CITY OF FAIRFIELD

Initial Study Questionnaire

PROJECT DESCRIPTION AND BACKGROUND

Project title: LogistiCenter at Fairfield

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Project Sponsor's Name and Address: George Condon / Dermody Properties
5500 Equity Avenue
Reno, NV 89502

General Plan Designation: IL (Limited Industrial)

Zoning: IL (Limited Industrial)

Project Location: Northeast corner of Beck Avenue and Cordelia Road in Fairfield, CA 94533

Longitude/Latitude: 38.232004 "N", -122.064709"W"
Assessor's Parcel Numbers: 032-190-120; -240; -300; -320; -330

AVAILABILITY OF DOCUMENT: This document is available for review at:
1000 Webster St, 2nd fl., Fairfield, CA; 8am-12pm, 1-5:30pm; Monday-Thursday, and the second, fourth, and fifth Fridays of each month.

PROJECT DESCRIPTION: The LogistiCenter at Fairfield project entails the development of a new industrial campus consisting of five shell buildings ranging in size from 83,268sf. to 260,088sf, totaling to 717,504sf, on a vacant 59.7-acre site at the northeast corner of Beck Avenue and Cordelia Road. A Tentative Parcel Map proposal has been submitted to create five parcels for each building from the existing four legal parcels. Each proposed parcel contains parking, landscaping, stormwater quality treatment areas, and associated infrastructure improvements. Conditioned reciprocal cross access and parking easements will allow the project to operate as a cohesive industrial park. The project is to be constructed in the two phases. Phase I entails the building and site improvements for Buildings 1 and 2. Phase II will complete the project with the construction of the remaining site infrastructure and Buildings 3, 4, and 5. The five buildings will be used for limited industrial uses, including warehouse and office, consistent with the IL (Limited Industrial) zoning district that is applicable to the project location. Specific tenant users are unknown at this time.

SURROUNDING LAND USES AND SETTING: The project is located east of Interstate 80 and south of California State Route 12 in the City of Fairfield. The site is bordered by the Union Pacific Railroad to the north, Ledgewood Creek to the east, Cordelia Road to the south, and Beck Avenue to the west. The project site is bordered by industrial complexes to the north and west, with open ruderal grassland and agricultural land to the east and south. The Shelter Inc. homeless shelter is located on the adjacent parcel to the west of the project site.

OTHER PUBLIC AGENCY APPROVALS: U.S. Army Corps of Engineers; U.S. Fish and Wildlife Service

TRIBAL NOTIFICATION: Have California Native American tribes traditionally and culturally affiliated with the project area requested consultation pursuant to Public Resources Code section 21080.3.1? If so, is there a plan for consultation that includes, for example, the determination of significance of impacts to tribal cultural resources, procedures regarding confidentiality, etc.?

☒ Yes ☐ No

NOTE: Conducting consultation early in the CEQA process allows tribal governments, lead agencies, and project proponents to discuss the level of environmental review, identify and address potential adverse impacts to tribal cultural resources, and reduce the potential for delay and conflict in the environmental review process. (See Public Resources Code section 21080.3.2.) Information may also be available from the California Native American Heritage Commission's Sacred Lands File per Public Resources Code section 5097.96 and the California Historical Resources Information System administered by the California Office of Historic Preservation. Please also note that Public Resources Code section 21082.3(c) contains provisions specific to confidentiality.

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The environmental factors checked below could be potentially affected by this project, involving at least one impact that is a "Less than Significant with Mitigation" as indicated by the checklist on the following pages.

☐ Aesthetics	☐ Agriculture and Forestry Resources	☐ Air Quality
☒ Biological Resources	☒ Cultural Resources	☐ Energy
☒ Geology / Soils	☐ Greenhouse Gas Emissions	☐ Hazards & Hazardous Materials
☐ Hydrology / Water Quality	☐ Land Use / Planning	☐ Mineral Resources
☐ Noise	☐ Population / Housing	☐ Public Services
☐ Recreation	☒ Transportation	☒ Tribal Cultural Resources
☐ Utilities / Service Systems	☐ Wildfire	☐ Mandatory Findings of Significance

DETERMINATION

On the basis of this initial evaluation:

☐ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

☒ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

☐ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

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

☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Meily M. Sheehan, Senior Planner

09/09/2021

Date

EVALUATION OF ENVIRONMENTAL IMPACTS

1) A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).

2) All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.

3) Once the Lead Agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect may be significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an EIR is required.

4) A "Mitigated Negative Declaration" (Negative Declaration: Less Than Significant with Mitigation Incorporated) applies where the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less Than Significant Impact." The Lead Agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level.

5) Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or Negative Declaration [CCR, Guidelines for the Implementation of CEQA § 15063(c)(3)(D)]. References to an earlier analysis should:

    a) Identify the earlier analysis and state where it is available for review.

    b) Identify which effects from the environmental checklist were adequately analyzed in the earlier document, pursuant to applicable legal standards, and whether these effects were adequately addressed by mitigation measures included in that analysis.

    c) Describe the mitigation measures in this document that were incorporated or refined from the earlier document and indicate to what extent they address site-specific conditions for the project.

6) Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.

7) Supporting Information Sources: A source list should be attached and other sources used or individuals contacted should be cited in the discussion.

8) This is only a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to a project's environmental effects in whatever format is selected.

9) The explanation of each issue should identify:

   a) the criteria or threshold, if any, used to evaluate each question; and

   b) the mitigation measure identified, if any, to reduce the impact to less than significance.

ISSUES

	Potentially Significant Impact	Less Than Significant With Mitigation	Less than Significant Impact	No Impact
I. <u>AESTHETICS</u> – Except as provided in Public Resources Code Section 21099, would the project:				
a) Have a substantial adverse effect on a scenic vista?			X	
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?				X
c) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?			X	
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?			X	

<u>Discussion</u>: According to the adopted Scenic Vistas and Roadways Plan (1999), the project site is located along an identified 'Scenic Roadway', Cordelia Road, and has potential views of 'Scenic Vista Area(s)', the Suisun Marsh and the Vaca Mountains. Located on the north side of Cordelia Road, the project should not impact the southern views of the Suisun Marsh. Furthermore, the foreground landscape is already heavily impacted, so the addition of buildings should not affect the integrity of northward views towards the Vaca Mountains. The project meets required setbacks, height limits, landscaping and similar development standards adopted to ensure aesthetic quality. The project's elevations, materials, coloring and highlighted features are compatible with surrounding developments. The City requires, as a standard condition of

development, that lighting be of appropriate intensity and shielded to avoid unreasonable impacts to surrounding property.

	Potentially Significant Impact	Less Than Significant With Mitigation	Less than Significant Impact	No Impact
II. AGRICULTURE AND FOREST RESOURCES: In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. -- Would the project:				
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?				X
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?				X
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined in Public Resources Code section 4526), or timberland zoned Timberland Production (as defined in Public Resources Code section 51104(g))?				X
d) Result in the loss of forest land or conversion of forest land to non-forest use?				X
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?				X

Discussion: The project is indicated as Urban and Built-Up Land on the Solano County Important Farmland map. This land and adjacent land are not designated as farmland in any statewide study nor involve Williamson Act property.

III. AIR QUALITY – Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make the following determinations. Would the project:

	Potentially Significant Impact	Less Than Significant With Mitigation	Less than Significant Impact	No Impact
a) Conflict with or obstruct implementation of the applicable air quality plan?				X
b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?			X	
c) Expose sensitive receptors to substantial pollutant concentrations?			X	
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?			X	

Discussion: This section evaluates the potential impacts on air quality resulting from implementation of the proposed project. This includes the potential for the proposed project to conflict with or obstruct implementation of the applicable air quality plan, violate an air quality standard or contribute substantially to an existing or projected air quality violation, result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment, expose sensitive receptors to substantial pollutant concentrations, or create objectionable odors affecting a substantial number of people. This section also sets forth mitigation measure to minimize or avoid significant impacts.

The project site is located along the northeastern portion of the San Francisco Bay Area Air Basin (SFBAAB). The SFBAAB includes all of Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, and Santa Clara Counties as well as the southern half of Sonoma County and the southwestern portion of Solano County. Fairfield has a semi-arid temperate climate. The annual average minimum temperature is 47°F in Fairfield. July is usually the warmest month with annual average maximum temperatures around 73°F. Fairfield gets, on average, over 23-inches of precipitation annually (Western Regional Climate Center). The region averages approximately 30

inches of rain per year, with most of the rain falling during winter. Fog from nearby marshes and bays is common during winter. The prevailing wind in the region is from the southwest and west-southwest through the Carquinez Strait and wind speeds average 20-45miles per hour.

Air pollutants of concern in the air basin are primarily generated by three categories of sources: mobile, stationary, and area sources. Mobile sources refer to operational and evaporative emissions from motor vehicles. Stationary sources include “point sources” which have one or more emission sources at a single facility. Point sources are usually associated with manufacturing and industrial uses and include sources such as refinery boilers or combustion equipment that produces electricity or process heat. Area sources include sources that produce widely distributed emissions. Examples of area sources include residential water heaters, painting operations, lawn mowers, agricultural fields, landfills, and consumer products, such as lighter fluid or hair spray. Criteria air pollutants (listed below) are defined as pollutants for which the federal and state governments have established ambient air quality standards for outdoor concentrations. The federal and state standards have been set at levels above which concentrations could be harmful to human health and welfare. These standards are designed to protect the most sensitive persons such as children, pregnant women, and the elderly, from illness or discomfort. The project’s Air Quality and Green House Gas Technical Report also identifies ‘Homeless Shelters’ as sensitive receptors.

The California Air Resources Board (CARB) is the state agency responsible for ensuring implementation of the California Clean Air Act (CAA), setting the California Ambient Air Quality Standards (CAAQS), and overseeing air quality planning and control throughout the state. The California CAA established a legal mandate for air basins to achieve the CAAQS by the earliest practical date. These standards apply to the following 10 criteria pollutants; ozone (O3), nitrogen dioxide (NO2), carbon monoxide (CO), sulfur dioxide (SO2), particulate matter 2.5 microns or less in diameter (PM2.5), particulate matter ten microns or less in diameter (PM10), and lead (Pb), visibility-reducing particles, hydrogen sulfide, and vinyl chloride. CARB is also responsible for designating air basin areas of the State as ‘attainment’, ‘nonattainment’, or ‘unclassified’ based on the 10 criteria pollutants per State standards. The air quality of a region is considered to be in attainment of the State standards if the measured ambient air pollutant levels for O3, CO, NO2, PM10, PM2.5, SO2 (1-and 24-hour), and lead are not exceeded, and all other standards are not equaled or exceeded at any time in any consecutive three-year period.

The SFBAAB is considered in non-attainment for ozone, PM10, and PM2.5 with regards to standards established by the State of California. Management of air quality in the SFBAAB is the responsibility of the Bay Area Air Quality Management District (BAAQMD). Specifically, the BAAQMD has responsibility for monitoring ambient air pollutant levels throughout the air basin area and developing and implementing attainment strategies to ensure that future emissions will be within federal and state standards. The following plans have been developed by the BAAQMD to achieve attainment of the federal and state ozone standards. The Clean Air Plan (CAP) and Ozone Strategy fulfill the planning requirements of the California CAA, while the Ozone Attainment Planful fills the federal CAA requirements.

In addition to the aforementioned plans, the BAAQMD CEQA Air Quality Guidelines ("BAAQMD Guidelines") set forth methodologies and quantitative significance thresholds that a lead agency may use to estimate and evaluate the significance of a project's air emissions and health risks posed to nearby sensitive receptors.

Air quality impacts were evaluated in accordance with the methodologies recommended by CARB and the BAAQMD. Where criteria air pollutant quantification was required, emissions were modeled by technical consultants using the California Emissions Estimator Model version 2016.3.2 (CalEEMod). Average daily emissions from project construction and operation were calculated, including both on-site and off-site activities. According to the model analysis, neither the project's construction nor net operational emissions would exceed the BAAQMD Guidelines thresholds for any criteria air pollutants and the proposed project will not produce cumulatively considerable emissions of nonattainment pollutants since the project will not exceed regional thresholds. Quantitative assessments of discussed emissions, as well as construction CaLeeMod projected construction equipment and methods, can be reviewed in the attached Appendix A: Impact Sciences, Air Quality and Greenhouse Gas Technical Report, September 2021.

Due to the project's proximity to a homeless shelter, an identified sensitive receptor, a Health Risk Analysis (HRA) was prepared to evaluate the risk posed based on emissions source strength, meteorological conditions, and receptor location. Results of this assessment indicate construction and operational impacts related to Cancer Risk, Non-Cancer Health Hazards, and PM2.5 Emissions would not exceed BAAQMD thresholds. Therefore, the proposed project would not contribute to human health risk to nearby receptors, and the project would also not contribute to any cumulative human health risk impacts.

Although the project does not exceed any significance criteria set forth by the BAAQMD, the project may have construction related impacts to air quality, such as dust and emissions, that the surrounding community could find undesirable. For all proposed projects, BAAQMD recommends the implementation of all the following Basic Construction Mitigation Measures, whether or not construction-related emissions exceed applicable thresholds of significance. Therefore, the project has been conditioned to implement the BAAQMD Basic Construction Mitigation Measures.

The project's air emissions and health risk impacts were below the BAAQMD Guidelines significance criteria, and is therefore in alignment with all district, state, and federal air quality plans and goals. As aforementioned, the project will not produce cumulatively considerable emissions of nonattainment pollutants, expose sensitive receptors to substantial pollutant concentrations, or result in other emission adversely affecting a substantial number of people. Therefore, the project is found to no significant or less than significant air quality impacts.

IV. **BIOLOGICAL RESOURCE** – Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation	Less than Significant Impact	No Impact
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?		X		
b) Have substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?		X		
c) Have a substantial adverse effect state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?		X		
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?			X	
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?				X
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?		X		

Discussion: The project site is bordered by the Union Pacific Railroad to the north, Ledgewood Creek to the east, Cordelia Road to the south, and Beck Avenue to the west. There are industrial complexes to the north and west, with open ruderal grassland and agricultural land to the east and south. The Shelter, Inc. homeless shelter is located on an adjacent parcel to the west of the project site. The 58.95-acre project site is relatively flat, as it has been graded and filled in past years. Historically, the site has been disturbed by grading, soil fill, disking, and dumping of waste, as well as site developments including parking lots, paved roads, and buildings. These activities over the years have affected the site's topography, hydrology, and vegetation.

Approximately 4.24-acres of wetlands have been identified on the project site. The development of the project would directly and permanently affect approximately 2.34 acres of, and indirectly affect an additional 1.76 acres of wetlands. Approximately 0.14 acre of wetlands in the eastern portions of the project site will not be impacted, and the project will have no impacts to off-site wetlands.

Nineteen federally listed plant and animal species that occur or have suitable habitat in the project vicinity were analyzed. Two of these species, Contra Costa goldfields and vernal pool fairy shrimp, were found to have some potential to occur on the project site or have suitable unoccupied habitat or Critical Habitat on the site.

Contra Costa goldfields have historically been recorded within the project site through the California Natural Diversity Database (CNDDB). Observations were made in 1981, 1991, and 2002. The populations observed in 1981 and 1991 now appear to be extirpated due to grading and filling of the wetlands in the early 1990s as a result of the U.S. Army Corps Fairfield Streams flood control project. LSA botanists conducted focused rare plant surveys of the project site during the peak blooming period in 2019 and 2020, and no Contra Costa goldfields were found on the site. The entire project site is within designated Critical Habitat for Contra Costa goldfields. However, the project will have no effect on Critical Habitat. Analysis shows the project will directly impact 41.59 acres, indirectly impact 6.83 acres, and not impact 0.73 acre of Critical Habitat. A total of approximately 14,730 acres of Critical Habitat have been designated for the species, of which approximately 6,768 acres are within Solano County. The project will directly or indirectly impact approximately 48.42 acres, which represents approximately 0.7 percent of the designate Critical Habitat in Solano County. Although the project will not appreciably diminish the value of the Critical Habitat for the Contra Costa goldfields, nor should it prevent the Critical Habitat from sustaining its role in the conservation and recovery of this species, impacts will be made to the Critical Habitat and require mitigations.

Despite the effort to avoid and minimize impacts to potential jurisdictional waters, the construction of the proposed project will result in the direct fill of 2.34 acres and indirect effects to 1.76 acres of suitable vernal pool habitat for the fairy shrimp. U.S. Department of Fish and Wildlife Service (USFWS) protocol level field surveys (dry and wet season) where conducted to determine the status of vernal pool fairy shrimp and other vernal pool branchiopods on the property. Based on negative findings during the 2019-2020 wet season surveys, combined with the previous negative results of the dry season survey, the U.S. Army Corps and USFWS concurred that the project is not likely to adversely affect the species. Although the project will not likely to adversely affect the species, impacts will be made to the wetland habitat and therefore mitigation measures are required.

No evidence of burrowing owl nesting or wintering activity was found during any of LSA's field surveys of the project site. However, it is possible migrant wintering burrowing owls could forage on the property. The property as well as surrounding open lands also provide suitable foraging habitat for the Swainson's hawk. Although nesting records have not yet been

published in the California Natural Diversity Data Base (CNDDB), LSA has conducted Swainson's hawk nesting surveys (2019 to 2021) for the City of Fairfield as part of Public Work's routine maintenance agreement with the California Department of Fish and Wildlife (CDFW) for the City's steam maintenance activities. LSA also participated in ongoing studies for CalTrans for several maintenance projects along I-80 within the City of Fairfield in 2020 and 2021. These surveys have encompassed the project site and surrounding areas. During these protocol level surveys, 5 active Swainson's hawk nests/territories have been identified within 3 miles of the project site. The two closest nests are adjacent to the Fairfield-Suisun Sewer District plant (active 2019 to 2021) and the Highway 12 onramp to westbound I-80 (active 2021). No Swainson's hawk nesting activity has been identified along Ledgewood Creek adjacent to the project site. Swainson's hawks forage over broad areas, up to 10 miles or farther from a nest site. As such, the grassland and seasonal wetlands on the project site provides suitable foraging habitat for the hawk. Therefore, Swainson's hawk foraging impact mitigations are required.

With the mitigation measures below, project impacts would be less than significant.

Impact BIO-1: Wetlands

The project will impact 4.1 acres of wetlands.

Mitigation BIO-1: Wetlands

Developer/applicant shall coordinate with the United States Army Corps of Engineers and the San Francisco Bay Regional Water Quality Control Board to obtain the proper permits to fill materials in into wetland areas under Section 404 of the Clean Water Act prior to City's issuance of building permits.

Impact BIO-2: Contra Costa goldfields and vernal pool fairy shrimp

The project has the potential to impact the identified federal Critical Habitat for Contra Costa goldfields and will impact suitable habitat for vernal pool fairy shrimp.

Mitigation BIO-2: Contra Costa goldfields and vernal pool fairy shrimp

To mitigate for the loss of Contra Costa goldfields and vernal pool fairy shrimp habitat, the developer/applicant shall 1.) acquire suitable habitat land and record conservation easements or 2.) acquire mitigation credits prior to building permit issuance. Either mitigation option shall be consistent with the mitigation regulations outlined in the Solano HCP. Should the developer/applicant choose to fully mitigate habitat loss through credits, the mitigation credits shall be obtained consistent with the following mitigation ratios:

- Established vernal pools: 2.34 acres (1:1 ratio)
- Preserved vernal pools: 12.32 acres (7:1 ratio)

Mitigation BIO-3: Contra Costa goldfields and vernal pool fairy shrimp

Prior to building permit issuance, the developer/applicant shall obtain a contract with a USFWS-approved biologist to conduct an environmental education program for all persons working on earthmoving and/or utilities construction activities at the project site before they perform any work. The program shall consist of a presentation from the biologist that includes a discussion of the biology of the Contra Costa goldfields and vernal pool fairy shrimp; sensitivity of the species to human activities; the status of the species pursuant to the federal Endangered Species Act, including legal protection; recovery efforts; penalties for violations; and any project-specific protective measures required by permits. Interpretation shall be provided for non-English speaking workers, and the same instruction shall be provided for any new workers before their performing work on the site. The biologist shall prepare and distribute wallet-sized cards or a fact sheet handout containing this information for workers to carry on the site. Upon completion of the program, employees shall sign a form stating they attended the program and understand all the protection measures.

Mitigation BIO-4: Contra Costa goldfields and vernal pool fairy shrimp

Prior to building permit issuance, the developer/applicant shall obtain a contract with a USFWS-approved biologist to be on the site daily to monitor initial vegetation clearing, installation of Environmentally Sensitive Area (ESA) fencing, and ground-disturbing activities. The qualifications of the biologist(s) will be submitted to the USFWS for review and written approval at least 30 calendar days prior to the date earthmoving is initiated at the project site. The USFWS approved biologist(s) will keep a copy of the biological opinion in their possession when on site.

The USFWS-approved biologist(s) shall be given the authority to freely communicate verbally, by telephone, electronic mail, or in writing at any time with construction personnel, any other person(s) at the project site otherwise associated with the project, the USFWS, the CDFW, or their designated agents. The USFWS-approved biologist will have oversight over implementation of all the conservation measures in the biological opinion, and, through the applicant, will have the authority and responsibility to stop project activities if they determine any of the associated requirements are not being fulfilled. If the USFWS-approved biologist(s) exercises this authority, the USFWS will be notified by telephone and electronic mail within 24 hours.

Mitigation BIO-5: Contra Costa goldfields and vernal pool fairy shrimp

To minimize harassment, injury, death, and harm in the form of temporary habitat disturbances, all project-related vehicle traffic will be restricted to established roads, construction areas, and equipment staging, storage, parking, and stockpile areas. Prior to building permit issuance, the developer/applicant shall conduct and provide pre-construction surveys to identify vehicle traffic and construction areas and, to the maximum extent possible, establish said areas in locations disturbed by previous activities to prevent further adverse effects. Project-related vehicles will observe a 20-mile-per-hour speed limit within construction areas. Off-road traffic outside of designated and fenced project work areas will be prohibited.

Mitigation BIO-6: Contra Costa goldfields and vernal pool fairy shrimp

The seasonal wetlands in the northwestern corner and the eastern side of the project site, as identified in the LSA Biological Assessment conducted for the project (June 2020), shall be avoided. Prior to building permit issuance, the two seasonal wetland areas shall be protected from future development under a deed restriction (Covenant, Condition, and Restrictions) and will be managed through funding provided under a Business Park Owners Association for the project. ESA fencing will be placed along the limits of construction adjacent to the seasonal wetlands to exclude construction activities from avoided wetlands. The fencing can be installed after initial clearing of vegetation but shall be installed prior to any further work on the project site. Vehicles and equipment shall not be operated or parked beyond the fencing. Materials shall not be stored or staged beyond the fencing. No vegetation removal or ground-disturbing activities will be permitted beyond the fencing. BMPs as prescribed by the project's Storm Water Pollution Prevention Plan shall be installed in conjunction with the ESA fencing to prevent pollution of the avoided wetlands.

Impact BIO-3: Burrowing owl and Swainson's hawk habitat

Grasslands and large trees near the project site could be used by Swainson's hawk, white-tailed kite, and burrowing owl or other birds that are protected by the Migratory Bird Treaty Act of 1918 and Fish and Game Code of California during their nesting seasons. Additionally, the property provides upland habitat and foraging habitat for Swainson's hawk and burrowing owl.

Mitigation BIO-7:

To mitigate for the loss of burrowing owl and Swainson's hawk foraging habitat, the developer/applicant shall 1.) acquire suitable habitat land and record conservation easements or 2.) acquire mitigation credits prior to building permit issuance. Either mitigation option shall be consistent with the mitigation regulations outlined in the Solano HCP. Should the developer/applicant choose to fully mitigate habitat loss through credits, the mitigation credits shall be obtained consistent with the following mitigation ratios:

- Preserved uplands: 83.57 acres (2:1 ratio)

Mitigation BIO-8:

To avoid impacts to burrowing, owls, Swainson's hawk, and other nesting birds in compliance with State Fish and Game Code regulations:

If construction commences between Feb. 15 – Sept. 15, pre-construction surveys for nesting birds within 0.5 miles of the project site shall be conducted no more than 14 days prior to any ground disturbing activity.

Pre-construction surveys for nesting migrant burrowing owls (regardless of time of year construction begins) within 250-feet of the project site shall be conducted no more than 14 days prior to any ground disturbing activity.

If no nesting birds, including burrowing owls, are found during this first survey, a final survey will be conducted within 24 hours prior to ground disturbance. If ground-disturbing activities are delayed or suspended for more than 14 days after the initial survey, the site shall be resurveyed (including the final survey within 24 hours of disturbance).

If active nests are identified, appropriate buffer zones shall be established around the nest. The width of the buffer zone shall be based on a site-specific analysis prepared by a Qualified Biologist indicating that the nesting pair under consideration are not likely to be adversely affected by construction activities. Monitoring by the Qualified Biologist is conducted for a sufficient time during all construction activities following the initiation of construction to determine if the nesting pair exhibits adverse reactions to construction activities (e.g., changes in behavioral patterns, reactions to construction noise).

V. CULTURAL RESOURCES – Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation	Less than Significant Impact	No Impact
a) Cause a substantial adverse change in the significance of a historical resource pursuant to 15064.5 of the State CEQA Guidelines?			X	
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to 15064.5 of the State CEQA Guidelines?		X		
c) Disturb any human remains, including those interred outside of formal cemeteries?		X		

Discussion: The site is site is relatively flat, as it has been graded and filled in past years. Historically, the site has been disturbed by grading, soil fill, concrete, and asphalt, as well as site developments including parking lots, paved roads, and pads for propane storage tanks. A variety of technical studies were submitted to the City as part of the project application, including a Cultural Resource Study. The study indicates that a records search and a literature review of the proposed Area of Potential Effects (APE), as well as a Sacred Lands File search request with the Native American Heritage Commission (NAHC) and consultation outreach to potentially interested parties, including tribal organizations, was completed. The study states that no historic properties were identified in the APE. Furthermore, the study reports that the NAHC Sacred Lands File request was returned with negative results. Three tribes were contacted in April 2020 as part of the request; Cortina Rancheria – Kletsel Dehe Band of Wintun Indians, United Auburn Indian Community of the Auburn Rancheria, and Yocha Dehe Wintun Nation. Follow up contact was made in June 2020. In February 2021, the City of Fairfield contact the Yocha Dehe Wintun Nation in compliance with AB52. On March 10, 2021 the Yocha Dehe Cultural Resources Manager

provided a letter stating that the project site was within the aboriginal territories of the Yocha Dehe Wintun Nation and recommended including cultural monitors during development and ground disturbance. (See TC-1 Mitigation Measure in the Tribal Cultural Resource section below).

There have been no known discoveries of archeological resources at the site or within its immediate vicinity. However, cultural resources could be encountered unexpectedly during the excavation of the site. The greater Fairfield area does have a rich tribal history, which has resulted in the discovery of human remains and artifacts during construction projects in the past.

Construction of the proposed project may result in the identification of historic-era or prehistoric archaeological materials including human remains. In the event that such resources are encountered unexpectedly during excavation activities, the City will require that no resources shall be handled or photographed, construction activity of subject property shall cease and the following mitigation measures shall be implemented to address potential impacts. With the mitigation measures below, project impacts would be less than significant.

Impact CR-1: Archaeological Resources

Archaeological resources could be discovered during grading and potentially significant impacts could result to as-yet-unidentified archaeological resources at the construction stage.

Mitigation Measure CR-1: Archaeological Resources

If prehistoric archaeological resources are discovered during grading activities, work within 25 feet of the discovery will be redirected and a qualified archaeologist contacted to evaluate the finds and make recommendations for mitigation to be followed by the applicant. It is recommended that adverse effects to such deposits be avoided. If such deposits cannot be avoided, it shall be determined, by a qualified archaeologist or equally qualified professional, whether they qualify as historical or unique archaeological resources under CEQA. If the deposits are not eligible, avoidance is not necessary. If they are eligible, they shall be avoided, or, if avoidance is not feasible, the adverse effects shall be mitigated.

Mitigation may include, but is not limited to, thorough recording on Department of Parks and Recreation form 523 records (DPR523) or data recovery excavation. If data recovery excavation is selected, the excavation must be guided by a data recovery plan prepared and adopted prior to beginning the data recovery work, and a report of findings shall be submitted to the City of Fairfield and the Northwest Information Center (NWIC) (CCR Title 14(3) 15126.(b)(3)(C)).

Impact CR-2: Archaeological Remains

Archaeological remains could be discovered during grading and potentially significant impacts could result to as-yet-unidentified archaeological remains at the construction stage.

Mitigation Measure CR-2: Archaeological Remains

If archaeological remains are discovered during grading activities, work within 25 feet of the discovery will be redirected and the County Coroner notified immediately. At the same time an Archeologist will be contacted to assess the situation. If human remains are of Native American origin, the Coroner must notify the Native American Heritage Commission within 24 hours of identification. The Native American Heritage Commission will identify a Most Likely Descendant (MLD) to inspect the site and provide recommendations for the proper treatment of the remains and associated grave goods.

Upon completion of the assessment, the archaeologist shall prepare a report documenting the methods and results and provide recommendations for the treatment of the human remains and any associated cultural materials, as appropriate and in coordination with the recommendations of the MLD. The report shall be submitted to the City of Fairfield and the Northwest Information Center.

	Potentially Significant Impact	Less Than Significant With Mitigation	Less than Significant Impact	No Impact
VI. <u>ENERGY</u> – Would the project:				
a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?			X	
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?				X

<u>Discussion</u>: During construction there would be a temporary consumption of energy resources required for the movement of equipment and materials. Compliance with local, State, and federal regulations would reduce short-term energy demand during the project's construction to the extent feasible, and project construction would not result in a wasteful or inefficient use of energy. Energy use during project construction would be primarily in the form of fuel consumption to operate heavy equipment, light-duty vehicles, machinery, and generators. Temporary power may also be provided to construction trailers or electric construction equipment.

The proposed project would use energy resources for the operation of project buildings (electricity and natural gas) and for on-road vehicle trips (gasoline and diesel fuel) generated by the proposed project. Based on CalEEmod model data, the proposed project's operational energy usage are so low that the project represents a rounded zero percent figure to the 2016 countywide annual electricity demand (approximately 7,435 GWh) and the 2016 countywide annual natural gas consumption (approximately 25,370,819,544MBTU/year).

There are no unusual project characteristics or processes involved in this industrial project that would require the use of equipment that would be more energy intensive than is used for comparable activities, or the use of equipment that would not conform to current emissions standards and related fuel efficiencies. The project site will be developed with a series of water and energy efficiency features including water efficient landscaping; 50 parking spaces with EV infrastructure; 15 parking stalls designated for clean air/carpool parking; LED light fixtures; and the addition of skylights in warehouses to reduce energy use from lighting. In addition, the proposed project plans to develop fifteen percent of the roofs with solar in the future. Furthermore, the proposed project will be constructed consistent with CALGreen Building Code and Title 24 which will reduce on-site GHG emissions from area and energy sources. Overall, the construction and operation of this proposed project would not require the creation of a new source of energy. Compliance with state and local requirements and mitigations identified in the Air Quality and Greenhouse Gas sections of this analysis would not result in a potential impact due to wasteful, inefficient, or unnecessary consumption of energy resources.

The project would not conflict with or obstruct the State plan for renewable energy, and the project would use a minimum of electricity. State and local agencies regulate the use and consumption of energy through various methods and programs. As a result of the passage of Assembly Bill 32 (AB 32), which seeks to reduce the effects of greenhouse gas (GHG) emissions, a majority of State regulations are intended to reduce energy use and GHG emissions. These include the California Code of Regulations Title 24, Part 6–Energy Efficiency Standards and the California Code of Regulations Title 24, Part 11– California Green Building Standards. The City of Fairfield Building Division enforces the applicable requirements of the Energy Efficiency Standards and Green Building Standards in Title 24. Further, Senate Bill 100 (SB 100) mandates that electricity providers supply 100% carbon-free clean energy by 2045. Because the proposed project would be powered by the existing electricity grid, the project would eventually be powered by renewable energy mandated by SB 100 and would not conflict with this statewide plan. The City of Fairfield General Plan Open Space, Conservation, Public Facilities, and Recreation Element contains programs related to energy usage to minimize energy consumption during construction and operation of projects. The proposed project would not conflict with or obstruct State or local plans for renewable energy or energy efficiency and impacts would be less than significant.

	Potentially Significant Impact	Less Than Significant With Mitigation	Less than Significant Impact	No Impact
VII. <u>GEOLOGY AND SOILS</u> – Would the project:				
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:			X	
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo			X	

VII. **GEOLOGY AND SOILS** – Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation	Less than Significant Impact	No Impact
Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.				
ii) Strong seismic ground shaking?			X	
iii) Seismic-related ground failure, including liquefaction?			X	
iv) Landslides?			X	
b) Result in substantial soil erosion or the loss of topsoil?			X	
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?			X	
d) Be located on expansive soil, as defined in Table 18-1B of the Uniform Building Code (1994), creating substantial risks direct or indirect to life or property?			X	
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?				X
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?		X		

Discussion: The project site is considered to be a seismically active area, as is all of Northern California. It is located outside of the Alquist-Priolo Earthquake fault zone, 5.3 miles east of the Green Valley Fault and 3.7 miles east of the Cordelia Fault. Ground shaking and surface ruptures from earthquakes along the known active faults in the site vicinity and general region could cause damage to people and structures unless properly mitigated.

It is acknowledged that seismic hazards cannot be completely eliminated, even with site-specific geotechnical investigation and advanced building practices. Exposure to seismic hazards is a generally accepted part of living in the seismically active areas of California. The project conditions of approval shall require the project to be designed according to the most recent

California Building Code, applicable local codes, and be in accordance with the accepted standards for geotechnical practice for seismic design in Northern California. The project site is on flat ground with no significant elevation changes and landslides are not a threat. The project site will be finished per Storm Water Pollution Prevention Plan standards to prevent the erosion of topsoil.

The site is site is relatively flat, as it has been graded and filled in past years. There are a few artificially created mounds and berms, as well as a self-contained soil-cell for remediation of contaminated soils located centrally on the site. Historically, the site has been disturbed by grading, soil fill, concrete, and asphalt, as well as site developments including parking lots, paved roads, and pads for propane storage tanks. These activities over the years have affected the site's topography, and in effect, the hydrology, and vegetation. There have been no known discoveries of paleontological resources at the site or within its immediate vicinity. However, construction of the proposed project may result in the identification of historic-era or prehistoric paleontological materials. In the event that such resources are encountered unexpectedly during excavation activities, the City will require that no resources shall be handled or photographed, construction activity of subject property shall cease and the following measures implemented to address potential impacts.

Impact GEO-1: Paleontological Resources

Paleontological resources could be discovered during grading and potentially significant impacts could result to as-yet-unidentified paleontological resources at the construction stage.

Mitigation Measure GEO-1: Paleontological Resources

If paleontological resources are discovered during grading activities, work within 25 feet of the discovery will be redirected until a paleontological monitor can evaluate the resources and make recommendations. If paleontological deposits are identified, it is recommended that such deposits be avoided by construction activities. If such deposits cannot be avoided, or if avoidance is not feasible, the adverse effects shall be mitigated. Mitigation can include data recovery and analysis, preparation of a report and the presentation of fossil material recovered to an accredited paleontological repository, such as the University of California, Museum of Paleontology (UCMP). Monitoring shall continue until, at the paleontologist's judgment, paleontological resources are no longer likely to be encountered. Upon project completion, a report shall be prepared documenting the methods and results of the monitoring. Copies of this report shall be submitted to the City of Fairfield and the repository to which any fossils were presented.

VIII. GREENHOUSE GAS EMISSIONS – Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation	Less than Significant Impact	No Impact
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?			X	
b) Conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases?			X	

Discussion: California State law defines Greenhouse Gases (GHG) to include the following six compounds: Carbon Dioxide (CO2), Methane (CH4), Nitrous Oxide (N2O), Hydrofluorocarbons (HFCs), Perfluorocarbons (PFCs), and Sulfur Hexafluoride (SF6). The State of California has implemented a series of greenhouse gas plans and policies aimed at reducing state greenhouse gas emissions.

On June 1, 2005 Executive Order (EO) S-03-05 was issued by Governor Schwarzenegger in order to set statewide emissions reduction standards. The order required the state to reduce GHG emissions to 1990 levels by 2020 and reduce GHG emissions to 80% below 1990 levels by 2050.

Assembly Bill (AB) 32 (California Global Warming Solutions Act of 2006) was codified into law in 2006 and codified into law the 2020 GHG emissions targets set by EO S-03-05. AB 32 represents the first enforceable statewide program to limit GHG emissions from all major sectors with penalties for noncompliance.

Senate Bill (SB) 32 was signed into law in 2015 and sets into law the mandated reduction targets set in EO B-30-15, which required a reduction in GHG emissions to 40% below the 1990 levels by 2030.

California Air Resources Board (CARB) in collaboration with over twenty state agencies, issued a Final Scoping Plan in 2017 in order to set a framework for the state to meet the overall reduction goals set in SB 32. The 2017 Scoping Plan identified key sectors of the implementation strategy, which includes improvements in low carbon energy, industry, transportation sustainability, natural and working lands, waste management, and water. Through a combination of data synthesis and modeling, CARB determined that the 2030 statewide target emissions limit is 260 MMTCO2e, and that further commitments will need to be made to achieve an additional reduction of 50 MMTCO2e beyond current policies and programs. Key elements of the 2017 Update include a proposed 20 percent reduction in GHG emissions from refineries and an expansion of the Cap-and-Trade program to meet the aggressive 2030 GHG emissions goal.

Locally, the City of Fairfield is currently preparing the Fairfield Forward Climate Action Plan (CAP) which will contain a series of measures to reduce GHG emissions by 2050. It is anticipated that the CAP will be adopted in the Fall of 2022 with the City's General Plan update.

GHGs were evaluated in accordance with the methodologies recommended by CARB and the BAAQMD. Emissions were modeled by technical consultants using the California Emissions Estimator Model version 2016.3.2 (CalEEMod). Sources of GHG emissions during operation include emissions from area sources, electricity, mobile sources, waste, and water. Emissions from area sources and electricity usage emissions are based on land use sizes, GHG emission factors for fuel combustion, and the global warming potential values for the GHGs emitted. Mobile-source GHG emissions are determined based on an estimated 1,250 daily trips. Waste and water emissions are derived from the anticipated water usage and wastewater generated based on the project's proposed land uses and the associated water demand factors.

Amortized yearly construction emissions were added to operational GHG emissions to calculate the project's total annual GHG emissions. Projected GHG emissions throughout the construction phases were calculated from off-road equipment usage, hauling vehicles, delivery, and worker vehicle trips to and from the site. As GHG emissions impact from construction activities would occur over a relatively short time span, it would contribute a relatively small portion of the lifetime GHG emission impact from the proposed project. The total construction GHG emissions were divided by 30 to determine an annual construction emission rate estimate to be amortized over the project's first 30 years of operational life, consistent with CARB guidance on integrating construction emissions into the operational analysis of GHG-related impacts.

The project's combined long-term net operational emissions and amortized construction emissions would be approximately 2,723 MT CO2e/year. Quantification of GHG emissions is provided for informational purposes; significance under CEQA is based on the project's consistency with statewide and regional policies and plans to meet the state reduction goals set in SB 32, including CARB's 2017 Scoping Plan. Further quantitative assessments of discussed emissions, as well as construction CaLeeMod projected construction equipment and methods, can be reviewed in the attached Appendix A: Impact Sciences, Air Quality and Greenhouse Gas Technical Report, September 2021.

The proposed project will implement a series of water and energy-efficiency measures within its design including a water efficient landscape, LED light fixtures, and skylights to use natural light. In addition, the project applicant is planning for the future addition of solar panels on the project. The proposed project will also promote alternative fueled vehicles and carpooling by equipping 50 parking spaces with EV infrastructure and 15 clean air/carpool parking spaces. Furthermore, the proposed project will be constructed consistent with CALGreen Building Code and Title 24 which will reduce on-site GHG emissions from area and energy sources. For these reasons, the proposed project would have a less than significant impact in regard to GHG emissions.

IX. **HAZARDS AND HAZARDOUS MATERIALS** – Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation	Less than Significant Impact	No Impact
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?			X	
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?			X	
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one quarter mile of an existing or proposed school?			X	
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?				X
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?				X
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?				X
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?			X	

Discussion: The project does not involve the use of hazardous chemicals or processes, nor was there a previous use of the land that involved potential hazards. The proposed project will not involve transporting substances known to the City to be hazardous, caustic, or explosive. It is not located in a potentially hazardous airport area, nor would it interfere with an emergency response plan or expose people or structures to a significant risk of wildland fires. Furthermore, the project is not located within any identified by the High Wildfire Risk Areas according to the

City General Plan. All buildings are required by California Building Code to be equipped with fire sprinklers.

X. **HYDROLOGY AND WATER QUALITY** – Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation	Less than Significant Impact	No Impact
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?			X	
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?			X	
c) Substantially alter the existing drainage pattern of the site or areas including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:			X	
i) Result in substantial erosion or siltation on- or off-site?			X	
ii) Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite?			X	
iii) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?			X	
iv) Impede or redirect flood flows?			X	
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?			X	
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?				X

Discussion: The Ledgewood Creek forms the eastern boundary of the project site. Included with the development are storm water treatment areas. Storm water either sheet flows into, or is collected and piped to the treatment areas. From there the water is piped through a private

storm drain line into the public storm drain system in either Cordelia Road or Beck Avenue. The site does not drain directly into Ledgewood Creek.

The proposed project will substantially increase the site's impervious surfaces. However, to accommodate peak runoff, storm drainage from the project site will be handled through on-site storm water treatment areas and piped off-site to the existing infrastructure per the conditions of approval prepared by the City Public Works Department. Compliance with the Fairfield-Suisun Sewer District standard requirements to pre-treat storm run-off, including but not limited to the use of Best Management Practices (BMP's) to address the issue of ongoing post-construction storm water quality for the project site. Additionally, the applicant will be required to prepare an erosion and sedimentation control plan and comply with the National Pollution Discharge Elimination System (NPDES) Permit and Storm Water Pollution Prevention Plan (SWPPP) requirement.

The project is located within the 100-year flood hazard zone as indicated on the applicable Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map. The developer is required to place fill on the property to elevate the finish floor elevations of all proposed buildings to at least one foot above the 1% base flood elevation. According to the FEMA Flood Insurance Study, the project is within Zone AE and the 100-year flood elevation is 11 to 12 feet. Furthermore, the developer must provide the City with a Conditional Letter of Map Revision (CLOMR) from FEMA. The CLOMR acknowledges FEMA's willingness to remove the project site from the flood hazard zone based on the proposed fills or other flood protection measures. Prior to issuance of any building permits, the developer shall furnish the City with a copy of FEMA's Letter of Map Revision (LOMR). The LOMR is FEMA's formal acknowledgement that the project has, in fact, been constructed to their standards consistent with the CLOMR and is therefore removed from the flood hazard zone.

	Potentially Significant Impact	Less Than Significant With Mitigation	Less than Significant Impact	No Impact
XI. <u>LAND USE AND PLANNING</u> – Would the project:				
a) Physically divide an established community?				X
b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?				X

<u>Discussion</u>: The project is not in conflict with any applicable land use plan and meets the standards and regulations of the General Plan and Zoning Ordinance of the City. The prosed project is adjacent to existing industrial development. In this location the project would create no physical division of the existing neighborhood. There are no Specific Plans to which this development is subject.

XII. MINERAL RESOURCES – Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation	Less than Significant Impact	No Impact
a) Result in the loss of availability of a known mineral resource of value to the region and the residents of the state?				X
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?				X

Discussion: The project is not in conflict with any applicable land use plan and meets the standards and regulations of the General Plan and Zoning Ordinance of the City. The site is not known to have significant mineral resources.

XIII. NOISE – Would the project result in:	Potentially Significant Impact	Less Than Significant With Mitigation	Less than Significant Impact	No Impact
a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?			X	
b) Generation of excessive groundborne vibration or groundborne noise levels?			X	
c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?				X

Discussion: Operation of the industrial center will not result in increased exposure to noise in excess of City Standards, as the City does not have noise standards for industrial uses. Although the project may generate noise typical of light industrial manufacturing and warehousing operations, it is not anticipated that the project will produce excess noise.

Noise generated by project construction activities would temporarily elevate ambient noise levels in the project vicinity. Noise impacts resulting from construction depend on the noise generated by various pieces of construction equipment, the timing and duration of noise generating activities, and the distance between construction noise sources and noise sensitive receptors. Construction noise impacts primarily occur when construction activities occur during noise-sensitive times of the day (early morning, evening, or nighttime hours), the construction occurs in areas immediately adjoining noise sensitive land uses, or when construction durations last over extended periods of time. The closest noise sensitive use is the residential community on the opposite side of Highway 12, approximately half a mile to the north of the project site.

Typically, significant noise impacts do not result when standard construction noise control measures are enforced at the project site and when the duration of the noise generating construction period is limited to one construction season (typically one year) or less. Once construction moves indoors, minimal noise would be generated at off-site locations.

City ordinance limits the hours of construction to between 7 a.m. and 10 p.m. Additionally, noise and vibration during construction will be moderated by the City standard construction noise conditions of which the project will be required to comply. As such, construction related noise impacts would be considered less than significant.

	Potentially Significant Impact	Less Than Significant With Mitigation	Less than Significant Impact	No Impact
XIV. <u>POPULATION AND HOUSING</u> – Would the project:				
a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?				X
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?				X

<u>Discussion</u>: The industrial park will be built on industrial service designated land. No existing homes will be removed, nor will a substantial number of new homes be required for additional population. The project will not significantly induce population growth above that already assumed in the General Plan.

	Potentially Significant Impact	Less Than Significant With Mitigation	Less than Significant Impact	No Impact
XV. <u>PUBLIC SERVICES</u>				
a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for				

XV. PUBLIC SERVICES

	Potentially Significant Impact	Less Than Significant With Mitigation	Less than Significant Impact	No Impact
new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				
Fire protection?			X	
Police protection?			X	
Schools?			X	
Parks?			X	
Other public facilities?			X	

Discussion: Both the City of Fairfield Fire and the Police Departments have reviewed the plans and determined that limited additional resources will be required. The Fire Department has imposed conditions to meet fire safety standards. The project will pay AB 1600 impact fees for traffic improvements and public facilities, and impact fees for schools and County Public Facilities to offset the impacts and increased demand for public services and facilities created by the project.

XVI. RECREATION

	Potentially Significant Impact	Less Than Significant With Mitigation	Less than Significant Impact	No Impact
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?				X
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?				X

Discussion: This industrial project will not have an impact on recreational facilities.

