753.8,      178.1,      331.4,        1.5);
    ( 501375.0, 3638753.8,      180.4,      331.4,        1.5);        ( 501425.0,
3638753.8,      183.5,      331.4,        1.5);
    ( 501475.0, 3638753.8,      186.7,      331.4,        1.5);        ( 501525.0,
3638753.8,      189.3,      331.4,        1.5);
    ( 501575.0, 3638753.8,      192.5,      331.4,        1.5);        ( 501625.0,
3638753.8,      195.4,      331.4,        1.5);
    ( 501675.0, 3638753.8,      197.8,      331.4,        1.5);        ( 501225.0,
3638803.8,      174.7,      331.4,        1.5);
    ( 501275.0, 3638803.8,      175.5,      331.4,        1.5);        ( 501325.0,
3638803.8,      177.9,      331.4,        1.5);
    ( 501375.0, 3638803.8,      180.3,      331.4,        1.5);        ( 501425.0,
3638803.8,      184.2,      331.4,        1.5);
    ( 501475.0, 3638803.8,      187.1,      331.4,        1.5);        ( 501525.0,
3638803.8,      189.6,      331.4,        1.5);
    ( 501575.0, 3638803.8,      192.0,      331.4,        1.5);        ( 501625.0,
3638803.8,      194.8,      331.4,        1.5);
    ( 501225.0, 3638853.8,      176.7,      331.4,        1.5);        ( 501275.0,
3638848.0,      176.4,      331.4,        1.5);
    ( 501325.0, 3638853.8,      178.3,      331.4,        1.5);        ( 501375.0,
3638853.8,      181.1,      331.4,        1.5);
    ( 501425.0, 3638853.8,      184.1,      331.4,        1.5);        ( 501475.0,
3638853.8,      186.1,      331.4,        1.5);
    ( 501525.0, 3638853.8,      188.4,      331.4,        1.5);        ( 501575.0,
3638853.8,      191.0,      331.4,        1.5);
    ( 501625.0, 3638853.8,      193.9,      331.4,        1.5);        ( 501325.0,
3638903.8,      180.8,      331.4,        1.5);
    ( 501375.0, 3638903.8,      183.6,      331.4,        1.5);        ( 501425.0,
3638903.8,      185.7,      331.4,        1.5);
    ( 501475.0, 3638903.8,      187.0,      331.4,        1.5);        ( 501525.0,
3638903.8,      189.2,      331.4,        1.5);
    ( 501575.0, 3638903.8,      192.7,      331.4,        1.5);        ( 501625.0,
3638903.8,      193.8,      331.4,        1.5);
    ( 501328.0, 3638953.8,      185.4,      331.4,        1.5);        ( 501375.0,
3638953.8,      186.2,      331.4,        1.5);
    ( 501425.0, 3638953.8,      186.6,      331.4,        1.5);        ( 501475.0,
3638953.8,      188.1,      331.4,        1.5);
    ( 501525.0, 3638953.8,      191.0,      331.4,        1.5);        ( 501575.0,
3638953.8,      195.1,      331.4,        1.5);
    ( 501625.0, 3638953.8,      200.3,      331.4,        1.5);        ( 501675.0,
3638953.8,      207.6,      331.4,        1.5);
    ( 501337.0, 3639003.8,      189.6,      331.4,        1.5);        ( 501375.0,
3639003.8,      189.8,      331.4,        1.5);
    ( 501425.0, 3639003.8,      187.9,      331.4,        1.5);        ( 501475.0,
3639003.8,      189.2,      331.4,        1.5);
    ( 501525.0, 3639003.8,      191.7,      331.4,        1.5);        ( 501575.0,
3639003.8,      196.4,      331.4,        1.5);
```

```
     ( 501625.0, 3639003.8,      204.1,      331.4,        1.5);        ( 501375.0,
3639053.8,      192.8,      331.4,      1.5);
     ( 501425.0, 3639053.8,      188.7,      331.4,        1.5);        ( 501475.0,
3639053.8,      189.6,      331.4,      1.5);
     ( 501525.0, 3639053.8,      192.6,      331.4,        1.5);        ( 501575.0,
3639053.8,      197.5,      331.4,      1.5);
     ( 501375.0, 3639103.8,      187.5,      331.4,        1.5);        ( 501425.0,
3639103.8,      188.7,      331.4,      1.5);
     ( 501475.0, 3639103.8,      191.0,      331.4,        1.5);        ( 501525.0,
3639103.8,      193.8,      331.4,      1.5);
     ( 501575.0, 3639103.8,      199.1,      331.4,        1.5);        ( 501375.0,
3639153.8,      186.1,      331.4,      1.5);
     ( 501425.0, 3639153.8,      189.0,      331.4,        1.5);        ( 501475.0,
3639153.8,      191.9,      331.4,      1.5);
     ( 501525.0, 3639153.8,      194.9,      331.4,        1.5);
```

♀ *** AERMOD - VERSION 15181 ***   *** C:\Users\ZChen\Desktop\Fanita Ranch
HRA\Fanita Ranch HRA.isc   ***   07/15/19
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  **MODELOPTs: NonDFAULT CONC   ELEV   FLGPOL   BETA   RURAL   ADJ_U*

                                  *** METEOROLOGICAL DAYS SELECTED FOR
PROCESSING ***

                                       (1=YES; 0=NO)

           1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
           1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
           1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
           1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
           1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
           1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
           1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
           1 1 1 1 1 1 1 1 1 1 1 1 1 1 1

             NOTE: METEOROLOGICAL DATA ACTUALLY PROCESSED WILL ALSO DEPEND ON
WHAT IS INCLUDED IN THE DATA FILE.

                              *** UPPER BOUND OF FIRST THROUGH FIFTH WIND SPEED
CATEGORIES ***

                                       (METERS/SEC)

                              1.54,   3.09,   5.14,   8.23,
10.80,
♀ *** AERMOD - VERSION 15181 ***   *** C:\Users\ZChen\Desktop\Fanita Ranch
HRA\Fanita Ranch HRA.isc   ***   07/15/19
 *** AERMET - VERSION 18081 ***   ***
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  **MODELOPTs: NonDFAULT CONC   ELEV   FLGPOL   BETA   RURAL   ADJ_U*

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

    Surface file: El Cajon Met Data\ECA_2010_2012_v18081.SFC
                Met Version: 18081
    Profile file: El Cajon Met Data\ECA_2010_2012_v18081.PFL

    Surface format: FREE

    Profile format: FREE

    Surface station no.:   93107   Upper air station no.:   3190
                Name: UNKNOWN   Name: UNKNOWN

                Year: 2010   Year: 2010

 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
- -
- - - - - - - - - - - - - - - - - -
 10 01 01   1 01   -2.2 0.077 -9.000 -9.000 -999.   51.   18.5 0.52   1.19
1.00   0.44 289.   10.0 279.8   10.0
 10 01 01   1 02   -2.2 0.077 -9.000 -9.000 -999.   51.   18.5 0.52   1.19
1.00   0.44 287.   10.0 279.2   10.0
 10 01 01   1 03   -2.0 0.075 -9.000 -9.000 -999.   50.   18.8 0.46   1.19
1.00   0.44 237.   10.0 279.2   10.0
 10 01 01   1 04   -2.2 0.077 -9.000 -9.000 -999.   51.   18.5 0.52   1.19
1.00   0.44 287.   10.0 278.6   10.0
 10 01 01   1 05   -2.2 0.077 -9.000 -9.000 -999.   51.   18.5 0.52   1.19
1.00   0.44 279.   10.0 278.1   10.0
 10 01 01   1 06   -4.9 0.100 -9.000 -9.000 -999.   76.   18.4 0.34   1.19
1.00   0.89 102.   10.0 277.5   10.0
 10 01 01   1 07   -2.2 0.077 -9.000 -9.000 -999.   51.   18.5 0.52   1.19
1.00   0.44 283.   10.0 277.5   10.0
 10 01 01   1 08   -1.2 0.063 -9.000 -9.000 -999.   38.   17.6 0.52   1.19
0.49   0.44 269.   10.0 278.1   10.0
 10 01 01   1 09   43.1 0.168 0.445 0.009   73. 166.   -9.9 0.46   1.19
0.30   0.89 313.   10.0 281.4   10.0
 10 01 01   1 10   92.8 0.184 0.824 0.009 216. 190.   -6.1 0.46   1.19
0.23   0.89 303.   10.0 285.4   10.0
 10 01 01   1 11 125.6 0.130 1.130 0.008 413. 113.   -1.6 0.52   1.19
0.21   0.44 270.   10.0 288.6   10.0
 10 01 01   1 12 144.0 0.253 1.312 0.008 562. 305.   -10.0 0.46   1.19
0.20   1.34 318.   10.0 292.5   10.0
 10 01 01   1 13 142.2 0.252 1.390 0.008 677. 303.   -10.0 0.45   1.19
0.20   1.34 345.   10.0 293.6   10.0
 10 01 01   1 14 120.0 0.191 1.370 0.007 767. 201.   -5.2 0.46   1.19
0.21   0.89 309.   10.0 294.8   10.0
 10 01 01   1 15   84.7 0.290 1.252 0.007 830. 375.   -25.7 0.46   1.19
0.24   1.78 303.   10.0 295.9   10.0
 10 01 01   1 16   16.1 0.308 0.722 0.007 838. 410. -162.4 0.46   1.19
0.33   2.23 309.   10.0 294.2   10.0
 10 01 01   1 17 -13.0 0.175 -9.000 -9.000 -999. 187.   36.9 0.46   1.19
0.61   1.34 320.   10.0 291.4   10.0
 10 01 01   1 18   -6.0 0.113 -9.000 -9.000 -999.   92.   21.3 0.46   1.19
1.00   0.89 311.   10.0 290.4   10.0
 10 01 01   1 19 -11.0 0.152 -9.000 -9.000 -999. 142.   28.6 0.34   1.19
1.00   1.34   99.   10.0 288.6   10.0
 10 01 01   1 20   -5.2 0.104 -9.000 -9.000 -999.   81.   19.5 0.38   1.19
1.00   0.89 135.   10.0 288.1   10.0
 10 01 01   1 21   -5.9 0.111 -9.000 -9.000 -999.   89.   20.8 0.44   1.19
1.00   0.89   79.   10.0 286.9   10.0

```
 10 01 01   1 22   -4.8  0.100 -9.000 -9.000 -999.    76.     18.6 0.34   1.19
1.00    0.89  109.   10.0  285.9   10.0
 10 01 01   1 23   -6.1  0.113 -9.000 -9.000 -999.    91.     21.1 0.46   1.19
1.00    0.89  312.   10.0  285.4   10.0
 10 01 01   1 24   -4.8  0.100 -9.000 -9.000 -999.    76.     18.6 0.34   1.19
1.00    0.89  105.   10.0  283.6   10.0


 First hour of profile data
 YR MO DY HR HEIGHT F  WDIR    WSPD AMB_TMP sigmaA  sigmaW  sigmaV
 10 01 01 01   10.0 1  289.    0.44   279.8   99.0  -99.00  -99.00

 F indicates top of profile (=1) or below (=0)
```
♀ *** AERMOD - VERSION 15181 ***   *** C:\Users\ZChen\Desktop\Fanita Ranch
HRA\Fanita Ranch HRA.isc   ***   07/15/19
 *** AERMET - VERSION 18081 ***   ***
                      ***   11:21:19

                      PAGE   7
 **MODELOPTs: NonDFAULT CONC   ELEV   FLGPOL   BETA   RURAL   ADJ_U*

                 *** THE ANNUAL AVERAGE CONCENTRATION   VALUES AVERAGED OVER   3
YEARS FOR SOURCE GROUP: ALL   ***
                         INCLUDING SOURCE(S):   PHASE1   , PHASE2
,

                                 *** 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
 -
 -
         499920.29   3637453.58   0.00404   502101.24
3637903.50   0.00312
         501958.90   3637412.91   0.00357   501325.00
3638703.80   0.01715
         501375.00   3638703.80   0.01433   501425.00
3638703.80   0.01225
         501475.00   3638703.80   0.01016   501525.00
3638703.80   0.00829
         501575.00   3638703.80   0.00672   501625.00
3638703.80   0.00561
         501675.00   3638703.80   0.00482   501225.00
3638753.80   0.02236
         501275.00   3638753.80   0.01870   501325.00
3638753.80   0.01559
         501375.00   3638753.80   0.01318   501425.00
3638753.80   0.01085
         501475.00   3638753.80   0.00902   501525.00
3638753.80   0.00767
         501575.00   3638753.80   0.00639   501625.00
3638753.80   0.00539
         501675.00   3638753.80   0.00470   501225.00
3638803.80   0.01925
         501275.00   3638803.80   0.01716   501325.00
3638803.80   0.01449
         501375.00   3638803.80   0.01231   501425.00
3638803.80   0.00995
         501475.00   3638803.80   0.00843   501525.00
```

```
3638803.80       0.00725
        501575.00    3638803.80         0.00630                        501625.00
3638803.80       0.00535
        501225.00    3638853.80         0.01630                        501275.00
3638848.00       0.01544
        501325.00    3638853.80         0.01324                        501375.00
3638853.80       0.01113
        501425.00    3638853.80         0.00942                        501475.00
3638853.80       0.00831
        501525.00    3638853.80         0.00726                        501575.00
3638853.80       0.00628
        501625.00    3638853.80         0.00536                        501325.00
3638903.80       0.01128
        501375.00    3638903.80         0.00951                        501425.00
3638903.80       0.00834
        501475.00    3638903.80         0.00759                        501525.00
3638903.80       0.00667
        501575.00    3638903.80         0.00558                        501625.00
3638903.80       0.00514
        501328.00    3638953.80         0.00879                        501375.00
3638953.80       0.00809
        501425.00    3638953.80         0.00762                        501475.00
3638953.80       0.00690
        501525.00    3638953.80         0.00591                        501575.00
3638953.80       0.00480
        501625.00    3638953.80         0.00376                        501675.00
3638953.80       0.00280
        501337.00    3639003.80         0.00693                        501375.00
3639003.80       0.00662
        501425.00    3639003.80         0.00688                        501475.00
3639003.80       0.00627
        501525.00    3639003.80         0.00547                        501575.00
3639003.80       0.00435
        501625.00    3639003.80         0.00312                        501375.00
3639053.80       0.00556
        501425.00    3639053.80         0.00636                        501475.00
3639053.80       0.00590
        501525.00    3639053.80         0.00504                        501575.00
3639053.80       0.00401
        501375.00    3639103.80         0.00670                        501425.00
3639103.80       0.00611
        501475.00    3639103.80         0.00537                        501525.00
3639103.80       0.00463
        501575.00    3639103.80         0.00363                        501375.00
3639153.80       0.00688
        501425.00    3639153.80         0.00588                        501475.00
3639153.80       0.00502
        501525.00    3639153.80         0.00429
```

