Appendix C. Simi Valley Double Track and Platform Project Health Risk Assessment Technical Report

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METROLINK

Health Risk Assessment Technical Report

Simi Valley Double Track and Platform Project

March 2021

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Contents

Tables

Figures

Appendices

Acronyms

AQMP	Air Quality Management Plan
CAA	Clean Air Act
CAPCOA	California Air Pollution Control Officers Association
CARB	California Air Resources Board
CP	control point
DPM	diesel particulate matter
HAP	hazardous air pollutant
HRA	Health Risk Assessment
MP	Mile Post
OEHHA	Office of Environmental Health Hazard Assessment
Project	Simi Valley Double Track and Platform Project
ROW	right-of-way
RTP	regional transportation plan
SCAG	Southern California Association of Governments
SCRRA	Southern California Regional Rail Authority
SCS	sustainable communities strategy
TAC	toxic air contaminant
U.S. EPA	United States Environmental Protection Agency
UPRR	Union Pacific Railroad
VCAPCD	Ventura County Air Pollution Control District
VCL	Ventura County Line

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1 Introduction

At the request of Southern California Regional Rail Authority (SCRRA), ICF conducted a Health Risk Assessment (HRA) for the proposed Simi Valley Double Track and Platform Project (Project) within SCRRA's Ventura Subdivision. The purpose of this report is to evaluate and document the potential human health risk impacts that may result from exposure of nearby sensitive receptors to toxic air contaminants (TAC) associated with diesel exhaust emissions generated by the Project.

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2 Project Description

2.1 Project Overview

SCRRA is proposing the Simi Valley Double Track and Platform Project to improve safety at the Simi Valley Station and to increase operational capacity on Metrolink's Ventura County Line (VCL). The Project includes at-grade crossing improvements and the construction of new rail infrastructure. The Project would occur primarily within existing railroad right-of-way (ROW) owned by SCRRA and Union Pacific Railroad (UPRR) from Sequoia Avenue east to the Arroyo Simi Railroad Bridge just south of Stearns Street in the City of Simi Valley, California. The Project would add 2.20 miles of main track and increase the passenger capacity at the Simi Valley Station by adding an additional platform and pedestrian undercrossing. In addition, an existing signal at Sycamore Drive would be relocated, and a new signal would be installed approximately 2,000 feet west of Erringer Road.

The objectives of the Project are to improve safety by adding pedestrian safety features and improve reliability by allowing more efficient train operations; allow for an hourly bidirectional service, a half-hourly regional train to dispatch in the peak direction, and an hourly express train in the peak direction along Metrolink's VCL, which operates on the Ventura Subdivision between Moorpark and Los Angeles Union Station; and include at-grade crossing improvements at Sequoia Avenue, Tapo Canyon Road, Tapo Street, East Los Angeles Avenue, and Hidden Ranch Drive in support of the city's future application with the Federal Railroad Administration for quiet zone status along the alignment.

2.2 Goals and Objectives

The Project includes the following objectives:

- Objective 1: Improve safety and reliability of the existing rail system
- Objective 2: Increase operational capacity of the existing VCL passenger rail system and increase passenger capacity at the Simi Valley Station
- Objective 3: Implement infrastructural improvements that will support the city's future applications to the Federal Railroad Administration for quiet zone status along the alignment

2.3 Project Location

For the purposes of the environmental impact report, SCRRA defined a Project study area, which comprises the Project's physical footprint along the approximately 2.20-mile segment of SCRRA's Ventura Subdivision with a 500-foot buffer. The Project study area begins at its western terminus at Sequoia Avenue and ends east of Hidden Ranch Drive, just west of the Arroyo Simi Railroad Bridge, within the City of Simi Valley. Figure 2-1 shows the regional location of the Project. Figure 2-2 shows the Project's location in southern Simi Valley, the extent of the proposed improvements, and the Project study area. The Project study area is part of the Simi Land Grant on the United States Geological Survey *Simi Valley East, California* 7.5-minute series topographical quadrangle. As shown on Figure 2-3, the Project is located between Mile Post (MP) 436.20 and MP 438.40.

2.4 Project Components

As shown on Figure 2-3 (Sheet 1 through 9), the Project would include construction of a new side platform (south of the existing platform) and pedestrian underpass at the existing Simi Valley Station, the construction of a second main track along a 2.20-mile stretch of Metrolink's existing Ventura Subdivision from MP 436.20 to MP 438.40, and the implementation of two new control points (CP) at MP 436.30 (CP Sequoia) and MP 438.40 (CP Arroyo) (Figure 2-3). New intermediate signals would be installed at MP 433.96, MP 435.13, and MP 437.30. Additionally, Project improvements would include supplemental safety measures at the existing grade crossings at Sequoia Avenue, Tapo Canyon Street, Tapo Street, East Los Angeles Avenue, and Hidden Ranch Drive, which would support future applications by the city to the Federal Railroad Administration for quiet zone status along the alignment.[1] Existing wet and dry utilities (above and below grade) within the Project study area would also be protected in place or relocated pending final engineering design and final placement of the proposed infrastructure.

2.4.1 Physical Improvements

The Project would include multiple improvements to the existing Simi Valley Station, including construction of a second platform, a supporting pedestrian undercrossing (or underpass), and passenger emergency egress to enhance passenger safety. The existing platform would also be reconfigured to remove the curvature within the existing platform to the north side of the main line tracks. In conjunction with these station improvements, SCRRA proposes the installation of approximately 2.20 miles of new main track within existing rail ROW, new railroad signals and positive train control towers, and related supplemental safety measures at existing at-grade crossings. These improvements are described in more detail below.

Track and Civil

SCRRA proposes the construction of an approximately 2.20-mile segment of second mainline track, from Barnes Street in the west to Hidden Ranch Road in the east, to enhance operational capacity on Metrolink's VCL. The track improvements are described in further detail below:

- Approximately 900 feet of the main track would be reprofiled east of CP Sequoia.
- West of Tapo Street (to Barnes Street), a new second track would be placed within SCRRA ROW. The new track would be constructed north of the existing main line track and would connect to the existing track east of Tapo Street to form Main Track 1.
- Approximately 900 feet of existing track between East Los Angeles Avenue and Tapo Street would be shifted to accommodate the new tracks tying into the existing track. In addition, an existing UPRR spur track between East Los Angeles Avenue and Tapo Street, within SCRRA ROW, would be shifted to accommodate the second track on the north side.

[1] Upon completion of the Project, the City of Simi Valley would be required to complete the Quiet Zone Creation Process in accordance with the regulations, policies, and procedures established by the Federal Railroad Administration in its Train Horn Final Rule, as amended on August 17, 2006 (49 Code of Federal Regulations Part 222).

- Approximately 1,400 feet of existing track would be shifted between East Los Angeles Avenue to Simi Valley Station to accommodate the installation of a second track south of the existing track, within UPRR ROW. These two main tracks are shown and labeled as MT-1 and MT-2 on Figure 2-3 (Sheets 3 through 6). The new track on the south side of the ROW would connect to the existing track just east of Tapo Street, such that the new track east of Tapo Street and existing track west of Tapo Street form Main Track 2.

At the Simi Valley Station, the existing and proposed station platforms would be shifted eastward to maintain approximately 19-foot track centers for 150 feet beyond the platforms to accommodate the inter-track fence. The 19-foot track spacing through station limits would avoid placing track curvature within Hidden Ranch Drive, avoid the need to obtain more ROW through the station, and maintain clearance from the Arroyo Simi Bike Path. The 780-foot length of the existing platform would be maintained, and the new platform would be a minimum of 680 feet. The existing track alignment would be maintained at four of the at-grade crossings (Sequoia Avenue, Tapo Canyon Street, Tapo Street, and East Los Angeles Avenue), but the track alignment would be shifted approximately 6 inches south at the Hidden Ranch Drive crossing to eliminate curvature between the platform and the crossing.

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Figure 2-1. Regional Location

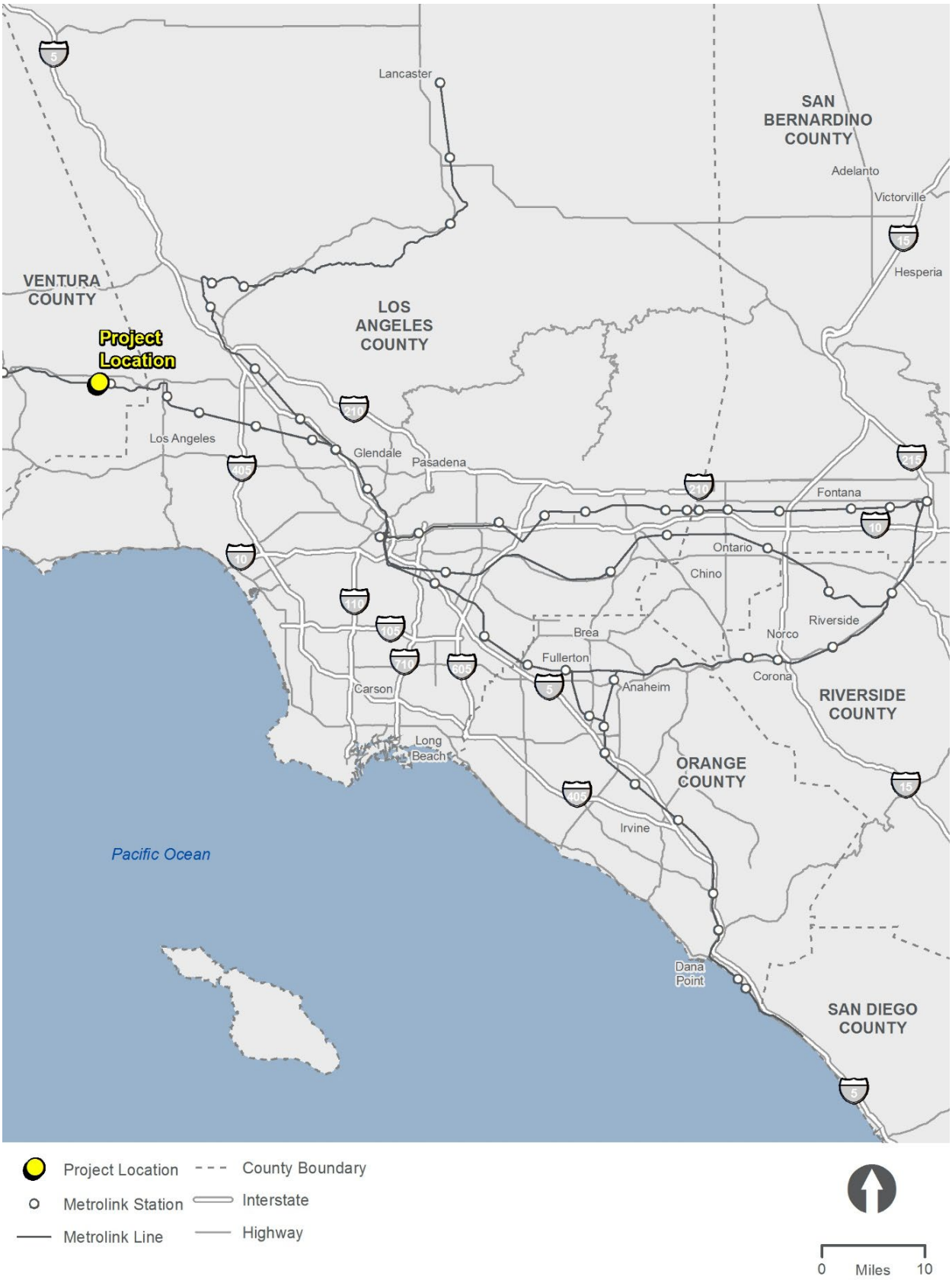

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Figure 2-2. Project Location

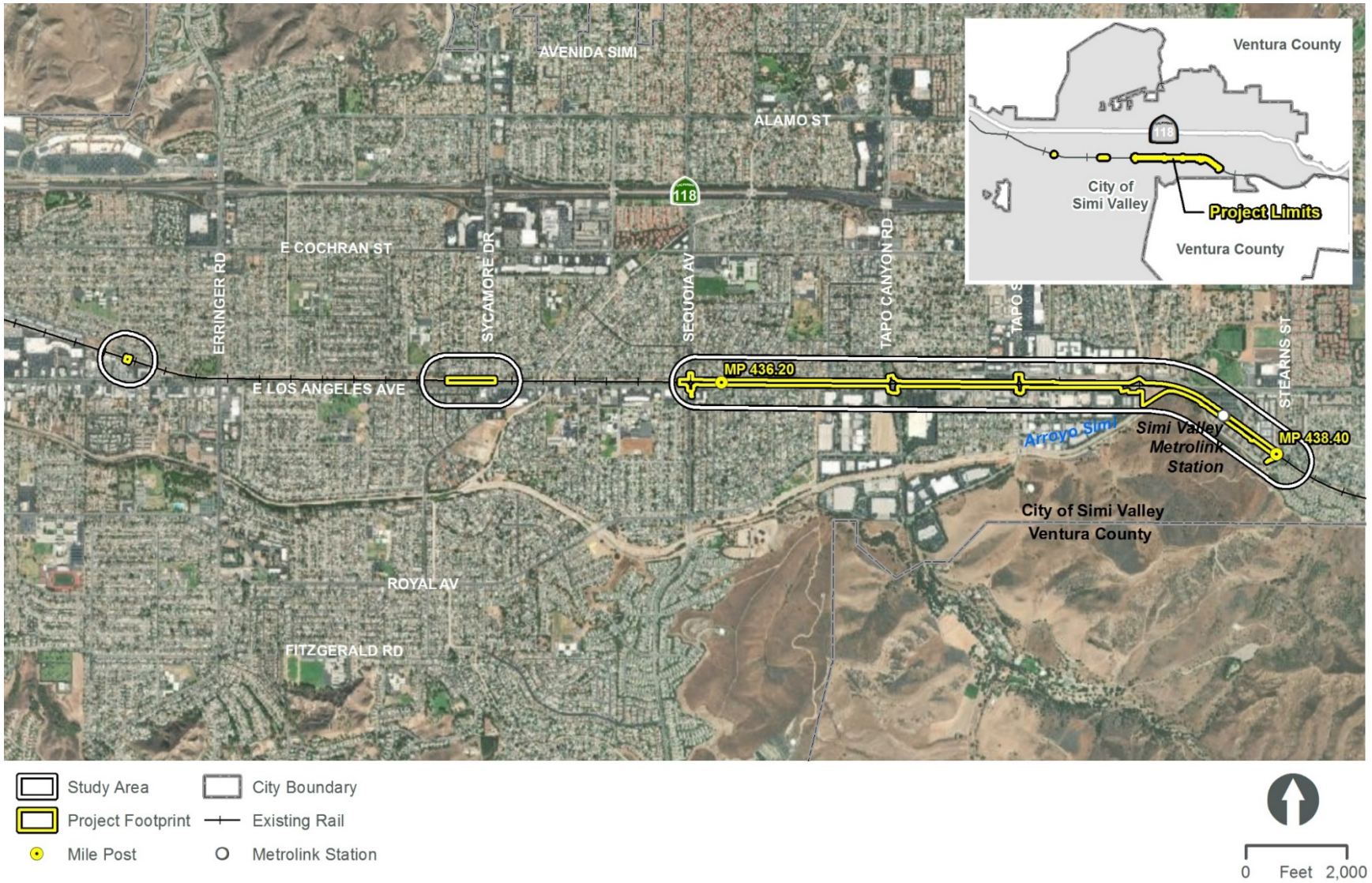

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Figure 2-3. Project Detail Map

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Figure 2-3. Project Detail Map

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Figure 2-3. Project Detail Map

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Figure 2-3. Project Detail Map

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Figure 2-3. Project Detail Map

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Figure 2-3. Project Detail Map

(Sheet 6 of 9)

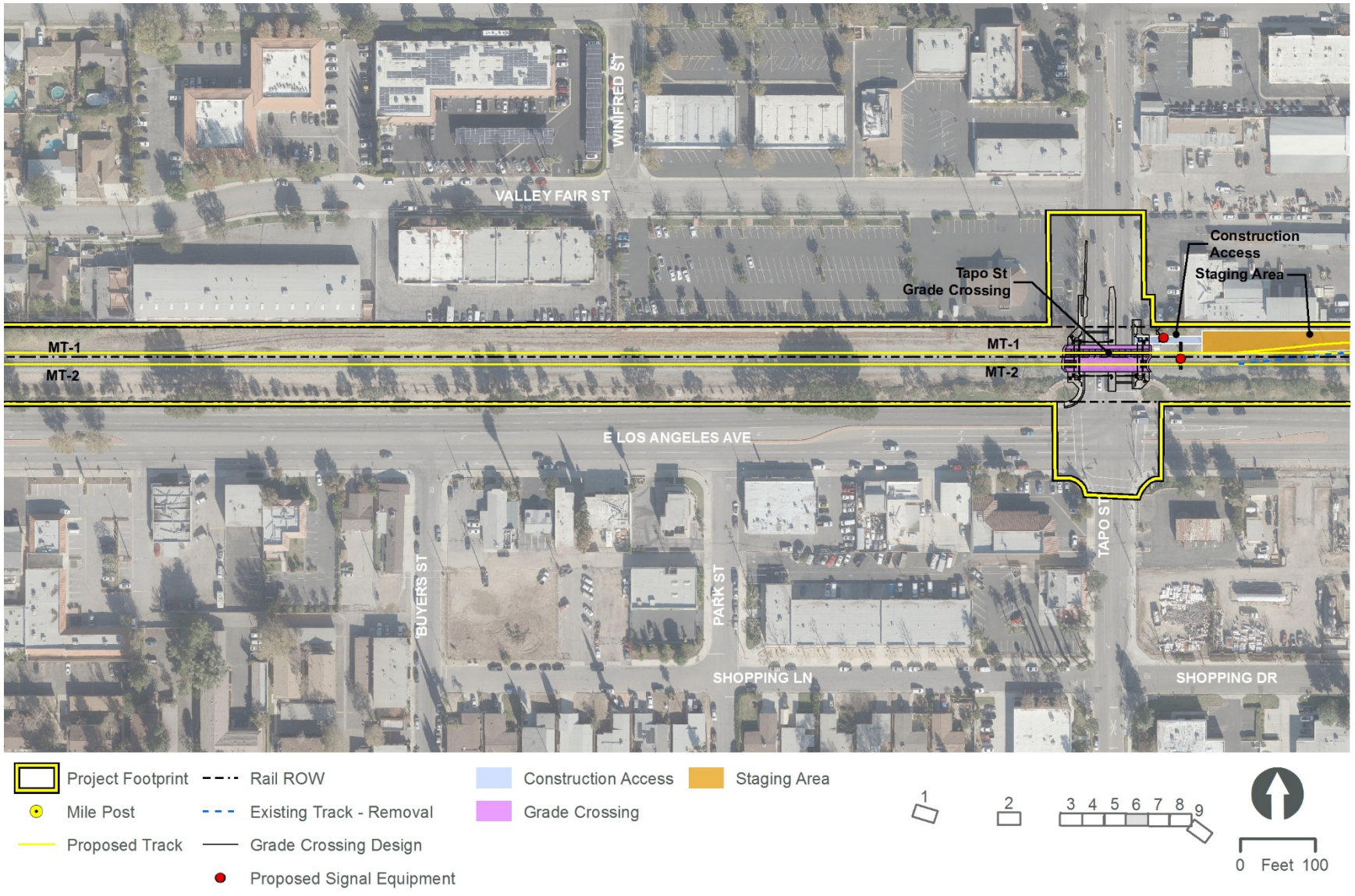

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Figure 2-3. Project Detail Map

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Figure 2-3. Project Detail Map

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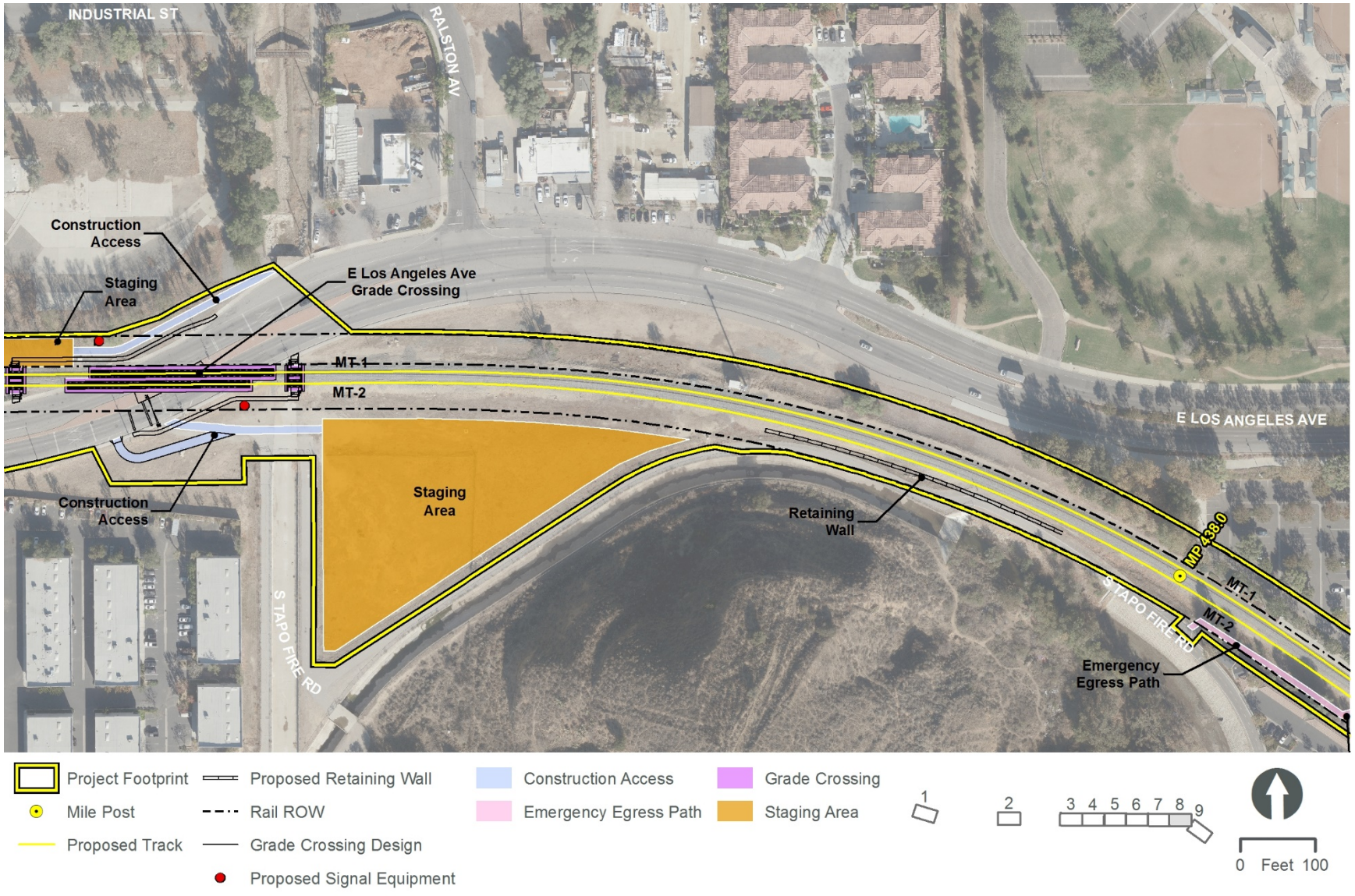

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Figure 2-3. Project Detail Map

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At-Grade Crossings

The Project would include improvements and related supplemental safety measures at existing at-grade crossings within the Project study area to facilitate future quiet zone implementation. These at-grade crossing improvements would generally include the accommodation of the second mainline track and related ancillary improvements, except for at the Sequoia at-grade crossing, where a second track would not be constructed. These improvements would include sidewalk and pavement reconstruction; installation of pedestrian gates and warning signals; roadway restriping; pedestrian channelization; construction, of or modification to, a raised roadway median; and installation/modification of the roadway gates. Each at-grade crossing is further described below.

- **Sequoia Avenue.** The improvements at Sequoia Avenue include those described above, except a second mainline track crossing would not be constructed. A new railroad signal house would also be installed at this location.
- **Tapo Canyon Street.** In addition to the improvements described above, a new signal house would also be constructed at Tapo Canyon Street.
- **Tapo Street.** In addition to the improvements described above, a new signal house would also be constructed at Tapo Street.
- **East Los Angeles Avenue.** In addition to the improvements described above, a new signal house would also be constructed at East Los Angeles Avenue. Additionally, the existing access roads leading from the Arroyo Simi Bike Path would be modified to accommodate the proposed pedestrian improvements and the existing retaining wall located in the southeast quadrant would be reconstructed.
- **Hidden Ranch Drive.** In addition to the improvements described above, a new signal house would also be constructed at Hidden Ranch Drive.

Railroad Signals and Communications

The track improvements would require new track panels, signals, and warning devices at the existing at-grade crossings. At Sequoia Avenue, Tapo Canyon Road, and Tapo Street, the presignals on the southwest quadrants would be located outside of the exit gates to improve visibility for southbound traffic approaching the tracks. Additional safety improvements would include adding flashers to the warning devices for vehicles turning onto Tapo Canyon Road from East Los Angeles Avenue. Maintenance access to the new signal houses would also be added.

The Project would include two new CPs. At the western limit of the new track, CP Sequoia would be installed approximately 0.20 mile east of Sequoia Avenue. CP Arroyo would be installed directly west of Arroyo Simi. The existing signal at Tapo Street would be modified to accommodate the second track. In order to account for the proximity to the new CP Sequoia, the existing signal at Sycamore Drive would be relocated approximately 700 feet west. To reduce headway times to CP Strathern, an additional signal would be added approximately 2,000 feet west of Erringer Road.

At each new signal site, the following improvements would be installed:

- 6-foot by 8-foot signal house with a security fence
- Wayside signal
- 40-foot positive train control antenna tower

- 200-amp Southern California Edison power meter pedestal
- Underground railroad fiber optic cable with vault

Simi Valley Station Enhancements

The existing Simi Valley Station consists of one side platform on the north side of the main line track with custom passenger canopies, a ticket vending machine, and an at-grade parking lot north of the platform. The existing path of travel to the station extends south from a bus stop at the platform entrance and from the adjacent parking lot. Station access would remain unchanged under the Project.

The Project would change the existing platform configuration by demolishing approximately 250 feet of the curved portion of the platform on the west end of the station. To maintain the 780-foot length of the existing platform, the remaining platform would be extended approximately 95 feet to the west and 155 feet to the east, so that the entire length of the platform is along tangent track (i.e., where the track is not curved). At the east end of the station, a pedestrian underpass would be installed with ramp and stair access. The new underpass would provide access to a new, second platform on the south side of the main line tracks, which would be a minimum of 680 feet long.

The Project would match the existing platform amenities (canopies, seating, signage, and lighting), and would include aesthetic treatments to the ramps, stairs, and underpass walls and ceiling. The Project would implement crime prevention through environmental design principles, which would include natural surveillance, natural access control, territorial reinforcement, and maintenance. The proposed station improvements would also meet National Fire Protection Association standards by providing passengers egress capabilities to vacate the platform within 4 minutes and to reach a point of safety within 6 minutes.

Drainage Improvements

The Project would include the following drainage improvements:

- Underdrains at the at-grade crossings where ditches are infeasible, and between the tracks at the platforms with the subgrade sloping toward the underdrain
- Trackside ditches between at-grade crossings
- Storm drain extensions or encasements where existing drainage systems intersect the proposed track infrastructure
- A new pump station at the low point of the pedestrian underpass at Simi Valley Station

The proposed drainage improvements would be coordinated with the City of Simi Valley to provide the new track infrastructure with adequate flood protection and to maintain existing drainage patterns to the extent practical throughout the Project study area.

Structures

The Project would construct a new pedestrian underpass, stairs, and ramps at the Simi Valley Station. The design of the pedestrian underpass would be in accordance with the most recent SCRRA design criteria manual. The proposed structure type is a precast concrete box structure, composed of sections, selected to minimize construction track windows (i.e., minimize impacts on train schedules). The internal dimensions of the proposed structure would be 14 feet wide by 9 feet, 10 inches high. The depth of cover (i.e., amount of fill between the structure and the tracks) would be minimized to facilitate construction and maintenance of the structure, as well as to reduce the length of approach ramps and the number of stairs needed to reach the station platform. The design of the approach ramp retaining wall would be in accordance with the most recent SCRRA design criteria manual.

Utilities

Utilities within the Project study area include gas lines, electrical power lines, communications/fiber optic lines, and municipal water and sewer pipes. The Project would result in multiple utility conflicts, and impacted utilities would either be protected in place, extended, or relocated. Specifically, the Project may require relocation or casing extensions for the following utilities:

- Crimson Pipeline gasoline pipeline (6- to 12-inch pipeline) at East Los Angeles Avenue and Topo Canyon Road
- Southern California Edison electrical transmission and distribution (above and below ground) lines at Sequoia Avenue, East Los Angeles Avenue, Goddard Avenue, and Hidden Ranch Drive
- City of Simi Valley sewer and potable water lines at Sequoia Avenue, East Los Angeles Avenue, Tapo Canyon Road, and Hidden Ranch Drive
- Southern California Gas natural gas lines at Sequoia Avenue, East Los Angeles Avenue, Tapo Street, Arroyo lane, and Hidden Ranch Drive
- Golden State Water Company potable water lines at Sequoia Street, Goddard Avenue, Hietter Avenue, Tapo Street, and East Los Angeles Avenue
- Fiber optic cables parallel to the ROW owned by the following communications companies:
    - Lumen Technologies (formerly CenturyLink)
    - Verizon
    - AT&T
    - Sprint
    - Wilshire Communication
    - Charter Communications

Potholing would be implemented in conjunction with final design to verify the locations of all existing utilities within the Project study area and to determine which utilities would be protected in place and which utilities would require relocation or abandonment.

Right-of-Way

The majority of proposed improvements (including the proposed pedestrian underpass at the Simi Valley Station) would be constructed within the railroad ROW (Figure 2-3, Sheet 1 through 9).The northern 40 feet of ROW are owned by SCRRA, while the southern 60 feet are owned by UPRR. The ramp and stair access from the undercrossing to the new platform would extend south of the existing UPRR ROW and require acquisition of a portion of the adjacent multifamily parcel.

Roadway improvements would generally be located outside of the railroad ROW and within the City of Simi Valley's roadway ROW. Improvements at Hidden Ranch Drive would require acquisition of portions of two adjacent multifamily parcels at the southern and western corners of the crossing. Additionally, potential sidewalk crossing improvements that would extend into unimproved areas of private properties near Hidden Ranch Drive would require temporary construction easements in order to access the proposed CP Arroyo area.