XVII. **TRANSPORTATION** – Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation	Less than Significant Impact	No Impact
a) Conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?				X
b) Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)(1)?		X		
c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?				X
d) Result in inadequate emergency access?				X

Discussion: Senate Bill 743 was adopted in 2013 to change how public agencies evaluate the transportation impacts of projects under CEQA. The law directed the Governor's Office of Planning and Research (OPR) to propose revisions to the CEQA Guidelines to establish criteria for determining the significance of transportation impacts that would "promote the reduction of greenhouse gas emissions, the development of multimodal transportation networks, and a diversity of land uses." (Public Resources Code Section 21099(b)(1).) Measurements of transportation impacts may include vehicle miles traveled (VMT), vehicle miles traveled per capita/employee, automobile trip generation rates, or automobile trips generated. (*Id.*) OPR released a Technical Advisory in December 2018 identifying VMT as the most appropriate measure of transportation impacts for land use projects, land use plans, and transportation projects, and the Natural Resources Agency updated the CEQA Guidelines to replace congestion-based metrics such as Level of Service (LOS) with VMT as the basis for determining whether a project would have a significant impact on the environment. Automobile delay, as described by LOS or similar measures, is no longer be considered a significant impact. (CEQA Guidelines § 15064.3(a); *Citizens for Positive Growth & Preservation v. City of Sacramento* (2019) 43 Cal.App.5th 609.) The City Council adopted the City of Fairfield Senate Bill 743 Implementation Procedures ("SB 743 Implementation Procedures"), as well as the thresholds of significance and mitigation measures contained therein, on September 23, 2020.

The City retains the ability to use LOS as a condition of approval to maintain consistency with the General Plan and City policies. Therefore, projects over a certain size will continue to be evaluated for contributing to LOS deficiencies and this evaluation will be referred to as "local transportation analysis" to distinguish from impacts under CEQA. Pedestrian and bicycle

circulation, safety, parking, traffic control warrant analysis, site circulation, and other operational topics will also continue to be addressed under local transportation analysis, as appropriate.

The screening guidelines within the City's SB 743 Implementation Procedures state that nonresidential projects that generate less than 110 daily trips, consist of 100% affordable housing or local serving retail, are within ½ mile of high-quality transit, or are located in a low VMT area as determined by screening maps shall be presumed to have less than significant impacts and do not require further VMT analysis.

A trip generation analysis was prepared for the proposed project to determine what level of local transportation analysis (LOS) and CEQA analysis (VMT) is required (Fehr & Peers, Initial Transportation Study, 2020). The trip generation analysis utilized the Institute of Transportation Engineers (ITE) *Trip Generation Manual, 10th Edition* rates for Land Use Code 150 (warehouse), which estimates 1.74 trips per thousand square feet. The proposed project is estimated to produce approximately 1,250 daily trips, including 136 trips during the PM peak hour. Based on the City's Project Screening thresholds, both LOS and VMT analyses are required for the project.

The LOS analysis indicated that the vehicular/truck traffic generated by the project would not impact any of the studied intersections and that one lane in each direction, with a two-way left turn, will be sufficient on Cordelia Road and Beck Avenue to serve the project. (Fehr & Peers, 2020.)

For VMT, the City's SB 743 Implementation Procedures state that the VMT analysis shall be prepared using the City of Fairfield travel demand model, which evaluates the transportation impacts of development anticipated by the City's General Plan. The travel demand model area is divided into geographic sub-areas called transportation analysis zones (TAZs). TAZs are used in the model to connect the land uses to the roadway network. Each TAZ includes land use information for that geographic sub-area within the model.

The project does not require rezoning of the existing parcel, which is already designated under the City's General Plan and Zoning Ordinance for industrial uses. However, the proposed project would increase the total amount of industrial square footage currently allocated for the subject TAZ in the City's travel demand model. As explained in more detail in the *Dermody Industrial Fairfield – CEQA Vehicle Miles Traveled Assessment*, completed by Fehr & Peers in July 2021 and attached hereto as Appendix B, VMT calculations were prepared for the following four scenarios utilizing the City's model:

1. Near-Term No Project: Total model-wide VMT using the Near-Term scenario from the City of Fairfield model.
2. Near-Term Plus Project: Total model-wide VMT using the Near-Term scenario from City of Fairfield model plus the project land use added into project's TAZ.
3. Cumulative No Project: Total model-wide VMT was calculated using year 2040 City of Fairfield model. This horizon year of the model incorporates land use forecasts from the City's adopted General Plan and Plan Bay Area 2040.

4. Cumulative Plus Project: Total model-wide VMT using year 2040 City of Fairfield model plus the Project land use added into the project's TAZ with a land use control total method.

As noted above, the City has adopted CEQA VMT thresholds that are consistent with the Office of Planning and Research's "Technical Advisory on Evaluating Transportation Impacts in CEQA" (December 2018) and CEQA Guidelines Section 15064.3. Impacts are identified based on the percentage of VMT increase when comparing the project's VMT value to a Baseline value. For retail, industrial, and other non-residential uses, any net increase in total model-wide VMT is considered a significant impact.

Based on the City of Fairfield VMT impact threshold described above, the project would result in a significant VMT impact if the project increases the total VMT compared to Baseline conditions.

The addition of the Project is expected to increase the total VMT under Near-Term conditions by approximately 28,563 VMT and decrease total VMT under Cumulative conditions by approximately 6,159 VMT. Therefore, although the models demonstrate a potentially significant impact in the near-term, they show that these impacts would be reduced and eliminated as further development occurs.

To address the VMT impacts of the project in the near-term, Mitigation Measures TRAN-1 and TRAN-2 would be implemented. Mitigation Measure TRAN-1 requires the project applicant to build multi-modal improvements on Cordelia Road and implement Transportation Demand Management (TDM) Programs. TDM refers to strategies that motivate alternatives to automobile travel, either through positive incentives for walking, biking, and transit, or through adding additional costs to automobile use at the project site. Mitigation Measure TRAN-2 requires the applicant to implement the Fairfield General Plan bicycle facilities along the project frontage by constructing a Class II bicycle facility.

The Cumulative scenarios reflect the full buildout of the City's General Plan. The City's General Plan seeks to diversify the City's land use program and transportation network, including by requiring implementation of multimodal transportation facilities, and does not anticipate new projects to conflict with state and regional long-term greenhouse gas emission reduction targets and statewide VMT reduction targets. The project is consistent with the site's industrial General Plan and Zoning land use designations. Furthermore, the project as proposed and conditioned would implement frontage and street improvements that will implement the General Plan's transportation network goals. These improvements include a bus bulb out that will serve a new bus route contemplated by the City's General Plan that will run adjacent to the project site. Under these conditions, the VMT analysis identifies a *decrease* of approximately 6,159 VMT that would occur with implementation of the project as compared to Cumulative conditions without the project.

Although the project would initially increase VMT compared to Baseline conditions, the project would be required to implement near-term mitigation measures that contribute towards the cumulative General Plan buildout conditions in which the project is self-mitigating; resulting in a less-than-significant impact.

For reasons discussed above, the project would not conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities. Frontage roads and site accesses would be required to be constructed per Public Works and Fire Department standards and will therefore not result in an increase in hazards due to design features, nor result in inadequate emergency access. Adequate parking, consistent with City zoning ordinance standards, has been conditioned on the project.

Impact TRAN-1: VMT Increase

The Project is expected to increase total VMT in the near-term and reduce total VMT under Cumulative conditions. While the Project would mitigate itself over time, mitigation measures are recommended to reduce the project's near-term VMT impacts.

Mitigation Measure TRAN-1: VMT Increase

The following Transportation Demand Management (TDM) Programs shall be implemented by the developer/applicant prior to Building permit final, subject to the review and approval of the Community Development Department and the Public Works Department:

1. Transit Pass Subsidies.
    a. Provide 100% transit pass subsidy to all employees to encourage employees to take transit to work. (1-4% VMT Reduction).
2. Commute Marketing Program.
    a. Designate a TDM Coordinator to plan, manage, and implement commute programs. The TDM coordinator shall share information on resources and incentives to encourage employees to use alternative modes of travel to work in the form of regular emails, bulletin postings, challenges, or events. (2-8% VMT Reduction).
        i. TDM Coordinator shall work with City staff to determine on an annual basis the effectiveness of all the TDM strategies identified.
3. Pedestrian-Oriented Design.
    a. Provide the following pedestrian facilities: paved sidewalks and pedestrian-scale lighting, along project site frontages and marked crosswalks and pedestrian signals at the Beck Avenue and Cordelia Road intersection as part of the project construction. (3% VMT Reduction).

Mitigation Measure TRAN-2: VMT Increase

Implement the Fairfield General Plan bicycle facilities along the project frontage. The developer/applicant shall construct a Class II bicycle facility along Cordelia Road as part of the project's development, subject to the review and approval of the Public Works Department.

XVIII. TRIBAL CULTURAL RESOURCES – Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:

	Potentially Significant Impact	Less Than Significant With Mitigation	Less than Significant Impact	No Impact
a) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or		X		
b) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.		X		

Discussion: A Cultural Resource Study, conducted for the project site, details a NAHC Sacred Lands File request was returned with negative results (see "Discussion: Cultural Resources"). Furthermore, the City notified Yocha Dehe Wintun Nation pursuant to Public Resources Code Section 21080.3.1 of the project on February 24, 2021. On March 10, 2021 the Yocha Dehe Cultural Resources Manager provided a letter stating that the project site was within the aboriginal territories of the Yocha Dehe Wintun Nation and recommended including cultural monitors during development and ground disturbance.

There have been no known discoveries of archeological resources at the site or within its immediate vicinity. However, tribal cultural resources could be encountered unexpectedly during the excavation of the site. The greater Fairfield area does have a rich tribal history, which has resulted in the discovery of human remains and artifacts during construction projects in the past. In the event that such resources are encountered unexpectedly during excavation activities, the City will require that no resources shall be handled or photographed, construction activity of subject property shall cease and the following measures implemented to address potential impacts. With the mitigation measures below, project impacts would be less than significant.

Impact TC-1: Tribal Cultural Resources

Tribal cultural resources could be discovered during grading and potentially significant impacts could result to as-yet-unidentified tribal cultural resources at the construction stage. Implementation of Mitigation Measures TC-1 and TC-2 would ensure that potential impacts related to previously undiscovered historic or archaeological resources and human remains would be less than significant.

Mitigation Measure TC-1: Tribal Cultural Resources

Due to the possibility of archeological resources on the project site, the City of Fairfield shall require a note on any plans that require ground disturbing excavation that there is a potential for exposing buried cultural resources, including prehistoric Native American burials.

Prior to ground breaking, construction personnel associated with earth moving equipment, drilling, grading, and excavating, shall be provided with basic archaeological and cultural sensitivity training conducted by a qualified archaeologist and in consultation with the Yocha Dehe Wintun Nation. Issues that shall be included in the basic training will be geared toward training the applicable construction crews in the identification of archaeological deposits and tribal cultural resources. Training will include written notification of the restrictions regarding disturbance and/or removal of any portion of archaeological deposits and the proper procedures to follow should a resource be identified. The project applicant shall inform the Yocha Dehe Wintun Nation of the project construction schedule and allow for a Yocha Dehe Wintun Nation tribal monitor to be present at the project site during any ground disturbance activities in native soil, to ensure such activities do not negatively impact cultural resources. The tribal monitor will also be provided an opportunity to attend the pre-construction briefing. The construction contractor, or its designee, shall be responsible for implementation of this measure.

Mitigation Measure TC-2: Tribal Cultural Resources

If archaeological remains or tribal cultural resources are uncovered, all construction activities within a 100-foot radius shall be halted immediately until a qualified archaeologist, in consultation with the tribal monitor, can evaluate whether the resource requires further study. The City shall require that the applicant include a standard inadvertent discovery clause in every construction contract to inform contractors of this requirement. Any previously undiscovered archaeological resources are found during construction shall be recorded on appropriate Department of Parks and Recreation forms and evaluated for significance in terms of California Environmental Quality Act criteria by a qualified archaeologist. Prehistoric archaeological site indicators include but are not limited to: obsidian and chert flakes and chipped stone tools; grinding and mashing implements (e.g., slabs and handstones, and mortars and pestles); bedrock outcrops and boulders with mortar cups; and locally darkened midden soils. Midden soils may contain a combination of any of the previously listed items with the possible addition of bone and shell remains, and fire-affected stones. Historic period site indicators generally include but are not limited to: fragments of glass, ceramic, and metal objects; milled and split lumber; and structure and feature remains such as building foundations and discrete trash deposits (e.g.,

wells, privy pits, dumps). If the resource is determined to be significant under CEQA, the City and a qualified archaeologist shall determine whether preservation in place is feasible. Such preservation in place is the preferred mitigation. If such preservation is infeasible, the qualified archaeologist shall prepare and implement a research design and archaeological data recovery plan for the resource. The archaeologist shall also conduct appropriate technical analyses, prepare a comprehensive written report and file it with the appropriate information center (California Historical Resources Information System [CHRIS]), and provide for the permanent curation of the recovered materials. For any tribal cultural resources found during the ground disturbance activities, the Yocha Dehe Wintun Nation shall be immediately notified, and the appropriate treatment method for the uncovered resources shall be determined by the City and archaeologist in consultation with the Yocha Dehe Wintun Nation and its Yocha Dehe Treatment Protocol.

The treatment of human remains and any associated or unassociated funerary objects discovered during any soil-disturbing activity within the project site shall comply with applicable State laws. This shall include immediate notification of the Solano County Coroner and the City of Fairfield of the discovery of any human remains.

In the event of the Coroner's determination that the human remains are Native American, the coroner must contact the NAHC within 24 hours. The NAHC shall identify a Most Likely Descendant (MLD) of the deceased Native American (PRC Section 5097.98). The MLD may then make recommendations to the landowner or the person responsible for the excavation work, for the means of treating or disposing of, with appropriate dignity, the human remains and any associated grave goods as provided in PRC Section 5097.98. Development activity on the impacted site will halt until the landowner has conferred with the MLD about their recommendations for treatment of the remains, and the coroner has determined that the remains are not subject to investigation under California Government Code Section 27491.

The project applicant, archaeological consultant, and MLD shall make all reasonable efforts to develop an agreement for the treatment, with appropriate dignity, of human remains and associated or unassociated funerary objects (CEQA Guidelines Section 15064.5(d)). The agreement should take into consideration the appropriate excavation, removal, recordation, analysis, custodianship, curation, and final disposition of the human remains and associated or unassociated funerary objects. The California PRC allows 48 hours to reach agreement on these matters. If the MLD and the other parties do not agree on the reburial method, the project will follow PRC Section 5097.98(b) which states that ". . . the landowner or his or her authorized representative shall reinter the human remains and items associated with Native American burials with appropriate dignity on the property in a location not subject to further subsurface disturbance."

XIX. **UTILITIES AND SERVICE SYSTEMS** – Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation	Less than Significant Impact	No Impact
a) Require or result in the relocation or construction of new or expanded water, wastewater treatment facilities or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?				X
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?				X
c) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?				X
d) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?				X
g) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?				X

Discussion: The responsible departments and agencies for wastewater and water supply have reviewed the project and determined that capacities will be adequate. The project will substantially increase the site's impervious surfaces, but not beyond the capacity of the existing storm drainage system. The drainage of this project will be required to comply with City standards for drainage and grading (see "Discussion: Hydrology and Water Quality"). Appropriate permits will be required to be obtained prior to construction. Solid waste will be managed on site and redirected to secondary facility with adequate capacity.

XX. **WILDFIRE** -- If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:	Potentially Significant Impact	Less Than Significant With Mitigation	Less than Significant Impact	No Impact
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?				X
b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?				X
c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?			X	
d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?			X	

Discussion: The project does not involve the use of hazardous chemicals or processes, nor was there a previous use of the land that involved potential hazards. The proposed project will not involve transporting substances known to the City to be hazardous, caustic, or explosive. It is not located in a potentially hazardous airport area, nor would it interfere with an emergency response plan or expose people or structures to a significant risk of wildland fires. Furthermore, the project is not located within any identified by the High Wildfire Risk Areas according to the City General Plan or a very high fire hazard severity zone according to the 2007 Fire Hazard Severity Zones in LRA produced by the California Department of Forestry and Fire Protection (CalFire). All buildings are required by California Building Code to be equipped with fire sprinklers.

The proposed project will develop the site with infrastructure and associated site improvements to support the industrial park consisting of a total of 717,504 square-feet. However, both the Fire and the Police Departments have reviewed the plans and determined that limited additional resources will be required. The Fire Department has imposed conditions to meet fire safety standards. The project will pay AB 1600 impact fees for traffic improvements and public facilities, and impact fees for schools and County Public Facilities to offset the impacts and increased demand for public services and facilities created by the project.

The responsible departments and agencies for wastewater and water supply have reviewed the project and determined that capacities will be adequate. The project will substantially increase the site's impervious surfaces, but not beyond the capacity of the existing storm drainage system. The drainage of this project will be required to comply with City standards for drainage and grading (see "Discussion: Hydrology and Water Quality"). Appropriate permits will be required to be obtained prior to construction. Additionally, the applicant will be required to prepare an erosion and sedimentation control plan and comply with the National Pollution Discharge Elimination System (NPDES) Permit and Storm Water Pollution Prevention Plan (SWPPP) requirement.

XXI. MANDATORY FINDINGS OF SIGNIFICANCE	Potentially Significant Impact	Less Than Significant With Mitigation	Less than Significant Impact	No Impact
a) Does the project have the potential to significantly degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?		X		
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?			X	
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?			X	

Discussion: Project impacts to wetland areas have potentially significant impacts to endangered plants (Contra Costa goldfields) and animals (pool fairy shrimp). However, the implementation of the mitigation measures discussed in the initial study would reduce the impacts to less than significant levels. The project's individual impacts to air quality and greenhouse gas are greater as cumulatively considerable impacts. However, according to the model analysis, neither the project's construction nor net operational emissions would exceed the BAAQMD Guidelines

thresholds for any criteria air pollutants or greenhouse gas emissions and will not produce cumulatively considerable emissions in relation to the statewide and regional policies and plans. The Initial Study identified potential significant project impacts relative to biological resources, cultural resources, geology, transportation, and tribal cultural resources. None of the identified impacts will cause substantial adverse efforts on human beings, and all of the identified impacts can be reduced to less than significant levels through implementation of Mitigation Measures discussed in the Initial Study.

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5. City of Fairfield: Draft Program Environmental Impact Report for the Comprehensive Amendment to the City of Fairfield General Plan, August 2001.

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8. City of Fairfield: Alvin Lei, Public Works Department. Memo to Meily Sheehan, RE: Conditions of Development, February 24, 2021.

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10. City of Fairfield: Fairfield Guidelines for Project VMT Screening Transportation Analysis, December 22, 2020.

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12. City of Fairfield: Meily Sheehan, Staff Research and Filed Observation, May, 2021.

13. Department of Parks and Recreation Office of Historic Preservation, Julianne Polanco. Letter to William M. Connor, U.S. Army Corps of Engineers, RE: Section 106 Consultation – LogistiCenter at Fairfield*,* April 1, 2021.

14. Fairfield Suisun Sewer District, Trang Bui. Memo to Meily Sheehan, RE: LogistiCenter at Fairfield, March 2, 2021.

15. Federal Emergency Management Administration: *Flood Insurance Rate Map, 06095C0452F and 06095C0456F,* October, 2020.

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21. LSA, Steve Forman. Letter to Meily Sheehan, RE: Dermody Properties LogistiCenter at Fairfield, Update for Biological Resources Assessment, August 27, 021

22. LSA, *Cultural Resources Study LogistiCenter at Fairfield,* July 2020.

23. LSA, Solano County Water Agency, *Solano Multispecies Habitat Conservation Plan-Administrative Draft,* May 2009.

24. State of California, Department of Conservation, *Solano County Williamson Act Map*, FY 2013/2014.

25. State of California, Department of Conservation, *Solano County Important Farmland Map*, 2016.

26. State of California, Department of Conservation, State Geologist, *EQ Zapp: California Earthquake Hazards Application,* April 4, 2019.

27. State of California, Department of Forestry & Fire Protection, Solano County: *Draft Fire hazard Severity Zones in LRA*, October 3, 2007.

28. State of California, Department of Transportation, *Officially Designated Scenic Highways List*, 2018.

29. State of California, Governor's Office of Planning and Research, *Transportation Impacts (SB743),* April 13, 2018.

30. Solano County, Department of Resource Management, *Travis Air Force Base Land Use Compatibility Plan*, Adopted October 8, 2015.

31. U.S. Department of Fish and Wildlife Services, Michael Fris. Letter to William Connor, RE: Formal Consultation on the LogistiCenter Building Project in the City of Fairfield, Solano County California (Corps File Number SPN-2020-00294), August 31, 2021.

32. Yocha Dehe Cultural Resources, Laverne Bill. Letter to Meily Sheehan, RE: LogistiCenter at Fairfield Project YD-01212021-03, March 10, 2021

Initial Site Assessment Checklist for Special Status Species or Habitat
PROJECT NAME:
SITE LOCATION:
ASSESSMENT PREPARED BY:

SITE CHARACTERISTICS	PRESENT? Yes	No	COMMENTS

I. GENERAL CRITERIA

A. Is the Proposed Project Site located within one of the following Areas of Concern*:			
Vernal Pool Species	____	____	_____
Giant Garter Snake	____	____	_____
Valley Elderberry Longhorn Beetle	____	____	_____
California Red-legged Frog	____	____	_____
Coastal Marsh Species	____	____	_____
Callippe Silverspot Butterfly (i.e., Potrero Hills or the open space area formed by Interstate Highways 80, 680, 780)	____	____	_____
B. Is the Proposed Project Site located along a watercourse?	____	____	_____

*See accompanying Areas of Concern Guidelines for descriptions and map.

If the answer to any of the above Section I criteria is "yes":

1. The site should be evaluated by a qualified biologist/botanist to determine the presence of special status species and/or habitat for such species.

2. The project will require evidence of compliance with the federal Endangered Species Act. The applicant should contact the USFWS regarding compliance with the Endangered Species Act and the Solano Project Biological Opinion. Details are provided in the Areas of Concern Guidelines.

If "no": Complete Section II of this checklist on the following pages.

The USFWS can be reached at: Sacramento Fish and Wildlife Office, Endangered Species Program
2800 Cottage Way, Rm. W-2605
Sacramento, CA 95825.
(916) 414-6600

Initial Site Assessment Checklist for Special Status Species or Habitat

SITE CHARACTERISTICS	PRESENT? Yes	No	COMMENTS
II. SPECIES-SPECIFIC CRITERIA			
Vernal Pool Species			
Vernal pool and/or seasonal wetlands, including alkaline wetlands and stock ponds	____	____	_____
Level topography with shallow depressions capable of containing standing water during the rainy season (Nov.-May)	____	____	_____
Has a wetland delineation has been completed?	____	____	_____
Grassland with low-lying areas with stunted vegetation growth	____	____	_____
Shallow stock ponds which normally dry on an annual basis	____	____	_____
Presence of the following soil types: Pescadero series, Antioch series, San Ysidro series, Solano series, and associated complex soils (excludes existing developed areas and areas cultivated with perennial crops)	____	____	_____
Giant Garter Snake			
Freshwater marshes, sloughs, ponds, low flow drainages, irrigation canals, backwater areas, rice fields	____	____	_____
Emergent aquatic vegetation (e.g., cattails, bulrushes)	____	____	_____
Grassy banks and vegetated uplands adjacent to or within 200ft of habitats listed above	____	____	_____

Initial Site Assessment Checklist for Special Status Species or Habitat

SITE CHARACTERISTICS	PRESENT? Yes	No	COMMENTS
Valley Elderberry Longhorn Beetle			
Creeks, small drainages, man-made watercourses	____	____	_____
Elderberry Shrubs	____	____	_____
Riparian vegetation	____	____	_____
California Red-legged Frog			
Perennial and seasonal creeks and ponds, small drainages, seeps and springs, stock ponds and other artificial water sources	____	____	_____
Aquatic or riparian vegetation	____	____	_____
Oak woodlands nearby or other suitable migration corridors between wet areas	____	____	_____
Coastal Marsh Species			
Brackish or salt marsh, tidal sloughs	____	____	_____
Dense patches of pickleweed, saltgrass, or other perennial marsh vegetation	____	____	_____
Adjacent high marsh (non-submerged) areas for refuge	____	____	_____
Presence of any of above habitat conditions within 1,000 feet of proposed new development	____	____	_____

Summary:

If the answer to any of the above Section II criteria is “yes”, the site should be evaluated by a qualified biologist or botanist to determine the presence of special status species and/or potential habitat of such species. Also, the applicant should contact the Sacramento Fish and Wildlife Office regarding compliance with the Endangered Species Act and the Solano Project Biological Opinion.

Appendix A:

Impact Sciences, *Fairfield Industrial Center Air Quality and Greenhouse Gas Technical Report,* September 2021

Fairfield Industrial Center

Final Air Quality and Greenhouse Gas Technical Report

September 2021

Prepared for:

Dermody Properties
5500 Equity Avenue
Reno, Nevada 89502

IMPACT SCIENCES

Prepared by:

Impact Sciences, Inc.
811 W. 7th Street, Suite 200
Los Angeles, CA 90017

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1.0 INTRODUCTION

This report relates to an application to construct a 55.38-acre logistics complex on the corner of Cordelia Road and Beck Avenue in Fairfield, California (proposed project). This study describes the existing air quality and greenhouse gas (GHG) emissions of the proposed project site located in the City of Fairfield and evaluates the potential impacts from project construction and operations. This report has been prepared by Impact Sciences, Inc., in support of the environmental documentation being prepared pursuant to the California Environmental Quality Act (CEQA). This analysis considers both the temporary air quality and GHG impacts that would result from project construction and the long-term impacts associated with the operation of the project.

1.1 Project Location

The proposed project is located at the corner of Cordelia Road and Beck Avenue in the City of Fairfield. The site is bounded by Meyer Way and Sheldon United Terminal to the north, Pennsylvania Avenue to the east, Cordelia Road to the south, and Beck Avenue and Shelter, Inc., Homeless Shelter to the west (see **Figure 1, Proposed Project Site)**. Beyond the adjacencies, the proposed project site is generally surrounded by other industrial land uses.

1.2 Project Description

If approved, the proposed project will construct a 55.38-acre logistics complex on the corner of Cordelia Road and Beck Avenue in Fairfield, California. The project site is zoned as Limited Industrial (IL-ES) with other IL-ES-zoned parcels located immediately adjacent to the east, north, and west of the project site, and agricultural zoned areas (AG) to the south. The existing project site is a flat open space. Pacific Gas and Electric (PG&E), City of Vallejo, and other private utilities have existing easements on the project site that have been incorporated into the project design.

The logistics complex will be made up of five separate buildings totaling 713,701 square feet of industrial warehousing space with warehousing offices. In addition, the site will include the preservation of 600,000 square feet of open space and wetlands. The square footages and allotted parking stalls for each building are detailed in **Table 1, Proposed Industrial Buildings**.

Table 1
Proposed Industrial Buildings

Building	Size (square feet)	Auto Parking Stalls	Trailer Parking Stalls
1	102,056	185	35
2	259,200	223	28
3	167,400	145	40
4	102,425	125	12
5	82,620	106	7
Total	***713,701***	***784***	***122***

Source: Ware Malcomb, 2020.

The project site will be developed with a series of water and energy efficiency features that will reduce air quality and GHG emissions. These include:

- Water efficient landscaping;
- Fifteen percent future solar areas on roofs;
- EV charging station infrastructure for 50 parking spaces;
- Designation of 15 parking stalls for clean air/carpool parking; and
- Installation of LED light fixtures.

One percent of the roofing with include skylights for natural daylight and energy efficiency.

SOURCE: Google Earth, 2021

FIGURE **1**

IMPACT SCIENCES

Proposed Project Site

1355.001•03/2021

2.0 AIR QUALITY

2.1 Air Quality Setting

San Francisco Bay Area Air Basin

San Francisco Bay Area Air Basin Characteristics

The City of Fairfield is located within the San Francisco Bay Area Air Basin (SFBAAB), which encompasses all of Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, and Santa Clara counties, the southern portion of Sonoma, and the southwestern portion of Solano County. Air quality in this area is determined by natural factors such as topography, meteorology, and climate, in addition to the presence of existing air pollution sources and ambient conditions.[1]

Climate

The SFBAAB is characterized by complex terrain, consisting of coastal mountain ranges, inland valleys, and bays, which distort normal wind flow patterns. The Coast Range splits resulting in a western coast gap, the Golden Gate Strait, and an eastern coast gap aka., the Carquinez Strait, which allow air to flow in and out of the SFBAAB and the Central Valley.

The climate is dominated by the strength and location of a semi-permanent, subtropical high-pressure cell. During the summer, the Pacific high-pressure cell is centered over the northeastern Pacific Ocean resulting in stable meteorological conditions and a steady northwesterly wind flow. Cold ocean water upwells to the surface because of the northwesterly flow that produces a band of cold water off the California coast. The cool and moisture-laden air approaching the coast from the Pacific Ocean is further cooled by the presence of the cold-water band resulting in condensation and the presence of fog and stratus clouds along the Northern California coast.

In the winter, the Pacific high-pressure cell weakens and shifts southward resulting in wind flow offshore, an absence of upwelling resulting in the occurrence of storms. Weak inversions coupled with moderate winds result in a low air pollution potential.

1 Bay Area Air Quality Management District. 2017. *CEQA Guidelines*. Available online at: https://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en.

High Pressure Cell

During the summer (which in California includes the months of June through October), the large-scale meteorological condition that dominates the West Coast is a semi-permanent high-pressure cell centered over the northeastern Pacific Ocean. This high-pressure cell keeps storms from affecting the California coast. Hence, the SFBAAB experiences little precipitation in the summer months. Winds tend to blow on shore out of the north/northwest.

The steady northwesterly flow induces upwelling of cold water from below. This upwelling produces a band of cold water off the California coast. When air approaches the coast, already cool and moisture-laden from its long journey over the Pacific, it is further cooled as it crosses this bank of cold water. This cooling often produces condensation resulting in a high incidence of fog and stratus clouds along the Northern California coast in the summer, particularly in June.

Generally, in the winter, the Pacific high-pressure cell weakens and shifts southward, winds tend to flow offshore, upwelling ceases, and storms occur. During the winter rainy periods, inversions are weak or nonexistent, winds are usually moderate and air pollution potential is low. The Pacific high does periodically become dominant, bringing strong inversions, light winds and high pollution potential.

Topography

The topography of the SFBAAB is characterized by complex terrain, consisting of coastal mountain ranges, inland valleys, and bays. This complex terrain, especially the higher elevations, distorts the normal wind flow patterns in the SFBAAB. The greatest distortion occurs when low-level inversions are present and the air beneath the inversion flow independently of air above the inversion, a condition that is common in the summertime.

The only major break in California's Coast Range occurs in the SFBAAB. Here the Coast Range splits into western and eastern ranges. Between the two ranges lies the San Francisco Bay. The gap in the western coast range is known as the Golden Gate Strait, and the gap in the eastern coast range is the Carquinez Strait. These gaps allow air to pass into and out of the SFBAAB and the Central Valley.

Wind Patterns

During the summer, winds flowing from the northwest are drawn inland through the Golden Gate and over the lower portions of the San Francisco Peninsula. Immediately south of Mount Tamalpais, the northwesterly winds accelerate considerably and come more directly from the west as they stream through the Golden Gate. This channeling of wind through the Golden Gate Strait produces a wind jet that sweeps

eastward and splits off to the northwest toward Richmond and to the southwest toward San Jose when it meets the East Bay hills.

In the winter, the SFBAAB frequently experiences story conditions with moderate to strong winds, as well as periods of stagnation with very light winds. Winter stagnation episodes are characterized by drainage flows in coastal valleys. Drainage is a reversal of the usual daytime air-flow patterns; air moves from the Central Valley towards the coast and back down toward the Bay from the smaller valleys within the SFBAAB.

Temperature

Summertime temperatures in the SFBAAB are determined in large part by the effect of differential heating between land and water surfaces. Because land tends to heat up and cool off more quickly than water, a large-scale gradient (differential) in temperature is often created between the coast and the Central Valley, and small-scale local gradients are often produced along the shorelines of the ocean and bays. The temperature gradient near the ocean is also exaggerated, especially in summer, because of the upwelling of cold ocean bottom water along the coast. On summer afternoons the temperatures at the coast can be 35ºF cooler than temperatures 15 to 20 miles inland. At night this contrast usually decreases to less than 10º.

In the winter, the relationship of minimum and maximum temperatures is reversed. During the daytime the temperature contrast between the coast and inland areas is small, whereas at night the variation in temperature is large.

Precipitation

The SFBAAB is characterized by moderately wet winters and dry summers. Winter rains account for about 75 percent of the average annual rainfall. The amount of annual precipitation can vary greatly from one part of the SFBAAB to another even within short distances. In general, total annual rainfall can reach 40 inches in the mountains, but it is often less than 16 inches in sheltered valleys.

During rainy periods, ventilation (rapid horizontal movement of air and injection of cleaner air) and vertical mixing are usually high, and this pollution levels tend to be low. However, frequent dry periods do occur during the winter when mixing and ventilation are low and pollutant levels build up.

Air Pollutants of Concern

Criteria air pollutants are defined as pollutants for which the federal and state governments have established ambient air quality standards for outdoor concentrations. The federal and state standards have

been set at levels above which concentrations could be harmful to human health and welfare. These standards are designed to protect the most sensitive persons such as children, pregnant women, and the elderly from illness or discomfort. Criteria air pollutants include ozone (O_3), nitrogen dioxide (NO_2), carbon monoxide (CO), sulfur dioxide (SO_2), particulate matter 2.5 microns or less in diameter (PM2.5), particulate matter ten microns or less in diameter (PM10), and lead (Pb). Note that reactive organic gases (ROGs), which are also known as reactive organic compounds (ROCs) or volatile organic compounds (VOCs), and nitrogen oxide (NOx) are not classified as criteria pollutants. However, ROGs and NOx are widely emitted from land development projects and participate in photochemical reactions in the atmosphere to form O_3; therefore, NOx and ROGs are relevant to the proposed project and are of concern in the air basin and are listed below along with the criteria pollutants. Sources and health effects commonly associated with criteria pollutants are summarized in **Table 2, Criteria Pollutants Summary of Common Sources and Effects**.

Table 2
Criteria Pollutants Summary of Common Sources and Effects

Pollutant	Major Man-Made Sources	Human Health & Welfare Effects
Carbon Monoxide (CO)	An odorless, colorless gas formed when carbon in fuels is not burned completely; a component of motor vehicle exhaust.	Reduces the ability of blood to deliver oxygen to vital tissues, affecting the cardiovascular and nervous system. Impairs vision, causes dizziness, and can lead to unconsciousness or death.
Nitrogen Dioxide (NO_2)	A reddish-brown gas formed during fuel combustion for motor vehicles and industrial sources. Sources include moto vehicles, electric utilities, and other sources that burn fuel.	Respiratory irritant; aggravates lung and heart problems. Precursor to ozone and acid rain. Contributes to global warming and nutrient overloading which deteriorates water quality. Causes brown discoloration of the atmosphere.
Ozone (O_3)	Formed by a chemical reaction between volatile organic compounds (VOC) and nitrous oxides (NOx) in the presence of sunlight. VOCs are also commonly referred to as reactive organic gases (ROGs). Common sources of these precursor pollutants include motor vehicle exhaust, industrial emissions, gasoline storage and transport, solvents, paints, and landfills.	Irritates and causes inflammation of the mucous membranes and lung airways; causes wheezing, coughing, and pain when inhaling deeply; decreases lung capacity; aggravates lung and heart problems. Damages plants; reduces crop yield. Damages rubber, some textiles, and dyes.
Particulate Matter (PM10 & PM2.5)	Produced by power plants, steel mills, chemical plants, unpaved roads and parking lots, wood-burning stoves and fireplaces, automobiles, and others.	Increased respiratory symptoms, such as irritation of the airways, coughing or difficulty breathing; aggravated asthma; development of chronic bronchitis; irregular heartbeat; nonfatal heart attacks; and premature death in people with heart or lung disease. Impairs visibility (haze).

Pollutant	Major Man-Made Sources	Human Health & Welfare Effects
Sulfur Dioxide (SO_2)	A colorless, nonflammable gas formed when fuel containing sulfur is burned, when gasoline is extracted from ore. Examples are petroleum refineries, cement manufacturing, metal processing facilities, locomotives, and ships.	Respiratory irritant; aggravates lung and heart problems. In the presence of moisture and oxygen, sulfur dioxide converts to sulfuric acid which can damage marble, iron, and steel. Damages crops and natural vegetation. Impairs visibility. Precursor to acid rain.

Source: CAPCOA, Health Effects. Available: http://www.capcoa.org/health-effects/

2.2 Ambient Air Quality

Criteria Air Pollutant Monitoring Data

Ambient air quality in Fairfield can be characterized by ambient air quality measurements conducted at nearby air quality monitoring stations. Existing ambient air quality and historical trends and projections in the vicinity of Fairfield are documented by measurements made by the Bay Area Air Quality Management District (BAAQMD), the air pollution regulatory agency in the SFBAAB regions maintains air quality monitoring stations which process ambient air quality measurements.

The purpose of the monitoring station is to measure ambient concentrations of pollutants and determine whether ambient air quality meets the National Ambient Air Quality Standards (NAAQS) and the California Ambient Air Quality Standards (CAAQS). Ozone and particulate matter (PM10 and PM2.5) are pollutants of particular concern in the SFBAAB. The monitoring station located closest to the proposed project site and most representative of air quality near the project site is the Fairfield-Chadbourne Road Station approximately 1.2 miles west of the project site at 1010 Chadbourne Road. Ambient air emission concentrations vary due to localized variations in emission sources and climate and should be considered "generally" representative of ambient concentrations in the Fairfield area. The Fairfield-Chadbourne Road Station monitors O_3 see **Table 3, Fairfield-Chadbourne Road Air Monitoring Station Ambient Pollutant Concentrations**.

Table 3
Fairfield-Chadbourne Road Air Monitoring Station Ambient Pollutant Concentrations

Pollutant	Standards[1]	Year		
		2017	2018	2019
OZONE (O_3)				
Maximum 1-hour concentration monitored (ppm)		0.080	0.078	0.080
Maximum 8-hour concentration monitored (ppm)		0.062	0.066	0.068
Number of days exceeding state 1-hour standard	0.09 ppm	0	0	0
Number of days exceeding federal/state 8-hour standard[2]	0.070 ppm	0	0	0

Source: California Air Resources Board, "Air Quality Data Statistics," http://www.arb.ca.gov/adam/. 2021.
NA = not available
[1] *Parts by volume per million of air (ppm), micrograms per cubic meter of air ($\mu g/m^3$).*
[2] *The 8-hour federal O_3 standard was revised from 0.075 ppm to 0.070 ppm in 2015. The statistics shown are based on the 2015 standard of 0.070 ppm.*

The attainment status for the SFBAAB region is included in **Table 4, Attainment Status of the San Francisco Bay Area Air Basin**. Areas that meet ambient air quality standards are classified as attainment areas, while areas that do not meet these standards are classified as nonattainment areas. The SFBAAB region is designated as a nonattainment area for federal ozone and are designated as nonattainment for state ozone, PM10, and PM2.5 standards.

Table 4
Attainment Status of the San Francisco Bay Area Air Basin

Pollutant	State	Federal
Ozone (O_3)	Non-Attainment	Non-attainment
Particulate Matter (PM_{10})	Non-Attainment	Unclassified
Particulate Matter ($PM_{2.5}$)	Non-Attainment	Attainment
Carbon Monoxide (CO)	Attainment	Attainment
Nitrogen Dioxide (NO_2)	Attainment	Attainment
Sulfur Dioxide (SO_2)	Attainment	Attainment
Lead	Attainment	Attainment

Source: BAAQMD. 2017. Air Quality Standards and Attainment Status. Available online at: http://www.baaqmd.gov/about-air-quality/research-and-data/air-quality-standards-and-attainment-status#ten. Accessed March 16, 2021.

Toxic Air Contaminants

In addition to the criteria pollutants discussed above, toxic air contaminants (TACs) are another group of pollutants of concern. TACs are considered either carcinogenic or noncarcinogenic based on the nature of the health effects associated with exposure to the pollutant. For regulatory purposes, carcinogenic TACs are assumed to have no safe threshold below which health impacts would not occur, and cancer risk is

expressed as excess cancer cases per one million exposed individuals. Noncarcinogenic TACs differ in that there is generally assumed to be a safe level of exposure below which no negative health impact is believed to occur. These levels are determined on a pollutant-by-pollutant basis.

There are many different types of TACs with varying degrees of toxicity. Sources of TACs include industrial processes, such as petroleum refining and chrome-plating operations; commercial operations, such as gasoline stations and dry cleaners; and motor vehicle exhaust. Public exposure to TACs can result from emissions from normal operations, as well as from accidental releases of hazardous materials during upset conditions. The health effects associated with TACs are quite diverse and are generally assessed locally rather than regionally. TACs can cause long-term health effects such as cancer, birth defects, neurological damage, asthma, bronchitis, or genetic damage, or short-term acute affects such as eye watering, respiratory irritation (a cough), running nose, throat pain, and headaches.[2]

To date, CARB has designated 244 compounds as TACs. Additionally, CARB has implemented control measures for a number of compounds that pose high risks and show potential for effective control. The majority of the estimated health risks from TACs can be attributed to relatively few compounds.[3]

CARB identified diesel particulate matter (DPM) as a TAC. DPM differs from other TACs in that it is not a single substance but rather a complex mixture of hundreds of substances, including 40 cancer-causing substances. Diesel exhaust is a complex mixture of particulates and gases produced when an engine burns diesel fuel. DPM is a concern because it causes lung cancer: many compounds found in diesel exhaust are carcinogenic. DPM includes the particle-phase constituents in diesel exhaust. The chemical composition and particle sizes of DPM very between different engine types (heavy-duty, light-duty), engine operating conditions (idle, accelerate, decelerate), fuel formulations (high/low sulfur fuel), and the year of the engine. Some short-term (acute) effects of diesel exhaust include eye, nose, throat, and lung irritation, and diesel exhaust can cause coughs, headaches, light-headedness, and nausea. DPM poses the greatest health risk among the TACs. Almost all diesel exhaust particle mass is 10 microns or less in diameter. Because of their extremely small size, these particles can be inhaled and eventually trapped in the bronchial and alveolar regions of the lung.

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2 Bay Area Air Quality Management District. 2017. *CEQA Guidelines*. Available online at: https://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en.

3 California Air Resources Board. *CARB Identified Toxic Air Contaminants*. Available online at: https://ww2.arb.ca.gov/resources/documents/carb-identified-toxic-air-contaminants.

Sensitive Receptors

Some land uses are considered more sensitive to air pollution than others due to the types of population groups or activities involved. Sensitive population groups include children, the elderly, the acutely ill, and the chronically ill, especially those with cardiovascular diseases.[4]

Residential areas are considered to be sensitive receptors to air pollutants because residents (including children and the elderly) tend to be at home for extended periods of time, resulting in sustained exposure to any pollutants present. Children are considered more susceptible to health effects of air pollution due to their immature immune systems and developing organs.[5] As such, schools are also considered sensitive receptors, as children are present for extended durations and engage in regular outdoor activities. Recreational land uses are considered moderately sensitive to air pollution. Although exposure periods are generally short, exercise places a high demand on respiratory functions which can be impaired by air pollution. In addition, noticeable air pollution can detract from the enjoyment of recreation.

Homeless shelters serve as temporary residences for underserved populations and are considered sensitive receptors in the analysis below. There are many types of homeless shelters including: emergency shelters, transitional shelters, rapid re-housing, and permanent supportive housing. All shelters aid individuals and families by with supportive services, the difference in shelter types reflects the services offered and length of stay for individuals and families. The proposed project site lies next to an existing homeless shelter, operated by Shelter, Inc., that offers emergency shelter facilities for individuals and families.[6] According to the National Coalition for the Homeless, the average length of stay in an emergency shelter is 69 days for single men, 51 days for single women, and 70 days for families.[7] As a result, exposure periods for receptors living at emergency shelter facilities will be limited, however the risk will be evaluated below due to the proximity and potential for young children to be living at the shelter.

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4 California Air Resources Board. *Sensitive Receptor Assessment*. Available online at: https://ww2.arb.ca.gov/capp-resource-center/community-assessment/sensitive-receptor-assessment.

5 Office of Environmental Health Hazard Assessment and The American Lung Association of California. *Air Pollution and Children's Health*. Available online at: https://oehha.ca.gov/media/downloads/faqs/kidsair4-02.pdf.

6 Shelter, Inc. *Solano County*. Available online at: https://shelterinc.org/what-we-do/shelter-solano/.

7 National Coalition of the Homeless. 2009. *How Many People Experience Homelessness*. Available online at: https://www.nationalhomeless.org/factsheets/How_Many.html#:~:text=The%20average%20length%20of%20stay,and%20223%20days%20for%20families.

2.3 Regulatory Framework

Federal

Clean Air Act

The Clean Air Act (CAA) of 1970 and the CAA Amendments of 1971 required the U.S. Environmental Protection Agency (EPA) to establish NAAQS, with states retaining the option to adopt more stringent standards or to include other specific pollutants. On September 2, 2007, the U.S. Supreme Court found that carbon dioxide is an air pollutant covered by the CAA;[8] however, no NAAQS have been established for carbon dioxide.

These standards are the levels of air quality considered safe, with an adequate margin of safety, to protect the public health and welfare. They are designed to protect those "sensitive receptors" most susceptible to further respiratory distress such as asthmatics, the elderly, very young children, people already weakened by other disease or illness, and persons engaged in strenuous work or exercise. Healthy adults can tolerate occasional exposure to air pollutant concentrations considerably above these minimum standards before adverse effects are observed.

The EPA has classified air basins (or portions thereof) as being in attainment, nonattainment, or unclassified for each criteria air pollutant, based on whether or not the NAAQS have been achieved. If an area is designated unclassified, it is because inadequate air quality data were available as a basis for a nonattainment or attainment designations. **Table 3** lists the federal attainment status of the SFBAAB for the criteria pollutants.

National Emissions Standards for Hazardous Air Pollutants Program

Under federal law, 187 substances are currently listed as hazardous air pollutants (HAPs). Major sources of specific HAPs are subject to the requirements of the National Emissions Standards for Hazardous Air Pollutants (NESHAPS) program. The EPA is establishing regulatory schemes for specific source categories and requires implementation of the Maximum Achievable Control Technologies (MACT) for major sources of HAPs in each source category. State law has established the framework for California's TAC identification and control program, which is generally more stringent than the federal program and is aimed at HAPs that are a problem in California. The state has formally identified 244 substances as TACs and is adopting appropriate control measures for each. Once adopted at the state level, each air district will be required to adopt a measure that is equally or more stringent.

8 Massachusetts v. Environmental Protection Agency, 549 U.S. 497 (2007).

National Ambient Air Quality Standards

The federal CAA required the EPA to establish NAAQS. The NAAQS set primary standards and secondary standards for specific air pollutants**.** Primary standards define limits for the intention of protecting public health, which include sensitive populations such as asthmatics, children, and the elderly. Secondary Standards define limits to protect public welfare to include protection against decreased visibility, damage to animals, crops, vegetation, and buildings. A summary of the federal ambient air quality standards is shown in **Table 5, National Ambient Air Quality Standards**.