♀ *** AERMOD - VERSION 15181 ***   *** C:\Users\ZChen\Desktop\Fanita Ranch
HRA\Fanita Ranch HRA.isc   ***   07/15/19
 *** AERMET - VERSION 18081 ***   ***
                      ***   11:21:19

                        PAGE   8
 **MODELOPtS: NonDFAULT CONC   ELEV   FLGPOL   BETA   RURAL   ADJ_U*

                        *** THE   1ST HIGHEST 1-HR AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP: ALL   ***
                        INCLUDING SOURCE(S):   PHASE1   , PHASE2
,

                        *** DISCRETE CARTESIAN RECEPTOR POINTS

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

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)
Y-COORD (M)	CONC	(YYMMDDHH)		
- -				
- -				
499920.29	3637453.58	0.26331	(10010908)	502101.24
3637903.50	0.16408	(10032907)		
501958.90	3637412.91	0.18580	(10122708)	501325.00
3638703.80	0.21218	(12022408)		
501375.00	3638703.80	0.19285	(12022408)	501425.00
3638703.80	0.17565	(10021408)		
501475.00	3638703.80	0.15778	(10021408)	501525.00
3638703.80	0.15180	(10020908)		
501575.00	3638703.80	0.15188	(10020908)	501625.00
3638703.80	0.15202	(10020908)		
501675.00	3638703.80	0.15198	(10020908)	501225.00
3638753.80	0.24923	(11092307)		
501275.00	3638753.80	0.23396	(12022408)	501325.00
3638753.80	0.21369	(12022408)		
501375.00	3638753.80	0.19390	(12022408)	501425.00
3638753.80	0.17231	(10021408)		
501475.00	3638753.80	0.15451	(10021408)	501525.00
3638753.80	0.14724	(10020908)		
501575.00	3638753.80	0.14810	(10020908)	501625.00
3638753.80	0.14881	(10020908)		
501675.00	3638753.80	0.14945	(10020908)	501225.00
3638803.80	0.24298	(11092307)		
501275.00	3638803.80	0.23875	(11092307)	501325.00
3638803.80	0.21869	(12022408)		
501375.00	3638803.80	0.19860	(12022408)	501425.00
3638803.80	0.17220	(10021408)		
501475.00	3638803.80	0.15641	(10021408)	501525.00
3638803.80	0.14421	(11050507)		
501575.00	3638803.80	0.14265	(10020908)	501625.00
3638803.80	0.14427	(10020908)		
501225.00	3638853.80	0.22070	(11092307)	501275.00
3638848.00	0.22900	(11092307)		
501325.00	3638853.80	0.21298	(11092307)	501375.00
3638853.80	0.19462	(12022408)		
501425.00	3638853.80	0.37504	(11012609)	501475.00
3638853.80	0.16294	(10021408)		
501525.00	3638853.80	0.15064	(10021408)	501575.00
3638853.80	0.14483	(11050507)		
501625.00	3638853.80	0.14189	(11050507)	501325.00
3638903.80	0.18904	(11092307)		
501375.00	3638903.80	0.17264	(12022408)	501425.00
3638903.80	0.16566	(12022408)		
501475.00	3638903.80	0.15969	(12022408)	501525.00
3638903.80	0.14896	(10021408)		
501575.00	3638903.80	0.14619	(11050507)	501625.00
3638903.80	0.14487	(11050507)		
501328.00	3638953.80	0.18463	(11021808)	501375.00
3638953.80	0.17505	(11021808)		
501425.00	3638953.80	0.15811	(11021808)	501475.00
3638953.80	0.15273	(12022408)		
501525.00	3638953.80	0.14086	(12022408)	501575.00
3638953.80	0.14288	(11050507)		
501625.00	3638953.80	0.14380	(11050507)	501675.00
3638953.80	0.14236	(11050507)		

```
        501337.00   3639003.80      0.18322  (11021808)                   501375.00
3639003.80      0.18012  (11021808)
        501425.00   3639003.80      0.16792  (11021808)                   501475.00
3639003.80      0.14959  (11021808)
        501525.00   3639003.80      0.13943  (12011409)                   501575.00
3639003.80      0.13335  (11050507)
        501625.00   3639003.80      0.13803  (11050507)                   501375.00
3639053.80      0.18128  (11021808)
        501425.00   3639053.80      0.17582  (11021808)                   501475.00
3639053.80      0.16031  (11021808)
        501525.00   3639053.80      0.14388  (12011409)                   501575.00
3639053.80      0.13796  (12011409)
        501375.00   3639103.80      0.18287  (11021808)                   501425.00
3639103.80      0.18058  (11021808)
        501475.00   3639103.80      0.16931  (11021808)                   501525.00
3639103.80      0.15176  (11021808)
        501575.00   3639103.80      0.14253  (12011409)                   501375.00
3639153.80      0.18288  (11021808)
        501425.00   3639153.80      0.18201  (11021808)                   501475.00
3639153.80      0.17590  (11021808)
        501525.00   3639153.80      0.16169  (11021808)
```

♀ *** AERMOD - VERSION 15181 ***   *** C:\Users\ZChen\Desktop\Fanita Ranch
HRA\Fanita Ranch HRA.isc   ***   07/15/19
 *** AERMET - VERSION 18081 ***   ***
                         ***   11:21:19

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 **MODELOPTs: NonDFAULT CONC   ELEV   FLGPOL   BETA   RURAL   ADJ_U*

                         *** THE SUMMARY OF MAXIMUM ANNUAL RESULTS
AVERAGED OVER   3 YEARS ***

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

                    NETWORK
GROUP ID   AVERAGE CONC   RECEPTOR (XR, YR, ZELEV,
ZHILL, ZFLAG) OF TYPE GRID-ID
- -
- - - - - - - - - - - - - - - -

ALL   1ST HIGHEST VALUE IS   0.02236 AT (501225.00, 3638753.80,   173.97,
  331.43,   1.50) DC
        2ND HIGHEST VALUE IS   0.01925 AT (501225.00, 3638803.80,   174.73,
  331.43,   1.50) DC
        3RD HIGHEST VALUE IS   0.01870 AT (501275.00, 3638753.80,   175.82,
  331.43,   1.50) DC
        4TH HIGHEST VALUE IS   0.01716 AT (501275.00, 3638803.80,   175.50,
  331.43,   1.50) DC
        5TH HIGHEST VALUE IS   0.01715 AT (501325.00, 3638703.80,   177.78,
  331.43,   1.50) DC
        6TH HIGHEST VALUE IS   0.01630 AT (501225.00, 3638853.80,   176.66,
  331.43,   1.50) DC
        7TH HIGHEST VALUE IS   0.01559 AT (501325.00, 3638753.80,   178.07,
  331.43,   1.50) DC
        8TH HIGHEST VALUE IS   0.01544 AT (501275.00, 3638848.00,   176.41,
  331.43,   1.50) DC
        9TH HIGHEST VALUE IS   0.01449 AT (501325.00, 3638803.80,   177.86,
  331.43,   1.50) DC
       10TH HIGHEST VALUE IS   0.01433 AT (501375.00, 3638703.80,   179.97,

```
                         Fanita Ranch HRA.ADO
  331.43,    1.50)  DC


  *** RECEPTOR TYPES:  GC = GRIDCART
                       GP = GRIDPOLR
                       DC = DISCCART
                       DP = DISCPOLR
♀ *** AERMOD - VERSION  15181 ***   *** C:\Users\ZChen\Desktop\Fanita Ranch
HRA\Fanita Ranch HRA.isc         ***       07/15/19
  *** AERMET - VERSION  18081 ***   ***
                       ***       11:21:19

                                PAGE  10
 **MODELOPTs:  NonDFAULT CONC      ELEV     FLGPOL    BETA     RURAL    ADJ_U*

                                    *** 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      0.37504  ON 11012609: AT (  501425.00,
3638853.80,   184.10,   331.43,    1.50)  DC


  *** RECEPTOR TYPES:  GC = GRIDCART
                       GP = GRIDPOLR
                       DC = DISCCART
                       DP = DISCPOLR
♀ *** AERMOD - VERSION  15181 ***   *** C:\Users\ZChen\Desktop\Fanita Ranch
HRA\Fanita Ranch HRA.isc         ***       07/15/19
  *** AERMET - VERSION  18081 ***   ***
                       ***       11:21:19

                                PAGE  11
 **MODELOPTs:  NonDFAULT CONC      ELEV     FLGPOL    BETA     RURAL    ADJ_U*

 *** Message Summary : AERMOD Model Execution ***

  --------- Summary of Total Messages --------

 A Total of          0 Fatal Error Message(s)
 A Total of         37 Warning Message(s)
 A Total of       1121 Informational Message(s)

 A Total of      26304 Hours Were Processed

 A Total of        753 Calm Hours Identified

 A Total of        368 Missing Hours Identified (  1.40 Percent)


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

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```

Fanita Ranch HRA.ADO

ME W187   146   MEOPEN: ADJ_U* Beta Option for Low Winds used in AERMET
Non-DFAULT
MX W441   14167   METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
11081407
MX W441   14168   METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
11081408
MX W441   14169   METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
11081409
MX W441   14170   METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
11081410
MX W441   14171   METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
11081411
MX W441   14172   METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
11081412
MX W441   14173   METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
11081413
MX W441   14174   METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
11081414
MX W441   14175   METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
11081415
MX W441   14176   METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
11081416
MX W441   14177   METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
11081417
MX W441   14178   METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
11081418
MX W441   14191   METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
11081507
MX W441   14192   METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
11081508
MX W441   14193   METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
11081509
MX W441   14194   METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
11081510
MX W441   14195   METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
11081511
MX W441   14196   METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
11081512
MX W441   14197   METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
11081513
MX W441   14198   METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
11081514
MX W441   14199   METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
11081515
MX W441   14200   METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
11081516
MX W441   14201   METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
11081517
MX W441   14202   METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
11081518
MX W441   14215   METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
11081607
MX W441   14216   METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
11081608
MX W441   14217   METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
11081609
MX W441   14218   METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
11081610
MX W441   14219   METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
11081611
MX W441   14220   METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=

```
11081612
MX W441    14221          METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
11081613
MX W441    14222          METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
11081614
MX W441    14223          METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
11081615
MX W441    14224          METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
11081616
MX W441    14225          METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
11081617
MX W441    14226          METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
11081618