To connect with the Arroyo Simi Bike Path, the egress path from the new platform may also extend south of the ROW onto the Ventura County Flood Control District's property, or it could extend further west to connect to the bike path within UPRR ROW. Final ROW needs would be confirmed during final design.

2.4.2 Construction

Project construction would begin as early as April 2022 and last for approximately 19 months. The work would be accomplished over four phases, beginning with construction of the pedestrian underpass and new platform at the station, and ending with reconstruction of 250 feet of the existing station platform. Construction may involve multiple crews working simultaneously and would include equipment such as track stabilizers, excavators, front-end loaders, rubber-tired dozers, cranes, haul trucks, and water trucks.

Construction would generally proceed in the following four phases over the 19-month construction schedule:

- Phase 1:
    - A number of third-party utility lines would be relocated in order to make way for the improvements of the Project. These utilities include fiber optic lines that run parallel to the Project study area, as well as many crossing utilities, such as water, gas, electric, and others. The relocations are due to the addition of a second main track, added second platform, inadequate depth underneath the rail, or insufficient casing length that spans the entire railroad ROW.
- Phase 2:
    - Construct structures, including the pedestrian underpass and new platform at Simi Valley Station and the retaining wall near the Arroyo Simi Bike Path
    - Construct track work, including the new main track (Main Track 1) outside of grade crossing limits and new turnouts, while maintaining service on the existing track
    - ~~o~~ Construct signal houses, signal foundations, grade crossing warning devices and associated conduits

- Phase 3:
  - Construct track and roadway improvements at the at-grade crossings
  - Transfer rail service onto the newly constructed Main Track 1; take the existing track out of service for the second main track (Main Track 2) improvements
  - Finish installing signals at new CP Sequoia and CP Arroyo
- Phase 4:
  - Construct Main Track 2 track and upgrade existing from timber to concrete ties
  - Activate Main Track 2 track into service
  - Remove and reconstruct 250 feet of the existing Simi Valley Station platform and finish upgrading any remaining timber ties to concrete ties

Material and equipment imports and construction personnel would access the Project study area via walking points from the nearest fence access or staging area. Potential construction access points and staging areas have been identified within the ROW and are shown on Figure 2-3 (Sheets 3, 6, 7, 8, and 9). An additional staging area outside the ROW was identified between East Los Angeles Avenue and Arroyo Simi, as shown on Figure 2-3. The final construction staging area locations would be confirmed during design development.

Construction activities would be scheduled during time frames that allow for exclusive track occupancy by construction crews to minimize effects on Metrolink operations. To the greatest extent possible, construction activities would be scheduled during the daytime; however, nighttime work would be required to maximize construction work windows. The Project would also include weekend work when Metrolink service is reduced.

Prior to construction, coordination would be needed with regard to the bike trail and potential temporary construction closures. Dewatering is expected to be necessary during construction of the pedestrian underpass at the station and would be completed in accordance with applicable regulations.

2.4.3 Operation

The Project would improve safety and reliability on the VCL and at the Simi Valley Station and adds capacity to accommodate growth of Metrolink commuter train operations through the Project study area. The Project would install safety improvements at four grade crossings and create a new 2.20-mile double track segment through southern Simi Valley, which would reduce the distance of single-track territory through the Project study area. Passenger trains running along the Ventura Subdivision on the Metrolink VCL would be able to use this double track segment to pass uninterrupted through the Project study area rather than idling at the nearest location with two tracks, waiting for trains in the opposite direction to cross the single-track segment.

Project operation is projected to start in 2025. The Project would also provide faster, more frequent, and more reliable service by increasing on-time performance. As the population of Southern California increases, it is likely that additional passenger rail service would be added to the Metrolink VCL in the future to ease traffic congestion on freeways and local streets.

With Project implementation, as well as completion of the other VCL projects, Metrolink service would increase, providing up to 48 revenue trains per day on the VCL (Table 2-1).

Table 2-1. 2019 Schedules and Proposed Service Schedules: Ventura County Line

Schedule	Existing Service (2019)			Proposed Service (2025)		
	To Los Angeles[a]	From Los Angeles[a]	All	To Los Angeles[a]	From Los Angeles[a]	All
Weekday	16	17	33	24	24	48
Saturday	0	0	0	1[b]	1[b]	2[b]
Sunday	0	0	0	0	0	0

Notes:

[a] VCL trains to or from Los Angeles originate or terminate in Ventura, Moorpark, Chatsworth, or Burbank. Future service includes trains originating and terminating in Van Nuys.

[b] VCL Saturday service would operate between April and October only.

VCL=Ventura County Line

3 Regulatory Framework

3.1 Federal Regulations

3.1.1 Clean Air Act

The federal Clean Air Act (CAA) and its subsequent amendments form the basis for the nation's air pollution control effort. The United States Environmental Protection Agency (U.S. EPA) is responsible for implementing most aspects of the CAA and has established National Ambient Air Quality Standards for six criteria pollutants— ozone, particulate matter (both particulate matter less than or equal to 10 microns and particulate matter less than or equal to 2.5 microns), carbon monoxide, nitrogen dioxide, sulfur dioxide, and lead. The National Ambient Air Quality Standards identify levels of air quality that are considered the maximum safe levels of ambient (background) air pollutants, within an adequate margin of safety, to protect public health and welfare. Under the CAA, U.S. EPA is required to regulate emissions of hazardous air pollutants (HAP). HAPs are discussed in more detail below.

3.1.2 National Emission Standards for Hazardous Air Pollutants

Pursuant to the CAA, U.S. EPA established the National Emission Standards for Hazardous Air Pollutants. These emission standards serve to limit allowable emissions of HAPs from stationary sources. Facilities that are subject to the National Emission Standards for Hazardous Air Pollutants regulations are required to perform an initial performance test to demonstrate compliance. To demonstrate continuous compliance, sources are generally required to monitor control device operating parameters, which are established during the initial performance test. Sources may also be required to install and operate continuous emission monitors to demonstrate compliance (U.S. EPA 2018).

U.S. EPA also regulates mobile source air toxics, which are compounds emitted from highway vehicles and nonroad equipment that are known or suspected to cause cancer or other serious health and environmental effects. In February 2007, U.S. EPA finalized a rule (Control of Hazardous Air Pollutants from Mobile Sources, February 9, 2007) to reduce HAPs from mobile sources. The rule limits the benzene content of gasoline and reduces toxic emissions from passenger vehicles and gas cans. U.S. EPA estimates that in 2030 this rule would reduce total emissions of mobile source air toxics by 330,000 tons. The latest revision to this rule occurred in October 2008. This revision added specific benzene control technologies that the previous rule did not include.

3.1.3 Air Toxics

The 1990 Amendments to the CAA included a provision to address air toxics. Under Title III of the CAA, U.S. EPA establishes and enforces the National Emission Standards for Hazardous Air Pollutants, which are nationally uniform standards oriented toward controlling particular HAPs. Section 112(b) of the CAA identifies 189 Air Toxics (HAPs, since modified to 187 pollutants), directs U.S. EPA to identify sources of the HAPs, and establishes a 10-year time period for U.S. EPA to issue technology-based emissions standards for each source category. Emission standards have been developed for all of the stationary source categories under 40 Code of Federal Regulations Part 63. Title III of the CAA provides for a second phase under which U.S. EPA is to assess residual risk after the implementation of the first phase of standards and impose new standards, when appropriate, to protect public health.

In 2011, U.S. EPA identified nine compounds with significant contributions from mobile sources that are among the national- and regional-scale cancer risk drivers or contributors and noncancer hazard contributors from the *National Air Toxics Assessment*. These significant contributors include 1,3-butadiene, acetaldehyde, acrolein, benzene, diesel particulate matter (DPM), ethylbenzene, formaldehyde, naphthalene, and polycyclic organic matter. While the Federal Highway Administration considers these the priority mobile source air toxics, the list is subject to change and may be adjusted in consideration of future U.S. EPA rules (Federal Highway Administration 2016).

3.1.4 Locomotives Emission Standards

To reduce emissions from switch and line-haul locomotives, U.S. EPA established a series of increasingly strict emission standards for new or remanufactured locomotive engines (63 *Federal Register* 18997–19084). Tier 0 standards, effective as of 2000, applied to engines manufactured or remanufactured from 1973 to 2001. Tier 1 standards applied to engines manufactured/remanufactured from 2002 to 2004. Tier 2 standards applied to engines manufactured/remanufactured after 2004.

In 2008, U.S. EPA strengthened the Tier 0 through 2 standards to apply to existing locomotives and introduced more stringent Tier 3 and 4 emission requirements (73 *Federal Register* 88 25098–25352). Tier 3 standards, met by engine design methods, were phased in between 2011 and 2014. Tier 4 standards, which are expected to require exhaust gas after-treatment technologies, became effective starting in 2015. These standards apply to locomotives that are propelled by engines with total rated horsepower of 750 kilowatts (1,006 horsepower) or more (U.S. EPA 2016).

3.2 State Regulations

3.2.1 Tanner Air Toxics Act and Air Toxics Hot Spots Information and Assessment Act of 1987

California regulates TACs (equivalent to the federal HAPs) primarily through the Toxic Air Contaminant Identification and Control Act (Assembly Bill 1807; Tanner Act) and the Air Toxics “Hot Spots” Information and Assessment Act of 1987 (Assembly Bill 2588; Hot Spots Act). In the early 1980s, the California Air Resources Board (CARB) established a statewide comprehensive air toxics program to reduce exposure to air toxics. The Tanner Act created California’s program to reduce exposure to air toxics. The Hot Spots Act supplements the Tanner Act by requiring a statewide air toxics inventory, notification of people exposed to a significant health risk, and facility plans to reduce these risks. The Hot Spots Act requires the California Office of Environmental Health Hazard Assessment (OEHHA) to develop and update the approach for HRAs that can be used to determine the likelihood of risks. The most recent guidance manual is titled *Air Toxics Hot-Spots Program Guidance Manual for the Preparation of Health Risk Assessments* (OEHHA 2015).

In August 1998, CARB identified DPM from diesel-fueled engines as a TAC. As an ongoing process, CARB reviews air contaminants and identifies those that are classified as TACs. CARB also continues to establish new programs and regulations for the control of TACs, including DPM, as appropriate.

- CARB has adopted regulations to reduce emissions from both on-road and off-road heavy-duty diesel vehicles (e.g., equipment used in construction). These regulations, known as airborne toxic control measures, reduce the idling of school buses and other commercial vehicles, and control DPM. The regulations also include measures to control emissions of air toxics from stationary sources.

3.2.2 Office of Environmental Health Hazard Assessment Guidelines

As discussed above, OEHHA is required to develop guidelines for HRAs under the Air Toxics Hot Spots Program. The *Air Toxics Hot-Spots Program Guidance Manual for the Preparation of Health Risk Assessments* provides the scientific basis for the values used to assess the risk of emissions exposure from facilities and new sources (OEHHA 2015). OEHHA's guidance and calculation methods were used in the preparation of the HRA for the Project. Additional information on the HRA is provided in Section 5.1, *Analysis Method*.

3.2.3 Diesel Risk Reduction Plan

In September 2000, CARB approved a comprehensive Diesel Risk Reduction Plan to reduce emissions from both new and existing diesel-fueled engines and vehicles. The goal of the plan was to reduce DPM emissions and the associated health risk by 75 percent in 2010 and by 85 percent by 2020. The plan identifies 14 measures that target new and existing on-road vehicles (e.g., heavy-duty trucks and buses), off-road equipment (e.g., graders, tractors, forklifts, sweepers, and boats), portable equipment (e.g., pumps), and stationary engines (e.g., stand-by power generators).

3.2.4 California Public Resources Code, Section 21151.4

According to the California Public Resources Code, an environmental impact report shall not be certified and a negative declaration shall not be approved for any project involving the construction or alteration of a facility within 0.25 mile of a school that might reasonably be anticipated to emit hazardous air emissions, or that would handle an extremely hazardous substance or a mixture containing extremely hazardous substances in a quantity equal to or greater than the state threshold quantity specified pursuant to subdivision (j) of Section 25532 of the Health and Safety Code, that may pose a health or safety hazard to persons who would attend or would be employed at the school, unless both of the following occur:

1. The lead agency preparing the environmental impact report or negative declaration has consulted with the school district having jurisdiction regarding the potential impact of the project on the school.
2. The school district has been given written notification of the project not less than 30 days prior to the proposed certification of the environmental impact report or approval of the negative declaration.

3.2.5 California Air Resources Board Air Quality and Land Use Handbook

CARB prepared a guidance document that includes recommendations for siting of sensitive receptors in proximity of emission sources. The *Air Quality and Land Use Handbook: A Community Health Perspective* (CARB 2005) provides guidance to the public and decision-makers on developing the document to provide information on siting sensitive land uses near specific sources of air pollution, namely:

- High traffic freeways and roads
- Distribution centers
- Rail yards

- Ports
- Refineries
- Chrome plating facilities
- Dry cleaners
- Large gas dispensing facilities

The CARB guidance recommends projects avoid siting new sensitive land uses within 1,000 feet of a major service and maintenance rail yards. Within 1 mile of a rail yard, the guidance recommends considering possible siting limitations and mitigation approaches.

The *Land Use Handbook* (CARB 2005) includes various limitations, and notes that the recommendations are advisory and that land use agencies have to balance other considerations, including housing and transportation needs, economic development priorities, and other quality of life issues.

3.2.6 Petition for Stricter Locomotive Emissions Standards

In April 2017, CARB petitioned U.S. EPA to adopt more stringent emission standards for locomotives in pursuit of accelerating the transition to zero- or near-zero emission locomotives. The move was motivated largely by the need to clean up air in high-risk communities in and around the nation's railyards. The proposed new standards were for newly manufactured locomotives (Tier 5), and new standards for Tier 4 locomotives upon remanufacture. The proposed standards would cut DPM and nitrogen oxide emissions by 85 percent and 66 percent, respectively, below current Tier 4 levels, and newly manufactured locomotives would have some zero-emission mile capability (CARB 2017). To date, the petition remains under review by U.S. EPA.

3.3 Local Regulations

3.3.1 Ventura County Air Pollution Control District

The proposed action falls under the jurisdiction of the Ventura County Air Pollution Control District (VCAPCD). VCAPCD is the agency responsible for air pollution control in the Ventura County portion of the South Central Coast Air Basin, which includes all of Ventura, Santa Barbara, and San Luis Obispo counties. VCAPCD is responsible for overseeing stationary-source emissions, approving permits, maintaining emissions inventories, developing rules and regulations to reduce emissions, and enforcing measures through educational programs and fines. VCAPCD also prepares plans to attain the California Ambient Air Quality Standards and National Ambient Air Quality Standards. These plans include the regional Air Quality Management Plan (AQMP) and elements of the State Implementation Plan that apply to Ventura County.

Air Quality Management Plan

VCAPCD adopted the current 2016 AQMP, which incorporates the latest scientific and technological information and planning assumptions, as well as updated emission forecasts and projections (VCAPCD 2017). The 2016 AQMP is the region's clean air plan, which guides the region's air quality planning efforts to attain the 2008 federal 8-hour ozone standard by 2020, as required by the federal

CAA Amendments of 1990 and U.S. EPA clean air regulations. The 2016 AQMP contains districtwide control measures to reduce ozone precursors, particulate matter, and greenhouse gas emissions.

Air Quality Assessment Guidelines

VCAPCD's *Air Quality Assessment Guidelines* were adopted in April 1980 and most recently revised in October 2003 (VCAPCD 2003). In the guidelines, VCAPCD outlines how to determine when a project will emit TACs, and how to assess the impact of TAC emissions on nearby populations. The guidelines reference the California Air Pollution Control Officers Association (CAPCOA) TAC HRA guidelines, *CAPCOA Air Toxics "Hot Spots" Program Revised 1992 Risk Assessment Guidelines*, and the VCAPCD supplemental guidelines, *Supplement to the CAPCOA Air Toxics "Hot Spots" Program Risk Assessment Guidelines.* VCAPCD recommends conducting TAC risk assessments in accordance with the CAPCOA Risk Assessment Guidelines as supplemented by the VCAPCD supplemental guidelines (VCAPCD 2003).

Emissions Regulations and Rules

VCAPCD develops rules and regulations, establishes permitting requirements, inspects emissions sources, and enforces such measures though educational programs or fines, when necessary. The following sections summarize the VCAPCD rules that may be applicable to the Project:

- **Rule 26—New Source Review.** This rule specifies provisions applicable to new, replacement, modified, or relocated emissions units in Ventura County to ensure that the operation of such facilities does not interfere with progress toward attainment of the National Ambient Air Quality Standards.
- **Rule 36—New Source Review of Hazardous Air Pollutants.** This rule specifies procedures and requirements for construction or reconstruction of major sources of HAPs, including case-by-case maximum achievable control technology new source review determinations.
- **Rule 51—Nuisance.** This rule restricts the discharge of any contaminant in quantities that cause or have a natural ability to cause injury, damage, nuisance, or annoyance to businesses, property, or the public.
- **Rule 73—National Emission Standards for Hazardous Air Pollutants.** This rule incorporates, by reference, the provisions of Title 40 Code of Federal Regulations Part 61, the National Emission Standards for Hazardous Air Pollutants. In addition to these provisions, this rule indicates that stationary sources may also be subject to more stringent requirements established for new or modified sources under Rule 26, New Source Review.
- **Rule 74.9—Stationary Internal Combustion Engines.** This rule specifies requirements for stationary spark-ignited or diesel internal combustion engines rated at 50 or more horsepower and operated on any gaseous or liquid fuel. Requirements of this rule include emissions limits, biennial source tests, and screening analyses of nitrogen oxide and carbon monoxide emissions on a quarterly basis.

3.3.2 Southern California Association of Governments

The Southern California Association of Governments (SCAG) is the metropolitan planning organization for Los Angeles, Orange, Riverside, San Bernardino, Imperial, and Ventura Counties. It is a regional planning agency and serves as a forum for regional issues relating to transportation, the economy and community development, and the environment. SCAG is the federally designated metropolitan planning organization for most of the Southern California region and is the largest metropolitan planning organization in the nation. With regard to air quality planning, SCAG prepares the regional transportation plan (RTP) and Federal Transportation Improvement Program, which address regional development and growth forecasts and form the basis for the land use and transportation control portions of the AQMP (discussed in Section 3.3.1). They are also used in the preparation of the air quality forecasts and consistency analysis included in the AQMP. The RTP, the Federal Transportation Improvement Program, and the AQMP are based on projections originating within local jurisdictions. Although SCAG is not an air quality management agency, it is responsible for developing transportation, land use, and energy conservation measures that affect air quality.

On May 7, 2020, SCAG adopted the 2020–2045 RTP/Sustainable Communities Strategy (SCS) (SCAG 2020). The 2020–2045 RTP/SCS includes a strong commitment to reduce emissions from transportation sources to comply with Senate Bill 375, improve public health, and meet the National Ambient Air Quality Standards as set forth by the CAA. The RTP/SCS would successfully achieve and exceed the greenhouse gas emission-reduction targets set by CARB by achieving an 8 percent reduction by 2020 and 19 percent reduction by 2035 compared with the 2005 level on a per capita basis. This RTP/SCS also meets criteria pollutant emission budgets set by U.S. EPA. The 2020-2045 RTP/SCS includes a strong commitment to increase ridership in passenger rail (SCAG 2020).

3.3.3 Metrolink

Metrolink is committed to the goal of cleaner air in Southern California. By implementing such programs as the Tier 4 Locomotive Engine Program, Fuel Conservation Program, and Plug-In Program, Metrolink has reduced locomotive nitrogen oxide and particulate matter emissions by 85 percent, reduced systemwide train idling by 35 percent, and added 55 percent more plug-in stations that supply electric ground power to railcars during testing and inspection. In addition, an electric railcar mover was purchased to perform the testing and inspections. These programs have reduced the fuel use and emissions associated with these operational activities.

4 Environmental Setting

4.1 Toxic Air Contaminants

Although ambient air quality standards have been established for criteria pollutants, no ambient standards exist for TACs. Many pollutants are identified as TACs because of their potential to increase the risk of developing cancer or their acute or chronic health risks. For TACs that are known or suspected carcinogens, CARB has consistently found that there are no levels or thresholds below which exposure is risk-free. Individual TACs vary greatly in the risks they present. At a given level of exposure, one TAC may pose a hazard that is many times greater than another. TACs are identified and their toxicity is studied by OEHHA. The primary TAC of concern associated with the Project is DPM.

DPM is generated by diesel-fueled equipment and vehicles. CARB estimates that DPM emissions are responsible for about 70 percent of the total ambient air toxics risk (CARB 2020). Short-term exposure to DPM can cause acute irritation (e.g., eye, throat, and bronchial), neurophysiological symptoms (e.g., lightheadedness and nausea), and respiratory symptoms (e.g., cough and phlegm). The International Agency for Research on Cancer (2012) has classified diesel engine exhaust as “carcinogenic to humans, based on sufficient evidence that exposure is associated with an increased risk for lung cancer.” Diesel engine exhaust includes a complex mixture of air pollutants, including both gaseous and solid material. The solid material in diesel exhaust is known as DPM.

4.2 Sensitive Receptors

People in some locations are considered more sensitive to the adverse effects of air pollution than others. Those that are particularly sensitive include children, the elderly, and people with illnesses. Facilities or land uses that include these members of the population are termed sensitive receptors and include schools, hospitals, and daycare centers (VCAPCD 2003). Residential uses are also considered sensitive because people in residential areas are often at home—and therefore exposed to pollutants—for extended periods of time. Recreational areas are considered moderately sensitive to poor air quality because vigorous exercise associated with recreation places a high demand on the human respiratory function.

Sensitive receptors within 1,000 feet of the Project footprint include residential areas immediately adjacent the Project alignment. CARB analyses indicate that providing a separation of at least 1,000 feet from diesel sources and high-traffic areas would substantially reduce exposure to air contaminants and decrease asthma symptoms in children (CARB 2005). The Project study area is within SCRRA’s existing ROW and is located in the City of Simi Valley in Ventura County. The Project alignment is within an urban area, and there are sensitive uses, particularly residential areas, on both sides of the alignment. The closest residences are as close as 82 feet at various points along the Project alignment.

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5 Analysis Method and Thresholds

This section describes the methods used to quantify TACs during Project operations and discusses the thresholds used to evaluate whether an impact would be significant.

5.1 Analysis Method

The analysis herein focuses primarily on the change in health risk due to the increase in train activity coupled with the change in Metrolink's locomotive fleet. Health risk impacts associated with the Project were assessed and quantified (where applicable) using standard and accepted software tools, techniques, and emission factors. A summary of the methodology is provided below. A full list of assumptions and model outputs can be found in Appendix A.

5.1.1 Diesel Particulate Matter Inventory

Health risks from TAC emissions generated by train movement and idling were modeled based on the TAC inventory described below. Health risks were modeled for Existing (2019) and Project (2025) conditions based on the change in train activity and the change in locomotive fleet over time.

The TAC of concern is DPM, which is a complex mixture of gases and fine particles that includes over 40 substances that are listed by the U.S. EPA, CARB, and OEHHA as an air toxic (OEHHA 2001). OEHHA guidance indicates that the cancer potency factor used to evaluate inhalation cancer risks was developed based on total (gas and particulate matter) diesel exhaust, and that the surrogate for total diesel exhaust is DPM, with particulate matter less than or equal to 10 microns serving as the basis for the potential risk calculations (OEHHA 2015). Furthermore, OEHHA indicates that cancer risk from inhalation exposure to whole diesel exhaust will outweigh the risk from isolated components (OEHHA 2015). Accordingly, the DPM inventory uses particulate matter less than or equal to 10 microns exhaust emissions as a surrogate for whole, nonisolated DPM emissions.

Analysis Area

The DPM modeling for this HRA is based on conditions within and near Simi Valley Station only. DPM emissions were not modeled at every point along the VCL; instead, this HRA evaluates the potential risk for sensitive receptors near the train station only, as these receptors are exposed to DPM emissions from both train idling and train movement. The analysis area includes the train idling location near platforms as well as the 500-foot train segments on either side of the station.

Activity

Train activity along the VCL is expected to increase from 33 to 48 trains per day and from 8,580 to 12,584 trains per year (i.e., a 47 percent increase in activity). Each train is expected to move through the rail segment, idle at the station, and then depart onto the other segment. The DPM estimate from train idling assumes 1 minute of dwell time per train visit based on guidance from the Project engineers.

Fuel Consumption

Train fuel consumption at idle was assumed to be 5.09 gallons per idle hour based on a U.S. EPA study at the Chicago Railyard (U.S. EPA 2004). Train fuel efficiency associated with movement was assumed to be 0.3425 mile per gallon (or 2.9197 gallons per mile) based on Metrolink's 2018 reporting (National Transit Database 2020).

Fleet

Metrolink's locomotive fleet (52 locomotives) is currently assumed to be a mix of pre-Tier0 (10 locomotives), Tier 2 (22 locomotives), and Tier 4 (22 locomotives) locomotives. Metrolink's locomotive fleet (52 locomotives) is expected to be composed of entirely Tier 4 locomotives by the Project's opening day (Metrolink 2014, 2016). Locomotive emission factors used for existing and Project conditions are based on default U.S. EPA emission factors by engine tier type (U.S. EPA 2009). U.S. EPA emission factors were converted from grams per brake-horsepower-hour into grams per gallon using the U.S. EPA conversion factor of 20.8 for large line haul and passenger trains.

Based on the assumed fleet mix indicated above, the calculated fleet average particulate matter less than or equal to 10 microns emission rates are assumed to be 2.98 grams per gallon under existing conditions and 0.31 gram per gallon under 2025 conditions. See Appendix A for the emission factor calculation.

5.1.2 Exposure Assessment

Project-related health risk is based on the intensity of DPM emissions under both existing and Project conditions, local meteorology conditions, and sensitive receptor proximity to the emissions source (i.e., rail line and station stops).

Dispersion Model

U.S. EPA's AERMOD (version 19191) model is a steady-state Gaussian dispersion model that determines air dispersion based on planetary boundary layer turbulence using similarity theory and includes treatment for both surface and elevated releases. AERMOD is U.S. EPA's preferred air dispersion model for near-field air quality impact assessment. The model was used to assess the change in annual average DPM concentrations at and near the Simi Valley Station that occur as result of operational activities associated with the Project.

Meteorology

Three years of representative meteorological data from the Simi Valley—Cochran Street Station were acquired from VCAPCD's database of pre-processed metrological data for use in AERMOD.

Source Characterization

The Project's track alignment was modeled as a line source with a track width of 9.8 feet plus 9.8 feet on either side to include turbulent wake mixing effects. Train release height and initial vertical dispersion were separated into day and night periods to reflect diurnal variability in plume rise from the trains. The approach was first developed by CARB in its Roseville Railyard Study (CARB 2004), further developed in the Richmond railyard study (CARB 2007) and was used in Metrolink's Central Maintenance Facility HRA (Metrolink 2014). Trains were assumed to display a daytime release height and initial vertical dimension of 15.7 and 7.4 feet, respectively, and a nighttime release height and initial vertical dimension of 60.4 and 28 feet, respectively, based on a 15.1-foot locomotive stack height (Metrolink 2014). During idling periods, the emissions released by the trains behave as a stationary point source. Therefore, train idling was modeled as a point source using the stack parameters for line-haul engines as used in Roseville Railyard Study (CARB 2004). The train stack height was set at 15.1 feet, with a stack temperature of 351 Kelvin, exit velocity 12.2 feet per second, and stack diameter of 2.2 feet based on the Central Maintenance Facility HRA (Metrolink 2014).

The track alignments were modeled as a line source, 1,000 feet long, centered on the Metrolink Simi Valley Station (i.e., 500 feet on either side of the station) to represent train movement emissions generated along a representative rail segment. Idling activities at Simi Valley Station were modeled as a single point source in the middle of the station to represent train idling emissions generated at the station.

Receptor Locations

Receptors were placed concentrically surrounding the track alignment line source, starting at 82 feet from the line source boundary and spaced every 82 feet out to a distance of 1,000 feet from the line source boundary. All receptor heights were set at 0 feet, consistent with OEHHA guidance. A total of 516 receptors were modeled.

Land Use Characterization

The locations within the Metrolink rail alignment where most of the population exposure occurs are within the urban land-use environment. Therefore, the urban dispersion modeling algorithm was used in the assessment. This accounts for the increased dispersion that occurs in nighttime conditions in urban areas due to the urban heat island effect. Population data are used in defining the strength of the urban heat island effect. The 2019 population of Ventura County was used in the model (United States Census Bureau 2020).

5.1.3 Risk Assessment

Consistent with VCAPCD guidance, the HRA examines cancer and noncancer (chronic) exposure to the surrounding community based on OEHHA's current guidance on risk calculations (OEHHA 2015). Modeled DPM concentrations from the AERMOD model were used to estimate cancer risk at exposed receptors. Note that while the U.S. EPA, CARB, and OEHHA continue to examine the relationship between DPM exposure and short-term (acute) health effects, health studies to date have not provided sufficient exposure information to establish a short-term (acute) noncancer health risk value and no acute risk factors for DPM have been published. Therefore, evaluation of acute health effects is not included in this analysis.

Risk Assessment Model

The exposure assessment was conducted using CARB's HARP2 model. This software was originally developed to assist with the programmatic requirements of California's Air Toxics Hot Spots Program (Assembly Bill 2588) and has been extended for use in conducting HRAs under the California Environmental Quality Act. For this study, HARP's Risk Assessment Standalone Tool was used, which calculates risk from the AERMOD modeled concentrations using the 2015 OEHHA HRA guidance.

Breathing Rates

Risk is conservatively based on the Risk Management Policy recommendation for inhalation exposures in HARP, which assumes high-end breathing rates (95th percentile) for children from the third trimester through age 2, and 80th percentile breathing rates for all other ages.

Age Sensitivity Factors

OEHHA developed age sensitivity factors to take into account the increased sensitivity to carcinogens during early-in-life exposure. This analysis takes into account OEHHA-recommended age sensitivity factors for different age timeframes, which is a 10 multiplier for exposure during the third trimester to 2-year timeframe, a 3 multiplier for exposures occurring during the 2- through 16-year timeframe, and a 1 multiplier for exposures occurring during the 16- through 30-year timeframe.

Exposure Duration

Consistent with OEHHA guidance, a 30-year exposure duration was assumed for all sensitive receptor locations.