Table 5
National Ambient Air Quality Standards

Pollutant		Primary/Secondary	Averaging Time	Level
Carbon Monoxide		Primary	8 hours	9 ppm
			1 hour	35 ppm
Lead		Primary and secondary	Rolling 3-month average	0.15 μg/m^3
Nitrogen dioxide		Primary	1 hour	100 ppb
		Primary and secondary	Annual	0.053 ppm
Ozone		Primary and secondary	8 hours	0.070 ppm
Particulate Matter	PM2.5	Primary	Annual	12 μg/m^3
		Secondary	Annual	15 μg/m^3
		Primary and secondary	24 hours	35 μg/m^3
	PM10	Primary and secondary	24 hours	150 μg/m^3
Sulfur dioxide		Primary	1 hour	75 ppb
		Secondary	3 hours	0.5 ppm

Source: California Air Resources Board. May 2016. Ambient Air Quality Standards. Available online at: https://www.arb.ca.gov/research/aaqs/aaqs2.pdf, accessed January 12, 2021.

State

California Clean Air Act of 1988

The California CAA of 1988 (CCAA) allows the state to adopt ambient air quality standards and other regulations provided that they are at least as stringent as federal standards. The California Air Resources Board (CARB), a part of the California Environmental Protection Agency (Cal EPA), is responsible for the coordination and administration of both federal and state air pollution control programs within California, including setting the CAAQS. The CCAA, amended in 1992, requires all air quality management districts (AQMDs) in the state to achieve and maintain the CAAQS. The CAAQS are generally stricter than national standards for the same pollutants and has also established state standards for sulfates, hydrogen sulfide, vinyl chloride, and visibility-reducing particles- for which there are no national standards. CARB also conducts research, compiles emission inventories, develops suggested control measures, and provides

oversight of local programs. CARB also has primary responsibility for the development of California's State Implementation Plan (SIP), for which it works closely with the federal government and the local air districts.

California Ambient Air Quality Standards

The federal CAA permits states to adopt additional or more protective air quality standards if needed. California has set standards for certain pollutants, such as particulate matter and ozone, which are more protective of public health than respective federal standards. California has also set standards for some pollutants that are not addressed by federal standards. The state standards for ambient air quality are summarized in **Table 6, California Ambient Air Quality Standards**.

Table 6
California Ambient Air Quality Standards

Pollutant		Averaging Time	Level
Carbon monoxide		8 hours	9 ppm
		1 hour	20 ppm
Lead		30-day average	1.5 μg/m^3
Nitrogen dioxide		1 hour	0.180 ppm
		Annual	0.030 ppm
Ozone		8 hours	0.070 ppm
		1 hour	0.09 ppm
Particulate matter	PM2.5	Annual	12 μg/m^3
	PM10	24 hours	50 μg/m^3
		Annual	20 μg/m^3
Sulfur dioxide		1 hour	0.25 ppm
		24 hours	0.04 ppm
Sulfates		24 hours	25 μg/m^3
Hydrogen sulfide		1 hour	0.03 ppm
Vinyl chloride		24 hours	0.01 ppm

Source:
California Air Resources Board. May 2016. Ambient Air Quality Standards. Available online at: https://www.arb.ca.gov/research/aaqs/aaqs2.pdf, accessed January 12, 2021.

California State Implementation Plan

The federal CAA (and its subsequent amendments) requires each state to prepare an air quality control plan referred to as a State Implementation Plan (SIP). The SIP is a living document that is periodically modified to reflect the latest emissions inventories, plans, and rules and regulations of air basins as reported

by the agencies with jurisdiction over them. The CAA Amendments dictate that states containing areas violating the NAAQS revise their SIPs to include extra control measures to reduce air pollution. The SIP includes strategies and control measures to attain the NAAQS by deadlines established by the CAA. The EPA has the responsibility to review all SIPs to determine if they conform to the requirements of the CAA.

State law makes CARB the lead agency for all purposes related to the SIP. Local air districts and other agencies prepare SIP elements and submit them to CARB for review and approval. CARB then forwards SIP revisions to the EPA for approval and publication in the Federal Register. The 2017 Clean Air Plan, *Spare the Air, Cool the Climate* is the SIP for SFBAAB. The 2017 Clean Air Plan is a regional blueprint for achieving air quality standards and healthful air in the SFBAAB. The 2017 Clean Air Plan focuses on two closely related goals: protecting public health and protecting the climate. Consistent with the GHG reduction targets adopted by the state of California, the plan lays the groundwork for a long-term effort to reduce Bay Area GHG emissions 40 percent below 1990 levels by 2030 and 80 percent below 1990 levels by 2050. The 2017 plan also addressed a multi-pollutant strategy to simultaneously reduce emissions and ambient concentrations of ozone, fine particulate matter, toxic air contaminants, as well as GHG's. The control strategy focuses on the following priorities: reduce emissions of criteria air pollutants and TACs from all key sectors; reduce emissions of "super-GHGs" such as methane, black carbon, and fluorinated gases; decrease demand for fossil fuels (gasoline, diesel and natural gas); and decarbonize the energy system.[9]

California Air Toxics "Hot Spots" Information and Assessment Act (AB 2588)

The California Air Toxics Program is supplemented by the Air Toxics "Hot Spots" program, which became law in 1987 (AB 2588, Statutes of 1987). In 1992, the AB 2588 program was amended by Senate Bill 1731 to require facilities that pose a significant health risk to the community to perform a risk reduction audit and reduce their emissions through implementation of a risk management plan. Under this program, which is required under the Air Toxics "Hot Spots" Information and Assessment Act (Section 44363 of the California Health and Safety Code), facilities are required to report their air toxics emissions, assess health risks, and notify nearby residents and workers of significant risks when present.

Typically, land development projects generate diesel emissions from construction vehicles during the construction phase, as well as some diesel emissions from small trucks during the operational phase. Diesel exhaust is mainly composed of particulate matter and gases, which contain potential cancer-causing substances. Emissions from diesel engines currently include over 40 substances that are listed by EPA as hazardous air pollutants and by CARB as TACs. On August 27, 1998, CARB identified particulate matter

9 BAAQMD. *Clean Air Plan 2017*. Available online at: https://www.baaqmd.gov/~/media/files/planning-and-research/plans/2017-clean-air-plan/attachment-a_-proposed-final-cap-vol-1-pdf.pdf?la=en.

in diesel exhaust as a TAC, based on data linking diesel particulate emissions to increased risks of lung cancer and respiratory disease.[10]

In March 2015, the California Office of Environmental Health Hazard Assessment (OEHHA) adopted "The Air Toxics Hot Spots Program Guidance Manual for Preparation of Health Risk Assessments" in accordance with the Health and Safety Code, Section 44300. The Final Guidance Manual incorporates the scientific basis from three earlier developed Technical Support Documents to assess risk from exposure to facility emissions. The 2015 OEHHA Final Guidance has key changes including greater age sensitivity in particular for children, decreased exposure durations, and higher breathing rate profiles. Because cancer risk could be up to three times greater using this new guidance, it may result in greater mitigation requirements, more agency backlog, and increased difficulty in getting air permits.

The CARB provides a computer program, the Hot Spots Analysis and Reporting Program (HARP), to assist in a coherent and consistent preparation of a Health Risk Analysis (HRA). HARP2, an update to HARP, was released in March 2015. HARP2 has a more refined risk characterization in HRA and CEQA documents and incorporates the 2015 OEHHA Final Guidance.

Regional

Bay Area Air Quality Management District

BAAQMD is the primary agency responsible for assuring that the NAAQS and CAAQS are attained and maintained in the Bay Area. BAAQMD's jurisdiction includes all of Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo and Santa Clara counties, and the southern portions of Solano and Sonoma counties. The Air District's responsibilities in improving air quality in the region include: preparing plans for attaining and maintaining air quality standards; adopting and enforcing rules and regulations; issuing permits for stationary sources of air pollutants; inspecting stationary sources and responding to citizen complaints; monitoring air quality and meteorological conditions; awarding grants to reduce mobile emissions; implementing public outreach campaigns; and assisting local governments in address climate change.

[10] Diesel exhaust is included within pollutants subject to the hotspot program. Please refer to OEHHA's Air Toxics Hot Spot Program Risk Assessment Guidelines. https://oehha.ca.gov/air/crnr/notice-adoption-air-toxics-hot-spots-program-guidance-manual-preparation-health-risk-0.

The BAAQMD recommends that all proposed projects implement the following Basic Construction Mitigation Measures:[11]

1. All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day.

2. All haul trucks transporting soil, sand, or other loose material off-site shall be covered.

3. All visible mud or dirt track-out onto adjacent roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.

4. All vehicle speeds on unpaved roads shall be limited to 15 mph.

5. All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible. Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used.

6. Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulation [CCR]). Clear signage shall be provided for construction workers at all access points.

7. All construction equipment shall be maintained and properly tuned in accordance with the manufacturer's specifications. All equipment shall be checked by a certified mechanic and determine to be running in proper condition prior to operation.

8. Post a publicly visible sign with the telephone number and person to contact at the Lead Agency regarding dust complaints. This person shall respond and take corrective action within 48 hours. The Air District's phone number shall also be visible to ensure compliance with applicable regulations.

BAAQMD Rules and Regulations

Specific rules and regulations have been adopted by the BAAQMD that limit emissions that can be generated by various uses and/or activities. These rules regulate not only the emissions of the state and federal criteria pollutants, but also the emissions of TACs. The rules are also subject to ongoing refinement by the BAAQMD.

11 Bay Area Air Quality Managements District. 2017. *CEQA Guidelines*. Available online at: https://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en.

In general, all stationary sources with air emissions are subject to the BAAQMD's rules governing their operational emissions. Some emission sources are further subject to regulation through the BAAQMD's permitting process. Through this permitting process, the BAAQMD also monitors the number of emissions being generated by stationary sources and uses this information in developing the Climate Action Plan (CAP). A few of the primary BAAQMD rules applicable to the proposed project include the following:

Regulation 8, Rule 3 (Architectural Coatings): This rule sets limits on the ROG content in architectural coatings sold, supplied, offered for sale, or manufactured within the BAAQMD's jurisdiction. The rule also includes time schedules that specify when more stringent ROG standards are to be enforced. The rule applies during the construction phase of a project. In addition, any periodic architectural coating maintenance operations are required to comply with this rule.

Regulation 8, Rule 15 (Emulsified and Liquid Asphalts): This rule sets limits on the ROG content in emulsified and liquid asphalt used for maintenance and paving operations. The rule includes specific ROG content requirements for various types of asphalt (e.g., emulsified asphalt, rapid-cure liquid asphalt, slow-cure liquid asphalt). This rule applies during the construction phase of a project. In addition, any future asphalt maintenance of a project's roads would be required to comply with the ROG standards set in Rule 15.

Regulation 9, Rule 6 (Nitrogen Oxide Emission from Natural Gas-Fired Water Heaters): This rule sets a limit on the NO_x emissions from natural gas-fired water heaters. The rule applies to natural gas-fired water heaters manufactured after July 1, 1992 with a heat input rating of less than 75,000 BTU/hour. Water heaters subject to the rule must not emit more than 40 nanograms of NO_x per joule of heat output.

Regulation 9, Rule 7 (Nitrogen Oxide and Carbon Monoxide from Industrial, Institutional, and Commercial Boilers, Steam Generators, and Process Heaters): This rule limits the NO_x and CO emissions from industrial, institutional, and commercial boilers, steam generators, and process heaters. The rule applies to boilers with a heat input rating greater than 10 million BTU/hour fired exclusively with natural gas, liquefied petroleum gas, or a combination or boilers with a heat input rating greater than 1 million BTU/hour fired with other fuels.

Regulation 9, Rule 8 (Nitrogen Oxides and Carbon Monoxide from Stationary Internal Combustion Engines): This rule limits the NO_x and CO emissions from stationary internal combustion engines. The rule applies to engines rated at greater than 50 brake horsepower, but it exempts emergency generators that would not run for more than 100 hours per year.

BAAQMD CEQA Guidelines

On June 2, 2010, the BAAQMD's Board of Directors unanimously adopted thresholds of significance to assist in the review of projects under the California Environmental Quality Act (CEQA). These thresholds were designed to establish the level at which the Air District believed air pollution emissions would cause significant environmental impacts under CEQA and were posted on the Air District's website and included in the Air District's 2012 *CEQA Air Quality Guidelines*. The thresholds were challenged in court. Following litigation in the trial court and the court of appeal, all of the thresholds were upheld. However, in an opinion issued on December 17, 2015, the California Supreme Court held that CEQA does not generally require an analysis of the impacts of locating development in areas subject to environmental hazards unless the project would exacerbate existing environmental hazards. The Supreme Court also found that CEQA requires the analysis of exposing people to environmental hazards in specific circumstances, including the location of development near airports, schools, near sources of toxic contamination, and certain exemptions for infill and workforce housing. The Supreme Court also held that public agencies remain free to conduct this analysis regardless of whether it is required by CEQA.[12]

In view of the Supreme Court's opinion, local agencies may rely on BAAQMD thresholds designed to reflect the impact of locating development near areas of toxic air contamination where such an analysis is required by CEQA or where the agency has determined that such an analysis would assist in making a decision about a project. However, these thresholds are not mandatory and agencies should apply them only after determining that they reflect an appropriate measure of a project's impacts.

The BAAQMD recently published a new version of the guidelines dated May 2017, which includes revisions made to address the Supreme Court's opinion.[13] The Air District is currently working to update any outdated information in the guidelines.

Local

City of Fairfield General Plan

The General Plan is a planning document that defines a long-term vision for the City over the next 20 years. The State of California requires every city and county in California to adopt a General Plan. The City of Fairfield adopted its current General Plan approximately 20 years ago and is working on updating the

12 California Building Industry Association v. Bay Area Air Quality Management District, 62 Cal.4th 369 (2015).

13 BAAQMD. 2017. *CEQA Guidelines*. Available online at: https://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.

General Plan in Fairfield Forward 2050.[14] The current General Plan includes air quality policies and goals within the Open Space, Conservation, and Recreation Elements that are aimed at reducing criteria air pollutants and GHG emissions.[15] Goals and policies relevant to the proposed project include:

> **Policy OS 8.1.** Work with Regional and State agencies and surrounding communities to develop regional solutions to air quality issues.
>
> **Policy OS 8.2.** Mitigate air pollution from fixed and vehicular sources as required by state and regional air quality plans and programs.
>
> > ***Program OS 8.2A.*** Work with other local agencies to develop and implement a plan to address State directives to reduce greenhouse gases and air pollutants, including compliance with SB 375 and AB 32.
> >
> > ***Program OS 8.2C.*** Continue to require development projects to implement best management practices to reduce air pollutant emissions associated with construction and operation of the project, including dust control measures.
>
> **Policy OS 8.6.** Require water conservation and energy efficiency techniques to be incorporated into the design of all development projects.

2.4 Thresholds and Methodology

Thresholds of Significance

The impact analysis provided below is based on the application of the following California Environmental Quality Act (CEQA) Guidelines Appendix G, which indicates that a project would have a significant impact on air quality if it would:

1) Conflict with or obstruct implementation of any applicable air quality plan.

2) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or state ambient air quality standard.

3) Expose sensitive receptors to substantial pollutant concentrations.

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14 City of Fairfield. *Fairfield Forward 2050*. Available online at: http://www.fairfield.ca.gov/gov/depts/community_development/planning_division/general_plan.asp.

15 City of Fairfield. 2013. *Open Space, Conservation, and Recreation Element*. Available online at: http://www.fairfield.ca.gov/civicax/filebank/blobdload.aspx?BlobID=14423.

4) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.

The *BAAQMD CEQA Air Quality Guidelines* ("BAAQMD Guidelines") set forth methodologies and quantitative significance thresholds that a lead agency may use to estimate and evaluate the significance of a project's air emissions, see **Table 7, Bay Area Air Quality Management District Regional Significance Thresholds**. The BAAQMD has also established significance thresholds for the excess health risks posed to nearby sensitive receptors, see **Table 8, Health Risk Significance Thresholds.**

Table 7
Bay Area Air Quality Management District Regional Significance Thresholds

Pollutant	Construction-Related	Operational-Related	
	Average Daily Emissions (lbs/day)	*Average Daily Emissions (lbs/day)*	*Maximum Annual Emissions (tpy)*
ROG	54	54	10
NOx	54	54	10
PM10	82 (exhaust)	82	15
PM2.5	54 (exhaust)	54	10
CO	Not Applicable	9.0 ppm (8-hour average) or 20.0 (1-hour average)	
Fugitive Dust	Best Management Practices	None	

Source: BAAQMD. CEQA Guidelines. Available online at: https://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en.

Table 8
Health Risk Significance Thresholds

Health Risks and Hazards	Single Sources Within 1,000-foot Zone of Influence	Combined Sources (Cumulative from all sources within 1,000-foot zone of influences)
Excess Cancer Risk	>10 per one million	>100 per one million
Hazard Index	>1.0	>10.0
Incremental Annual PM2.5	>0.3 ug/m3	>0.8 ug/m3

Source: BAAQMD. CEQA Guidelines. Available online at: https://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en.

Methodology

Air quality impacts were evaluated in accordance with the methodologies recommended by CARB and the BAAQMD. Where criteria air pollutant quantification was required, emissions were modeled using the California Emissions Estimator Model version 2016.3.2 (CalEEMod). CalEEMod is a statewide land use emissions computer model designed to quantify potential criteria pollutant emissions associated with both construction and operations from a variety of land use projects. Average daily emissions from project construction and operation were calculated, including both on-site and off-site activities.

Project construction and redevelopment activities will utilize heavy-duty construction equipment that will emit diesel particulate matter (DPM). Even though construction will occur within the building, due to the proximity of sensitive receptors, an HRA was prepared to evaluate the risk posed to these receptors based on emissions source strength, meteorological conditions, and receptor location. Pollutant concentrations will be estimated using the American Meteorological Society/Environmental Protection Agency Regulatory Model (U.S. EPA AERMOD) dispersion model and human health risks will be estimated using the Hotspots Analysis and Reporting Program (HARP2) Risk Assessment Standalone Tool (RAST).

2.5 Project Impacts and Mitigation Measures

Impact 1 **Would implementation of the proposed project conflict with or obstruct implementation of any applicable air quality plan? *(Less than Significant).***

Projects that are consistent with the development of a regional or local air quality plan are considered not to conflict with the attainment of air quality standards identified in the plan. The most recent regional clean air plan is the Bay Area 2017 Clean Air Plan that was adopted by BAAQMD in April of 2017. The Plan includes control measures that are intended to reduce air pollutant emissions directly or indirectly in the Bay Area. The proposed project would not conflict with the latest Clean Air planning efforts since emissions would not exceed BAAQMD thresholds.

Consistency with the air quality plan can be determined through evaluation of project-related air quality impacts and demonstration that project-related emissions would not increase the frequency or severity of existing violations or contribute to a new violation of the national ambient air quality standards. The BAAQMD CEQA Air Quality Guidelines include thresholds of significance that are applied to evaluate regional impacts of project-specific emissions of air pollutants and their impact on BAAQMD's ability to reach attainment. Emissions that are above these thresholds have not been accommodated in the air quality plans and would not be consistent with the air quality plans. The proposed project would not conflict with the latest Clean Air planning efforts since emissions would not exceed BAAQMD thresholds (see **Table 9**

and **Table 10** in **Impact 2**). Therefore, the project would not conflict with or obstruct implementation of the applicable air quality plan and no mitigation is necessary.

Impact 2 **Would implementation of the proposed project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or state ambient air quality standard? *(Less than Significant).***

A project may have a significant impact if project-related emissions result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or state ambient air quality standard. In order to determine project significance, emissions were compared to the BAAQMD construction and operational air quality thresholds.

Regional Construction Significance Analysis

Construction associated with the proposed project would generate short-term emissions of criteria air pollutants. The criteria pollutants of primary concern within the project area include ozone-precursor pollutants (i.e., ROG and NOx), PM10, and PM2.5. Construction-generated emissions are short term and of temporary duration, lasting only as construction activities occur, but would be considered a significant air quality impact if the volume of pollutants generated exceeds the BAAQMD's thresholds of significance.

Construction results in the temporary generation of emissions resulting from interior demolition, construction, and motor vehicle exhaust associated with construction equipment and worker trips, and the movement of construction equipment. Emissions of airborne particulate matter are largely dependent on the amount of ground disturbance associated with site preparation activities as well as weather conditions and the appropriate application of water.

Construction-generated emissions associated with the proposed project were calculated using the CARB-approved CalEEMod model. CalEEMod is designed to model construction and operational emissions for land use development projects. The model incorporates typical construction requirements such as construction equipment, demolition debris, and hauling trips. Construction of the proposed project would involve approximately 713,701 square feet of industrial warehousing with a surface parking lot. The existing site is a relatively flat, empty open space and would not require any demolition, and any grading would be minor and balanced on the project site. The assumptions used within CalEEMod were based on model defaults, which tend to be more conservative than actual conditions.

Predicted maximum daily construction-generated emissions for the proposed project are summarized in **Table 9, Construction-Related Criteria Pollutant Emissions.**

Table 9
Construction-Related Criteria Pollutant Emissions

Construction Year	ROG	NOx	PM10 Exhaust	PM2.5 Exhaust
Annual Emissions (Tons/Year)				
2021	0.31	2.96	0.11	0.27
2022	0.48	4.36	0.11	0.27
2023	3.86	0.41	0.01	0.03
Total Emissions (Tons)	4.65	7.73	0.23	0.57
Average Daily Emissions (lbs/day)[1]	14.00	23.28	0.69	1.72
Thresholds (lbs/day)	**54**	**54**	**82**	**54**
Exceed Threshold?	*No*	*No*	*No*	*No*

Source: Impact Sciences, CalEEMod modeling, 2021. See Attachment A.
[1] Based on a 22-month construction schedule.

Regional Operational Significance Analysis

Operational air pollutant emissions would be generated primarily by automobile and truck traffic to and from the project site. Other sources of operational emissions include architectural coatings and maintenance products, consumer products, and energy use of the project site, including the combustion of natural gas for heating. CalEEMod was used to estimate emissions from operation of the proposed project assuming full build out and to estimate emissions from operation of the existing commercial building on the project site. The net operational air quality emissions were compared against BAAQMD thresholds to determine project significance.

Emissions associated with vehicle travel depend on the year of analysis because emission control technology requirements are phased-in over time. Therefore, the earlier the year analyzed in the model, the higher the emission rates used by CalEEMod. The earliest year the project could possibly be constructed and fully occupied would be 2023. Emissions associated with build-out later than 2023 would be lower, because newer vehicles have to meet increasingly more stringent emissions standards, while older and more polluting vehicles are less utilized.

CalEEMod allows the use to enter specific vehicle trip generation rates. According to the project applicant, the proposed project will generate approximately 1,250 vehicle trips per day.[16]

16 ITE Trip Generation (10th Edition) land use category 150-Warehouse daily trip rate of 1.74 trips per 1,000 square feet.

The net long-term operational emissions attributable to the proposed project are summarized in **Table 10, Long-Term Operational Emissions**.

Table 10
Long-Term Operational Emissions

Emissions Source	ROG	NOx	PM10	PM2.5
Area Source (tons/year)	3.19	0.0001	0.00005	0.00005
Energy Source (tons/year)	0.01	0.12	0.009	0.009
Mobile Source (tons/year)	0.34	1.81	1.37	0.38
Annual Project Operational Emissions (tons/year)	3.55	1.93	1.38	0.39
Annual Thresholds (tons/year)	**10**	**10**	**15**	**10**
Exceed Thresholds?	*No*	*No*	*No*	*No*
Average Daily Emissions (pounds/day)[1]	19.45	10.58	7.56	2.14
Thresholds (lbs/day)[1]	**54**	**54**	**82**	**54**
Exceed Threshold?	*No*	*No*	*No*	*No*

Source: Impact Sciences, CalEEMod modeling, 2021. See Appendix A.
[1] Based on a 365-day operational schedule.

As shown in **Table 9** and **Table 10**, neither the project's construction nor net operational emissions would exceed the BAAQMD's thresholds for any criteria air pollutants and the proposed project will not produce cumulatively considerable emissions of nonattainment pollutants since the project will not exceed regional thresholds. As such, the proposed project will result in a less than significant impact.

Impact 3 **Would implementation of the proposed project expose sensitive receptors to substantial pollutant concentrations? *(Less than Significant).***

Construction

Temporary project impacts related to health risk can occur from project construction activity, which would generate dust and equipment exhaust that could affect nearby sensitive receptors. Construction of the proposed project would include building construction, paving, and application of architectural coatings. Construction equipment and associated heavy-duty truck trips generate exhaust which contains diesel particulate matter (DPM), known as a toxic air contaminant (TAC).

Construction emissions were estimated from CalEEMod and dispersion modeling was conducted to predict the off-site concentration resulting from project construction, so that lifetime excess cancer risk and non-cancer health risk could be predicted. The HRA was conducted following methods in the Office of

Environmental Health Hazard Assessment's (OEHHA) Guidance Manual for Preparation of Health Risk Assessments and BAAQMD's CEQA Guidance. **Table 8** discloses the BAAQMD's significance thresholds for health risks.

The BAAQMD recommends evaluating health risk posed to sensitive receptors (which are defined as residences, day care centers, schools and elderly facilities) from DPM within 1,000 feet radius of a project site.[17] The site is generally surrounded by other industrial uses to the north, west, and east as well as agricultural land to the south. However, the proposed project site lies adjacent to an existing shelter for those in need of emergency housing.

The health risks were evaluated for a hypothetical maximally exposed individual (MEI) located near the project site at the Shelter, Inc. facility. The hypothetic MEI is an individual assumed to be located where the highest concentrations of air pollutants are predicted to occur as a result of project construction.

Cancer Risk. The CalEEMod model provided total annual PM2.5 exhaust emissions (assumed to be DPM) from off-road construction equipment used during project construction and exhaust emissions from on-road vehicles (haul trucks, vendor trucks, and worker vehicles). Fugitive dust PM2.5 emissions were also computed in CalEEMod and included in this analysis.

The US EPA AERMOD dispersion model was used to predict concentrations of DPM and PM2.5 at sensitive receptors within 1,000 feet of the project site, as recommended by the BAAQMD.[18] To model emissions, a release height of three meters was chosen to represent the release height of construction equipment. Emissions from off-road construction equipment and on-road vehicle travel were distributed throughout the modeled area source. The modeling used the latest available five-year meteorological data set (2009 to 2014) from the Travis Air Force Base prepared for use with the AERMOD model by the California Air Resources Board (CARB).[19] Annual DPM and PM2.5 concentrations from construction activities were calculated throughout the Shelter, Inc. property which covers approximately three and a half acres. Measurements were captured on a grid across the property with receptors spaced five meters apart within the default receptor height. The concentration of DPM at the most sensitive receptor, located on the southeastern portion of the Shelter, Inc. facility, estimated in AERMOD was utilized to calculate the cancer risk in accordance with OEHHA guidelines.

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17 BAAQMD. 2017. *CEQA Guidelines*. Available online at: https://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en.

18 BAAQMD. 2017. *CEQA Guidelines*. Available online at: https://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en.

19 CARB. *HARP AERMOD Meteorological Files*. Available online at: https://ww2.arb.ca.gov/resources/documents/harp-aermod-meteorological-files.

The current OEHHA guidance recommends that cancer risks be calculated by age groups to account for different breathing rates and sensitivity to TACs. Specifically, it recommends evaluating the risks for the third trimester of pregnancy to age zero (third trimester exposure), ages zero to less than two years (infant exposure), ages two to less than 16 (child exposure), and ages 16 to 30 (adult exposure). Age sensitivity factors (ASFs) associated with the different types of exposure are an ASF of 10 for the third trimester and infant exposure, an ASF of 3 for child exposure, and an ASF of 1 for an adult exposure. Also associated with each exposure type are different breathing rates, expressed as liters per kilograms of body weight per day (L/kg-day). As recommended by the BAAQMD, 95th percentile breathing rates are used for the third trimester and infant exposure, and 80th percentile breathing rates are used for child and adult exposure. These age-specific breathing rates are 361 L/kg-day for the third trimester receptor, 1,090 L/kg-day for the infant receptors, 572 L/kg-day for child receptors, and 261 L/kg-day for adult receptors. Additionally, age-specific fraction of time at home (FAH) values were used in this analysis. According to OEHHA, FAH values of 0.85 should be used for the third trimester and infant receptors, 0.72 for the child receptors, and 0.73 for adult receptors. Finally, it was assumed that each receptor would have an exposure duration of 350 days per year, consistent with OEHHA guidelines.[20] According to OEHHA, the cancer risk for a residential receptor is assumed to start in the third trimester of life.

The California Air Resources Board recommends the Hotspots Analysis and Reporting Program (HARP) to calculate the excess cancer risk. HARP incorporates OEHHA 2015 guidance in order to calculate the risk posed to receptors from facility operations.

During the twenty-two months of construction, the maximum DPM concentration from construction activities would occur at a receptor located on the eastern portion of the Shelter, Inc. site. According to the National Coalition for the Homeless, the average length of stay in an emergency shelter is 69 days for single men, 51 days for single women, and 70 days for families.[21] CARB's HARP Risk Assessment Standalone Tool was used to calculate the cancer risk based on the concentration calculated in AERMOD. The minimum length of exposure the RAST tool allows users to enter is 0.5 years. As a result, exposure was assumed to begin during the third trimester of life and was conservatively assumed to occur over 0.5 years. As this exposure duration is significantly longer than the average 70 day stay in an emergency shelter for a family, the analysis provides a conservative estimate of the potential health risks posed to the receptor.

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20 Office of Environmental Health Hazard Assessment. 2015. *Guidance Manual for Preparation of Health Risk Assessments*. Available online at: https://oehha.ca.gov/media/downloads/crnr/2015guidancemanual.pdf.

21 National Coalition of the Homeless. 2009. *How Many People Experience Homelessness*. Available online at: https://www.nationalhomeless.org/factsheets/How_Many.html#:~:text=The%20average%20length%20of%20stay,and%20223%20days%20for%20families.

Results of this assessment indicate that the maximum excess residential cancer risk posed to a receptor over a period of 0.5 years when they may be living at the shelter at the same time as construction be a total of 7.1 in one million and would not exceed BAAQMD thresholds.

Non-Cancer Health Hazards. Sensitive groups can also develop non-cancer health risks from exposure to TACs. Non-cancer health risks are evaluated from the ratio of TAC concentrations generated by the project and a reference exposure level (REL). A REL is the concentration of a given pollutant in the air at or below which no adverse health effects are anticipated for sensitive groups.[22] RELs are based on the most sensitive adverse effects reported in the medical and toxicological literature. The chronic inhalation REL for DPM is 5 μg/m^3.[23] The ratio of TAC generated by a project and the REL is referred to as a hazard quotient/index (HI). According to the BAAQMD, the non-cancer health hazard would be significant if the HI exceeds 1.0.

The maximum computed HI based on the DPM concentration from construction activities of the proposed project would be 0.014, which is substantially lower than the BAAQMD significance criterion.

PM2.5 Emissions. PM2.5 can result from both exhaust emissions and fugitive dust. According to the BAAQMD, the ambient PM2.5 would be significant if its annual average concentration exceeds 0.3 μ/m^3. As noted above, AERMOD was used to estimate the annual PM2.5 concentration at the nearest sensitive receptor based on emission estimates from CalEEMod.

Finally, the maximum concentration of PM2.5 resulting from construction activities associated with the proposed project would be 0.195 μg/m^3. The results of the health risk are provided in **Table 11** and demonstrate that project construction would not exceed BAAQMD thresholds, and the impact would be less than significant.

Table 11
Maximum Health Risk from Construction

Receptor	Lifetime Excess Cancer Risk (per million)	Annual PM2.5 (μg/m^3)**	Hazard Index
Residential Receptor*	7.1	0.195	0.014
Significance Threshold	**10**	**0.3**	**1.0**
Exceed Threshold?	*No*	*No*	*No*

22 Office of Environmental Health Hazard Assessment. 2015. *Guidance Manual for Preparation of Health Risk Assessments*. Available online at: https://oehha.ca.gov/media/downloads/crnr/2015guidancemanual.pdf.

23 Office of Environmental Health Hazard Assessment. 2019. *OEHHA Acute, 8-hour and Chronic Reference Exposure Level (REL) Summary*. Available online at: https://oehha.ca.gov/air/general-info/oehha-acute-8-hour-and-chronic-reference-exposure-level-rel-summary.

Receptor	Lifetime Excess Cancer Risk (per million)	Annual PM2.5 (μg/m³)**	Hazard Index

Source: Impact Sciences, 2021. ***Attachment A.***
**Residential receptor accounts for the first 0.5 years of life (0.25 years during the third trimester and 0.25 years of the infant stage of life).*
*** The annual PM2.5 concentration is the sum of DPM and fugitive dust PM2.5 concentrations.*

Operation

Project-operation impacts related to increased health risk can occur either by introducing a new source of TACs with the potential to adversely affect existing sensitive receptors, or by introducing a new sensitive receptor, such as a residential use, in proximity to an existing source of TACs.

The proposed project does not include any stationary sources of TAC emissions but may generate DPM from heavy-duty truck traffic. Therefore, operation of the proposed project may generate mobile-source TAC emissions. The BAAQMD recommends evaluating potential risk posed to receptors located within 1,000 feet of the project site. As stated above, the project site is surrounded by agriculture and other industrial land uses, except for an emergency shelter located on Beck Avenue, immediately adjacent to the proposed project site. Due to the nature of emergency shelters, any receptor at the site will exposed for a limited duration. Further, while operation will generate DPM emissions from heavy-duty trucks entering the site, operational DPM emissions will be significantly lower than construction DPM emissions since construction will use diesel-powered construction equipment as well as hauling trucks. A health risk was conducted for a sensitive receptor living at the emergency shelter during construction and found to be less than significant. As such, a receptor living at the emergency shelter during proposed project operation will be exposed to lower levels of DPM and, therefore, the risk posed to the receptor will be less than significant.

Therefore, the proposed project would not contribute to human health risk to nearby receptors during operation, and the project would also not contribute to any cumulative human health risk impacts.

Impact 4 **Would implementation of the proposed project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people? (*Less than Significant).***

None of the proposed land uses are associated with equipment or activities that would emit nuisance odors. Furthermore, the project would be required to comply with the BAAQMD's regulation of odorous substances, which places general limitation on odorous substances and emissions limitations on certain odorous compounds. The proposed school would replace a home improvement retail store and would reduce the use of diesel-fueled delivery trucks and equipment as well as any organic material associated

with gardening material. This would result in a decrease in odorous substances on-site. As a result, the impact would be less than significant.

3.0 GREENHOUSE GAS

3.1 Greenhouse Gas Setting

Global climate change refers to any significant change in climate measurements, such as temperature, precipitation, or wind, lasting for an extended period (i.e., decades or longer).[24] Climate change may result from:

- Natural factors, such as changes in the sun's intensity or slow changes in the Earth's orbit around the sun.
- Natural processes within the climate system (e.g., changes in ocean circulation, reduction in sunlight from the addition of GHG, and other gases to the atmosphere from volcanic eruptions); and
- Human activities that change the atmosphere's composition (e.g., through burning fossil fuels) and the land surface (e.g., deforestation, reforestation, urbanization, desertification).

In recent decades, changes in climate have caused impacts on natural and human systems on all continents and across the oceans. Impacts are due to observed climate change, irrespective of its cause, indicating the sensitivity of natural and human systems to changing climate.[25] Continuing changes to the global climate system and ecosystems, and to California, are projected to include:

- Rapidly diminishing sea ice and mountain snowpack levels, thereby increasing sea levels and sea surface evaporation rates with a corresponding increase in tropospheric water vapor due to the atmosphere's ability to hold more water vapor at higher temperatures;[26]
- Rising average global sea levels primarily due to thermal expansion and the melting of glaciers, ice caps, and ice sheets;
- Changing weather patterns, including changes to precipitation, ocean salinity, and wind patterns, and more energetic aspects of extreme weather, including droughts, heavy precipitation, heat waves, extreme cold, and the intensity of tropical cyclones;

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24 US EPA. 2013. Overview of Greenhouse Gases. Available online at: https://www.epa.gov/ghgemissions/overview-greenhouse-gases. Accessed on January 12, 2021.

25 Intergovernmental Panel on Climate Change. 2013. "Climate Change 2013: The Physical Science Basis." Available online at: http://www.climatechange2013.org/. Accessed January 13, 2021.

26 Ibid.

- Changing levels in snowpack, river flow and sea levels indicating that climate change is already affecting California's water resources;[27]
- Dry seasons that start earlier and end later, evoking more frequent and intense wildland fires;[28] and
- Increasing demand for electricity due to rising temperatures.[29]

The natural process through which heat is retained in the troposphere[30] is called the "greenhouse effect." Various gases in the Earth's atmosphere, classified as atmospheric greenhouse gases, play a critical role in determining the Earth's surface temperature. Solar radiation enters Earth's atmosphere as short-wave radiation. It travels through the atmosphere without warming it and is absorbed by the Earth's surface. When the Earth re-emits this radiation back toward space, the radiation changes to long wave radiation. GHGs are transparent to incoming short wave solar radiation but absorb outgoing long wave radiation. As a result, radiation that otherwise would escape back into space is now retained, warming the atmosphere. This phenomenon is known as the greenhouse effect.

Greenhouse Gas Compounds

California State law defines GHGs to include the following six compounds:

- **Carbon Dioxide** (CO_2) is released to the atmosphere when solid waste, fossil fuels (oil, natural gas, and coal), and wood/wood products are burned. CO_2 emissions from motor vehicles occur during operation of vehicles and operation of air conditioning systems.
- **Methane** (CH_4) is emitted during the production and transportation of coal, natural gas, and oil. Methane emissions also result from the decomposition of organic waste in solid waste landfills, raising livestock, natural gas and petroleum systems, stationary and mobile combustion, and wastewater treatment.

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27 California Environmental Protection Agency (Cal EPA). 2010. Climate Action Team Report to Governor Schwarzenegger and the Legislature.

28 Ibid.

29 California Environmental Protection Agency (Cal EPA). 2010. Climate Action Team Report to Governor Schwarzenegger and the Legislature.

30 The troposphere is the bottom layer of the atmosphere, which varies in height from the Earth's surface from 6 to 7 miles).

- **Nitrous Oxide** (N_2O) is emitted during agricultural and industrial activities, as well as during combustion of solid waste and fossil fuels. N_2O emissions from motor vehicles generally occur directly from operation of vehicles.

- **Hydrofluorocarbons** (HFCs) are one of several high global warning potential (GWP) gases that are not naturally occurring and are generated from industrial processes. HFC (refrigerant) emissions from vehicle air conditioning systems occur due to leakage, losses during recharging, or release from scrapping vehicles at end of their useful life.

- **Perfluorocarbons** (PFCs) are another high GWP gas that are not naturally occurring and are generated in a variety of industrial processes. Emissions of PFCs are generally negligible from motor vehicles.

- **Sulfur Hexafluoride** (SF_6) is another high GWP gas that is not naturally occurring and is generated in a variety of industrial processes. Emissions of SF_6 are generally negligible from motor vehicles.

3.2 Regulatory Framework

Federal

Paris Climate Agreement

The Paris Climate Agreement is an international treaty on climate change adopted on December 12, 2015. The goal of the agreement is to limit global warming to 1.5 degrees Celsius as compared to pre-industrial levels. Countries will aim to reach global peaking of GHG emissions as soon as possible to achieve a climate neutral world by mid-century. In order to achieve these reductions, the Paris Climate Agreement works on a five-year cycle of increasingly ambitious climate action carried out by countries. Therefore, by 2020, countries were required to submit their plans for climate action, known as nationally determined contributions. Additionally, the Agreement provides a framework for financial, technical and capacity building support to countries who need it. Developed counties will take a lead in providing financial assistance to other countries since large scale investments are required for GHG mitigation and climate adaptation.[31]

The United States joined 190 other countries in formally entering the Paris Climate Agreement through the Obama administration in September 2016.[32] However, former President Donald J. Trump announced his

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31 United Nations. *The Paris Agreement*. Available online at *https://unfccc.int/process-and-meetings/the-paris-agreement/the-paris-agreement*.

32 The White House. *President Obama: The United States Formally Entered the Paris Agreement*. Available online at: https://obamawhitehouse.archives.gov/blog/2016/09/03/president-obama-united-states-formally-enters-paris-agreement.

administration's intention to withdraw from the Agreement in June of 2017, and formally notified the United Nations of such in November of 2019. However, the Agreement requires a year-long waiting period before a formal withdrawal would be recognized. As a result, the United States officially withdrew from the Agreement in November 2020.[33] Immediately following President Trump's announcement to withdraw from the Paris Climate Agreement in 2017, a bipartisan coalition of states and self-governing territories formed the United States Climate Alliance to continue upholding the objectives of the Agreement.[34] Finally, on January 20, 2021, President Joseph R. Biden, Jr., accepted and rejoined the Paris Climate Agreement.[35]

State

The State of California has implemented a series of greenhouse gas plans and policies aimed at reducing state greenhouse gas emissions. Measures applicable to the project are summarized below:

Executive Order (EO) S-03-05

On June 1, 2005 EO S-03-05 was issued by Governor Schwarzenegger in order to set statewide emissions reduction standards. The order required the state to reduce GHG emissions to 1990 levels by 2020 and reduce GHG emissions to 80% below 1990 levels by 2050. EO S-3-05 also calls for the Secretary of California's Environmental Protection Agency (Cal/EPA) to be responsible for coordination of state agencies and progress reporting.

Assembly Bill (AB) 32

AB 32 (California Global Warming Solutions Act of 2006) was codified into law in 2006 and codified into law the 2020 GHG emissions targets set by EO S-03-05. AB 32 represents the first enforceable statewide program to limit GHG emissions from all major sectors with penalties for noncompliance.

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33 NPR. *U.S. Officially Leaving Paris Climate Agreement*. Available online at: https://www.npr.org/2020/11/03/930312701/u-s-officially-leaving-paris-climate-agreement.

34 The Alliance represented 55% of the U.S. population and an $11.7 trillion economy. United States Climate Alliance. *2019 Fact Sheet*. Available online at: https://static1.squarespace.com/static/5a4cfbfe18b27d4da21c9361/t/5f1f0b2cf13e090f828e58dc/1595869997700/USCA+Factsheet_Dec+2019.pdf.

35 The White House. 2021. *Paris Climate Agreement*. Available online at: https://www.whitehouse.gov/briefing-room/statements-releases/2021/01/20/paris-climate-agreement/.

Senate Bill (SB) 32

SB 32 was signed into law in 2015 and sets into law the mandated reduction targets set in EO B-30-15, which required a reduction in GHG emissions to 40% below the 1990 levels by 2030.

CARB's 2017 Final Scoping Plan

CARB, in collaboration with over twenty state agencies, issued a Final Scoping Plan in 2017 in order to set a framework for the state to meet the overall reduction goals set in SB 32. The 2017 Scoping Plan identified key sectors of the implementation strategy, which includes improvements in low carbon energy, industry, transportation sustainability, natural and working lands, waste management, and water. Through a combination of data synthesis and modeling, CARB determined that the 2030 statewide target emissions limit is 260 $MMTCO_2e$, and that further commitments will need to be made to achieve an additional reduction of 50 $MMTCO_2e$ beyond current policies and programs. Key elements of the 2017 Update include a proposed 20 percent reduction in GHG emissions from refineries and an expansion of the Cap-and-Trade program to meet the aggressive 2030 GHG emissions goal.[36]

Local

Fairfield Sustainability Initiative

In 2009, the City of Fairfield adopted a Sustainability Initiative to combat concerns over the impacts of climate change in the community.[37] The Sustainability Initiative's goal is to create environmental programs that are reliable, cost effective, educational, and include services that help maintain a good quality of life for those in Fairfield while also demonstrating the City's leadership in sustainability programming. The creation of the Sustainability Initiative will result in a cost savings to the city, economic development, grant funding opportunities, and facilitating community and business redevelopment.

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36 The Cap-and-Trade program is a tool the CARB uses to reduce GHG emissions. CARB creates allowances equal to the total amount of permissible emissions (i.e., the "cap"). One allowance equals one metric ton of carbon dioxide equivalent emissions (using the 100-year global warming potential). Each year, fewer allowances are created and the annual cap declines. An increasing annual auction reserve (or floor) price for allowances and the reduction in annual allowances creates a steady and sustained carbon price signal to prompt action to reduce GHG emissions. The Program applies to emissions that cover approximately 80 percent of the State's GHG emissions. Source: California Air Resources Board. *Cap-and-Trade Program*. Available online at: https://ww2.arb.ca.gov/our-work/programs/cap-and-trade-program/about. Accessed April 1, 2021.

37 City of Fairfield. 2009. *Sustainability Initiative*. Available online at: https://www.fairfield.ca.gov/civicax/filebank/blobdload.aspx?blobid=4795.

Fairfield Forward Climate Action Plan

The City of Fairfield is currently preparing the Fairfield Forward which will update Fairfield's General Plan and develop a new CAP that will contain a series of measures to reduce GHG emissions by 2050.[38] It is anticipated that the CAP will be adopted in the Fall of 2022.[39]

3.3 Thresholds and Methodology

Thresholds of Significance

The impact analysis provided below is based on the application of the following California Environmental Quality Act (CEQA) Guidelines Appendix G, which indicates that a project would have a significant impact on GHG emissions if it would:

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

2) Conflict with an applicable plan, policy or regulations adopted for the purpose of reducing the emissions of greenhouse gas emissions.

Methodology

The BAAQMD does not have an adopted threshold of significance for construction related GHG emissions. However, the BAAQMD recommends quantification and disclosure of GHG construction emissions. Determining the significance of these construction generated GHG emission impacts is recommended to be made in relation to meeting AB 32 GHG reduction goals, which requires the state to meet 1990 levels of GHG emissions by 2020.

Since GHG emissions are cumulative and construction emission are temporary and short term, it is common practice to amortize the total construction GHG emissions over 30 years to create an annual emissions rate that is combined with the operational GHG emissions for determining significance.

The BAAQMD *CEQA Air Quality Guidelines* provide numeric thresholds for GHG emissions during project operation. A proposed land use development project would not have a significant GHG impact, if operation of the project would meet one of the following thresholds:

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38 Fairfield Forward. 2021. *Welcome to Fairfield Forward!* Available online at: https://www.fairfieldforward.com/.

39 Fairfield Forward. 2021. *Schedule & Team*. Available online at: https://www.fairfieldforward.com/schedule-team.

- Compliance with a qualified GHG Reduction Strategy.
- Annual emissions less than 1,100 metric tons per year (MT/yr) of CO_2e; or
- 4.6 metric tons of CO_2e per service population[40] per year (MT CO_2e/SP/yr)

The BAAQMD's *CEQA Guidelines* do not recommend using quantified thresholds for projects that are in a jurisdiction with a qualified GHG reduction plan that addresses emissions associated with the period that the project would operate. The proposed project will be subject to a series of GHG reduction plans including CARB 2017 Scoping Plan and the Fairfield Sustainability Plan. As shown below, the proposed project will comply with applicable plans and fulfill the City's objectives to concentrate industrial uses as well as provide employment opportunities to the community.