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

PHASE 1 AND PHASE 2 CONSTRUCTION WITH MITIGATION MEASURES

MM AIR-3, MM AIR-4, AND MM AIR-11

```
                          Fanita Ranch HRA Mitigated.ADO
**
*****************************************
**
** AERMOD Input Produced by:
** AERMOD View Ver. 9.6.5
** Lakes Environmental Software Inc.
** Date: 7/16/2019
** File: C:\Users\ZChen\Desktop\Fanita Ranch HRA Mitigated\Fanita Ranch HRA
Mitigated.ADI
**
*****************************************
**
**
*****************************************
** AERMOD Control Pathway
*****************************************
**
**
CO STARTING
   TITLEONE C:\Users\ZChen\Desktop\Fanita Ranch HRA Mitigated\Fanita Ranch HRA M
   MODELOPT CONC BETA
   AVERTIME 1 ANNUAL
   POLLUTID DPM
   FLAGPOLE 1.50
   RUNORNOT RUN
   ERRORFIL "Fanita Ranch HRA Mitigated.err"
CO FINISHED
**
*****************************************
** AERMOD Source Pathway
*****************************************
**
**
SO STARTING
** Source Location **
** Source ID - Type - X Coord. - Y Coord. **
   LOCATION PHASE1       AREAPOLY   501127.554  3638741.544        171.940
** DESCRSRC Phase1
   LOCATION PHASE2       AREAPOLY   500455.747  3637928.969        149.100
** DESCRSRC Phase2
** Source Parameters **
   SRCPARAM PHASE1       1.0543E-10     0.000         128
   AREAVERT PHASE1       501127.554 3638741.544 501180.092 3638812.855
   AREAVERT PHASE1       501222.104 3638869.026 501296.708 3638843.253
   AREAVERT PHASE1       501337.402 3639027.730 501349.610 3639162.018
   AREAVERT PHASE1       501407.937 3639156.592 501506.958 3639189.147
   AREAVERT PHASE1       501576.136 3639189.147 501567.998 3639144.384
   AREAVERT PHASE1       501601.909 3639062.997 501654.810 3639025.017
   AREAVERT PHASE1       501676.514 3639004.670 501713.138 3638950.412
   AREAVERT PHASE1       501630.394 3638875.808 501667.018 3638820.193
   AREAVERT PHASE1       501681.939 3638767.292 501686.009 3638695.400
   AREAVERT PHASE1       501657.523 3638680.479 501619.543 3638688.618
   AREAVERT PHASE1       501451.343 3638668.271 501371.854 3638622.632
   AREAVERT PHASE1       501277.880 3638572.788 501186.440 3638578.626
   AREAVERT PHASE1       501178.698 3638441.745 501167.846 3638273.545
   AREAVERT PHASE1       501238.381 3637957.493 501318.412 3637973.771
   AREAVERT PHASE1       501418.789 3638025.316 501547.651 3638120.267
   AREAVERT PHASE1       501654.810 3638207.080 501698.217 3638207.080
   AREAVERT PHASE1       501740.267 3638235.565 501763.326 3638278.971
   AREAVERT PHASE1       501832.505 3638284.397 501851.495 3638190.802
   AREAVERT PHASE1       501934.238 3638151.465 501968.150 3638205.723
   AREAVERT PHASE1       501977.645 3638232.852 502046.823 3638235.565
   AREAVERT PHASE1       502076.665 3638269.476 502075.309 3638310.169
                              Page 1
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                        Fanita Ranch HRA Mitigated.ADO
    AREAVERT PHASE1        502054.962 3638335.942 501980.358 3638348.150
    AREAVERT PHASE1        501976.288 3638292.536 501917.961 3638262.694
    AREAVERT PHASE1        501922.030 3638188.089 501894.901 3638217.931
    AREAVERT PHASE1        501860.990 3638331.873 501832.505 3638402.408
    AREAVERT PHASE1        501875.911 3638485.151 501900.327 3638478.369
    AREAVERT PHASE1        501995.278 3638512.280 502029.190 3638584.172
    AREAVERT PHASE1        502072.596 3638675.054 502054.962 3638702.183
    AREAVERT PHASE1        502011.556 3638737.450 501987.140 3638790.352
    AREAVERT PHASE1        501988.496 3638832.401 502006.130 3638831.045
    AREAVERT PHASE1        502008.843 3638847.322 501969.506 3638881.234
    AREAVERT PHASE1        501905.753 3638950.412 501875.911 3638943.630
    AREAVERT PHASE1        501854.208 3638923.283 501806.732 3638940.917
    AREAVERT PHASE1        501747.049 3638943.630 501677.870 3639012.809
    AREAVERT PHASE1        501627.681 3639056.215 501592.414 3639113.186
    AREAVERT PHASE1        501588.344 3639190.503 501626.325 3639269.177
    AREAVERT PHASE1        501576.136 3639293.593 501523.235 3639388.545
    AREAVERT PHASE1        501508.314 3639437.377 501479.829 3639468.575
    AREAVERT PHASE1        501451.343 3639525.546 501402.511 3639529.615
    AREAVERT PHASE1        501356.392 3639521.476 501319.768 3639539.110
    AREAVERT PHASE1        501241.094 3639495.704 501241.094 3639533.684
    AREAVERT PHASE1        501243.807 3639583.873 501227.530 3639632.705
    AREAVERT PHASE1        501186.836 3639657.121 501161.064 3639669.329
    AREAVERT PHASE1        501113.588 3639655.765 501071.538 3639601.507
    AREAVERT PHASE1        501049.835 3639594.725 501007.785 3639596.081
    AREAVERT PHASE1        500969.805 3639566.239 500956.240 3639497.060
    AREAVERT PHASE1        500887.062 3639366.841 500893.844 3639326.148
    AREAVERT PHASE1        500914.190 3639281.385 500854.507 3639189.147
    AREAVERT PHASE1        500820.596 3639126.750 500774.476 3639037.225
    AREAVERT PHASE1        500710.723 3638925.996 500675.456 3638954.482
    AREAVERT PHASE1        500641.545 3639004.670 500619.842 3639003.314
    AREAVERT PHASE1        500592.713 3638978.898 500557.445 3638858.174
    AREAVERT PHASE1        500512.682 3638841.897 500482.840 3638782.213
    AREAVERT PHASE1        500484.197 3638763.223 500454.355 3638723.886
    AREAVERT PHASE1        500480.128 3638683.192 500462.494 3638626.222
    AREAVERT PHASE1        500396.028 3638475.656 500250.888 3638194.872
    AREAVERT PHASE1        500212.908 3638082.286 500218.333 3638017.177
    AREAVERT PHASE1        500318.710 3637960.206 500452.999 3637930.364
    AREAVERT PHASE1        500459.781 3638056.514 500382.463 3638057.870
    AREAVERT PHASE1        500379.750 3638185.376 500410.949 3638303.387
    AREAVERT PHASE1        500459.781 3638401.051 500530.316 3638485.151
    AREAVERT PHASE1        500720.219 3638726.599 500842.299 3638779.500
    AREAVERT PHASE1        500910.121 3638799.847 500979.300 3638784.926
    AREAVERT PHASE1        501050.692 3638740.496 501051.101 3638740.637
    SRCPARAM PHASE2        6.2401E-09     0.000       29
    AREAVERT PHASE2        500455.747 3637928.969 500507.334 3637917.178
    AREAVERT PHASE2        500606.085 3637933.391 500617.876 3637958.447
    AREAVERT PHASE2        500635.563 3637968.765 500673.885 3637965.817
    AREAVERT PHASE2        500669.463 3637937.813 500670.937 3637908.335
    AREAVERT PHASE2        500681.254 3637871.487 500725.471 3637852.327
    AREAVERT PHASE2        500797.692 3637834.640 500838.961 3637839.061
    AREAVERT PHASE2        500883.178 3637849.379 500965.717 3637887.700
    AREAVERT PHASE2        500986.351 3637870.013 501236.915 3637956.974
    AREAVERT PHASE2        501169.115 3638270.914 501186.986 3638578.530
    AREAVERT PHASE2        501038.296 3638594.760 501048.359 3638741.676
    AREAVERT PHASE2        500980.456 3638782.358 500909.709 3638798.571
    AREAVERT PHASE2        500818.327 3638770.567 500722.523 3638727.823
    AREAVERT PHASE2        500458.695 3638400.618 500408.582 3638297.445
    AREAVERT PHASE2        500379.104 3638186.902 500383.526 3638058.673
    AREAVERT PHASE2        500460.169 3638055.725
    SRCGROUP ALL
SO FINISHED
**
 ****************************************
                        Page 2
```

```
                            Fanita Ranch HRA Mitigated.ADO
** AERMOD Receptor Pathway
*****************************************
**
**
RE STARTING
   INCLUDED "Fanita Ranch HRA Mitigated.rou"
RE FINISHED
**
*****************************************
** AERMOD Meteorology Pathway
*****************************************
**
**
ME STARTING
   SURFFILE "El Cajon Met Data\ECA_2010_2012_v18081.SFC"
   PROFFILE "El Cajon Met Data\ECA_2010_2012_v18081.PFL"
   SURFDATA 93107 2010
   UAIRDATA 3190 2010
   SITEDATA 3 2010
   PROFBASE 144.0 METERS
ME FINISHED
**
*****************************************
** AERMOD Output Pathway
*****************************************
**
**
OU STARTING
   RECTABLE ALLAVE 1ST
   RECTABLE 1 1ST
** Auto-Generated Plotfiles
   PLOTFILE 1 ALL 1ST "FANITA RANCH HRA MITIGATED.AD\01H1GALL.PLT" 31
   PLOTFILE ANNUAL ALL "FANITA RANCH HRA MITIGATED.AD\AN00GALL.PLT" 32
   SUMMFILE "Fanita Ranch HRA Mitigated.sum"
OU FINISHED


  *** Message Summary For AERMOD Model Setup ***

  --------- Summary of Total Messages --------

 A Total of          0 Fatal Error Message(s)
 A Total of          1 Warning Message(s)
 A Total of          0 Informational Message(s)


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


    ********   WARNING MESSAGES   ********
 ME W187     146        MEOPEN: ADJ_U* Beta Option for Low Winds used in AERMET
Non-DFAULT

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

♀ *** AERMOD - VERSION  15181 ***    *** C:\Users\ZChen\Desktop\Fanita Ranch HRA
Mitigated\Fanita Ranch HRA M ***        07/16/19
 *** AERMET - VERSION  18081 ***    ***
                         ***        13:07:03

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```

                                        ***   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 Allows User-Specified 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:
         ADJ_U*   - Use ADJ_U* BETA option for SBL in AERMET
         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 ANNUAL Averages

 **This Run Includes: 2 Source(s);   1 Source Group(s); and   75
Receptor(s)

                 with: 0 POINT(s), including
                             0 POINTCAP(s) and   0 POINTHOR(s)
                 and: 0 VOLUME source(s)
                 and: 2 AREA type source(s)
                 and: 0 LINE source(s)
                 and: 0 OPENPIT source(s)

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

 **The AERMET Input Meteorological Data Version Date: 18081

 **Output Options Selected:
         Model Outputs Tables of ANNUAL 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) =   144.00 ; 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 =   3.5 MB of RAM.

 **Detailed Error/Message File: Fanita Ranch HRA Mitigated.err

 **File for Summary of Results: Fanita Ranch HRA Mitigated.sum

⚀ *** AERMOD - VERSION 15181 ***   *** C:\Users\ZChen\Desktop\Fanita Ranch HRA
Mitigated\Fanita Ranch HRA M ***   07/16/19
 *** AERMET - VERSION 18081 ***   ***
                       ***   13:07:03

                                 PAGE   2
 **MODELOPTs: NonDFAULT CONC   ELEV   FLGPOL   BETA   RURAL   ADJ_U*

                                         *** AREAPOLY SOURCE DATA ***

               NUMBER EMISSION RATE   LOCATION OF AREA BASE   RELEASE NUMBER
INIT.   URBAN   EMISSION RATE
  SOURCE   PART. (GRAMS/SEC   X   Y   ELEV.   HEIGHT OF VERTS.
  SZ   SOURCE   SCALAR VARY
    ID   CATS.   /METER**2)   (METERS) (METERS) (METERS) (METERS)
(METERS)   BY
- -
- -

 PHASE1   0   0.10543E-09 501127.6 3638741.5   171.9   0.00   128
  0.00   NO
 PHASE2   0   0.62401E-08 500455.7 3637929.0   149.1   0.00   29
  0.00   NO
⚀ *** AERMOD - VERSION 15181 ***   *** C:\Users\ZChen\Desktop\Fanita Ranch HRA
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                       ***   13:07:03

                                 PAGE   3
 **MODELOPTs: NonDFAULT CONC   ELEV   FLGPOL   BETA   RURAL   ADJ_U*

                                      *** SOURCE IDs DEFINING SOURCE GROUPS ***

 SRCGROUP ID   SOURCE IDs
 -----------   ----------

  ALL   PHASE1   , PHASE2   ,
⚀ *** AERMOD - VERSION 15181 ***   *** C:\Users\ZChen\Desktop\Fanita Ranch HRA
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 **MODELOPTs: NonDFAULT CONC   ELEV   FLGPOL   BETA   RURAL   ADJ_U*

```
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   ( 501375.0, 3638703.8,      180.0,      331.4,       1.5);       ( 501425.0,
3638703.8,      182.0,      331.4,      1.5);
   ( 501475.0, 3638703.8,      185.0,      331.4,       1.5);       ( 501525.0,
3638703.8,      188.4,      331.4,      1.5);
   ( 501575.0, 3638703.8,      192.1,      331.4,       1.5);       ( 501625.0,
3638703.8,      195.2,      331.4,      1.5);
   ( 501675.0, 3638703.8,      197.8,      331.4,       1.5);       ( 501225.0,
3638753.8,      174.0,      331.4,      1.5);
   ( 501275.0, 3638753.8,      175.8,      331.4,       1.5);       ( 501325.0,
3638753.8,      178.1,      331.4,      1.5);
   ( 501375.0, 3638753.8,      180.4,      331.4,       1.5);       ( 501425.0,
3638753.8,      183.5,      331.4,      1.5);
   ( 501475.0, 3638753.8,      186.7,      331.4,       1.5);       ( 501525.0,
3638753.8,      189.3,      331.4,      1.5);
   ( 501575.0, 3638753.8,      192.5,      331.4,       1.5);       ( 501625.0,
3638753.8,      195.4,      331.4,      1.5);
   ( 501675.0, 3638753.8,      197.8,      331.4,       1.5);       ( 501225.0,
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   ( 501275.0, 3638803.8,      175.5,      331.4,       1.5);       ( 501325.0,
3638803.8,      177.9,      331.4,      1.5);
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   ( 501475.0, 3638803.8,      187.1,      331.4,       1.5);       ( 501525.0,
3638803.8,      189.6,      331.4,      1.5);
   ( 501575.0, 3638803.8,      192.0,      331.4,       1.5);       ( 501625.0,
3638803.8,      194.8,      331.4,      1.5);
   ( 501225.0, 3638853.8,      176.7,      331.4,       1.5);       ( 501275.0,
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   ( 501325.0, 3638853.8,      178.3,      331.4,       1.5);       ( 501375.0,
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   ( 501425.0, 3638853.8,      184.1,      331.4,       1.5);       ( 501475.0,
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3638853.8,      191.0,      331.4,      1.5);
   ( 501625.0, 3638853.8,      193.9,      331.4,       1.5);       ( 501325.0,
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   ( 501375.0, 3638903.8,      183.6,      331.4,       1.5);       ( 501425.0,
3638903.8,      185.7,      331.4,      1.5);
   ( 501475.0, 3638903.8,      187.0,      331.4,       1.5);       ( 501525.0,
3638903.8,      189.2,      331.4,      1.5);
   ( 501575.0, 3638903.8,      192.7,      331.4,       1.5);       ( 501625.0,
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   ( 501328.0, 3638953.8,      185.4,      331.4,       1.5);       ( 501375.0,
3638953.8,      186.2,      331.4,      1.5);
   ( 501425.0, 3638953.8,      186.6,      331.4,       1.5);       ( 501475.0,
3638953.8,      188.1,      331.4,      1.5);
   ( 501525.0, 3638953.8,      191.0,      331.4,       1.5);       ( 501575.0,
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   ( 501625.0, 3638953.8,      200.3,      331.4,       1.5);       ( 501675.0,
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3639003.8,      189.8,      331.4,      1.5);
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3639003.8,      189.2,      331.4,      1.5);
   ( 501525.0, 3639003.8,      191.7,      331.4,       1.5);       ( 501575.0,
```

Fanita Ranch HRA Mitigated.ADO
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3639003.8,      196.4,      331.4,      1.5);
    ( 501625.0, 3639003.8,      204.1,      331.4,         1.5);          ( 501375.0,
3639053.8,      192.8,      331.4,      1.5);
    ( 501425.0, 3639053.8,      188.7,      331.4,         1.5);          ( 501475.0,
3639053.8,      189.6,      331.4,      1.5);
    ( 501525.0, 3639053.8,      192.6,      331.4,         1.5);          ( 501575.0,
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    ( 501375.0, 3639103.8,      187.5,      331.4,         1.5);          ( 501425.0,
3639103.8,      188.7,      331.4,      1.5);
    ( 501475.0, 3639103.8,      191.0,      331.4,         1.5);          ( 501525.0,
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    ( 501575.0, 3639103.8,      199.1,      331.4,         1.5);          ( 501375.0,
3639153.8,      186.1,      331.4,      1.5);
    ( 501425.0, 3639153.8,      189.0,      331.4,         1.5);          ( 501475.0,
3639153.8,      191.9,      331.4,      1.5);
    ( 501525.0, 3639153.8,      194.9,      331.4,         1.5);
```

⚲ *** AERMOD - VERSION 15181 ***   *** C:\Users\ZChen\Desktop\Fanita Ranch HRA
Mitigated\Fanita Ranch HRA M ***   07/16/19
 *** AERMET - VERSION 18081 ***   ***
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 **MODELOPTs: NonDFAULT CONC   ELEV   FLGPOL   BETA   RURAL   ADJ_U*

                                         *** METEOROLOGICAL DAYS SELECTED FOR
PROCESSING ***

                                                   (1=YES; 0=NO)

              1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
              1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
              1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
              1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
              1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
              1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
              1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
              1 1 1 1 1 1 1 1 1 1 1 1 1 1 1

           NOTE: METEOROLOGICAL DATA ACTUALLY PROCESSED WILL ALSO DEPEND ON
WHAT IS INCLUDED IN THE DATA FILE.