Chronic Noncancer Risk

Noncancer chronic inhalation impacts were calculated by dividing the annual average concentration by the reference exposure level for DPM. The reference exposure level is defined as the concentration at which no adverse noncancer health effects are anticipated. Consistent with OEHHA (2015) guidance, a reference exposure level of 5 micrograms per cubic meter was assumed in the calculation.

Note that OEHHA and CARB have not identified acute health effects from diesel exhaust. Therefore, evaluation of acute health effects is not included in this analysis.

5.2 Analysis Thresholds

As DPM has been identified as a TAC, long-term exposure can lead to cancer, birth defects, and damage to the brain and nervous system. Accordingly, VCAPCD has adopted separate thresholds to evaluate receptor exposure to DPM emissions. The substantial DPM threshold defined by VCAPCD is the probability of contracting cancer for the maximum exposed individual exceeding 10 in 1 million, or the ground-level concentrations of noncarcinogenic TACs resulting in a hazard index greater than 1 for the maximum exposed individual (VCAPCD 2003).

6 Impacts Analysis

Project operation has the potential to generate long-term emissions from transit operations. Transit operations would generate emissions through locomotive diesel fuel use both at station sites and along Metrolink's ROW. The increase in activity long term has the potential to increase exposure of pollutants within neighboring communities. However, given that Metrolink is upgrading its locomotive fleet with cleaner, Tier 4 locomotive engines, an assessment was warranted to evaluate the overall effect of the increase in activity coupled with the change in locomotive fleet. Risk was analyzed at sensitive receptor locations out to 1,000 feet from the station and track boundary in order to provide a large enough sample to analyze both the maximum and average change in health risk associated with the Project.

The assessment takes into account two metrics. First, the analysis evaluates the maximally exposed individual receptor location. This requirement is standard California Environmental Quality Act practice, where the worst-case exposure Project conditions is evaluated. Second, in order to evaluate the overall exposure to the population as whole, the risk at all receptor locations is presented. Here, the exposure for all 516 receptor locations under Project conditions is presented as a proxy for overall average change in exposure.

The summary health risk at modeled receptor locations is presented in Table 6-1. It should be noted that maximum exposure occurs at 82 feet from the Project boundary, but many receptors in the Project study area are greater than 82 feet from the Project alignment and risk at these receptor locations is much lower than at maximally exposed locations. However, because sensitive receptors are adjacent to the Project alignment, the maximally exposed location is representative of some receptor locations and is included in this analysis. As shown in Table 6-1, although there will be an increase in rail operations, the use of upgraded Tier 4 locomotive engines would result in cancer and chronic health hazards below VCAPCD thresholds. Note that this HRA evaluates risk associated with Project conditions only and reflects absolute risk rather than change in risk relative to that the emissions from existing train activity at or near the station. Furthermore, risk was calculated based on the maximum exposure along the Ventura Subdivision (48 trains per day). Thus, since fewer trains pass through the Project study area, the actual risk for the vicinity of the station is lower than presented here. As such, impacts as a result of project operation would be less than significant, and no mitigation is required.

Table 6-1. Estimated Health Risk From the Project

Scenario	Risk	Cancer Risk (per million)	Chronic Hazard Index
Project (2025)	Maximum	5.1	<0.01
	Average	0.7	<0.01
VCAPCD threshold		10	1.0
Threshold exceeded?		No	No

Source: Appendix A
Notes:
VCAPCD=Ventura County Air Pollution Control District

Construction activities associated with the Project components would be linear, occurring throughout the 2.20-mile Project alignment over the 19-month construction period. This 19-month duration is much shorter than the assumed 9-, 30-, or 70-year exposure period typically used to estimate lifetime cancer risks. Specific receptors along the Project alignment would only be exposed to emissions for a short duration when construction activities are nearby. Diesel exhaust associated with construction activities would be minimal, as diesel-vehicle activity on public roadways and within the Project boundary would be minimal and scattered, comprising delivery and material haul trips through the entire construction area. Furthermore, diesel-equipment activity on site would be short term and transitory, resulting in minimal emissions, and would occur at distances not expected to expose sensitive receptor locations to substantial pollutant concentrations. Therefore, construction-related pollutant emission concentrations would be expected to be well dispersed and minimal at any given location and would not expose any receptors to substantial pollutant concentrations. Impacts associated with construction health risk would be less than significant.

7 Mitigation Measures

No mitigation measures are required.

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8 Conclusion

Project implementation would increase train operations within the Project study area. However, the use of upgraded Tier 4 locomotive engines within the Project study area would result in a decrease in emissions and associated chronic cancer and noncancer health risk. In addition, the projected cancer risk and chronic health hazard in 2025 would be less than the VCAPCD thresholds. Therefore, impacts associated with acute and chronic health risks would be less than significant.

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Appendix A. Emissions Estimates

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Annual DPM Rail Emissions (grams)

	2019		2025	
Line	Idling	Movement	Idling	Movement
Ventura County Line	2,173	14,158	333	2,171
Orange County Line	1,989	12,956	231	1,507
91/Perris Valley Line	830	5,406	121	789
San Bernardino Line	2,977	19,392	397	2,584
Inland Empire/OC Line	1,159	7,551	154	1,005
System Total	9,128	59,462	1,237	8,056

Idling is per station. Movement is per 1000 meter segment

3600	seconds per hour
10	mph =
0.16667	hours per mile
260	average day

g/s For Simi Valley Simi Valley = Ventura County Line

	grams per year		grams per average day		Hour window per day		Trains per year		Second window per day		grams per second	
	2019	**2025**	**2019**	**2025**	**2019**	**2025**	**2019**	**2025**	**2019**	**2025**	**2019**	**2025**
Idling	2,173	333	8	1	19	19	-	-	68400	68400	1.22E-04	1.87E-05
Movement	14,158	2,171	54	8	19	19	8,580	12,584	68400	68400	7.96E-04	1.22E-04

Metrolink SCORE Regional Rail Calculations

Simi Valley = Ventura County Line

Idling

Idling Fuel Consumption

Estimate of 2019 and Project Train Trips

Line	Peak Daily Trains		Annual Trains	
	Existing	Project	Existing	Project
Ventura County Line	33	48	8,580	12,584
Orange County Line	27	28	7,852	8,736
91/Perris Valley Line	11	16	3,276	4,576
San Bernardino Line	40	52	11,752	14,976
Inland Empire/OC Line	16	20	4,576	5,824

Idling Time (hours)

Line	Peak Daily Trains		Annual Trains	
	Existing	Project	Existing	Project
Ventura County Line	0.6	0.8	143.0	209.7
Orange County Line	0.5	0.5	130.9	145.6
91/Perris Valley Line	0.2	0.3	54.6	76.3
San Bernardino Line	0.7	0.9	195.9	249.6
Inland Empire/OC Line	0.3	0.3	76.3	97.1

Fuel Consumption (gallons)

Line	Peak Daily Trains		Annual Trains	
	Existing	Project	Existing	Project
Ventura County Line	2.8	4.1	728	1,068
Orange County Line	2.3	2.4	667	742
91/Perris Valley Line	0.9	1.4	278	388
San Bernardino Line	3.4	4.4	998	1,271
Inland Empire/OC Line	1.4	1.7	388	494

Idling DPM Calculations

Line	2019			2025		
	Annual Gallons	DPM ef (g/gallon)	grams DPM/year	Annual Gallons	DPM ef (g/gallon)	grams DPM/year
Ventura County Line	728	2.98	2,173	1,068	0.31	333
Orange County Line	667	2.98	1,989	742	0.31	231
91/Perris Valley Line	278	2.98	830	388	0.31	121
San Bernardino Line	998	2.98	2,977	1,271	0.31	397
Inland Empire/OC Line	388	2.98	1,159	494	0.31	154
System Total	**3,059**	-	9,128	**3,964**	-	1,237

Dwell time per train

60 seconds, or
1 minute, or
0.016666667 hour
per Gerard Reminiskey email on 6/8/2020

Idling Fuel Consumption Metric

EPA Chicago Railyard study
12,738 gallons of diesel reduced (page 1)
2,501 idling hours reduced (page 5)
5.09 gallons per hour
https://nepis.epa.gov/Exe/ZyPDF.cgi/P1001TI0.PDF?Dockey=

Metrolink SCORE Regional Rail Calculations

Simi Valley = Ventura County Line

Movement

Movement Fuel Consumption

Estimate of 2019 and Project Train Trips

Line	Peak Daily Trains		Annual Trains	
	Existing	Project	Existing	Project
Ventura County Line	33	48	8,580	12,584
Orange County Line	27	28	7,852	8,736
91/Perris Valley Line	11	16	3,276	4,576
San Bernardino Line	40	52	11,752	14,976
Inland Empire/OC Line	16	20	4,576	5,824

Segment length

1000 feet, or
0.189393939 mile

Train Miles for HRA

Line	Peak Daily Trains		Annual Trains	
	Existing	Project	Existing	Project
Ventura County Line	6	9	1,625	2,383
Orange County Line	5	5	1,487	1,655
91/Perris Valley Line	2	3	620	867
San Bernardino Line	8	10	2,226	2,836
Inland Empire/OC Line	3	4	867	1,103

Fuel Consumption (gallons)

Line	Peak Daily Train Gallons		Annual Train Gallons	
	Existing	Project	Existing	Project
Ventura County Line	18	27	4,745	6,959
Orange County Line	15	15	4,342	4,831
91/Perris Valley Line	6	9	1,812	2,530
San Bernardino Line	22	29	6,499	8,281
Inland Empire/OC Line	9	11	2,530	3,221

Movement Fuel Consumption Metric

0.34 miles per gallon
2.92 gallons per mile

Movement DPM Calculations

Line	2019			2025		
	Annual Gallons	DPM ef (g/gallon)	grams DPM/year	Annual Gallons	DPM ef (g/gallon)	grams DPM/year
Ventura County Line	4,745	2.98	14,158	6,959	0.31	2,171
Orange County Line	4,342	2.98	12,956	4,831	0.31	1,507
91/Perris Valley Line	1,812	2.98	5,406	2,530	0.31	789
San Bernardino Line	6,499	2.98	19,392	8,281	0.31	2,584
Inland Empire/OC Line	2,530	2.98	7,551	3,221	0.31	1,005
System Total	**19,927**	-	59,462	**25,822**	-	8,056

Metrolink SCORE Rail Emission Factor Math

EPA Emission Factors

Line Haul Emission Factors (g/bhp-hr)

Tier	HC	ROG	NOx	CO	PM10	PM2.5	SO2	CO2	CH4	N2O
Uncontrolled	0.48		13.00	1.28	0.32			494	0.04	0.013
Tier 0	0.48		8.60	1.28	0.32			494	0.04	0.013
Tier 0+	0.30		7.20	1.28	0.20			494	0.04	0.013
Tier 1	0.47		6.70	1.28	0.32			494	0.04	0.013
Tier 1+	0.29		6.70	1.28	0.20			494	0.04	0.013
Tier 2	0.26		4.95	1.28	0.18			494	0.04	0.013
Tier 2+	0.13		4.95	1.28	0.08			494	0.04	0.013
Tier 3	0.13		4.95	1.28	0.08			494	0.04	0.013
Tier 4	0.04		1.00	1.28	0.02			494	0.04	0.013

Critiera pollutant emission factors from USEPA 2009, Table 1

GHG emission factors from Port of LA 2018 Air Inventory (Table 6.4)

Line Haul Emission Factors (g/gal)

Tier	HC	ROG	NOx	CO	PM10	PM2.5	SO2	CO2	CH4	N2O
Uncontrolled	9.98	10.51	270.40	26.62	6.66	6.46	0.09	10,275	0.83	0.27
Tier 0	9.98	10.51	178.88	26.62	6.66	6.46	0.09	10,275	0.83	0.27
Tier 0+	6.24	6.57	149.76	26.62	4.16	4.04	0.09	10,275	0.83	0.27
Tier 1	9.78	10.29	139.36	26.62	6.66	6.46	0.09	10,275	0.83	0.27
Tier 1+	6.03	6.35	139.36	26.62	4.16	4.04	0.09	10,275	0.83	0.27
Tier 2	5.41	5.69	102.96	26.62	3.74	3.63	0.09	10,275	0.83	0.27
Tier 2+	2.70	2.85	102.96	26.62	1.66	1.61	0.09	10,275	0.83	0.27
Tier 3	2.70	2.85	102.96	26.62	1.66	1.61	0.09	10,275	0.83	0.27
Tier 4	0.83	0.88	20.80	26.62	0.31	0.30	0.09	10,275	0.83	0.27

bhp-hr/gal	20.8	Large line-haul	USEPA 2009
ROG_HC	1.053	unitless	USEPA 2009
PM2.5_PM10	0.97	unitless	USEPA 2009
S fuel desnity	3200	g/gal	USEPA 2009
S content of fuel	15	ppm	per CARB regulation
Fraction S to SO2	97.8%	%	USEPA 2009
Molar weight	2	unitless	USEPA 2009

Metrolink Fleet Mix

Tier	**Baseline**	**2025**	***Baseline***	***2025***
Uncontrolled	10	0	*19%*	*0%*
Tier 0	0	0	*0%*	*0%*
Tier 0+	0	0	*0%*	*0%*
Tier 1	0	0	*0%*	*0%*
Tier 1+	0	0	*0%*	*0%*
Tier 2	22	0	*42%*	*0%*
Tier 2+	0	0	*0%*	*0%*
Tier 3	0	0	*0%*	*0%*
Tier 4	20	52	*38%*	*100%*
Total	52	52	*100%*	*100%*

Metrolink Weighted Emission Factor (grams per gallon)

Existing

Tier	HC	ROG	NOx	CO	PM10	PM2.5	SO2	CO2	CH4	N2O
Uncontrolled	1.92	2.02	52.00	5.12	1.28	1.24	0.02	1,976	0.16	0.05
Tier 0	-	-	-	-	-	-	-	-	-	-
Tier 0+	-	-	-	-	-	-	-	-	-	-
Tier 1	-	-	-	-	-	-	-	-	-	-
Tier 1+	-	-	-	-	-	-	-	-	-	-
Tier 2	2.29	2.41	43.56	11.26	1.58	1.54	0.04	4,347	0.35	0.11
Tier 2+	-	-	-	-	-	-	-	-	-	-
Tier 3	-	-	-	-	-	-	-	-	-	-
Tier 4	0.32	0.34	8.00	10.24	0.12	0.12	0.04	3,952	0.32	0.10
2019	**4.53**	**4.77**	**103.56**	**26.62**	**2.98**	**2.89**	**0.09**	**10,275**	**0.83**	**0.27**

Project

Tier	HC	ROG	NOx	CO	PM10	PM2.5	SO2	CO2	CH4	N2O
Uncontrolled	-	-	-	-	-	-	-	-	-	-
Tier 0	-	-	-	-	-	-	-	-	-	-
Tier 0+	-	-	-	-	-	-	-	-	-	-
Tier 1	-	-	-	-	-	-	-	-	-	-
Tier 1+	-	-	-	-	-	-	-	-	-	-
Tier 2	-	-	-	-	-	-	-	-	-	-
Tier 2+	-	-	-	-	-	-	-	-	-	-
Tier 3	-	-	-	-	-	-	-	-	-	-
Tier 4	0.83	0.88	20.80	26.62	0.31	0.30	0.09	10275	0.83	0.27
2025	**0.83**	**0.88**	**20.80**	**26.62**	**0.31**	**0.30**	**0.09**	**10,275**	**0.83**	**0.27**

```
** Lakes Environmental AERMOD MPI
**
**************************************
**
** AERMOD INPUT PRODUCED BY:
** AERMOD VIEW VER. 9.9.0
** LAKES ENVIRONMENTAL SOFTWARE INC.
** DATE: 7/27/2020
** FILE: C:\LAKES\AERMOD VIEW\SIMI VALLEY OP HRA\SIMI VALLEY EXISTING 2019\SIMI
VALLEY EXISTING 2019.ADI
**
**************************************
**
**
**************************************
** AERMOD CONTROL PATHWAY
**************************************
**
**
CO STARTING
   TITLEONE C:\LAKES\AERMOD VIEW\SIMI VALLEY EXISTING 2019\SIMI VALLEY EXISTING
   MODELOPT DFAULT CONC
   AVERTIME PERIOD
   URBANOPT 846006 VENTURA_COUNTY_POP
   POLLUTID PM_10
   RUNORNOT RUN
   ERRORFIL "SIMI VALLEY EXISTING 2019.ERR"
CO FINISHED
**
**************************************
** AERMOD SOURCE PATHWAY
**************************************
**
**
SO STARTING
** SOURCE LOCATION **
** SOURCE ID - TYPE - X COORD. - Y COORD. **
   LOCATION STATION      POINT      343900.896  3793435.713      300.280
** DESCRSRC SIMI VALLEY STATION IDLING
   LOCATION DAYTIME      LINE       344024.992  3793345.188   343779.200
3793524.487      300.570
** DESCRSRC DAYTIME TRAIN MOVEMENT
   LOCATION NIGHT        LINE       344024.992  3793345.188   343779.200
3793524.487      300.570
** DESCRSRC NIGHTTIME TRAIN MOVEMENT
   LOCATION PAREA1       AREAPOLY   343781.858  3793528.126      299.370
** DESCRSRC AREA SOURCE FOR RECEPTOR GRID
** SOURCE PARAMETERS **
   SRCPARAM STATION       0.000122     4.600   351.000   3.73000     0.666
   SRCPARAM DAYTIME      2.9071E-07     4.800     9.000     2.250
```

```
   SRCPARAM NIGHT        2.9071E-07    18.400     9.000     8.540
   SRCPARAM PAREA1             0.0     0.000         4     0.000
   AREAVERT PAREA1       343781.858 3793528.126 344027.643 3793348.823
   AREAVERT PAREA1       344022.340 3793341.553 343776.546 3793520.854
   URBANSRC ALL

** VARIABLE EMISSIONS TYPE: "BY HOUR / DAY (HRDOW)"
** VARIABLE EMISSION SCENARIO: "STATION"
** WEEKDAYS:
   EMISFACT STATION      HRDOW 0.0 0.0 0.0 0.0 0.0 1.0
   EMISFACT STATION      HRDOW 1.0 1.0 1.0 1.0 1.0 1.0
   EMISFACT STATION      HRDOW 1.0 1.0 1.0 1.0 1.0 1.0
   EMISFACT STATION      HRDOW 1.0 1.0 1.0 1.0 1.0 1.0
** SATURDAY:
   EMISFACT STATION      HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT STATION      HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT STATION      HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT STATION      HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** SUNDAY:
   EMISFACT STATION      HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT STATION      HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT STATION      HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT STATION      HRDOW 0.0 0.0 0.0 0.0 0.0 0.0

** VARIABLE EMISSIONS TYPE: "BY HOUR / DAY (HRDOW)"
** VARIABLE EMISSION SCENARIO: "DAYTIME TRAIN"
** WEEKDAYS:
   EMISFACT DAYTIME      HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT DAYTIME      HRDOW 1.0 1.0 1.0 1.0 1.0 1.0
   EMISFACT DAYTIME      HRDOW 1.0 1.0 1.0 1.0 1.0 1.0
   EMISFACT DAYTIME      HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** SATURDAY:
   EMISFACT DAYTIME      HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT DAYTIME      HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT DAYTIME      HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT DAYTIME      HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** SUNDAY:
   EMISFACT DAYTIME      HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT DAYTIME      HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT DAYTIME      HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT DAYTIME      HRDOW 0.0 0.0 0.0 0.0 0.0 0.0

** VARIABLE EMISSIONS TYPE: "BY HOUR / DAY (HRDOW)"
** VARIABLE EMISSION SCENARIO: "NIGHTTIME TRAIN"
** WEEKDAYS:
   EMISFACT NIGHT        HRDOW 0.0 0.0 0.0 0.0 0.0 1.0
   EMISFACT NIGHT        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT NIGHT        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT NIGHT        HRDOW 1.0 1.0 1.0 1.0 1.0 1.0
** SATURDAY:
```

```
   EMISFACT NIGHT        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT NIGHT        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT NIGHT        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT NIGHT        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** SUNDAY:
   EMISFACT NIGHT        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT NIGHT        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT NIGHT        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT NIGHT        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   SRCGROUP ALL
SO FINISHED
**
**************************************
** AERMOD RECEPTOR PATHWAY
**************************************
**
**
RE STARTING
   INCLUDED "SIMI VALLEY EXISTING 2019.ROU"
RE FINISHED
**
**************************************
** AERMOD METEOROLOGY PATHWAY
**************************************
**
**
ME STARTING
   SURFFILE "G:\SACRAMENTO\LGT-AIR&NOISE\AIR\METROLINK SCORE PROGRAM 00173.20
(SCAQMD)\02 MODELING\SIMI HRA\MET DATA\SIMI-VALLEY-2015-2017\SEMI
VALLEY_2015-2017.SFC"
   PROFFILE "G:\SACRAMENTO\LGT-AIR&NOISE\AIR\METROLINK SCORE PROGRAM 00173.20
(SCAQMD)\02 MODELING\SIMI HRA\MET DATA\SIMI-VALLEY-2015-2017\SEMI
VALLEY_2015-2017.PFL"
   SURFDATA 93110 2015
   UAIRDATA 93214 2015
   SITEDATA 56434 2015
   PROFBASE 316.0 METERS
ME FINISHED
**
**************************************
** AERMOD OUTPUT PATHWAY
**************************************
**
**
OU STARTING
** AUTO-GENERATED PLOTFILES
   PLOTFILE   PERIOD ALL "SIMI VALLEY EXISTING 2019.AD\PE00GALL.PLT" 31
   SUMMFILE "SIMI VALLEY EXISTING 2019.SUM"
OU FINISHED
```

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

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

A Total of            0 Fatal Error Message(s)
A Total of            3 Warning Message(s)
A Total of            0 Informational Message(s)


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


   ********   WARNING MESSAGES   ********
SO W320      48       APPARM: Input Parameter May Be Out-of-Range for Parameter
       QS
ME W186     130       MEOPEN: THRESH_1MIN 1-min ASOS wind speed threshold used
     0.50
MX W403     130       PFLCNV: Turbulence data is being used w/o ADJ_U* option
SigA Data

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

 *** AERMOD - VERSION  19191 ***   *** C:\LAKES\AERMOD VIEW\SIMI VALLEY EXISTING
2019\SIMI VALLEY EXISTING  ***        07/27/20
 *** AERMET - VERSION  18081 ***   ***
                       ***        20:27:53

                                  PAGE   1
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  SigA Data

                                          ***     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 URBAN Dispersion Algorithm for the SBL for     4 Source(s),
   for Total of    1 Urban Area(s):
   Urban Population =    846006.0 ;  Urban Roughness Length =  1.000 m
```

```
 **Model Uses Regulatory DEFAULT Options:
        1. Stack-tip Downwash.
        2. Model Accounts for ELEVated Terrain Effects.
        3. Use Calms Processing Routine.
        4. Use Missing Data Processing Routine.
        5. No Exponential Decay.
        6. Urban Roughness Length of 1.0 Meter Assumed.

 **Other Options Specified:
        CCVR_Sub - Meteorological data includes CCVR substitutions
        TEMP_Sub - Meteorological data includes TEMP substitutions

 **Model Assumes No FLAGPOLE Receptor Heights.

 **The User Specified a Pollutant Type of:  PM_10

 **Model Calculates PERIOD Averages Only

 **This Run Includes:      4 Source(s);       1 Source Group(s); and     516
Receptor(s)

                with:      1 POINT(s), including
                           0 POINTCAP(s) and      0 POINTHOR(s)
                 and:      0 VOLUME source(s)
                 and:      1 AREA type source(s)
                 and:      2 LINE source(s)
                 and:      0 RLINE/RLINEXT source(s)
                 and:      0 OPENPIT source(s)
                 and:      0 BUOYANT LINE source(s) with      0 line(s)


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

 **The AERMET Input Meteorological Data Version Date:  18081

 **Output Options Selected:
         Model Outputs Tables of PERIOD Averages by Receptor
         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) =   316.00 ;  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 =   3.6 MB of RAM.

 **Input Runstream File: aermod.inp

 **Output Print File: aermod.out

 **Detailed Error/Message File: SIMI VALLEY EXISTING 2019.ERR

 **File for Summary of Results: SIMI VALLEY EXISTING 2019.SUM

                                                  *** POINT SOURCE DATA ***

               NUMBER EMISSION RATE   BASE   STACK   STACK   STACK   BLDG   URBAN CAP/ EMIS RATE
   SOURCE   PART. (GRAMS/SEC)   X   Y   ELEV.   HEIGHT TEMP.   EXIT VEL. DIAMETER EXISTS SOURCE HOR   SCALAR
     ID   CATS.   (METERS) (METERS) (METERS) (METERS) (DEG.K) (M/SEC) (METERS)   VARY BY
 -

 STATION   0   0.12200E-03 343900.9 3793435.7   300.3   4.60   351.00   3.73   0.67   NO   YES   NO HRDOW

                                                *** 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
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -

 PAREA1           0   0.00000E+00  343781.9 3793528.1   299.4     0.00       4
   0.00     YES
 *** AERMOD - VERSION  19191 ***   *** C:\LAKES\AERMOD VIEW\SIMI VALLEY EXISTING
2019\SIMI VALLEY EXISTING  ***        07/27/20
 *** AERMET - VERSION  18081 ***   ***
                        ***        20:27:53

                                   PAGE   4
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  SigA Data


                                                *** LINE SOURCE DATA ***

              NUMBER EMISSION RATE     FIRST COORD        SECOND COORD     BASE
RELEASE    WIDTH    INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC        X       Y           X       Y      ELEV.
HEIGHT    OF LINE    SZ     SOURCE SCALAR VARY
     ID         CATS.   /METER**2)   (METERS) (METERS)   (METERS) (METERS) (METERS)
(METERS)  (METERS) (METERS)             BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -

 DAYTIME          0   0.29071E-06  344025.0 3793345.2  343779.2 3793524.5   300.6
  4.80      9.00     2.25     YES   HRDOW
 NIGHT            0   0.29071E-06  344025.0 3793345.2  343779.2 3793524.5   300.6
 18.40      9.00     8.54     YES   HRDOW
 *** AERMOD - VERSION  19191 ***   *** C:\LAKES\AERMOD VIEW\SIMI VALLEY EXISTING
2019\SIMI VALLEY EXISTING  ***        07/27/20
 *** AERMET - VERSION  18081 ***   ***
                        ***        20:27:53

                                   PAGE   5
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  SigA Data


                                          *** SOURCE IDs DEFINING SOURCE GROUPS
***

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

                                        *** SOURCE IDs DEFINED AS URBAN SOURCES
***

  URBAN ID   URBAN POP   SOURCE IDs
  --------   ---------   ----------

                  * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = STATION   ; SOURCE TYPE = POINT   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 -
- -
                                                DAY OF WEEK = WEEKDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .1000E+01   7 .1000E+01   8 .1000E+01
    9 .1000E+01   10 .1000E+01   11 .1000E+01   12 .1000E+01   13 .1000E+01
14 .1000E+01   15 .1000E+01   16 .1000E+01
   17 .1000E+01   18 .1000E+01   19 .1000E+01   20 .1000E+01   21 .1000E+01
22 .1000E+01   23 .1000E+01   24 .1000E+01
                                                DAY OF WEEK = SATURDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .0000E+00   10 .0000E+00   11 .0000E+00   12 .0000E+00   13 .0000E+00
14 .0000E+00   15 .0000E+00   16 .0000E+00
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00
                                                DAY OF WEEK = SUNDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00

6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .0000E+00   10 .0000E+00   11 .0000E+00   12 .0000E+00   13 .0000E+00
14 .0000E+00   15 .0000E+00   16 .0000E+00
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00

                  * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = DAYTIME   ; SOURCE TYPE = LINE   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 -
- -
                                                DAY OF WEEK = WEEKDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .1000E+01   8 .1000E+01
    9 .1000E+01   10 .1000E+01   11 .1000E+01   12 .1000E+01   13 .1000E+01
14 .1000E+01   15 .1000E+01   16 .1000E+01
   17 .1000E+01   18 .1000E+01   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00
                                                DAY OF WEEK = SATURDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .0000E+00   10 .0000E+00   11 .0000E+00   12 .0000E+00   13 .0000E+00
14 .0000E+00   15 .0000E+00   16 .0000E+00
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00
                                                DAY OF WEEK = SUNDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .0000E+00   10 .0000E+00   11 .0000E+00   12 .0000E+00   13 .0000E+00
14 .0000E+00   15 .0000E+00   16 .0000E+00
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

SOURCE ID = NIGHT ; SOURCE TYPE = LINE :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

DAY OF WEEK = WEEKDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.1000E+01	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.1000E+01	20	.1000E+01	21	.1000E+01	22	.1000E+01	23	.1000E+01	24	.1000E+01