3.4 Project Impacts and Mitigation Measures

Impact 1 **Would implementation of the proposed project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment? *(Less than Significant).***

Using CalEEMod, project GHG emissions throughout the construction phases were calculated from off-road equipment usage, hauling vehicles, delivery, and worker vehicle trips to and from the site. The total GHG construction emissions over the approximately 22-month construction duration of the proposed project would be 2,050 MT CO2e. As GHG emissions impact from construction activities would occur over a relatively short time span, it would contribute a relatively small portion of the lifetime GHG emission impact from the proposed project. The total construction GHG emissions were divided by 30 to determine an annual construction emission rate estimate to be amortized over the project's first 30 years of operational life, consistent with CARB guidance on integrating construction emissions into the operational analysis of GHG-related impacts. Amortized over a 30-year period, the proposed project is anticipated to emit approximately 68.34 MT CO2e/year.

BAAQMD-recommended CalEEMod was also used to calculate the annual GHG emissions generated by the proposed project during operation. Sources of GHG emissions during operation include emissions from area sources, electricity, mobile sources, waste, and water. Amortized yearly construction emissions were added to operational GHG emissions to calculate the project's total annual GHG emissions.

[40] According to the BAAQMD's *CEQA Guidelines*, service population is determined by adding the number of residents to the number of jobs estimated for a given point in time.

Emissions from area sources are based on land use sizes, GHG emission factors for fuel combustion, and the global warming potential (GWP) values for the GHGs emitted. Electricity usage emissions are based on the land uses, default demand factors for the land use, GHG emission factors for the utility provider, and the GWP values of the GHGs emitted. Mobile-source GHG emissions are determined based on an estimated 1,250 daily trips.[41] Waste and water emissions are derived from the anticipated water usage and wastewater generated based on the project's proposed land uses and the associated water demand factors.

As shown in **Table 12, Proposed Project Greenhouse Gas Emissions**, the proposed project's GHG operational emissions would be 2,723 MT CO2e/year.

Table 12
Proposed Project Greenhouse Gas Emissions

Emissions Source	Metric Tons of Carbon Dioxide Equivalent (per year)
Amortized Construction	68.34
Area Sources	0.03
Energy Sources	448.93
Mobile Sources	1,525.12
Waste Sources	337.39
Water Sources	343.14
Total GHG Emissions	**2,722.95**

*Source: Impact Sciences, 2021. See **Attachment A.***

As shown in **Table 12**, the Project's combined long-term net operational emissions and amortized construction emissions would be approximately 2,723 MT CO2e/year. The proposed project will implement a series of design features that would further reduce GHG emissions, including water efficient landscaping; 50 parking spaces with EV infrastructure; 15 parking stalls designated for clean air/carpool parking; LED light fixtures; and the addition of skylights in warehouses to reduce energy use from lighting. In addition, the proposed project plans to develop fifteen percent of the roofs with solar in the future.

Quantification of GHG emissions is provided for informational purposes; significance under CEQA is based on the project's consistency with statewide and regional policies and plans to meet the state reduction

41 ITE Trip Generation (10th Edition) land use category 150-Warehouse daily trip rate of 1.74 trips per 1,000 square feet.

goals set in SB 32, including CARB's 2017 Scoping Plan and SCAG's 2020 Connect SoCal RTP/SCS (see **Impact 2)**.

Impact 2 **Would implementation of the proposed project conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases? *(Less than Significant).***

The proposed project would have a significant impact with respect to GHG emissions and global climate change if it would substantially conflict with the provisions of Section 15064.4(b) of the *State CEQA Guidelines*.

Pursuant to Appendix G of the *CEQA Guidelines*, a significant GHG impact is identified if the project could conflict with applicable GHG reduction plans, policies, or regulations. Development projects would be subject to compliance with SB 32. SB 32 was passed in 2016 and codified a 2030 GHG emissions reduction target of 40 percent below 1990 levels. CARB issued the 2017 Final Scoping Plan to reflect the target set by Executive Order B-30-15, which was codified by SB 32.[42] The 2017 Final Scoping Plan outlines the suite of policy measures, regulations, planning efforts, and investments in clean technologies and infrastructure, providing a blueprint to continue driving down GHG emissions and obtain the statewide target.

Consistency with the Final 2017 Scoping Plan Update

CARB issued the Final 2017 Scoping Plan Update in November 2017 and establishes emissions reduction strategies necessary to meet SB 32's 2030 reduction goals. **Table 13, Project Consistency with Applicable 2017 Scoping Plan Measures,** identifies the Scoping Plan policies that are applicable to the proposed project. As shown, the proposed project would be consistent with the Scoping Plan.

Table 13
Project Consistency with Applicable 2017 Scoping Plan Measures

Strategy	Project Consistency
Implement SB 350 by 2030:	
• Increase the Renewables Portfolio Standard to 50 percent of retail sales by 2030 and grid reliability.	**Not Applicable.** The measure is not related to development projects but intended for energy providers.
• Establish annual targets for statewide energy efficiency savings and demand reduction that will achieve a cumulative doubling of statewide energy efficiency savings in electricity and natural gas end uses by 2030.	**Not Applicable.** This measure is directed towards policymakers, not development projects. However, the proposed project is required to meet CALGreen and Title 24 building standards by including measures designed to reduce energy consumption.

42 CARB *California's 2017 Climate Change Scoping Plan*. Available online at: https://ww3.arb.ca.gov/cc/scopingplan/scoping_plan_2017.pdf.

Strategy	Project Consistency
• Reduce GHG emissions in the electricity sector through the implementation of the above measures and other actions as modeled in the IRPs to meet GHG emissions reductions planning targets in the IRP process. Load-serving entities and publicly owned utilities meet GHG emissions planning targets through a combination of measures as described in IRPs.	**Consistent.** The proposed project is required to adhere to the latest CALGreen building Codes and Title 24, which will result in a more efficient project site. In addition, as part of the design, the proposed project will install LED light fixtures, use natural lighting through skylights, and plans to install future solar areas.
Implement Mobile Source Strategy (Cleaner Technology and Fuels): • Further reduce VMT through continued implementation of SB 375 and regional Sustainable Communities Strategies; forthcoming statewide implementation of SB 743; and potential additional VMT reduction strategies not specified in the Mobile Source Strategy but included in the document "Potential VMT Reduction Strategies for Discussion."	**Not Applicable.** This measure is directed towards policymakers, not development projects. The proposed project will not interfere with this goal.
By 2019, develop pricing policies to support low-GHG transportation (e.g., low-emission vehicle zones for heavy duty, road use, parking pricing, transit discounts).	Not Applicable. This measure is directed towards policymakers, not development projects. The proposed project will not interfere with this goal. However, the proposed project will equip 50 parking spaces with EV charging infrastructure and will designate 15 parking stalls for clean air/carpool parking.
By 2019, develop regulations and programs to support organic waste landfill reduction goals in the SLCP and SB 1383.	**Not Applicable.** This measure is directed towards CARB, CalRecycle, CDFA, SWRCB, and local air districts. However, the statewide policy goals of 75 percent of solid waste generated be source reduce, recycled, or composted by 2020 under AB 341. Since the project will be operational after this year, the project's waste collection service will be required to be compliant with this waste reduction.
Identify and expand funding and financing mechanisms to support GHG reductions across all sectors.	**Not Applicable**. This measure is directed towards policymakers, not development projects. However, the Proposed Project will be required to adhere to the latest CALGreen Building Standards and Title 24 which will reduce GHG emissions from energy use. Further, the proposed project will install LED light fixtures, use natural lighting through skylights, and plans to install future solar areas that will also reduce GHG emissions from the energy sector. The proposed project will also use water efficient landscaping to reduce GHG emissions from the water sector. Finally, the proposed project will equip 50 parking spaces with EV infrastructure and designate 15 parking stalls for clean air/carpool parking which will reduce mobile-source GHG emissions by promoting alternative fueled cars and less single-occupancy vehicle trips to the site.

Source: Impact Sciences, 2021.
CARB. California's 2017 Climate Change Scoping Plan. Available online at: https://ww3.arb.ca.gov/cc/scopingplan/scoping_plan_2017.pdf. Accessed February 5, 2021.

Based on this evaluation, this analysis finds the project would be consistent with all feasible and applicable strategies recommended in the 2017 Scoping Plan Update.

City of Fairfield Sustainability Initiative and General Plan

As discussed above, the City of Fairfield adopted their Sustainability Initiative in 2009. The Sustainability Initiative is aimed at reducing municipal impacts from government owned buildings, city fleet, traffic signals and streetlights, and water treatment facilities. However, the Sustainability Initiative reiterates the 2002 General Plan which promotes sustainable development. The Sustainability Initiative and General Plan promote sustainable concepts that new development within the City can apply to further reduce GHG emissions. **Table 14, Project Consistency with Applicable Fairfield Sustainability Initiative Measures** identifies the policies listed in the Sustainability Initiative from the City's General Plan that are applicable to the proposed project. As shown, the proposed project would be consistent with the Sustainability Initiative.

Table 14
Project Consistency with Applicable Fairfield Sustainability Initiative Measures

Strategy	Project Consistency
Fairfield will remain an important center in Solano County for government, business, and commerce. The downtown area will become a stronger center for the entire city.	Consistent. The proposed project will construct warehousing and associated offices that will promote business and commerce within Fairfield for the rest of Solano County.
There will be a strong commitment toward protection of agricultural areas outside the Urban Limit Line and to the separation from other urban areas in the County.	Consistent. The proposed project site is zoned for Industrial Limited. The project will comply with the zoned use.
The existing separation of the western, central and eastern areas of the city will become more connected, with emphasis on a common city identify, and citywide diversity in development. However, areas that will remain remote from central Fairfield and downtown, such as Cordelia, would have high quality government services, recreation, shopping, and employment.	Consistent. The proposed project site is located on Cordelia and will construct an industrial complex with 713,701 square feet of warehousing and associated offices that will generate new employment opportunities.
There will be a citywide balance of jobs and housing, with an emphasis on diversity in jobs and housing options. The desired citywide ration should be consistent with the desired overall ration for the non-county Bay Area, established by recent policy decisions of the Association of Bay Area Governments.	Consistent. The proposed project site will construct an industrial complex with 713,701 square feet of warehousing and associated offices that will generate new employment opportunities.

Source: City of Fairfield. 2009. Sustainability Initiative.

Based on this evaluation, this analysis finds the project would be consistent with all feasible and applicable policies recommended in the Sustainability Initiative.

Conclusion

The proposed project will construct 713,701 square feet of warehousing and associated office spaces along Cordelia Road in the City of Fairfield near other industrial development. The proposed project will implement a series of water and energy-efficiency measures within its design including a water efficient landscape, LED light fixtures, and skylights to use natural light. In addition, the project applicant is planning for the future addition of solar panels on the project. The proposed project will also promote alternative fueled vehicles and carpooling by equipping 50 parking spaces with EV infrastructure and 15 clean air/carpool parking spaces. Furthermore, the proposed project will be constructed consistent with CALGreen Building Code and Title 24 which will reduce on-site GHG emissions from area and energy sources. For these reasons, the proposed project would have a less than significant impact in regard to GHG emissions.

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ATTACHMENT A

CalEEMod, AERMOD, and HARP2 Output Files

Fairfield Industrial Project

Solano-San Francisco County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Unrefrigerated Warehouse-No Rail	713.70	1000sqft	16.38	713,701.00	0
Parking Lot	906.00	Space	8.15	362,400.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	56
Climate Zone	4			**Operational Year**	2023
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	290	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - PG&E's 2020 carbon dioxide intensity factor, see: https://www.ca-ilg.org/sites/main/files/file-attachments/ghg_emission_factor_guidance.pdf

Land Use - Parking spaces account for auto parking stalls (784 spaces) and trailer parking stalls (122 spaces).

Vehicle Trips - Estimated 1,250 trips per day

Water Mitigation -

Energy Mitigation - Project will apply LED lighting

Mobile Land Use Mitigation -

Table Name	Column Name	Default Value	New Value
tblLandUse	LandUseSquareFeet	713,700.00	713,701.00
tblProjectCharacteristics	CO2IntensityFactor	641.35	290
tblVehicleTrips	ST_TR	1.68	1.75
tblVehicleTrips	SU_TR	1.68	1.75
tblVehicleTrips	WD_TR	1.68	1.75

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	0.3077	2.9557	2.2937	6.6800e-003	0.4582	0.1062	0.5644	0.1712	0.0988	0.2700	0.0000	604.8278	604.8278	0.0848	0.0000	606.9478
2022	0.4841	4.3631	3.9494	0.0143	0.6175	0.1132	0.7307	0.1677	0.1066	0.2743	0.0000	1,307.4258	1,307.4258	0.1104	0.0000	1,310.1861
2023	3.8582	0.4135	0.4871	1.4600e-003	0.0582	0.0136	0.0718	0.0158	0.0127	0.0285	0.0000	132.5729	132.5729	0.0149	0.0000	132.9455
Maximum	**3.8582**	**4.3631**	**3.9494**	**0.0143**	**0.6175**	**0.1132**	**0.7307**	**0.1712**	**0.1066**	**0.2743**	**0.0000**	**1,307.4258**	**1,307.4258**	**0.1104**	**0.0000**	**1,310.1861**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	0.3077	2.9557	2.2937	6.6800e-003	0.4582	0.1062	0.5644	0.1712	0.0988	0.2700	0.0000	604.8275	604.8275	0.0848	0.0000	606.9475
2022	0.4841	4.3631	3.9494	0.0143	0.6175	0.1132	0.7307	0.1677	0.1066	0.2743	0.0000	1,307.4255	1,307.4255	0.1104	0.0000	1,310.1858
2023	3.8582	0.4135	0.4871	1.4600e-003	0.0582	0.0136	0.0718	0.0158	0.0127	0.0285	0.0000	132.5728	132.5728	0.0149	0.0000	132.9454
Maximum	**3.8582**	**4.3631**	**3.9494**	**0.0143**	**0.6175**	**0.1132**	**0.7307**	**0.1712**	**0.1066**	**0.2743**	**0.0000**	**1,307.4255**	**1,307.4255**	**0.1104**	**0.0000**	**1,310.1858**

Fairfield Industrial Project - Solano-San Francisco County, Annual

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

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	**6-1-2021**	**8-31-2021**	1.4711	1.4711
2	**9-1-2021**	**11-30-2021**	1.3224	1.3224
3	**12-1-2021**	**2-28-2022**	1.2426	1.2426
4	**3-1-2022**	**5-31-2022**	1.2231	1.2231
5	**6-1-2022**	**8-31-2022**	1.2184	1.2184
6	**9-1-2022**	**11-30-2022**	1.2144	1.2144
7	**12-1-2022**	**2-28-2023**	1.0161	1.0161
8	**3-1-2023**	**5-31-2023**	3.6805	3.6805
		Highest	3.6805	3.6805

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	3.1919	1.4000e-004	0.0149	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005	0.0000	0.0289	0.0289	8.0000e-005	0.0000	0.0308
Energy	0.0134	0.1214	0.1020	7.3000e-004		9.2300e-003	9.2300e-003		9.2300e-003	9.2300e-003	0.0000	480.2442	480.2442	0.0373	9.6200e-003	484.0459
Mobile	0.3426	1.8132	3.9049	0.0166	1.3629	0.0119	1.3748	0.3652	0.0111	0.3763	0.0000	1,523.7258	1,523.7258	0.0558	0.0000	1,525.1205
Waste						0.0000	0.0000		0.0000	0.0000	136.1826	0.0000	136.1826	8.0482	0.0000	337.3866
Water						0.0000	0.0000		0.0000	0.0000	52.3606	117.4732	169.8338	5.3897	0.1294	343.1415
Total	**3.5479**	**1.9347**	**4.0218**	**0.0173**	**1.3629**	**0.0212**	**1.3841**	**0.3652**	**0.0204**	**0.3855**	**188.5432**	**2,121.4722**	**2,310.0153**	**13.5311**	**0.1390**	**2,689.7253**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	3.1919	1.4000e-004	0.0149	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005	0.0000	0.0289	0.0289	8.0000e-005	0.0000	0.0308
Energy	0.0134	0.1214	0.1020	7.3000e-004		9.2300e-003	9.2300e-003		9.2300e-003	9.2300e-003	0.0000	445.4296	445.4296	0.0339	8.9000e-003	448.9296
Mobile	0.3426	1.8132	3.9049	0.0166	1.3629	0.0119	1.3748	0.3652	0.0111	0.3763	0.0000	1,523.7258	1,523.7258	0.0558	0.0000	1,525.1205
Waste						0.0000	0.0000		0.0000	0.0000	136.1826	0.0000	136.1826	8.0482	0.0000	337.3866
Water						0.0000	0.0000		0.0000	0.0000	52.3606	117.4732	169.8338	5.3897	0.1294	343.1415
Total	**3.5479**	**1.9347**	**4.0218**	**0.0173**	**1.3629**	**0.0212**	**1.3841**	**0.3652**	**0.0204**	**0.3855**	**188.5432**	**2,086.6576**	**2,275.2007**	**13.5276**	**0.1383**	**2,654.6090**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**1.64**	**1.51**	**0.03**	**0.52**	**1.31**

3.0 Construction Detail

Construction Phase

Fairfield Industrial Project - Solano-San Francisco County, Annual

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	6/1/2021	6/28/2021	5	20	
2	Site Preparation	Site Preparation	6/29/2021	7/12/2021	5	10	
3	Grading	Grading	7/13/2021	8/30/2021	5	35	
4	Building Construction	Building Construction	8/31/2021	1/30/2023	5	370	
5	Paving	Paving	1/31/2023	2/27/2023	5	20	
6	Architectural Coating	Architectural Coating	2/28/2023	3/27/2023	5	20	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 87.5

Acres of Paving: 8.15

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 1,070,552; Non-Residential Outdoor: 356,851; Striped Parking Area: 21,744 (Architectural Coating – sqft)

OffRoad Equipment

Fairfield Industrial Project - Solano-San Francisco County, Annual

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

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	452.00	176.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	90.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0317	0.3144	0.2157	3.9000e-004		0.0155	0.0155		0.0144	0.0144	0.0000	34.0008	34.0008	9.5700e-003	0.0000	34.2400
Total	**0.0317**	**0.3144**	**0.2157**	**3.9000e-004**		**0.0155**	**0.0155**		**0.0144**	**0.0144**	**0.0000**	**34.0008**	**34.0008**	**9.5700e-003**	**0.0000**	**34.2400**

3.2 Demolition - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.0000e-004	3.4000e-004	3.4300e-003	1.0000e-005	1.1900e-003	1.0000e-005	1.2000e-003	3.2000e-004	1.0000e-005	3.2000e-004	0.0000	1.0452	1.0452	2.0000e-005	0.0000	1.0458
Total	**5.0000e-004**	**3.4000e-004**	**3.4300e-003**	**1.0000e-005**	**1.1900e-003**	**1.0000e-005**	**1.2000e-003**	**3.2000e-004**	**1.0000e-005**	**3.2000e-004**	**0.0000**	**1.0452**	**1.0452**	**2.0000e-005**	**0.0000**	**1.0458**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0317	0.3144	0.2157	3.9000e-004		0.0155	0.0155		0.0144	0.0144	0.0000	34.0007	34.0007	9.5700e-003	0.0000	34.2400
Total	**0.0317**	**0.3144**	**0.2157**	**3.9000e-004**		**0.0155**	**0.0155**		**0.0144**	**0.0144**	**0.0000**	**34.0007**	**34.0007**	**9.5700e-003**	**0.0000**	**34.2400**

3.2 Demolition - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.0000e-004	3.4000e-004	3.4300e-003	1.0000e-005	1.1900e-003	1.0000e-005	1.2000e-003	3.2000e-004	1.0000e-005	3.2000e-004	0.0000	1.0452	1.0452	2.0000e-005	0.0000	1.0458
Total	**5.0000e-004**	**3.4000e-004**	**3.4300e-003**	**1.0000e-005**	**1.1900e-003**	**1.0000e-005**	**1.2000e-003**	**3.2000e-004**	**1.0000e-005**	**3.2000e-004**	**0.0000**	**1.0452**	**1.0452**	**2.0000e-005**	**0.0000**	**1.0458**

3.3 Site Preparation - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0903	0.0000	0.0903	0.0497	0.0000	0.0497	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0194	0.2025	0.1058	1.9000e-004		0.0102	0.0102		9.4000e-003	9.4000e-003	0.0000	16.7179	16.7179	5.4100e-003	0.0000	16.8530
Total	**0.0194**	**0.2025**	**0.1058**	**1.9000e-004**	**0.0903**	**0.0102**	**0.1006**	**0.0497**	**9.4000e-003**	**0.0591**	**0.0000**	**16.7179**	**16.7179**	**5.4100e-003**	**0.0000**	**16.8530**

3.3 Site Preparation - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.0000e-004	2.1000e-004	2.0600e-003	1.0000e-005	7.1000e-004	0.0000	7.2000e-004	1.9000e-004	0.0000	1.9000e-004	0.0000	0.6271	0.6271	1.0000e-005	0.0000	0.6275
Total	**3.0000e-004**	**2.1000e-004**	**2.0600e-003**	**1.0000e-005**	**7.1000e-004**	**0.0000**	**7.2000e-004**	**1.9000e-004**	**0.0000**	**1.9000e-004**	**0.0000**	**0.6271**	**0.6271**	**1.0000e-005**	**0.0000**	**0.6275**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0903	0.0000	0.0903	0.0497	0.0000	0.0497	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0194	0.2025	0.1058	1.9000e-004		0.0102	0.0102		9.4000e-003	9.4000e-003	0.0000	16.7178	16.7178	5.4100e-003	0.0000	16.8530
Total	**0.0194**	**0.2025**	**0.1058**	**1.9000e-004**	**0.0903**	**0.0102**	**0.1006**	**0.0497**	**9.4000e-003**	**0.0591**	**0.0000**	**16.7178**	**16.7178**	**5.4100e-003**	**0.0000**	**16.8530**

3.3 Site Preparation - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.0000e-004	2.1000e-004	2.0600e-003	1.0000e-005	7.1000e-004	0.0000	7.2000e-004	1.9000e-004	0.0000	1.9000e-004	0.0000	0.6271	0.6271	1.0000e-005	0.0000	0.6275
Total	**3.0000e-004**	**2.1000e-004**	**2.0600e-003**	**1.0000e-005**	**7.1000e-004**	**0.0000**	**7.2000e-004**	**1.9000e-004**	**0.0000**	**1.9000e-004**	**0.0000**	**0.6271**	**0.6271**	**1.0000e-005**	**0.0000**	**0.6275**

3.4 Grading - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1518	0.0000	0.1518	0.0629	0.0000	0.0629	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0734	0.8120	0.5404	1.0900e-003		0.0347	0.0347		0.0320	0.0320	0.0000	95.3662	95.3662	0.0308	0.0000	96.1373
Total	**0.0734**	**0.8120**	**0.5404**	**1.0900e-003**	**0.1518**	**0.0347**	**0.1865**	**0.0629**	**0.0320**	**0.0949**	**0.0000**	**95.3662**	**95.3662**	**0.0308**	**0.0000**	**96.1373**

3.4 Grading - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.1800e-003	8.0000e-004	8.0100e-003	3.0000e-005	2.7800e-003	2.0000e-005	2.8000e-003	7.4000e-004	2.0000e-005	7.6000e-004	0.0000	2.4388	2.4388	6.0000e-005	0.0000	2.4403
Total	**1.1800e-003**	**8.0000e-004**	**8.0100e-003**	**3.0000e-005**	**2.7800e-003**	**2.0000e-005**	**2.8000e-003**	**7.4000e-004**	**2.0000e-005**	**7.6000e-004**	**0.0000**	**2.4388**	**2.4388**	**6.0000e-005**	**0.0000**	**2.4403**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1518	0.0000	0.1518	0.0629	0.0000	0.0629	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0734	0.8120	0.5404	1.0900e-003		0.0347	0.0347		0.0320	0.0320	0.0000	95.3661	95.3661	0.0308	0.0000	96.1372
Total	**0.0734**	**0.8120**	**0.5404**	**1.0900e-003**	**0.1518**	**0.0347**	**0.1865**	**0.0629**	**0.0320**	**0.0949**	**0.0000**	**95.3661**	**95.3661**	**0.0308**	**0.0000**	**96.1372**

3.4 Grading - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.1800e-003	8.0000e-004	8.0100e-003	3.0000e-005	2.7800e-003	2.0000e-005	2.8000e-003	7.4000e-004	2.0000e-005	7.6000e-004	0.0000	2.4388	2.4388	6.0000e-005	0.0000	2.4403
Total	**1.1800e-003**	**8.0000e-004**	**8.0100e-003**	**3.0000e-005**	**2.7800e-003**	**2.0000e-005**	**2.8000e-003**	**7.4000e-004**	**2.0000e-005**	**7.6000e-004**	**0.0000**	**2.4388**	**2.4388**	**6.0000e-005**	**0.0000**	**2.4403**

3.5 Building Construction - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0846	0.7757	0.7376	1.2000e-003		0.0427	0.0427		0.0401	0.0401	0.0000	103.0786	103.0786	0.0249	0.0000	103.7003
Total	**0.0846**	**0.7757**	**0.7376**	**1.2000e-003**		**0.0427**	**0.0427**		**0.0401**	**0.0401**	**0.0000**	**103.0786**	**103.0786**	**0.0249**	**0.0000**	**103.7003**

3.5 Building Construction - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0290	0.8038	0.2204	2.2300e-003	0.0516	1.9800e-003	0.0536	0.0149	1.8900e-003	0.0168	0.0000	211.3970	211.3970	0.0108	0.0000	211.6661
Worker	0.0677	0.0459	0.4604	1.5500e-003	0.1597	1.0800e-003	0.1608	0.0425	1.0000e-003	0.0435	0.0000	140.1562	140.1562	3.2500e-003	0.0000	140.2374
Total	**0.0967**	**0.8497**	**0.6808**	**3.7800e-003**	**0.2114**	**3.0600e-003**	**0.2144**	**0.0574**	**2.8900e-003**	**0.0603**	**0.0000**	**351.5532**	**351.5532**	**0.0140**	**0.0000**	**351.9035**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0846	0.7757	0.7376	1.2000e-003		0.0427	0.0427		0.0401	0.0401	0.0000	103.0785	103.0785	0.0249	0.0000	103.7002
Total	**0.0846**	**0.7757**	**0.7376**	**1.2000e-003**		**0.0427**	**0.0427**		**0.0401**	**0.0401**	**0.0000**	**103.0785**	**103.0785**	**0.0249**	**0.0000**	**103.7002**

3.5 Building Construction - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0290	0.8038	0.2204	2.2300e-003	0.0516	1.9800e-003	0.0536	0.0149	1.8900e-003	0.0168	0.0000	211.3970	211.3970	0.0108	0.0000	211.6661
Worker	0.0677	0.0459	0.4604	1.5500e-003	0.1597	1.0800e-003	0.1608	0.0425	1.0000e-003	0.0435	0.0000	140.1562	140.1562	3.2500e-003	0.0000	140.2374
Total	**0.0967**	**0.8497**	**0.6808**	**3.7800e-003**	**0.2114**	**3.0600e-003**	**0.2144**	**0.0574**	**2.8900e-003**	**0.0603**	**0.0000**	**351.5532**	**351.5532**	**0.0140**	**0.0000**	**351.9035**

3.5 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2218	2.0300	2.1272	3.5000e-003		0.1052	0.1052		0.0990	0.0990	0.0000	301.2428	301.2428	0.0722	0.0000	303.0471
Total	**0.2218**	**2.0300**	**2.1272**	**3.5000e-003**		**0.1052**	**0.1052**		**0.0990**	**0.0990**	**0.0000**	**301.2428**	**301.2428**	**0.0722**	**0.0000**	**303.0471**

3.5 Building Construction - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0784	2.2131	0.5918	6.4400e-003	0.1508	4.9800e-003	0.1558	0.0436	4.7600e-003	0.0484	0.0000	611.8714	611.8714	0.0297	0.0000	612.6150
Worker	0.1839	0.1201	1.2304	4.3600e-003	0.4666	3.0800e-003	0.4697	0.1241	2.8300e-003	0.1269	0.0000	394.3116	394.3116	8.5000e-003	0.0000	394.5241
Total	**0.2623**	**2.3331**	**1.8222**	**0.0108**	**0.6175**	**8.0600e-003**	**0.6255**	**0.1677**	**7.5900e-003**	**0.1753**	**0.0000**	**1,006.1830**	**1,006.1830**	**0.0382**	**0.0000**	**1,007.1391**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2218	2.0300	2.1272	3.5000e-003		0.1052	0.1052		0.0990	0.0990	0.0000	301.2425	301.2425	0.0722	0.0000	303.0467
Total	**0.2218**	**2.0300**	**2.1272**	**3.5000e-003**		**0.1052**	**0.1052**		**0.0990**	**0.0990**	**0.0000**	**301.2425**	**301.2425**	**0.0722**	**0.0000**	**303.0467**

3.5 Building Construction - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0784	2.2131	0.5918	6.4400e-003	0.1508	4.9800e-003	0.1558	0.0436	4.7600e-003	0.0484	0.0000	611.8714	611.8714	0.0297	0.0000	612.6150
Worker	0.1839	0.1201	1.2304	4.3600e-003	0.4666	3.0800e-003	0.4697	0.1241	2.8300e-003	0.1269	0.0000	394.3116	394.3116	8.5000e-003	0.0000	394.5241
Total	**0.2623**	**2.3331**	**1.8222**	**0.0108**	**0.6175**	**8.0600e-003**	**0.6255**	**0.1677**	**7.5900e-003**	**0.1753**	**0.0000**	**1,006.1830**	**1,006.1830**	**0.0382**	**0.0000**	**1,007.1391**

3.5 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0165	0.1510	0.1706	2.8000e-004		7.3500e-003	7.3500e-003		6.9100e-003	6.9100e-003	0.0000	24.3395	24.3395	5.7900e-003	0.0000	24.4843
Total	**0.0165**	**0.1510**	**0.1706**	**2.8000e-004**		**7.3500e-003**	**7.3500e-003**		**6.9100e-003**	**6.9100e-003**	**0.0000**	**24.3395**	**24.3395**	**5.7900e-003**	**0.0000**	**24.4843**

3.5 Building Construction - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	4.7600e-003	0.1369	0.0414	5.1000e-004	0.0122	1.5000e-004	0.0123	3.5200e-003	1.4000e-004	3.6700e-003	0.0000	48.2589	48.2589	1.7300e-003	0.0000	48.3022
Worker	0.0139	8.7100e-003	0.0910	3.4000e-004	0.0377	2.4000e-004	0.0379	0.0100	2.2000e-004	0.0103	0.0000	30.6200	30.6200	6.1000e-004	0.0000	30.6354
Total	**0.0186**	**0.1456**	**0.1324**	**8.5000e-004**	**0.0499**	**3.9000e-004**	**0.0503**	**0.0135**	**3.6000e-004**	**0.0139**	**0.0000**	**78.8789**	**78.8789**	**2.3400e-003**	**0.0000**	**78.9376**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0165	0.1510	0.1706	2.8000e-004		7.3500e-003	7.3500e-003		6.9100e-003	6.9100e-003	0.0000	24.3395	24.3395	5.7900e-003	0.0000	24.4842
Total	**0.0165**	**0.1510**	**0.1706**	**2.8000e-004**		**7.3500e-003**	**7.3500e-003**		**6.9100e-003**	**6.9100e-003**	**0.0000**	**24.3395**	**24.3395**	**5.7900e-003**	**0.0000**	**24.4842**

3.5 Building Construction - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	4.7600e-003	0.1369	0.0414	5.1000e-004	0.0122	1.5000e-004	0.0123	3.5200e-003	1.4000e-004	3.6700e-003	0.0000	48.2589	48.2589	1.7300e-003	0.0000	48.3022
Worker	0.0139	8.7100e-003	0.0910	3.4000e-004	0.0377	2.4000e-004	0.0379	0.0100	2.2000e-004	0.0103	0.0000	30.6200	30.6200	6.1000e-004	0.0000	30.6354
Total	**0.0186**	**0.1456**	**0.1324**	**8.5000e-004**	**0.0499**	**3.9000e-004**	**0.0503**	**0.0135**	**3.6000e-004**	**0.0139**	**0.0000**	**78.8789**	**78.8789**	**2.3400e-003**	**0.0000**	**78.9376**

3.6 Paving - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0103	0.1019	0.1458	2.3000e-004		5.1000e-003	5.1000e-003		4.6900e-003	4.6900e-003	0.0000	20.0269	20.0269	6.4800e-003	0.0000	20.1888
Paving	0.0107					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0210**	**0.1019**	**0.1458**	**2.3000e-004**		**5.1000e-003**	**5.1000e-003**		**4.6900e-003**	**4.6900e-003**	**0.0000**	**20.0269**	**20.0269**	**6.4800e-003**	**0.0000**	**20.1888**

3.6 Paving - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.4000e-004	2.8000e-004	2.8800e-003	1.0000e-005	1.1900e-003	1.0000e-005	1.2000e-003	3.2000e-004	1.0000e-005	3.2000e-004	0.0000	0.9678	0.9678	2.0000e-005	0.0000	0.9683
Total	**4.4000e-004**	**2.8000e-004**	**2.8800e-003**	**1.0000e-005**	**1.1900e-003**	**1.0000e-005**	**1.2000e-003**	**3.2000e-004**	**1.0000e-005**	**3.2000e-004**	**0.0000**	**0.9678**	**0.9678**	**2.0000e-005**	**0.0000**	**0.9683**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0103	0.1019	0.1458	2.3000e-004		5.1000e-003	5.1000e-003		4.6900e-003	4.6900e-003	0.0000	20.0268	20.0268	6.4800e-003	0.0000	20.1888
Paving	0.0107					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0210**	**0.1019**	**0.1458**	**2.3000e-004**		**5.1000e-003**	**5.1000e-003**		**4.6900e-003**	**4.6900e-003**	**0.0000**	**20.0268**	**20.0268**	**6.4800e-003**	**0.0000**	**20.1888**

3.6 Paving - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.4000e-004	2.8000e-004	2.8800e-003	1.0000e-005	1.1900e-003	1.0000e-005	1.2000e-003	3.2000e-004	1.0000e-005	3.2000e-004	0.0000	0.9678	0.9678	2.0000e-005	0.0000	0.9683
Total	**4.4000e-004**	**2.8000e-004**	**2.8800e-003**	**1.0000e-005**	**1.1900e-003**	**1.0000e-005**	**1.2000e-003**	**3.2000e-004**	**1.0000e-005**	**3.2000e-004**	**0.0000**	**0.9678**	**0.9678**	**2.0000e-005**	**0.0000**	**0.9683**

3.7 Architectural Coating - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	3.7971					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.9200e-003	0.0130	0.0181	3.0000e-005		7.1000e-004	7.1000e-004		7.1000e-004	7.1000e-004	0.0000	2.5533	2.5533	1.5000e-004	0.0000	2.5571
Total	**3.7990**	**0.0130**	**0.0181**	**3.0000e-005**		**7.1000e-004**	**7.1000e-004**		**7.1000e-004**	**7.1000e-004**	**0.0000**	**2.5533**	**2.5533**	**1.5000e-004**	**0.0000**	**2.5571**

3.7 Architectural Coating - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.6300e-003	1.6500e-003	0.0173	6.0000e-005	7.1500e-003	5.0000e-005	7.1900e-003	1.9000e-003	4.0000e-005	1.9400e-003	0.0000	5.8066	5.8066	1.2000e-004	0.0000	5.8095
Total	**2.6300e-003**	**1.6500e-003**	**0.0173**	**6.0000e-005**	**7.1500e-003**	**5.0000e-005**	**7.1900e-003**	**1.9000e-003**	**4.0000e-005**	**1.9400e-003**	**0.0000**	**5.8066**	**5.8066**	**1.2000e-004**	**0.0000**	**5.8095**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	3.7971					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.9200e-003	0.0130	0.0181	3.0000e-005		7.1000e-004	7.1000e-004		7.1000e-004	7.1000e-004	0.0000	2.5533	2.5533	1.5000e-004	0.0000	2.5571
Total	**3.7990**	**0.0130**	**0.0181**	**3.0000e-005**		**7.1000e-004**	**7.1000e-004**		**7.1000e-004**	**7.1000e-004**	**0.0000**	**2.5533**	**2.5533**	**1.5000e-004**	**0.0000**	**2.5571**

3.7 Architectural Coating - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.6300e-003	1.6500e-003	0.0173	6.0000e-005	7.1500e-003	5.0000e-005	7.1900e-003	1.9000e-003	4.0000e-005	1.9400e-003	0.0000	5.8066	5.8066	1.2000e-004	0.0000	5.8095
Total	**2.6300e-003**	**1.6500e-003**	**0.0173**	**6.0000e-005**	**7.1500e-003**	**5.0000e-005**	**7.1900e-003**	**1.9000e-003**	**4.0000e-005**	**1.9400e-003**	**0.0000**	**5.8066**	**5.8066**	**1.2000e-004**	**0.0000**	**5.8095**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.3426	1.8132	3.9049	0.0166	1.3629	0.0119	1.3748	0.3652	0.0111	0.3763	0.0000	1,523.7258	1,523.7258	0.0558	0.0000	1,525.1205
Unmitigated	0.3426	1.8132	3.9049	0.0166	1.3629	0.0119	1.3748	0.3652	0.0111	0.3763	0.0000	1,523.7258	1,523.7258	0.0558	0.0000	1,525.1205

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Parking Lot	0.00	0.00	0.00		
Unrefrigerated Warehouse-No Rail	1,248.98	1,248.98	1248.98	3,646,396	3,646,396
Total	1,248.98	1,248.98	1,248.98	3,646,396	3,646,396

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Unrefrigerated Warehouse-No	9.50	7.30	7.30	59.00	0.00	41.00	92	5	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Parking Lot	0.592363	0.035341	0.174580	0.107742	0.017073	0.005230	0.009387	0.045083	0.003280	0.002110	0.006266	0.000612	0.000935
Unrefrigerated Warehouse-No Rail	0.592363	0.035341	0.174580	0.107742	0.017073	0.005230	0.009387	0.045083	0.003280	0.002110	0.006266	0.000612	0.000935

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Install High Efficiency Lighting

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	313.2719	313.2719	0.0313	6.4800e-003	315.9866
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	348.0865	348.0865	0.0348	7.2000e-003	351.1028
NaturalGas Mitigated	0.0134	0.1214	0.1020	7.3000e-004		9.2300e-003	9.2300e-003		9.2300e-003	9.2300e-003	0.0000	132.1577	132.1577	2.5300e-003	2.4200e-003	132.9431
NaturalGas Unmitigated	0.0134	0.1214	0.1020	7.3000e-004		9.2300e-003	9.2300e-003		9.2300e-003	9.2300e-003	0.0000	132.1577	132.1577	2.5300e-003	2.4200e-003	132.9431

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	2.47654e+006	0.0134	0.1214	0.1020	7.3000e-004		9.2300e-003	9.2300e-003		9.2300e-003	9.2300e-003	0.0000	132.1577	132.1577	2.5300e-003	2.4200e-003	132.9431
Total		**0.0134**	**0.1214**	**0.1020**	**7.3000e-004**		**9.2300e-003**	**9.2300e-003**		**9.2300e-003**	**9.2300e-003**	**0.0000**	**132.1577**	**132.1577**	**2.5300e-003**	**2.4200e-003**	**132.9431**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	2.47654e+006	0.0134	0.1214	0.1020	7.3000e-004		9.2300e-003	9.2300e-003		9.2300e-003	9.2300e-003	0.0000	132.1577	132.1577	2.5300e-003	2.4200e-003	132.9431
Total		**0.0134**	**0.1214**	**0.1020**	**7.3000e-004**		**9.2300e-003**	**9.2300e-003**		**9.2300e-003**	**9.2300e-003**	**0.0000**	**132.1577**	**132.1577**	**2.5300e-003**	**2.4200e-003**	**132.9431**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Parking Lot	126840	16.6848	1.6700e-003	3.5000e-004	16.8293
Unrefrigerated Warehouse-No Rail	2.51936e+006	331.4017	0.0331	6.8600e-003	334.2735
Total		**348.0865**	**0.0348**	**7.2100e-003**	**351.1028**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Parking Lot	106546	14.0152	1.4000e-003	2.9000e-004	14.1367
Unrefrigerated Warehouse-No Rail	2.27499e+006	299.2567	0.0299	6.1900e-003	301.8499
Total		**313.2719**	**0.0313**	**6.4800e-003**	**315.9866**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	3.1919	1.4000e-004	0.0149	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005	0.0000	0.0289	0.0289	8.0000e-005	0.0000	0.0308
Unmitigated	3.1919	1.4000e-004	0.0149	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005	0.0000	0.0289	0.0289	8.0000e-005	0.0000	0.0308

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.3797					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	2.8108					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.3800e-003	1.4000e-004	0.0149	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005	0.0000	0.0289	0.0289	8.0000e-005	0.0000	0.0308
Total	**3.1919**	**1.4000e-004**	**0.0149**	**0.0000**		**5.0000e-005**	**5.0000e-005**		**5.0000e-005**	**5.0000e-005**	**0.0000**	**0.0289**	**0.0289**	**8.0000e-005**	**0.0000**	**0.0308**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.3797					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	2.8108					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.3800e-003	1.4000e-004	0.0149	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005	0.0000	0.0289	0.0289	8.0000e-005	0.0000	0.0308
Total	**3.1919**	**1.4000e-004**	**0.0149**	**0.0000**		**5.0000e-005**	**5.0000e-005**		**5.0000e-005**	**5.0000e-005**	**0.0000**	**0.0289**	**0.0289**	**8.0000e-005**	**0.0000**	**0.0308**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	169.8338	5.3897	0.1294	343.1415
Unmitigated	169.8338	5.3897	0.1294	343.1415

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	165.043 / 0	169.8338	5.3897	0.1294	343.1415
Total		**169.8338**	**5.3897**	**0.1294**	**343.1415**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	165.043 / 0	169.8338	5.3897	0.1294	343.1415
Total		**169.8338**	**5.3897**	**0.1294**	**343.1415**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	136.1826	8.0482	0.0000	337.3866
Unmitigated	136.1826	8.0482	0.0000	337.3866

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	670.88	136.1826	8.0482	0.0000	337.3866
Total		**136.1826**	**8.0482**	**0.0000**	**337.3866**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	670.88	136.1826	8.0482	0.0000	337.3866
Total		**136.1826**	**8.0482**	**0.0000**	**337.3866**

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

```
**
**************************************
**
** AERMOD Input Produced by:
** AERMOD View Ver. 9.7.0
** Lakes Environmental Software Inc.
** Date: 3/25/2021
** File: C:\Lakes\AERMOD View\Fairfield Industrial Site\Fairfield Industrial
Site.ADI
**
**************************************
**
**
**************************************
** AERMOD Control Pathway
**************************************
**
**
CO STARTING
   TITLEONE C:\Lakes\AERMOD View\Fairfield Industrial Site\Fairfield Industrial
   MODELOPT DFAULT CONC
   AVERTIME 1 ANNUAL
   URBANOPT 115282 Fairfield
   POLLUTID PM_2.5
   RUNORNOT RUN
   ERRORFIL "Fairfield Industrial Site.err"
CO FINISHED
**
**************************************
** AERMOD Source Pathway
**************************************
**
**
SO STARTING
** Source Location **
** Source ID - Type - X Coord. - Y Coord. **
   LOCATION PAREA1       AREAPOLY   581733.673  4232132.982        4.000
** Source Parameters **
   SRCPARAM PAREA1       1.4424E-08     3.000        21
   AREAVERT PAREA1       581733.673 4232132.982 581735.754 4232243.243
   AREAVERT PAREA1       581854.336 4232305.654 581877.220 4232332.699
   AREAVERT PAREA1       581958.355 4232351.423 581985.401 4232303.574
   AREAVERT PAREA1       582220.485 4232341.021 582237.128 4232297.333
   AREAVERT PAREA1       582274.575 4232324.378 582257.932 4232409.674
   AREAVERT PAREA1       582341.147 4232430.478 582457.649 4232428.397
   AREAVERT PAREA1       582478.453 4232332.699 582388.996 4232145.464
   AREAVERT PAREA1       581914.667 4231877.094 581735.754 4231810.521
   AREAVERT PAREA1       581735.754 4232039.364 581846.014 4232033.123
   AREAVERT PAREA1       581843.934 4232018.560 581885.542 4231999.837
   AREAVERT PAREA1       581883.461 4232135.062
```

```
   URBANSRC ALL
   SRCGROUP ALL
SO FINISHED
**
**************************************
** AERMOD Receptor Pathway
**************************************
**
**
RE STARTING
   INCLUDED "Fairfield Industrial Site.rou"
RE FINISHED
**
**************************************
** AERMOD Meteorology Pathway
**************************************
**
**
ME STARTING
   SURFFILE "C:\Users\kheck\Desktop\MET DATA\Travis Air Force Base\745160.SFC"
   PROFFILE "C:\Users\kheck\Desktop\MET DATA\Travis Air Force Base\745160.PFL"
   SURFDATA 23202 2009
   UAIRDATA 23230 2009 OAKLAND/WSO_AP
   PROFBASE 19.0 METERS
ME FINISHED
**
**************************************
** AERMOD Output Pathway
**************************************
**
**
OU STARTING
   RECTABLE ALLAVE 1ST
   RECTABLE 1 1ST
** Auto-Generated Plotfiles
   PLOTFILE 1 ALL 1ST "Fairfield Industrial Site.AD\01H1GALL.PLT" 31
   PLOTFILE ANNUAL ALL "Fairfield Industrial Site.AD\AN00GALL.PLT" 32
   SUMMFILE "Fairfield Industrial Site.sum"
OU FINISHED
**
**************************************
** Project Parameters
**************************************
** PROJCTN  CoordinateSystemUTM
** DESCPTN  UTM: Universal Transverse Mercator
** DATUM    World Geodetic System 1984
** DTMRGN   Global Definition
** UNITS    m
** ZONE     10
** ZONEINX  0
```