                                  *** UPPER BOUND OF FIRST THROUGH FIFTH WIND SPEED
CATEGORIES ***

                                                   (METERS/SEC)

                                   1.54,   3.09,   5.14,   8.23,
10.80,

⚲ *** AERMOD - VERSION 15181 ***   *** C:\Users\ZChen\Desktop\Fanita Ranch HRA
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 **MODELOPTs: NonDFAULT CONC   ELEV   FLGPOL   BETA   RURAL   ADJ_U*

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

    Surface file: El Cajon Met Data\ECA_2010_2012_v18081.SFC
                Met Version: 18081
    Profile file: El Cajon Met Data\ECA_2010_2012_v18081.PFL

    Surface format: FREE

    Profile format: FREE

    Surface station no.:   93107   Upper air station no.:   3190
                Name: UNKNOWN   Name: UNKNOWN

                Year: 2010   Year: 2010

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
10	01	01	1	01	-2.2	0.077	-9.000	-9.000	-999.	51.	18.5	0.52	1.19	1.00	0.44	289.	10.0	279.8	10.0
10	01	01	1	02	-2.2	0.077	-9.000	-9.000	-999.	51.	18.5	0.52	1.19	1.00	0.44	287.	10.0	279.2	10.0
10	01	01	1	03	-2.0	0.075	-9.000	-9.000	-999.	50.	18.8	0.46	1.19	1.00	0.44	237.	10.0	279.2	10.0
10	01	01	1	04	-2.2	0.077	-9.000	-9.000	-999.	51.	18.5	0.52	1.19	1.00	0.44	287.	10.0	278.6	10.0
10	01	01	1	05	-2.2	0.077	-9.000	-9.000	-999.	51.	18.5	0.52	1.19	1.00	0.44	279.	10.0	278.1	10.0
10	01	01	1	06	-4.9	0.100	-9.000	-9.000	-999.	76.	18.4	0.34	1.19	1.00	0.89	102.	10.0	277.5	10.0
10	01	01	1	07	-2.2	0.077	-9.000	-9.000	-999.	51.	18.5	0.52	1.19	1.00	0.44	283.	10.0	277.5	10.0
10	01	01	1	08	-1.2	0.063	-9.000	-9.000	-999.	38.	17.6	0.52	1.19	0.49	0.44	269.	10.0	278.1	10.0
10	01	01	1	09	43.1	0.168	0.445	0.009	73.	166.	-9.9	0.46	1.19	0.30	0.89	313.	10.0	281.4	10.0
10	01	01	1	10	92.8	0.184	0.824	0.009	216.	190.	-6.1	0.46	1.19	0.23	0.89	303.	10.0	285.4	10.0
10	01	01	1	11	125.6	0.130	1.130	0.008	413.	113.	-1.6	0.52	1.19	0.21	0.44	270.	10.0	288.6	10.0
10	01	01	1	12	144.0	0.253	1.312	0.008	562.	305.	-10.0	0.46	1.19	0.20	1.34	318.	10.0	292.5	10.0
10	01	01	1	13	142.2	0.252	1.390	0.008	677.	303.	-10.0	0.45	1.19	0.20	1.34	345.	10.0	293.6	10.0
10	01	01	1	14	120.0	0.191	1.370	0.007	767.	201.	-5.2	0.46	1.19	0.21	0.89	309.	10.0	294.8	10.0
10	01	01	1	15	84.7	0.290	1.252	0.007	830.	375.	-25.7	0.46	1.19	0.24	1.78	303.	10.0	295.9	10.0
10	01	01	1	16	16.1	0.308	0.722	0.007	838.	410.	-162.4	0.46	1.19	0.33	2.23	309.	10.0	294.2	10.0
10	01	01	1	17	-13.0	0.175	-9.000	-9.000	-999.	187.	36.9	0.46	1.19	0.61	1.34	320.	10.0	291.4	10.0
10	01	01	1	18	-6.0	0.113	-9.000	-9.000	-999.	92.	21.3	0.46	1.19	1.00	0.89	311.	10.0	290.4	10.0
10	01	01	1	19	-11.0	0.152	-9.000	-9.000	-999.	142.	28.6	0.34	1.19	1.00	1.34	99.	10.0	288.6	10.0
10	01	01	1	20	-5.2	0.104	-9.000	-9.000	-999.	81.	19.5	0.38	1.19	1.00	0.89	135.	10.0	288.1	10.0
10	01	01	1	21	-5.9	0.111	-9.000	-9.000	-999.	89.	20.8	0.44	1.19						

```
                          Fanita Ranch HRA Mitigated.ADO
1.00    0.89   79.    10.0  286.9   10.0
 10 01 01   1 22   -4.8  0.100 -9.000 -9.000 -999.    76.    18.6  0.34   1.19
1.00    0.89  109.    10.0  285.9   10.0
 10 01 01   1 23   -6.1  0.113 -9.000 -9.000 -999.    91.    21.1  0.46   1.19
1.00    0.89  312.    10.0  285.4   10.0
 10 01 01   1 24   -4.8  0.100 -9.000 -9.000 -999.    76.    18.6  0.34   1.19
1.00    0.89  105.    10.0  283.6   10.0


 First hour of profile data
 YR MO DY HR HEIGHT F  WDIR    WSPD AMB_TMP sigmaA  sigmaW  sigmaV
 10 01 01 01   10.0 1 289.     0.44   279.8   99.0  -99.00  -99.00

 F indicates top of profile (=1) or below (=0)
 ♀ *** AERMOD - VERSION  15181 ***    *** C:\Users\ZChen\Desktop\Fanita Ranch HRA
Mitigated\Fanita Ranch HRA M ***        07/16/19
 *** AERMET - VERSION  18081 ***    ***
                        ***           13:07:03

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 **MODELOPTs:   NonDFAULT CONC      ELEV       FLGPOL     BETA     RURAL     ADJ_U*

               *** THE ANNUAL AVERAGE CONCENTRATION    VALUES AVERAGED OVER    3
YEARS FOR SOURCE GROUP: ALL       ***
                        INCLUDING SOURCE(S):     PHASE1      , PHASE2
,

                                      *** 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
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - -
        499920.29    3637453.58     0.00412                        502101.24
3637903.50        0.00312
        501958.90    3637412.91     0.00359                        501325.00
3638703.80        0.01527
        501375.00    3638703.80     0.01316                        501425.00
3638703.80        0.01150
        501475.00    3638703.80     0.00968                        501525.00
3638703.80        0.00797
        501575.00    3638703.80     0.00649                        501625.00
3638703.80        0.00545
        501675.00    3638703.80     0.00470                        501225.00
3638753.80        0.01931
        501275.00    3638753.80     0.01660                        501325.00
3638753.80        0.01418
        501375.00    3638753.80     0.01221                        501425.00
3638753.80        0.01020
        501475.00    3638753.80     0.00857                        501525.00
3638753.80        0.00734
        501575.00    3638753.80     0.00614                        501625.00
3638753.80        0.00520
        501675.00    3638753.80     0.00455                        501225.00
3638803.80        0.01740
        501275.00    3638803.80     0.01568                        501325.00
3638803.80        0.01343
        501375.00    3638803.80     0.01155                        501425.00
3638803.80        0.00943
```

```
      501475.00    3638803.80          0.00805                          501525.00
3638803.80      0.00695
      501575.00    3638803.80          0.00606                          501625.00
3638803.80      0.00517
      501225.00    3638853.80          0.01516                          501275.00
3638848.00      0.01437
      501325.00    3638853.80          0.01244                          501375.00
3638853.80      0.01055
      501425.00    3638853.80          0.00900                          501475.00
3638853.80      0.00798
      501525.00    3638853.80          0.00700                          501575.00
3638853.80      0.00607
      501625.00    3638853.80          0.00519                          501325.00
3638903.80      0.01073
      501375.00    3638903.80          0.00910                          501425.00
3638903.80      0.00802
      501475.00    3638903.80          0.00733                          501525.00
3638903.80      0.00646
      501575.00    3638903.80          0.00541                          501625.00
3638903.80      0.00499
      501328.00    3638953.80          0.00845                          501375.00
3638953.80      0.00778
      501425.00    3638953.80          0.00735                          501475.00
3638953.80      0.00668
      501525.00    3638953.80          0.00574                          501575.00
3638953.80      0.00467
      501625.00    3638953.80          0.00365                          501675.00
3638953.80      0.00272
      501337.00    3639003.80          0.00671                          501375.00
3639003.80      0.00640
      501425.00    3639003.80          0.00666                          501475.00
3639003.80      0.00609
      501525.00    3639003.80          0.00533                          501575.00
3639003.80      0.00425
      501625.00    3639003.80          0.00304                          501375.00
3639053.80      0.00540
      501425.00    3639053.80          0.00617                          501475.00
3639053.80      0.00574
      501525.00    3639053.80          0.00492                          501575.00
3639053.80      0.00392
      501375.00    3639103.80          0.00653                          501425.00
3639103.80      0.00595
      501475.00    3639103.80          0.00523                          501525.00
3639103.80      0.00452
      501575.00    3639103.80          0.00354                          501375.00
3639153.80      0.00672
      501425.00    3639153.80          0.00574                          501475.00
3639153.80      0.00490
      501525.00    3639153.80          0.00419
```

♀ *** AERMOD – VERSION 15181 ***   *** C:\Users\ZChen\Desktop\Fanita Ranch HRA
Mitigated\Fanita Ranch HRA M ***   07/16/19
 *** AERMET - VERSION 18081 ***   ***
                      ***   13:07:03

                                    PAGE   8
 **MODELOPTs: NonDFAULT CONC   ELEV   FLGPOL   BETA   RURAL   ADJ_U*

                              *** THE   1ST HIGHEST 1-HR AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP: ALL   ***
                              INCLUDING SOURCE(S):   PHASE1   , PHASE2
,

                                   *** DISCRETE CARTESIAN RECEPTOR POINTS
***

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

       X-COORD (M) Y-COORD (M)   CONC   (YYMMDDHH)   X-COORD (M)
Y-COORD (M)   CONC   (YYMMDDHH)
 -
- -
        499920.29 3637453.58   0.25770 (10010908)   502101.24
3637903.50   0.17015 (10032907)
        501958.90 3637412.91   0.19268 (10122708)   501325.00
3638703.80   0.21059 (12022408)
        501375.00 3638703.80   0.19568 (12022408)   501425.00
3638703.80   0.17878 (12022408)
        501475.00 3638703.80   0.16152 (10021408)   501525.00
3638703.80   0.15170 (10020908)
        501575.00 3638703.80   0.15452 (10020908)   501625.00
3638703.80   0.15609 (10020908)
        501675.00 3638703.80   0.15673 (10020908)   501225.00
3638753.80   0.23352 (11092307)
        501275.00 3638753.80   0.21819 (11092307)   501325.00
3638753.80   0.19897 (12022408)
        501375.00 3638753.80   0.19015 (12022408)   501425.00
3638753.80   0.17292 (12022408)
        501475.00 3638753.80   0.15690 (10021408)   501525.00
3638753.80   0.14392 (10021408)
        501575.00 3638753.80   0.14075 (11050507)   501625.00
3638753.80   0.14554 (10020908)
        501675.00 3638753.80   0.14967 (10020908)   501225.00
3638803.80   0.22342 (11092307)
        501275.00 3638803.80   0.21767 (11092307)   501325.00
3638803.80   0.19969 (11092307)
        501375.00 3638803.80   0.18116 (12022408)   501425.00
3638803.80   0.16516 (12022408)
        501475.00 3638803.80   0.15324 (12022408)   501525.00
3638803.80   0.14371 (10021408)
        501575.00 3638803.80   0.14332 (11050507)   501625.00
3638803.80   0.14122 (11050507)
        501225.00 3638853.80   0.21102 (11092307)   501275.00
3638848.00   0.20716 (11092307)
        501325.00 3638853.80   0.19356 (11092307)   501375.00
3638853.80   0.17320 (11092307)
        501425.00 3638853.80   0.38859 (11012609)   501475.00
3638853.80   0.15380 (12022408)
        501525.00 3638853.80   0.14632 (12022408)   501575.00
3638853.80   0.14074 (11050507)
        501625.00 3638853.80   0.14210 (11050507)   501325.00
3638903.80   0.17477 (12022408)
        501375.00 3638903.80   0.16457 (11021808)   501425.00
3638903.80   0.15058 (11021808)
        501475.00 3638903.80   0.14336 (12022408)   501525.00
3638903.80   0.13802 (12022408)
        501575.00 3638903.80   0.13344 (11050507)   501625.00
3638903.80   0.13765 (11050507)
        501328.00 3638953.80   0.16354 (11021808)   501375.00
3638953.80   0.16499 (11021808)
        501425.00 3638953.80   0.15900 (11021808)   501475.00
3638953.80   0.14186 (11021808)
        501525.00 3638953.80   0.12976 (12011409)   501575.00
3638953.80   0.12640 (11050507)
        501625.00 3638953.80   0.12947 (11050507)   501675.00

```
                        Fanita Ranch HRA Mitigated.ADO
3638953.80       0.13256  (11050507)
     501337.00   3639003.80      0.16128  (11021808)              501375.00
3639003.80       0.16268  (11021808)
     501425.00   3639003.80      0.16291  (11021808)              501475.00
3639003.80       0.15196  (11021808)
     501525.00   3639003.80      0.13264  (11021808)              501575.00
3639003.80       0.12837  (12011409)
     501625.00   3639003.80      0.12352  (12011409)              501375.00
3639053.80       0.16038  (11021808)
     501425.00   3639053.80      0.16333  (11021808)              501475.00
3639053.80       0.15885  (11021808)
     501525.00   3639053.80      0.14383  (11021808)              501575.00
3639053.80       0.12975  (12011409)
     501375.00   3639103.80      0.16236  (11021808)              501425.00
3639103.80       0.16238  (11021808)
     501475.00   3639103.80      0.16160  (11021808)              501525.00
3639103.80       0.15254  (11021808)
     501575.00   3639103.80      0.13463  (11021808)              501375.00
3639153.80       0.16630  (11021808)
     501425.00   3639153.80      0.16176  (11021808)              501475.00
3639153.80       0.16174  (11021808)
     501525.00   3639153.80      0.15783  (11021808)
```