DAY OF WEEK = SATURDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00

DAY OF WEEK = SUNDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00

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

(344049.3, 3793340.3, 300.7, 471.1, 0.0); (344045.7, 3793363.6, 300.4, 471.1, 0.0);
(344069.8, 3793326.8, 301.1, 471.1, 0.0); (344075.2, 3793349.1, 300.8, 471.1, 0.0);
(344065.1, 3793376.1, 300.3, 471.1, 0.0); (344090.2, 3793312.6, 301.4, 471.1, 0.0);
(344096.0, 3793336.5, 301.2, 471.1, 0.0); (344097.5, 3793367.4, 300.9, 471.1, 0.0);
(344084.7, 3793388.4, 300.5, 471.1, 0.0); (344110.5,

```
3793298.2,     300.9,     471.1,       0.0);
     ( 344116.4, 3793323.0,     300.6,     471.1,       0.0);         ( 344122.4,
3793347.8,     300.4,     471.1,       0.0);
     ( 344122.0, 3793371.5,     300.5,     471.1,       0.0);         ( 344108.7,
3793393.3,     300.7,     471.1,       0.0);
     ( 344095.4, 3793415.1,     300.7,     471.1,       0.0);         ( 344130.7,
3793283.6,     300.5,     471.1,       0.0);
     ( 344136.8, 3793309.0,     300.2,     471.1,       0.0);         ( 344143.0,
3793334.3,     300.3,     471.1,       0.0);
     ( 344149.1, 3793359.7,     300.4,     471.1,       0.0);         ( 344142.1,
3793383.0,     300.5,     471.1,       0.0);
     ( 344128.5, 3793405.3,     300.6,     471.1,       0.0);         ( 344114.9,
3793427.5,     300.8,     471.1,       0.0);
     ( 344150.9, 3793269.0,     300.6,     471.1,       0.0);         ( 344157.1,
3793294.8,     300.2,     471.1,       0.0);
     ( 344163.4, 3793320.5,     300.3,     471.1,       0.0);         ( 344169.6,
3793346.3,     300.4,     471.1,       0.0);
     ( 344171.2, 3793379.6,     300.6,     471.1,       0.0);         ( 344157.4,
3793402.2,     300.7,     471.1,       0.0);
     ( 344143.6, 3793424.8,     300.9,     471.1,       0.0);         ( 344129.8,
3793447.4,     301.0,     471.1,       0.0);
     ( 344171.1, 3793254.4,     300.6,     471.1,       0.0);         ( 344177.5,
3793280.4,     300.2,     471.1,       0.0);
     ( 344183.7, 3793306.5,     300.2,     471.1,       0.0);         ( 344190.0,
3793332.5,     300.4,     471.1,       0.0);
     ( 344196.3, 3793358.5,     300.5,     471.1,       0.0);         ( 344195.9,
3793383.5,     300.7,     471.1,       0.0);
     ( 344181.9, 3793406.4,     300.8,     471.1,       0.0);         ( 344168.0,
3793429.2,     301.0,     471.1,       0.0);
     ( 344154.0, 3793452.1,     301.1,     471.1,       0.0);         ( 344140.1,
3793474.9,     301.2,     471.1,       0.0);
     ( 344191.2, 3793239.3,     300.7,     471.1,       0.0);         ( 344197.2,
3793264.1,     300.2,     471.1,       0.0);
     ( 344203.2, 3793288.8,     300.3,     471.1,       0.0);         ( 344209.2,
3793313.6,     300.4,     471.1,       0.0);
     ( 344215.2, 3793338.4,     300.6,     471.1,       0.0);         ( 344221.2,
3793363.2,     300.8,     471.1,       0.0);
     ( 344220.8, 3793387.0,     300.9,     471.1,       0.0);         ( 344207.5,
3793408.8,     300.9,     471.1,       0.0);
     ( 344194.2, 3793430.6,     301.1,     471.1,       0.0);         ( 344181.0,
3793452.3,     301.2,     471.1,       0.0);
     ( 344167.7, 3793474.1,     301.4,     471.1,       0.0);         ( 344154.4,
3793495.9,     301.5,     471.1,       0.0);
     ( 344211.5, 3793224.6,     300.8,     471.1,       0.0);         ( 344217.5,
3793249.7,     300.3,     471.1,       0.0);
     ( 344223.6, 3793274.8,     300.6,     471.1,       0.0);         ( 344229.7,
3793299.9,     300.8,     471.1,       0.0);
     ( 344235.8, 3793325.0,     300.9,     471.1,       0.0);         ( 344241.8,
3793350.1,     301.1,     471.1,       0.0);
     ( 344247.9, 3793375.2,     301.2,     471.1,       0.0);         ( 344241.0,
```

3793398.3,   301.1,   471.1,   0.0);
     (344227.5, 3793420.4,   301.2,   471.1,   0.0);   (344214.1,
3793442.4,   301.2,   471.1,   0.0);
     (344200.6, 3793464.4,   301.3,   471.1,   0.0);   (344187.1,
3793486.5,   301.5,   471.1,   0.0);
     (344173.7, 3793508.5,   301.6,   471.1,   0.0);   (344231.7,
3793210.0,   300.4,   471.1,   0.0);
     (344237.8, 3793235.3,   300.3,   471.1,   0.0);   (344244.0,
3793260.7,   300.7,   471.1,   0.0);
     (344250.1, 3793286.1,   301.2,   471.1,   0.0);   (344256.2,
3793311.4,   301.2,   471.1,   0.0);
     (344262.4, 3793336.8,   301.2,   471.1,   0.0);   (344268.5,
3793362.1,   301.2,   471.1,   0.0);
     (344270.1, 3793394.9,   301.2,   471.1,   0.0);   (344256.5,
3793417.2,   301.3,   471.1,   0.0);
     (344242.9, 3793439.4,   301.4,   471.1,   0.0);   (344229.3,
3793461.7,   301.5,   471.1,   0.0);
     (344215.8, 3793484.0,   301.6,   471.1,   0.0);   (344202.2,
3793506.2,   301.7,   471.1,   0.0);
     (344188.6, 3793528.5,   301.8,   471.1,   0.0);   (344251.9,
3793195.3,   299.4,   471.1,   0.0);
     (344258.1, 3793220.9,   299.7,   471.1,   0.0);   (344264.3,
3793246.5,   300.3,   471.1,   0.0);
     (344270.5, 3793272.0,   301.0,   471.1,   0.0);   (344276.7,
3793297.6,   301.2,   471.1,   0.0);
     (344282.8, 3793323.2,   301.1,   471.1,   0.0);   (344289.0,
3793348.7,   301.1,   471.1,   0.0);
     (344295.2, 3793374.3,   301.2,   471.1,   0.0);   (344294.8,
3793398.8,   301.3,   471.1,   0.0);
     (344281.1, 3793421.3,   301.4,   471.1,   0.0);   (344267.4,
3793443.7,   301.5,   471.1,   0.0);

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

     (344253.7, 3793466.2,   301.7,   471.1,   0.0);   (344240.0,
3793488.6,   301.7,   471.1,   0.0);
     (344226.3, 3793511.1,   301.9,   471.1,   0.0);   (344212.5,
3793533.6,   301.9,   471.1,   0.0);
     (344198.8, 3793556.0,   301.7,   471.1,   0.0);   (344272.1,
3793180.7,   300.4,   471.1,   0.0);
     (344278.4, 3793206.4,   299.7,   471.1,   0.0);   (344284.6,

3793232.2,   299.8,   471.1,   0.0);
     (344290.8, 3793257.9,   300.1,   471.1,   0.0);   (344297.0,
3793283.6,   300.9,   471.1,   0.0);
     (344303.3, 3793309.4,   301.0,   471.1,   0.0);   (344309.5,
3793335.1,   301.1,   471.1,   0.0);
     (344315.7, 3793360.9,   301.2,   471.1,   0.0);   (344322.0,
3793386.6,   301.4,   471.1,   0.0);
     (344314.8, 3793410.3,   301.5,   471.1,   0.0);   (344301.0,
3793432.9,   301.4,   471.1,   0.0);
     (344287.2, 3793455.5,   301.5,   471.1,   0.0);   (344273.4,
3793478.1,   301.7,   471.1,   0.0);
     (344259.6, 3793500.7,   301.9,   471.1,   0.0);   (344245.8,
3793523.3,   302.1,   471.1,   0.0);
     (344232.0, 3793546.0,   302.0,   471.1,   0.0);   (344218.2,
3793568.6,   301.9,   471.1,   0.0);
     (344007.6, 3793321.3,   300.9,   471.1,   0.0);   (343972.5,
3793347.0,   301.0,   471.1,   0.0);
     (343937.4, 3793372.6,   300.8,   471.1,   0.0);   (343902.3,
3793398.2,   300.7,   471.1,   0.0);
     (343867.2, 3793423.8,   300.6,   471.1,   0.0);   (343832.0,
3793449.4,   300.3,   471.1,   0.0);
     (343796.9, 3793475.0,   299.2,   471.1,   0.0);   (343761.8,
3793500.6,   298.0,   471.1,   0.0);
     (343992.9, 3793301.2,   301.0,   471.1,   0.0);   (343957.8,
3793326.8,   301.0,   471.1,   0.0);
     (343922.6, 3793352.4,   300.9,   471.1,   0.0);   (343887.5,
3793378.0,   300.8,   471.1,   0.0);
     (343852.4, 3793403.6,   300.6,   471.1,   0.0);   (343817.3,
3793429.2,   300.0,   471.1,   0.0);
     (343782.2, 3793454.8,   300.0,   471.1,   0.0);   (343747.1,
3793480.5,   298.4,   471.1,   0.0);
     (344006.0, 3793274.2,   300.7,   471.1,   0.0);   (344058.4,
3793282.4,   301.7,   471.1,   0.0);
     (343978.1, 3793281.0,   300.3,   471.1,   0.0);   (343943.0,
3793306.6,   300.1,   471.1,   0.0);
     (343907.9, 3793332.2,   299.8,   471.1,   0.0);   (343872.8,
3793357.8,   299.6,   471.1,   0.0);
     (343837.7, 3793383.4,   299.3,   471.1,   0.0);   (343802.6,
3793409.0,   300.3,   471.1,   0.0);
     (343767.5, 3793434.6,   307.7,   471.1,   0.0);   (343732.3,
3793460.3,   302.9,   471.1,   0.0);
     (344000.6, 3793251.8,   299.8,   471.1,   0.0);   (344070.5,
3793262.7,   302.0,   471.1,   0.0);
     (343963.4, 3793260.8,   298.5,   471.1,   0.0);   (343928.3,
3793286.4,   297.9,   471.1,   0.0);
     (343893.2, 3793312.0,   297.7,   471.1,   0.0);   (343858.1,
3793337.6,   297.7,   471.1,   0.0);
     (343823.0, 3793363.2,   298.3,   471.1,   0.0);   (343787.8,
3793388.8,   307.4,   471.1,   0.0);
     (343752.7, 3793414.4,   319.8,   471.1,   0.0);   (343717.6,

3793440.1,   307.6,   471.1,   0.0);
     (343979.7, 3793233.1,   299.4,   471.1,   0.0);   (344010.7,
3793225.6,   299.3,   471.1,   0.0);
     (344068.9, 3793234.7,   302.2,   471.1,   0.0);   (344096.1,
3793251.3,   301.8,   471.1,   0.0);
     (343948.7, 3793240.6,   298.9,   471.1,   0.0);   (343913.6,
3793266.2,   297.7,   471.1,   0.0);
     (343878.5, 3793291.8,   297.2,   471.1,   0.0);   (343843.3,
3793317.4,   297.3,   471.1,   0.0);
     (343808.2, 3793343.0,   303.7,   471.1,   0.0);   (343773.1,
3793368.6,   320.6,   471.1,   0.0);
     (343738.0, 3793394.2,   328.9,   471.1,   0.0);   (343702.9,
3793419.9,   315.2,   471.1,   0.0);
     (343971.1, 3793211.4,   301.0,   471.1,   0.0);   (344008.3,
3793202.4,   302.0,   471.1,   0.0);
     (344078.2, 3793213.3,   302.0,   471.1,   0.0);   (344110.9,
3793233.2,   302.0,   471.1,   0.0);
     (343933.9, 3793220.4,   300.9,   471.1,   0.0);   (343898.8,
3793246.0,   299.0,   471.1,   0.0);
     (343863.7, 3793271.6,   299.1,   471.1,   0.0);   (343828.6,
3793297.2,   301.0,   471.1,   0.0);
     (343793.5, 3793322.8,   310.7,   471.1,   0.0);   (343758.4,
3793348.4,   327.2,   471.1,   0.0);
     (343723.3, 3793374.0,   333.0,   471.1,   0.0);   (343688.1,
3793399.7,   322.6,   471.1,   0.0);
     (343951.8, 3793192.3,   304.2,   471.1,   0.0);   (343984.3,
3793184.4,   305.9,   471.1,   0.0);
     (344016.9, 3793176.5,   306.4,   471.1,   0.0);   (344078.0,
3793186.1,   301.0,   471.1,   0.0);
     (344106.6, 3793203.6,   302.5,   471.1,   0.0);   (344135.2,
3793221.0,   301.9,   471.1,   0.0);
     (343919.2, 3793200.2,   305.0,   471.1,   0.0);   (343884.1,
3793225.8,   302.1,   471.1,   0.0);

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

     (343849.0, 3793251.4,   302.6,   471.1,   0.0);   (343813.9,
3793277.0,   304.2,   471.1,   0.0);
     (343778.8, 3793302.6,   311.5,   471.1,   0.0);   (343743.6,
3793328.2,   325.6,   471.1,   0.0);
     (343708.5, 3793353.9,   336.3,   471.1,   0.0);   (343673.4,

3793379.5,   331.0,   471.1,   0.0);
     (343941.7, 3793171.0,   311.0,   471.1,   0.0);   (343978.9,
3793162.0,   311.1,   471.1,   0.0);
     (344016.1, 3793153.0,   312.1,   471.1,   0.0);   (344086.0,
3793163.9,   300.2,   471.1,   0.0);
     (344118.6, 3793183.8,   302.4,   471.1,   0.0);   (344151.3,
3793203.8,   302.2,   471.1,   0.0);
     (343904.5, 3793180.0,   310.8,   471.1,   0.0);   (343869.4,
3793205.6,   306.7,   471.1,   0.0);
     (343834.2, 3793231.2,   306.4,   471.1,   0.0);   (343799.1,
3793256.8,   307.9,   471.1,   0.0);
     (343764.0, 3793282.4,   312.7,   471.1,   0.0);   (343728.9,
3793308.0,   324.0,   471.1,   0.0);
     (343693.8, 3793333.7,   336.1,   471.1,   0.0);   (343658.7,
3793359.3,   340.5,   471.1,   0.0);
     (343931.6, 3793149.6,   318.3,   471.1,   0.0);   (343973.4,
3793139.5,   316.8,   471.1,   0.0);
     (344015.3, 3793129.4,   317.4,   471.1,   0.0);   (344093.9,
3793141.7,   302.0,   471.1,   0.0);
     (344130.6, 3793164.1,   302.4,   471.1,   0.0);   (344167.4,
3793186.6,   302.4,   471.1,   0.0);
     (343889.7, 3793159.8,   317.6,   471.1,   0.0);   (343854.6,
3793185.4,   311.4,   471.1,   0.0);
     (343819.5, 3793211.0,   310.7,   471.1,   0.0);   (343784.4,
3793236.6,   313.7,   471.1,   0.0);
     (343749.3, 3793262.2,   322.4,   471.1,   0.0);   (343714.2,
3793287.8,   326.1,   471.1,   0.0);
     (343679.1, 3793313.5,   337.5,   471.1,   0.0);   (343644.0,
3793339.1,   347.6,   471.1,   0.0);
     (343912.2, 3793130.6,   326.8,   471.1,   0.0);   (343949.4,
3793121.6,   324.8,   471.1,   0.0);
     (343986.6, 3793112.6,   324.2,   471.1,   0.0);   (344023.8,
3793103.6,   323.3,   471.1,   0.0);
     (344093.7, 3793114.5,   307.8,   471.1,   0.0);   (344126.3,
3793134.4,   301.1,   471.1,   0.0);
     (344159.0, 3793154.4,   302.5,   471.1,   0.0);   (344191.7,
3793174.3,   301.2,   471.1,   0.0);
     (343875.0, 3793139.6,   324.5,   471.1,   0.0);   (343839.9,
3793165.2,   315.4,   471.1,   0.0);
     (343804.8, 3793190.8,   316.0,   471.1,   0.0);   (343769.7,
3793216.4,   320.6,   471.1,   0.0);
     (343734.5, 3793242.0,   332.5,   471.1,   0.0);   (343699.4,
3793267.6,   337.7,   471.1,   0.0);
     (343664.3, 3793293.3,   339.1,   471.1,   0.0);   (343629.2,
3793318.9,   354.9,   471.1,   0.0);
     (343901.2, 3793109.5,   336.2,   471.1,   0.0);   (343942.1,
3793099.6,   333.3,   471.1,   0.0);
     (343983.0, 3793089.7,   330.0,   471.1,   0.0);   (344024.0,
3793079.8,   332.7,   471.1,   0.0);
     (344100.8, 3793091.8,   313.1,   471.1,   0.0);   (344136.8,

3793113.7,   303.0,   471.1,   0.0);
     (344172.7, 3793135.7,   302.2,   471.1,   0.0);   (344208.6,
3793157.6,   299.5,   471.1,   0.0);
     (343860.3, 3793119.4,   330.6,   471.1,   0.0);   (343825.2,
3793145.0,   322.5,   471.1,   0.0);
     (343790.0, 3793170.6,   322.5,   471.1,   0.0);   (343754.9,
3793196.2,   326.8,   471.1,   0.0);
     (343719.8, 3793221.8,   343.2,   471.1,   0.0);   (343684.7,
3793247.4,   349.2,   471.1,   0.0);
     (343649.6, 3793273.1,   347.5,   471.1,   0.0);   (343614.5,
3793298.7,   360.5,   471.1,   0.0);
     (343882.7, 3793090.2,   344.6,   471.1,   0.0);   (343919.9,
3793081.2,   344.1,   471.1,   0.0);
     (343957.1, 3793072.2,   338.3,   471.1,   0.0);   (343994.3,
3793063.2,   337.6,   471.1,   0.0);
     (344031.5, 3793054.2,   342.2,   471.1,   0.0);   (344101.4,
3793065.1,   323.0,   471.1,   0.0);
     (344134.1, 3793085.0,   307.9,   471.1,   0.0);   (344166.8,
3793105.0,   303.2,   471.1,   0.0);
     (344199.4, 3793124.9,   301.6,   471.1,   0.0);   (344232.1,
3793144.9,   301.1,   471.1,   0.0);
     (343845.5, 3793099.2,   334.6,   471.1,   0.0);   (343810.4,
3793124.8,   331.4,   471.1,   0.0);
     (343775.3, 3793150.4,   332.1,   471.1,   0.0);   (343740.2,
3793176.0,   338.6,   471.1,   0.0);
     (343705.1, 3793201.6,   350.9,   471.1,   0.0);   (343670.0,
3793227.3,   358.9,   471.1,   0.0);
     (343634.9, 3793252.9,   356.6,   471.1,   0.0);   (343599.8,
3793278.5,   366.9,   471.1,   0.0);
     (343754.8, 3793529.4,   298.9,   471.1,   0.0);   (343734.3,
3793542.9,   298.7,   471.1,   0.0);
     (343729.0, 3793520.6,   297.5,   471.1,   0.0);   (343714.0,
3793557.1,   298.7,   471.1,   0.0);
     (343708.2, 3793533.2,   297.2,   471.1,   0.0);   (343706.7,
3793502.3,   298.0,   471.1,   0.0);

 *** MODELOPTs: RegDFAULT CONC ELEV URBAN SigA Data

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

     (343719.5, 3793481.3,   298.6,   471.1,   0.0);   (343693.8,
3793571.5,   298.9,   471.1,   0.0);
     (343687.8, 3793546.7,   297.6,   471.1,   0.0);   (343681.8,

```
3793521.9,     299.1,     471.1,       0.0);
     ( 343682.2, 3793498.1,     302.1,     471.1,       0.0);         ( 343695.5,
3793476.4,     301.9,     471.1,       0.0);
     ( 343673.5, 3793586.1,     298.6,     471.1,       0.0);         ( 343667.4,
3793560.7,     297.8,     471.1,       0.0);
     ( 343661.2, 3793535.3,     300.9,     471.1,       0.0);         ( 343655.1,
3793510.0,     308.1,     471.1,       0.0);
     ( 343662.1, 3793486.7,     310.8,     471.1,       0.0);         ( 343675.7,
3793464.4,     310.0,     471.1,       0.0);
     ( 343689.3, 3793442.1,     307.3,     471.1,       0.0);         ( 343653.3,
3793600.7,     298.8,     471.1,       0.0);
     ( 343647.0, 3793574.9,     297.6,     471.1,       0.0);         ( 343640.8,
3793549.2,     303.2,     471.1,       0.0);
     ( 343634.6, 3793523.4,     312.6,     471.1,       0.0);         ( 343633.0,
3793490.1,     322.2,     471.1,       0.0);
     ( 343646.8, 3793467.5,     321.2,     471.1,       0.0);         ( 343660.5,
3793444.9,     319.0,     471.1,       0.0);
     ( 343674.3, 3793422.3,     315.6,     471.1,       0.0);         ( 343633.1,
3793615.3,     298.4,     471.1,       0.0);
     ( 343626.8, 3793589.3,     298.2,     471.1,       0.0);         ( 343620.5,
3793563.2,     300.5,     471.1,       0.0);
     ( 343614.2, 3793537.2,     312.7,     471.1,       0.0);         ( 343607.8,
3793511.2,     324.3,     471.1,       0.0);
     ( 343608.3, 3793486.2,     332.2,     471.1,       0.0);         ( 343622.3,
3793463.3,     332.8,     471.1,       0.0);
     ( 343636.2, 3793440.4,     330.4,     471.1,       0.0);         ( 343650.2,
3793417.6,     324.9,     471.1,       0.0);
     ( 343612.8, 3793630.0,     298.0,     471.1,       0.0);         ( 343606.5,
3793603.7,     298.1,     471.1,       0.0);
     ( 343600.1, 3793577.4,     298.4,     471.1,       0.0);         ( 343593.8,
3793551.2,     306.7,     471.1,       0.0);
     ( 343587.4, 3793524.9,     318.7,     471.1,       0.0);         ( 343581.1,
3793498.7,     329.8,     471.1,       0.0);
     ( 343588.3, 3793474.6,     339.4,     471.1,       0.0);         ( 343602.4,
3793451.5,     341.6,     471.1,       0.0);
     ( 343616.5, 3793428.4,     340.4,     471.1,       0.0);         ( 343630.5,
3793405.4,     336.1,     471.1,       0.0);
     ( 343644.6, 3793382.3,     334.1,     471.1,       0.0);         ( 343592.7,
3793645.1,     298.2,     471.1,       0.0);
     ( 343586.7, 3793620.0,     298.0,     471.1,       0.0);         ( 343580.6,
3793594.9,     298.1,     471.1,       0.0);
     ( 343574.5, 3793569.8,     297.8,     471.1,       0.0);         ( 343568.4,
3793544.6,     305.8,     471.1,       0.0);
     ( 343562.4, 3793519.5,     316.8,     471.1,       0.0);         ( 343556.3,
3793494.4,     326.6,     471.1,       0.0);
     ( 343563.2, 3793471.4,     336.4,     471.1,       0.0);         ( 343576.7,
3793449.3,     342.4,     471.1,       0.0);
     ( 343590.1, 3793427.3,     348.2,     471.1,       0.0);         ( 343603.6,
3793405.2,     347.3,     471.1,       0.0);
     ( 343617.0, 3793383.2,     345.9,     471.1,       0.0);         ( 343630.5,
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3793361.1,   346.7,   471.1,   0.0);
     (343572.5, 3793659.7,   298.1,   471.1,   0.0);   (343566.4,
3793634.4,   297.9,   471.1,   0.0);
     (343560.2, 3793609.0,   298.0,   471.1,   0.0);   (343554.1,
3793583.6,   297.4,   471.1,   0.0);
     (343548.0, 3793558.3,   299.4,   471.1,   0.0);   (343541.8,
3793532.9,   305.7,   471.1,   0.0);
     (343535.7, 3793507.6,   316.4,   471.1,   0.0);   (343534.1,
3793474.8,   323.5,   471.1,   0.0);
     (343547.7, 3793452.5,   330.5,   471.1,   0.0);   (343561.3,
3793430.2,   340.4,   471.1,   0.0);
     (343574.8, 3793408.0,   347.9,   471.1,   0.0);   (343588.4,
3793385.7,   354.8,   471.1,   0.0);
     (343602.0, 3793363.4,   356.2,   471.1,   0.0);   (343615.6,
3793341.1,   356.6,   471.1,   0.0);
     (343552.3, 3793674.4,   298.2,   471.1,   0.0);   (343546.1,
3793648.8,   297.9,   471.1,   0.0);
     (343539.9, 3793623.2,   297.8,   471.1,   0.0);   (343533.7,
3793597.7,   297.6,   471.1,   0.0);
     (343527.5, 3793572.1,   296.6,   471.1,   0.0);   (343521.4,
3793546.5,   298.0,   471.1,   0.0);
     (343515.2, 3793521.0,   303.5,   471.1,   0.0);   (343509.0,
3793495.4,   308.2,   471.1,   0.0);
     (343509.4, 3793470.9,   312.0,   471.1,   0.0);   (343523.1,
3793448.4,   318.1,   471.1,   0.0);
     (343536.8, 3793425.9,   327.2,   471.1,   0.0);   (343550.5,
3793403.5,   338.5,   471.1,   0.0);
     (343564.2, 3793381.0,   351.0,   471.1,   0.0);   (343577.9,
3793358.6,   358.9,   471.1,   0.0);
     (343591.6, 3793336.1,   365.1,   471.1,   0.0);   (343532.1,
3793689.0,   298.2,   471.1,   0.0);
     (343525.9, 3793663.3,   298.0,   471.1,   0.0);   (343519.6,
3793637.6,   297.9,   471.1,   0.0);
     (343513.4, 3793611.8,   297.6,   471.1,   0.0);   (343507.2,
3793586.1,   297.1,   471.1,   0.0);
     (343500.9, 3793560.3,   296.6,   471.1,   0.0);   (343494.7,
3793534.6,   296.9,   471.1,   0.0);

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

     (343488.5, 3793508.8,   298.5,   471.1,   0.0);   (343482.2,

```
3793483.1,     301.3,     471.1,       0.0);
     ( 343489.3, 3793459.4,     306.1,     471.1,       0.0);         ( 343503.1,
3793436.8,     312.5,     471.1,       0.0);
     ( 343517.0, 3793414.2,     319.1,     471.1,       0.0);         ( 343530.8,
3793391.6,     329.6,     471.1,       0.0);
     ( 343544.5, 3793368.9,     340.9,     471.1,       0.0);         ( 343558.3,
3793346.3,     355.1,     471.1,       0.0);
     ( 343572.1, 3793323.7,     366.6,     471.1,       0.0);         ( 343586.0,
3793301.1,     370.6,     471.1,       0.0);
     ( 343796.6, 3793548.3,     299.7,     471.1,       0.0);         ( 343831.7,
3793522.7,     299.7,     471.1,       0.0);
     ( 343866.8, 3793497.1,     299.8,     471.1,       0.0);         ( 343901.9,
3793471.5,     299.8,     471.1,       0.0);
     ( 343937.0, 3793445.9,     300.2,     471.1,       0.0);         ( 343972.1,
3793420.2,     300.4,     471.1,       0.0);
     ( 344007.3, 3793394.6,     300.4,     471.1,       0.0);         ( 343811.3,
3793568.5,     300.2,     471.1,       0.0);
     ( 343846.4, 3793542.9,     300.0,     471.1,       0.0);         ( 343881.5,
3793517.3,     299.9,     471.1,       0.0);
     ( 343916.7, 3793491.7,     299.6,     471.1,       0.0);         ( 343951.8,
3793466.1,     299.9,     471.1,       0.0);
     ( 343986.9, 3793440.4,     300.1,     471.1,       0.0);         ( 344022.0,
3793414.8,     300.1,     471.1,       0.0);
     ( 343798.2, 3793595.5,     300.5,     471.1,       0.0);         ( 343745.8,
3793587.3,     300.1,     471.1,       0.0);
     ( 343826.1, 3793588.7,     300.5,     471.1,       0.0);         ( 343861.2,
3793563.1,     300.4,     471.1,       0.0);
     ( 343896.3, 3793537.5,     300.2,     471.1,       0.0);         ( 343931.4,
3793511.9,     299.6,     471.1,       0.0);
     ( 343966.5, 3793486.3,     299.6,     471.1,       0.0);         ( 344001.6,
3793460.6,     299.8,     471.1,       0.0);
     ( 344036.7, 3793435.0,     300.0,     471.1,       0.0);         ( 344071.8,
3793409.4,     300.4,     471.1,       0.0);
     ( 343803.6, 3793617.9,     300.4,     471.1,       0.0);         ( 343733.7,
3793607.0,     300.1,     471.1,       0.0);
     ( 343840.8, 3793608.9,     300.6,     471.1,       0.0);         ( 343875.9,
3793583.3,     300.7,     471.1,       0.0);
     ( 343911.0, 3793557.7,     300.6,     471.1,       0.0);         ( 343946.1,
3793532.1,     300.0,     471.1,       0.0);
     ( 343981.2, 3793506.4,     299.6,     471.1,       0.0);         ( 344016.3,
3793480.8,     299.8,     471.1,       0.0);
     ( 344051.5, 3793455.2,     300.4,     471.1,       0.0);         ( 343824.5,
3793636.6,     300.4,     471.1,       0.0);
     ( 343793.5, 3793644.1,     300.3,     471.1,       0.0);         ( 343735.3,
3793635.0,     300.0,     471.1,       0.0);
     ( 343708.1, 3793618.4,     299.7,     471.1,       0.0);         ( 343855.5,
3793629.1,     300.6,     471.1,       0.0);
     ( 343890.6, 3793603.5,     300.8,     471.1,       0.0);         ( 343925.8,
3793577.9,     300.9,     471.1,       0.0);
     ( 343960.9, 3793552.3,     300.5,     471.1,       0.0);         ( 343996.0,
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3793526.6,   300.0,   471.1,   0.0);
     (344031.1, 3793501.0,   300.1,   471.1,   0.0);   (344066.2,
3793475.4,   300.6,   471.1,   0.0);
     (344101.3, 3793449.8,   300.8,   471.1,   0.0);   (343833.1,
3793658.3,   300.6,   471.1,   0.0);
     (343795.9, 3793667.3,   300.5,   471.1,   0.0);   (343726.0,
3793656.4,   300.0,   471.1,   0.0);
     (343693.3, 3793636.5,   299.5,   471.1,   0.0);   (343870.3,
3793649.3,   300.8,   471.1,   0.0);
     (343905.4, 3793623.7,   301.0,   471.1,   0.0);   (343940.5,
3793598.1,   301.2,   471.1,   0.0);
     (343975.6, 3793572.5,   301.0,   471.1,   0.0);   (344010.7,
3793546.8,   300.5,   471.1,   0.0);
     (344045.8, 3793521.2,   300.4,   471.1,   0.0);   (344080.9,
3793495.6,   300.6,   471.1,   0.0);
     (344116.0, 3793470.0,   301.0,   471.1,   0.0);   (343852.5,
3793677.4,   300.9,   471.1,   0.0);
     (343819.9, 3793685.3,   300.7,   471.1,   0.0);   (343787.4,
3793693.1,   300.7,   471.1,   0.0);
     (343726.2, 3793683.6,   300.1,   471.1,   0.0);   (343697.6,
3793666.1,   299.6,   471.1,   0.0);
     (343669.1, 3793648.7,   299.2,   471.1,   0.0);   (343885.0,
3793669.5,   301.0,   471.1,   0.0);
     (343920.1, 3793643.9,   301.4,   471.1,   0.0);   (343955.2,
3793618.3,   301.7,   471.1,   0.0);
     (343990.3, 3793592.7,   301.3,   471.1,   0.0);   (344025.5,
3793567.0,   301.0,   471.1,   0.0);
     (344060.6, 3793541.4,   300.6,   471.1,   0.0);   (344095.7,
3793515.8,   300.6,   471.1,   0.0);
     (343862.5, 3793698.7,   301.0,   471.1,   0.0);   (343825.3,
3793707.7,   300.9,   471.1,   0.0);
     (343788.1, 3793716.7,   300.8,   471.1,   0.0);   (343718.3,
3793705.8,   300.0,   471.1,   0.0);
     (343685.6, 3793685.9,   299.5,   471.1,   0.0);   (343653.0,
3793665.9,   299.2,   471.1,   0.0);
     (343899.7, 3793689.7,   301.1,   471.1,   0.0);   (343934.8,
3793664.1,   301.6,   471.1,   0.0);
     (343970.0, 3793638.5,   301.8,   471.1,   0.0);   (344005.1,
3793612.8,   301.7,   471.1,   0.0);