**

```
**
**************************************
**
** AERMOD Input Produced by:
** AERMOD View Ver. 9.7.0
** Lakes Environmental Software Inc.
** Date: 3/25/2021
** File: C:\Lakes\AERMOD View\Fairfield Industrial Site\Fairfield Industrial
Site.ADI
**
**************************************
**
**
**************************************
** AERMOD Control Pathway
**************************************
**
**
CO STARTING
   TITLEONE C:\Lakes\AERMOD View\Fairfield Industrial Site\Fairfield Industrial
   MODELOPT DFAULT CONC
   AVERTIME 1 ANNUAL
   URBANOPT 115282 Fairfield
   POLLUTID PM_2.5
   RUNORNOT RUN
   ERRORFIL "Fairfield Industrial Site.err"
CO FINISHED
**
**************************************
** AERMOD Source Pathway
**************************************
**
**
SO STARTING
** Source Location **
** Source ID - Type - X Coord. - Y Coord. **
   LOCATION PAREA1       AREAPOLY   581733.673  4232132.982        4.000
** Source Parameters **
   SRCPARAM PAREA1       1.4424E-08     3.000        21
   AREAVERT PAREA1       581733.673 4232132.982 581735.754 4232243.243
   AREAVERT PAREA1       581854.336 4232305.654 581877.220 4232332.699
   AREAVERT PAREA1       581958.355 4232351.423 581985.401 4232303.574
   AREAVERT PAREA1       582220.485 4232341.021 582237.128 4232297.333
   AREAVERT PAREA1       582274.575 4232324.378 582257.932 4232409.674
   AREAVERT PAREA1       582341.147 4232430.478 582457.649 4232428.397
   AREAVERT PAREA1       582478.453 4232332.699 582388.996 4232145.464
   AREAVERT PAREA1       581914.667 4231877.094 581735.754 4231810.521
   AREAVERT PAREA1       581735.754 4232039.364 581846.014 4232033.123
   AREAVERT PAREA1       581843.934 4232018.560 581885.542 4231999.837
   AREAVERT PAREA1       581883.461 4232135.062
```

```
   URBANSRC ALL
   SRCGROUP ALL
SO FINISHED
**
**************************************
** AERMOD Receptor Pathway
**************************************
**
**
RE STARTING
   INCLUDED "Fairfield Industrial Site.rou"
RE FINISHED
**
**************************************
** AERMOD Meteorology Pathway
**************************************
**
**
ME STARTING
   SURFFILE "C:\Users\kheck\Desktop\MET DATA\Travis Air Force Base\745160.SFC"
   PROFFILE "C:\Users\kheck\Desktop\MET DATA\Travis Air Force Base\745160.PFL"
   SURFDATA 23202 2009
   UAIRDATA 23230 2009 OAKLAND/WSO_AP
   PROFBASE 19.0 METERS
ME FINISHED
**
**************************************
** AERMOD Output Pathway
**************************************
**
**
OU STARTING
   RECTABLE ALLAVE 1ST
   RECTABLE 1 1ST
** Auto-Generated Plotfiles
   PLOTFILE 1 ALL 1ST "Fairfield Industrial Site.AD\01H1GALL.PLT" 31
   PLOTFILE ANNUAL ALL "Fairfield Industrial Site.AD\AN00GALL.PLT" 32
   SUMMFILE "Fairfield Industrial Site.sum"
OU FINISHED

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

 *** AERMOD - VERSION  18081 ***   *** C:\Lakes\AERMOD View\Fairfield Industrial
Site\Fairfield Industrial  ***        03/25/21
 *** AERMET - VERSION  14134 ***   ***
                         ***       08:30:05

                                   PAGE   1
```

```
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN

                                            ***     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     1 Source(s),
   for Total of    1 Urban Area(s):
   Urban Population =    115282.0 ;  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_2.5

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

 **This Run Includes:      1 Source(s);       1 Source Group(s); and     586
Receptor(s)

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

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

 **The AERMET Input Meteorological Data Version Date:  14134

 **Output Options Selected:
          Model Outputs Tables of ANNUAL Averages by Receptor
          Model Outputs Tables of Highest Short Term Values by Receptor (RECTABLE
Keyword)
          Model Outputs External File(s) of High Values for Plotting (PLOTFILE
Keyword)
          Model Outputs Separate Summary File of High Ranked Values (SUMMFILE
Keyword)

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

 **Misc. Inputs:  Base Elev. for Pot. Temp. Profile (m MSL) =    19.00 ;  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:   Fairfield Industrial Site.err

 **File for Summary of Results:   Fairfield Industrial Site.sum

↟ *** AERMOD - VERSION  18081 ***   *** C:\Lakes\AERMOD View\Fairfield Industrial
Site\Fairfield Industrial  ***        03/25/21
 *** AERMET - VERSION  14134 ***   ***
                       ***        08:30:05

                                  PAGE   2
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN


                                                *** 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   0.14424E-07  581733.7 4232133.0     4.0     3.00      21
   0.00     YES
↑ *** AERMOD - VERSION  18081 ***   *** C:\Lakes\AERMOD View\Fairfield Industrial
Site\Fairfield Industrial  ***        03/25/21
 *** AERMET - VERSION  14134 ***   ***
                        ***        08:30:05

                                   PAGE   3
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN


                                          *** SOURCE IDs DEFINING SOURCE GROUPS
***

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


  ALL        PAREA1      ,
↑ *** AERMOD - VERSION  18081 ***   *** C:\Lakes\AERMOD View\Fairfield Industrial
Site\Fairfield Industrial  ***        03/25/21
 *** AERMET - VERSION  14134 ***   ***
                        ***        08:30:05

                                   PAGE   4
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN


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

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


              115282.   PAREA1      ,
↑ *** AERMOD - VERSION  18081 ***   *** C:\Lakes\AERMOD View\Fairfield Industrial
Site\Fairfield Industrial  ***        03/25/21
 *** AERMET - VERSION  14134 ***   ***
                        ***        08:30:05

                                   PAGE   5
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN
```

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

(581734.0, 4232043.7, 3.0, 3.0, 0.0); (581739.0, 4232043.7, 3.0, 3.0, 0.0);
(581744.0, 4232043.7, 3.0, 3.0, 0.0); (581749.0, 4232043.7, 3.0, 3.0, 0.0);
(581754.0, 4232043.7, 3.0, 3.0, 0.0); (581759.0, 4232043.7, 3.1, 3.1, 0.0);
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(581774.0, 4232043.7, 3.4, 3.4, 0.0); (581779.0, 4232043.7, 3.5, 3.5, 0.0);
(581784.0, 4232043.7, 3.6, 3.6, 0.0); (581789.0, 4232043.7, 3.6, 3.6, 0.0);
(581794.0, 4232043.7, 3.6, 3.6, 0.0); (581799.0, 4232043.7, 3.6, 3.6, 0.0);
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(581814.0, 4232043.7, 3.6, 3.6, 0.0); (581819.0, 4232043.7, 3.6, 3.6, 0.0);
(581824.0, 4232043.7, 3.6, 3.6, 0.0); (581829.0, 4232043.7, 3.6, 3.6, 0.0);
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(581844.0, 4232043.7, 3.6, 3.6, 0.0); (581849.0, 4232043.7, 3.5, 3.5, 0.0);
(581854.0, 4232043.7, 3.4, 3.4, 0.0); (581859.0, 4232043.7, 3.3, 3.3, 0.0);
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(581774.0, 4232048.7, 3.5, 3.5, 0.0); (581779.0, 4232048.7, 3.6, 3.6, 0.0);
(581784.0, 4232048.7, 3.8, 3.8, 0.0); (581789.0, 4232048.7, 3.8, 3.8, 0.0);
(581794.0, 4232048.7, 3.8, 3.8, 0.0); (581799.0, 4232048.7, 3.8, 3.8, 0.0);
(581804.0, 4232048.7, 3.8, 3.8, 0.0); (581809.0, 4232048.7, 3.8, 3.8, 0.0);

```
     ( 581814.0, 4232048.7,       3.8,       3.8,       0.0);         ( 581819.0,
4232048.7,       3.8,       3.8,       0.0);
     ( 581824.0, 4232048.7,       3.8,       3.8,       0.0);         ( 581829.0,
4232048.7,       3.8,       3.8,       0.0);
     ( 581834.0, 4232048.7,       3.8,       3.8,       0.0);         ( 581839.0,
4232048.7,       3.8,       3.8,       0.0);
     ( 581844.0, 4232048.7,       3.8,       3.8,       0.0);         ( 581849.0,
4232048.7,       3.6,       3.6,       0.0);
     ( 581854.0, 4232048.7,       3.5,       3.5,       0.0);         ( 581859.0,
4232048.7,       3.4,       3.4,       0.0);
     ( 581864.0, 4232048.7,       3.2,       3.2,       0.0);         ( 581869.0,
4232048.7,       3.1,       3.1,       0.0);
     ( 581874.0, 4232048.7,       3.0,       3.0,       0.0);         ( 581879.0,
4232048.7,       3.0,       3.0,       0.0);
     ( 581734.0, 4232053.7,       3.0,       3.0,       0.0);         ( 581739.0,
4232053.7,       3.0,       3.0,       0.0);
     ( 581744.0, 4232053.7,       3.0,       3.0,       0.0);         ( 581749.0,
4232053.7,       3.0,       3.0,       0.0);
     ( 581754.0, 4232053.7,       3.0,       3.0,       0.0);         ( 581759.0,
4232053.7,       3.2,       3.2,       0.0);
     ( 581764.0, 4232053.7,       3.3,       3.3,       0.0);         ( 581769.0,
4232053.7,       3.5,       3.5,       0.0);
     ( 581774.0, 4232053.7,       3.6,       3.6,       0.0);         ( 581779.0,
4232053.7,       3.8,       3.8,       0.0);
     ( 581784.0, 4232053.7,       3.9,       3.9,       0.0);         ( 581789.0,
4232053.7,       3.9,       3.9,       0.0);
     ( 581794.0, 4232053.7,       3.9,       3.9,       0.0);         ( 581799.0,
4232053.7,       3.9,       3.9,       0.0);
     ( 581804.0, 4232053.7,       3.9,       3.9,       0.0);         ( 581809.0,
4232053.7,       3.9,       3.9,       0.0);
     ( 581814.0, 4232053.7,       3.9,       3.9,       0.0);         ( 581819.0,
4232053.7,       3.9,       3.9,       0.0);
     ( 581824.0, 4232053.7,       3.9,       3.9,       0.0);         ( 581829.0,
4232053.7,       3.9,       3.9,       0.0);
     ( 581834.0, 4232053.7,       3.9,       3.9,       0.0);         ( 581839.0,
4232053.7,       3.9,       3.9,       0.0);
     ( 581844.0, 4232053.7,       3.9,       3.9,       0.0);         ( 581849.0,
4232053.7,       3.8,       3.8,       0.0);
     ( 581854.0, 4232053.7,       3.6,       3.6,       0.0);         ( 581859.0,
4232053.7,       3.5,       3.5,       0.0);
     ( 581864.0, 4232053.7,       3.3,       3.3,       0.0);         ( 581869.0,
4232053.7,       3.1,       3.1,       0.0);
     ( 581874.0, 4232053.7,       3.0,       3.0,       0.0);         ( 581879.0,
4232053.7,       3.0,       3.0,       0.0);
 *** AERMOD - VERSION  18081 ***   *** C:\Lakes\AERMOD View\Fairfield Industrial
Site\Fairfield Industrial  ***        03/25/21
 *** AERMET - VERSION  14134 ***   ***
                       ***        08:30:05
```

*** MODELOPTs: RegDFAULT CONC ELEV URBAN

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

(581734.0, 4232058.7, 3.1, 3.1, 0.0); (581739.0, 4232058.7, 3.1, 3.1, 0.0);
(581744.0, 4232058.7, 3.1, 3.1, 0.0); (581749.0, 4232058.7, 3.1, 3.1, 0.0);
(581754.0, 4232058.7, 3.1, 3.1, 0.0); (581759.0, 4232058.7, 3.3, 3.3, 0.0);
(581764.0, 4232058.7, 3.4, 3.4, 0.0); (581769.0, 4232058.7, 3.6, 3.6, 0.0);
(581774.0, 4232058.7, 3.7, 3.7, 0.0); (581779.0, 4232058.7, 3.9, 3.9, 0.0);
(581784.0, 4232058.7, 4.0, 4.0, 0.0); (581789.0, 4232058.7, 4.0, 4.0, 0.0);
(581794.0, 4232058.7, 4.0, 4.0, 0.0); (581799.0, 4232058.7, 4.0, 4.0, 0.0);
(581804.0, 4232058.7, 4.0, 4.0, 0.0); (581809.0, 4232058.7, 4.0, 4.0, 0.0);
(581814.0, 4232058.7, 4.0, 4.0, 0.0); (581819.0, 4232058.7, 4.0, 4.0, 0.0);
(581824.0, 4232058.7, 4.0, 4.0, 0.0); (581829.0, 4232058.7, 4.0, 4.0, 0.0);
(581834.0, 4232058.7, 4.0, 4.0, 0.0); (581839.0, 4232058.7, 4.0, 4.0, 0.0);
(581844.0, 4232058.7, 4.0, 4.0, 0.0); (581849.0, 4232058.7, 3.8, 3.8, 0.0);
(581854.0, 4232058.7, 3.7, 3.7, 0.0); (581859.0, 4232058.7, 3.5, 3.5, 0.0);
(581864.0, 4232058.7, 3.4, 3.4, 0.0); (581869.0, 4232058.7, 3.2, 3.2, 0.0);
(581874.0, 4232058.7, 3.1, 3.1, 0.0); (581879.0, 4232058.7, 3.1, 3.1, 0.0);
(581734.0, 4232063.7, 3.3, 3.3, 0.0); (581739.0, 4232063.7, 3.3, 3.3, 0.0);
(581744.0, 4232063.7, 3.3, 3.3, 0.0); (581749.0, 4232063.7, 3.3, 3.3, 0.0);
(581754.0, 4232063.7, 3.3, 3.3, 0.0); (581759.0, 4232063.7, 3.4, 3.4, 0.0);
(581764.0, 4232063.7, 3.5, 3.5, 0.0); (581769.0, 4232063.7, 3.6, 3.6, 0.0);
(581774.0, 4232063.7, 3.8, 3.8, 0.0); (581779.0, 4232063.7, 3.9, 3.9, 0.0);
(581784.0, 4232063.7, 4.0, 4.0, 0.0); (581789.0, 4232063.7, 4.0, 4.0, 0.0);
(581794.0, 4232063.7, 4.0, 4.0, 0.0); (581799.0, 4232063.7, 4.0, 4.0, 0.0);

```
     ( 581804.0, 4232063.7,       4.0,       4.0,       0.0);         ( 581809.0,
4232063.7,       4.0,       4.0,       0.0);
     ( 581814.0, 4232063.7,       4.0,       4.0,       0.0);         ( 581819.0,
4232063.7,       4.0,       4.0,       0.0);
     ( 581824.0, 4232063.7,       4.0,       4.0,       0.0);         ( 581829.0,
4232063.7,       4.0,       4.0,       0.0);
     ( 581834.0, 4232063.7,       4.0,       4.0,       0.0);         ( 581839.0,
4232063.7,       4.0,       4.0,       0.0);
     ( 581844.0, 4232063.7,       4.0,       4.0,       0.0);         ( 581849.0,
4232063.7,       3.9,       3.9,       0.0);
     ( 581854.0, 4232063.7,       3.8,       3.8,       0.0);         ( 581859.0,
4232063.7,       3.6,       3.6,       0.0);
     ( 581864.0, 4232063.7,       3.5,       3.5,       0.0);         ( 581869.0,
4232063.7,       3.4,       3.4,       0.0);
     ( 581874.0, 4232063.7,       3.3,       3.3,       0.0);         ( 581879.0,
4232063.7,       3.2,       3.2,       0.0);
     ( 581734.0, 4232068.7,       3.4,       3.4,       0.0);         ( 581739.0,
4232068.7,       3.4,       3.4,       0.0);
     ( 581744.0, 4232068.7,       3.4,       3.4,       0.0);         ( 581749.0,
4232068.7,       3.4,       3.4,       0.0);
     ( 581754.0, 4232068.7,       3.4,       3.4,       0.0);         ( 581759.0,
4232068.7,       3.5,       3.5,       0.0);
     ( 581764.0, 4232068.7,       3.6,       3.6,       0.0);         ( 581769.0,
4232068.7,       3.7,       3.7,       0.0);
     ( 581774.0, 4232068.7,       3.8,       3.8,       0.0);         ( 581779.0,
4232068.7,       3.9,       3.9,       0.0);
     ( 581784.0, 4232068.7,       4.0,       4.0,       0.0);         ( 581789.0,
4232068.7,       4.0,       4.0,       0.0);
     ( 581794.0, 4232068.7,       4.0,       4.0,       0.0);         ( 581799.0,
4232068.7,       4.0,       4.0,       0.0);
     ( 581804.0, 4232068.7,       4.0,       4.0,       0.0);         ( 581809.0,
4232068.7,       4.0,       4.0,       0.0);
     ( 581814.0, 4232068.7,       4.0,       4.0,       0.0);         ( 581819.0,
4232068.7,       4.0,       4.0,       0.0);
     ( 581824.0, 4232068.7,       4.0,       4.0,       0.0);         ( 581829.0,
4232068.7,       4.0,       4.0,       0.0);
     ( 581834.0, 4232068.7,       4.0,       4.0,       0.0);         ( 581839.0,
4232068.7,       4.0,       4.0,       0.0);
     ( 581844.0, 4232068.7,       4.0,       4.0,       0.0);         ( 581849.0,
4232068.7,       3.9,       3.9,       0.0);
     ( 581854.0, 4232068.7,       3.8,       3.8,       0.0);         ( 581859.0,
4232068.7,       3.7,       3.7,       0.0);
     ( 581864.0, 4232068.7,       3.6,       3.6,       0.0);         ( 581869.0,
4232068.7,       3.5,       3.5,       0.0);
     ( 581874.0, 4232068.7,       3.4,       3.4,       0.0);         ( 581879.0,
4232068.7,       3.4,       3.4,       0.0);
 *** AERMOD - VERSION  18081 ***   *** C:\Lakes\AERMOD View\Fairfield Industrial
Site\Fairfield Industrial  ***        03/25/21
 *** AERMET - VERSION  14134 ***   ***
                          ***       08:30:05
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*** MODELOPTs: RegDFAULT CONC ELEV URBAN

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

(581734.0, 4232073.7, 3.6, 3.6, 0.0); (581739.0, 4232073.7, 3.6, 3.6, 0.0);
(581744.0, 4232073.7, 3.6, 3.6, 0.0); (581749.0, 4232073.7, 3.6, 3.6, 0.0);
(581754.0, 4232073.7, 3.6, 3.6, 0.0); (581759.0, 4232073.7, 3.7, 3.7, 0.0);
(581764.0, 4232073.7, 3.7, 3.7, 0.0); (581769.0, 4232073.7, 3.8, 3.8, 0.0);
(581774.0, 4232073.7, 3.9, 3.9, 0.0); (581779.0, 4232073.7, 3.9, 3.9, 0.0);
(581784.0, 4232073.7, 4.0, 4.0, 0.0); (581789.0, 4232073.7, 4.0, 4.0, 0.0);
(581794.0, 4232073.7, 4.0, 4.0, 0.0); (581799.0, 4232073.7, 4.0, 4.0, 0.0);
(581804.0, 4232073.7, 4.0, 4.0, 0.0); (581809.0, 4232073.7, 4.0, 4.0, 0.0);
(581814.0, 4232073.7, 4.0, 4.0, 0.0); (581819.0, 4232073.7, 4.0, 4.0, 0.0);
(581824.0, 4232073.7, 4.0, 4.0, 0.0); (581829.0, 4232073.7, 4.0, 4.0, 0.0);
(581834.0, 4232073.7, 4.0, 4.0, 0.0); (581839.0, 4232073.7, 4.0, 4.0, 0.0);
(581844.0, 4232073.7, 4.0, 4.0, 0.0); (581849.0, 4232073.7, 3.9, 3.9, 0.0);
(581854.0, 4232073.7, 3.9, 3.9, 0.0); (581859.0, 4232073.7, 3.8, 3.8, 0.0);
(581864.0, 4232073.7, 3.7, 3.7, 0.0); (581869.0, 4232073.7, 3.7, 3.7, 0.0);
(581874.0, 4232073.7, 3.6, 3.6, 0.0); (581879.0, 4232073.7, 3.5, 3.5, 0.0);
(581734.0, 4232078.7, 3.8, 3.8, 0.0); (581739.0, 4232078.7, 3.8, 3.8, 0.0);
(581744.0, 4232078.7, 3.8, 3.8, 0.0); (581749.0, 4232078.7, 3.8, 3.8, 0.0);
(581754.0, 4232078.7, 3.8, 3.8, 0.0); (581759.0, 4232078.7, 3.8, 3.8, 0.0);
(581764.0, 4232078.7, 3.8, 3.8, 0.0); (581769.0, 4232078.7, 3.9, 3.9, 0.0);
(581774.0, 4232078.7, 3.9, 3.9, 0.0); (581779.0, 4232078.7, 4.0, 4.0, 0.0);
(581784.0, 4232078.7, 4.0, 4.0, 0.0); (581789.0, 4232078.7, 4.0, 4.0, 0.0);

```
     ( 581794.0, 4232078.7,       4.0,       4.0,       0.0);         ( 581799.0,
4232078.7,       4.0,       4.0,       0.0);
     ( 581804.0, 4232078.7,       4.0,       4.0,       0.0);         ( 581809.0,
4232078.7,       4.0,       4.0,       0.0);
     ( 581814.0, 4232078.7,       4.0,       4.0,       0.0);         ( 581819.0,
4232078.7,       4.0,       4.0,       0.0);
     ( 581824.0, 4232078.7,       4.0,       4.0,       0.0);         ( 581829.0,
4232078.7,       4.0,       4.0,       0.0);
     ( 581834.0, 4232078.7,       4.0,       4.0,       0.0);         ( 581839.0,
4232078.7,       4.0,       4.0,       0.0);
     ( 581844.0, 4232078.7,       4.0,       4.0,       0.0);         ( 581849.0,
4232078.7,       4.0,       4.0,       0.0);
     ( 581854.0, 4232078.7,       3.9,       3.9,       0.0);         ( 581859.0,
4232078.7,       3.9,       3.9,       0.0);
     ( 581864.0, 4232078.7,       3.8,       3.8,       0.0);         ( 581869.0,
4232078.7,       3.8,       3.8,       0.0);
     ( 581874.0, 4232078.7,       3.8,       3.8,       0.0);         ( 581879.0,
4232078.7,       3.6,       3.6,       0.0);
     ( 581734.0, 4232083.7,       3.9,       3.9,       0.0);         ( 581739.0,
4232083.7,       3.9,       3.9,       0.0);
     ( 581744.0, 4232083.7,       3.9,       3.9,       0.0);         ( 581749.0,
4232083.7,       3.9,       3.9,       0.0);
     ( 581754.0, 4232083.7,       3.9,       3.9,       0.0);         ( 581759.0,
4232083.7,       3.9,       3.9,       0.0);
     ( 581764.0, 4232083.7,       4.0,       4.0,       0.0);         ( 581769.0,
4232083.7,       4.0,       4.0,       0.0);
     ( 581774.0, 4232083.7,       4.0,       4.0,       0.0);         ( 581779.0,
4232083.7,       4.0,       4.0,       0.0);
     ( 581784.0, 4232083.7,       4.0,       4.0,       0.0);         ( 581789.0,
4232083.7,       4.0,       4.0,       0.0);
     ( 581794.0, 4232083.7,       4.0,       4.0,       0.0);         ( 581799.0,
4232083.7,       4.0,       4.0,       0.0);
     ( 581804.0, 4232083.7,       4.0,       4.0,       0.0);         ( 581809.0,
4232083.7,       4.0,       4.0,       0.0);
     ( 581814.0, 4232083.7,       4.0,       4.0,       0.0);         ( 581819.0,
4232083.7,       4.0,       4.0,       0.0);
     ( 581824.0, 4232083.7,       4.0,       4.0,       0.0);         ( 581829.0,
4232083.7,       4.0,       4.0,       0.0);
     ( 581834.0, 4232083.7,       4.0,       4.0,       0.0);         ( 581839.0,
4232083.7,       4.0,       4.0,       0.0);
     ( 581844.0, 4232083.7,       4.0,       4.0,       0.0);         ( 581849.0,
4232083.7,       4.0,       4.0,       0.0);
     ( 581854.0, 4232083.7,       4.0,       4.0,       0.0);         ( 581859.0,
4232083.7,       4.0,       4.0,       0.0);
     ( 581864.0, 4232083.7,       4.0,       4.0,       0.0);         ( 581869.0,
4232083.7,       3.9,       3.9,       0.0);
     ( 581874.0, 4232083.7,       3.9,       3.9,       0.0);         ( 581879.0,
4232083.7,       3.8,       3.8,       0.0);
 *** AERMOD - VERSION  18081 ***   *** C:\Lakes\AERMOD View\Fairfield Industrial
Site\Fairfield Industrial  ***        03/25/21
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*** MODELOPTs: RegDFAULT CONC ELEV URBAN

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

(581734.0, 4232088.7, 4.0, 4.0, 0.0); (581739.0, 4232088.7, 4.0, 4.0, 0.0);
(581744.0, 4232088.7, 4.0, 4.0, 0.0); (581749.0, 4232088.7, 4.0, 4.0, 0.0);
(581754.0, 4232088.7, 4.0, 4.0, 0.0); (581759.0, 4232088.7, 4.0, 4.0, 0.0);
(581764.0, 4232088.7, 4.0, 4.0, 0.0); (581769.0, 4232088.7, 4.0, 4.0, 0.0);
(581774.0, 4232088.7, 4.0, 4.0, 0.0); (581779.0, 4232088.7, 4.0, 4.0, 0.0);
(581784.0, 4232088.7, 4.0, 4.0, 0.0); (581789.0, 4232088.7, 4.0, 4.0, 0.0);
(581794.0, 4232088.7, 4.0, 4.0, 0.0); (581799.0, 4232088.7, 4.0, 4.0, 0.0);
(581804.0, 4232088.7, 4.0, 4.0, 0.0); (581809.0, 4232088.7, 4.0, 4.0, 0.0);
(581814.0, 4232088.7, 4.0, 4.0, 0.0); (581819.0, 4232088.7, 4.0, 4.0, 0.0);
(581824.0, 4232088.7, 4.0, 4.0, 0.0); (581829.0, 4232088.7, 4.0, 4.0, 0.0);
(581834.0, 4232088.7, 4.0, 4.0, 0.0); (581839.0, 4232088.7, 4.0, 4.0, 0.0);
(581844.0, 4232088.7, 4.0, 4.0, 0.0); (581849.0, 4232088.7, 4.0, 4.0, 0.0);
(581854.0, 4232088.7, 4.0, 4.0, 0.0); (581859.0, 4232088.7, 4.0, 4.0, 0.0);
(581864.0, 4232088.7, 4.0, 4.0, 0.0); (581869.0, 4232088.7, 4.0, 4.0, 0.0);
(581874.0, 4232088.7, 4.0, 4.0, 0.0); (581879.0, 4232088.7, 3.8, 3.8, 0.0);
(581734.0, 4232093.7, 4.0, 4.0, 0.0); (581739.0, 4232093.7, 4.0, 4.0, 0.0);
(581744.0, 4232093.7, 4.0, 4.0, 0.0); (581749.0, 4232093.7, 4.0, 4.0, 0.0);
(581754.0, 4232093.7, 4.0, 4.0, 0.0); (581759.0, 4232093.7, 4.0, 4.0, 0.0);
(581764.0, 4232093.7, 4.0, 4.0, 0.0); (581769.0, 4232093.7, 4.0, 4.0, 0.0);
(581774.0, 4232093.7, 4.0, 4.0, 0.0); (581779.0, 4232093.7, 4.0, 4.0, 0.0);

```
     ( 581784.0, 4232093.7,       4.0,       4.0,       0.0);         ( 581789.0,
4232093.7,       4.0,       4.0,       0.0);
     ( 581794.0, 4232093.7,       4.0,       4.0,       0.0);         ( 581799.0,
4232093.7,       4.0,       4.0,       0.0);
     ( 581804.0, 4232093.7,       4.0,       4.0,       0.0);         ( 581809.0,
4232093.7,       4.0,       4.0,       0.0);
     ( 581814.0, 4232093.7,       4.0,       4.0,       0.0);         ( 581819.0,
4232093.7,       4.0,       4.0,       0.0);
     ( 581824.0, 4232093.7,       4.0,       4.0,       0.0);         ( 581829.0,
4232093.7,       4.0,       4.0,       0.0);
     ( 581834.0, 4232093.7,       4.0,       4.0,       0.0);         ( 581839.0,
4232093.7,       4.0,       4.0,       0.0);
     ( 581844.0, 4232093.7,       4.0,       4.0,       0.0);         ( 581849.0,
4232093.7,       4.0,       4.0,       0.0);
     ( 581854.0, 4232093.7,       4.0,       4.0,       0.0);         ( 581859.0,
4232093.7,       4.0,       4.0,       0.0);
     ( 581864.0, 4232093.7,       4.0,       4.0,       0.0);         ( 581869.0,
4232093.7,       4.0,       4.0,       0.0);
     ( 581874.0, 4232093.7,       4.0,       4.0,       0.0);         ( 581879.0,
4232093.7,       3.9,       3.9,       0.0);
     ( 581734.0, 4232098.7,       4.0,       4.0,       0.0);         ( 581739.0,
4232098.7,       4.0,       4.0,       0.0);
     ( 581744.0, 4232098.7,       4.0,       4.0,       0.0);         ( 581749.0,
4232098.7,       4.0,       4.0,       0.0);
     ( 581754.0, 4232098.7,       4.0,       4.0,       0.0);         ( 581759.0,
4232098.7,       4.0,       4.0,       0.0);
     ( 581764.0, 4232098.7,       4.0,       4.0,       0.0);         ( 581769.0,
4232098.7,       4.0,       4.0,       0.0);
     ( 581774.0, 4232098.7,       4.0,       4.0,       0.0);         ( 581779.0,
4232098.7,       4.0,       4.0,       0.0);
     ( 581784.0, 4232098.7,       4.0,       4.0,       0.0);         ( 581789.0,
4232098.7,       4.0,       4.0,       0.0);
     ( 581794.0, 4232098.7,       4.0,       4.0,       0.0);         ( 581799.0,
4232098.7,       4.0,       4.0,       0.0);
     ( 581804.0, 4232098.7,       4.0,       4.0,       0.0);         ( 581809.0,
4232098.7,       4.0,       4.0,       0.0);
     ( 581814.0, 4232098.7,       4.0,       4.0,       0.0);         ( 581819.0,
4232098.7,       4.0,       4.0,       0.0);
     ( 581824.0, 4232098.7,       4.0,       4.0,       0.0);         ( 581829.0,
4232098.7,       4.0,       4.0,       0.0);
     ( 581834.0, 4232098.7,       4.0,       4.0,       0.0);         ( 581839.0,
4232098.7,       4.0,       4.0,       0.0);
     ( 581844.0, 4232098.7,       4.0,       4.0,       0.0);         ( 581849.0,
4232098.7,       4.0,       4.0,       0.0);
     ( 581854.0, 4232098.7,       4.0,       4.0,       0.0);         ( 581859.0,
4232098.7,       4.0,       4.0,       0.0);
     ( 581864.0, 4232098.7,       4.0,       4.0,       0.0);         ( 581869.0,
4232098.7,       4.0,       4.0,       0.0);
     ( 581874.0, 4232098.7,       4.0,       4.0,       0.0);         ( 581879.0,
4232098.7,       3.9,       3.9,       0.0);
```

 *** MODELOPTs: RegDFAULT CONC ELEV URBAN

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

     (581734.0, 4232103.7,   4.0,   4.0,   0.0);   (581739.0,
4232103.7,   4.0,   4.0,   0.0);
     (581744.0, 4232103.7,   4.0,   4.0,   0.0);   (581749.0,
4232103.7,   4.0,   4.0,   0.0);
     (581754.0, 4232103.7,   4.0,   4.0,   0.0);   (581759.0,
4232103.7,   4.0,   4.0,   0.0);
     (581764.0, 4232103.7,   4.0,   4.0,   0.0);   (581769.0,
4232103.7,   4.0,   4.0,   0.0);
     (581774.0, 4232103.7,   4.0,   4.0,   0.0);   (581779.0,
4232103.7,   4.0,   4.0,   0.0);
     (581784.0, 4232103.7,   4.0,   4.0,   0.0);   (581789.0,
4232103.7,   4.0,   4.0,   0.0);
     (581794.0, 4232103.7,   4.0,   4.0,   0.0);   (581799.0,
4232103.7,   4.0,   4.0,   0.0);
     (581804.0, 4232103.7,   4.0,   4.0,   0.0);   (581809.0,
4232103.7,   4.0,   4.0,   0.0);
     (581814.0, 4232103.7,   4.0,   4.0,   0.0);   (581819.0,
4232103.7,   4.0,   4.0,   0.0);
     (581824.0, 4232103.7,   4.0,   4.0,   0.0);   (581829.0,
4232103.7,   4.0,   4.0,   0.0);
     (581834.0, 4232103.7,   4.0,   4.0,   0.0);   (581839.0,
4232103.7,   4.0,   4.0,   0.0);
     (581844.0, 4232103.7,   4.0,   4.0,   0.0);   (581849.0,
4232103.7,   4.0,   4.0,   0.0);
     (581854.0, 4232103.7,   4.0,   4.0,   0.0);   (581859.0,
4232103.7,   4.0,   4.0,   0.0);
     (581864.0, 4232103.7,   4.0,   4.0,   0.0);   (581869.0,
4232103.7,   4.0,   4.0,   0.0);
     (581874.0, 4232103.7,   4.0,   4.0,   0.0);   (581879.0,
4232103.7,   3.9,   3.9,   0.0);
     (581734.0, 4232108.7,   4.0,   4.0,   0.0);   (581739.0,
4232108.7,   4.0,   4.0,   0.0);
     (581744.0, 4232108.7,   4.0,   4.0,   0.0);   (581749.0,
4232108.7,   4.0,   4.0,   0.0);
     (581754.0, 4232108.7,   4.0,   4.0,   0.0);   (581759.0,
4232108.7,   4.0,   4.0,   0.0);
     (581764.0, 4232108.7,   4.0,   4.0,   0.0);   (581769.0,
4232108.7,   4.0,   4.0,   0.0);

```
     ( 581774.0, 4232108.7,       4.0,       4.0,       0.0);         ( 581779.0,
4232108.7,       4.0,       4.0,       0.0);
     ( 581784.0, 4232108.7,       4.0,       4.0,       0.0);         ( 581789.0,
4232108.7,       4.0,       4.0,       0.0);
     ( 581794.0, 4232108.7,       4.0,       4.0,       0.0);         ( 581799.0,
4232108.7,       4.0,       4.0,       0.0);
     ( 581804.0, 4232108.7,       4.0,       4.0,       0.0);         ( 581809.0,
4232108.7,       4.0,       4.0,       0.0);
     ( 581814.0, 4232108.7,       4.0,       4.0,       0.0);         ( 581819.0,
4232108.7,       4.0,       4.0,       0.0);
     ( 581824.0, 4232108.7,       4.0,       4.0,       0.0);         ( 581829.0,
4232108.7,       4.0,       4.0,       0.0);
     ( 581834.0, 4232108.7,       4.0,       4.0,       0.0);         ( 581839.0,
4232108.7,       4.0,       4.0,       0.0);
     ( 581844.0, 4232108.7,       4.0,       4.0,       0.0);         ( 581849.0,
4232108.7,       4.0,       4.0,       0.0);
     ( 581854.0, 4232108.7,       4.0,       4.0,       0.0);         ( 581859.0,
4232108.7,       4.0,       4.0,       0.0);
     ( 581864.0, 4232108.7,       4.0,       4.0,       0.0);         ( 581869.0,
4232108.7,       4.0,       4.0,       0.0);
     ( 581874.0, 4232108.7,       4.0,       4.0,       0.0);         ( 581879.0,
4232108.7,       4.0,       4.0,       0.0);
     ( 581734.0, 4232113.7,       4.0,       4.0,       0.0);         ( 581739.0,
4232113.7,       4.0,       4.0,       0.0);
     ( 581744.0, 4232113.7,       4.0,       4.0,       0.0);         ( 581749.0,
4232113.7,       4.0,       4.0,       0.0);
     ( 581754.0, 4232113.7,       4.0,       4.0,       0.0);         ( 581759.0,
4232113.7,       4.0,       4.0,       0.0);
     ( 581764.0, 4232113.7,       4.0,       4.0,       0.0);         ( 581769.0,
4232113.7,       4.0,       4.0,       0.0);
     ( 581774.0, 4232113.7,       4.0,       4.0,       0.0);         ( 581779.0,
4232113.7,       4.0,       4.0,       0.0);
     ( 581784.0, 4232113.7,       4.0,       4.0,       0.0);         ( 581789.0,
4232113.7,       4.0,       4.0,       0.0);
     ( 581794.0, 4232113.7,       4.0,       4.0,       0.0);         ( 581799.0,
4232113.7,       4.0,       4.0,       0.0);
     ( 581804.0, 4232113.7,       4.0,       4.0,       0.0);         ( 581809.0,
4232113.7,       4.0,       4.0,       0.0);
     ( 581814.0, 4232113.7,       4.0,       4.0,       0.0);         ( 581819.0,
4232113.7,       4.0,       4.0,       0.0);
     ( 581824.0, 4232113.7,       4.0,       4.0,       0.0);         ( 581829.0,
4232113.7,       4.0,       4.0,       0.0);
     ( 581834.0, 4232113.7,       4.0,       4.0,       0.0);         ( 581839.0,
4232113.7,       4.0,       4.0,       0.0);
     ( 581844.0, 4232113.7,       4.0,       4.0,       0.0);         ( 581849.0,
4232113.7,       4.0,       4.0,       0.0);
     ( 581854.0, 4232113.7,       4.0,       4.0,       0.0);         ( 581859.0,
4232113.7,       4.0,       4.0,       0.0);
     ( 581864.0, 4232113.7,       4.0,       4.0,       0.0);         ( 581869.0,
4232113.7,       4.0,       4.0,       0.0);
```

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

(581734.0, 4232118.7, 4.0, 4.0, 0.0); (581739.0, 4232118.7, 4.0, 4.0, 0.0);
(581744.0, 4232118.7, 4.0, 4.0, 0.0); (581749.0, 4232118.7, 4.0, 4.0, 0.0);
(581754.0, 4232118.7, 4.0, 4.0, 0.0); (581759.0, 4232118.7, 4.0, 4.0, 0.0);
(581764.0, 4232118.7, 4.0, 4.0, 0.0); (581769.0, 4232118.7, 4.0, 4.0, 0.0);
(581774.0, 4232118.7, 4.0, 4.0, 0.0); (581779.0, 4232118.7, 4.0, 4.0, 0.0);
(581784.0, 4232118.7, 4.0, 4.0, 0.0); (581789.0, 4232118.7, 4.0, 4.0, 0.0);
(581794.0, 4232118.7, 4.0, 4.0, 0.0); (581799.0, 4232118.7, 4.0, 4.0, 0.0);
(581804.0, 4232118.7, 4.0, 4.0, 0.0); (581809.0, 4232118.7, 4.0, 4.0, 0.0);
(581814.0, 4232118.7, 4.0, 4.0, 0.0); (581819.0, 4232118.7, 4.0, 4.0, 0.0);
(581824.0, 4232118.7, 4.0, 4.0, 0.0); (581829.0, 4232118.7, 4.0, 4.0, 0.0);
(581834.0, 4232118.7, 4.0, 4.0, 0.0); (581839.0, 4232118.7, 4.0, 4.0, 0.0);
(581844.0, 4232118.7, 4.0, 4.0, 0.0); (581849.0, 4232118.7, 4.0, 4.0, 0.0);
(581854.0, 4232118.7, 4.0, 4.0, 0.0); (581859.0, 4232118.7, 4.0, 4.0, 0.0);
(581864.0, 4232118.7, 4.0, 4.0, 0.0); (581869.0, 4232118.7, 4.0, 4.0, 0.0);
(581874.0, 4232118.7, 4.0, 4.0, 0.0); (581879.0, 4232118.7, 4.0, 4.0, 0.0);
(581734.0, 4232123.7, 4.0, 4.0, 0.0); (581739.0, 4232123.7, 4.0, 4.0, 0.0);
(581744.0, 4232123.7, 4.0, 4.0, 0.0); (581749.0, 4232123.7, 4.0, 4.0, 0.0);
(581754.0, 4232123.7, 4.0, 4.0, 0.0); (581759.0, 4232123.7, 4.0, 4.0, 0.0);

```
     ( 581764.0, 4232123.7,       4.0,       4.0,       0.0);         ( 581769.0,
4232123.7,       4.0,       4.0,       0.0);
     ( 581774.0, 4232123.7,       4.0,       4.0,       0.0);         ( 581779.0,
4232123.7,       4.0,       4.0,       0.0);
     ( 581784.0, 4232123.7,       4.0,       4.0,       0.0);         ( 581789.0,
4232123.7,       4.0,       4.0,       0.0);
     ( 581794.0, 4232123.7,       4.0,       4.0,       0.0);         ( 581799.0,
4232123.7,       4.0,       4.0,       0.0);
     ( 581804.0, 4232123.7,       4.0,       4.0,       0.0);         ( 581809.0,
4232123.7,       4.0,       4.0,       0.0);
     ( 581814.0, 4232123.7,       4.0,       4.0,       0.0);         ( 581819.0,
4232123.7,       4.0,       4.0,       0.0);
     ( 581824.0, 4232123.7,       4.0,       4.0,       0.0);         ( 581829.0,
4232123.7,       4.0,       4.0,       0.0);
     ( 581834.0, 4232123.7,       4.0,       4.0,       0.0);         ( 581839.0,
4232123.7,       4.0,       4.0,       0.0);
     ( 581844.0, 4232123.7,       4.0,       4.0,       0.0);         ( 581849.0,
4232123.7,       4.0,       4.0,       0.0);
     ( 581854.0, 4232123.7,       4.0,       4.0,       0.0);         ( 581859.0,
4232123.7,       4.0,       4.0,       0.0);
     ( 581864.0, 4232123.7,       4.0,       4.0,       0.0);         ( 581869.0,
4232123.7,       4.0,       4.0,       0.0);
     ( 581874.0, 4232123.7,       4.0,       4.0,       0.0);         ( 581879.0,
4232123.7,       4.0,       4.0,       0.0);
     ( 581734.0, 4232128.7,       4.0,       4.0,       0.0);         ( 581739.0,
4232128.7,       4.0,       4.0,       0.0);
     ( 581744.0, 4232128.7,       4.0,       4.0,       0.0);         ( 581749.0,
4232128.7,       4.0,       4.0,       0.0);
     ( 581754.0, 4232128.7,       4.0,       4.0,       0.0);         ( 581759.0,
4232128.7,       4.0,       4.0,       0.0);
     ( 581764.0, 4232128.7,       4.0,       4.0,       0.0);         ( 581769.0,
4232128.7,       4.0,       4.0,       0.0);
     ( 581774.0, 4232128.7,       4.0,       4.0,       0.0);         ( 581779.0,
4232128.7,       4.0,       4.0,       0.0);
     ( 581784.0, 4232128.7,       4.0,       4.0,       0.0);         ( 581789.0,
4232128.7,       4.0,       4.0,       0.0);
     ( 581794.0, 4232128.7,       4.0,       4.0,       0.0);         ( 581799.0,
4232128.7,       4.0,       4.0,       0.0);
     ( 581804.0, 4232128.7,       4.0,       4.0,       0.0);         ( 581809.0,
4232128.7,       4.0,       4.0,       0.0);
     ( 581814.0, 4232128.7,       4.0,       4.0,       0.0);         ( 581819.0,
4232128.7,       4.0,       4.0,       0.0);
     ( 581824.0, 4232128.7,       4.0,       4.0,       0.0);         ( 581829.0,
4232128.7,       4.0,       4.0,       0.0);
     ( 581834.0, 4232128.7,       4.0,       4.0,       0.0);         ( 581839.0,
4232128.7,       4.0,       4.0,       0.0);
     ( 581844.0, 4232128.7,       4.0,       4.0,       0.0);         ( 581849.0,
4232128.7,       4.0,       4.0,       0.0);
     ( 581854.0, 4232128.7,       4.0,       4.0,       0.0);         ( 581859.0,
4232128.7,       4.0,       4.0,       0.0);
```

*** MODELOPTs: RegDFAULT CONC ELEV URBAN

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

(581851.6, 4232016.0, 3.0, 3.0, 0.0); (581856.6, 4232016.0, 3.0, 3.0, 0.0);
(581861.6, 4232016.0, 3.0, 3.0, 0.0); (581866.6, 4232016.0, 3.0, 3.0, 0.0);
(581871.6, 4232016.0, 3.0, 3.0, 0.0); (581876.6, 4232016.0, 3.0, 3.0, 0.0);
(581881.6, 4232016.0, 3.0, 3.0, 0.0); (581851.6, 4232021.0, 3.0, 3.0, 0.0);
(581856.6, 4232021.0, 3.0, 3.0, 0.0); (581861.6, 4232021.0, 3.0, 3.0, 0.0);
(581866.6, 4232021.0, 3.0, 3.0, 0.0); (581871.6, 4232021.0, 3.0, 3.0, 0.0);
(581876.6, 4232021.0, 3.0, 3.0, 0.0); (581881.6, 4232021.0, 3.0, 3.0, 0.0);
(581851.6, 4232026.0, 3.0, 3.0, 0.0); (581856.6, 4232026.0, 3.0, 3.0, 0.0);
(581861.6, 4232026.0, 3.0, 3.0, 0.0); (581866.6, 4232026.0, 3.0, 3.0, 0.0);
(581871.6, 4232026.0, 3.0, 3.0, 0.0); (581876.6, 4232026.0, 3.0, 3.0, 0.0);
(581881.6, 4232026.0, 3.0, 3.0, 0.0); (581851.6, 4232031.0, 3.1, 3.1, 0.0);
(581856.6, 4232031.0, 3.1, 3.1, 0.0); (581861.6, 4232031.0, 3.1, 3.1, 0.0);
(581866.6, 4232031.0, 3.0, 3.0, 0.0); (581871.6, 4232031.0, 3.0, 3.0, 0.0);
(581876.6, 4232031.0, 3.0, 3.0, 0.0); (581881.6, 4232031.0, 3.0, 3.0, 0.0);
(581851.6, 4232036.0, 3.2, 3.2, 0.0); (581856.6, 4232036.0, 3.2, 3.2, 0.0);
(581861.6, 4232036.0, 3.1, 3.1, 0.0); (581866.6, 4232036.0, 3.1, 3.1, 0.0);
(581871.6, 4232036.0, 3.0, 3.0, 0.0); (581876.6, 4232036.0, 3.0, 3.0, 0.0);

```
     ( 581881.6, 4232036.0,       3.0,       3.0,      0.0);         ( 581851.6,
4232041.0,       3.4,       3.4,      0.0);
     ( 581856.6, 4232041.0,       3.3,       3.3,      0.0);         ( 581861.6,
4232041.0,       3.2,       3.2,      0.0);
     ( 581866.6, 4232041.0,       3.1,       3.1,      0.0);         ( 581871.6,
4232041.0,       3.0,       3.0,      0.0);
     ( 581876.6, 4232041.0,       3.0,       3.0,      0.0);         ( 581881.6,
4232041.0,       3.0,       3.0,      0.0);
     ( 581881.7, 4232011.6,       3.0,       3.0,      0.0);         ( 581876.2,
4232011.6,       3.0,       3.0,      0.0);
     ( 581871.3, 4232011.6,       3.0,       3.0,      0.0);         ( 581882.1,
4232008.1,       3.0,       3.0,      0.0);
```