♀ *** AERMOD - VERSION 15181 ***   *** C:\Users\ZChen\Desktop\Fanita Ranch HRA
Mitigated\Fanita Ranch HRA M ***   07/16/19
 *** AERMET - VERSION 18081 ***   ***
                       ***   13:07:03

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  **MODELOPTs: NonDFAULT CONC   ELEV   FLGPOL   BETA   RURAL   ADJ_U*

                             *** THE SUMMARY OF MAXIMUM ANNUAL RESULTS
AVERAGED OVER   3 YEARS ***

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

```
                    NETWORK
GROUP ID                        AVERAGE CONC              RECEPTOR  (XR, YR, ZELEV,
ZHILL, ZFLAG)  OF TYPE  GRID-ID
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - -

ALL      1ST HIGHEST VALUE IS      0.01931 AT ( 501225.00, 3638753.80,  173.97,
   331.43,   1.50)  DC
         2ND HIGHEST VALUE IS      0.01740 AT ( 501225.00, 3638803.80,  174.73,
   331.43,   1.50)  DC
         3RD HIGHEST VALUE IS      0.01660 AT ( 501275.00, 3638753.80,  175.82,
   331.43,   1.50)  DC
         4TH HIGHEST VALUE IS      0.01568 AT ( 501275.00, 3638803.80,  175.50,
   331.43,   1.50)  DC
         5TH HIGHEST VALUE IS      0.01527 AT ( 501325.00, 3638703.80,  177.78,
   331.43,   1.50)  DC
         6TH HIGHEST VALUE IS      0.01516 AT ( 501225.00, 3638853.80,  176.66,
   331.43,   1.50)  DC
         7TH HIGHEST VALUE IS      0.01437 AT ( 501275.00, 3638848.00,  176.41,
   331.43,   1.50)  DC
         8TH HIGHEST VALUE IS      0.01418 AT ( 501325.00, 3638753.80,  178.07,
   331.43,   1.50)  DC
         9TH HIGHEST VALUE IS      0.01343 AT ( 501325.00, 3638803.80,  177.86,
   331.43,   1.50)  DC
```

```
                           Fanita Ranch HRA Mitigated.ADO
          10TH HIGHEST VALUE IS        0.01316 AT (  501375.00,  3638703.80,   179.97,
    331.43,    1.50)  DC


  *** RECEPTOR TYPES:  GC = GRIDCART
                       GP = GRIDPOLR
                       DC = DISCCART
                       DP = DISCPOLR
♀ *** AERMOD - VERSION  15181 ***    *** C:\Users\ZChen\Desktop\Fanita Ranch HRA
 Mitigated\Fanita Ranch HRA M ***        07/16/19
  *** AERMET - VERSION  18081 ***    ***
                       ***           13:07:03

                               PAGE  10
  **MODELOPTs:   NONDFAULT CONC      ELEV     FLGPOL     BETA     RURAL     ADJ_U*

                                           *** 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        0.38859  ON 11012609: AT (  501425.00,
 3638853.80,   184.10,   331.43,    1.50)  DC


  *** RECEPTOR TYPES:  GC = GRIDCART
                       GP = GRIDPOLR
                       DC = DISCCART
                       DP = DISCPOLR
♀ *** AERMOD - VERSION  15181 ***    *** C:\Users\ZChen\Desktop\Fanita Ranch HRA
 Mitigated\Fanita Ranch HRA M ***        07/16/19
  *** AERMET - VERSION  18081 ***    ***
                       ***           13:07:03

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  **MODELOPTs:   NONDFAULT CONC      ELEV     FLGPOL     BETA     RURAL     ADJ_U*

  *** Message Summary : AERMOD Model Execution ***

  ---------- Summary of Total Messages --------

 A Total of          0 Fatal Error Message(s)
 A Total of         37 Warning Message(s)
 A Total of       1121 Informational Message(s)

 A Total of      26304 Hours Were Processed

 A Total of        753 Calm Hours Identified

 A Total of        368 Missing Hours Identified (  1.40 Percent)


     ******** FATAL ERROR MESSAGES ********
              ***   NONE   ***
                               Page 13
```

```
     ********   WARNING MESSAGES   ********
ME w187     146     MEOPEN: ADJ_U* Beta Option for Low Winds used in AERMET
Non-DFAULT
MX w441   14167     METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
11081407
MX w441   14168     METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
11081408
MX w441   14169     METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
11081409
MX w441   14170     METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
11081410
MX w441   14171     METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
11081411
MX w441   14172     METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
11081412
MX w441   14173     METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
11081413
MX w441   14174     METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
11081414
MX w441   14175     METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
11081415
MX w441   14176     METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
11081416
MX w441   14177     METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
11081417
MX w441   14178     METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
11081418
MX w441   14191     METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
11081507
MX w441   14192     METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
11081508
MX w441   14193     METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
11081509
MX w441   14194     METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
11081510
MX w441   14195     METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
11081511
MX w441   14196     METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
11081512
MX w441   14197     METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
11081513
MX w441   14198     METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
11081514
MX w441   14199     METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
11081515
MX w441   14200     METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
11081516
MX w441   14201     METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
11081517
MX w441   14202     METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
11081518
MX w441   14215     METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
11081607
MX w441   14216     METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
11081608
MX w441   14217     METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
11081609
MX w441   14218     METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
11081610
MX w441   14219     METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
11081611
```

```
MX W441   14220        METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
11081612
MX W441   14221        METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
11081613
MX W441   14222        METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
11081614
MX W441   14223        METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
11081615
MX W441   14224        METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
11081616
MX W441   14225        METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
11081617
MX W441   14226        METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
11081618


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

ROADWAY CONSTRUCTION WITH MITIGATION MEASURES

MM AIR-3 AND MM AIR-4

```
                        Fanita Ranch Roadway HRA.ADO
**
****************************************
**
** AERMOD Input Produced by:
** AERMOD View Ver. 9.6.5
** Lakes Environmental Software Inc.
** Date: 7/15/2019
** File: C:\Users\ZChen\Desktop\Fanita Ranch Roadway HRA\Fanita Ranch Roadway
HRA.ADI
**
****************************************
**
**
****************************************
** AERMOD Control Pathway
****************************************
**
**
CO STARTING
   TITLEONE C:\Users\ZChen\Desktop\Fanita Ranch Roadway HRA\Fanita Ranch Roadway
   MODELOPT CONC BETA
   AVERTIME 1 ANNUAL
   POLLUTID DPM
   FLAGPOLE 1.50
   RUNORNOT RUN
   ERRORFIL "Fanita Ranch Roadway HRA.err"
CO FINISHED
**
****************************************
** AERMOD Source Pathway
****************************************
**
**
SO STARTING
** Source Location **
** Source ID - Type - X Coord. - Y Coord. **
   LOCATION ROAD1          AREAPOLY    501847.256   3638181.302       243.230
** DESCRSRC Cuyamaca+Magnolia
   LOCATION ROAD2          AREAPOLY    499589.666   3634708.491       108.920
** DESCRSRC Fanita
** Source Parameters **
   SRCPARAM ROAD1          1.2274E-09      0.000         117
   AREAVERT ROAD1          501847.256 3638181.302 501816.321 3638181.302
   AREAVERT ROAD1          501794.225 3638148.157 501774.338 3638130.480
   AREAVERT ROAD1          501776.548 3638110.594 501796.435 3638097.336
   AREAVERT ROAD1          501822.950 3638097.336 501800.854 3638039.885
   AREAVERT ROAD1          501787.596 3637978.016 501783.177 3637929.404
   AREAVERT ROAD1          501787.596 3637856.486 501825.160 3637794.616
   AREAVERT ROAD1          501836.208 3637761.472 501816.321 3637697.392
   AREAVERT ROAD1          501871.562 3637564.814 501845.047 3637529.460
   AREAVERT ROAD1          501858.305 3637511.783 501875.982 3637507.364
   AREAVERT ROAD1          501873.772 3637452.123 501860.514 3637370.366
   AREAVERT ROAD1          501875.982 3637288.610 501845.047 3637270.933
   AREAVERT ROAD1          501875.982 3637251.046 501860.514 3637209.063
   AREAVERT ROAD1          501860.514 3637171.499 501873.772 3637129.516
   AREAVERT ROAD1          501864.933 3637085.324 501862.724 3637034.502
   AREAVERT ROAD1          501847.256 3636981.471 501845.047 3636963.794
   AREAVERT ROAD1          501833.999 3636941.698 501829.579 3636924.021
   AREAVERT ROAD1          501829.579 3636908.553 501836.208 3636908.553
   AREAVERT ROAD1          501811.902 3636884.247 501798.644 3636833.426
   AREAVERT ROAD1          501833.999 3636813.539 501860.514 3636873.199
   AREAVERT ROAD1          501887.030 3636932.859 501906.916 3636954.955
   AREAVERT ROAD1          501898.078 3636992.519 501911.336 3637032.293
                              Page 1
```

```
AREAVERT ROAD1        501917.965 3637089.743 501915.755 3637149.403
AREAVERT ROAD1        501904.707 3637211.273 501926.803 3637222.321
AREAVERT ROAD1        501929.013 3637239.998 501909.126 3637246.627
AREAVERT ROAD1        501920.174 3637270.933 501902.497 3637299.658
AREAVERT ROAD1        501911.336 3637326.174 501902.497 3637390.253
AREAVERT ROAD1        501913.545 3637438.865 501922.384 3637463.171
AREAVERT ROAD1        501935.642 3637463.171 501959.948 3637447.704
AREAVERT ROAD1        501917.965 3637520.622 501904.707 3637547.137
AREAVERT ROAD1        501906.916 3637562.605 501909.126 3637591.330
AREAVERT ROAD1        501929.013 3637593.539 502021.817 3637569.233
AREAVERT ROAD1        502112.412 3637569.233 502198.588 3637578.072
AREAVERT ROAD1        502242.781 3637589.120 502291.393 3637580.282
AREAVERT ROAD1        502291.393 3637544.928 502311.279 3637540.508
AREAVERT ROAD1        502315.699 3637600.168 502446.067 3637586.911
AREAVERT ROAD1        502501.308 3637555.976 502545.501 3637529.460
AREAVERT ROAD1        502567.597 3637533.879 502607.370 3637485.267
AREAVERT ROAD1        502653.773 3637460.961 502680.288 3637407.930
AREAVERT ROAD1        502689.127 3637374.786 502689.127 3637235.579
AREAVERT ROAD1        502722.271 3637239.998 502711.223 3637390.253
AREAVERT ROAD1        502682.498 3637474.219 502651.563 3637511.783
AREAVERT ROAD1        502607.370 3637553.766 502572.016 3637560.395
AREAVERT ROAD1        502527.823 3637611.217 502465.954 3637635.523
AREAVERT ROAD1        502428.390 3637635.523 502359.891 3637635.523
AREAVERT ROAD1        502320.118 3637633.313 502311.279 3637686.344
AREAVERT ROAD1        502289.183 3637686.344 502284.764 3637650.990
AREAVERT ROAD1        502249.410 3637653.200 502227.313 3637666.457
AREAVERT ROAD1        502196.378 3637664.248 502180.911 3637644.361
AREAVERT ROAD1        502161.024 3637659.828 502147.767 3637650.990
AREAVERT ROAD1        502054.962 3637664.248 501957.738 3637664.248
AREAVERT ROAD1        501915.755 3637626.684 501900.288 3637639.942
AREAVERT ROAD1        501895.868 3637692.973 501873.772 3637743.795
AREAVERT ROAD1        501906.916 3637757.052 501900.288 3637787.987
AREAVERT ROAD1        501882.610 3637825.551 501847.256 3637852.067
AREAVERT ROAD1        501853.885 3638008.951 501898.078 3638015.579
AREAVERT ROAD1        501926.803 3638002.322 501937.851 3638002.322
AREAVERT ROAD1        501942.271 3638019.999 501951.109 3638026.628
AREAVERT ROAD1        501924.594 3638079.659 501900.288 3638095.126
AREAVERT ROAD1        501895.868 3638163.625
SRCPARAM ROAD2        1.2274E-09      0.000         69
AREAVERT ROAD2        499589.666 3634708.491 499548.072 3634698.093
AREAVERT ROAD2        499423.291 3635519.570 499412.892 3635589.759
AREAVERT ROAD2        499402.494 3635665.148 499301.109 3635943.306
AREAVERT ROAD2        499290.711 3636099.283 499316.707 3636239.662
AREAVERT ROAD2        499519.476 3636699.793 499735.244 3637141.727
AREAVERT ROAD2        499792.435 3637383.491 499849.627 3637536.868
AREAVERT ROAD2        499930.215 3637666.848 500005.604 3637739.637
AREAVERT ROAD2        499997.805 3637757.835 500052.397 3637783.831
AREAVERT ROAD2        500054.996 3637768.233 500153.781 3637841.022
AREAVERT ROAD2        500275.963 3637900.813 500294.160 3637932.009
AREAVERT ROAD2        500301.959 3637963.204 500437.139 3637908.612
AREAVERT ROAD2        500408.543 3637885.216 500400.744 3637874.817
AREAVERT ROAD2        500385.147 3637846.222 500353.951 3637846.222
AREAVERT ROAD2        500330.555 3637830.624 500296.760 3637825.425
AREAVERT ROAD2        500255.166 3637812.427 500140.783 3637742.237
AREAVERT ROAD2        500112.188 3637713.641 500070.594 3637713.641
AREAVERT ROAD2        500008.203 3637661.649 499977.008 3637627.854
AREAVERT ROAD2        499958.811 3637620.055 499878.223 3637466.678
AREAVERT ROAD2        499854.826 3637458.880 499782.037 3637183.321
AREAVERT ROAD2        499779.437 3637149.526 499756.041 3637100.133
AREAVERT ROAD2        499805.433 3637079.336 499795.035 3637061.139
AREAVERT ROAD2        499743.043 3637081.936 499667.654 3636897.364
AREAVERT ROAD2        499542.873 3636653.000 499579.267 3636632.203
AREAVERT ROAD2        499574.068 3636611.406 499563.670 3636606.207
```

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                          Fanita Ranch Roadway HRA.ADO
    AREAVERT ROAD2        499527.275 3636624.404 499511.677 3636606.207
    AREAVERT ROAD2        499394.695 3636312.451 499358.300 3636226.664
    AREAVERT ROAD2        499340.103 3636104.482 499337.504 3635987.500
    AREAVERT ROAD2        499399.894 3635789.929 499436.289 3635688.544
    AREAVERT ROAD2        499451.886 3635600.158 499550.672 3635607.957
    AREAVERT ROAD2        499558.470 3635579.361 499553.271 3635571.562
    AREAVERT ROAD2        499457.086 3635555.964 499511.677 3635238.812
    AREAVERT ROAD2        499506.478 3635189.419 499527.275 3635166.023
    AREAVERT ROAD2        499542.873 3635023.044 499561.070 3634919.060
    AREAVERT ROAD2        499563.670 3634911.261 499566.269 3634848.870
    AREAVERT ROAD2        499574.068 3634825.474
    SRCGROUP ALL
SO FINISHED
**
*****************************************
** AERMOD Receptor Pathway
*****************************************
**
**
RE STARTING
    INCLUDED "Fanita Ranch Roadway HRA.rou"
RE FINISHED
**
*****************************************
** AERMOD Meteorology Pathway
*****************************************
**
**
ME STARTING
    SURFFILE "El Cajon Met Data\ECA_2010_2012_v18081.SFC"
    PROFFILE "El Cajon Met Data\ECA_2010_2012_v18081.PFL"
    SURFDATA 93107 2010
    UAIRDATA 3190 2010
    SITEDATA 3 2010
    PROFBASE 144.0 METERS
ME FINISHED
**
*****************************************
** AERMOD Output Pathway
*****************************************
**
**
OU STARTING
    RECTABLE ALLAVE 1ST
    RECTABLE 1 1ST
** Auto-Generated Plotfiles
    PLOTFILE 1 ALL 1ST "FANITA RANCH ROADWAY HRA.AD\01H1GALL.PLT" 31
    PLOTFILE ANNUAL ALL "FANITA RANCH ROADWAY HRA.AD\AN00GALL.PLT" 32
    SUMMFILE "Fanita Ranch Roadway HRA.sum"
OU FINISHED


   *** Message Summary For AERMOD Model Setup ***

   --------- Summary of Total Messages --------

 A Total of           0 Fatal Error Message(s)
 A Total of           1 Warning Message(s)
 A Total of           0 Informational Message(s)


     ******** FATAL ERROR MESSAGES ********
               ***   NONE   ***
                         Page 3
```