 *** MODELOPTs: RegDFAULT CONC ELEV URBAN SigA Data

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

```
     ( 344040.2, 3793587.2,     301.4,     471.1,       0.0);         ( 344075.3,
3793561.6,     301.0,     471.1,       0.0);
     ( 344110.4, 3793536.0,     301.0,     471.1,       0.0);         ( 343872.6,
3793720.0,     300.9,     471.1,       0.0);
     ( 343830.8, 3793730.2,     301.0,     471.1,       0.0);         ( 343788.9,
3793740.3,     300.9,     471.1,       0.0);
     ( 343710.3, 3793728.0,     299.9,     471.1,       0.0);         ( 343673.6,
3793705.6,     299.5,     471.1,       0.0);
     ( 343636.8, 3793683.1,     299.2,     471.1,       0.0);         ( 343914.5,
3793709.9,     301.0,     471.1,       0.0);
     ( 343949.6, 3793684.3,     301.8,     471.1,       0.0);         ( 343984.7,
3793658.7,     301.9,     471.1,       0.0);
     ( 344019.8, 3793633.0,     301.9,     471.1,       0.0);         ( 344054.9,
3793607.4,     301.7,     471.1,       0.0);
     ( 344090.0, 3793581.8,     301.4,     471.1,       0.0);         ( 344125.1,
3793556.2,     301.5,     471.1,       0.0);
     ( 344160.2, 3793530.6,     301.7,     471.1,       0.0);         ( 343892.0,
3793739.1,     300.9,     471.1,       0.0);
     ( 343854.8, 3793748.1,     301.2,     471.1,       0.0);         ( 343817.6,
3793757.1,     301.1,     471.1,       0.0);
     ( 343780.4, 3793766.1,     300.9,     471.1,       0.0);         ( 343710.6,
3793755.2,     300.1,     471.1,       0.0);
     ( 343677.9, 3793735.3,     299.7,     471.1,       0.0);         ( 343645.2,
3793715.3,     299.3,     471.1,       0.0);
     ( 343612.5, 3793695.4,     299.3,     471.1,       0.0);         ( 343929.2,
3793730.1,     301.1,     471.1,       0.0);
     ( 343964.3, 3793704.5,     301.7,     471.1,       0.0);         ( 343999.4,
3793678.9,     301.9,     471.1,       0.0);
     ( 344034.5, 3793653.2,     301.9,     471.1,       0.0);         ( 344069.6,
3793627.6,     301.9,     471.1,       0.0);
     ( 344104.8, 3793602.0,     301.6,     471.1,       0.0);         ( 344139.9,
3793576.4,     301.6,     471.1,       0.0);
     ( 344175.0, 3793550.8,     301.7,     471.1,       0.0);         ( 343903.0,
3793760.2,     301.1,     471.1,       0.0);
     ( 343862.1, 3793770.1,     301.2,     471.1,       0.0);         ( 343821.2,
3793780.0,     301.0,     471.1,       0.0);
     ( 343780.3, 3793789.9,     301.2,     471.1,       0.0);         ( 343703.4,
3793777.9,     300.4,     471.1,       0.0);
     ( 343667.5, 3793756.0,     299.7,     471.1,       0.0);         ( 343631.5,
3793734.0,     299.5,     471.1,       0.0);
     ( 343595.6, 3793712.1,     299.3,     471.1,       0.0);         ( 343943.9,
3793750.3,     301.3,     471.1,       0.0);
     ( 343979.0, 3793724.7,     301.6,     471.1,       0.0);         ( 344014.2,
3793699.1,     302.1,     471.1,       0.0);
     ( 344049.3, 3793673.4,     302.2,     471.1,       0.0);         ( 344084.4,
3793647.8,     301.9,     471.1,       0.0);
     ( 344119.5, 3793622.2,     301.7,     471.1,       0.0);         ( 344154.6,
3793596.6,     301.7,     471.1,       0.0);
     ( 343921.5, 3793779.5,     301.5,     471.1,       0.0);         ( 343884.3,
```

3793788.5,   301.4,   471.1,   0.0);
     (343847.1, 3793797.5,   301.2,   471.1,   0.0);   (343809.9,
3793806.5,   301.4,   471.1,   0.0);
     (343772.7, 3793815.5,   301.8,   471.1,   0.0);   (343702.8,
3793804.6,   300.9,   471.1,   0.0);
     (343670.2, 3793784.7,   300.3,   471.1,   0.0);   (343637.5,
3793764.7,   299.9,   471.1,   0.0);
     (343604.8, 3793744.8,   299.6,   471.1,   0.0);   (343572.1,
3793724.8,   299.0,   471.1,   0.0);
     (343958.7, 3793770.5,   301.9,   471.1,   0.0);   (343993.8,
3793744.9,   301.9,   471.1,   0.0);
     (344028.9, 3793719.3,   302.5,   471.1,   0.0);   (344064.0,
3793693.6,   302.4,   471.1,   0.0);
     (344099.1, 3793668.0,   302.1,   471.1,   0.0);   (344134.2,
3793642.4,   301.9,   471.1,   0.0);
     (344169.3, 3793616.8,   301.9,   471.1,   0.0);   (344204.5,
3793591.2,   301.9,   471.1,   0.0);

*** MODELOPTs: RegDFAULT CONC ELEV URBAN SigA Data

*** 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
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1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 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.

*** MODELOPTs: RegDFAULT CONC ELEV URBAN SigA Data

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

Surface file: G:\SACRAMENTO\LGT-AIR&NOISE\AIR\METROLINK SCORE PROGRAM 00173.20 (SCAQMD)\02 MOD Met Version: 18081
Profile file: G:\SACRAMENTO\LGT-AIR&NOISE\AIR\METROLINK SCORE PROGRAM 00173.20 (SCAQMD)\02 MOD
Surface format: FREE

Profile format: FREE

Surface station no.: 93110 Upper air station no.: 93214
Name: UNKNOWN Name: UNKNOWN

Year: 2015 Year: 2015

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
15	01	01	1	01	-0.9	0.034	-9.000	-9.000	-999.	15.	3.5	0.28	1.22	1.00	0.60	67.	10.0	274.9	10.0
15	01	01	1	02	-1.4	0.042	-9.000	-9.000	-999.	20.	4.5	0.34	1.22	1.00	0.70	97.	10.0	273.9	10.0
15	01	01	1	03	-1.7	0.045	-9.000	-9.000	-999.	23.	4.7	0.28	1.22	1.00	0.80	80.	10.0	273.9	10.0
15	01	01	1	04	-2.6	0.056	-9.000	-9.000	-999.	32.	5.8	0.28	1.22	1.00	1.00	87.	10.0	273.4	10.0
15	01	01	1	05	-1.8	0.047	-9.000	-9.000	-999.	25.	5.1	0.34	1.22	1.00	0.80	90.	10.0	273.4	10.0
15	01	01	1	06	-2.6	0.056	-9.000	-9.000	-999.	32.	5.8	0.28	1.22	1.00	1.00	88.	10.0	273.6	10.0
15	01	01	1	07	-8.3	0.101	-9.000	-9.000	-999.	77.	10.9	0.34	1.22	1.00	1.70	94.	10.0	276.0	10.0
15	01	01	1	08	-3.8	0.071	-9.000	-9.000	-999.	46.	8.4	0.34	1.22						

```
0.56    1.20   93.   10.0  278.1   10.0
 15 01 01   1 09   23.3  0.308  0.324  0.005   51.  410.   -109.9  0.34   1.22
0.31    2.40  114.   10.0  280.5   10.0
 15 01 01   1 10   77.5  0.343  0.595  0.005   95.  483.    -45.8  0.34   1.22
0.23    2.50  109.   10.0  282.0   10.0
 15 01 01   1 11  116.1  0.202  1.425  0.010  876.  231.     -6.2  0.34   1.22
0.20    1.10  119.   10.0  283.9   10.0
 15 01 01   1 12  135.6  0.095  1.519  0.008  907.   78.     -1.0  0.34   1.22
0.19    0.30  108.   10.0  285.2   10.0
 15 01 01   1 13  135.3  0.090  1.535  0.007  938.   65.     -1.0  0.28   1.22
0.19    0.30   75.   10.0  286.1   10.0
 15 01 01   1 14  115.2  0.084  1.468  0.006  963.   59.     -1.0  0.24   1.22
0.20    0.30  291.   10.0  286.8   10.0
 15 01 01   1 15   76.1  0.212  1.290  0.006  989.  235.    -11.0  0.18   1.22
0.24    1.60  266.   10.0  286.9   10.0
 15 01 01   1 16   21.4  0.234  0.848  0.006  998.  272.    -52.4  0.18   1.22
0.32    2.10  258.   10.0  286.6   10.0
 15 01 01   1 17  -33.3  0.349 -9.000 -9.000 -999.  495.    112.0  0.18   1.22
0.58    3.90  260.   10.0  284.8   10.0
 15 01 01   1 18   -4.3  0.070 -9.000 -9.000 -999.  208.      6.9  0.18   1.22
1.00    1.40  261.   10.0  282.6   10.0
 15 01 01   1 19   -0.2  0.015 -9.000 -9.000 -999.  124.      1.6  0.26   1.22
1.00    0.28  170.   10.0  280.6   10.0
 15 01 01   1 20   -0.2  0.015 -9.000 -9.000 -999.   53.      1.6  0.26   1.22
1.00    0.28  163.   10.0  279.0   10.0
 15 01 01   1 21   -0.3  0.018 -9.000 -9.000 -999.   10.      1.9  0.34   1.22
1.00    0.30  106.   10.0  277.6   10.0
 15 01 01   1 22   -1.3  0.039 -9.000 -9.000 -999.   19.      4.1  0.28   1.22
1.00    0.70   87.   10.0  277.0   10.0
 15 01 01   1 23   -0.9  0.034 -9.000 -9.000 -999.   15.      3.5  0.28   1.22
1.00    0.60   77.   10.0  276.1   10.0
 15 01 01   1 24   -0.7  0.028 -9.000 -9.000 -999.   11.      2.9  0.28   1.22
1.00    0.50   69.   10.0  275.6   10.0


 First hour of profile data
 YR MO DY HR HEIGHT F  WDIR    WSPD AMB_TMP sigmaA  sigmaW  sigmaV
 15 01 01 01   10.0 1   67.    0.60   275.0   37.9  -99.00    0.32

 F indicates top of profile (=1) or below (=0)
 *** AERMOD - VERSION  19191 ***   *** C:\LAKES\AERMOD VIEW\SIMI VALLEY EXISTING
2019\SIMI VALLEY EXISTING  ***        07/27/20
 *** AERMET - VERSION  18081 ***   ***
                       ***        20:27:53

                                  PAGE  18
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  SigA Data

                               *** THE PERIOD ( 26304 HRS) AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP: ALL      ***
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INCLUDING SOURCE(S): STATION , DAYTIME , NIGHT , PAREA1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
344049.34	3793340.29	0.02556	344045.70	3793363.57	0.04122
344069.84	3793326.80	0.01356	344075.24	3793349.12	0.02155
344065.08	3793376.15	0.02894	344090.17	3793312.61	0.00905
344095.95	3793336.51	0.01387	344097.47	3793367.42	0.01964
344084.66	3793388.41	0.02298	344110.45	3793298.17	0.00696
344116.44	3793322.97	0.00987	344122.44	3793347.76	0.01320
344122.01	3793371.54	0.01607	344108.72	3793393.32	0.01886
344095.44	3793415.09	0.01982	344130.69	3793283.63	0.00559
344136.83	3793308.99	0.00746	344142.96	3793334.35	0.00996
344149.09	3793359.70	0.01225	344142.08	3793383.00	0.01460
344128.49	3793405.27	0.01651	344114.90	3793427.53	0.01720
344150.93	3793269.04	0.00467	344157.15	3793294.78	0.00596
344163.38	3793320.53	0.00778	344169.61	3793346.27	0.00976
344171.24	3793379.56	0.01206	344157.44	3793402.17	0.01392
344143.64	3793424.78	0.01496	344129.84	3793447.39	0.01516
344171.15	3793254.41	0.00400	344177.45	3793280.44	0.00494
344183.74	3793306.47	0.00627	344190.04	3793332.50	0.00787
344196.34	3793358.53	0.00939	344195.88	3793383.51	0.01076
344181.93	3793406.37	0.01231	344167.98		

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3793429.23        0.01327
         344154.03    3793452.09        0.01353                      344140.08
3793474.95        0.01317
         344191.25    3793239.26        0.00347                      344197.25
3793264.06        0.00413
         344203.25    3793288.85        0.00505                      344209.24
3793313.64        0.00622
         344215.24    3793338.43        0.00749                      344221.24
3793363.22        0.00863
         344220.80    3793387.01        0.00968                      344207.52
3793408.78        0.01093
         344194.23    3793430.56        0.01181                      344180.95
3793452.33        0.01216
         344167.66    3793474.10        0.01201                      344154.37
3793495.88        0.01145
         344211.48    3793224.64        0.00306                      344217.55
3793249.74        0.00359
         344223.62    3793274.84        0.00431                      344229.69
3793299.95        0.00523
         344235.77    3793325.05        0.00628                      344241.84
3793350.15        0.00732
         344247.91    3793375.25        0.00818                      344240.96
3793398.32        0.00920
         344227.51    3793420.36        0.01018                      344214.06
3793442.41        0.01082
         344200.61    3793464.45        0.01102                      344187.15
3793486.50        0.01081
         344173.70    3793508.54        0.01024                      344231.70
3793210.00        0.00273
         344237.83    3793235.35        0.00316                      344243.97
3793260.71        0.00373
         344250.10    3793286.06        0.00443                      344256.23
3793311.42        0.00530
         344262.37    3793336.77        0.00623                      344268.50
3793362.13        0.00708
         344270.10    3793394.91        0.00809                      344256.51
3793417.18        0.00900
         344242.93    3793439.44        0.00967                      344229.34
3793461.71        0.01001
         344215.75    3793483.98        0.00998                      344202.16
3793506.25        0.00961
         344188.57    3793528.52        0.00897                      344251.92
3793195.34        0.00244
 *** AERMOD - VERSION  19191 ***   *** C:\LAKES\AERMOD VIEW\SIMI VALLEY EXISTING
2019\SIMI VALLEY EXISTING  ***        07/27/20
 *** AERMET - VERSION  18081 ***   ***
                       ***        20:27:53

                                  PAGE  19
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  SigA Data
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*** THE PERIOD (26304 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***

INCLUDING SOURCE(S): STATION , DAYTIME , NIGHT , PAREA1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
344258.10	3793220.91	0.00279	344264.29	3793246.47	0.00327
344270.47	3793272.04	0.00386	344276.66	3793297.61	0.00456
344282.84	3793323.17	0.00535	344289.02	3793348.74	0.00614
344295.21	3793374.31	0.00682	344294.76	3793398.84	0.00746
344281.06	3793421.29	0.00826	344267.36	3793443.74	0.00885
344253.66	3793466.20	0.00916	344239.96	3793488.65	0.00916
344226.26	3793511.10	0.00886	344212.55	3793533.56	0.00832
344198.85	3793556.01	0.00762	344272.13	3793180.67	0.00223
344278.36	3793206.42	0.00251	344284.59	3793232.16	0.00288
344290.82	3793257.91	0.00337	344297.04	3793283.65	0.00396
344303.27	3793309.40	0.00463	344309.50	3793335.15	0.00534
344315.73	3793360.89	0.00598	344321.95	3793386.64	0.00651
344314.83	3793410.29	0.00716	344301.03	3793432.90	0.00783
344287.24	3793455.51	0.00828	344273.44	3793478.12	0.00847
344259.64	3793500.73	0.00839	344245.85	3793523.35	0.00806
344232.05	3793545.96	0.00755	344218.25	3793568.57	0.00689
344007.61	3793321.35	0.01300	343972.49	3793346.97	0.02617

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         343937.38    3793372.58        0.03358                      343902.27
3793398.20        0.03790
         343867.16    3793423.81        0.03950                      343832.04
3793449.42        0.03842
         343796.93    3793475.04        0.03527                      343761.82
3793500.65        0.02933
         343992.87    3793301.16        0.00879                      343957.76
3793326.77        0.01480
         343922.65    3793352.38        0.02061                      343887.53
3793378.00        0.02483
         343852.42    3793403.61        0.02673                      343817.31
3793429.23        0.02655
         343782.20    3793454.84        0.02594                      343747.08
3793480.46        0.02257
         344006.04    3793274.21        0.00587                      344058.44
3793282.41        0.00579
         343978.14    3793280.96        0.00667                      343943.03
3793306.57        0.00993
         343907.91    3793332.19        0.01385                      343872.80
3793357.80        0.01718
         343837.69    3793383.42        0.01905                      343802.58
3793409.03        0.02027
         343767.46    3793434.64        0.01860                      343732.35
3793460.26        0.01860
         344000.61    3793251.76        0.00465                      344070.48
3793262.70        0.00459
         343963.41    3793260.76        0.00522                      343928.29
3793286.38        0.00712
         343893.18    3793311.99        0.00971                      343858.07
3793337.60        0.01228
         343822.95    3793363.22        0.01428                      343787.84
3793388.83        0.01463
         343752.73    3793414.45        0.01330                      343717.62
3793440.06        0.01468
         343979.67    3793233.06        0.00406                      344010.67
3793225.56        0.00365
         344068.90    3793234.67        0.00358                      344096.12
3793251.29        0.00409
         343948.67    3793240.56        0.00444                      343913.56
3793266.18        0.00569
         343878.45    3793291.79        0.00746                      343843.33
3793317.41        0.00941
         343808.22    3793343.02        0.01122                      343773.11
3793368.64        0.01014
         343738.00    3793394.25        0.00955                      343702.88
3793419.86        0.01159
 *** AERMOD - VERSION  19191 ***   *** C:\LAKES\AERMOD VIEW\SIMI VALLEY EXISTING
2019\SIMI VALLEY EXISTING  ***        07/27/20
 *** AERMET - VERSION  18081 ***   ***
                       ***        20:27:53
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*** MODELOPTs: RegDFAULT CONC ELEV URBAN SigA Data

*** THE PERIOD (26304 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): STATION , DAYTIME , NIGHT , PAREA1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
343971.14	3793211.36	0.00355	344008.34	3793202.36	0.00311
344078.21	3793213.30	0.00305	344110.88	3793233.24	0.00347
343933.94	3793220.37	0.00393	343898.83	3793245.98	0.00484
343863.71	3793271.60	0.00619	343828.60	3793297.21	0.00790
343793.49	3793322.82	0.00817	343758.37	3793348.44	0.00746
343723.26	3793374.05	0.00742	343688.15	3793399.67	0.00900
343951.76	3793192.29	0.00303	343984.31	3793184.41	0.00270
344016.86	3793176.53	0.00243	344077.99	3793186.11	0.00262
344106.58	3793203.56	0.00278	344135.17	3793221.01	0.00314
343919.21	3793200.17	0.00327	343884.09	3793225.78	0.00414
343848.98	3793251.40	0.00509	343813.87	3793277.01	0.00609
343778.75	3793302.63	0.00654	343743.64	3793328.24	0.00625
343708.53	3793353.86	0.00589	343673.42	3793379.47	0.00680
343941.67	3793170.97	0.00250	343978.87	3793161.97	0.00226
344016.08	3793152.96	0.00202	344085.95	3793163.90	0.00229
344118.61	3793183.84	0.00244	344151.28		

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3793203.79        0.00275
         343904.47    3793179.97        0.00274                      343869.36
3793205.59        0.00339
         343834.25    3793231.20        0.00406                      343799.13
3793256.82        0.00476
         343764.02    3793282.43        0.00530                      343728.91
3793308.04        0.00528
         343693.79    3793333.66        0.00498                      343658.68
3793359.27        0.00507
         343931.59    3793149.65        0.00207                      343973.44
3793139.52        0.00190
         344015.29    3793129.39        0.00171                      344093.90
3793141.69        0.00200
         344130.65    3793164.13        0.00217                      344167.40
3793186.57        0.00244
         343889.74    3793159.78        0.00229                      343854.63
3793185.39        0.00286
         343819.51    3793211.00        0.00336                      343784.40
3793236.62        0.00379
         343749.29    3793262.23        0.00395                      343714.17
3793287.85        0.00430
         343679.06    3793313.46        0.00414                      343643.95
3793339.08        0.00400
         343912.21    3793130.57        0.00172                      343949.41
3793121.57        0.00163
         343986.61    3793112.57        0.00152                      344023.81
3793103.56        0.00142
         344093.68    3793114.50        0.00160                      344126.35
3793134.45        0.00191
         344159.02    3793154.39        0.00203                      344191.69
3793174.33        0.00230
         343875.01    3793139.58        0.00190                      343839.89
3793165.19        0.00245
         343804.78    3793190.81        0.00279                      343769.67
3793216.42        0.00302
         343734.55    3793242.04        0.00296                      343699.44
3793267.65        0.00314
         343664.33    3793293.26        0.00346                      343629.22
3793318.88        0.00321
         343901.19    3793109.48        0.00139                      343942.11
3793099.57        0.00133
         343983.04    3793089.67        0.00129                      344023.96
3793079.76        0.00116
         344100.81    3793091.80        0.00137                      344136.75
3793113.74        0.00167
         344172.69    3793135.67        0.00185                      344208.62
3793157.61        0.00207
         343860.27    3793119.38        0.00160                      343825.16
3793145.00        0.00202
 *** AERMOD - VERSION  19191 ***   *** C:\LAKES\AERMOD VIEW\SIMI VALLEY EXISTING
```

 *** MODELOPTs: RegDFAULT CONC ELEV URBAN SigA Data

*** THE PERIOD (26304 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S):   STATION   , DAYTIME , NIGHT   , PAREA1   ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10   IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
343790.05	3793170.61	0.00229	343754.93	3793196.22	0.00245
343719.82	3793221.84	0.00227	343684.71	3793247.45	0.00240
343649.59	3793273.07	0.00272	343614.48	3793298.68	0.00267
343882.74	3793090.18	0.00118	343919.94	3793081.18	0.00112
343957.14	3793072.17	0.00112	343994.34	3793063.17	0.00106
344031.54	3793054.16	0.00095	344101.41	3793065.10	0.00112
344134.08	3793085.05	0.00136	344166.75	3793104.99	0.00157
344199.42	3793124.93	0.00176	344232.09	3793144.88	0.00194
343845.54	3793099.18	0.00140	343810.43	3793124.80	0.00164
343775.31	3793150.41	0.00182	343740.20	3793176.03	0.00189
343705.09	3793201.64	0.00186	343669.97	3793227.26	0.00194
343634.86	3793252.87	0.00219	343599.75	3793278.48	0.00223
343754.85	3793529.38	0.02498	343734.35	3793542.88	0.01614
343728.95	3793520.56	0.01884	343714.03	3793557.08	0.01185

```
         343708.24    3793533.17        0.01442                    343706.72
3793502.26        0.01669
         343719.54    3793481.26        0.01834                    343693.76
3793571.51        0.00930
         343687.76    3793546.72        0.01148                    343681.75
3793521.92        0.01343
         343682.18    3793498.13        0.01456                    343695.47
3793476.36        0.01576
         343673.51    3793586.06        0.00753                    343667.38
3793560.70        0.00933
         343661.24    3793535.34        0.01137                    343655.10
3793509.98        0.01163
         343662.11    3793486.68        0.01226                    343675.70
3793464.41        0.01282
         343689.29    3793442.14        0.01295                    343653.28
3793600.66        0.00631
         343647.05    3793574.91        0.00772                    343640.82
3793549.16        0.00920
         343634.59    3793523.41        0.00968                    343632.95
3793490.13        0.00945
         343646.75    3793467.51        0.01009                    343660.55
3793444.90        0.01038
         343674.35    3793422.28        0.01038                    343633.06
3793615.30        0.00536
         343626.76    3793589.26        0.00656                    343620.46
3793563.23        0.00801
         343614.16    3793537.19        0.00828                    343607.85
3793511.16        0.00793
         343608.30    3793486.18        0.00741                    343622.26
3793463.31        0.00768
         343636.21    3793440.45        0.00797                    343650.16
3793417.58        0.00834
         343612.85    3793629.96        0.00462                    343606.49
3793603.70        0.00563
         343600.14    3793577.45        0.00669                    343593.78
3793551.20        0.00743
         343587.43    3793524.94        0.00746                    343581.07
3793498.69        0.00682
         343588.33    3793474.56        0.00621                    343602.40
3793451.51        0.00618
         343616.47    3793428.45        0.00620                    343630.54
3793405.39        0.00631
         343644.61    3793382.33        0.00607                    343592.74
3793645.07        0.00405
         343586.67    3793619.97        0.00482                    343580.59
3793594.86        0.00567
         343574.51    3793569.76        0.00645                    343568.43
3793544.65        0.00709
         343562.36    3793519.55        0.00707                    343556.28
3793494.44        0.00656
```

*** MODELOPTs: RegDFAULT CONC ELEV URBAN SigA Data

*** THE PERIOD (26304 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): STATION , DAYTIME , NIGHT , PAREA1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
343590.13	3793427.27	0.00519	343603.59	3793405.22	0.00505
343617.04	3793383.18	0.00484	343630.49	3793361.13	0.00443
343572.52	3793659.72	0.00359	343566.39	3793634.36	0.00424
343560.25	3793609.00	0.00496	343554.11	3793583.64	0.00564
343547.97	3793558.29	0.00639	343541.83	3793532.93	0.00678
343535.69	3793507.57	0.00666	343534.08	3793474.78	0.00638
343547.67	3793452.51	0.00603	343561.26	3793430.24	0.00529
343574.85	3793407.97	0.00470	343588.44	3793385.70	0.00416
343602.03	3793363.42	0.00383	343615.62	3793341.15	0.00349
343552.31	3793674.38	0.00321	343546.12	3793648.81	0.00376
343539.93	3793623.24	0.00437	343533.74	3793597.67	0.00499
343527.55	3793572.10	0.00552	343521.36	3793546.53	0.00607
343515.17	3793520.96	0.00641	343508.98		

3793495.39 0.00652
343509.42 3793470.86 0.00649 343523.13
3793448.40 0.00637
343536.83 3793425.94 0.00578 343550.53
3793403.49 0.00487
343564.24 3793381.03 0.00400 343577.94
3793358.57 0.00347
343591.64 3793336.11 0.00304 343532.10
3793689.05 0.00290
343525.86 3793663.31 0.00337 343519.63
3793637.56 0.00389
343513.40 3793611.81 0.00444 343507.16
3793586.06 0.00494
343500.93 3793560.31 0.00537 343494.70
3793534.56 0.00573
343488.47 3793508.81 0.00601 343482.23
3793483.06 0.00614
343489.35 3793459.40 0.00622 343503.15
3793436.79 0.00614
343516.95 3793414.17 0.00576 343530.75
3793391.56 0.00496
343544.55 3793368.94 0.00408 343558.35
3793346.33 0.00326
343572.15 3793323.71 0.00273 343585.95
3793301.10 0.00241
343796.59 3793548.33 0.01709 343831.71
3793522.71 0.03894
343866.82 3793497.10 0.04852 343901.93
3793471.48 0.05155
343937.04 3793445.86 0.05669 343972.15
3793420.25 0.05378
344007.26 3793394.63 0.04936 343811.33
3793568.52 0.01028
343846.44 3793542.91 0.01919 343881.55
3793517.29 0.02766
343916.66 3793491.68 0.03137 343951.77
3793466.06 0.03455
343986.89 3793440.44 0.03543 344022.00
3793414.83 0.03276
343798.17 3793595.47 0.00686 343745.77
3793587.28 0.00813
343826.06 3793588.72 0.00734 343861.17
3793563.10 0.01166
343896.29 3793537.49 0.01761 343931.40
3793511.87 0.02143
343966.51 3793486.26 0.02397 344001.62
3793460.64 0.02598
344036.73 3793435.03 0.02533 344071.84
3793409.41 0.02345
343803.60 3793617.92 0.00525 343733.74

3793606.99 0.00625
343840.80 3793608.92 0.00568 343875.91
3793583.30 0.00813
343911.02 3793557.68 0.01212 343946.13
3793532.07 0.01557

↑ *** AERMOD - VERSION 19191 *** *** C:\LAKES\AERMOD VIEW\SIMI VALLEY EXISTING 2019\SIMI VALLEY EXISTING *** 07/27/20
*** AERMET - VERSION 18081 *** ***
*** 20:27:53