*** MODELOPTs: RegDFAULT CONC ELEV URBAN

*** METEOROLOGICAL DAYS SELECTED FOR PROCESSING ***

(1=YES; 0=NO)

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

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

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

(METERS/SEC)

1.54,   3.09,   5.14,   8.23,

 *** MODELOPTs: RegDFAULT CONC ELEV URBAN

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

   Surface file: C:\Users\kheck\Desktop\MET DATA\Travis Air Force Base\745160.SFC
                  Met Version: 14134
   Profile file: C:\Users\kheck\Desktop\MET DATA\Travis Air Force Base\745160.PFL

   Surface format: FREE

   Profile format: FREE

   Surface station no.:   23202   Upper air station no.:   23230
                  Name: UNKNOWN   Name: OAKLAND/WSO_AP
                  Year: 2009   Year: 2009

 First 24 hours of scalar data
 YR MO DY JDY HR   H0   U*   W* DT/DZ ZICNV ZIMCH M-O LEN   Z0 BOWEN ALBEDO REF WS   WD   HT REF TA   HT
- -
 09 01 01   1 01   -9.7 0.168 -9.000 -9.000 -999. 166.   44.7 0.47   0.92 1.00   1.76 121.   10.0 278.4   2.0
 09 01 01   1 02 -999.0 -9.000 -9.000 -9.000 -999. -999. -99999.0 0.26   0.92 1.00   0.00   0.   10.0 278.4   2.0
 09 01 01   1 03 -999.0 -9.000 -9.000 -9.000 -999. -999. -99999.0 0.26   0.92 1.00   0.00   0.   10.0 278.4   2.0
 09 01 01   1 04 -999.0 -9.000 -9.000 -9.000 -999. -999. -99999.0 0.26   0.92 1.00   0.00   0.   10.0 278.2   2.0
 09 01 01   1 05 -999.0 -9.000 -9.000 -9.000 -999. -999. -99999.0 0.26   0.92 1.00   0.00   0.   10.0 278.4   2.0
 09 01 01   1 06 -999.0 -9.000 -9.000 -9.000 -999. -999. -99999.0 0.26   0.92 1.00   0.00   0.   10.0 278.4   2.0
 09 01 01   1 07 -999.0 -9.000 -9.000 -9.000 -999. -999. -99999.0 0.26   0.92 1.00   0.00   0.   10.0 278.1   2.0
 09 01 01   1 08 -999.0 -9.000 -9.000 -9.000 -999. -999. -99999.0 0.26   0.92 1.00   0.00   0.   10.0 278.1   2.0
 09 01 01   1 09 -999.0 -9.000 -9.000 -9.000 -999. -999. -99999.0 0.26   0.92 0.42   0.00   0.   10.0 278.1   2.0
 09 01 01   1 10   5.6 0.226 0.239 0.015   88. 258.   -187.2 0.38   0.92 0.29   1.76 111.   10.0 278.1   2.0

```
 09 01 01   1 11   14.2  0.371  0.401  0.014  165.  543.   -328.7  0.24   0.92
0.24    3.36   24.   10.0  278.4    2.0
 09 01 01   1 12   18.9  0.297  0.492  0.016  230.  392.   -126.7  0.17   0.92
0.23    2.86  356.   10.0  278.2    2.0
 09 01 01   1 13   19.6  0.274  0.534  0.016  281.  345.    -95.6  0.24   0.92
0.23    2.36    3.   10.0  278.1    2.0
 09 01 01   1 14   16.4  0.239  0.523  0.015  317.  281.    -75.6  0.38   0.92
0.24    1.76   99.   10.0  278.1    2.0
 09 01 01   1 15    9.2 -9.000 -9.000 -9.000  336. -999. -99999.0  0.26   0.92
0.27    0.00    0.   10.0  278.1    2.0
 09 01 01   1 16 -999.0 -9.000 -9.000 -9.000 -999. -999. -99999.0  0.26   0.92
0.35    0.00    0.   10.0  279.1    2.0
 09 01 01   1 17 -999.0 -9.000 -9.000 -9.000 -999. -999. -99999.0  0.26   0.92
0.60    0.00    0.   10.0  279.1    2.0
 09 01 01   1 18 -999.0 -9.000 -9.000 -9.000 -999. -999. -99999.0  0.26   0.92
1.00    0.00    0.   10.0  279.0    2.0
 09 01 01   1 19  -19.7  0.344 -9.000 -9.000 -999.  484.    187.1  0.47   0.92
1.00    2.86  154.   10.0  279.2    2.0
 09 01 01   1 20  -13.2  0.230 -9.000 -9.000 -999.  272.     83.6  0.47   0.92
1.00    2.10  127.   10.0  279.1    2.0
 09 01 01   1 21  -13.2  0.230 -9.000 -9.000 -999.  265.     83.6  0.47   0.92
1.00    2.10  130.   10.0  279.1    2.0
 09 01 01   1 22  -21.7  0.378 -9.000 -9.000 -999.  559.    226.5  0.47   0.92
1.00    3.10  132.   10.0  279.1    2.0
 09 01 01   1 23  -13.2  0.230 -9.000 -9.000 -999.  280.     83.6  0.47   0.92
1.00    2.10  130.   10.0  279.1    2.0
 09 01 01   1 24  -23.7  0.415 -9.000 -9.000 -999.  641.    272.2  0.47   0.92
1.00    3.36  150.   10.0  279.5    2.0


 First hour of profile data
 YR MO DY HR HEIGHT F  WDIR    WSPD AMB_TMP sigmaA  sigmaW  sigmaV
 09 01 01 01   10.0 1  121.    1.76   278.4   99.0  -99.00  -99.00

 F indicates top of profile (=1) or below (=0)
 *** AERMOD - VERSION  18081 ***   *** C:\Lakes\AERMOD View\Fairfield Industrial
Site\Fairfield Industrial  ***        03/25/21
 *** AERMET - VERSION  14134 ***   ***
                       ***        08:30:05

                                  PAGE  14
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN

                   *** THE ANNUAL AVERAGE CONCENTRATION    VALUES AVERAGED OVER   5
YEARS FOR SOURCE GROUP: ALL      ***
                                   INCLUDING SOURCE(S):     PAREA1      ,

                                              *** DISCRETE CARTESIAN RECEPTOR POINTS
***
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** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
581733.98	4232043.70	0.01822	581738.98	4232043.70	0.01930
581743.98	4232043.70	0.02100	581748.98	4232043.70	0.02348
581753.98	4232043.70	0.02618	581758.98	4232043.70	0.02891
581763.98	4232043.70	0.03150	581768.98	4232043.70	0.03391
581773.98	4232043.70	0.03615	581778.98	4232043.70	0.03823
581783.98	4232043.70	0.04014	581788.98	4232043.70	0.04173
581793.98	4232043.70	0.04321	581798.98	4232043.70	0.04459
581803.98	4232043.70	0.04588	581808.98	4232043.70	0.04710
581813.98	4232043.70	0.04825	581818.98	4232043.70	0.04934
581823.98	4232043.70	0.05038	581828.98	4232043.70	0.05137
581833.98	4232043.70	0.05237	581838.98	4232043.70	0.05332
581843.98	4232043.70	0.05423	581848.98	4232043.70	0.05489
581853.98	4232043.70	0.05534	581858.98	4232043.70	0.05559
581863.98	4232043.70	0.05588	581868.98	4232043.70	0.05641
581873.98	4232043.70	0.05727	581878.98	4232043.70	0.05849
581733.98	4232048.70	0.01779	581738.98	4232048.70	0.01885
581743.98	4232048.70	0.02031	581748.98	4232048.70	0.02227
581753.98	4232048.70	0.02446	581758.98	4232048.70	0.02679
581763.98	4232048.70	0.02906	581768.98	4232048.70	0.03124
581773.98	4232048.70	0.03330	581778.98	4232048.70	0.03523
581783.98	4232048.70	0.03704	581788.98	4232048.70	0.03854
581793.98	4232048.70	0.03995	581798.98		

4232048.70   0.04126
         581803.98   4232048.70   0.04251   581808.98
4232048.70   0.04369
         581813.98   4232048.70   0.04482   581818.98
4232048.70   0.04591
         581823.98   4232048.70   0.04696   581828.98
4232048.70   0.04799
         581833.98   4232048.70   0.04900   581838.98
4232048.70   0.04999
         581843.98   4232048.70   0.05095   581848.98
4232048.70   0.05170
         581853.98   4232048.70   0.05236   581858.98
4232048.70   0.05294
         581863.98   4232048.70   0.05354   581868.98
4232048.70   0.05431
         581873.98   4232048.70   0.05533   581878.98
4232048.70   0.05670
         581733.98   4232053.70   0.01743   581738.98
4232053.70   0.01839
         581743.98   4232053.70   0.01960   581748.98
4232053.70   0.02112
         581753.98   4232053.70   0.02286   581758.98
4232053.70   0.02481
         581763.98   4232053.70   0.02678   581768.98
4232053.70   0.02871
         581773.98   4232053.70   0.03056   581778.98
4232053.70   0.03233
         581783.98   4232053.70   0.03399   581788.98
4232053.70   0.03543
         581793.98   4232053.70   0.03678   581798.98
4232053.70   0.03807
         581803.98   4232053.70   0.03929   581808.98
4232053.70   0.04047
         581813.98   4232053.70   0.04160   581818.98
4232053.70   0.04269
         581823.98   4232053.70   0.04376   581828.98
4232053.70   0.04482

 *** MODELOPTs: RegDFAULT CONC ELEV URBAN

                  *** THE ANNUAL AVERAGE CONCENTRATION   VALUES AVERAGED OVER   5 YEARS FOR SOURCE GROUP: ALL   ***
                                  INCLUDING SOURCE(S):   PAREA1   ,

                                           *** DISCRETE CARTESIAN RECEPTOR POINTS

***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
581833.98	4232053.70	0.04587	581838.98	4232053.70	0.04692
581843.98	4232053.70	0.04794	581848.98	4232053.70	0.04881
581853.98	4232053.70	0.04965	581858.98	4232053.70	0.05046
581863.98	4232053.70	0.05131	581868.98	4232053.70	0.05231
581873.98	4232053.70	0.05349	581878.98	4232053.70	0.05501
581733.98	4232058.70	0.01719	581738.98	4232058.70	0.01805
581743.98	4232058.70	0.01908	581748.98	4232058.70	0.02032
581753.98	4232058.70	0.02174	581758.98	4232058.70	0.02336
581763.98	4232058.70	0.02503	581768.98	4232058.70	0.02670
581773.98	4232058.70	0.02834	581778.98	4232058.70	0.02993
581783.98	4232058.70	0.03145	581788.98	4232058.70	0.03280
581793.98	4232058.70	0.03410	581798.98	4232058.70	0.03535
581803.98	4232058.70	0.03654	581808.98	4232058.70	0.03770
581813.98	4232058.70	0.03882	581818.98	4232058.70	0.03992
581823.98	4232058.70	0.04100	581828.98	4232058.70	0.04207
581833.98	4232058.70	0.04314	581838.98	4232058.70	0.04422
581843.98	4232058.70	0.04530	581848.98	4232058.70	0.04627
581853.98	4232058.70	0.04725	581858.98	4232058.70	0.04826
581863.98	4232058.70	0.04932	581868.98	4232058.70	0.05052
581873.98	4232058.70	0.05191	581878.98	4232058.70	0.05354
581733.98	4232063.70	0.01705	581738.98		

4232063.70   0.01785
         581743.98   4232063.70   0.01876   581748.98
4232063.70   0.01981
         581753.98   4232063.70   0.02101   581758.98
4232063.70   0.02236
         581763.98   4232063.70   0.02378   581768.98
4232063.70   0.02522
         581773.98   4232063.70   0.02666   581778.98
4232063.70   0.02808
         581783.98   4232063.70   0.02945   581788.98
4232063.70   0.03073
         581793.98   4232063.70   0.03196   581798.98
4232063.70   0.03315
         581803.98   4232063.70   0.03431   581808.98
4232063.70   0.03544
         581813.98   4232063.70   0.03654   581818.98
4232063.70   0.03762
         581823.98   4232063.70   0.03870   581828.98
4232063.70   0.03977
         581833.98   4232063.70   0.04085   581838.98
4232063.70   0.04194
         581843.98   4232063.70   0.04304   581848.98
4232063.70   0.04410
         581853.98   4232063.70   0.04519   581858.98
4232063.70   0.04634
         581863.98   4232063.70   0.04757   581868.98
4232063.70   0.04896
         581873.98   4232063.70   0.05053   581878.98
4232063.70   0.05226
         581733.98   4232068.70   0.01700   581738.98
4232068.70   0.01774
         581743.98   4232068.70   0.01857   581748.98
4232068.70   0.01950
         581753.98   4232068.70   0.02054   581758.98
4232068.70   0.02170
         581763.98   4232068.70   0.02292   581768.98
4232068.70   0.02418
         581773.98   4232068.70   0.02545   581778.98
4232068.70   0.02672

 *** MODELOPTs: RegDFAULT CONC ELEV URBAN

                   *** THE ANNUAL AVERAGE CONCENTRATION   VALUES AVERAGED OVER   5 YEARS FOR SOURCE GROUP: ALL   ***
                                   INCLUDING SOURCE(S):   PAREA1   ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
581783.98	4232068.70	0.02797	581788.98	4232068.70	0.02915
581793.98	4232068.70	0.03032	581798.98	4232068.70	0.03145
581803.98	4232068.70	0.03256	581808.98	4232068.70	0.03365
581813.98	4232068.70	0.03472	581818.98	4232068.70	0.03578
581823.98	4232068.70	0.03684	581828.98	4232068.70	0.03790
581833.98	4232068.70	0.03897	581838.98	4232068.70	0.04007
581843.98	4232068.70	0.04118	581848.98	4232068.70	0.04228
581853.98	4232068.70	0.04345	581858.98	4232068.70	0.04468
581863.98	4232068.70	0.04604	581868.98	4232068.70	0.04756
581873.98	4232068.70	0.04929	581878.98	4232068.70	0.05111
581733.98	4232073.70	0.01702	581738.98	4232073.70	0.01773
581743.98	4232073.70	0.01851	581748.98	4232073.70	0.01935
581753.98	4232073.70	0.02028	581758.98	4232073.70	0.02129
581763.98	4232073.70	0.02237	581768.98	4232073.70	0.02348
581773.98	4232073.70	0.02461	581778.98	4232073.70	0.02575
581783.98	4232073.70	0.02689	581788.98	4232073.70	0.02799
581793.98	4232073.70	0.02908	581798.98	4232073.70	0.03015
581803.98	4232073.70	0.03121	581808.98	4232073.70	0.03225
581813.98	4232073.70	0.03329	581818.98	4232073.70	0.03432
581823.98	4232073.70	0.03535	581828.98		

4232073.70 0.03640
581833.98 4232073.70 0.03745 581838.98
4232073.70 0.03853
581843.98 4232073.70 0.03965 581848.98
4232073.70 0.04077
581853.98 4232073.70 0.04197 581858.98
4232073.70 0.04327
581863.98 4232073.70 0.04471 581868.98
4232073.70 0.04634
581873.98 4232073.70 0.04819 581878.98
4232073.70 0.05007
581733.98 4232078.70 0.01711 581738.98
4232078.70 0.01781
581743.98 4232078.70 0.01855 581748.98
4232078.70 0.01934
581753.98 4232078.70 0.02019 581758.98
4232078.70 0.02110
581763.98 4232078.70 0.02206 581768.98
4232078.70 0.02305
581773.98 4232078.70 0.02407 581778.98
4232078.70 0.02510
581783.98 4232078.70 0.02613 581788.98
4232078.70 0.02716
581793.98 4232078.70 0.02818 581798.98
4232078.70 0.02919
581803.98 4232078.70 0.03019 581808.98
4232078.70 0.03119
581813.98 4232078.70 0.03219 581818.98
4232078.70 0.03318
581823.98 4232078.70 0.03419 581828.98
4232078.70 0.03520
581833.98 4232078.70 0.03623 581838.98
4232078.70 0.03729
581843.98 4232078.70 0.03840 581848.98
4232078.70 0.03954
581853.98 4232078.70 0.04076 581858.98
4232078.70 0.04209
581863.98 4232078.70 0.04358 581868.98
4232078.70 0.04528
581873.98 4232078.70 0.04724 581878.98
4232078.70 0.04917

*** MODELOPTs: RegDFAULT CONC ELEV URBAN

*** THE ANNUAL AVERAGE CONCENTRATION VALUES AVERAGED OVER 5

YEARS FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): PAREA1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
581733.98	4232083.70	0.01727	581738.98	4232083.70	0.01796
581743.98	4232083.70	0.01869	581748.98	4232083.70	0.01944
581753.98	4232083.70	0.02024	581758.98	4232083.70	0.02108
581763.98	4232083.70	0.02195	581768.98	4232083.70	0.02285
581773.98	4232083.70	0.02377	581778.98	4232083.70	0.02471
581783.98	4232083.70	0.02566	581788.98	4232083.70	0.02661
581793.98	4232083.70	0.02756	581798.98	4232083.70	0.02852
581803.98	4232083.70	0.02947	581808.98	4232083.70	0.03042
581813.98	4232083.70	0.03137	581818.98	4232083.70	0.03233
581823.98	4232083.70	0.03330	581828.98	4232083.70	0.03428
581833.98	4232083.70	0.03529	581838.98	4232083.70	0.03632
581843.98	4232083.70	0.03741	581848.98	4232083.70	0.03854
581853.98	4232083.70	0.03977	581858.98	4232083.70	0.04112
581863.98	4232083.70	0.04265	581868.98	4232083.70	0.04440
581873.98	4232083.70	0.04643	581878.98	4232083.70	0.04840
581733.98	4232088.70	0.01750	581738.98	4232088.70	0.01820
581743.98	4232088.70	0.01891	581748.98	4232088.70	0.01965
581753.98	4232088.70	0.02041	581758.98	4232088.70	0.02119
581763.98	4232088.70	0.02200	581768.98		

```
4232088.70        0.02283
         581773.98    4232088.70        0.02368                        581778.98
4232088.70        0.02455
         581783.98    4232088.70        0.02543                        581788.98
4232088.70        0.02631
         581793.98    4232088.70        0.02721                        581798.98
4232088.70        0.02810
         581803.98    4232088.70        0.02900                        581808.98
4232088.70        0.02991
         581813.98    4232088.70        0.03082                        581818.98
4232088.70        0.03174
         581823.98    4232088.70        0.03267                        581828.98
4232088.70        0.03362
         581833.98    4232088.70        0.03459                        581838.98
4232088.70        0.03560
         581843.98    4232088.70        0.03666                        581848.98
4232088.70        0.03778
         581853.98    4232088.70        0.03899                        581858.98
4232088.70        0.04033
         581863.98    4232088.70        0.04185                        581868.98
4232088.70        0.04362
         581873.98    4232088.70        0.04567                        581878.98
4232088.70        0.04768
         581733.98    4232093.70        0.01779                        581738.98
4232093.70        0.01851
         581743.98    4232093.70        0.01923                        581748.98
4232093.70        0.01996
         581753.98    4232093.70        0.02070                        581758.98
4232093.70        0.02145
         581763.98    4232093.70        0.02221                        581768.98
4232093.70        0.02299
         581773.98    4232093.70        0.02379                        581778.98
4232093.70        0.02459
         581783.98    4232093.70        0.02541                        581788.98
4232093.70        0.02625
         581793.98    4232093.70        0.02709                        581798.98
4232093.70        0.02793
         581803.98    4232093.70        0.02879                        581808.98
4232093.70        0.02965
         581813.98    4232093.70        0.03052                        581818.98
4232093.70        0.03140
         581823.98    4232093.70        0.03229                        581828.98
4232093.70        0.03320
 *** AERMOD - VERSION  18081 ***   *** C:\Lakes\AERMOD View\Fairfield Industrial
Site\Fairfield Industrial  ***        03/25/21
 *** AERMET - VERSION  14134 ***   ***
                       ***        08:30:05

                                  PAGE  18
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN
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*** THE ANNUAL AVERAGE CONCENTRATION VALUES AVERAGED OVER 5 YEARS FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): PAREA1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
581833.98	4232093.70	0.03414	581838.98	4232093.70	0.03512
581843.98	4232093.70	0.03614	581848.98	4232093.70	0.03723
581853.98	4232093.70	0.03841	581858.98	4232093.70	0.03973
581863.98	4232093.70	0.04123	581868.98	4232093.70	0.04298
581873.98	4232093.70	0.04501	581878.98	4232093.70	0.04705
581733.98	4232098.70	0.01817	581738.98	4232098.70	0.01892
581743.98	4232098.70	0.01966	581748.98	4232098.70	0.02040
581753.98	4232098.70	0.02113	581758.98	4232098.70	0.02185
581763.98	4232098.70	0.02259	581768.98	4232098.70	0.02333
581773.98	4232098.70	0.02408	581778.98	4232098.70	0.02484
581783.98	4232098.70	0.02561	581788.98	4232098.70	0.02640
581793.98	4232098.70	0.02719	581798.98	4232098.70	0.02799
581803.98	4232098.70	0.02880	581808.98	4232098.70	0.02962
581813.98	4232098.70	0.03045	581818.98	4232098.70	0.03130
581823.98	4232098.70	0.03215	581828.98	4232098.70	0.03303
581833.98	4232098.70	0.03394	581838.98	4232098.70	0.03488
581843.98	4232098.70	0.03586	581848.98	4232098.70	0.03692
581853.98	4232098.70	0.03806	581858.98		

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4232098.70        0.03934
         581863.98    4232098.70        0.04080                      581868.98
4232098.70        0.04252
         581873.98    4232098.70        0.04452                      581878.98
4232098.70        0.04657
         581733.98    4232103.70        0.01865                      581738.98
4232103.70        0.01945
         581743.98    4232103.70        0.02022                      581748.98
4232103.70        0.02097
         581753.98    4232103.70        0.02170                      581758.98
4232103.70        0.02242
         581763.98    4232103.70        0.02313                      581768.98
4232103.70        0.02384
         581773.98    4232103.70        0.02456                      581778.98
4232103.70        0.02529
         581783.98    4232103.70        0.02602                      581788.98
4232103.70        0.02677
         581793.98    4232103.70        0.02752                      581798.98
4232103.70        0.02829
         581803.98    4232103.70        0.02906                      581808.98
4232103.70        0.02984
         581813.98    4232103.70        0.03064                      581818.98
4232103.70        0.03145
         581823.98    4232103.70        0.03227                      581828.98
4232103.70        0.03311
         581833.98    4232103.70        0.03398                      581838.98
4232103.70        0.03489
         581843.98    4232103.70        0.03584                      581848.98
4232103.70        0.03685
         581853.98    4232103.70        0.03795                      581858.98
4232103.70        0.03918
         581863.98    4232103.70        0.04060                      581868.98
4232103.70        0.04226
         581873.98    4232103.70        0.04422                      581878.98
4232103.70        0.04624
         581733.98    4232108.70        0.01924                      581738.98
4232108.70        0.02010
         581743.98    4232108.70        0.02093                      581748.98
4232108.70        0.02171
         581753.98    4232108.70        0.02245                      581758.98
4232108.70        0.02316
         581763.98    4232108.70        0.02386                      581768.98
4232108.70        0.02456
         581773.98    4232108.70        0.02526                      581778.98
4232108.70        0.02596
 *** AERMOD - VERSION  18081 ***   *** C:\Lakes\AERMOD View\Fairfield Industrial
Site\Fairfield Industrial  ***        03/25/21
 *** AERMET - VERSION  14134 ***   ***
                       ***         08:30:05
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*** MODELOPTs: RegDFAULT CONC ELEV URBAN

*** THE ANNUAL AVERAGE CONCENTRATION VALUES AVERAGED OVER 5 YEARS FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): PAREA1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
581783.98	4232108.70	0.02666	581788.98	4232108.70	0.02738
581793.98	4232108.70	0.02810	581798.98	4232108.70	0.02884
581803.98	4232108.70	0.02958	581808.98	4232108.70	0.03033
581813.98	4232108.70	0.03109	581818.98	4232108.70	0.03187
581823.98	4232108.70	0.03266	581828.98	4232108.70	0.03347
581833.98	4232108.70	0.03430	581838.98	4232108.70	0.03517
581843.98	4232108.70	0.03608	581848.98	4232108.70	0.03705
581853.98	4232108.70	0.03811	581858.98	4232108.70	0.03928
581863.98	4232108.70	0.04063	581868.98	4232108.70	0.04223
581873.98	4232108.70	0.04411	581878.98	4232108.70	0.04609
581733.98	4232113.70	0.01996	581738.98	4232113.70	0.02092
581743.98	4232113.70	0.02181	581748.98	4232113.70	0.02263
581753.98	4232113.70	0.02339	581758.98	4232113.70	0.02411
581763.98	4232113.70	0.02481	581768.98	4232113.70	0.02550
581773.98	4232113.70	0.02619	581778.98	4232113.70	0.02688
581783.98	4232113.70	0.02757	581788.98	4232113.70	0.02826
581793.98	4232113.70	0.02897	581798.98		

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4232113.70        0.02968
         581803.98    4232113.70        0.03040                      581808.98
4232113.70        0.03112
         581813.98    4232113.70        0.03186                      581818.98
4232113.70        0.03261
         581823.98    4232113.70        0.03337                      581828.98
4232113.70        0.03415
         581833.98    4232113.70        0.03495                      581838.98
4232113.70        0.03578
         581843.98    4232113.70        0.03665                      581848.98
4232113.70        0.03757
         581853.98    4232113.70        0.03857                      581858.98
4232113.70        0.03969
         581863.98    4232113.70        0.04096                      581868.98
4232113.70        0.04247
         581873.98    4232113.70        0.04424                      581878.98
4232113.70        0.04614
         581733.98    4232118.70        0.02082                      581738.98
4232118.70        0.02191
         581743.98    4232118.70        0.02288                      581748.98
4232118.70        0.02374
         581753.98    4232118.70        0.02454                      581758.98
4232118.70        0.02528
         581763.98    4232118.70        0.02600                      581768.98
4232118.70        0.02670
         581773.98    4232118.70        0.02739                      581778.98
4232118.70        0.02808
         581783.98    4232118.70        0.02877                      581788.98
4232118.70        0.02946
         581793.98    4232118.70        0.03015                      581798.98
4232118.70        0.03085
         581803.98    4232118.70        0.03155                      581808.98
4232118.70        0.03226
         581813.98    4232118.70        0.03298                      581818.98
4232118.70        0.03370
         581823.98    4232118.70        0.03444                      581828.98
4232118.70        0.03519
         581833.98    4232118.70        0.03596                      581838.98
4232118.70        0.03676
         581843.98    4232118.70        0.03759                      581848.98
4232118.70        0.03846
         581853.98    4232118.70        0.03941                      581858.98
4232118.70        0.04045
         581863.98    4232118.70        0.04164                      581868.98
4232118.70        0.04303
         581873.98    4232118.70        0.04468                      581878.98
4232118.70        0.04643
 *** AERMOD - VERSION  18081 ***   *** C:\Lakes\AERMOD View\Fairfield Industrial
Site\Fairfield Industrial  ***        03/25/21
 *** AERMET - VERSION  14134 ***   ***
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*** MODELOPTs: RegDFAULT CONC ELEV URBAN

*** THE ANNUAL AVERAGE CONCENTRATION VALUES AVERAGED OVER 5 YEARS FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): PAREA1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
581733.98	4232123.70	0.02180	581738.98	4232123.70	0.02302
581743.98	4232123.70	0.02406	581748.98	4232123.70	0.02499
581753.98	4232123.70	0.02583	581758.98	4232123.70	0.02664
581763.98	4232123.70	0.02740	581768.98	4232123.70	0.02814
581773.98	4232123.70	0.02886	581778.98	4232123.70	0.02958
581783.98	4232123.70	0.03028	581788.98	4232123.70	0.03098
581793.98	4232123.70	0.03168	581798.98	4232123.70	0.03237
581803.98	4232123.70	0.03307	581808.98	4232123.70	0.03377
581813.98	4232123.70	0.03447	581818.98	4232123.70	0.03518
581823.98	4232123.70	0.03590	581828.98	4232123.70	0.03663
581833.98	4232123.70	0.03737	581838.98	4232123.70	0.03814
581843.98	4232123.70	0.03893	581848.98	4232123.70	0.03977
581853.98	4232123.70	0.04066	581858.98	4232123.70	0.04163
581863.98	4232123.70	0.04272	581868.98	4232123.70	0.04399
581873.98	4232123.70	0.04546	581878.98	4232123.70	0.04700
581733.98	4232128.70	0.02268	581738.98		

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4232128.70        0.02397
         581743.98    4232128.70        0.02509                    581748.98
4232128.70        0.02612
         581753.98    4232128.70        0.02709                    581758.98
4232128.70        0.02799
         581763.98    4232128.70        0.02886                    581768.98
4232128.70        0.02968
         581773.98    4232128.70        0.03046                    581778.98
4232128.70        0.03121
         581783.98    4232128.70        0.03194                    581788.98
4232128.70        0.03266
         581793.98    4232128.70        0.03338                    581798.98
4232128.70        0.03409
         581803.98    4232128.70        0.03479                    581808.98
4232128.70        0.03549
         581813.98    4232128.70        0.03619                    581818.98
4232128.70        0.03689
         581823.98    4232128.70        0.03760                    581828.98
4232128.70        0.03832
         581833.98    4232128.70        0.03905                    581838.98
4232128.70        0.03979
         581843.98    4232128.70        0.04055                    581848.98
4232128.70        0.04135
         581853.98    4232128.70        0.04219                    581858.98
4232128.70        0.04310
         581863.98    4232128.70        0.04410                    581868.98
4232128.70        0.04523
         581873.98    4232128.70        0.04652                    581878.98
4232128.70        0.04784
         581851.61    4232016.02        0.06484                    581856.61
4232016.02        0.06598
         581861.61    4232016.02        0.06707                    581866.61
4232016.02        0.06811
         581871.61    4232016.02        0.06913                    581876.61
4232016.02        0.07012
         581881.61    4232016.02        0.07094                    581851.61
4232021.02        0.06403
         581856.61    4232021.02        0.06493                    581861.61
4232021.02        0.06558
         581866.61    4232021.02        0.06614                    581871.61
4232021.02        0.06682
         581876.61    4232021.02        0.06766                    581881.61
4232021.02        0.06846
         581851.61    4232026.02        0.06292                    581856.61
4232026.02        0.06336
         581861.61    4232026.02        0.06352                    581866.61
4232026.02        0.06383
         581871.61    4232026.02        0.06440                    581876.61
4232026.02        0.06524
 *** AERMOD - VERSION  18081 ***   *** C:\Lakes\AERMOD View\Fairfield Industrial
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 *** MODELOPTs: RegDFAULT CONC ELEV URBAN

                  *** THE ANNUAL AVERAGE CONCENTRATION   VALUES AVERAGED OVER   5
YEARS FOR SOURCE GROUP: ALL   ***
                                  INCLUDING SOURCE(S):   PAREA1   ,

                                          *** DISCRETE CARTESIAN RECEPTOR POINTS
***

                                       ** CONC OF PM_2.5   IN MICROGRAMS/M**3
                   **

       X-COORD (M)   Y-COORD (M)   CONC   X-COORD (M)
Y-COORD (M)   CONC
 -
- -
         581881.61   4232026.02   0.06610   581851.61
4232031.02   0.06163
         581856.61   4232031.02   0.06170   581861.61
4232031.02   0.06156
         581866.61   4232031.02   0.06166   581871.61
4232031.02   0.06214
         581876.61   4232031.02   0.06299   581881.61
4232031.02   0.06392
         581851.61   4232036.02   0.05968   581856.61
4232036.02   0.05965
         581861.61   4232036.02   0.05944   581866.61
4232036.02   0.05952
         581871.61   4232036.02   0.06000   581876.61
4232036.02   0.06091
         581881.61   4232036.02   0.06192   581851.61
4232041.02   0.05687
         581856.61   4232041.02   0.05702   581861.61
4232041.02   0.05707
         581866.61   4232041.02   0.05732   581871.61
4232041.02   0.05791
         581876.61   4232041.02   0.05893   581881.61
4232041.02   0.06005
         581881.74   4232011.60   0.07297   581876.17
4232011.60   0.07176
         581871.29   4232011.60   0.07044   581882.09
4232008.12   0.07418

*** MODELOPTs: RegDFAULT CONC ELEV URBAN

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): PAREA1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
581733.98	4232043.70	0.44149	(12123124)	581738.98	4232043.70	0.44435	(13012907)
581743.98	4232043.70	0.44547	(13122221)	581748.98	4232043.70	0.44777	(12123124)
581753.98	4232043.70	0.45042	(12123124)	581758.98	4232043.70	0.45350	(12123124)
581763.98	4232043.70	0.45687	(12123124)	581768.98	4232043.70	0.46052	(12123124)
581773.98	4232043.70	0.46446	(12123124)	581778.98	4232043.70	0.46876	(12123124)
581783.98	4232043.70	0.47343	(12123124)	581788.98	4232043.70	0.47840	(12123124)
581793.98	4232043.70	0.48379	(12123124)	581798.98	4232043.70	0.48967	(12123124)
581803.98	4232043.70	0.49609	(12123124)	581808.98	4232043.70	0.50310	(12123124)
581813.98	4232043.70	0.51082	(12123124)	581818.98	4232043.70	0.51933	(12123124)
581823.98	4232043.70	0.52878	(12123124)	581828.98	4232043.70	0.53931	(12123124)
581833.98	4232043.70	0.55105	(12123124)	581838.98	4232043.70	0.56401	(12123124)
581843.98	4232043.70	0.57830	(12123124)	581848.98	4232043.70	0.59395	(12123124)
581853.98	4232043.70	0.61150	(12123124)	581858.98	4232043.70	0.63139	(12123124)
581863.98	4232043.70	0.65424	(12123124)	581868.98	4232043.70	0.68064	(12123124)
581873.98	4232043.70	0.71021	(12123124)	581878.98	4232043.70	0.73427	(12123124)
581733.98	4232048.70	0.42683	(12123124)	581738.98			

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4232048.70         0.42987  (12123124)
       581743.98   4232048.70         0.43316  (12123124)                581748.98
4232048.70         0.43667  (12123124)
       581753.98   4232048.70         0.44045  (12123124)                581758.98
4232048.70         0.44457  (12123124)
       581763.98   4232048.70         0.44897  (12123124)                581768.98
4232048.70         0.45367  (12123124)
       581773.98   4232048.70         0.45868  (12123124)                581778.98
4232048.70         0.46403  (12123124)
       581783.98   4232048.70         0.46974  (12123124)                581788.98
4232048.70         0.47575  (12123124)
       581793.98   4232048.70         0.48217  (12123124)                581798.98
4232048.70         0.48906  (12123124)
       581803.98   4232048.70         0.49648  (12123124)                581808.98
4232048.70         0.50446  (12123124)
       581813.98   4232048.70         0.51309  (12123124)                581818.98
4232048.70         0.52243  (12123124)
       581823.98   4232048.70         0.53257  (12123124)                581828.98
4232048.70         0.54358  (12123124)
       581833.98   4232048.70         0.55556  (12123124)                581838.98
4232048.70         0.56866  (12123124)
       581843.98   4232048.70         0.58307  (12123124)                581848.98
4232048.70         0.59884  (12123124)
       581853.98   4232048.70         0.61650  (12123124)                581858.98
4232048.70         0.63655  (12123124)
       581863.98   4232048.70         0.65950  (12123124)                581868.98
4232048.70         0.68594  (12123124)
       581873.98   4232048.70         0.71537  (12123124)                581878.98
4232048.70         0.73936  (12123124)
       581733.98   4232053.70         0.42346  (12123124)                581738.98
4232053.70         0.42697  (12123124)
       581743.98   4232053.70         0.43071  (12123124)                581748.98
4232053.70         0.43469  (12123124)
       581753.98   4232053.70         0.43891  (12123124)                581758.98
4232053.70         0.44351  (12123124)
       581763.98   4232053.70         0.44839  (12123124)                581768.98
4232053.70         0.45355  (12123124)
       581773.98   4232053.70         0.45902  (12123124)                581778.98
4232053.70         0.46482  (12123124)
       581783.98   4232053.70         0.47097  (12123124)                581788.98
4232053.70         0.47742  (12123124)
       581793.98   4232053.70         0.48429  (12123124)                581798.98
4232053.70         0.49160  (12123124)
       581803.98   4232053.70         0.49942  (12123124)                581808.98
4232053.70         0.50776  (12123124)
       581813.98   4232053.70         0.51669  (12123124)                581818.98
4232053.70         0.52628  (12123124)
       581823.98   4232053.70         0.53658  (12123124)                581828.98
4232053.70         0.54771  (12123124)
 *** AERMOD - VERSION  18081 ***   *** C:\Lakes\AERMOD View\Fairfield Industrial
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 *** MODELOPTs: RegDFAULT CONC ELEV URBAN

                               *** THE   1ST HIGHEST 1-HR AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP: ALL   ***
                                  INCLUDING SOURCE(S):   PAREA1   ,

                                          *** DISCRETE CARTESIAN RECEPTOR POINTS
***

                                       ** CONC OF PM_2.5   IN MICROGRAMS/M**3
                    **

      X-COORD (M) Y-COORD (M)   CONC   (YYMMDDHH)   X-COORD (M)
Y-COORD (M)   CONC   (YYMMDDHH)
 -
- -
        581833.98   4232053.70   0.55979 (12123124)   581838.98
 4232053.70   0.57301 (12123124)
        581843.98   4232053.70   0.58756 (12123124)   581848.98
 4232053.70   0.60347 (12123124)
        581853.98   4232053.70   0.62126 (12123124)   581858.98
 4232053.70   0.64141 (12123124)
        581863.98   4232053.70   0.66443 (12123124)   581868.98
 4232053.70   0.69096 (12123124)
        581873.98   4232053.70   0.72027 (12123124)   581878.98
 4232053.70   0.74420 (12123124)
        581733.98   4232058.70   0.42439 (12123124)   581738.98
 4232058.70   0.42805 (12123124)
        581743.98   4232058.70   0.43196 (12123124)   581748.98
 4232058.70   0.43610 (12123124)
        581753.98   4232058.70   0.44051 (12123124)   581758.98
 4232058.70   0.44527 (12123124)
        581763.98   4232058.70   0.45030 (12123124)   581768.98
 4232058.70   0.45564 (12123124)
        581773.98   4232058.70   0.46129 (12123124)   581778.98
 4232058.70   0.46727 (12123124)
        581783.98   4232058.70   0.47361 (12123124)   581788.98
 4232058.70   0.48025 (12123124)
        581793.98   4232058.70   0.48729 (12123124)   581798.98
 4232058.70   0.49477 (12123124)
        581803.98   4232058.70   0.50272 (12123124)   581808.98
 4232058.70   0.51119 (12123124)
        581813.98   4232058.70   0.52022 (12123124)   581818.98
 4232058.70   0.52989 (12123124)
        581823.98   4232058.70   0.54028 (12123124)   581828.98

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4232058.70        0.55150  (12123124)
       581833.98   4232058.70        0.56368  (12123124)               581838.98
4232058.70        0.57700  (12123124)
       581843.98   4232058.70        0.59167  (12123124)               581848.98
4232058.70        0.60770  (12123124)
       581853.98   4232058.70        0.62565  (12123124)               581858.98
4232058.70        0.64600  (12123124)
       581863.98   4232058.70        0.66932  (12123124)               581868.98
4232058.70        0.69621  (12123124)
       581873.98   4232058.70        0.72613  (12123124)               581878.98
4232058.70        0.75009  (12123124)
       581733.98   4232063.70        0.42728  (12123124)               581738.98
4232063.70        0.43095  (12123124)
       581743.98   4232063.70        0.43486  (12123124)               581748.98
4232063.70        0.43901  (12123124)
       581753.98   4232063.70        0.44343  (12123124)               581758.98
4232063.70        0.44818  (12123124)
       581763.98   4232063.70        0.45323  (12123124)               581768.98
4232063.70        0.45858  (12123124)
       581773.98   4232063.70        0.46425  (12123124)               581778.98
4232063.70        0.47026  (12123124)
       581783.98   4232063.70        0.47662  (12123124)               581788.98
4232063.70        0.48330  (12123124)
       581793.98   4232063.70        0.49039  (12123124)               581798.98
4232063.70        0.49791  (12123124)
       581803.98   4232063.70        0.50591  (12123124)               581808.98
4232063.70        0.51443  (12123124)
       581813.98   4232063.70        0.52352  (12123124)               581818.98
4232063.70        0.53326  (12123124)
       581823.98   4232063.70        0.54372  (12123124)               581828.98
4232063.70        0.55501  (12123124)
       581833.98   4232063.70        0.56726  (12123124)               581838.98
4232063.70        0.58066  (12123124)
       581843.98   4232063.70        0.59540  (12123124)               581848.98
4232063.70        0.61160  (12123124)
       581853.98   4232063.70        0.62976  (12123124)               581858.98
4232063.70        0.65039  (12123124)
       581863.98   4232063.70        0.67409  (12123124)               581868.98
4232063.70        0.70161  (12123124)
       581873.98   4232063.70        0.73248  (12123124)               581878.98
4232063.70        0.75673  (12123124)
       581733.98   4232068.70        0.43134  (12123124)               581738.98
4232068.70        0.43489  (12123124)
       581743.98   4232068.70        0.43871  (12123124)               581748.98
4232068.70        0.44277  (12123124)
       581753.98   4232068.70        0.44709  (12123124)               581758.98
4232068.70        0.45175  (12123124)
       581763.98   4232068.70        0.45669  (12123124)               581768.98
4232068.70        0.46194  (12123124)
       581773.98   4232068.70        0.46753  (12123124)               581778.98
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*** MODELOPTs: RegDFAULT CONC ELEV URBAN

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): PAREA1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
581783.98	4232068.70	0.47977	(12123124)	581788.98	4232068.70	0.48642	(12123124)
581793.98	4232068.70	0.49349	(12123124)	581798.98	4232068.70	0.50100	(12123124)
581803.98	4232068.70	0.50901	(12123124)	581808.98	4232068.70	0.51755	(12123124)
581813.98	4232068.70	0.52667	(12123124)	581818.98	4232068.70	0.53644	(12123124)
581823.98	4232068.70	0.54695	(12123124)	581828.98	4232068.70	0.55830	(12123124)
581833.98	4232068.70	0.57063	(12123124)	581838.98	4232068.70	0.58410	(12123124)
581843.98	4232068.70	0.59894	(12123124)	581848.98	4232068.70	0.61530	(12123124)
581853.98	4232068.70	0.63366	(12123124)	581858.98	4232068.70	0.65452	(12123124)
581863.98	4232068.70	0.67864	(12123124)	581868.98	4232068.70	0.70673	(12123124)
581873.98	4232068.70	0.73868	(12123124)	581878.98	4232068.70	0.76326	(12123124)
581733.98	4232073.70	0.43637	(12123124)	581738.98	4232073.70	0.43976	(12123124)
581743.98	4232073.70	0.44336	(12123124)	581748.98	4232073.70	0.44724	(12123124)
581753.98	4232073.70	0.45138	(12123124)	581758.98	4232073.70	0.45584	(12123124)
581763.98	4232073.70	0.46061	(12123124)	581768.98			

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4232073.70        0.46570  (12123124)
       581773.98   4232073.70        0.47113  (12123124)                581778.98
4232073.70        0.47692  (12123124)
       581783.98   4232073.70        0.48309  (12123124)                581788.98
4232073.70        0.48964  (12123124)
       581793.98   4232073.70        0.49662  (12123124)                581798.98
4232073.70        0.50407  (12123124)
       581803.98   4232073.70        0.51203  (12123124)                581808.98
4232073.70        0.52055  (12123124)
       581813.98   4232073.70        0.52967  (12123124)                581818.98
4232073.70        0.53946  (12123124)
       581823.98   4232073.70        0.55001  (12123124)                581828.98
4232073.70        0.56141  (12123124)
       581833.98   4232073.70        0.57381  (12123124)                581838.98
4232073.70        0.58736  (12123124)
       581843.98   4232073.70        0.60229  (12123124)                581848.98
4232073.70        0.61876  (12123124)
       581853.98   4232073.70        0.63729  (12123124)                581858.98
4232073.70        0.65844  (12123124)
       581863.98   4232073.70        0.68290  (12123124)                581868.98
4232073.70        0.71160  (12123124)
       581873.98   4232073.70        0.74452  (12123124)                581878.98
4232073.70        0.76954  (12123124)
       581733.98   4232078.70        0.44245  (12123124)                581738.98
4232078.70        0.44556  (12123124)
       581743.98   4232078.70        0.44893  (12123124)                581748.98
4232078.70        0.45254  (12123124)
       581753.98   4232078.70        0.45644  (12123124)                581758.98
4232078.70        0.46064  (12123124)
       581763.98   4232078.70        0.46515  (12123124)                581768.98
4232078.70        0.47000  (12123124)
       581773.98   4232078.70        0.47518  (12123124)                581778.98
4232078.70        0.48074  (12123124)
       581783.98   4232078.70        0.48671  (12123124)                581788.98
4232078.70        0.49308  (12123124)
       581793.98   4232078.70        0.49992  (12123124)                581798.98
4232078.70        0.50724  (12123124)
       581803.98   4232078.70        0.51510  (12123124)                581808.98
4232078.70        0.52354  (12123124)
       581813.98   4232078.70        0.53261  (12123124)                581818.98
4232078.70        0.54238  (12123124)
       581823.98   4232078.70        0.55293  (12123124)                581828.98
4232078.70        0.56436  (12123124)
       581833.98   4232078.70        0.57679  (12123124)                581838.98
4232078.70        0.59040  (12123124)
       581843.98   4232078.70        0.60541  (12123124)                581848.98
4232078.70        0.62203  (12123124)
       581853.98   4232078.70        0.64075  (12123124)                581858.98
4232078.70        0.66212  (12123124)
       581863.98   4232078.70        0.68694  (12123124)                581868.98
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*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): PAREA1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
581733.98	4232083.70	0.44981	(12123124)	581738.98	4232083.70	0.45260	(12123124)
581743.98	4232083.70	0.45566	(12123124)	581748.98	4232083.70	0.45894	(12123124)
581753.98	4232083.70	0.46251	(12123124)	581758.98	4232083.70	0.46638	(12123124)
581763.98	4232083.70	0.47055	(12123124)	581768.98	4232083.70	0.47507	(12123124)
581773.98	4232083.70	0.47994	(12123124)	581778.98	4232083.70	0.48520	(12123124)
581783.98	4232083.70	0.49087	(12123124)	581788.98	4232083.70	0.49698	(12123124)
581793.98	4232083.70	0.50358	(12123124)	581798.98	4232083.70	0.51069	(12123124)
581803.98	4232083.70	0.51837	(12123124)	581808.98	4232083.70	0.52665	(12123124)
581813.98	4232083.70	0.53559	(12123124)	581818.98	4232083.70	0.54528	(12123124)
581823.98	4232083.70	0.55577	(12123124)	581828.98	4232083.70	0.56718	(12123124)
581833.98	4232083.70	0.57963	(12123124)	581838.98	4232083.70	0.59328	(12123124)
581843.98	4232083.70	0.60834	(12123124)	581848.98	4232083.70	0.62511	(12123124)
581853.98	4232083.70	0.64400	(12123124)	581858.98			