Fanita Ranch Roadway HRA.ADO

        ********   WARNING MESSAGES   ********
  ME W187   161   MEOPEN: ADJ_U* Beta Option for Low Winds used in AERMET
 Non-DFAULT

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

 ♀ *** AERMOD - VERSION 15181 ***   *** C:\Users\ZChen\Desktop\Fanita Ranch Roadway
 HRA\Fanita Ranch Roadway ***   07/15/19
  *** AERMET - VERSION 18081 ***   ***
                        ***   12:07:52

                             PAGE   1
  **MODELOPTs: NonDFAULT CONC   ELEV   FLGPOL   BETA   RURAL   ADJ_U*

                                  ***   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 Allows User-Specified 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:
          ADJ_U*   - Use ADJ_U* BETA option for SBL in AERMET
          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 ANNUAL Averages

  **This Run Includes: 2 Source(s);   1 Source Group(s); and   3
 Receptor(s)

                 with: 0 POINT(s), including
                            0 POINTCAP(s) and   0 POINTHOR(s)
                  and: 0 VOLUME source(s)
                  and: 2 AREA type source(s)
                  and: 0 LINE source(s)
                  and: 0 OPENPIT source(s)

                         Page 4

```
                          Fanita Ranch Roadway HRA.ADO
  **Model Set To Continue RUNning After the Setup Testing.

  **The AERMET Input Meteorological Data Version Date:  18081

  **Output Options Selected:
          Model Outputs Tables of ANNUAL 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) =   144.00 ;  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 =      3.5 MB of RAM.

  **Detailed Error/Message File:   Fanita Ranch Roadway HRA.err

  **File for Summary of Results:   Fanita Ranch Roadway HRA.sum

♀ *** AERMOD - VERSION  15181 ***    *** C:\Users\ZChen\Desktop\Fanita Ranch Roadway
HRA\Fanita Ranch Roadway ***        07/15/19
  *** AERMET - VERSION  18081 ***    ***
                       ***          12:07:52

                                  PAGE   2
  **MODELOPTs:   NonDFAULT CONC      ELEV      FLGPOL     BETA      RURAL     ADJ_U*


                                    *** AREAPOLY SOURCE DATA ***

              NUMBER EMISSION RATE    LOCATION OF AREA  BASE     RELEASE  NUMBER
INIT.   URBAN  EMISSION RATE
  SOURCE         PART.  (GRAMS/SEC     X       Y      ELEV.    HEIGHT  OF VERTS.
  SZ     SOURCE  SCALAR VARY
    ID          CATS.  /METER**2)   (METERS) (METERS) (METERS) (METERS)
(METERS)             BY
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - -

  ROAD1          0   0.12274E-08  501847.3 3638181.3   243.2    0.00      117
   0.00    NO
  ROAD2          0   0.12274E-08  499589.7 3634708.5   108.9    0.00       69
   0.00    NO
♀ *** AERMOD - VERSION  15181 ***    *** C:\Users\ZChen\Desktop\Fanita Ranch Roadway
HRA\Fanita Ranch Roadway ***        07/15/19
  *** AERMET - VERSION  18081 ***    ***
                       ***          12:07:52

                                  PAGE   3
  **MODELOPTs:   NonDFAULT CONC      ELEV      FLGPOL     BETA      RURAL     ADJ_U*


                                  Page 5
```

                                       *** SOURCE IDs DEFINING SOURCE GROUPS ***

   SRCGROUP ID   SOURCE IDs
  -----------   ----------

   ALL   ROAD1   , ROAD2   ,
♀ *** AERMOD - VERSION 15181 ***   *** C:\Users\ZChen\Desktop\Fanita Ranch Roadway
HRA\Fanita Ranch Roadway ***   07/15/19
 *** AERMET - VERSION 18081 ***   ***
                    ***   12:07:52

                                     PAGE   4
  **MODELOPTs: NonDFAULT CONC   ELEV   FLGPOL   BETA   RURAL   ADJ_U*

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

     (499920.3, 3637453.6,   146.3,   305.4,   1.5);   (502101.2,
3637903.5,   191.8,   369.6,   1.5);
     (501958.9, 3637412.9,   176.1,   369.6,   1.5);

♀ *** AERMOD - VERSION 15181 ***   *** C:\Users\ZChen\Desktop\Fanita Ranch Roadway
HRA\Fanita Ranch Roadway ***   07/15/19
 *** AERMET - VERSION 18081 ***   ***
                    ***   12:07:52

                                     PAGE   5
  **MODELOPTs: NonDFAULT CONC   ELEV   FLGPOL   BETA   RURAL   ADJ_U*

                                   *** METEOROLOGICAL DAYS SELECTED FOR
PROCESSING ***
                                             (1=YES; 0=NO)

          1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
          1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
          1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
          1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
          1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
          1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
          1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
          1 1 1 1 1 1 1 1 1 1 1 1 1 1

          NOTE: METEOROLOGICAL DATA ACTUALLY PROCESSED WILL ALSO DEPEND ON
WHAT IS INCLUDED IN THE DATA FILE.

                                   *** UPPER BOUND OF FIRST THROUGH FIFTH WIND SPEED
CATEGORIES ***
                                             (METERS/SEC)

                                      1.54,   3.09,   5.14,   8.23,
10.80,
♀ *** AERMOD - VERSION 15181 ***   *** C:\Users\ZChen\Desktop\Fanita Ranch Roadway

                              PAGE   6
 **MODELOPTs: NonDFAULT CONC   ELEV   FLGPOL   BETA   RURAL   ADJ_U*

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

    Surface file: El Cajon Met Data\ECA_2010_2012_v18081.SFC
              Met Version: 18081
    Profile file: El Cajon Met Data\ECA_2010_2012_v18081.PFL

    Surface format: FREE

    Profile format: FREE

    Surface station no.:   93107   Upper air station no.:   3190
              Name: UNKNOWN   Name: UNKNOWN

              Year: 2010   Year: 2010

 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
- -
- - - - - - - - - - - - - - - - -
 10 01 01   1 01   -2.2 0.077 -9.000 -9.000 -999.   51.   18.5 0.52   1.19
1.00   0.44 289.   10.0 279.8   10.0
 10 01 01   1 02   -2.2 0.077 -9.000 -9.000 -999.   51.   18.5 0.52   1.19
1.00   0.44 287.   10.0 279.2   10.0
 10 01 01   1 03   -2.0 0.075 -9.000 -9.000 -999.   50.   18.8 0.46   1.19
1.00   0.44 237.   10.0 279.2   10.0
 10 01 01   1 04   -2.2 0.077 -9.000 -9.000 -999.   51.   18.5 0.52   1.19
1.00   0.44 287.   10.0 278.6   10.0
 10 01 01   1 05   -2.2 0.077 -9.000 -9.000 -999.   51.   18.5 0.52   1.19
1.00   0.44 279.   10.0 278.1   10.0
 10 01 01   1 06   -4.9 0.100 -9.000 -9.000 -999.   76.   18.4 0.34   1.19
1.00   0.89 102.   10.0 277.5   10.0
 10 01 01   1 07   -2.2 0.077 -9.000 -9.000 -999.   51.   18.5 0.52   1.19
1.00   0.44 283.   10.0 277.5   10.0
 10 01 01   1 08   -1.2 0.063 -9.000 -9.000 -999.   38.   17.6 0.52   1.19
0.49   0.44 269.   10.0 278.1   10.0
 10 01 01   1 09   43.1 0.168 0.445 0.009   73. 166.   -9.9 0.46   1.19
0.30   0.89 313.   10.0 281.4   10.0
 10 01 01   1 10   92.8 0.184 0.824 0.009 216. 190.   -6.1 0.46   1.19
0.23   0.89 303.   10.0 285.4   10.0
 10 01 01   1 11 125.6 0.130 1.130 0.008 413. 113.   -1.6 0.52   1.19
0.21   0.44 270.   10.0 288.6   10.0
 10 01 01   1 12 144.0 0.253 1.312 0.008 562. 305.   -10.0 0.46   1.19
0.20   1.34 318.   10.0 292.5   10.0
 10 01 01   1 13 142.2 0.252 1.390 0.008 677. 303.   -10.0 0.45   1.19
0.20   1.34 345.   10.0 293.6   10.0
 10 01 01   1 14 120.0 0.191 1.370 0.007 767. 201.   -5.2 0.46   1.19
0.21   0.89 309.   10.0 294.8   10.0
 10 01 01   1 15   84.7 0.290 1.252 0.007 830. 375.   -25.7 0.46   1.19
0.24   1.78 303.   10.0 295.9   10.0
 10 01 01   1 16   16.1 0.308 0.722 0.007 838. 410.   -162.4 0.46   1.19
0.33   2.23 309.   10.0 294.2   10.0
 10 01 01   1 17 -13.0 0.175 -9.000 -9.000 -999. 187.   36.9 0.46   1.19
0.61   1.34 320.   10.0 291.4   10.0
 10 01 01   1 18   -6.0 0.113 -9.000 -9.000 -999.   92.   21.3 0.46   1.19

```
                         Fanita Ranch Roadway HRA.ADO
1.00   0.89  311.   10.0  290.4   10.0
 10 01 01   1 19  -11.0  0.152 -9.000 -9.000 -999.  142.    28.6  0.34   1.19
1.00   1.34   99.   10.0  288.6   10.0
 10 01 01   1 20   -5.2  0.104 -9.000 -9.000 -999.   81.    19.5  0.38   1.19
1.00   0.89  135.   10.0  288.1   10.0
 10 01 01   1 21   -5.9  0.111 -9.000 -9.000 -999.   89.    20.8  0.44   1.19
1.00   0.89   79.   10.0  286.9   10.0
 10 01 01   1 22   -4.8  0.100 -9.000 -9.000 -999.   76.    18.6  0.34   1.19
1.00   0.89  109.   10.0  285.9   10.0
 10 01 01   1 23   -6.1  0.113 -9.000 -9.000 -999.   91.    21.1  0.46   1.19
1.00   0.89  312.   10.0  285.4   10.0
 10 01 01   1 24   -4.8  0.100 -9.000 -9.000 -999.   76.    18.6  0.34   1.19
1.00   0.89  105.   10.0  283.6   10.0


  First hour of profile data
  YR MO DY HR HEIGHT F  WDIR    WSPD AMB_TMP sigmaA  sigmaW  sigmaV
  10 01 01 01   10.0 1  289.    0.44   279.8   99.0  -99.00  -99.00

  F indicates top of profile (=1) or below (=0)
```
⚥ *** AERMOD - VERSION 15181 ***   *** C:\Users\ZChen\Desktop\Fanita Ranch Roadway HRA\Fanita Ranch Roadway ***   07/15/19
 *** AERMET - VERSION 18081 ***   ***
                         ***   12:07:52

                         PAGE   7
 **MODELOPTs: NonDFAULT CONC   ELEV   FLGPOL   BETA   RURAL   ADJ_U*

                    *** THE ANNUAL AVERAGE CONCENTRATION   VALUES AVERAGED OVER   3
YEARS FOR SOURCE GROUP: ALL   ***
                              INCLUDING SOURCE(S):   ROAD1   , ROAD2
,