PAGE 23
*** MODELOPTs: RegDFAULT CONC ELEV URBAN SigA Data

*** THE PERIOD (26304 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): STATION , DAYTIME , NIGHT , PAREA1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M) Y-COORD (M) CONC X-COORD (M) Y-COORD (M) CONC
- -
343981.24 3793506.45 0.01792 344016.35
3793480.84 0.02007
344051.47 3793455.22 0.02073 343824.54
3793636.62 0.00434
343793.54 3793644.12 0.00411 343735.32
3793635.02 0.00459
343708.09 3793618.40 0.00551 343855.53
3793629.11 0.00462
343890.64 3793603.50 0.00617 343925.75
3793577.88 0.00882
343960.87 3793552.27 0.01173 343995.98
3793526.65 0.01400
344031.09 3793501.03 0.01605 344066.20
3793475.42 0.01723
344101.31 3793449.80 0.01699 343833.07
3793658.32 0.00363
343795.87 3793667.32 0.00342 343726.01
3793656.39 0.00380
343693.34 3793636.46 0.00458 343870.27
3793649.31 0.00387
343905.38 3793623.69 0.00495 343940.49
3793598.08 0.00673

```
         343975.60    3793572.46        0.00904                    344010.71
3793546.85        0.01119
         344045.82    3793521.23        0.01306                    344080.94
3793495.61        0.01439
         344116.05    3793470.00        0.01469                    343852.45
3793677.39        0.00315
         343819.91    3793685.27        0.00300                    343787.36
3793693.15        0.00286
         343726.23    3793683.58        0.00308                    343697.64
3793666.14        0.00353
         343669.06    3793648.70        0.00410                    343885.00
3793669.51        0.00332
         343920.11    3793643.89        0.00407                    343955.22
3793618.27        0.00532
         343990.34    3793592.66        0.00710                    344025.45
3793567.04        0.00899
         344060.56    3793541.43        0.01073                    344095.67
3793515.81        0.01209
         343862.54    3793698.71        0.00274                    343825.34
3793707.71        0.00260
         343788.15    3793716.72        0.00247                    343718.28
3793705.79        0.00265
         343685.61    3793685.86        0.00305                    343652.95
3793665.92        0.00356
         343899.74    3793689.70        0.00289                    343934.85
3793664.09        0.00345
         343969.96    3793638.47        0.00437                    344005.07
3793612.85        0.00570
         344040.18    3793587.24        0.00726                    344075.29
3793561.62        0.00886
         344110.40    3793536.01        0.01019                    343872.62
3793720.03        0.00241
         343830.78    3793730.16        0.00228                    343788.93
3793740.29        0.00216
         343710.34    3793728.00        0.00232                    343673.58
3793705.57        0.00267
         343636.83    3793683.15        0.00313                    343914.47
3793709.90        0.00255
         343949.58    3793684.28        0.00298                    343984.69
3793658.67        0.00368
         344019.80    3793633.05        0.00470                    344054.92
3793607.44        0.00595
         344090.03    3793581.82        0.00732                    344125.14
3793556.20        0.00854
         344160.25    3793530.59        0.00942                    343892.01
3793739.10        0.00217
         343854.81    3793748.11        0.00207                    343817.62
3793757.11        0.00198
         343780.42    3793766.12        0.00189                    343710.56
3793755.19        0.00200
```

*** MODELOPTs: RegDFAULT CONC ELEV URBAN SigA Data

*** THE PERIOD (26304 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): STATION , DAYTIME , NIGHT , PAREA1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
344104.76	3793602.02	0.00612	344139.87	3793576.40	0.00725
344174.98	3793550.78	0.00817	343903.02	3793760.20	0.00195
343862.11	3793770.11	0.00186	343821.19	3793780.01	0.00178
343780.28	3793789.92	0.00168	343703.43	3793777.90	0.00179
343667.49	3793755.97	0.00199	343631.55	3793734.04	0.00225
343595.62	3793712.11	0.00258	343943.94	3793750.29	0.00204
343979.05	3793724.68	0.00234	344014.16	3793699.06	0.00275
344049.27	3793673.44	0.00337	344084.38	3793647.83	0.00420
344119.50	3793622.21	0.00518	344154.61	3793596.60	0.00618
343921.48	3793779.49	0.00177	343884.28		

3793788.50   0.00171
         343847.09   3793797.51   0.00164   343809.89
3793806.51   0.00157
         343772.69   3793815.52   0.00149   343702.83
3793804.59   0.00159
         343670.16   3793784.66   0.00173   343637.49
3793764.72   0.00191
         343604.82   3793744.79   0.00213   343572.15
3793724.85   0.00238
         343958.67   3793770.49   0.00183   343993.78
3793744.87   0.00209
         344028.90   3793719.26   0.00241   344064.01
3793693.64   0.00291
         344099.12   3793668.02   0.00359   344134.23
3793642.41   0.00441
         344169.34   3793616.79   0.00529   344204.45
3793591.18   0.00613

 *** MODELOPTs: RegDFAULT CONC ELEV URBAN SigA Data

                                       *** THE SUMMARY OF MAXIMUM PERIOD (26304
HRS) RESULTS ***

                                    ** CONC OF PM_10   IN MICROGRAMS/M**3
              **

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

ALL   1ST HIGHEST VALUE IS   0.05669 AT (343937.04, 3793445.86,
300.21,   471.06,   0.00) DC
          2ND HIGHEST VALUE IS   0.05378 AT (343972.15, 3793420.25,
300.41,   471.06,   0.00) DC
          3RD HIGHEST VALUE IS   0.05155 AT (343901.93, 3793471.48,
299.82,   471.06,   0.00) DC
          4TH HIGHEST VALUE IS   0.04936 AT (344007.26, 3793394.63,
300.41,   471.06,   0.00) DC
          5TH HIGHEST VALUE IS   0.04852 AT (343866.82, 3793497.10,
299.84,   471.06,   0.00) DC
          6TH HIGHEST VALUE IS   0.04122 AT (344045.70, 3793363.57,

```
300.41,   471.06,    0.00)  DC
          7TH HIGHEST VALUE IS       0.03950 AT (  343867.16,  3793423.81,
300.56,   471.06,    0.00)  DC
          8TH HIGHEST VALUE IS       0.03894 AT (  343831.71,  3793522.71,
299.69,   471.06,    0.00)  DC
          9TH HIGHEST VALUE IS       0.03842 AT (  343832.04,  3793449.42,
300.28,   471.06,    0.00)  DC
         10TH HIGHEST VALUE IS       0.03790 AT (  343902.27,  3793398.20,
300.69,   471.06,    0.00)  DC


 *** RECEPTOR TYPES:  GC = GRIDCART
                      GP = GRIDPOLR
                      DC = DISCCART
                      DP = DISCPOLR
↟ *** AERMOD - VERSION  19191 ***   *** C:\LAKES\AERMOD VIEW\SIMI VALLEY EXISTING
2019\SIMI VALLEY EXISTING  ***        07/27/20
 *** AERMET - VERSION  18081 ***   ***
                       ***        20:27:53

                                   PAGE  26
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  SigA Data

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

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

 A Total of            0 Fatal Error Message(s)
 A Total of            3 Warning Message(s)
 A Total of          215 Informational Message(s)

 A Total of        26304 Hours Were Processed

 A Total of            0 Calm Hours Identified

 A Total of          215 Missing Hours Identified (  0.82 Percent)


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


    ********   WARNING MESSAGES   ********
 SO W320      48       APPARM: Input Parameter May Be Out-of-Range for Parameter
       QS
 ME W186     130       MEOPEN: THRESH_1MIN 1-min ASOS wind speed threshold used
      0.50
 MX W403     130       PFLCNV: Turbulence data is being used w/o ADJ_U* option
 SigA Data
```

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

```
** Lakes Environmental AERMOD MPI
**
**************************************
**
** AERMOD INPUT PRODUCED BY:
** AERMOD VIEW VER. 9.9.0
** LAKES ENVIRONMENTAL SOFTWARE INC.
** DATE: 7/27/2020
** FILE: C:\LAKES\AERMOD VIEW\SIMI VALLEY OP HRA\SIMI VALLEY PROJECT 2025\SIMI
VALLEY PROJECT 2025.ADI
**
**************************************
**
**
**************************************
** AERMOD CONTROL PATHWAY
**************************************
**
**
CO STARTING
   TITLEONE C:\LAKES\AERMOD VIEW\SIMI VALLEY EXISTING 2019\SIMI VALLEY EXISTING
   MODELOPT DFAULT CONC
   AVERTIME PERIOD
   URBANOPT 846006 VENTURA_COUNTY_POP
   POLLUTID PM_10
   RUNORNOT RUN
   ERRORFIL "SIMI VALLEY PROJECT 2025.ERR"
CO FINISHED
**
**************************************
** AERMOD SOURCE PATHWAY
**************************************
**
**
SO STARTING
** SOURCE LOCATION **
** SOURCE ID - TYPE - X COORD. - Y COORD. **
   LOCATION STATION      POINT      343900.896  3793435.713      300.280
** DESCRSRC SIMI VALLEY STATION IDLING
   LOCATION DAYTIME      LINE       344024.992  3793345.188   343779.200
3793524.487      300.570
** DESCRSRC DAYTIME TRAIN MOVEMENT
   LOCATION NIGHT        LINE       344024.992  3793345.188   343779.200
3793524.487      300.570
** DESCRSRC NIGHTTIME TRAIN MOVEMENT
   LOCATION PAREA1       AREAPOLY   343781.858  3793528.126      299.370
** DESCRSRC AREA SOURCE FOR RECEPTOR GRID
** SOURCE PARAMETERS **
   SRCPARAM STATION      0.0000187     4.600   351.000   3.73000     0.666
   SRCPARAM DAYTIME      4.4556E-08     4.800     9.000     2.250
```

```
   SRCPARAM NIGHT        4.4556E-08    18.400     9.000     8.540
   SRCPARAM PAREA1             0.0     0.000         4     0.000
   AREAVERT PAREA1       343781.858 3793528.126 344027.643 3793348.823
   AREAVERT PAREA1       344022.340 3793341.553 343776.546 3793520.854
   URBANSRC ALL

** VARIABLE EMISSIONS TYPE: "BY HOUR / DAY (HRDOW)"
** VARIABLE EMISSION SCENARIO: "STATION"
** WEEKDAYS:
   EMISFACT STATION      HRDOW 0.0 0.0 0.0 0.0 0.0 1.0
   EMISFACT STATION      HRDOW 1.0 1.0 1.0 1.0 1.0 1.0
   EMISFACT STATION      HRDOW 1.0 1.0 1.0 1.0 1.0 1.0
   EMISFACT STATION      HRDOW 1.0 1.0 1.0 1.0 1.0 1.0
** SATURDAY:
   EMISFACT STATION      HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT STATION      HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT STATION      HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT STATION      HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** SUNDAY:
   EMISFACT STATION      HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT STATION      HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT STATION      HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT STATION      HRDOW 0.0 0.0 0.0 0.0 0.0 0.0

** VARIABLE EMISSIONS TYPE: "BY HOUR / DAY (HRDOW)"
** VARIABLE EMISSION SCENARIO: "DAYTIME TRAIN"
** WEEKDAYS:
   EMISFACT DAYTIME      HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT DAYTIME      HRDOW 1.0 1.0 1.0 1.0 1.0 1.0
   EMISFACT DAYTIME      HRDOW 1.0 1.0 1.0 1.0 1.0 1.0
   EMISFACT DAYTIME      HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** SATURDAY:
   EMISFACT DAYTIME      HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT DAYTIME      HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT DAYTIME      HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT DAYTIME      HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** SUNDAY:
   EMISFACT DAYTIME      HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT DAYTIME      HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT DAYTIME      HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT DAYTIME      HRDOW 0.0 0.0 0.0 0.0 0.0 0.0

** VARIABLE EMISSIONS TYPE: "BY HOUR / DAY (HRDOW)"
** VARIABLE EMISSION SCENARIO: "NIGHTTIME TRAIN"
** WEEKDAYS:
   EMISFACT NIGHT        HRDOW 0.0 0.0 0.0 0.0 0.0 1.0
   EMISFACT NIGHT        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT NIGHT        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT NIGHT        HRDOW 1.0 1.0 1.0 1.0 1.0 1.0
** SATURDAY:
```

```
   EMISFACT NIGHT        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT NIGHT        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT NIGHT        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT NIGHT        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** SUNDAY:
   EMISFACT NIGHT        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT NIGHT        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT NIGHT        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT NIGHT        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   SRCGROUP ALL
SO FINISHED
**
**************************************
** AERMOD RECEPTOR PATHWAY
**************************************
**
**
RE STARTING
   INCLUDED "SIMI VALLEY PROJECT 2025.ROU"
RE FINISHED
**
**************************************
** AERMOD METEOROLOGY PATHWAY
**************************************
**
**
ME STARTING
   SURFFILE "G:\SACRAMENTO\LGT-AIR&NOISE\AIR\METROLINK SCORE PROGRAM 00173.20
(SCAQMD)\02 MODELING\SIMI HRA\MET DATA\SIMI-VALLEY-2015-2017\SEMI
VALLEY_2015-2017.SFC"
   PROFFILE "G:\SACRAMENTO\LGT-AIR&NOISE\AIR\METROLINK SCORE PROGRAM 00173.20
(SCAQMD)\02 MODELING\SIMI HRA\MET DATA\SIMI-VALLEY-2015-2017\SEMI
VALLEY_2015-2017.PFL"
   SURFDATA 93110 2015
   UAIRDATA 93214 2015
   SITEDATA 56434 2015
   PROFBASE 316.0 METERS
ME FINISHED
**
**************************************
** AERMOD OUTPUT PATHWAY
**************************************
**
**
OU STARTING
** AUTO-GENERATED PLOTFILES
   PLOTFILE   PERIOD ALL "SIMI VALLEY PROJECT 2025.AD\PE00GALL.PLT" 31
   SUMMFILE "SIMI VALLEY PROJECT 2025.SUM"
OU FINISHED
```

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

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

A Total of            0 Fatal Error Message(s)
A Total of            3 Warning Message(s)
A Total of            0 Informational Message(s)


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


   ********   WARNING MESSAGES   ********
SO W320      48       APPARM: Input Parameter May Be Out-of-Range for Parameter
       QS
ME W186     130       MEOPEN: THRESH_1MIN 1-min ASOS wind speed threshold used
     0.50
MX W403     130       PFLCNV: Turbulence data is being used w/o ADJ_U* option
SigA Data

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

*** AERMOD - VERSION  19191 ***   *** C:\LAKES\AERMOD VIEW\SIMI VALLEY EXISTING
2019\SIMI VALLEY EXISTING  ***        07/27/20
*** AERMET - VERSION  18081 ***   ***
                        ***        20:39:48

                                   PAGE   1
*** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  SigA Data

                                          ***     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 URBAN Dispersion Algorithm for the SBL for     4 Source(s),
  for Total of    1 Urban Area(s):
  Urban Population =    846006.0 ;  Urban Roughness Length =  1.000 m
```

```
 **Model Uses Regulatory DEFAULT Options:
        1. Stack-tip Downwash.
        2. Model Accounts for ELEVated Terrain Effects.
        3. Use Calms Processing Routine.
        4. Use Missing Data Processing Routine.
        5. No Exponential Decay.
        6. Urban Roughness Length of 1.0 Meter Assumed.

 **Other Options Specified:
        CCVR_Sub - Meteorological data includes CCVR substitutions
        TEMP_Sub - Meteorological data includes TEMP substitutions

 **Model Assumes No FLAGPOLE Receptor Heights.

 **The User Specified a Pollutant Type of:  PM_10

 **Model Calculates PERIOD Averages Only

 **This Run Includes:      4 Source(s);       1 Source Group(s); and     516
Receptor(s)

                with:      1 POINT(s), including
                           0 POINTCAP(s) and      0 POINTHOR(s)
                 and:      0 VOLUME source(s)
                 and:      1 AREA type source(s)
                 and:      2 LINE source(s)
                 and:      0 RLINE/RLINEXT source(s)
                 and:      0 OPENPIT source(s)
                 and:      0 BUOYANT LINE source(s) with      0 line(s)


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

 **The AERMET Input Meteorological Data Version Date:  18081

 **Output Options Selected:
         Model Outputs Tables of PERIOD Averages by Receptor
         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) =   316.00 ;  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 =   3.6 MB of RAM.

 **Input Runstream File: aermod.inp

 **Output Print File: aermod.out

 **Detailed Error/Message File: SIMI VALLEY PROJECT 2025.ERR

 **File for Summary of Results: SIMI VALLEY PROJECT 2025.SUM

 *** MODELOPTs: RegDFAULT CONC ELEV URBAN SigA Data

                                                  *** POINT SOURCE DATA ***

               NUMBER EMISSION RATE   BASE   STACK   STACK   STACK   BLDG   URBAN CAP/ EMIS RATE
   SOURCE   PART. (GRAMS/SEC)   X   Y   ELEV.   HEIGHT TEMP.   EXIT VEL. DIAMETER EXISTS SOURCE HOR   SCALAR
     ID   CATS.   (METERS) (METERS) (METERS) (METERS) (DEG.K) (M/SEC) (METERS)   VARY BY
 -

 STATION   0   0.18700E-04 343900.9 3793435.7   300.3   4.60   351.00   3.73   0.67   NO   YES   NO HRDOW

 *** MODELOPTs: RegDFAULT CONC ELEV URBAN SigA Data

                                                *** 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
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -

 PAREA1           0   0.00000E+00  343781.9 3793528.1   299.4     0.00       4
   0.00     YES
↑ *** AERMOD - VERSION  19191 ***   *** C:\LAKES\AERMOD VIEW\SIMI VALLEY EXISTING
2019\SIMI VALLEY EXISTING  ***        07/27/20
 *** AERMET - VERSION  18081 ***   ***
                       ***        20:39:48

                                  PAGE   4
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  SigA Data


                                                *** LINE SOURCE DATA ***

              NUMBER EMISSION RATE     FIRST COORD        SECOND COORD     BASE
RELEASE    WIDTH    INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC        X       Y           X       Y      ELEV.
HEIGHT    OF LINE    SZ     SOURCE SCALAR VARY
     ID         CATS.   /METER**2)   (METERS) (METERS)   (METERS) (METERS) (METERS)
(METERS)  (METERS) (METERS)             BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -

 DAYTIME          0   0.44556E-07  344025.0 3793345.2  343779.2 3793524.5   300.6
  4.80      9.00     2.25     YES   HRDOW
 NIGHT            0   0.44556E-07  344025.0 3793345.2  343779.2 3793524.5   300.6
 18.40      9.00     8.54     YES   HRDOW
↑ *** AERMOD - VERSION  19191 ***   *** C:\LAKES\AERMOD VIEW\SIMI VALLEY EXISTING
2019\SIMI VALLEY EXISTING  ***        07/27/20
 *** AERMET - VERSION  18081 ***   ***
                       ***        20:39:48

                                  PAGE   5
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  SigA Data


                                             *** SOURCE IDs DEFINING SOURCE GROUPS
***

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

                                        *** SOURCE IDs DEFINED AS URBAN SOURCES
***

  URBAN ID   URBAN POP   SOURCE IDs
  --------   ---------   ----------

                  * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = STATION   ; SOURCE TYPE = POINT   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 -
- -
                                                DAY OF WEEK = WEEKDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .1000E+01   7 .1000E+01   8 .1000E+01
    9 .1000E+01   10 .1000E+01   11 .1000E+01   12 .1000E+01   13 .1000E+01
14 .1000E+01   15 .1000E+01   16 .1000E+01
   17 .1000E+01   18 .1000E+01   19 .1000E+01   20 .1000E+01   21 .1000E+01
22 .1000E+01   23 .1000E+01   24 .1000E+01
                                                DAY OF WEEK = SATURDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .0000E+00   10 .0000E+00   11 .0000E+00   12 .0000E+00   13 .0000E+00
14 .0000E+00   15 .0000E+00   16 .0000E+00
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00
                                                DAY OF WEEK = SUNDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00

6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .0000E+00   10 .0000E+00   11 .0000E+00   12 .0000E+00   13 .0000E+00
14 .0000E+00   15 .0000E+00   16 .0000E+00
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00

                  * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY
OF WEEK (HRDOW) *

 SOURCE ID = DAYTIME   ; SOURCE TYPE = LINE   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
 -
- -
                                                DAY OF WEEK = WEEKDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .1000E+01   8 .1000E+01
    9 .1000E+01   10 .1000E+01   11 .1000E+01   12 .1000E+01   13 .1000E+01
14 .1000E+01   15 .1000E+01   16 .1000E+01
   17 .1000E+01   18 .1000E+01   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00
                                                DAY OF WEEK = SATURDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .0000E+00   10 .0000E+00   11 .0000E+00   12 .0000E+00   13 .0000E+00
14 .0000E+00   15 .0000E+00   16 .0000E+00
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00
                                                DAY OF WEEK = SUNDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00
6 .0000E+00   7 .0000E+00   8 .0000E+00
    9 .0000E+00   10 .0000E+00   11 .0000E+00   12 .0000E+00   13 .0000E+00
14 .0000E+00   15 .0000E+00   16 .0000E+00
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00
22 .0000E+00   23 .0000E+00   24 .0000E+00

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

SOURCE ID = NIGHT ; SOURCE TYPE = LINE :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

DAY OF WEEK = WEEKDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.1000E+01	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.1000E+01	20	.1000E+01	21	.1000E+01	22	.1000E+01	23	.1000E+01	24	.1000E+01

DAY OF WEEK = SATURDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00

DAY OF WEEK = SUNDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00

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

(344049.3, 3793340.3, 300.7, 471.1, 0.0); (344045.7, 3793363.6, 300.4, 471.1, 0.0);
(344069.8, 3793326.8, 301.1, 471.1, 0.0); (344075.2, 3793349.1, 300.8, 471.1, 0.0);
(344065.1, 3793376.1, 300.3, 471.1, 0.0); (344090.2, 3793312.6, 301.4, 471.1, 0.0);
(344096.0, 3793336.5, 301.2, 471.1, 0.0); (344097.5, 3793367.4, 300.9, 471.1, 0.0);
(344084.7, 3793388.4, 300.5, 471.1, 0.0); (344110.5,

```
3793298.2,     300.9,     471.1,       0.0);
     ( 344116.4, 3793323.0,     300.6,     471.1,       0.0);         ( 344122.4,
3793347.8,     300.4,     471.1,       0.0);
     ( 344122.0, 3793371.5,     300.5,     471.1,       0.0);         ( 344108.7,
3793393.3,     300.7,     471.1,       0.0);
     ( 344095.4, 3793415.1,     300.7,     471.1,       0.0);         ( 344130.7,
3793283.6,     300.5,     471.1,       0.0);
     ( 344136.8, 3793309.0,     300.2,     471.1,       0.0);         ( 344143.0,
3793334.3,     300.3,     471.1,       0.0);
     ( 344149.1, 3793359.7,     300.4,     471.1,       0.0);         ( 344142.1,
3793383.0,     300.5,     471.1,       0.0);
     ( 344128.5, 3793405.3,     300.6,     471.1,       0.0);         ( 344114.9,
3793427.5,     300.8,     471.1,       0.0);
     ( 344150.9, 3793269.0,     300.6,     471.1,       0.0);         ( 344157.1,
3793294.8,     300.2,     471.1,       0.0);
     ( 344163.4, 3793320.5,     300.3,     471.1,       0.0);         ( 344169.6,
3793346.3,     300.4,     471.1,       0.0);
     ( 344171.2, 3793379.6,     300.6,     471.1,       0.0);         ( 344157.4,
3793402.2,     300.7,     471.1,       0.0);
     ( 344143.6, 3793424.8,     300.9,     471.1,       0.0);         ( 344129.8,
3793447.4,     301.0,     471.1,       0.0);
     ( 344171.1, 3793254.4,     300.6,     471.1,       0.0);         ( 344177.5,
3793280.4,     300.2,     471.1,       0.0);
     ( 344183.7, 3793306.5,     300.2,     471.1,       0.0);         ( 344190.0,
3793332.5,     300.4,     471.1,       0.0);
     ( 344196.3, 3793358.5,     300.5,     471.1,       0.0);         ( 344195.9,
3793383.5,     300.7,     471.1,       0.0);
     ( 344181.9, 3793406.4,     300.8,     471.1,       0.0);         ( 344168.0,
3793429.2,     301.0,     471.1,       0.0);
     ( 344154.0, 3793452.1,     301.1,     471.1,       0.0);         ( 344140.1,
3793474.9,     301.2,     471.1,       0.0);
     ( 344191.2, 3793239.3,     300.7,     471.1,       0.0);         ( 344197.2,
3793264.1,     300.2,     471.1,       0.0);
     ( 344203.2, 3793288.8,     300.3,     471.1,       0.0);         ( 344209.2,
3793313.6,     300.4,     471.1,       0.0);
     ( 344215.2, 3793338.4,     300.6,     471.1,       0.0);         ( 344221.2,
3793363.2,     300.8,     471.1,       0.0);
     ( 344220.8, 3793387.0,     300.9,     471.1,       0.0);         ( 344207.5,
3793408.8,     300.9,     471.1,       0.0);
     ( 344194.2, 3793430.6,     301.1,     471.1,       0.0);         ( 344181.0,
3793452.3,     301.2,     471.1,       0.0);
     ( 344167.7, 3793474.1,     301.4,     471.1,       0.0);         ( 344154.4,
3793495.9,     301.5,     471.1,       0.0);
     ( 344211.5, 3793224.6,     300.8,     471.1,       0.0);         ( 344217.5,
3793249.7,     300.3,     471.1,       0.0);
     ( 344223.6, 3793274.8,     300.6,     471.1,       0.0);         ( 344229.7,
3793299.9,     300.8,     471.1,       0.0);
     ( 344235.8, 3793325.0,     300.9,     471.1,       0.0);         ( 344241.8,
3793350.1,     301.1,     471.1,       0.0);
     ( 344247.9, 3793375.2,     301.2,     471.1,       0.0);         ( 344241.0,
```

3793398.3,   301.1,   471.1,   0.0);
     (344227.5, 3793420.4,   301.2,   471.1,   0.0);   (344214.1,
3793442.4,   301.2,   471.1,   0.0);
     (344200.6, 3793464.4,   301.3,   471.1,   0.0);   (344187.1,
3793486.5,   301.5,   471.1,   0.0);
     (344173.7, 3793508.5,   301.6,   471.1,   0.0);   (344231.7,
3793210.0,   300.4,   471.1,   0.0);
     (344237.8, 3793235.3,   300.3,   471.1,   0.0);   (344244.0,
3793260.7,   300.7,   471.1,   0.0);
     (344250.1, 3793286.1,   301.2,   471.1,   0.0);   (344256.2,
3793311.4,   301.2,   471.1,   0.0);
     (344262.4, 3793336.8,   301.2,   471.1,   0.0);   (344268.5,
3793362.1,   301.2,   471.1,   0.0);
     (344270.1, 3793394.9,   301.2,   471.1,   0.0);   (344256.5,
3793417.2,   301.3,   471.1,   0.0);
     (344242.9, 3793439.4,   301.4,   471.1,   0.0);   (344229.3,
3793461.7,   301.5,   471.1,   0.0);
     (344215.8, 3793484.0,   301.6,   471.1,   0.0);   (344202.2,
3793506.2,   301.7,   471.1,   0.0);
     (344188.6, 3793528.5,   301.8,   471.1,   0.0);   (344251.9,
3793195.3,   299.4,   471.1,   0.0);
     (344258.1, 3793220.9,   299.7,   471.1,   0.0);   (344264.3,
3793246.5,   300.3,   471.1,   0.0);
     (344270.5, 3793272.0,   301.0,   471.1,   0.0);   (344276.7,
3793297.6,   301.2,   471.1,   0.0);
     (344282.8, 3793323.2,   301.1,   471.1,   0.0);   (344289.0,
3793348.7,   301.1,   471.1,   0.0);
     (344295.2, 3793374.3,   301.2,   471.1,   0.0);   (344294.8,
3793398.8,   301.3,   471.1,   0.0);
     (344281.1, 3793421.3,   301.4,   471.1,   0.0);   (344267.4,
3793443.7,   301.5,   471.1,   0.0);

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

     (344253.7, 3793466.2,   301.7,   471.1,   0.0);   (344240.0,
3793488.6,   301.7,   471.1,   0.0);
     (344226.3, 3793511.1,   301.9,   471.1,   0.0);   (344212.5,
3793533.6,   301.9,   471.1,   0.0);
     (344198.8, 3793556.0,   301.7,   471.1,   0.0);   (344272.1,
3793180.7,   300.4,   471.1,   0.0);
     (344278.4, 3793206.4,   299.7,   471.1,   0.0);   (344284.6,

3793232.2,   299.8,   471.1,   0.0);
     (344290.8, 3793257.9,   300.1,   471.1,   0.0);   (344297.0,
3793283.6,   300.9,   471.1,   0.0);
     (344303.3, 3793309.4,   301.0,   471.1,   0.0);   (344309.5,
3793335.1,   301.1,   471.1,   0.0);
     (344315.7, 3793360.9,   301.2,   471.1,   0.0);   (344322.0,
3793386.6,   301.4,   471.1,   0.0);
     (344314.8, 3793410.3,   301.5,   471.1,   0.0);   (344301.0,
3793432.9,   301.4,   471.1,   0.0);
     (344287.2, 3793455.5,   301.5,   471.1,   0.0);   (344273.4,
3793478.1,   301.7,   471.1,   0.0);
     (344259.6, 3793500.7,   301.9,   471.1,   0.0);   (344245.8,
3793523.3,   302.1,   471.1,   0.0);
     (344232.0, 3793546.0,   302.0,   471.1,   0.0);   (344218.2,
3793568.6,   301.9,   471.1,   0.0);
     (344007.6, 3793321.3,   300.9,   471.1,   0.0);   (343972.5,
3793347.0,   301.0,   471.1,   0.0);
     (343937.4, 3793372.6,   300.8,   471.1,   0.0);   (343902.3,
3793398.2,   300.7,   471.1,   0.0);
     (343867.2, 3793423.8,   300.6,   471.1,   0.0);   (343832.0,
3793449.4,   300.3,   471.1,   0.0);
     (343796.9, 3793475.0,   299.2,   471.1,   0.0);   (343761.8,
3793500.6,   298.0,   471.1,   0.0);
     (343992.9, 3793301.2,   301.0,   471.1,   0.0);   (343957.8,
3793326.8,   301.0,   471.1,   0.0);
     (343922.6, 3793352.4,   300.9,   471.1,   0.0);   (343887.5,
3793378.0,   300.8,   471.1,   0.0);
     (343852.4, 3793403.6,   300.6,   471.1,   0.0);   (343817.3,
3793429.2,   300.0,   471.1,   0.0);
     (343782.2, 3793454.8,   300.0,   471.1,   0.0);   (343747.1,
3793480.5,   298.4,   471.1,   0.0);
     (344006.0, 3793274.2,   300.7,   471.1,   0.0);   (344058.4,
3793282.4,   301.7,   471.1,   0.0);
     (343978.1, 3793281.0,   300.3,   471.1,   0.0);   (343943.0,
3793306.6,   300.1,   471.1,   0.0);
     (343907.9, 3793332.2,   299.8,   471.1,   0.0);   (343872.8,
3793357.8,   299.6,   471.1,   0.0);
     (343837.7, 3793383.4,   299.3,   471.1,   0.0);   (343802.6,
3793409.0,   300.3,   471.1,   0.0);
     (343767.5, 3793434.6,   307.7,   471.1,   0.0);   (343732.3,
3793460.3,   302.9,   471.1,   0.0);
     (344000.6, 3793251.8,   299.8,   471.1,   0.0);   (344070.5,
3793262.7,   302.0,   471.1,   0.0);
     (343963.4, 3793260.8,   298.5,   471.1,   0.0);   (343928.3,
3793286.4,   297.9,   471.1,   0.0);
     (343893.2, 3793312.0,   297.7,   471.1,   0.0);   (343858.1,
3793337.6,   297.7,   471.1,   0.0);
     (343823.0, 3793363.2,   298.3,   471.1,   0.0);   (343787.8,
3793388.8,   307.4,   471.1,   0.0);
     (343752.7, 3793414.4,   319.8,   471.1,   0.0);   (343717.6,