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4232083.70        0.66561  (12123124)
       581863.98   4232083.70        0.69078  (12123124)                581868.98
4232083.70        0.72055  (12123124)
       581873.98   4232083.70        0.75551  (12123124)                581878.98
4232083.70        0.78212  (12123124)
       581733.98   4232088.70        0.45873  (12123124)                581738.98
4232088.70        0.46117  (12123124)
       581743.98   4232088.70        0.46382  (12123124)                581748.98
4232088.70        0.46674  (12123124)
       581753.98   4232088.70        0.46991  (12123124)                581758.98
4232088.70        0.47339  (12123124)
       581763.98   4232088.70        0.47716  (12123124)                581768.98
4232088.70        0.48128  (12123124)
       581773.98   4232088.70        0.48576  (12123124)                581778.98
4232088.70        0.49062  (12123124)
       581783.98   4232088.70        0.49592  (12123124)                581788.98
4232088.70        0.50167  (12123124)
       581793.98   4232088.70        0.50792  (12123124)                581798.98
4232088.70        0.51471  (12123124)
       581803.98   4232088.70        0.52208  (12123124)                581808.98
4232088.70        0.53010  (12123124)
       581813.98   4232088.70        0.53882  (12123124)                581818.98
4232088.70        0.54831  (12123124)
       581823.98   4232088.70        0.55867  (12123124)                581828.98
4232088.70        0.56998  (12123124)
       581833.98   4232088.70        0.58238  (12123124)                581838.98
4232088.70        0.59602  (12123124)
       581843.98   4232088.70        0.61112  (12123124)                581848.98
4232088.70        0.62796  (12123124)
       581853.98   4232088.70        0.64696  (12123124)                581858.98
4232088.70        0.66871  (12123124)
       581863.98   4232088.70        0.69407  (12123124)                581868.98
4232088.70        0.72418  (12123124)
       581873.98   4232088.70        0.75962  (12123124)                581878.98
4232088.70        0.78680  (12123124)
       581733.98   4232093.70        0.46970  (12123124)                581738.98
4232093.70        0.47173  (12123124)
       581743.98   4232093.70        0.47395  (12123124)                581748.98
4232093.70        0.47644  (12123124)
       581753.98   4232093.70        0.47915  (12123124)                581758.98
4232093.70        0.48217  (12123124)
       581763.98   4232093.70        0.48546  (12123124)                581768.98
4232093.70        0.48911  (12123124)
       581773.98   4232093.70        0.49311  (12123124)                581778.98
4232093.70        0.49748  (12123124)
       581783.98   4232093.70        0.50230  (12123124)                581788.98
4232093.70        0.50757  (12123124)
       581793.98   4232093.70        0.51335  (12123124)                581798.98
4232093.70        0.51969  (12123124)
       581803.98   4232093.70        0.52664  (12123124)                581808.98
```

*** MODELOPTs: RegDFAULT CONC ELEV URBAN

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): PAREA1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
581833.98	4232093.70	0.58517	(12123124)	581838.98	4232093.70	0.59872	(12123124)
581843.98	4232093.70	0.61377	(12123124)	581848.98	4232093.70	0.63063	(12123124)
581853.98	4232093.70	0.64969	(12123124)	581858.98	4232093.70	0.67153	(12123124)
581863.98	4232093.70	0.69699	(12123124)	581868.98	4232093.70	0.72724	(12123124)
581873.98	4232093.70	0.76281	(12123124)	581878.98	4232093.70	0.79049	(12123124)
581733.98	4232098.70	0.48333	(12123124)	581738.98	4232098.70	0.48488	(12123124)
581743.98	4232098.70	0.48664	(12123124)	581748.98	4232098.70	0.48863	(12123124)
581753.98	4232098.70	0.49084	(12123124)	581758.98	4232098.70	0.49334	(12123124)
581763.98	4232098.70	0.49610	(12123124)	581768.98	4232098.70	0.49920	(12123124)
581773.98	4232098.70	0.50262	(12123124)	581778.98	4232098.70	0.50642	(12123124)
581783.98	4232098.70	0.51066	(12123124)	581788.98	4232098.70	0.51533	(12123124)
581793.98	4232098.70	0.52051	(12123124)	581798.98			

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4232098.70        0.52625  (12123124)
       581803.98   4232098.70        0.53260  (12123124)                581808.98
4232098.70        0.53964  (12123124)
       581813.98   4232098.70        0.54744  (12123124)                581818.98
4232098.70        0.55609  (12123124)
       581823.98   4232098.70        0.56570  (12123124)                581828.98
4232098.70        0.57638  (12123124)
       581833.98   4232098.70        0.58827  (12123124)                581838.98
4232098.70        0.60155  (12123124)
       581843.98   4232098.70        0.61644  (12123124)                581848.98
4232098.70        0.63323  (12123124)
       581853.98   4232098.70        0.65229  (12123124)                581858.98
4232098.70        0.67418  (12123124)
       581863.98   4232098.70        0.69974  (12123124)                581868.98
4232098.70        0.73010  (12123124)
       581873.98   4232098.70        0.76580  (12123124)                581878.98
4232098.70        0.79398  (12123124)
       581733.98   4232103.70        0.50034  (12123124)                581738.98
4232103.70        0.50142  (12123124)
       581743.98   4232103.70        0.50266  (12123124)                581748.98
4232103.70        0.50412  (12123124)
       581753.98   4232103.70        0.50579  (12123124)                581758.98
4232103.70        0.50771  (12123124)
       581763.98   4232103.70        0.50987  (12123124)                581768.98
4232103.70        0.51235  (12123124)
       581773.98   4232103.70        0.51513  (12123124)                581778.98
4232103.70        0.51827  (12123124)
       581783.98   4232103.70        0.52180  (12123124)                581788.98
4232103.70        0.52576  (12123124)
       581793.98   4232103.70        0.53021  (12123124)                581798.98
4232103.70        0.53520  (12123124)
       581803.98   4232103.70        0.54079  (12123124)                581808.98
4232103.70        0.54707  (12123124)
       581813.98   4232103.70        0.55411  (12123124)                581818.98
4232103.70        0.56201  (12123124)
       581823.98   4232103.70        0.57090  (12123124)                581828.98
4232103.70        0.58090  (12123124)
       581833.98   4232103.70        0.59218  (12123124)                581838.98
4232103.70        0.60494  (12123124)
       581843.98   4232103.70        0.61941  (12123124)                581848.98
4232103.70        0.63590  (12123124)
       581853.98   4232103.70        0.65480  (12123124)                581858.98
4232103.70        0.67667  (12123124)
       581863.98   4232103.70        0.70230  (12123124)                581868.98
4232103.70        0.73278  (12123124)
       581873.98   4232103.70        0.76871  (12123124)                581878.98
4232103.70        0.79732  (12123124)
       581733.98   4232108.70        0.52165  (12123124)                581738.98
4232108.70        0.52223  (12123124)
       581743.98   4232108.70        0.52295  (12123124)                581748.98
```

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): PAREA1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
581783.98	4232108.70	0.53682	(12123124)	581788.98	4232108.70	0.53997	(12123124)
581793.98	4232108.70	0.54357	(12123124)	581798.98	4232108.70	0.54768	(12123124)
581803.98	4232108.70	0.55235	(12123124)	581808.98	4232108.70	0.55766	(12123124)
581813.98	4232108.70	0.56371	(12123124)	581818.98	4232108.70	0.57060	(12123124)
581823.98	4232108.70	0.57848	(12123124)	581828.98	4232108.70	0.58747	(12123124)
581833.98	4232108.70	0.59777	(12123124)	581838.98	4232108.70	0.60961	(12123124)
581843.98	4232108.70	0.62327	(12123124)	581848.98	4232108.70	0.63908	(12123124)
581853.98	4232108.70	0.65750	(12123124)	581858.98	4232108.70	0.67910	(12123124)
581863.98	4232108.70	0.70465	(12123124)	581868.98	4232108.70	0.73521	(12123124)
581873.98	4232108.70	0.77135	(12123124)	581878.98	4232108.70	0.80404	(12123124)
581733.98	4232113.70	0.54821	(12123124)	581738.98			

```
4232113.70        0.54830  (12123124)
       581743.98   4232113.70        0.54849  (12123124)                581748.98
4232113.70        0.54885  (12123124)
       581753.98   4232113.70        0.54936  (12123124)                581758.98
4232113.70        0.55007  (12123124)
       581763.98   4232113.70        0.55096  (12123124)                581768.98
4232113.70        0.55207  (12123124)
       581773.98   4232113.70        0.55340  (12123124)                581778.98
4232113.70        0.55505  (12123124)
       581783.98   4232113.70        0.55698  (12123124)                581788.98
4232113.70        0.55926  (12123124)
       581793.98   4232113.70        0.56194  (12123124)                581798.98
4232113.70        0.56504  (12123124)
       581803.98   4232113.70        0.56866  (12123124)                581808.98
4232113.70        0.57287  (12123124)
       581813.98   4232113.70        0.57772  (12123124)                581818.98
4232113.70        0.58335  (12123124)
       581823.98   4232113.70        0.58989  (12123124)                581828.98
4232113.70        0.59751  (12123124)
       581833.98   4232113.70        0.60641  (12123124)                581838.98
4232113.70        0.61684  (12123124)
       581843.98   4232113.70        0.62910  (12123124)                581848.98
4232113.70        0.64362  (12123124)
       581853.98   4232113.70        0.66092  (12123124)                581858.98
4232113.70        0.68165  (12123124)
       581863.98   4232113.70        0.70671  (12123124)                581868.98
4232113.70        0.73712  (12123124)
       581873.98   4232113.70        0.77342  (12123124)                581878.98
4232113.70        0.80694  (12123124)
       581733.98   4232118.70        0.58400  (12123124)                581738.98
4232118.70        0.58359  (12123124)
       581743.98   4232118.70        0.58326  (12123124)                581748.98
4232118.70        0.58306  (12123124)
       581753.98   4232118.70        0.58299  (12123124)                581758.98
4232118.70        0.58305  (12123124)
       581763.98   4232118.70        0.58326  (12123124)                581768.98
4232118.70        0.58365  (12123124)
       581773.98   4232118.70        0.58423  (12123124)                581778.98
4232118.70        0.58503  (12123124)
       581783.98   4232118.70        0.58644  (12123124)                581788.98
4232118.70        0.58770  (12123124)
       581793.98   4232118.70        0.58931  (12123124)                581798.98
4232118.70        0.59127  (12123124)
       581803.98   4232118.70        0.59368  (12123124)                581808.98
4232118.70        0.59658  (12123124)
       581813.98   4232118.70        0.60006  (12123124)                581818.98
4232118.70        0.60419  (12123124)
       581823.98   4232118.70        0.60667  (12123124)                581828.98
4232118.70        0.61256  (12123124)
       581833.98   4232118.70        0.61961  (12123124)                581838.98
```

*** MODELOPTs: RegDFAULT CONC ELEV URBAN

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): PAREA1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
581733.98	4232123.70	0.63473	(12123124)	581738.98	4232123.70	0.63365	(12123124)
581743.98	4232123.70	0.63266	(12123124)	581748.98	4232123.70	0.63173	(12123124)
581753.98	4232123.70	0.63090	(12123124)	581758.98	4232123.70	0.63018	(12123124)
581763.98	4232123.70	0.62941	(12123124)	581768.98	4232123.70	0.62896	(12123124)
581773.98	4232123.70	0.62864	(12123124)	581778.98	4232123.70	0.62852	(12123124)
581783.98	4232123.70	0.62854	(12123124)	581788.98	4232123.70	0.62884	(12123124)
581793.98	4232123.70	0.62935	(12123124)	581798.98	4232123.70	0.63015	(12123124)
581803.98	4232123.70	0.63130	(12123124)	581808.98	4232123.70	0.63281	(12123124)
581813.98	4232123.70	0.63477	(12123124)	581818.98	4232123.70	0.63726	(12123124)
581823.98	4232123.70	0.64034	(12123124)	581828.98			

```
4232123.70        0.64421  (12123124)
       581833.98   4232123.70        0.64902  (12123124)                581838.98
4232123.70        0.65501  (12123124)
       581843.98   4232123.70        0.66245  (12123124)                581848.98
4232123.70        0.67179  (12123124)
       581853.98   4232123.70        0.68360  (12123124)                581858.98
4232123.70        0.69879  (12123124)
       581863.98   4232123.70        0.71861  (12123124)                581868.98
4232123.70        0.74486  (12123124)
       581873.98   4232123.70        0.77887  (12123124)                581878.98
4232123.70        0.81177  (12123124)
       581733.98   4232128.70        0.70341  (12123124)                581738.98
4232128.70        0.70216  (12123124)
       581743.98   4232128.70        0.70071  (12123124)                581748.98
4232128.70        0.69932  (12123124)
       581753.98   4232128.70        0.70148  (12123124)                581758.98
4232128.70        0.69981  (12123124)
       581763.98   4232128.70        0.69824  (12123124)                581768.98
4232128.70        0.69675  (12123124)
       581773.98   4232128.70        0.69538  (12123124)                581778.98
4232128.70        0.69446  (12123124)
       581783.98   4232128.70        0.69330  (12123124)                581788.98
4232128.70        0.69230  (12123124)
       581793.98   4232128.70        0.69148  (12123124)                581798.98
4232128.70        0.69089  (12123124)
       581803.98   4232128.70        0.69051  (12123124)                581808.98
4232128.70        0.69041  (12123124)
       581813.98   4232128.70        0.69064  (12123124)                581818.98
4232128.70        0.68800  (12123124)
       581823.98   4232128.70        0.69232  (12123124)                581828.98
4232128.70        0.69399  (12123124)
       581833.98   4232128.70        0.69657  (12123124)                581838.98
4232128.70        0.69978  (12123124)
       581843.98   4232128.70        0.70402  (12123124)                581848.98
4232128.70        0.70962  (12123124)
       581853.98   4232128.70        0.71706  (12123124)                581858.98
4232128.70        0.72703  (12123124)
       581863.98   4232128.70        0.74072  (12123124)                581868.98
4232128.70        0.75975  (12123124)
       581873.98   4232128.70        0.78649  (12123124)                581878.98
4232128.70        0.81500  (12123124)
       581851.61   4232016.02        0.59044  (13012921)                581856.61
4232016.02        0.61052  (13012921)
       581861.61   4232016.02        0.63311  (13012921)                581866.61
4232016.02        0.65910  (13012921)
       581871.61   4232016.02        0.68923  (13012921)                581876.61
4232016.02        0.72328  (13012921)
       581881.61   4232016.02        0.75278  (13012921)                581851.61
4232021.02        0.58859  (13012921)
       581856.61   4232021.02        0.60889  (13012921)                581861.61
```

4232021.02 0.63166 (13012921)
581866.61 4232021.02 0.65781 (13012921) 581871.61
4232021.02 0.68813 (13012921)
581876.61 4232021.02 0.72231 (13012921) 581881.61
4232021.02 0.75169 (13012921)
581851.61 4232026.02 0.58663 (13012921) 581856.61
4232026.02 0.60709 (13012921)
581861.61 4232026.02 0.62997 (13012921) 581866.61
4232026.02 0.65629 (13012921)
581871.61 4232026.02 0.68679 (13012921) 581876.61
4232026.02 0.72116 (13012921)

*** MODELOPTs: RegDFAULT CONC ELEV URBAN

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): PAREA1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M) Y-COORD (M) CONC (YYMMDDHH) X-COORD (M) Y-COORD (M) CONC (YYMMDDHH)
- -

581881.61 4232026.02 0.75035 (13012921) 581851.61
4232031.02 0.58913 (12123124)
581856.61 4232031.02 0.60758 (12123124) 581861.61
4232031.02 0.62869 (12123124)
581866.61 4232031.02 0.65479 (13012921) 581871.61
4232031.02 0.68532 (13012921)
581876.61 4232031.02 0.71973 (13012921) 581881.61
4232031.02 0.74879 (13012921)
581851.61 4232036.02 0.59478 (12123124) 581856.61
4232036.02 0.61335 (12123124)
581861.61 4232036.02 0.63456 (12123124) 581866.61
4232036.02 0.65910 (12123124)
581871.61 4232036.02 0.68738 (12123124) 581876.61
4232036.02 0.71813 (13012921)
581881.61 4232036.02 0.74700 (13012921) 581851.61
4232041.02 0.60017 (12123124)
581856.61 4232041.02 0.61882 (12123124) 581861.61

*** THE SUMMARY OF MAXIMUM ANNUAL RESULTS AVERAGED OVER 5 YEARS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

NETWORK GROUP ID	AVERAGE CONC	RECEPTOR (XR, YR, ZELEV, ZHILL, ZFLAG)	OF TYPE	GRID-ID
ALL	1ST HIGHEST VALUE IS	0.07418 AT (581882.09, 4232008.12, 3.00, 3.00, 0.00)	DC	
	2ND HIGHEST VALUE IS	0.07297 AT (581881.74, 4232011.60, 3.00, 3.00, 0.00)	DC	
	3RD HIGHEST VALUE IS	0.07176 AT (581876.17, 4232011.60, 3.00, 3.00, 0.00)	DC	
	4TH HIGHEST VALUE IS	0.07094 AT (581881.61, 4232016.02, 3.00, 3.00, 0.00)	DC	
	5TH HIGHEST VALUE IS	0.07044 AT (581871.29, 4232011.60, 3.00, 3.00, 0.00)	DC	
	6TH HIGHEST VALUE IS	0.07012 AT (581876.61, 4232016.02, 3.00, 3.00, 0.00)	DC	
	7TH HIGHEST VALUE IS	0.06913 AT (581871.61, 4232016.02, 3.00, 3.00, 0.00)	DC	
	8TH HIGHEST VALUE IS	0.06846 AT (581881.61, 4232021.02, 3.00, 3.00, 0.00)	DC	
	9TH HIGHEST VALUE IS	0.06811 AT (581866.61, 4232016.02, 3.00, 3.00, 0.00)	DC	
	10TH HIGHEST VALUE IS	0.06766 AT (581876.61, 4232021.02,		

```
3.00,     3.00,    0.00)  DC


 *** RECEPTOR TYPES:  GC = GRIDCART
                      GP = GRIDPOLR
                      DC = DISCCART
                      DP = DISCPOLR
↑ *** AERMOD - VERSION  18081 ***   *** C:\Lakes\AERMOD View\Fairfield Industrial
Site\Fairfield Industrial  ***       03/25/21
 *** AERMET - VERSION  14134 ***   ***
                        ***        08:30:05

                                   PAGE  31
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN

                                                *** THE SUMMARY OF HIGHEST  1-HR
RESULTS ***


                                    ** CONC OF PM_2.5   IN MICROGRAMS/M**3
                **

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

ALL      HIGH   1ST HIGH VALUE IS       0.81500  ON 12123124: AT (  581878.98,
4232128.70,     4.00,     4.00,    0.00)  DC


 *** RECEPTOR TYPES:  GC = GRIDCART
                      GP = GRIDPOLR
                      DC = DISCCART
                      DP = DISCPOLR
↑ *** AERMOD - VERSION  18081 ***   *** C:\Lakes\AERMOD View\Fairfield Industrial
Site\Fairfield Industrial  ***       03/25/21
 *** AERMET - VERSION  14134 ***   ***
                        ***        08:30:05

                                   PAGE  32
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN

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

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

 A Total of            0 Fatal Error Message(s)
```

```
A Total of            1 Warning Message(s)
A Total of         5334 Informational Message(s)

A Total of        43872 Hours Were Processed

A Total of         3700 Calm Hours Identified

A Total of         1634 Missing Hours Identified (  3.72 Percent)


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


   ********   WARNING MESSAGES   ********
MX W481   43873         MAIN: Data Remaining After End of Year. Number of Hours=
       48

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

```
**
**************************************
**
** AERMOD Input Produced by:
** AERMOD View Ver. 9.7.0
** Lakes Environmental Software Inc.
** Date: 3/25/2021
** File: C:\Lakes\AERMOD View\FairfieldPM2\FairfieldPM2.ADI
**
**************************************
**
**
**************************************
** AERMOD Control Pathway
**************************************
**
**
CO STARTING
   TITLEONE C:\Lakes\AERMOD View\Fairfield Industrial Site\Fairfield Industrial
   MODELOPT DFAULT CONC
   AVERTIME ANNUAL
   URBANOPT 115282 Fairfield
   POLLUTID PM_2.5
   RUNORNOT RUN
   ERRORFIL FairfieldPM2.err
CO FINISHED
**
**************************************
** AERMOD Source Pathway
**************************************
**
**
SO STARTING
** Source Location **
** Source ID - Type - X Coord. - Y Coord. **
   LOCATION PAREA1       AREAPOLY   581733.673  4232132.982        4.000
** Source Parameters **
   SRCPARAM PAREA1       3.7851E-08     3.000        21
   AREAVERT PAREA1       581733.673 4232132.982 581735.754 4232243.243
   AREAVERT PAREA1       581854.336 4232305.654 581877.220 4232332.699
   AREAVERT PAREA1       581958.355 4232351.423 581985.401 4232303.574
   AREAVERT PAREA1       582220.485 4232341.021 582237.128 4232297.333
   AREAVERT PAREA1       582274.575 4232324.378 582257.932 4232409.674
   AREAVERT PAREA1       582341.147 4232430.478 582457.649 4232428.397
   AREAVERT PAREA1       582478.453 4232332.699 582388.996 4232145.464
   AREAVERT PAREA1       581914.667 4231877.094 581735.754 4231810.521
   AREAVERT PAREA1       581735.754 4232039.364 581846.014 4232033.123
   AREAVERT PAREA1       581843.934 4232018.560 581885.542 4231999.837
   AREAVERT PAREA1       581883.461 4232135.062
   URBANSRC ALL
```

```
   SRCGROUP ALL
SO FINISHED
**
**************************************
** AERMOD Receptor Pathway
**************************************
**
**
RE STARTING
   INCLUDED FairfieldPM2.rou
RE FINISHED
**
**************************************
** AERMOD Meteorology Pathway
**************************************
**
**
ME STARTING
   SURFFILE "C:\Users\kheck\Desktop\MET DATA\Travis Air Force Base\745160.SFC"
   PROFFILE "C:\Users\kheck\Desktop\MET DATA\Travis Air Force Base\745160.PFL"
   SURFDATA 23202 2009
   UAIRDATA 23230 2009 OAKLAND/WSO_AP
   PROFBASE 19.0 METERS
ME FINISHED
**
**************************************
** AERMOD Output Pathway
**************************************
**
**
OU STARTING
** Auto-Generated Plotfiles
   PLOTFILE ANNUAL ALL FAIRFIELDPM2.AD\AN00GALL.PLT 31
   SUMMFILE FairfieldPM2.sum
OU FINISHED
**
**************************************
** Project Parameters
**************************************
** PROJCTN  CoordinateSystemUTM
** DESCPTN  UTM: Universal Transverse Mercator
** DATUM    World Geodetic System 1984
** DTMRGN   Global Definition
** UNITS    m
** ZONE     10
** ZONEINX  0
**
```

```
**
**************************************
**
** AERMOD Input Produced by:
** AERMOD View Ver. 9.7.0
** Lakes Environmental Software Inc.
** Date: 3/25/2021
** File: C:\Lakes\AERMOD View\FairfieldPM2\FairfieldPM2.ADI
**
**************************************
**
**
**************************************
** AERMOD Control Pathway
**************************************
**
**
CO STARTING
   TITLEONE C:\Lakes\AERMOD View\Fairfield Industrial Site\Fairfield Industrial
   MODELOPT DFAULT CONC
   AVERTIME ANNUAL
   URBANOPT 115282 Fairfield
   POLLUTID PM_2.5
   RUNORNOT RUN
   ERRORFIL FairfieldPM2.err
CO FINISHED
**
**************************************
** AERMOD Source Pathway
**************************************
**
**
SO STARTING
** Source Location **
** Source ID - Type - X Coord. - Y Coord. **
   LOCATION PAREA1       AREAPOLY   581733.673  4232132.982        4.000
** Source Parameters **
   SRCPARAM PAREA1       3.7851E-08     3.000        21
   AREAVERT PAREA1       581733.673 4232132.982 581735.754 4232243.243
   AREAVERT PAREA1       581854.336 4232305.654 581877.220 4232332.699
   AREAVERT PAREA1       581958.355 4232351.423 581985.401 4232303.574
   AREAVERT PAREA1       582220.485 4232341.021 582237.128 4232297.333
   AREAVERT PAREA1       582274.575 4232324.378 582257.932 4232409.674
   AREAVERT PAREA1       582341.147 4232430.478 582457.649 4232428.397
   AREAVERT PAREA1       582478.453 4232332.699 582388.996 4232145.464
   AREAVERT PAREA1       581914.667 4231877.094 581735.754 4231810.521
   AREAVERT PAREA1       581735.754 4232039.364 581846.014 4232033.123
   AREAVERT PAREA1       581843.934 4232018.560 581885.542 4231999.837
   AREAVERT PAREA1       581883.461 4232135.062
   URBANSRC ALL
```

```
   SRCGROUP ALL
SO FINISHED
**
**************************************
** AERMOD Receptor Pathway
**************************************
**
**
RE STARTING
   INCLUDED FairfieldPM2.rou
RE FINISHED
**
**************************************
** AERMOD Meteorology Pathway
**************************************
**
**
ME STARTING
   SURFFILE "C:\Users\kheck\Desktop\MET DATA\Travis Air Force Base\745160.SFC"
   PROFFILE "C:\Users\kheck\Desktop\MET DATA\Travis Air Force Base\745160.PFL"
   SURFDATA 23202 2009
   UAIRDATA 23230 2009 OAKLAND/WSO_AP
   PROFBASE 19.0 METERS
ME FINISHED
**
**************************************
** AERMOD Output Pathway
**************************************
**
**
OU STARTING
** Auto-Generated Plotfiles
   PLOTFILE ANNUAL ALL FAIRFIELDPM2.AD\AN00GALL.PLT 31
   SUMMFILE FairfieldPM2.sum
OU FINISHED

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

 *** AERMOD - VERSION  18081 ***   *** C:\Lakes\AERMOD View\Fairfield Industrial
Site\Fairfield Industrial  ***        03/25/21
 *** AERMET - VERSION  14134 ***   ***
                       ***        11:24:53

                                  PAGE   1
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN

                                             ***     MODEL SETUP OPTIONS SUMMARY
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 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - -

 **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     1 Source(s),
   for Total of    1 Urban Area(s):
   Urban Population =    115282.0 ;  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_2.5

 **Model Calculates ANNUAL Averages Only

 **This Run Includes:      1 Source(s);       1 Source Group(s); and     586
Receptor(s)

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


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

 **The AERMET Input Meteorological Data Version Date:  14134

 **Output Options Selected:
```

```
          Model Outputs Tables of ANNUAL 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) =    19.00 ;  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:   FairfieldPM2.err

 **File for Summary of Results:   FairfieldPM2.sum

↟ *** AERMOD - VERSION  18081 ***   *** C:\Lakes\AERMOD View\Fairfield Industrial
Site\Fairfield Industrial  ***        03/25/21
 *** AERMET - VERSION  14134 ***   ***
                       ***        11:24:53

                                  PAGE   2
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN


                                                  *** 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   0.37851E-07  581733.7 4232133.0     4.0     3.00      21
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                                          *** SOURCE IDs DEFINING SOURCE GROUPS ***

 SRCGROUP ID   SOURCE IDs
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  ALL   PAREA1   ,

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

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

              115282.   PAREA1   ,

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

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     ( 581844.0, 4232048.7,       3.8,       3.8,       0.0);         ( 581849.0,
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     (581814.0, 4232053.7,   3.9,   3.9,   0.0);   (581819.0,
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 *** MODELOPTs: RegDFAULT CONC ELEV URBAN

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

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 *** MODELOPTs: RegDFAULT CONC ELEV URBAN

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

```
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     ( 581874.0, 4232073.7,       3.6,       3.6,       0.0);         ( 581879.0,
4232073.7,       3.5,       3.5,       0.0);
     ( 581734.0, 4232078.7,       3.8,       3.8,       0.0);         ( 581739.0,
4232078.7,       3.8,       3.8,       0.0);
     ( 581744.0, 4232078.7,       3.8,       3.8,       0.0);         ( 581749.0,
4232078.7,       3.8,       3.8,       0.0);
     ( 581754.0, 4232078.7,       3.8,       3.8,       0.0);         ( 581759.0,
4232078.7,       3.8,       3.8,       0.0);
     ( 581764.0, 4232078.7,       3.8,       3.8,       0.0);         ( 581769.0,
4232078.7,       3.9,       3.9,       0.0);
     ( 581774.0, 4232078.7,       3.9,       3.9,       0.0);         ( 581779.0,
4232078.7,       4.0,       4.0,       0.0);
     ( 581784.0, 4232078.7,       4.0,       4.0,       0.0);         ( 581789.0,
4232078.7,       4.0,       4.0,       0.0);
     ( 581794.0, 4232078.7,       4.0,       4.0,       0.0);         ( 581799.0,
4232078.7,       4.0,       4.0,       0.0);
     ( 581804.0, 4232078.7,       4.0,       4.0,       0.0);         ( 581809.0,
4232078.7,       4.0,       4.0,       0.0);
     ( 581814.0, 4232078.7,       4.0,       4.0,       0.0);         ( 581819.0,
4232078.7,       4.0,       4.0,       0.0);
     ( 581824.0, 4232078.7,       4.0,       4.0,       0.0);         ( 581829.0,
```

4232078.7,   4.0,   4.0,   0.0);
     (581834.0, 4232078.7,   4.0,   4.0,   0.0);   (581839.0,
4232078.7,   4.0,   4.0,   0.0);
     (581844.0, 4232078.7,   4.0,   4.0,   0.0);   (581849.0,
4232078.7,   4.0,   4.0,   0.0);
     (581854.0, 4232078.7,   3.9,   3.9,   0.0);   (581859.0,
4232078.7,   3.9,   3.9,   0.0);
     (581864.0, 4232078.7,   3.8,   3.8,   0.0);   (581869.0,
4232078.7,   3.8,   3.8,   0.0);
     (581874.0, 4232078.7,   3.8,   3.8,   0.0);   (581879.0,
4232078.7,   3.6,   3.6,   0.0);
     (581734.0, 4232083.7,   3.9,   3.9,   0.0);   (581739.0,
4232083.7,   3.9,   3.9,   0.0);
     (581744.0, 4232083.7,   3.9,   3.9,   0.0);   (581749.0,
4232083.7,   3.9,   3.9,   0.0);
     (581754.0, 4232083.7,   3.9,   3.9,   0.0);   (581759.0,
4232083.7,   3.9,   3.9,   0.0);
     (581764.0, 4232083.7,   4.0,   4.0,   0.0);   (581769.0,
4232083.7,   4.0,   4.0,   0.0);
     (581774.0, 4232083.7,   4.0,   4.0,   0.0);   (581779.0,
4232083.7,   4.0,   4.0,   0.0);
     (581784.0, 4232083.7,   4.0,   4.0,   0.0);   (581789.0,
4232083.7,   4.0,   4.0,   0.0);
     (581794.0, 4232083.7,   4.0,   4.0,   0.0);   (581799.0,
4232083.7,   4.0,   4.0,   0.0);
     (581804.0, 4232083.7,   4.0,   4.0,   0.0);   (581809.0,
4232083.7,   4.0,   4.0,   0.0);
     (581814.0, 4232083.7,   4.0,   4.0,   0.0);   (581819.0,
4232083.7,   4.0,   4.0,   0.0);
     (581824.0, 4232083.7,   4.0,   4.0,   0.0);   (581829.0,
4232083.7,   4.0,   4.0,   0.0);
     (581834.0, 4232083.7,   4.0,   4.0,   0.0);   (581839.0,
4232083.7,   4.0,   4.0,   0.0);
     (581844.0, 4232083.7,   4.0,   4.0,   0.0);   (581849.0,
4232083.7,   4.0,   4.0,   0.0);
     (581854.0, 4232083.7,   4.0,   4.0,   0.0);   (581859.0,
4232083.7,   4.0,   4.0,   0.0);
     (581864.0, 4232083.7,   4.0,   4.0,   0.0);   (581869.0,
4232083.7,   3.9,   3.9,   0.0);
     (581874.0, 4232083.7,   3.9,   3.9,   0.0);   (581879.0,
4232083.7,   3.8,   3.8,   0.0);

 *** MODELOPTs: RegDFAULT CONC ELEV URBAN

                                                *** DISCRETE CARTESIAN RECEPTORS ***

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

(581734.0, 4232088.7, 4.0, 4.0, 0.0); (581739.0, 4232088.7, 4.0, 4.0, 0.0);
(581744.0, 4232088.7, 4.0, 4.0, 0.0); (581749.0, 4232088.7, 4.0, 4.0, 0.0);
(581754.0, 4232088.7, 4.0, 4.0, 0.0); (581759.0, 4232088.7, 4.0, 4.0, 0.0);
(581764.0, 4232088.7, 4.0, 4.0, 0.0); (581769.0, 4232088.7, 4.0, 4.0, 0.0);
(581774.0, 4232088.7, 4.0, 4.0, 0.0); (581779.0, 4232088.7, 4.0, 4.0, 0.0);
(581784.0, 4232088.7, 4.0, 4.0, 0.0); (581789.0, 4232088.7, 4.0, 4.0, 0.0);
(581794.0, 4232088.7, 4.0, 4.0, 0.0); (581799.0, 4232088.7, 4.0, 4.0, 0.0);
(581804.0, 4232088.7, 4.0, 4.0, 0.0); (581809.0, 4232088.7, 4.0, 4.0, 0.0);
(581814.0, 4232088.7, 4.0, 4.0, 0.0); (581819.0, 4232088.7, 4.0, 4.0, 0.0);
(581824.0, 4232088.7, 4.0, 4.0, 0.0); (581829.0, 4232088.7, 4.0, 4.0, 0.0);
(581834.0, 4232088.7, 4.0, 4.0, 0.0); (581839.0, 4232088.7, 4.0, 4.0, 0.0);
(581844.0, 4232088.7, 4.0, 4.0, 0.0); (581849.0, 4232088.7, 4.0, 4.0, 0.0);
(581854.0, 4232088.7, 4.0, 4.0, 0.0); (581859.0, 4232088.7, 4.0, 4.0, 0.0);
(581864.0, 4232088.7, 4.0, 4.0, 0.0); (581869.0, 4232088.7, 4.0, 4.0, 0.0);
(581874.0, 4232088.7, 4.0, 4.0, 0.0); (581879.0, 4232088.7, 3.8, 3.8, 0.0);
(581734.0, 4232093.7, 4.0, 4.0, 0.0); (581739.0, 4232093.7, 4.0, 4.0, 0.0);
(581744.0, 4232093.7, 4.0, 4.0, 0.0); (581749.0, 4232093.7, 4.0, 4.0, 0.0);
(581754.0, 4232093.7, 4.0, 4.0, 0.0); (581759.0, 4232093.7, 4.0, 4.0, 0.0);
(581764.0, 4232093.7, 4.0, 4.0, 0.0); (581769.0, 4232093.7, 4.0, 4.0, 0.0);
(581774.0, 4232093.7, 4.0, 4.0, 0.0); (581779.0, 4232093.7, 4.0, 4.0, 0.0);
(581784.0, 4232093.7, 4.0, 4.0, 0.0); (581789.0, 4232093.7, 4.0, 4.0, 0.0);
(581794.0, 4232093.7, 4.0, 4.0, 0.0); (581799.0, 4232093.7, 4.0, 4.0, 0.0);
(581804.0, 4232093.7, 4.0, 4.0, 0.0); (581809.0, 4232093.7, 4.0, 4.0, 0.0);
(581814.0, 4232093.7, 4.0, 4.0, 0.0); (581819.0,

```
4232093.7,       4.0,       4.0,       0.0);
     ( 581824.0, 4232093.7,       4.0,       4.0,       0.0);         ( 581829.0,
4232093.7,       4.0,       4.0,       0.0);
     ( 581834.0, 4232093.7,       4.0,       4.0,       0.0);         ( 581839.0,
4232093.7,       4.0,       4.0,       0.0);
     ( 581844.0, 4232093.7,       4.0,       4.0,       0.0);         ( 581849.0,
4232093.7,       4.0,       4.0,       0.0);
     ( 581854.0, 4232093.7,       4.0,       4.0,       0.0);         ( 581859.0,
4232093.7,       4.0,       4.0,       0.0);
     ( 581864.0, 4232093.7,       4.0,       4.0,       0.0);         ( 581869.0,
4232093.7,       4.0,       4.0,       0.0);
     ( 581874.0, 4232093.7,       4.0,       4.0,       0.0);         ( 581879.0,
4232093.7,       3.9,       3.9,       0.0);
     ( 581734.0, 4232098.7,       4.0,       4.0,       0.0);         ( 581739.0,
4232098.7,       4.0,       4.0,       0.0);
     ( 581744.0, 4232098.7,       4.0,       4.0,       0.0);         ( 581749.0,
4232098.7,       4.0,       4.0,       0.0);
     ( 581754.0, 4232098.7,       4.0,       4.0,       0.0);         ( 581759.0,
4232098.7,       4.0,       4.0,       0.0);
     ( 581764.0, 4232098.7,       4.0,       4.0,       0.0);         ( 581769.0,
4232098.7,       4.0,       4.0,       0.0);
     ( 581774.0, 4232098.7,       4.0,       4.0,       0.0);         ( 581779.0,
4232098.7,       4.0,       4.0,       0.0);
     ( 581784.0, 4232098.7,       4.0,       4.0,       0.0);         ( 581789.0,
4232098.7,       4.0,       4.0,       0.0);
     ( 581794.0, 4232098.7,       4.0,       4.0,       0.0);         ( 581799.0,
4232098.7,       4.0,       4.0,       0.0);
     ( 581804.0, 4232098.7,       4.0,       4.0,       0.0);         ( 581809.0,
4232098.7,       4.0,       4.0,       0.0);
     ( 581814.0, 4232098.7,       4.0,       4.0,       0.0);         ( 581819.0,
4232098.7,       4.0,       4.0,       0.0);
     ( 581824.0, 4232098.7,       4.0,       4.0,       0.0);         ( 581829.0,
4232098.7,       4.0,       4.0,       0.0);
     ( 581834.0, 4232098.7,       4.0,       4.0,       0.0);         ( 581839.0,
4232098.7,       4.0,       4.0,       0.0);
     ( 581844.0, 4232098.7,       4.0,       4.0,       0.0);         ( 581849.0,
4232098.7,       4.0,       4.0,       0.0);
     ( 581854.0, 4232098.7,       4.0,       4.0,       0.0);         ( 581859.0,
4232098.7,       4.0,       4.0,       0.0);
     ( 581864.0, 4232098.7,       4.0,       4.0,       0.0);         ( 581869.0,
4232098.7,       4.0,       4.0,       0.0);
     ( 581874.0, 4232098.7,       4.0,       4.0,       0.0);         ( 581879.0,
4232098.7,       3.9,       3.9,       0.0);
```

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

(581734.0, 4232103.7, 4.0, 4.0, 0.0); (581739.0, 4232103.7, 4.0, 4.0, 0.0);
(581744.0, 4232103.7, 4.0, 4.0, 0.0); (581749.0, 4232103.7, 4.0, 4.0, 0.0);
(581754.0, 4232103.7, 4.0, 4.0, 0.0); (581759.0, 4232103.7, 4.0, 4.0, 0.0);
(581764.0, 4232103.7, 4.0, 4.0, 0.0); (581769.0, 4232103.7, 4.0, 4.0, 0.0);
(581774.0, 4232103.7, 4.0, 4.0, 0.0); (581779.0, 4232103.7, 4.0, 4.0, 0.0);
(581784.0, 4232103.7, 4.0, 4.0, 0.0); (581789.0, 4232103.7, 4.0, 4.0, 0.0);
(581794.0, 4232103.7, 4.0, 4.0, 0.0); (581799.0, 4232103.7, 4.0, 4.0, 0.0);
(581804.0, 4232103.7, 4.0, 4.0, 0.0); (581809.0, 4232103.7, 4.0, 4.0, 0.0);
(581814.0, 4232103.7, 4.0, 4.0, 0.0); (581819.0, 4232103.7, 4.0, 4.0, 0.0);
(581824.0, 4232103.7, 4.0, 4.0, 0.0); (581829.0, 4232103.7, 4.0, 4.0, 0.0);
(581834.0, 4232103.7, 4.0, 4.0, 0.0); (581839.0, 4232103.7, 4.0, 4.0, 0.0);
(581844.0, 4232103.7, 4.0, 4.0, 0.0); (581849.0, 4232103.7, 4.0, 4.0, 0.0);
(581854.0, 4232103.7, 4.0, 4.0, 0.0); (581859.0, 4232103.7, 4.0, 4.0, 0.0);
(581864.0, 4232103.7, 4.0, 4.0, 0.0); (581869.0, 4232103.7, 4.0, 4.0, 0.0);
(581874.0, 4232103.7, 4.0, 4.0, 0.0); (581879.0, 4232103.7, 3.9, 3.9, 0.0);
(581734.0, 4232108.7, 4.0, 4.0, 0.0); (581739.0, 4232108.7, 4.0, 4.0, 0.0);
(581744.0, 4232108.7, 4.0, 4.0, 0.0); (581749.0, 4232108.7, 4.0, 4.0, 0.0);
(581754.0, 4232108.7, 4.0, 4.0, 0.0); (581759.0, 4232108.7, 4.0, 4.0, 0.0);
(581764.0, 4232108.7, 4.0, 4.0, 0.0); (581769.0, 4232108.7, 4.0, 4.0, 0.0);
(581774.0, 4232108.7, 4.0, 4.0, 0.0); (581779.0, 4232108.7, 4.0, 4.0, 0.0);
(581784.0, 4232108.7, 4.0, 4.0, 0.0); (581789.0, 4232108.7, 4.0, 4.0, 0.0);
(581794.0, 4232108.7, 4.0, 4.0, 0.0); (581799.0, 4232108.7, 4.0, 4.0, 0.0);
(581804.0, 4232108.7, 4.0, 4.0, 0.0); (581809.0,

```
4232108.7,       4.0,       4.0,       0.0);
     ( 581814.0, 4232108.7,       4.0,       4.0,       0.0);         ( 581819.0,
4232108.7,       4.0,       4.0,       0.0);
     ( 581824.0, 4232108.7,       4.0,       4.0,       0.0);         ( 581829.0,
4232108.7,       4.0,       4.0,       0.0);
     ( 581834.0, 4232108.7,       4.0,       4.0,       0.0);         ( 581839.0,
4232108.7,       4.0,       4.0,       0.0);
     ( 581844.0, 4232108.7,       4.0,       4.0,       0.0);         ( 581849.0,
4232108.7,       4.0,       4.0,       0.0);
     ( 581854.0, 4232108.7,       4.0,       4.0,       0.0);         ( 581859.0,
4232108.7,       4.0,       4.0,       0.0);
     ( 581864.0, 4232108.7,       4.0,       4.0,       0.0);         ( 581869.0,
4232108.7,       4.0,       4.0,       0.0);
     ( 581874.0, 4232108.7,       4.0,       4.0,       0.0);         ( 581879.0,
4232108.7,       4.0,       4.0,       0.0);
     ( 581734.0, 4232113.7,       4.0,       4.0,       0.0);         ( 581739.0,
4232113.7,       4.0,       4.0,       0.0);
     ( 581744.0, 4232113.7,       4.0,       4.0,       0.0);         ( 581749.0,
4232113.7,       4.0,       4.0,       0.0);
     ( 581754.0, 4232113.7,       4.0,       4.0,       0.0);         ( 581759.0,
4232113.7,       4.0,       4.0,       0.0);
     ( 581764.0, 4232113.7,       4.0,       4.0,       0.0);         ( 581769.0,
4232113.7,       4.0,       4.0,       0.0);
     ( 581774.0, 4232113.7,       4.0,       4.0,       0.0);         ( 581779.0,
4232113.7,       4.0,       4.0,       0.0);
     ( 581784.0, 4232113.7,       4.0,       4.0,       0.0);         ( 581789.0,
4232113.7,       4.0,       4.0,       0.0);
     ( 581794.0, 4232113.7,       4.0,       4.0,       0.0);         ( 581799.0,
4232113.7,       4.0,       4.0,       0.0);
     ( 581804.0, 4232113.7,       4.0,       4.0,       0.0);         ( 581809.0,
4232113.7,       4.0,       4.0,       0.0);
     ( 581814.0, 4232113.7,       4.0,       4.0,       0.0);         ( 581819.0,
4232113.7,       4.0,       4.0,       0.0);
     ( 581824.0, 4232113.7,       4.0,       4.0,       0.0);         ( 581829.0,
4232113.7,       4.0,       4.0,       0.0);
     ( 581834.0, 4232113.7,       4.0,       4.0,       0.0);         ( 581839.0,
4232113.7,       4.0,       4.0,       0.0);
     ( 581844.0, 4232113.7,       4.0,       4.0,       0.0);         ( 581849.0,
4232113.7,       4.0,       4.0,       0.0);
     ( 581854.0, 4232113.7,       4.0,       4.0,       0.0);         ( 581859.0,
4232113.7,       4.0,       4.0,       0.0);
     ( 581864.0, 4232113.7,       4.0,       4.0,       0.0);         ( 581869.0,
4232113.7,       4.0,       4.0,       0.0);
     ( 581874.0, 4232113.7,       4.0,       4.0,       0.0);         ( 581879.0,
4232113.7,       4.0,       4.0,       0.0);
 *** AERMOD - VERSION  18081 ***   *** C:\Lakes\AERMOD View\Fairfield Industrial
Site\Fairfield Industrial  ***        03/25/21
 *** AERMET - VERSION  14134 ***   ***
                       ***       11:24:53
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*** MODELOPTs: RegDFAULT CONC ELEV URBAN

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

(581734.0, 4232118.7, 4.0, 4.0, 0.0); (581739.0, 4232118.7, 4.0, 4.0, 0.0);
(581744.0, 4232118.7, 4.0, 4.0, 0.0); (581749.0, 4232118.7, 4.0, 4.0, 0.0);
(581754.0, 4232118.7, 4.0, 4.0, 0.0); (581759.0, 4232118.7, 4.0, 4.0, 0.0);
(581764.0, 4232118.7, 4.0, 4.0, 0.0); (581769.0, 4232118.7, 4.0, 4.0, 0.0);
(581774.0, 4232118.7, 4.0, 4.0, 0.0); (581779.0, 4232118.7, 4.0, 4.0, 0.0);
(581784.0, 4232118.7, 4.0, 4.0, 0.0); (581789.0, 4232118.7, 4.0, 4.0, 0.0);
(581794.0, 4232118.7, 4.0, 4.0, 0.0); (581799.0, 4232118.7, 4.0, 4.0, 0.0);
(581804.0, 4232118.7, 4.0, 4.0, 0.0); (581809.0, 4232118.7, 4.0, 4.0, 0.0);
(581814.0, 4232118.7, 4.0, 4.0, 0.0); (581819.0, 4232118.7, 4.0, 4.0, 0.0);
(581824.0, 4232118.7, 4.0, 4.0, 0.0); (581829.0, 4232118.7, 4.0, 4.0, 0.0);
(581834.0, 4232118.7, 4.0, 4.0, 0.0); (581839.0, 4232118.7, 4.0, 4.0, 0.0);
(581844.0, 4232118.7, 4.0, 4.0, 0.0); (581849.0, 4232118.7, 4.0, 4.0, 0.0);
(581854.0, 4232118.7, 4.0, 4.0, 0.0); (581859.0, 4232118.7, 4.0, 4.0, 0.0);
(581864.0, 4232118.7, 4.0, 4.0, 0.0); (581869.0, 4232118.7, 4.0, 4.0, 0.0);
(581874.0, 4232118.7, 4.0, 4.0, 0.0); (581879.0, 4232118.7, 4.0, 4.0, 0.0);
(581734.0, 4232123.7, 4.0, 4.0, 0.0); (581739.0, 4232123.7, 4.0, 4.0, 0.0);
(581744.0, 4232123.7, 4.0, 4.0, 0.0); (581749.0, 4232123.7, 4.0, 4.0, 0.0);
(581754.0, 4232123.7, 4.0, 4.0, 0.0); (581759.0, 4232123.7, 4.0, 4.0, 0.0);
(581764.0, 4232123.7, 4.0, 4.0, 0.0); (581769.0, 4232123.7, 4.0, 4.0, 0.0);
(581774.0, 4232123.7, 4.0, 4.0, 0.0); (581779.0, 4232123.7, 4.0, 4.0, 0.0);
(581784.0, 4232123.7, 4.0, 4.0, 0.0); (581789.0, 4232123.7, 4.0, 4.0, 0.0);
(581794.0, 4232123.7, 4.0, 4.0, 0.0); (581799.0,