                                       *** 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
  -
- -
         499920.29   3637453.58   0.00078   502101.24
3637903.50   0.00195
         501958.90   3637412.91   0.00309
⚥ *** AERMOD - VERSION 15181 ***   *** C:\Users\ZChen\Desktop\Fanita Ranch Roadway HRA\Fanita Ranch Roadway ***   07/15/19
 *** AERMET - VERSION 18081 ***   ***
                         ***   12:07:52

                         PAGE   8
 **MODELOPTs: NonDFAULT CONC   ELEV   FLGPOL   BETA   RURAL   ADJ_U*

                         *** THE   1ST HIGHEST 1-HR AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP: ALL   ***
                              INCLUDING SOURCE(S):   ROAD1   , ROAD2
,

                                       *** DISCRETE CARTESIAN RECEPTOR POINTS
***

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

     X-COORD (M) Y-COORD (M)   CONC   (YYMMDDHH)   X-COORD (M)
Y-COORD (M)   CONC   (YYMMDDHH)
- -
- -
      499920.29   3637453.58   0.01095 (11121804)   502101.24
3637903.50   0.02170 (11120608)
      501958.90   3637412.91   0.04489 (11093007)

♀ *** AERMOD - VERSION 15181 ***   *** C:\Users\ZChen\Desktop\Fanita Ranch Roadway
HRA\Fanita Ranch Roadway ***   07/15/19
 *** AERMET - VERSION 18081 ***   ***
                  ***   12:07:52

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  **MODELOPTs: NonDFAULT CONC   ELEV   FLGPOL   BETA   RURAL   ADJ_U*

                          *** THE SUMMARY OF MAXIMUM ANNUAL RESULTS
AVERAGED OVER   3 YEARS ***

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

                        NETWORK
GROUP ID   AVERAGE CONC   RECEPTOR (XR, YR, ZELEV,
ZHILL, ZFLAG) OF TYPE GRID-ID
- -
- - - - - - - - - - - - - - - - - - -

ALL   1ST HIGHEST VALUE IS   0.00309 AT (501958.90, 3637412.91,   176.11,
  369.58,   1.50) DC
         2ND HIGHEST VALUE IS   0.00195 AT (502101.24, 3637903.50,   191.75,
  369.58,   1.50) DC
         3RD HIGHEST VALUE IS   0.00078 AT (499920.29, 3637453.58,   146.34,
  305.45,   1.50) DC
         4TH HIGHEST VALUE IS   0.00000 AT (0.00,   0.00,   0.00,
  0.00,   0.00)
         5TH HIGHEST VALUE IS   0.00000 AT (0.00,   0.00,   0.00,
  0.00,   0.00)
         6TH HIGHEST VALUE IS   0.00000 AT (0.00,   0.00,   0.00,
  0.00,   0.00)
         7TH HIGHEST VALUE IS   0.00000 AT (0.00,   0.00,   0.00,
  0.00,   0.00)
         8TH HIGHEST VALUE IS   0.00000 AT (0.00,   0.00,   0.00,
  0.00,   0.00)
         9TH HIGHEST VALUE IS   0.00000 AT (0.00,   0.00,   0.00,
  0.00,   0.00)
        10TH HIGHEST VALUE IS   0.00000 AT (0.00,   0.00,   0.00,
  0.00,   0.00)

  *** RECEPTOR TYPES: GC = GRIDCART
                       GP = GRIDPOLR
                       DC = DISCCART
                       DP = DISCPOLR
♀ *** AERMOD - VERSION 15181 ***   *** C:\Users\ZChen\Desktop\Fanita Ranch Roadway
HRA\Fanita Ranch Roadway ***   07/15/19
 *** AERMET - VERSION 18081 ***   ***
                  ***   12:07:52

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**MODELOPTs: NonDFAULT CONC   ELEV   FLGPOL   BETA   RURAL   ADJ_U*

                                              *** 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   0.04489 ON 11093007: AT (501958.90,
3637412.91,   176.11,   369.58,   1.50) DC

  *** RECEPTOR TYPES: GC = GRIDCART
                       GP = GRIDPOLR
                       DC = DISCCART
                       DP = DISCPOLR
♀ *** AERMOD - VERSION 15181 ***   *** C:\Users\ZChen\Desktop\Fanita Ranch Roadway
HRA\Fanita Ranch Roadway ***   07/15/19
 *** AERMET - VERSION 18081 ***   ***
                       ***   12:07:52

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**MODELOPTs: NonDFAULT CONC   ELEV   FLGPOL   BETA   RURAL   ADJ_U*

 *** Message Summary : AERMOD Model Execution ***

  --------- Summary of Total Messages --------

A Total of   0 Fatal Error Message(s)
A Total of   37 Warning Message(s)
A Total of   1121 Informational Message(s)

A Total of   26304 Hours Were Processed

A Total of   753 Calm Hours Identified

A Total of   368 Missing Hours Identified (1.40 Percent)

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

     ********   WARNING MESSAGES   ********
ME W187   161   MEOPEN: ADJ_U* Beta Option for Low Winds used in AERMET
Non-DFAULT
MX W441   14167   METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
11081407
MX W441   14168   METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
11081408
MX W441   14169   METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
11081409
MX W441   14170   METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=

```
11081410
MX W441   14171      METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
11081411
MX W441   14172      METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
11081412
MX W441   14173      METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
11081413
MX W441   14174      METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
11081414
MX W441   14175      METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
11081415
MX W441   14176      METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
11081416
MX W441   14177      METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
11081417
MX W441   14178      METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
11081418
MX W441   14191      METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
11081507
MX W441   14192      METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
11081508
MX W441   14193      METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
11081509
MX W441   14194      METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
11081510
MX W441   14195      METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
11081511
MX W441   14196      METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
11081512
MX W441   14197      METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
11081513
MX W441   14198      METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
11081514
MX W441   14199      METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
11081515
MX W441   14200      METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
11081516
MX W441   14201      METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
11081517
MX W441   14202      METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
11081518
MX W441   14215      METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
11081607
MX W441   14216      METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
11081608
MX W441   14217      METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
11081609
MX W441   14218      METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
11081610
MX W441   14219      METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
11081611
MX W441   14220      METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
11081612
MX W441   14221      METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
11081613
MX W441   14222      METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
11081614
MX W441   14223      METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
11081615
MX W441   14224      METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
11081616
MX W441   14225      METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
11081617
```

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

APPENDIX C

CALCULATION WORKSHEETS

Fanita Ranch Specific Plan
Health Risk Assessment Calculations
10-Year Exposure, Phase 1 and Phase 2 Construction
**UNMITIGATED Residential**

X	Y	Receptor #	Annual DPM (µg/m³)	Residential Exposure Factor (EF$_R$)	Inhalation Absorption Factor (A)	Cancer Potency Value	Age Group	Cancer Risk for Each Age Group	10-Year Exposure Cancer Risk	Significant?	Reference Level	Non-Cancer Risk	Significant?
501225.00	3638753.80	12	0.26195	10.52057143	1	1.1	3rd Trimester	3.03	135.05	**YES**	5	0.05239	No
			0.26195	254.1257143	1	1.1	0-2 Years	73.23					
			0.26195	308.9664	1	1.1	2-16 Years	89.03					
			0.26195	46.9536	1	1.1	16-30 Years	13.53					
501225.00	3638803.80	22	0.22634	10.52057143	1	1.1	3rd Trimester	2.62	116.69	**YES**	5	0.04527	No
			0.22634	254.1257143	1	1.1	0-2 Years	63.27					
			0.22634	308.9664	1	1.1	2-16 Years	76.92					
			0.22634	46.9536	1	1.1	16-30 Years	11.69					
501275.00	3638753.80	13	0.21980	10.52057143	1	1.1	3rd Trimester	2.54	113.32	**YES**	5	0.04396	No
			0.21980	254.1257143	1	1.1	0-2 Years	61.44					
			0.21980	308.9664	1	1.1	2-16 Years	74.70					
			0.21980	46.9536	1	1.1	16-30 Years	11.35					
501325.00	3638703.80	4	0.20407	10.52057143	1	1.1	3rd Trimester	2.36	105.21	**YES**	5	0.04081	No
			0.20407	254.1257143	1	1.1	0-2 Years	57.05					
			0.20407	308.9664	1	1.1	2-16 Years	69.36					
			0.20407	46.9536	1	1.1	16-30 Years	10.54					
501275.00	3638803.80	23	0.20167	10.52057143	1	1.1	3rd Trimester	2.33	103.97	**YES**	5	0.04033	No
			0.20167	254.1257143	1	1.1	0-2 Years	56.37					
			0.20167	308.9664	1	1.1	2-16 Years	68.54					
			0.20167	46.9536	1	1.1	16-30 Years	10.42					
501375.00	3639153.80	72	0.08381	10.52057143	1	1.1	3rd Trimester	0.97	43.21	**YES**	5	0.01676	No
			0.08381	254.1257143	1	1.1	0-2 Years	23.43					
			0.08381	308.9664	1	1.1	2-16 Years	28.48					
			0.08381	46.9536	1	1.1	16-30 Years	4.33					
501525.00	3639153.80	75	0.05165	10.52057143	1	1.1	3rd Trimester	0.60	26.63	**YES**	5	0.01033	No
			0.05165	254.1257143	1	1.1	0-2 Years	14.44					
			0.05165	308.9664	1	1.1	2-16 Years	17.55					
			0.05165	46.9536	1	1.1	16-30 Years	2.67					
501675.00	3638703.80	11	0.05780	10.52057143	1	1.1	3rd Trimester	0.67	29.80	**YES**	5	0.01156	No
			0.05780	254.1257143	1	1.1	0-2 Years	16.16					
			0.05780	308.9664	1	1.1	2-16 Years	19.64					
			0.05780	46.9536	1	1.1	16-30 Years	2.99					
499920.29	3637453.58	1	0.04615	10.52057143	1	1.1	3rd Trimester	0.53	23.79	**YES**	5	0.00923	No
			0.04615	254.1257143	1	1.1	0-2 Years	12.90					
			0.04615	308.9664	1	1.1	2-16 Years	15.68					
			0.04615	46.9536	1	1.1	16-30 Years	2.38					
502101.24	3637903.50	2	0.03631	10.52057143	1	1.1	3rd Trimester	0.42	18.72	**YES**	5	0.00726	No
			0.03631	254.1257143	1	1.1	0-2 Years	10.15					
			0.03631	308.9664	1	1.1	2-16 Years	12.34					
			0.03631	46.9536	1	1.1	16-30 Years	1.88					
501958.90	3637412.91	3	0.04104	10.52057143	1	1.1	3rd Trimester	0.47	21.16	**YES**	5	0.00821	No
			0.04104	254.1257143	1	1.1	0-2 Years	11.47					
			0.04104	308.9664	1	1.1	2-16 Years	13.95					
			0.04104	46.9536	1	1.1	16-30 Years	2.12					

Note: Note: Assuming 10-year exposure is from third trimester to age 10, which is 1 year more than from third trimester to age 10, and the exposure factor is 468.6885257. Residential Exposure Factor EFR = DBR * ASF * ED * FAH * EF (0.96) / AT (70), where DBR, ASF, ED, and FAH vary by age groups.

Fanita Ranch Specific Plan
Health Risk Assessment Calculations
10-Year Exposure, Phase 1 and Phase 2 Construction
MITIGATED (MM AIR-3, MM AIR-4) Residential

X	Y	Receptor #	Annual DPM (µg/m³)	Residential Exposure Factor (EF$_R$)	Inhalation Absorption Factor (A)	Cancer Potency Value	Age Group	Cancer Risk for Each Age Group	10-Year Exposure Cancer Risk	Significant?	Reference Level	Non-Cancer Risk	Significant?
501225.00	3638753.80	12	0.02236	10.52057143	1	1.1	3rd Trimester	0.26	11.53	**YES**	5	0.00447	No
			0.02236	254.1257143	1	1.1	0-2 Years	6.25					
			0.02236	308.9664	1	1.1	2-16 Years	7.60					
			0.02236	46.9536	1	1.1	16-30 Years	1.15					
501225.00	3638803.80	22	0.01925	10.52057143	1	1.1	3rd Trimester	0.22	9.92	No	5	0.00385	No
			0.01925	254.1257143	1	1.1	0-2 Years	5.38					
			0.01925	308.9664	1	1.1	2-16 Years	6.54					
			0.01925	46.9536	1	1.1	16-30 Years	0.99					
501275.00	3638753.80	13	0.01870	10.52057143	1	1.1	3rd Trimester	0.22	9.64	No	5	0.00374	No
			0.01870	254.1257143	1	1.1	0-2 Years	5.23					
			0.01870	308.9664	1	1.1	2-16 Years	6.36					
			0.01870	46.9536	1	1.1	16-30 Years	0.97					
501275.00	3638803.80	23	0.01716	10.52057143	1	1.1	3rd Trimester	0.20	8.85	No	5	0.00343	No
			0.01716	254.1257143	1	1.1	0-2 Years	4.80					
			0.01716	308.9664	1	1.1	2-16 Years	5.83					
			0.01716	46.9536	1	1.1	16-30 Years	0.89					
501325.00	3638703.80	4	0.01715	10.52057143	1	1.1	3rd Trimester	0.20	8.84	No	5	0.00343	No
			0.01715	254.1257143	1	1.1	0-2 Years	4.79					
			0.01715	308.9664	1	1.1	2-16 Years	5.83					
			0.01715	46.9536	1	1.1	16-30 Years	0.89					
501375.00	3639153.80	72	0.00688	10.52057143	1	1.1	3rd Trimester	0.08	3.55	No	5	0.00138	No
			0.00688	254.1257143	1	1.1	0-2 Years	1.92					
			0.00688	308.9664	1	1.1	2-16 Years	2.34					
			0.00688	46.9536	1	1.1	16-30 Years	0.36					
501525.00	3639153.80	75	0.00429	10.52057143	1	1.1	3rd Trimester	0.05	2.21	No	5	0.00086	No
			0.00429	254.1257143	1	1.1	0-2 Years	1.20					
			0.00429	308.9664	1	1.1	2-16 Years	1.46					
			0.00429	46.9536	1	1.1	16-30 Years	0.22					
501675.00	3638703.80	11	0.00482	10.52057143	1	1.1	3rd Trimester	0.06	2.48	No	5	0.00096	No
			0.00482	254.1257143	1	1.1	0-2 Years	1.35					
			0.00482	308.9664	1	1.1	2-16 Years	1.64					
			0.00482	46.9536	1	1.1	16-30 Years	0.25					
499920.29	3637453.58	1	0.00404	10.52057143	1	1.1	3rd Trimester	0.05	2.08	No	5	0.00081	No
			0.00404	254.1257143	1	1.1	0-2 Years	1.13					
			0.00404	308.9664	1	1.1	2-16 Years	1.37					
			0.00404	46.9536	1	1.1	16-30 Years	0.21					
502101.24	3637903.50	2	0.00312	10.52057143	1	1.1	3rd Trimester	0.04	1.61	No	5	0.00062	No
			0.00312	254.1257143	1	1.1	0-2 Years	0.87					
			0.00312	308.9664	1	1.1	2-16 Years	1.06					
			0.00312	46.9536	1	1.1	16-30 Years	0.16					
501958.90	3637412.91	3	0.00357	10.52057143	1	1.1	3rd Trimester	0.04	1.84	No	5	0.00071	No
			0.00357	254.1257143	1	1.1	0-2 Years	1.00					
			0.00357	308.9664	1	1.1	2-16 Years	1.21					
			0.00357	46.9536	1	1.1	16-30 Years	0.18					

Note: Note: Assuming 10-year exposure is from third trimester to age 10, which is 1 year more than from third trimester to age 10, and the exposure factor is 468.6885257. Residential Exposure Factor EFR = DBR * ASF * ED * FAH * EF (0.96) / AT (70), where DBR, ASF, ED, and FAH vary by age groups.