3793440.1,   307.6,   471.1,   0.0);
     (343979.7, 3793233.1,   299.4,   471.1,   0.0);   (344010.7,
3793225.6,   299.3,   471.1,   0.0);
     (344068.9, 3793234.7,   302.2,   471.1,   0.0);   (344096.1,
3793251.3,   301.8,   471.1,   0.0);
     (343948.7, 3793240.6,   298.9,   471.1,   0.0);   (343913.6,
3793266.2,   297.7,   471.1,   0.0);
     (343878.5, 3793291.8,   297.2,   471.1,   0.0);   (343843.3,
3793317.4,   297.3,   471.1,   0.0);
     (343808.2, 3793343.0,   303.7,   471.1,   0.0);   (343773.1,
3793368.6,   320.6,   471.1,   0.0);
     (343738.0, 3793394.2,   328.9,   471.1,   0.0);   (343702.9,
3793419.9,   315.2,   471.1,   0.0);
     (343971.1, 3793211.4,   301.0,   471.1,   0.0);   (344008.3,
3793202.4,   302.0,   471.1,   0.0);
     (344078.2, 3793213.3,   302.0,   471.1,   0.0);   (344110.9,
3793233.2,   302.0,   471.1,   0.0);
     (343933.9, 3793220.4,   300.9,   471.1,   0.0);   (343898.8,
3793246.0,   299.0,   471.1,   0.0);
     (343863.7, 3793271.6,   299.1,   471.1,   0.0);   (343828.6,
3793297.2,   301.0,   471.1,   0.0);
     (343793.5, 3793322.8,   310.7,   471.1,   0.0);   (343758.4,
3793348.4,   327.2,   471.1,   0.0);
     (343723.3, 3793374.0,   333.0,   471.1,   0.0);   (343688.1,
3793399.7,   322.6,   471.1,   0.0);
     (343951.8, 3793192.3,   304.2,   471.1,   0.0);   (343984.3,
3793184.4,   305.9,   471.1,   0.0);
     (344016.9, 3793176.5,   306.4,   471.1,   0.0);   (344078.0,
3793186.1,   301.0,   471.1,   0.0);
     (344106.6, 3793203.6,   302.5,   471.1,   0.0);   (344135.2,
3793221.0,   301.9,   471.1,   0.0);
     (343919.2, 3793200.2,   305.0,   471.1,   0.0);   (343884.1,
3793225.8,   302.1,   471.1,   0.0);

 *** MODELOPTs: RegDFAULT CONC ELEV URBAN SigA Data

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

     (343849.0, 3793251.4,   302.6,   471.1,   0.0);   (343813.9,
3793277.0,   304.2,   471.1,   0.0);
     (343778.8, 3793302.6,   311.5,   471.1,   0.0);   (343743.6,
3793328.2,   325.6,   471.1,   0.0);
     (343708.5, 3793353.9,   336.3,   471.1,   0.0);   (343673.4,

3793379.5,   331.0,   471.1,   0.0);
     (343941.7, 3793171.0,   311.0,   471.1,   0.0);   (343978.9,
3793162.0,   311.1,   471.1,   0.0);
     (344016.1, 3793153.0,   312.1,   471.1,   0.0);   (344086.0,
3793163.9,   300.2,   471.1,   0.0);
     (344118.6, 3793183.8,   302.4,   471.1,   0.0);   (344151.3,
3793203.8,   302.2,   471.1,   0.0);
     (343904.5, 3793180.0,   310.8,   471.1,   0.0);   (343869.4,
3793205.6,   306.7,   471.1,   0.0);
     (343834.2, 3793231.2,   306.4,   471.1,   0.0);   (343799.1,
3793256.8,   307.9,   471.1,   0.0);
     (343764.0, 3793282.4,   312.7,   471.1,   0.0);   (343728.9,
3793308.0,   324.0,   471.1,   0.0);
     (343693.8, 3793333.7,   336.1,   471.1,   0.0);   (343658.7,
3793359.3,   340.5,   471.1,   0.0);
     (343931.6, 3793149.6,   318.3,   471.1,   0.0);   (343973.4,
3793139.5,   316.8,   471.1,   0.0);
     (344015.3, 3793129.4,   317.4,   471.1,   0.0);   (344093.9,
3793141.7,   302.0,   471.1,   0.0);
     (344130.6, 3793164.1,   302.4,   471.1,   0.0);   (344167.4,
3793186.6,   302.4,   471.1,   0.0);
     (343889.7, 3793159.8,   317.6,   471.1,   0.0);   (343854.6,
3793185.4,   311.4,   471.1,   0.0);
     (343819.5, 3793211.0,   310.7,   471.1,   0.0);   (343784.4,
3793236.6,   313.7,   471.1,   0.0);
     (343749.3, 3793262.2,   322.4,   471.1,   0.0);   (343714.2,
3793287.8,   326.1,   471.1,   0.0);
     (343679.1, 3793313.5,   337.5,   471.1,   0.0);   (343644.0,
3793339.1,   347.6,   471.1,   0.0);
     (343912.2, 3793130.6,   326.8,   471.1,   0.0);   (343949.4,
3793121.6,   324.8,   471.1,   0.0);
     (343986.6, 3793112.6,   324.2,   471.1,   0.0);   (344023.8,
3793103.6,   323.3,   471.1,   0.0);
     (344093.7, 3793114.5,   307.8,   471.1,   0.0);   (344126.3,
3793134.4,   301.1,   471.1,   0.0);
     (344159.0, 3793154.4,   302.5,   471.1,   0.0);   (344191.7,
3793174.3,   301.2,   471.1,   0.0);
     (343875.0, 3793139.6,   324.5,   471.1,   0.0);   (343839.9,
3793165.2,   315.4,   471.1,   0.0);
     (343804.8, 3793190.8,   316.0,   471.1,   0.0);   (343769.7,
3793216.4,   320.6,   471.1,   0.0);
     (343734.5, 3793242.0,   332.5,   471.1,   0.0);   (343699.4,
3793267.6,   337.7,   471.1,   0.0);
     (343664.3, 3793293.3,   339.1,   471.1,   0.0);   (343629.2,
3793318.9,   354.9,   471.1,   0.0);
     (343901.2, 3793109.5,   336.2,   471.1,   0.0);   (343942.1,
3793099.6,   333.3,   471.1,   0.0);
     (343983.0, 3793089.7,   330.0,   471.1,   0.0);   (344024.0,
3793079.8,   332.7,   471.1,   0.0);
     (344100.8, 3793091.8,   313.1,   471.1,   0.0);   (344136.8,

3793113.7,   303.0,   471.1,   0.0);
     (344172.7, 3793135.7,   302.2,   471.1,   0.0);   (344208.6,
3793157.6,   299.5,   471.1,   0.0);
     (343860.3, 3793119.4,   330.6,   471.1,   0.0);   (343825.2,
3793145.0,   322.5,   471.1,   0.0);
     (343790.0, 3793170.6,   322.5,   471.1,   0.0);   (343754.9,
3793196.2,   326.8,   471.1,   0.0);
     (343719.8, 3793221.8,   343.2,   471.1,   0.0);   (343684.7,
3793247.4,   349.2,   471.1,   0.0);
     (343649.6, 3793273.1,   347.5,   471.1,   0.0);   (343614.5,
3793298.7,   360.5,   471.1,   0.0);
     (343882.7, 3793090.2,   344.6,   471.1,   0.0);   (343919.9,
3793081.2,   344.1,   471.1,   0.0);
     (343957.1, 3793072.2,   338.3,   471.1,   0.0);   (343994.3,
3793063.2,   337.6,   471.1,   0.0);
     (344031.5, 3793054.2,   342.2,   471.1,   0.0);   (344101.4,
3793065.1,   323.0,   471.1,   0.0);
     (344134.1, 3793085.0,   307.9,   471.1,   0.0);   (344166.8,
3793105.0,   303.2,   471.1,   0.0);
     (344199.4, 3793124.9,   301.6,   471.1,   0.0);   (344232.1,
3793144.9,   301.1,   471.1,   0.0);
     (343845.5, 3793099.2,   334.6,   471.1,   0.0);   (343810.4,
3793124.8,   331.4,   471.1,   0.0);
     (343775.3, 3793150.4,   332.1,   471.1,   0.0);   (343740.2,
3793176.0,   338.6,   471.1,   0.0);
     (343705.1, 3793201.6,   350.9,   471.1,   0.0);   (343670.0,
3793227.3,   358.9,   471.1,   0.0);
     (343634.9, 3793252.9,   356.6,   471.1,   0.0);   (343599.8,
3793278.5,   366.9,   471.1,   0.0);
     (343754.8, 3793529.4,   298.9,   471.1,   0.0);   (343734.3,
3793542.9,   298.7,   471.1,   0.0);
     (343729.0, 3793520.6,   297.5,   471.1,   0.0);   (343714.0,
3793557.1,   298.7,   471.1,   0.0);
     (343708.2, 3793533.2,   297.2,   471.1,   0.0);   (343706.7,
3793502.3,   298.0,   471.1,   0.0);

 *** MODELOPTs: RegDFAULT CONC ELEV URBAN SigA Data

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

     (343719.5, 3793481.3,   298.6,   471.1,   0.0);   (343693.8,
3793571.5,   298.9,   471.1,   0.0);
     (343687.8, 3793546.7,   297.6,   471.1,   0.0);   (343681.8,

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3793521.9,     299.1,     471.1,       0.0);
     ( 343682.2, 3793498.1,     302.1,     471.1,       0.0);         ( 343695.5,
3793476.4,     301.9,     471.1,       0.0);
     ( 343673.5, 3793586.1,     298.6,     471.1,       0.0);         ( 343667.4,
3793560.7,     297.8,     471.1,       0.0);
     ( 343661.2, 3793535.3,     300.9,     471.1,       0.0);         ( 343655.1,
3793510.0,     308.1,     471.1,       0.0);
     ( 343662.1, 3793486.7,     310.8,     471.1,       0.0);         ( 343675.7,
3793464.4,     310.0,     471.1,       0.0);
     ( 343689.3, 3793442.1,     307.3,     471.1,       0.0);         ( 343653.3,
3793600.7,     298.8,     471.1,       0.0);
     ( 343647.0, 3793574.9,     297.6,     471.1,       0.0);         ( 343640.8,
3793549.2,     303.2,     471.1,       0.0);
     ( 343634.6, 3793523.4,     312.6,     471.1,       0.0);         ( 343633.0,
3793490.1,     322.2,     471.1,       0.0);
     ( 343646.8, 3793467.5,     321.2,     471.1,       0.0);         ( 343660.5,
3793444.9,     319.0,     471.1,       0.0);
     ( 343674.3, 3793422.3,     315.6,     471.1,       0.0);         ( 343633.1,
3793615.3,     298.4,     471.1,       0.0);
     ( 343626.8, 3793589.3,     298.2,     471.1,       0.0);         ( 343620.5,
3793563.2,     300.5,     471.1,       0.0);
     ( 343614.2, 3793537.2,     312.7,     471.1,       0.0);         ( 343607.8,
3793511.2,     324.3,     471.1,       0.0);
     ( 343608.3, 3793486.2,     332.2,     471.1,       0.0);         ( 343622.3,
3793463.3,     332.8,     471.1,       0.0);
     ( 343636.2, 3793440.4,     330.4,     471.1,       0.0);         ( 343650.2,
3793417.6,     324.9,     471.1,       0.0);
     ( 343612.8, 3793630.0,     298.0,     471.1,       0.0);         ( 343606.5,
3793603.7,     298.1,     471.1,       0.0);
     ( 343600.1, 3793577.4,     298.4,     471.1,       0.0);         ( 343593.8,
3793551.2,     306.7,     471.1,       0.0);
     ( 343587.4, 3793524.9,     318.7,     471.1,       0.0);         ( 343581.1,
3793498.7,     329.8,     471.1,       0.0);
     ( 343588.3, 3793474.6,     339.4,     471.1,       0.0);         ( 343602.4,
3793451.5,     341.6,     471.1,       0.0);
     ( 343616.5, 3793428.4,     340.4,     471.1,       0.0);         ( 343630.5,
3793405.4,     336.1,     471.1,       0.0);
     ( 343644.6, 3793382.3,     334.1,     471.1,       0.0);         ( 343592.7,
3793645.1,     298.2,     471.1,       0.0);
     ( 343586.7, 3793620.0,     298.0,     471.1,       0.0);         ( 343580.6,
3793594.9,     298.1,     471.1,       0.0);
     ( 343574.5, 3793569.8,     297.8,     471.1,       0.0);         ( 343568.4,
3793544.6,     305.8,     471.1,       0.0);
     ( 343562.4, 3793519.5,     316.8,     471.1,       0.0);         ( 343556.3,
3793494.4,     326.6,     471.1,       0.0);
     ( 343563.2, 3793471.4,     336.4,     471.1,       0.0);         ( 343576.7,
3793449.3,     342.4,     471.1,       0.0);
     ( 343590.1, 3793427.3,     348.2,     471.1,       0.0);         ( 343603.6,
3793405.2,     347.3,     471.1,       0.0);
     ( 343617.0, 3793383.2,     345.9,     471.1,       0.0);         ( 343630.5,
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3793361.1,   346.7,   471.1,   0.0);
     (343572.5, 3793659.7,   298.1,   471.1,   0.0);   (343566.4,
3793634.4,   297.9,   471.1,   0.0);
     (343560.2, 3793609.0,   298.0,   471.1,   0.0);   (343554.1,
3793583.6,   297.4,   471.1,   0.0);
     (343548.0, 3793558.3,   299.4,   471.1,   0.0);   (343541.8,
3793532.9,   305.7,   471.1,   0.0);
     (343535.7, 3793507.6,   316.4,   471.1,   0.0);   (343534.1,
3793474.8,   323.5,   471.1,   0.0);
     (343547.7, 3793452.5,   330.5,   471.1,   0.0);   (343561.3,
3793430.2,   340.4,   471.1,   0.0);
     (343574.8, 3793408.0,   347.9,   471.1,   0.0);   (343588.4,
3793385.7,   354.8,   471.1,   0.0);
     (343602.0, 3793363.4,   356.2,   471.1,   0.0);   (343615.6,
3793341.1,   356.6,   471.1,   0.0);
     (343552.3, 3793674.4,   298.2,   471.1,   0.0);   (343546.1,
3793648.8,   297.9,   471.1,   0.0);
     (343539.9, 3793623.2,   297.8,   471.1,   0.0);   (343533.7,
3793597.7,   297.6,   471.1,   0.0);
     (343527.5, 3793572.1,   296.6,   471.1,   0.0);   (343521.4,
3793546.5,   298.0,   471.1,   0.0);
     (343515.2, 3793521.0,   303.5,   471.1,   0.0);   (343509.0,
3793495.4,   308.2,   471.1,   0.0);
     (343509.4, 3793470.9,   312.0,   471.1,   0.0);   (343523.1,
3793448.4,   318.1,   471.1,   0.0);
     (343536.8, 3793425.9,   327.2,   471.1,   0.0);   (343550.5,
3793403.5,   338.5,   471.1,   0.0);
     (343564.2, 3793381.0,   351.0,   471.1,   0.0);   (343577.9,
3793358.6,   358.9,   471.1,   0.0);
     (343591.6, 3793336.1,   365.1,   471.1,   0.0);   (343532.1,
3793689.0,   298.2,   471.1,   0.0);
     (343525.9, 3793663.3,   298.0,   471.1,   0.0);   (343519.6,
3793637.6,   297.9,   471.1,   0.0);
     (343513.4, 3793611.8,   297.6,   471.1,   0.0);   (343507.2,
3793586.1,   297.1,   471.1,   0.0);
     (343500.9, 3793560.3,   296.6,   471.1,   0.0);   (343494.7,
3793534.6,   296.9,   471.1,   0.0);

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

     (343488.5, 3793508.8,   298.5,   471.1,   0.0);   (343482.2,

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3793483.1,     301.3,     471.1,       0.0);
     ( 343489.3, 3793459.4,     306.1,     471.1,       0.0);         ( 343503.1,
3793436.8,     312.5,     471.1,       0.0);
     ( 343517.0, 3793414.2,     319.1,     471.1,       0.0);         ( 343530.8,
3793391.6,     329.6,     471.1,       0.0);
     ( 343544.5, 3793368.9,     340.9,     471.1,       0.0);         ( 343558.3,
3793346.3,     355.1,     471.1,       0.0);
     ( 343572.1, 3793323.7,     366.6,     471.1,       0.0);         ( 343586.0,
3793301.1,     370.6,     471.1,       0.0);
     ( 343796.6, 3793548.3,     299.7,     471.1,       0.0);         ( 343831.7,
3793522.7,     299.7,     471.1,       0.0);
     ( 343866.8, 3793497.1,     299.8,     471.1,       0.0);         ( 343901.9,
3793471.5,     299.8,     471.1,       0.0);
     ( 343937.0, 3793445.9,     300.2,     471.1,       0.0);         ( 343972.1,
3793420.2,     300.4,     471.1,       0.0);
     ( 344007.3, 3793394.6,     300.4,     471.1,       0.0);         ( 343811.3,
3793568.5,     300.2,     471.1,       0.0);
     ( 343846.4, 3793542.9,     300.0,     471.1,       0.0);         ( 343881.5,
3793517.3,     299.9,     471.1,       0.0);
     ( 343916.7, 3793491.7,     299.6,     471.1,       0.0);         ( 343951.8,
3793466.1,     299.9,     471.1,       0.0);
     ( 343986.9, 3793440.4,     300.1,     471.1,       0.0);         ( 344022.0,
3793414.8,     300.1,     471.1,       0.0);
     ( 343798.2, 3793595.5,     300.5,     471.1,       0.0);         ( 343745.8,
3793587.3,     300.1,     471.1,       0.0);
     ( 343826.1, 3793588.7,     300.5,     471.1,       0.0);         ( 343861.2,
3793563.1,     300.4,     471.1,       0.0);
     ( 343896.3, 3793537.5,     300.2,     471.1,       0.0);         ( 343931.4,
3793511.9,     299.6,     471.1,       0.0);
     ( 343966.5, 3793486.3,     299.6,     471.1,       0.0);         ( 344001.6,
3793460.6,     299.8,     471.1,       0.0);
     ( 344036.7, 3793435.0,     300.0,     471.1,       0.0);         ( 344071.8,
3793409.4,     300.4,     471.1,       0.0);
     ( 343803.6, 3793617.9,     300.4,     471.1,       0.0);         ( 343733.7,
3793607.0,     300.1,     471.1,       0.0);
     ( 343840.8, 3793608.9,     300.6,     471.1,       0.0);         ( 343875.9,
3793583.3,     300.7,     471.1,       0.0);
     ( 343911.0, 3793557.7,     300.6,     471.1,       0.0);         ( 343946.1,
3793532.1,     300.0,     471.1,       0.0);
     ( 343981.2, 3793506.4,     299.6,     471.1,       0.0);         ( 344016.3,
3793480.8,     299.8,     471.1,       0.0);
     ( 344051.5, 3793455.2,     300.4,     471.1,       0.0);         ( 343824.5,
3793636.6,     300.4,     471.1,       0.0);
     ( 343793.5, 3793644.1,     300.3,     471.1,       0.0);         ( 343735.3,
3793635.0,     300.0,     471.1,       0.0);
     ( 343708.1, 3793618.4,     299.7,     471.1,       0.0);         ( 343855.5,
3793629.1,     300.6,     471.1,       0.0);
     ( 343890.6, 3793603.5,     300.8,     471.1,       0.0);         ( 343925.8,
3793577.9,     300.9,     471.1,       0.0);
     ( 343960.9, 3793552.3,     300.5,     471.1,       0.0);         ( 343996.0,
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3793526.6,   300.0,   471.1,   0.0);
     (344031.1, 3793501.0,   300.1,   471.1,   0.0);   (344066.2,
3793475.4,   300.6,   471.1,   0.0);
     (344101.3, 3793449.8,   300.8,   471.1,   0.0);   (343833.1,
3793658.3,   300.6,   471.1,   0.0);
     (343795.9, 3793667.3,   300.5,   471.1,   0.0);   (343726.0,
3793656.4,   300.0,   471.1,   0.0);
     (343693.3, 3793636.5,   299.5,   471.1,   0.0);   (343870.3,
3793649.3,   300.8,   471.1,   0.0);
     (343905.4, 3793623.7,   301.0,   471.1,   0.0);   (343940.5,
3793598.1,   301.2,   471.1,   0.0);
     (343975.6, 3793572.5,   301.0,   471.1,   0.0);   (344010.7,
3793546.8,   300.5,   471.1,   0.0);
     (344045.8, 3793521.2,   300.4,   471.1,   0.0);   (344080.9,
3793495.6,   300.6,   471.1,   0.0);
     (344116.0, 3793470.0,   301.0,   471.1,   0.0);   (343852.5,
3793677.4,   300.9,   471.1,   0.0);
     (343819.9, 3793685.3,   300.7,   471.1,   0.0);   (343787.4,
3793693.1,   300.7,   471.1,   0.0);
     (343726.2, 3793683.6,   300.1,   471.1,   0.0);   (343697.6,
3793666.1,   299.6,   471.1,   0.0);
     (343669.1, 3793648.7,   299.2,   471.1,   0.0);   (343885.0,
3793669.5,   301.0,   471.1,   0.0);
     (343920.1, 3793643.9,   301.4,   471.1,   0.0);   (343955.2,
3793618.3,   301.7,   471.1,   0.0);
     (343990.3, 3793592.7,   301.3,   471.1,   0.0);   (344025.5,
3793567.0,   301.0,   471.1,   0.0);
     (344060.6, 3793541.4,   300.6,   471.1,   0.0);   (344095.7,
3793515.8,   300.6,   471.1,   0.0);
     (343862.5, 3793698.7,   301.0,   471.1,   0.0);   (343825.3,
3793707.7,   300.9,   471.1,   0.0);
     (343788.1, 3793716.7,   300.8,   471.1,   0.0);   (343718.3,
3793705.8,   300.0,   471.1,   0.0);
     (343685.6, 3793685.9,   299.5,   471.1,   0.0);   (343653.0,
3793665.9,   299.2,   471.1,   0.0);
     (343899.7, 3793689.7,   301.1,   471.1,   0.0);   (343934.8,
3793664.1,   301.6,   471.1,   0.0);
     (343970.0, 3793638.5,   301.8,   471.1,   0.0);   (344005.1,
3793612.8,   301.7,   471.1,   0.0);

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

```
     ( 344040.2, 3793587.2,     301.4,     471.1,       0.0);         ( 344075.3,
3793561.6,     301.0,     471.1,       0.0);
     ( 344110.4, 3793536.0,     301.0,     471.1,       0.0);         ( 343872.6,
3793720.0,     300.9,     471.1,       0.0);
     ( 343830.8, 3793730.2,     301.0,     471.1,       0.0);         ( 343788.9,
3793740.3,     300.9,     471.1,       0.0);
     ( 343710.3, 3793728.0,     299.9,     471.1,       0.0);         ( 343673.6,
3793705.6,     299.5,     471.1,       0.0);
     ( 343636.8, 3793683.1,     299.2,     471.1,       0.0);         ( 343914.5,
3793709.9,     301.0,     471.1,       0.0);
     ( 343949.6, 3793684.3,     301.8,     471.1,       0.0);         ( 343984.7,
3793658.7,     301.9,     471.1,       0.0);
     ( 344019.8, 3793633.0,     301.9,     471.1,       0.0);         ( 344054.9,
3793607.4,     301.7,     471.1,       0.0);
     ( 344090.0, 3793581.8,     301.4,     471.1,       0.0);         ( 344125.1,
3793556.2,     301.5,     471.1,       0.0);
     ( 344160.2, 3793530.6,     301.7,     471.1,       0.0);         ( 343892.0,
3793739.1,     300.9,     471.1,       0.0);
     ( 343854.8, 3793748.1,     301.2,     471.1,       0.0);         ( 343817.6,
3793757.1,     301.1,     471.1,       0.0);
     ( 343780.4, 3793766.1,     300.9,     471.1,       0.0);         ( 343710.6,
3793755.2,     300.1,     471.1,       0.0);
     ( 343677.9, 3793735.3,     299.7,     471.1,       0.0);         ( 343645.2,
3793715.3,     299.3,     471.1,       0.0);
     ( 343612.5, 3793695.4,     299.3,     471.1,       0.0);         ( 343929.2,
3793730.1,     301.1,     471.1,       0.0);
     ( 343964.3, 3793704.5,     301.7,     471.1,       0.0);         ( 343999.4,
3793678.9,     301.9,     471.1,       0.0);
     ( 344034.5, 3793653.2,     301.9,     471.1,       0.0);         ( 344069.6,
3793627.6,     301.9,     471.1,       0.0);
     ( 344104.8, 3793602.0,     301.6,     471.1,       0.0);         ( 344139.9,
3793576.4,     301.6,     471.1,       0.0);
     ( 344175.0, 3793550.8,     301.7,     471.1,       0.0);         ( 343903.0,
3793760.2,     301.1,     471.1,       0.0);
     ( 343862.1, 3793770.1,     301.2,     471.1,       0.0);         ( 343821.2,
3793780.0,     301.0,     471.1,       0.0);
     ( 343780.3, 3793789.9,     301.2,     471.1,       0.0);         ( 343703.4,
3793777.9,     300.4,     471.1,       0.0);
     ( 343667.5, 3793756.0,     299.7,     471.1,       0.0);         ( 343631.5,
3793734.0,     299.5,     471.1,       0.0);
     ( 343595.6, 3793712.1,     299.3,     471.1,       0.0);         ( 343943.9,
3793750.3,     301.3,     471.1,       0.0);
     ( 343979.0, 3793724.7,     301.6,     471.1,       0.0);         ( 344014.2,
3793699.1,     302.1,     471.1,       0.0);
     ( 344049.3, 3793673.4,     302.2,     471.1,       0.0);         ( 344084.4,
3793647.8,     301.9,     471.1,       0.0);
     ( 344119.5, 3793622.2,     301.7,     471.1,       0.0);         ( 344154.6,
3793596.6,     301.7,     471.1,       0.0);
     ( 343921.5, 3793779.5,     301.5,     471.1,       0.0);         ( 343884.3,
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3793788.5,     301.4,     471.1,       0.0);
     ( 343847.1, 3793797.5,     301.2,     471.1,       0.0);          ( 343809.9,
3793806.5,     301.4,     471.1,       0.0);
     ( 343772.7, 3793815.5,     301.8,     471.1,       0.0);          ( 343702.8,
3793804.6,     300.9,     471.1,       0.0);
     ( 343670.2, 3793784.7,     300.3,     471.1,       0.0);          ( 343637.5,
3793764.7,     299.9,     471.1,       0.0);
     ( 343604.8, 3793744.8,     299.6,     471.1,       0.0);          ( 343572.1,
3793724.8,     299.0,     471.1,       0.0);
     ( 343958.7, 3793770.5,     301.9,     471.1,       0.0);          ( 343993.8,
3793744.9,     301.9,     471.1,       0.0);
     ( 344028.9, 3793719.3,     302.5,     471.1,       0.0);          ( 344064.0,
3793693.6,     302.4,     471.1,       0.0);
     ( 344099.1, 3793668.0,     302.1,     471.1,       0.0);          ( 344134.2,
3793642.4,     301.9,     471.1,       0.0);
     ( 344169.3, 3793616.8,     301.9,     471.1,       0.0);          ( 344204.5,
3793591.2,     301.9,     471.1,       0.0);
```


 *** MODELOPTs: RegDFAULT CONC ELEV URBAN SigA Data

*** 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.

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

Surface file: G:\SACRAMENTO\LGT-AIR&NOISE\AIR\METROLINK SCORE PROGRAM 00173.20 (SCAQMD)\02 MOD Met Version: 18081
Profile file: G:\SACRAMENTO\LGT-AIR&NOISE\AIR\METROLINK SCORE PROGRAM 00173.20 (SCAQMD)\02 MOD
Surface format: FREE

Profile format: FREE

Surface station no.: 93110 Upper air station no.: 93214
Name: UNKNOWN Name: UNKNOWN

Year: 2015 Year: 2015

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
15	01	01	1	01	-0.9	0.034	-9.000	-9.000	-999.	15.	3.5	0.28	1.22	1.00	0.60	67.	10.0	274.9	10.0
15	01	01	1	02	-1.4	0.042	-9.000	-9.000	-999.	20.	4.5	0.34	1.22	1.00	0.70	97.	10.0	273.9	10.0
15	01	01	1	03	-1.7	0.045	-9.000	-9.000	-999.	23.	4.7	0.28	1.22	1.00	0.80	80.	10.0	273.9	10.0
15	01	01	1	04	-2.6	0.056	-9.000	-9.000	-999.	32.	5.8	0.28	1.22	1.00	1.00	87.	10.0	273.4	10.0
15	01	01	1	05	-1.8	0.047	-9.000	-9.000	-999.	25.	5.1	0.34	1.22	1.00	0.80	90.	10.0	273.4	10.0
15	01	01	1	06	-2.6	0.056	-9.000	-9.000	-999.	32.	5.8	0.28	1.22	1.00	1.00	88.	10.0	273.6	10.0
15	01	01	1	07	-8.3	0.101	-9.000	-9.000	-999.	77.	10.9	0.34	1.22	1.00	1.70	94.	10.0	276.0	10.0
15	01	01	1	08	-3.8	0.071	-9.000	-9.000	-999.	46.	8.4	0.34	1.22						