Fanita Ranch Specific Plan
Health Risk Assessment Calculations
10-Year Exposure, Phase 1 and Phase 2 Construction
MITIGATED (MM AIR-3, MM AIR-4, MM AIR-11) Residential

X	Y	Receptor #	Annual DPM (µg/m³)	Residential Exposure Factor (EF$_R$)	Inhalation Absorption Factor (A)	Cancer Potency Value	Age Group	Cancer Risk for Each Age Group	10-Year Exposure Cancer Risk	Significant?	Reference Level	Non-Cancer Risk	Significant?
501225.00	3638753.80	12	0.01931	10.52057143	1	1.1	3rd Trimester	0.22	9.96	No	5	0.00386	No
			0.01931	254.1257143	1	1.1	0-2 Years	5.40					
			0.01931	308.9664	1	1.1	2-16 Years	6.56					
			0.01931	46.9536	1	1.1	16-30 Years	1.00					
501225.00	3638803.80	22	0.01740	10.52057143	1	1.1	3rd Trimester	0.20	8.97	No	5	0.00348	No
			0.01740	254.1257143	1	1.1	0-2 Years	4.86					
			0.01740	308.9664	1	1.1	2-16 Years	5.91					
			0.01740	46.9536	1	1.1	16-30 Years	0.90					
501275.00	3638753.80	13	0.01660	10.52057143	1	1.1	3rd Trimester	0.19	8.56	No	5	0.00332	No
			0.01660	254.1257143	1	1.1	0-2 Years	4.64					
			0.01660	308.9664	1	1.1	2-16 Years	5.64					
			0.01660	46.9536	1	1.1	16-30 Years	0.86					
501275.00	3638803.80	23	0.01568	10.52057143	1	1.1	3rd Trimester	0.18	8.08	No	5	0.00314	No
			0.01568	254.1257143	1	1.1	0-2 Years	4.38					
			0.01568	308.9664	1	1.1	2-16 Years	5.33					
			0.01568	46.9536	1	1.1	16-30 Years	0.81					
501325.00	3638703.80	4	0.01527	10.52057143	1	1.1	3rd Trimester	0.18	7.87	No	5	0.00305	No
			0.01527	254.1257143	1	1.1	0-2 Years	4.27					
			0.01527	308.9664	1	1.1	2-16 Years	5.19					
			0.01527	46.9536	1	1.1	16-30 Years	0.79					
501375.00	3639153.80	72	0.00672	10.52057143	1	1.1	3rd Trimester	0.08	3.46	No	5	0.00134	No
			0.00672	254.1257143	1	1.1	0-2 Years	1.88					
			0.00672	308.9664	1	1.1	2-16 Years	2.28					
			0.00672	46.9536	1	1.1	16-30 Years	0.35					
501525.00	3639153.80	75	0.00419	10.52057143	1	1.1	3rd Trimester	0.05	2.16	No	5	0.00084	No
			0.00419	254.1257143	1	1.1	0-2 Years	1.17					
			0.00419	308.9664	1	1.1	2-16 Years	1.42					
			0.00419	46.9536	1	1.1	16-30 Years	0.22					
501675.00	3638703.80	11	0.00470	10.52057143	1	1.1	3rd Trimester	0.05	2.42	No	5	0.00094	No
			0.00470	254.1257143	1	1.1	0-2 Years	1.31					
			0.00470	308.9664	1	1.1	2-16 Years	1.60					
			0.00470	46.9536	1	1.1	16-30 Years	0.24					
499920.29	3637453.58	1	0.00412	10.52057143	1	1.1	3rd Trimester	0.05	2.12	No	5	0.00082	No
			0.00412	254.1257143	1	1.1	0-2 Years	1.15					
			0.00412	308.9664	1	1.1	2-16 Years	1.40					
			0.00412	46.9536	1	1.1	16-30 Years	0.21					
502101.24	3637903.50	2	0.00312	10.52057143	1	1.1	3rd Trimester	0.04	1.61	No	5	0.00062	No
			0.00312	254.1257143	1	1.1	0-2 Years	0.87					
			0.00312	308.9664	1	1.1	2-16 Years	1.06					
			0.00312	46.9536	1	1.1	16-30 Years	0.16					
501958.90	3637412.91	3	0.00359	10.52057143	1	1.1	3rd Trimester	0.04	1.85	No	5	0.00072	No
			0.00359	254.1257143	1	1.1	0-2 Years	1.00					
			0.00359	308.9664	1	1.1	2-16 Years	1.22					
			0.00359	46.9536	1	1.1	16-30 Years	0.19					

Note: Note: Assuming 10-year exposure is from third trimester to age 10, which is 1 year more than from third trimester to age 10, and the exposure factor is 468.6885257. Residential Exposure Factor EFR = DBR * ASF * ED * FAH * EF (0.96) / AT (70), where DBR, ASF, ED, and FAH vary by age groups.

Fanita Ranch Specific Plan
Health Risk Assessment Calculations
3-Year Exposure, Roadway Construction
UNDERLINED: UNMITIGATED Residential

X	Y	Receptor #	Annual DPM (µg/m³)	Residential Exposure Factor (EF$_R$)	Inhalation Absorption Factor (A)	Cancer Potency Value	Age Group	Cancer Risk for Each Age Group	10-Year Exposure Cancer Risk	Significant?	Reference Level	Non-Cancer Risk	Significant?
499920.29	3637453.58	1	0.00845	10.52057143	1	1.1	3rd Trimester	0.10	2.70	No	5	0.00169	No
			0.00845	254.1257143	1	1.1	0-2 Years	2.36					
			0.00845	308.9664	1	1.1	2-16 Years	2.87					
			0.00845	46.9536	1	1.1	16-30 Years	0.44					
502101.24	3637903.50	2	0.02111	10.52057143	1	1.1	3rd Trimester	0.24	6.74	No	5	0.00422	No
			0.02111	254.1257143	1	1.1	0-2 Years	5.90					
			0.02111	308.9664	1	1.1	2-16 Years	7.17					
			0.02111	46.9536	1	1.1	16-30 Years	1.09					
501958.90	3637412.91	3	0.03340	10.52057143	1	1.1	3rd Trimester	0.39	10.66	**YES**	5	0.00668	No
			0.03340	254.1257143	1	1.1	0-2 Years	9.34					
			0.03340	308.9664	1	1.1	2-16 Years	11.35					
			0.03340	46.9536	1	1.1	16-30 Years	1.73					

Note: Note: Assuming 3-year exposure is from third trimester to age 3, which is 6 year less than from third trimester to age 9, and the exposure factor is 290.15157. Residential Exposure Factor EFR = DBR * ASF * ED * FAH * EF (0.96) / AT (70), where DBR, ASF, ED, and FAH vary by age groups.

Fanita Ranch Specific Plan
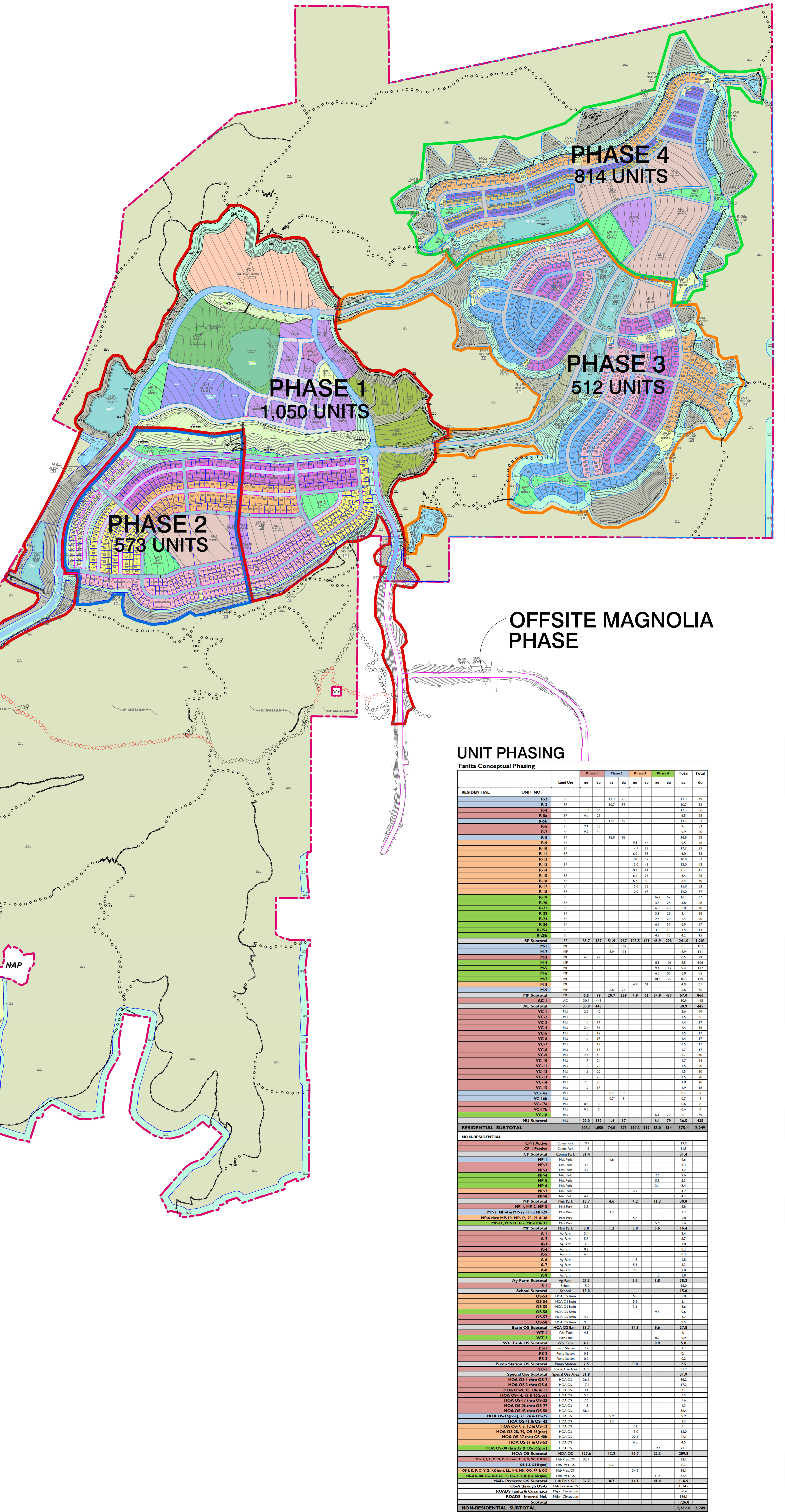**Health Risk Assessment Calculations**
3-Year Exposure, Roadway Construction
MITIGATED (MM AIR-3, MM AIR-4) Residential

X	Y	Receptor #	Annual DPM (µg/m³)	Residential Exposure Factor (EF$_R$)	Inhalation Absorption Factor (A)	Cancer Potency Value	Age Group	Cancer Risk for Each Age Group	10-Year Exposure Cancer Risk	Significant?	Reference Level	Non-Cancer Risk	Significant?
499920.29	3637453.58	1	0.00078	10.52057143	1	1.1	3rd Trimester	0.01	0.25	No	5	0.00016	No
			0.00078	254.1257143	1	1.1	0-2 Years	0.22					
			0.00078	308.9664	1	1.1	2-16 Years	0.27					
			0.00078	46.9536	1	1.1	16-30 Years	0.04					
502101.24	3637903.50	2	0.00195	10.52057143	1	1.1	3rd Trimester	0.02	0.62	No	5	0.00039	No
			0.00195	254.1257143	1	1.1	0-2 Years	0.55					
			0.00195	308.9664	1	1.1	2-16 Years	0.66					
			0.00195	46.9536	1	1.1	16-30 Years	0.10					
501958.90	3637412.91	3	0.00309	10.52057143	1	1.1	3rd Trimester	0.04	0.99	No	5	0.00062	No
			0.00309	254.1257143	1	1.1	0-2 Years	0.86					
			0.00309	308.9664	1	1.1	2-16 Years	1.05					
			0.00309	46.9536	1	1.1	16-30 Years	0.16					

Note: Note: Assuming 3-year exposure is from third trimester to age 3, which is 6 year less than from third trimester to age 9, and the exposure factor is 290.15157. Residential Exposure Factor EFR = DBR * ASF * ED * FAH * EF (0.96) / AT (70), where DBR, ASF, ED, and FAH vary by age groups.

APPENDIX D

CONSTRUCTION PHASING PLAN

TM DETAILED SUMMARY TABLE

PHASE 1
1,050 UNITS

PHASE 2
573 UNITS

PHASE 3
512 UNITS

PHASE 4
814 UNITS

OFFSITE MAGNOLIA PHASE

NAP

UNIT PHASING

Fanita Conceptual Phasing

6-26-19

UNIT PHASING SUMMARY
FANITA RANCH
City Of Santee, California

1 OF 1

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