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0.56    1.20   93.   10.0  278.1   10.0
 15 01 01   1 09   23.3  0.308  0.324  0.005   51.  410.   -109.9  0.34   1.22
0.31    2.40  114.   10.0  280.5   10.0
 15 01 01   1 10   77.5  0.343  0.595  0.005   95.  483.    -45.8  0.34   1.22
0.23    2.50  109.   10.0  282.0   10.0
 15 01 01   1 11  116.1  0.202  1.425  0.010  876.  231.     -6.2  0.34   1.22
0.20    1.10  119.   10.0  283.9   10.0
 15 01 01   1 12  135.6  0.095  1.519  0.008  907.   78.     -1.0  0.34   1.22
0.19    0.30  108.   10.0  285.2   10.0
 15 01 01   1 13  135.3  0.090  1.535  0.007  938.   65.     -1.0  0.28   1.22
0.19    0.30   75.   10.0  286.1   10.0
 15 01 01   1 14  115.2  0.084  1.468  0.006  963.   59.     -1.0  0.24   1.22
0.20    0.30  291.   10.0  286.8   10.0
 15 01 01   1 15   76.1  0.212  1.290  0.006  989.  235.    -11.0  0.18   1.22
0.24    1.60  266.   10.0  286.9   10.0
 15 01 01   1 16   21.4  0.234  0.848  0.006  998.  272.    -52.4  0.18   1.22
0.32    2.10  258.   10.0  286.6   10.0
 15 01 01   1 17  -33.3  0.349 -9.000 -9.000 -999.  495.    112.0  0.18   1.22
0.58    3.90  260.   10.0  284.8   10.0
 15 01 01   1 18   -4.3  0.070 -9.000 -9.000 -999.  208.      6.9  0.18   1.22
1.00    1.40  261.   10.0  282.6   10.0
 15 01 01   1 19   -0.2  0.015 -9.000 -9.000 -999.  124.      1.6  0.26   1.22
1.00    0.28  170.   10.0  280.6   10.0
 15 01 01   1 20   -0.2  0.015 -9.000 -9.000 -999.   53.      1.6  0.26   1.22
1.00    0.28  163.   10.0  279.0   10.0
 15 01 01   1 21   -0.3  0.018 -9.000 -9.000 -999.   10.      1.9  0.34   1.22
1.00    0.30  106.   10.0  277.6   10.0
 15 01 01   1 22   -1.3  0.039 -9.000 -9.000 -999.   19.      4.1  0.28   1.22
1.00    0.70   87.   10.0  277.0   10.0
 15 01 01   1 23   -0.9  0.034 -9.000 -9.000 -999.   15.      3.5  0.28   1.22
1.00    0.60   77.   10.0  276.1   10.0
 15 01 01   1 24   -0.7  0.028 -9.000 -9.000 -999.   11.      2.9  0.28   1.22
1.00    0.50   69.   10.0  275.6   10.0


 First hour of profile data
 YR MO DY HR HEIGHT F  WDIR    WSPD AMB_TMP sigmaA  sigmaW  sigmaV
 15 01 01 01   10.0 1   67.    0.60   275.0   37.9  -99.00    0.32

 F indicates top of profile (=1) or below (=0)
 *** AERMOD - VERSION  19191 ***   *** C:\LAKES\AERMOD VIEW\SIMI VALLEY EXISTING
2019\SIMI VALLEY EXISTING  ***        07/27/20
 *** AERMET - VERSION  18081 ***   ***
                       ***        20:39:48

                                  PAGE  18
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  SigA Data

                               *** THE PERIOD ( 26304 HRS) AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP: ALL      ***
```

INCLUDING SOURCE(S): STATION , DAYTIME , NIGHT , PAREA1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
344049.34	3793340.29	0.00392	344045.70	3793363.57	0.00632
344069.84	3793326.80	0.00208	344075.24	3793349.12	0.00330
344065.08	3793376.15	0.00444	344090.17	3793312.61	0.00139
344095.95	3793336.51	0.00213	344097.47	3793367.42	0.00301
344084.66	3793388.41	0.00352	344110.45	3793298.17	0.00107
344116.44	3793322.97	0.00151	344122.44	3793347.76	0.00202
344122.01	3793371.54	0.00246	344108.72	3793393.32	0.00289
344095.44	3793415.09	0.00304	344130.69	3793283.63	0.00086
344136.83	3793308.99	0.00114	344142.96	3793334.35	0.00153
344149.09	3793359.70	0.00188	344142.08	3793383.00	0.00224
344128.49	3793405.27	0.00253	344114.90	3793427.53	0.00264
344150.93	3793269.04	0.00072	344157.15	3793294.78	0.00091
344163.38	3793320.53	0.00119	344169.61	3793346.27	0.00150
344171.24	3793379.56	0.00185	344157.44	3793402.17	0.00213
344143.64	3793424.78	0.00229	344129.84	3793447.39	0.00232
344171.15	3793254.41	0.00061	344177.45	3793280.44	0.00076
344183.74	3793306.47	0.00096	344190.04	3793332.50	0.00121
344196.34	3793358.53	0.00144	344195.88	3793383.51	0.00165
344181.93	3793406.37	0.00189	344167.98		

3793429.23   0.00203
         344154.03   3793452.09   0.00207   344140.08
3793474.95   0.00202
         344191.25   3793239.26   0.00053   344197.25
3793264.06   0.00063
         344203.25   3793288.85   0.00077   344209.24
3793313.64   0.00095
         344215.24   3793338.43   0.00115   344221.24
3793363.22   0.00132
         344220.80   3793387.01   0.00148   344207.52
3793408.78   0.00168
         344194.23   3793430.56   0.00181   344180.95
3793452.33   0.00186
         344167.66   3793474.10   0.00184   344154.37
3793495.88   0.00176
         344211.48   3793224.64   0.00047   344217.55
3793249.74   0.00055
         344223.62   3793274.84   0.00066   344229.69
3793299.95   0.00080
         344235.77   3793325.05   0.00096   344241.84
3793350.15   0.00112
         344247.91   3793375.25   0.00125   344240.96
3793398.32   0.00141
         344227.51   3793420.36   0.00156   344214.06
3793442.41   0.00166
         344200.61   3793464.45   0.00169   344187.15
3793486.50   0.00166
         344173.70   3793508.54   0.00157   344231.70
3793210.00   0.00042
         344237.83   3793235.35   0.00048   344243.97
3793260.71   0.00057
         344250.10   3793286.06   0.00068   344256.23
3793311.42   0.00081
         344262.37   3793336.77   0.00095   344268.50
3793362.13   0.00109
         344270.10   3793394.91   0.00124   344256.51
3793417.18   0.00138
         344242.93   3793439.44   0.00148   344229.34
3793461.71   0.00153
         344215.75   3793483.98   0.00153   344202.16
3793506.25   0.00147
         344188.57   3793528.52   0.00137   344251.92
3793195.34   0.00037

 *** MODELOPTs: RegDFAULT CONC ELEV URBAN SigA Data

*** THE PERIOD (26304 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***

INCLUDING SOURCE(S): STATION , DAYTIME , NIGHT , PAREA1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
344258.10	3793220.91	0.00043	344264.29	3793246.47	0.00050
344270.47	3793272.04	0.00059	344276.66	3793297.61	0.00070
344282.84	3793323.17	0.00082	344289.02	3793348.74	0.00094
344295.21	3793374.31	0.00104	344294.76	3793398.84	0.00114
344281.06	3793421.29	0.00127	344267.36	3793443.74	0.00136
344253.66	3793466.20	0.00140	344239.96	3793488.65	0.00140
344226.26	3793511.10	0.00136	344212.55	3793533.56	0.00128
344198.85	3793556.01	0.00117	344272.13	3793180.67	0.00034
344278.36	3793206.42	0.00038	344284.59	3793232.16	0.00044
344290.82	3793257.91	0.00052	344297.04	3793283.65	0.00061
344303.27	3793309.40	0.00071	344309.50	3793335.15	0.00082
344315.73	3793360.89	0.00092	344321.95	3793386.64	0.00100
344314.83	3793410.29	0.00110	344301.03	3793432.90	0.00120
344287.24	3793455.51	0.00127	344273.44	3793478.12	0.00130
344259.64	3793500.73	0.00129	344245.85	3793523.35	0.00124
344232.05	3793545.96	0.00116	344218.25	3793568.57	0.00106
344007.61	3793321.35	0.00199	343972.49	3793346.97	0.00401

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         343937.38    3793372.58        0.00515                      343902.27
3793398.20        0.00581
         343867.16    3793423.81        0.00605                      343832.04
3793449.42        0.00589
         343796.93    3793475.04        0.00540                      343761.82
3793500.65        0.00450
         343992.87    3793301.16        0.00135                      343957.76
3793326.77        0.00227
         343922.65    3793352.38        0.00316                      343887.53
3793378.00        0.00381
         343852.42    3793403.61        0.00410                      343817.31
3793429.23        0.00407
         343782.20    3793454.84        0.00398                      343747.08
3793480.46        0.00346
         344006.04    3793274.21        0.00090                      344058.44
3793282.41        0.00089
         343978.14    3793280.96        0.00102                      343943.03
3793306.57        0.00152
         343907.91    3793332.19        0.00212                      343872.80
3793357.80        0.00263
         343837.69    3793383.42        0.00292                      343802.58
3793409.03        0.00311
         343767.46    3793434.64        0.00285                      343732.35
3793460.26        0.00285
         344000.61    3793251.76        0.00071                      344070.48
3793262.70        0.00070
         343963.41    3793260.76        0.00080                      343928.29
3793286.38        0.00109
         343893.18    3793311.99        0.00149                      343858.07
3793337.60        0.00188
         343822.95    3793363.22        0.00219                      343787.84
3793388.83        0.00224
         343752.73    3793414.45        0.00204                      343717.62
3793440.06        0.00225
         343979.67    3793233.06        0.00062                      344010.67
3793225.56        0.00056
         344068.90    3793234.67        0.00055                      344096.12
3793251.29        0.00063
         343948.67    3793240.56        0.00068                      343913.56
3793266.18        0.00087
         343878.45    3793291.79        0.00114                      343843.33
3793317.41        0.00144
         343808.22    3793343.02        0.00172                      343773.11
3793368.64        0.00155
         343738.00    3793394.25        0.00146                      343702.88
3793419.86        0.00178
 *** AERMOD - VERSION  19191 ***   *** C:\LAKES\AERMOD VIEW\SIMI VALLEY EXISTING
2019\SIMI VALLEY EXISTING  ***        07/27/20
 *** AERMET - VERSION  18081 ***   ***
                        ***       20:39:48
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*** MODELOPTs: RegDFAULT CONC ELEV URBAN SigA Data

*** THE PERIOD (26304 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): STATION , DAYTIME , NIGHT , PAREA1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
343971.14	3793211.36	0.00054	344008.34	3793202.36	0.00048
344078.21	3793213.30	0.00047	344110.88	3793233.24	0.00053
343933.94	3793220.37	0.00060	343898.83	3793245.98	0.00074
343863.71	3793271.60	0.00095	343828.60	3793297.21	0.00121
343793.49	3793322.82	0.00125	343758.37	3793348.44	0.00114
343723.26	3793374.05	0.00114	343688.15	3793399.67	0.00138
343951.76	3793192.29	0.00046	343984.31	3793184.41	0.00041
344016.86	3793176.53	0.00037	344077.99	3793186.11	0.00040
344106.58	3793203.56	0.00043	344135.17	3793221.01	0.00048
343919.21	3793200.17	0.00050	343884.09	3793225.78	0.00063
343848.98	3793251.40	0.00078	343813.87	3793277.01	0.00093
343778.75	3793302.63	0.00100	343743.64	3793328.24	0.00096
343708.53	3793353.86	0.00090	343673.42	3793379.47	0.00104
343941.67	3793170.97	0.00038	343978.87	3793161.97	0.00035
344016.08	3793152.96	0.00031	344085.95	3793163.90	0.00035
344118.61	3793183.84	0.00037	344151.28		

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3793203.79        0.00042
         343904.47    3793179.97        0.00042                    343869.36
3793205.59        0.00052
         343834.25    3793231.20        0.00062                    343799.13
3793256.82        0.00073
         343764.02    3793282.43        0.00081                    343728.91
3793308.04        0.00081
         343693.79    3793333.66        0.00076                    343658.68
3793359.27        0.00078
         343931.59    3793149.65        0.00032                    343973.44
3793139.52        0.00029
         344015.29    3793129.39        0.00026                    344093.90
3793141.69        0.00031
         344130.65    3793164.13        0.00033                    344167.40
3793186.57        0.00037
         343889.74    3793159.78        0.00035                    343854.63
3793185.39        0.00044
         343819.51    3793211.00        0.00051                    343784.40
3793236.62        0.00058
         343749.29    3793262.23        0.00061                    343714.17
3793287.85        0.00066
         343679.06    3793313.46        0.00063                    343643.95
3793339.08        0.00061
         343912.21    3793130.57        0.00026                    343949.41
3793121.57        0.00025
         343986.61    3793112.57        0.00023                    344023.81
3793103.56        0.00022
         344093.68    3793114.50        0.00024                    344126.35
3793134.45        0.00029
         344159.02    3793154.39        0.00031                    344191.69
3793174.33        0.00035
         343875.01    3793139.58        0.00029                    343839.89
3793165.19        0.00038
         343804.78    3793190.81        0.00043                    343769.67
3793216.42        0.00046
         343734.55    3793242.04        0.00045                    343699.44
3793267.65        0.00048
         343664.33    3793293.26        0.00053                    343629.22
3793318.88        0.00049
         343901.19    3793109.48        0.00021                    343942.11
3793099.57        0.00020
         343983.04    3793089.67        0.00020                    344023.96
3793079.76        0.00018
         344100.81    3793091.80        0.00021                    344136.75
3793113.74        0.00026
         344172.69    3793135.67        0.00028                    344208.62
3793157.61        0.00032
         343860.27    3793119.38        0.00025                    343825.16
3793145.00        0.00031
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*** MODELOPTs: RegDFAULT CONC ELEV URBAN SigA Data

*** THE PERIOD (26304 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): STATION , DAYTIME , NIGHT , PAREA1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
343790.05	3793170.61	0.00035	343754.93	3793196.22	0.00038
343719.82	3793221.84	0.00035	343684.71	3793247.45	0.00037
343649.59	3793273.07	0.00042	343614.48	3793298.68	0.00041
343882.74	3793090.18	0.00018	343919.94	3793081.18	0.00017
343957.14	3793072.17	0.00017	343994.34	3793063.17	0.00016
344031.54	3793054.16	0.00015	344101.41	3793065.10	0.00017
344134.08	3793085.05	0.00021	344166.75	3793104.99	0.00024
344199.42	3793124.93	0.00027	344232.09	3793144.88	0.00030
343845.54	3793099.18	0.00021	343810.43	3793124.80	0.00025
343775.31	3793150.41	0.00028	343740.20	3793176.03	0.00029
343705.09	3793201.64	0.00029	343669.97	3793227.26	0.00030
343634.86	3793252.87	0.00034	343599.75	3793278.48	0.00034
343754.85	3793529.38	0.00383	343734.35	3793542.88	0.00247
343728.95	3793520.56	0.00289	343714.03	3793557.08	0.00182

343708.24 3793533.17 0.00221 343706.72
3793502.26 0.00256
343719.54 3793481.26 0.00281 343693.76
3793571.51 0.00143
343687.76 3793546.72 0.00176 343681.75
3793521.92 0.00206
343682.18 3793498.13 0.00223 343695.47
3793476.36 0.00242
343673.51 3793586.06 0.00115 343667.38
3793560.70 0.00143
343661.24 3793535.34 0.00174 343655.10
3793509.98 0.00178
343662.11 3793486.68 0.00188 343675.70
3793464.41 0.00196
343689.29 3793442.14 0.00198 343653.28
3793600.66 0.00097
343647.05 3793574.91 0.00118 343640.82
3793549.16 0.00141
343634.59 3793523.41 0.00148 343632.95
3793490.13 0.00145
343646.75 3793467.51 0.00155 343660.55
3793444.90 0.00159
343674.35 3793422.28 0.00159 343633.06
3793615.30 0.00082
343626.76 3793589.26 0.00101 343620.46
3793563.23 0.00123
343614.16 3793537.19 0.00127 343607.85
3793511.16 0.00121
343608.30 3793486.18 0.00114 343622.26
3793463.31 0.00118
343636.21 3793440.45 0.00122 343650.16
3793417.58 0.00128
343612.85 3793629.96 0.00071 343606.49
3793603.70 0.00086
343600.14 3793577.45 0.00103 343593.78
3793551.20 0.00114
343587.43 3793524.94 0.00114 343581.07
3793498.69 0.00104
343588.33 3793474.56 0.00095 343602.40
3793451.51 0.00095
343616.47 3793428.45 0.00095 343630.54
3793405.39 0.00097
343644.61 3793382.33 0.00093 343592.74
3793645.07 0.00062
343586.67 3793619.97 0.00074 343580.59
3793594.86 0.00087
343574.51 3793569.76 0.00099 343568.43
3793544.65 0.00109
343562.36 3793519.55 0.00108 343556.28
3793494.44 0.00100

*** THE PERIOD (26304 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): STATION , DAYTIME , NIGHT , PAREA1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
343590.13	3793427.27	0.00080	343603.59	3793405.22	0.00077
343617.04	3793383.18	0.00074	343630.49	3793361.13	0.00068
343572.52	3793659.72	0.00055	343566.39	3793634.36	0.00065
343560.25	3793609.00	0.00076	343554.11	3793583.64	0.00086
343547.97	3793558.29	0.00098	343541.83	3793532.93	0.00104
343535.69	3793507.57	0.00102	343534.08	3793474.78	0.00098
343547.67	3793452.51	0.00092	343561.26	3793430.24	0.00081
343574.85	3793407.97	0.00072	343588.44	3793385.70	0.00064
343602.03	3793363.42	0.00059	343615.62	3793341.15	0.00054
343552.31	3793674.38	0.00049	343546.12	3793648.81	0.00058
343539.93	3793623.24	0.00067	343533.74	3793597.67	0.00077
343527.55	3793572.10	0.00085	343521.36	3793546.53	0.00093
343515.17	3793520.96	0.00098	343508.98		

3793495.39 0.00100
343509.42 3793470.86 0.00099 343523.13
3793448.40 0.00098
343536.83 3793425.94 0.00089 343550.53
3793403.49 0.00075
343564.24 3793381.03 0.00061 343577.94
3793358.57 0.00053
343591.64 3793336.11 0.00047 343532.10
3793689.05 0.00044
343525.86 3793663.31 0.00052 343519.63
3793637.56 0.00060
343513.40 3793611.81 0.00068 343507.16
3793586.06 0.00076
343500.93 3793560.31 0.00082 343494.70
3793534.56 0.00088
343488.47 3793508.81 0.00092 343482.23
3793483.06 0.00094
343489.35 3793459.40 0.00095 343503.15
3793436.79 0.00094
343516.95 3793414.17 0.00088 343530.75
3793391.56 0.00076
343544.55 3793368.94 0.00063 343558.35
3793346.33 0.00050
343572.15 3793323.71 0.00042 343585.95
3793301.10 0.00037
343796.59 3793548.33 0.00262 343831.71
3793522.71 0.00597
343866.82 3793497.10 0.00744 343901.93
3793471.48 0.00790
343937.04 3793445.86 0.00869 343972.15
3793420.25 0.00824
344007.26 3793394.63 0.00756 343811.33
3793568.52 0.00158
343846.44 3793542.91 0.00294 343881.55
3793517.29 0.00424
343916.66 3793491.68 0.00481 343951.77
3793466.06 0.00530
343986.89 3793440.44 0.00543 344022.00
3793414.83 0.00502
343798.17 3793595.47 0.00105 343745.77
3793587.28 0.00125
343826.06 3793588.72 0.00112 343861.17
3793563.10 0.00179
343896.29 3793537.49 0.00270 343931.40
3793511.87 0.00328
343966.51 3793486.26 0.00367 344001.62
3793460.64 0.00398
344036.73 3793435.03 0.00388 344071.84
3793409.41 0.00359
343803.60 3793617.92 0.00080 343733.74

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3793606.99        0.00096
         343840.80    3793608.92        0.00087                            343875.91
3793583.30        0.00125
         343911.02    3793557.68        0.00186                            343946.13
3793532.07        0.00239
↑ *** AERMOD - VERSION  19191 ***    *** C:\LAKES\AERMOD VIEW\SIMI VALLEY EXISTING
2019\SIMI VALLEY EXISTING  ***        07/27/20
 *** AERMET - VERSION  18081 ***    ***
                        ***        20:39:48

                                   PAGE  23
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  SigA Data

                              *** THE PERIOD ( 26304 HRS) AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP: ALL      ***
                                  INCLUDING SOURCE(S):     STATION     , DAYTIME
 , NIGHT       , PAREA1      ,

                                             *** DISCRETE CARTESIAN RECEPTOR POINTS
***

                                        ** CONC OF PM_10    IN MICROGRAMS/M**3
                    **

       X-COORD (M)   Y-COORD (M)        CONC                            X-COORD (M)
Y-COORD (M)        CONC
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
         343981.24    3793506.45        0.00275                            344016.35
3793480.84        0.00308
         344051.47    3793455.22        0.00318                            343824.54
3793636.62        0.00067
         343793.54    3793644.12        0.00063                            343735.32
3793635.02        0.00070
         343708.09    3793618.40        0.00084                            343855.53
3793629.11        0.00071
         343890.64    3793603.50        0.00095                            343925.75
3793577.88        0.00135
         343960.87    3793552.27        0.00180                            343995.98
3793526.65        0.00215
         344031.09    3793501.03        0.00246                            344066.20
3793475.42        0.00264
         344101.31    3793449.80        0.00260                            343833.07
3793658.32        0.00056
         343795.87    3793667.32        0.00052                            343726.01
3793656.39        0.00058
         343693.34    3793636.46        0.00070                            343870.27
3793649.31        0.00059
         343905.38    3793623.69        0.00076                            343940.49
3793598.08        0.00103
```

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         343975.60    3793572.46        0.00138                    344010.71
3793546.85        0.00171
         344045.82    3793521.23        0.00200                    344080.94
3793495.61        0.00221
         344116.05    3793470.00        0.00225                    343852.45
3793677.39        0.00048
         343819.91    3793685.27        0.00046                    343787.36
3793693.15        0.00044
         343726.23    3793683.58        0.00047                    343697.64
3793666.14        0.00054
         343669.06    3793648.70        0.00063                    343885.00
3793669.51        0.00051
         343920.11    3793643.89        0.00062                    343955.22
3793618.27        0.00081
         343990.34    3793592.66        0.00109                    344025.45
3793567.04        0.00138
         344060.56    3793541.43        0.00164                    344095.67
3793515.81        0.00185
         343862.54    3793698.71        0.00042                    343825.34
3793707.71        0.00040
         343788.15    3793716.72        0.00038                    343718.28
3793705.79        0.00041
         343685.61    3793685.86        0.00047                    343652.95
3793665.92        0.00054
         343899.74    3793689.70        0.00044                    343934.85
3793664.09        0.00053
         343969.96    3793638.47        0.00067                    344005.07
3793612.85        0.00087
         344040.18    3793587.24        0.00111                    344075.29
3793561.62        0.00136
         344110.40    3793536.01        0.00156                    343872.62
3793720.03        0.00037
         343830.78    3793730.16        0.00035                    343788.93
3793740.29        0.00033
         343710.34    3793728.00        0.00036                    343673.58
3793705.57        0.00041
         343636.83    3793683.15        0.00048                    343914.47
3793709.90        0.00039
         343949.58    3793684.28        0.00046                    343984.69
3793658.67        0.00056
         344019.80    3793633.05        0.00072                    344054.92
3793607.44        0.00091
         344090.03    3793581.82        0.00112                    344125.14
3793556.20        0.00131
         344160.25    3793530.59        0.00144                    343892.01
3793739.10        0.00033
         343854.81    3793748.11        0.00032                    343817.62
3793757.11        0.00030
         343780.42    3793766.12        0.00029                    343710.56
3793755.19        0.00031
```

*** MODELOPTs: RegDFAULT CONC ELEV URBAN SigA Data

*** THE PERIOD (26304 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): STATION , DAYTIME , NIGHT , PAREA1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
344104.76	3793602.02	0.00094	344139.87	3793576.40	0.00111
344174.98	3793550.78	0.00125	343903.02	3793760.20	0.00030
343862.11	3793770.11	0.00029	343821.19	3793780.01	0.00027
343780.28	3793789.92	0.00026	343703.43	3793777.90	0.00027
343667.49	3793755.97	0.00031	343631.55	3793734.04	0.00035
343595.62	3793712.11	0.00039	343943.94	3793750.29	0.00031
343979.05	3793724.68	0.00036	344014.16	3793699.06	0.00042
344049.27	3793673.44	0.00052	344084.38	3793647.83	0.00064
344119.50	3793622.21	0.00079	344154.61	3793596.60	0.00095
343921.48	3793779.49	0.00027	343884.28		

3793788.50   0.00026
         343847.09   3793797.51   0.00025   343809.89
3793806.51   0.00024
         343772.69   3793815.52   0.00023   343702.83
3793804.59   0.00024
         343670.16   3793784.66   0.00027   343637.49
3793764.72   0.00029
         343604.82   3793744.79   0.00033   343572.15
3793724.85   0.00036
         343958.67   3793770.49   0.00028   343993.78
3793744.87   0.00032
         344028.90   3793719.26   0.00037   344064.01
3793693.64   0.00045
         344099.12   3793668.02   0.00055   344134.23
3793642.41   0.00068
         344169.34   3793616.79   0.00081   344204.45
3793591.18   0.00094

 *** MODELOPTs: RegDFAULT CONC ELEV URBAN SigA Data

                                       *** THE SUMMARY OF MAXIMUM PERIOD (26304
HRS) RESULTS ***

                                    ** CONC OF PM_10   IN MICROGRAMS/M**3
              **

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

ALL   1ST HIGHEST VALUE IS   0.00869 AT (343937.04, 3793445.86,
300.21,   471.06,   0.00) DC
          2ND HIGHEST VALUE IS   0.00824 AT (343972.15, 3793420.25,
300.41,   471.06,   0.00) DC
          3RD HIGHEST VALUE IS   0.00790 AT (343901.93, 3793471.48,
299.82,   471.06,   0.00) DC
          4TH HIGHEST VALUE IS   0.00756 AT (344007.26, 3793394.63,
300.41,   471.06,   0.00) DC
          5TH HIGHEST VALUE IS   0.00744 AT (343866.82, 3793497.10,
299.84,   471.06,   0.00) DC
          6TH HIGHEST VALUE IS   0.00632 AT (344045.70, 3793363.57,

```
300.41,   471.06,    0.00)  DC
          7TH HIGHEST VALUE IS       0.00605 AT (  343867.16,  3793423.81,
300.56,   471.06,    0.00)  DC
          8TH HIGHEST VALUE IS       0.00597 AT (  343831.71,  3793522.71,
299.69,   471.06,    0.00)  DC
          9TH HIGHEST VALUE IS       0.00589 AT (  343832.04,  3793449.42,
300.28,   471.06,    0.00)  DC
         10TH HIGHEST VALUE IS       0.00581 AT (  343902.27,  3793398.20,
300.69,   471.06,    0.00)  DC


 *** RECEPTOR TYPES:  GC = GRIDCART
                      GP = GRIDPOLR
                      DC = DISCCART
                      DP = DISCPOLR
↟ *** AERMOD - VERSION  19191 ***   *** C:\LAKES\AERMOD VIEW\SIMI VALLEY EXISTING
2019\SIMI VALLEY EXISTING  ***        07/27/20
 *** AERMET - VERSION  18081 ***   ***
                       ***        20:39:48

                                   PAGE  26
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  SigA Data

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

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

 A Total of            0 Fatal Error Message(s)
 A Total of            3 Warning Message(s)
 A Total of          215 Informational Message(s)

 A Total of        26304 Hours Were Processed

 A Total of            0 Calm Hours Identified

 A Total of          215 Missing Hours Identified (  0.82 Percent)


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


    ********   WARNING MESSAGES   ********
 SO W320      48       APPARM: Input Parameter May Be Out-of-Range for Parameter
       QS
 ME W186     130       MEOPEN: THRESH_1MIN 1-min ASOS wind speed threshold used
      0.50
 MX W403     130       PFLCNV: Turbulence data is being used w/o ADJ_U* option
 SigA Data
```

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

HARP2 - HRACalc (dated 19044) 7/28/2020 6:44:49 PM - Output Log

GLCs loaded successfully
Pollutants loaded successfully
****
RISK SCENARIO SETTINGS

Receptor Type: Resident
Scenario: All
Calculation Method: Derived

****
EXPOSURE DURATION PARAMETERS FOR CANCER

Start Age: -0.25
Total Exposure Duration: 30

Exposure Duration Bin Distribution
3rd Trimester Bin: 0.25
0<2 Years Bin: 2
2<9 Years Bin: 0
2<16 Years Bin: 14
16<30 Years Bin: 14
16 to 70 Years Bin: 0

****
PATHWAYS ENABLED

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

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

****
INHALATION

Daily breathing rate: RMP

Worker Adjustment Factors

Worker adjustment factors enabled: NO

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

****
TIER 2 SETTINGS

Tier2 adjustments were used in this assessment. Please see the input file for details.
Tier2 - What was changed: DBRs changed|FAH changed|
Calculating cancer risk
Cancer risk saved to: C:\Users\34236\Desktop\MetroLink SCORE HARP\SimiValley2019_CancerRisk.csv
Calculating chronic risk
Chronic risk saved to: C:\Users\34236\Desktop\MetroLink SCORE HARP\SimiValley2019_NCChronicRisk.csv
Calculating acute risk
Acute risk saved to: C:\Users\34236\Desktop\MetroLink SCORE HARP\SimiValley2019_NCAcuteRisk.csv
HRA ran successfully

HARP2 - HRACalc (dated 19044) 7/28/2020 6:45:55 PM - Output Log

GLCs loaded successfully
Pollutants loaded successfully
****
RISK SCENARIO SETTINGS

Receptor Type: Resident
Scenario: All
Calculation Method: Derived

****
EXPOSURE DURATION PARAMETERS FOR CANCER

Start Age: -0.25
Total Exposure Duration: 30

Exposure Duration Bin Distribution
3rd Trimester Bin: 0.25
0<2 Years Bin: 2
2<9 Years Bin: 0
2<16 Years Bin: 14
16<30 Years Bin: 14
16 to 70 Years Bin: 0

****
PATHWAYS ENABLED

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

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

****
INHALATION

Daily breathing rate: RMP

Worker Adjustment Factors

Worker adjustment factors enabled: NO

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

****
TIER 2 SETTINGS

Tier2 adjustments were used in this assessment. Please see the input file for details.
Tier2 - What was changed: DBRs changed|FAH changed|
Calculating cancer risk
Cancer risk saved to: C:\Users\34236\Desktop\MetroLink SCORE HARP\SimiValley2025_CancerRisk.csv
Calculating chronic risk
Chronic risk saved to: C:\Users\34236\Desktop\MetroLink SCORE HARP\SimiValley2025_NCChronicRisk.csv
Calculating acute risk
Acute risk saved to: C:\Users\34236\Desktop\MetroLink SCORE HARP\SimiValley2025_NCAcuteRisk.csv
HRA ran successfully