```
4232123.7,       4.0,       4.0,       0.0);
     ( 581804.0, 4232123.7,       4.0,       4.0,       0.0);         ( 581809.0,
4232123.7,       4.0,       4.0,       0.0);
     ( 581814.0, 4232123.7,       4.0,       4.0,       0.0);         ( 581819.0,
4232123.7,       4.0,       4.0,       0.0);
     ( 581824.0, 4232123.7,       4.0,       4.0,       0.0);         ( 581829.0,
4232123.7,       4.0,       4.0,       0.0);
     ( 581834.0, 4232123.7,       4.0,       4.0,       0.0);         ( 581839.0,
4232123.7,       4.0,       4.0,       0.0);
     ( 581844.0, 4232123.7,       4.0,       4.0,       0.0);         ( 581849.0,
4232123.7,       4.0,       4.0,       0.0);
     ( 581854.0, 4232123.7,       4.0,       4.0,       0.0);         ( 581859.0,
4232123.7,       4.0,       4.0,       0.0);
     ( 581864.0, 4232123.7,       4.0,       4.0,       0.0);         ( 581869.0,
4232123.7,       4.0,       4.0,       0.0);
     ( 581874.0, 4232123.7,       4.0,       4.0,       0.0);         ( 581879.0,
4232123.7,       4.0,       4.0,       0.0);
     ( 581734.0, 4232128.7,       4.0,       4.0,       0.0);         ( 581739.0,
4232128.7,       4.0,       4.0,       0.0);
     ( 581744.0, 4232128.7,       4.0,       4.0,       0.0);         ( 581749.0,
4232128.7,       4.0,       4.0,       0.0);
     ( 581754.0, 4232128.7,       4.0,       4.0,       0.0);         ( 581759.0,
4232128.7,       4.0,       4.0,       0.0);
     ( 581764.0, 4232128.7,       4.0,       4.0,       0.0);         ( 581769.0,
4232128.7,       4.0,       4.0,       0.0);
     ( 581774.0, 4232128.7,       4.0,       4.0,       0.0);         ( 581779.0,
4232128.7,       4.0,       4.0,       0.0);
     ( 581784.0, 4232128.7,       4.0,       4.0,       0.0);         ( 581789.0,
4232128.7,       4.0,       4.0,       0.0);
     ( 581794.0, 4232128.7,       4.0,       4.0,       0.0);         ( 581799.0,
4232128.7,       4.0,       4.0,       0.0);
     ( 581804.0, 4232128.7,       4.0,       4.0,       0.0);         ( 581809.0,
4232128.7,       4.0,       4.0,       0.0);
     ( 581814.0, 4232128.7,       4.0,       4.0,       0.0);         ( 581819.0,
4232128.7,       4.0,       4.0,       0.0);
     ( 581824.0, 4232128.7,       4.0,       4.0,       0.0);         ( 581829.0,
4232128.7,       4.0,       4.0,       0.0);
     ( 581834.0, 4232128.7,       4.0,       4.0,       0.0);         ( 581839.0,
4232128.7,       4.0,       4.0,       0.0);
     ( 581844.0, 4232128.7,       4.0,       4.0,       0.0);         ( 581849.0,
4232128.7,       4.0,       4.0,       0.0);
     ( 581854.0, 4232128.7,       4.0,       4.0,       0.0);         ( 581859.0,
4232128.7,       4.0,       4.0,       0.0);
     ( 581864.0, 4232128.7,       4.0,       4.0,       0.0);         ( 581869.0,
4232128.7,       4.0,       4.0,       0.0);
     ( 581874.0, 4232128.7,       4.0,       4.0,       0.0);         ( 581879.0,
4232128.7,       4.0,       4.0,       0.0);
 *** AERMOD - VERSION  18081 ***   *** C:\Lakes\AERMOD View\Fairfield Industrial
Site\Fairfield Industrial  ***        03/25/21
 *** AERMET - VERSION  14134 ***   ***
```

*** MODELOPTs: RegDFAULT CONC ELEV URBAN

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

(581851.6, 4232016.0, 3.0, 3.0, 0.0); (581856.6, 4232016.0, 3.0, 3.0, 0.0);
(581861.6, 4232016.0, 3.0, 3.0, 0.0); (581866.6, 4232016.0, 3.0, 3.0, 0.0);
(581871.6, 4232016.0, 3.0, 3.0, 0.0); (581876.6, 4232016.0, 3.0, 3.0, 0.0);
(581881.6, 4232016.0, 3.0, 3.0, 0.0); (581851.6, 4232021.0, 3.0, 3.0, 0.0);
(581856.6, 4232021.0, 3.0, 3.0, 0.0); (581861.6, 4232021.0, 3.0, 3.0, 0.0);
(581866.6, 4232021.0, 3.0, 3.0, 0.0); (581871.6, 4232021.0, 3.0, 3.0, 0.0);
(581876.6, 4232021.0, 3.0, 3.0, 0.0); (581881.6, 4232021.0, 3.0, 3.0, 0.0);
(581851.6, 4232026.0, 3.0, 3.0, 0.0); (581856.6, 4232026.0, 3.0, 3.0, 0.0);
(581861.6, 4232026.0, 3.0, 3.0, 0.0); (581866.6, 4232026.0, 3.0, 3.0, 0.0);
(581871.6, 4232026.0, 3.0, 3.0, 0.0); (581876.6, 4232026.0, 3.0, 3.0, 0.0);
(581881.6, 4232026.0, 3.0, 3.0, 0.0); (581851.6, 4232031.0, 3.1, 3.1, 0.0);
(581856.6, 4232031.0, 3.1, 3.1, 0.0); (581861.6, 4232031.0, 3.1, 3.1, 0.0);
(581866.6, 4232031.0, 3.0, 3.0, 0.0); (581871.6, 4232031.0, 3.0, 3.0, 0.0);
(581876.6, 4232031.0, 3.0, 3.0, 0.0); (581881.6, 4232031.0, 3.0, 3.0, 0.0);
(581851.6, 4232036.0, 3.2, 3.2, 0.0); (581856.6, 4232036.0, 3.2, 3.2, 0.0);
(581861.6, 4232036.0, 3.1, 3.1, 0.0); (581866.6, 4232036.0, 3.1, 3.1, 0.0);
(581871.6, 4232036.0, 3.0, 3.0, 0.0); (581876.6, 4232036.0, 3.0, 3.0, 0.0);
(581881.6, 4232036.0, 3.0, 3.0, 0.0); (581851.6, 4232041.0, 3.4, 3.4, 0.0);
(581856.6, 4232041.0, 3.3, 3.3, 0.0); (581861.6, 4232041.0, 3.2, 3.2, 0.0);
(581866.6, 4232041.0, 3.1, 3.1, 0.0); (581871.6, 4232041.0, 3.0, 3.0, 0.0);
(581876.6, 4232041.0, 3.0, 3.0, 0.0); (581881.6,

4232041.0,   3.0,   3.0,   0.0);
     (581881.7, 4232011.6,   3.0,   3.0,   0.0);   (581876.2, 4232011.6,   3.0,   3.0,   0.0);
     (581871.3, 4232011.6,   3.0,   3.0,   0.0);   (581882.1, 4232008.1,   3.0,   3.0,   0.0);

 *** MODELOPTs: RegDFAULT CONC ELEV URBAN

*** METEOROLOGICAL DAYS SELECTED FOR PROCESSING ***

(1=YES; 0=NO)

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

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

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

(METERS/SEC)

1.54,   3.09,   5.14,   8.23,   10.80,

```
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN

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

   Surface file:   C:\Users\kheck\Desktop\MET DATA\Travis Air Force Base\745160.SFC
                 Met Version:  14134
   Profile file:   C:\Users\kheck\Desktop\MET DATA\Travis Air Force Base\745160.PFL

   Surface format: FREE

   Profile format: FREE

   Surface station no.:    23202                  Upper air station no.:    23230
                 Name: UNKNOWN                                        Name:
OAKLAND/WSO_AP
                 Year:   2009                                         Year:   2009

 First 24 hours of scalar data
 YR MO DY JDY HR     H0     U*     W*  DT/DZ ZICNV ZIMCH  M-O LEN    Z0  BOWEN
ALBEDO  REF WS   WD     HT  REF TA     HT
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - -
 09 01 01   1 01   -9.7  0.168 -9.000 -9.000 -999.  166.     44.7  0.47   0.92
1.00    1.76  121.   10.0  278.4    2.0
 09 01 01   1 02 -999.0 -9.000 -9.000 -9.000 -999. -999. -99999.0  0.26   0.92
1.00    0.00    0.   10.0  278.4    2.0
 09 01 01   1 03 -999.0 -9.000 -9.000 -9.000 -999. -999. -99999.0  0.26   0.92
1.00    0.00    0.   10.0  278.4    2.0
 09 01 01   1 04 -999.0 -9.000 -9.000 -9.000 -999. -999. -99999.0  0.26   0.92
1.00    0.00    0.   10.0  278.2    2.0
 09 01 01   1 05 -999.0 -9.000 -9.000 -9.000 -999. -999. -99999.0  0.26   0.92
1.00    0.00    0.   10.0  278.4    2.0
 09 01 01   1 06 -999.0 -9.000 -9.000 -9.000 -999. -999. -99999.0  0.26   0.92
1.00    0.00    0.   10.0  278.4    2.0
 09 01 01   1 07 -999.0 -9.000 -9.000 -9.000 -999. -999. -99999.0  0.26   0.92
1.00    0.00    0.   10.0  278.1    2.0
 09 01 01   1 08 -999.0 -9.000 -9.000 -9.000 -999. -999. -99999.0  0.26   0.92
1.00    0.00    0.   10.0  278.1    2.0
 09 01 01   1 09 -999.0 -9.000 -9.000 -9.000 -999. -999. -99999.0  0.26   0.92
0.42    0.00    0.   10.0  278.1    2.0
 09 01 01   1 10    5.6  0.226  0.239  0.015   88.  258.   -187.2  0.38   0.92
0.29    1.76  111.   10.0  278.1    2.0
 09 01 01   1 11   14.2  0.371  0.401  0.014  165.  543.   -328.7  0.24   0.92
0.24    3.36   24.   10.0  278.4    2.0
 09 01 01   1 12   18.9  0.297  0.492  0.016  230.  392.   -126.7  0.17   0.92
0.23    2.86  356.   10.0  278.2    2.0
 09 01 01   1 13   19.6  0.274  0.534  0.016  281.  345.    -95.6  0.24   0.92
0.23    2.36    3.   10.0  278.1    2.0
 09 01 01   1 14   16.4  0.239  0.523  0.015  317.  281.    -75.6  0.38   0.92
```

```
0.24    1.76   99.   10.0  278.1    2.0
 09 01 01   1 15    9.2 -9.000 -9.000 -9.000  336. -999. -99999.0  0.26   0.92
0.27    0.00    0.   10.0  278.1    2.0
 09 01 01   1 16 -999.0 -9.000 -9.000 -9.000 -999. -999. -99999.0  0.26   0.92
0.35    0.00    0.   10.0  279.1    2.0
 09 01 01   1 17 -999.0 -9.000 -9.000 -9.000 -999. -999. -99999.0  0.26   0.92
0.60    0.00    0.   10.0  279.1    2.0
 09 01 01   1 18 -999.0 -9.000 -9.000 -9.000 -999. -999. -99999.0  0.26   0.92
1.00    0.00    0.   10.0  279.0    2.0
 09 01 01   1 19  -19.7  0.344 -9.000 -9.000 -999.  484.    187.1  0.47   0.92
1.00    2.86  154.   10.0  279.2    2.0
 09 01 01   1 20  -13.2  0.230 -9.000 -9.000 -999.  272.     83.6  0.47   0.92
1.00    2.10  127.   10.0  279.1    2.0
 09 01 01   1 21  -13.2  0.230 -9.000 -9.000 -999.  265.     83.6  0.47   0.92
1.00    2.10  130.   10.0  279.1    2.0
 09 01 01   1 22  -21.7  0.378 -9.000 -9.000 -999.  559.    226.5  0.47   0.92
1.00    3.10  132.   10.0  279.1    2.0
 09 01 01   1 23  -13.2  0.230 -9.000 -9.000 -999.  280.     83.6  0.47   0.92
1.00    2.10  130.   10.0  279.1    2.0
 09 01 01   1 24  -23.7  0.415 -9.000 -9.000 -999.  641.    272.2  0.47   0.92
1.00    3.36  150.   10.0  279.5    2.0


 First hour of profile data
 YR MO DY HR HEIGHT F  WDIR    WSPD AMB_TMP sigmaA  sigmaW  sigmaV
 09 01 01 01   10.0 1  121.    1.76   278.4   99.0  -99.00  -99.00

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


*** MODELOPTs: RegDFAULT CONC ELEV URBAN

*** THE ANNUAL AVERAGE CONCENTRATION   VALUES AVERAGED OVER   5 YEARS FOR SOURCE GROUP: ALL   ***
INCLUDING SOURCE(S):   PAREA1   ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5   IN MICROGRAMS/M**3 **

```
       X-COORD (M)   Y-COORD (M)        CONC                        X-COORD (M)
Y-COORD (M)        CONC
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
```

```
         581733.98    4232043.70        0.04782                    581738.98
4232043.70        0.05065
         581743.98    4232043.70        0.05512                    581748.98
4232043.70        0.06162
         581753.98    4232043.70        0.06870                    581758.98
4232043.70        0.07587
         581763.98    4232043.70        0.08265                    581768.98
4232043.70        0.08898
         581773.98    4232043.70        0.09486                    581778.98
4232043.70        0.10032
         581783.98    4232043.70        0.10534                    581788.98
4232043.70        0.10952
         581793.98    4232043.70        0.11339                    581798.98
4232043.70        0.11702
         581803.98    4232043.70        0.12040                    581808.98
4232043.70        0.12359
         581813.98    4232043.70        0.12660                    581818.98
4232043.70        0.12947
         581823.98    4232043.70        0.13221                    581828.98
4232043.70        0.13481
         581833.98    4232043.70        0.13742                    581838.98
4232043.70        0.13993
         581843.98    4232043.70        0.14231                    581848.98
4232043.70        0.14404
         581853.98    4232043.70        0.14522                    581858.98
4232043.70        0.14588
         581863.98    4232043.70        0.14663                    581868.98
4232043.70        0.14802
         581873.98    4232043.70        0.15028                    581878.98
4232043.70        0.15349
         581733.98    4232048.70        0.04668                    581738.98
4232048.70        0.04946
         581743.98    4232048.70        0.05331                    581748.98
4232048.70        0.05843
         581753.98    4232048.70        0.06419                    581758.98
4232048.70        0.07031
         581763.98    4232048.70        0.07626                    581768.98
4232048.70        0.08197
         581773.98    4232048.70        0.08737                    581778.98
4232048.70        0.09245
         581783.98    4232048.70        0.09719                    581788.98
4232048.70        0.10114
         581793.98    4232048.70        0.10482                    581798.98
4232048.70        0.10829
         581803.98    4232048.70        0.11155                    581808.98
4232048.70        0.11465
         581813.98    4232048.70        0.11762                    581818.98
4232048.70        0.12047
         581823.98    4232048.70        0.12324                    581828.98
4232048.70        0.12593
```

```
         581833.98    4232048.70        0.12859                       581838.98
4232048.70        0.13119
         581843.98    4232048.70        0.13370                       581848.98
4232048.70        0.13566
         581853.98    4232048.70        0.13739                       581858.98
4232048.70        0.13893
         581863.98    4232048.70        0.14049                       581868.98
4232048.70        0.14251
         581873.98    4232048.70        0.14521                       581878.98
4232048.70        0.14880
         581733.98    4232053.70        0.04574                       581738.98
4232053.70        0.04826
         581743.98    4232053.70        0.05143                       581748.98
4232053.70        0.05541
         581753.98    4232053.70        0.06000                       581758.98
4232053.70        0.06512
         581763.98    4232053.70        0.07027                       581768.98
4232053.70        0.07535
         581773.98    4232053.70        0.08020                       581778.98
4232053.70        0.08485
         581783.98    4232053.70        0.08921                       581788.98
4232053.70        0.09297
         581793.98    4232053.70        0.09652                       581798.98
4232053.70        0.09990
         581803.98    4232053.70        0.10311                       581808.98
4232053.70        0.10619
         581813.98    4232053.70        0.10915                       581818.98
4232053.70        0.11203
         581823.98    4232053.70        0.11485                       581828.98
4232053.70        0.11762
 *** AERMOD - VERSION  18081 ***   *** C:\Lakes\AERMOD View\Fairfield Industrial
Site\Fairfield Industrial  ***        03/25/21
 *** AERMET - VERSION  14134 ***   ***
                       ***        11:24:53

                                  PAGE  15
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN

                   *** THE ANNUAL AVERAGE CONCENTRATION    VALUES AVERAGED OVER   5
YEARS FOR SOURCE GROUP: ALL      ***
                                  INCLUDING SOURCE(S):     PAREA1      ,

                                            *** DISCRETE CARTESIAN RECEPTOR POINTS
***

                                         ** CONC OF PM_2.5   IN MICROGRAMS/M**3
                    **

       X-COORD (M)   Y-COORD (M)        CONC                         X-COORD (M)
Y-COORD (M)        CONC
```

- -
581833.98 4232053.70 0.12037 581838.98
4232053.70 0.12311
581843.98 4232053.70 0.12581 581848.98
4232053.70 0.12810
581853.98 4232053.70 0.13028 581858.98
4232053.70 0.13243
581863.98 4232053.70 0.13465 581868.98
4232053.70 0.13726
581873.98 4232053.70 0.14038 581878.98
4232053.70 0.14435
581733.98 4232058.70 0.04511 581738.98
4232058.70 0.04737
581743.98 4232058.70 0.05007 581748.98
4232058.70 0.05332
581753.98 4232058.70 0.05706 581758.98
4232058.70 0.06129
581763.98 4232058.70 0.06568 581768.98
4232058.70 0.07007
581773.98 4232058.70 0.07437 581778.98
4232058.70 0.07854
581783.98 4232058.70 0.08252 581788.98
4232058.70 0.08608
581793.98 4232058.70 0.08949 581798.98
4232058.70 0.09276
581803.98 4232058.70 0.09589 581808.98
4232058.70 0.09893
581813.98 4232058.70 0.10187 581818.98
4232058.70 0.10475
581823.98 4232058.70 0.10758 581828.98
4232058.70 0.11040
581833.98 4232058.70 0.11321 581838.98
4232058.70 0.11604
581843.98 4232058.70 0.11886 581848.98
4232058.70 0.12143
581853.98 4232058.70 0.12400 581858.98
4232058.70 0.12663
581863.98 4232058.70 0.12944 581868.98
4232058.70 0.13258
581873.98 4232058.70 0.13622 581878.98
4232058.70 0.14050
581733.98 4232063.70 0.04475 581738.98
4232063.70 0.04683
581743.98 4232063.70 0.04922 581748.98
4232063.70 0.05199
581753.98 4232063.70 0.05514 581758.98
4232063.70 0.05868
581763.98 4232063.70 0.06240 581768.98
4232063.70 0.06618

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         581773.98    4232063.70        0.06996                       581778.98
4232063.70        0.07368
         581783.98    4232063.70        0.07729                       581788.98
4232063.70        0.08063
         581793.98    4232063.70        0.08387                       581798.98
4232063.70        0.08700
         581803.98    4232063.70        0.09003                       581808.98
4232063.70        0.09299
         581813.98    4232063.70        0.09588                       581818.98
4232063.70        0.09873
         581823.98    4232063.70        0.10155                       581828.98
4232063.70        0.10437
         581833.98    4232063.70        0.10720                       581838.98
4232063.70        0.11006
         581843.98    4232063.70        0.11296                       581848.98
4232063.70        0.11573
         581853.98    4232063.70        0.11859                       581858.98
4232063.70        0.12160
         581863.98    4232063.70        0.12484                       581868.98
4232063.70        0.12848
         581873.98    4232063.70        0.13260                       581878.98
4232063.70        0.13715
         581733.98    4232068.70        0.04460                       581738.98
4232068.70        0.04655
         581743.98    4232068.70        0.04873                       581748.98
4232068.70        0.05118
         581753.98    4232068.70        0.05391                       581758.98
4232068.70        0.05694
         581763.98    4232068.70        0.06015                       581768.98
4232068.70        0.06345
         581773.98    4232068.70        0.06679                       581778.98
4232068.70        0.07011
 *** AERMOD - VERSION  18081 ***   *** C:\Lakes\AERMOD View\Fairfield Industrial
Site\Fairfield Industrial  ***        03/25/21
 *** AERMET - VERSION  14134 ***   ***
                       ***        11:24:53

                                  PAGE  16
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN

                   *** THE ANNUAL AVERAGE CONCENTRATION    VALUES AVERAGED OVER   5
YEARS FOR SOURCE GROUP: ALL      ***
                                  INCLUDING SOURCE(S):     PAREA1      ,

                                            *** DISCRETE CARTESIAN RECEPTOR POINTS
***

                                          ** CONC OF PM_2.5   IN MICROGRAMS/M**3
                    **
```

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
581783.98	4232068.70	0.07339	581788.98	4232068.70	0.07651
581793.98	4232068.70	0.07955	581798.98	4232068.70	0.08253
581803.98	4232068.70	0.08544	581808.98	4232068.70	0.08830
581813.98	4232068.70	0.09112	581818.98	4232068.70	0.09390
581823.98	4232068.70	0.09668	581828.98	4232068.70	0.09947
581833.98	4232068.70	0.10228	581838.98	4232068.70	0.10514
581843.98	4232068.70	0.10806	581848.98	4232068.70	0.11096
581853.98	4232068.70	0.11401	581858.98	4232068.70	0.11725
581863.98	4232068.70	0.12082	581868.98	4232068.70	0.12481
581873.98	4232068.70	0.12935	581878.98	4232068.70	0.13412
581733.98	4232073.70	0.04466	581738.98	4232073.70	0.04653
581743.98	4232073.70	0.04856	581748.98	4232073.70	0.05079
581753.98	4232073.70	0.05322	581758.98	4232073.70	0.05588
581763.98	4232073.70	0.05870	581768.98	4232073.70	0.06160
581773.98	4232073.70	0.06458	581778.98	4232073.70	0.06757
581783.98	4232073.70	0.07055	581788.98	4232073.70	0.07345
581793.98	4232073.70	0.07630	581798.98	4232073.70	0.07912
581803.98	4232073.70	0.08190	581808.98	4232073.70	0.08464
581813.98	4232073.70	0.08736	581818.98	4232073.70	0.09007
581823.98	4232073.70	0.09278	581828.98	4232073.70	0.09551
581833.98	4232073.70	0.09828	581838.98	4232073.70	0.10111
581843.98	4232073.70	0.10404	581848.98	4232073.70	0.10700
581853.98	4232073.70	0.11014	581858.98	4232073.70	0.11356

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         581863.98    4232073.70        0.11733                      581868.98
4232073.70        0.12160
         581873.98    4232073.70        0.12646                      581878.98
4232073.70        0.13138
         581733.98    4232078.70        0.04490                      581738.98
4232078.70        0.04673
         581743.98    4232078.70        0.04867                      581748.98
4232078.70        0.05075
         581753.98    4232078.70        0.05298                      581758.98
4232078.70        0.05537
         581763.98    4232078.70        0.05788                      581768.98
4232078.70        0.06049
         581773.98    4232078.70        0.06315                      581778.98
4232078.70        0.06586
         581783.98    4232078.70        0.06858                      581788.98
4232078.70        0.07127
         581793.98    4232078.70        0.07394                      581798.98
4232078.70        0.07659
         581803.98    4232078.70        0.07923                      581808.98
4232078.70        0.08185
         581813.98    4232078.70        0.08446                      581818.98
4232078.70        0.08708
         581823.98    4232078.70        0.08971                      581828.98
4232078.70        0.09237
         581833.98    4232078.70        0.09508                      581838.98
4232078.70        0.09786
         581843.98    4232078.70        0.10076                      581848.98
4232078.70        0.10375
         581853.98    4232078.70        0.10695                      581858.98
4232078.70        0.11045
         581863.98    4232078.70        0.11436                      581868.98
4232078.70        0.11883
         581873.98    4232078.70        0.12397                      581878.98
4232078.70        0.12902
 *** AERMOD - VERSION  18081 ***   *** C:\Lakes\AERMOD View\Fairfield Industrial
Site\Fairfield Industrial  ***        03/25/21
 *** AERMET - VERSION  14134 ***   ***
                       ***        11:24:53

                                  PAGE  17
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN

                  *** THE ANNUAL AVERAGE CONCENTRATION    VALUES AVERAGED OVER   5
YEARS FOR SOURCE GROUP: ALL      ***
                                  INCLUDING SOURCE(S):     PAREA1      ,

                                            *** DISCRETE CARTESIAN RECEPTOR POINTS
***

                                         ** CONC OF PM_2.5   IN MICROGRAMS/M**3
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**

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
581733.98	4232083.70	0.04533	581738.98	4232083.70	0.04714
581743.98	4232083.70	0.04904	581748.98	4232083.70	0.05102
581753.98	4232083.70	0.05311	581758.98	4232083.70	0.05531
581763.98	4232083.70	0.05759	581768.98	4232083.70	0.05996
581773.98	4232083.70	0.06238	581778.98	4232083.70	0.06485
581783.98	4232083.70	0.06734	581788.98	4232083.70	0.06983
581793.98	4232083.70	0.07233	581798.98	4232083.70	0.07483
581803.98	4232083.70	0.07733	581808.98	4232083.70	0.07982
581813.98	4232083.70	0.08233	581818.98	4232083.70	0.08484
581823.98	4232083.70	0.08738	581828.98	4232083.70	0.08996
581833.98	4232083.70	0.09260	581838.98	4232083.70	0.09532
581843.98	4232083.70	0.09816	581848.98	4232083.70	0.10115
581853.98	4232083.70	0.10437	581858.98	4232083.70	0.10791
581863.98	4232083.70	0.11191	581868.98	4232083.70	0.11650
581873.98	4232083.70	0.12183	581878.98	4232083.70	0.12702
581733.98	4232088.70	0.04592	581738.98	4232088.70	0.04775
581743.98	4232088.70	0.04963	581748.98	4232088.70	0.05156
581753.98	4232088.70	0.05355	581758.98	4232088.70	0.05561
581763.98	4232088.70	0.05773	581768.98	4232088.70	0.05991
581773.98	4232088.70	0.06215	581778.98	4232088.70	0.06442
581783.98	4232088.70	0.06673	581788.98	4232088.70	0.06905
581793.98	4232088.70	0.07140	581798.98	4232088.70	0.07375

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         581803.98    4232088.70        0.07611                       581808.98
4232088.70        0.07849
         581813.98    4232088.70        0.08088                       581818.98
4232088.70        0.08329
         581823.98    4232088.70        0.08573                       581828.98
4232088.70        0.08822
         581833.98    4232088.70        0.09078                       581838.98
4232088.70        0.09342
         581843.98    4232088.70        0.09619                       581848.98
4232088.70        0.09913
         581853.98    4232088.70        0.10231                       581858.98
4232088.70        0.10583
         581863.98    4232088.70        0.10983                       581868.98
4232088.70        0.11446
         581873.98    4232088.70        0.11985                       581878.98
4232088.70        0.12513
         581733.98    4232093.70        0.04669                       581738.98
4232093.70        0.04857
         581743.98    4232093.70        0.05047                       581748.98
4232093.70        0.05238
         581753.98    4232093.70        0.05431                       581758.98
4232093.70        0.05628
         581763.98    4232093.70        0.05829                       581768.98
4232093.70        0.06033
         581773.98    4232093.70        0.06242                       581778.98
4232093.70        0.06454
         581783.98    4232093.70        0.06669                       581788.98
4232093.70        0.06887
         581793.98    4232093.70        0.07108                       581798.98
4232093.70        0.07330
         581803.98    4232093.70        0.07554                       581808.98
4232093.70        0.07780
         581813.98    4232093.70        0.08008                       581818.98
4232093.70        0.08239
         581823.98    4232093.70        0.08473                       581828.98
4232093.70        0.08713
 *** AERMOD - VERSION  18081 ***   *** C:\Lakes\AERMOD View\Fairfield Industrial
Site\Fairfield Industrial  ***        03/25/21
 *** AERMET - VERSION  14134 ***   ***
                       ***        11:24:53

                                  PAGE  18
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN

                   *** THE ANNUAL AVERAGE CONCENTRATION    VALUES AVERAGED OVER   5
YEARS FOR SOURCE GROUP: ALL      ***
                                  INCLUDING SOURCE(S):     PAREA1      ,

                                                *** DISCRETE CARTESIAN RECEPTOR POINTS
***
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** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
581833.98	4232093.70	0.08960	581838.98	4232093.70	0.09216
581843.98	4232093.70	0.09484	581848.98	4232093.70	0.09770
581853.98	4232093.70	0.10081	581858.98	4232093.70	0.10426
581863.98	4232093.70	0.10819	581868.98	4232093.70	0.11278
581873.98	4232093.70	0.11812	581878.98	4232093.70	0.12347
581733.98	4232098.70	0.04769	581738.98	4232098.70	0.04965
581743.98	4232098.70	0.05160	581748.98	4232098.70	0.05352
581753.98	4232098.70	0.05544	581758.98	4232098.70	0.05735
581763.98	4232098.70	0.05927	581768.98	4232098.70	0.06121
581773.98	4232098.70	0.06318	581778.98	4232098.70	0.06518
581783.98	4232098.70	0.06721	581788.98	4232098.70	0.06927
581793.98	4232098.70	0.07135	581798.98	4232098.70	0.07345
581803.98	4232098.70	0.07558	581808.98	4232098.70	0.07773
581813.98	4232098.70	0.07991	581818.98	4232098.70	0.08212
581823.98	4232098.70	0.08438	581828.98	4232098.70	0.08668
581833.98	4232098.70	0.08905	581838.98	4232098.70	0.09152
581843.98	4232098.70	0.09411	581848.98	4232098.70	0.09688
581853.98	4232098.70	0.09989	581858.98	4232098.70	0.10324
581863.98	4232098.70	0.10708	581868.98	4232098.70	0.11158
581873.98	4232098.70	0.11683	581878.98	4232098.70	0.12219
581733.98	4232103.70	0.04894	581738.98	4232103.70	0.05103

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         581743.98    4232103.70        0.05307                      581748.98
4232103.70        0.05504
         581753.98    4232103.70        0.05695                      581758.98
4232103.70        0.05883
         581763.98    4232103.70        0.06070                      581768.98
4232103.70        0.06257
         581773.98    4232103.70        0.06446                      581778.98
4232103.70        0.06636
         581783.98    4232103.70        0.06829                      581788.98
4232103.70        0.07025
         581793.98    4232103.70        0.07223                      581798.98
4232103.70        0.07423
         581803.98    4232103.70        0.07626                      581808.98
4232103.70        0.07832
         581813.98    4232103.70        0.08040                      581818.98
4232103.70        0.08252
         581823.98    4232103.70        0.08468                      581828.98
4232103.70        0.08689
         581833.98    4232103.70        0.08917                      581838.98
4232103.70        0.09155
         581843.98    4232103.70        0.09404                      581848.98
4232103.70        0.09670
         581853.98    4232103.70        0.09959                      581858.98
4232103.70        0.10283
         581863.98    4232103.70        0.10653                      581868.98
4232103.70        0.11090
         581873.98    4232103.70        0.11604                      581878.98
4232103.70        0.12133
         581733.98    4232108.70        0.05048                      581738.98
4232108.70        0.05276
         581743.98    4232108.70        0.05492                      581748.98
4232108.70        0.05696
         581753.98    4232108.70        0.05890                      581758.98
4232108.70        0.06078
         581763.98    4232108.70        0.06262                      581768.98
4232108.70        0.06445
         581773.98    4232108.70        0.06628                      581778.98
4232108.70        0.06812
 *** AERMOD - VERSION  18081 ***   *** C:\Lakes\AERMOD View\Fairfield Industrial
Site\Fairfield Industrial  ***        03/25/21
 *** AERMET - VERSION  14134 ***   ***
                       ***        11:24:53

                                  PAGE  19
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN

                   *** THE ANNUAL AVERAGE CONCENTRATION    VALUES AVERAGED OVER   5
YEARS FOR SOURCE GROUP: ALL      ***
                                   INCLUDING SOURCE(S):     PAREA1      ,
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*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
581783.98	4232108.70	0.06997	581788.98	4232108.70	0.07185
581793.98	4232108.70	0.07375	581798.98	4232108.70	0.07567
581803.98	4232108.70	0.07762	581808.98	4232108.70	0.07959
581813.98	4232108.70	0.08160	581818.98	4232108.70	0.08363
581823.98	4232108.70	0.08571	581828.98	4232108.70	0.08783
581833.98	4232108.70	0.09002	581838.98	4232108.70	0.09230
581843.98	4232108.70	0.09468	581848.98	4232108.70	0.09723
581853.98	4232108.70	0.10000	581858.98	4232108.70	0.10308
581863.98	4232108.70	0.10663	581868.98	4232108.70	0.11081
581873.98	4232108.70	0.11575	581878.98	4232108.70	0.12094
581733.98	4232113.70	0.05238	581738.98	4232113.70	0.05490
581743.98	4232113.70	0.05723	581748.98	4232113.70	0.05937
581753.98	4232113.70	0.06137	581758.98	4232113.70	0.06327
581763.98	4232113.70	0.06511	581768.98	4232113.70	0.06692
581773.98	4232113.70	0.06873	581778.98	4232113.70	0.07053
581783.98	4232113.70	0.07234	581788.98	4232113.70	0.07417
581793.98	4232113.70	0.07602	581798.98	4232113.70	0.07788
581803.98	4232113.70	0.07976	581808.98	4232113.70	0.08167
581813.98	4232113.70	0.08360	581818.98	4232113.70	0.08557
581823.98	4232113.70	0.08757	581828.98	4232113.70	0.08961

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         581833.98    4232113.70        0.09171                      581838.98
4232113.70        0.09389
         581843.98    4232113.70        0.09617                      581848.98
4232113.70        0.09860
         581853.98    4232113.70        0.10123                      581858.98
4232113.70        0.10415
         581863.98    4232113.70        0.10749                      581868.98
4232113.70        0.11144
         581873.98    4232113.70        0.11610                      581878.98
4232113.70        0.12108
         581733.98    4232118.70        0.05465                      581738.98
4232118.70        0.05750
         581743.98    4232118.70        0.06004                      581748.98
4232118.70        0.06231
         581753.98    4232118.70        0.06439                      581758.98
4232118.70        0.06634
         581763.98    4232118.70        0.06823                      581768.98
4232118.70        0.07007
         581773.98    4232118.70        0.07189                      581778.98
4232118.70        0.07369
         581783.98    4232118.70        0.07550                      581788.98
4232118.70        0.07731
         581793.98    4232118.70        0.07912                      581798.98
4232118.70        0.08095
         581803.98    4232118.70        0.08280                      581808.98
4232118.70        0.08466
         581813.98    4232118.70        0.08653                      581818.98
4232118.70        0.08844
         581823.98    4232118.70        0.09037                      581828.98
4232118.70        0.09234
         581833.98    4232118.70        0.09436                      581838.98
4232118.70        0.09645
         581843.98    4232118.70        0.09863                      581848.98
4232118.70        0.10093
         581853.98    4232118.70        0.10342                      581858.98
4232118.70        0.10616
         581863.98    4232118.70        0.10927                      581868.98
4232118.70        0.11293
         581873.98    4232118.70        0.11724                      581878.98
4232118.70        0.12183
 *** AERMOD - VERSION  18081 ***   *** C:\Lakes\AERMOD View\Fairfield Industrial
Site\Fairfield Industrial  ***        03/25/21
 *** AERMET - VERSION  14134 ***   ***
                       ***        11:24:53

                                  PAGE  20
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN

                   *** THE ANNUAL AVERAGE CONCENTRATION    VALUES AVERAGED OVER   5
YEARS FOR SOURCE GROUP: ALL      ***
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INCLUDING SOURCE(S): PAREA1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
581733.98	4232123.70	0.05720	581738.98	4232123.70	0.06040
581743.98	4232123.70	0.06315	581748.98	4232123.70	0.06557
581753.98	4232123.70	0.06779	581758.98	4232123.70	0.06989
581763.98	4232123.70	0.07190	581768.98	4232123.70	0.07385
581773.98	4232123.70	0.07575	581778.98	4232123.70	0.07761
581783.98	4232123.70	0.07946	581788.98	4232123.70	0.08129
581793.98	4232123.70	0.08313	581798.98	4232123.70	0.08496
581803.98	4232123.70	0.08678	581808.98	4232123.70	0.08861
581813.98	4232123.70	0.09045	581818.98	4232123.70	0.09231
581823.98	4232123.70	0.09420	581828.98	4232123.70	0.09612
581833.98	4232123.70	0.09807	581838.98	4232123.70	0.10008
581843.98	4232123.70	0.10217	581848.98	4232123.70	0.10435
581853.98	4232123.70	0.10669	581858.98	4232123.70	0.10924
581863.98	4232123.70	0.11211	581868.98	4232123.70	0.11542
581873.98	4232123.70	0.11929	581878.98	4232123.70	0.12333
581733.98	4232128.70	0.05951	581738.98	4232128.70	0.06290
581743.98	4232128.70	0.06585	581748.98	4232128.70	0.06855
581753.98	4232128.70	0.07108	581758.98	4232128.70	0.07346
581763.98	4232128.70	0.07572	581768.98	4232128.70	0.07788

```
         581773.98    4232128.70        0.07993                      581778.98
4232128.70        0.08190
         581783.98    4232128.70        0.08382                      581788.98
4232128.70        0.08571
         581793.98    4232128.70        0.08759                      581798.98
4232128.70        0.08945
         581803.98    4232128.70        0.09130                      581808.98
4232128.70        0.09314
         581813.98    4232128.70        0.09498                      581818.98
4232128.70        0.09682
         581823.98    4232128.70        0.09867                      581828.98
4232128.70        0.10055
         581833.98    4232128.70        0.10246                      581838.98
4232128.70        0.10441
         581843.98    4232128.70        0.10641                      581848.98
4232128.70        0.10851
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4232128.70        0.11310
         581863.98    4232128.70        0.11573                      581868.98
4232128.70        0.11870
         581873.98    4232128.70        0.12208                      581878.98
4232128.70        0.12555
         581851.61    4232016.02        0.17015                      581856.61
4232016.02        0.17314
         581861.61    4232016.02        0.17601                      581866.61
4232016.02        0.17873
         581871.61    4232016.02        0.18140                      581876.61
4232016.02        0.18401
         581881.61    4232016.02        0.18615                      581851.61
4232021.02        0.16803
         581856.61    4232021.02        0.17039                      581861.61
4232021.02        0.17208
         581866.61    4232021.02        0.17357                      581871.61
4232021.02        0.17534
         581876.61    4232021.02        0.17755                      581881.61
4232021.02        0.17964
         581851.61    4232026.02        0.16511                      581856.61
4232026.02        0.16626
         581861.61    4232026.02        0.16668                      581866.61
4232026.02        0.16749
         581871.61    4232026.02        0.16899                      581876.61
4232026.02        0.17120
 *** AERMOD - VERSION  18081 ***   *** C:\Lakes\AERMOD View\Fairfield Industrial
Site\Fairfield Industrial  ***        03/25/21
 *** AERMET - VERSION  14134 ***   ***
                        ***       11:24:53

                                  PAGE  21
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN
```

*** THE ANNUAL AVERAGE CONCENTRATION VALUES AVERAGED OVER 5 YEARS FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): PAREA1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
581881.61	4232026.02	0.17345	581851.61	4232031.02	0.16172
581856.61	4232031.02	0.16191	581861.61	4232031.02	0.16153
581866.61	4232031.02	0.16182	581871.61	4232031.02	0.16307
581876.61	4232031.02	0.16531	581881.61	4232031.02	0.16775
581851.61	4232036.02	0.15660	581856.61	4232036.02	0.15654
581861.61	4232036.02	0.15599	581866.61	4232036.02	0.15619
581871.61	4232036.02	0.15745	581876.61	4232036.02	0.15983
581881.61	4232036.02	0.16250	581851.61	4232041.02	0.14923
581856.61	4232041.02	0.14963	581861.61	4232041.02	0.14977
581866.61	4232041.02	0.15042	581871.61	4232041.02	0.15197
581876.61	4232041.02	0.15464	581881.61	4232041.02	0.15759
581881.74	4232011.60	0.19149	581876.17	4232011.60	0.18832
581871.29	4232011.60	0.18483	581882.09	4232008.12	0.19466

*** MODELOPTs: RegDFAULT CONC ELEV URBAN

*** THE SUMMARY OF MAXIMUM ANNUAL RESULTS AVERAGED OVER 5 YEARS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3
**

GROUP ID	NETWORK AVERAGE CONC	RECEPTOR (XR, YR, ZELEV, ZHILL, ZFLAG)	OF TYPE	GRID-ID
ALL	1ST HIGHEST VALUE IS	0.19466 AT (581882.09, 4232008.12, 3.00, 3.00, 0.00)	DC	
	2ND HIGHEST VALUE IS	0.19149 AT (581881.74, 4232011.60, 3.00, 3.00, 0.00)	DC	
	3RD HIGHEST VALUE IS	0.18832 AT (581876.17, 4232011.60, 3.00, 3.00, 0.00)	DC	
	4TH HIGHEST VALUE IS	0.18615 AT (581881.61, 4232016.02, 3.00, 3.00, 0.00)	DC	
	5TH HIGHEST VALUE IS	0.18483 AT (581871.29, 4232011.60, 3.00, 3.00, 0.00)	DC	
	6TH HIGHEST VALUE IS	0.18401 AT (581876.61, 4232016.02, 3.00, 3.00, 0.00)	DC	
	7TH HIGHEST VALUE IS	0.18140 AT (581871.61, 4232016.02, 3.00, 3.00, 0.00)	DC	
	8TH HIGHEST VALUE IS	0.17964 AT (581881.61, 4232021.02, 3.00, 3.00, 0.00)	DC	
	9TH HIGHEST VALUE IS	0.17873 AT (581866.61, 4232016.02, 3.00, 3.00, 0.00)	DC	
	10TH HIGHEST VALUE IS	0.17755 AT (581876.61, 4232021.02, 3.00, 3.00, 0.00)	DC	

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

*** MODELOPTs: RegDFAULT CONC ELEV URBAN

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

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

```
A Total of            0 Fatal Error Message(s)
A Total of            1 Warning Message(s)
A Total of         5334 Informational Message(s)

A Total of        43872 Hours Were Processed

A Total of         3700 Calm Hours Identified

A Total of         1634 Missing Hours Identified (  3.72 Percent)


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


   ********   WARNING MESSAGES   ********
MX W481   43873         MAIN: Data Remaining After End of Year. Number of Hours=
       48

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

Annual Average DPM Concentration

HARP2 - Residential Risk

*HARP - HRACalc v19044 3/25/2021 9:53:59 AM - Cancer Risk - Input File: C:\Users\kheck\Desktop\HARP2\FairfieldIndustrialHRAInput.hra

INDEX	GRP1	GRP2	POLID	POLABBRE	CONC	RISK_SUM	SCENARIO	DETAILS	INH_RISK
1	residential		9901	DieselExhP	0.07418	7.10E-06	0.5YrCance	*	7.10E-06


IMPACT
SCIENCES

Appendix B:

Fehr & Peers, *Dermody Industrial Fairfield – CEQA Vehicle Miles Traveled Assessment*, July 15, 2021.

FEHR PEERS

Memorandum

Date: July 15, 2021

To: Shelagh Danna and George Cordon, Dermody Properties

From: Sarah Chan, PE, TE and Emily Chen

Subject: Dermody Industrial Fairfield – CEQA Vehicle Miles Traveled Assessment

WC20-3750.00

This memorandum summarizes the results of the California Environmental Quality Act (CEQA) vehicle-miles traveled (VMT) assessment for the proposed Dermody Industrial Project, herein referred to as the Project. The Project is located in the City of Fairfield, occupying the northeast corner of the Beck Avenue and Cordelia Road intersection. The Project proposes to construct approximately 713,700 square feet of industrial uses across five individual buildings. Each building will range in size from approximately 80,000 square feet to 260,000 square feet. The Project site would be accessed by four driveways, including two along Beck Avenue and two along Cordelia Road. **Attachment A** includes an illustration of the proposed site plan.

Analysis Assumptions & Methodology

This section describes Fehr & Peers' approach and significance thresholds for the VMT and LOS analysis.

Vehicle-Miles Traveled (VMT)

The California Environmental Quality Act (CEQA) Guidelines were updated in December 2019 per Senate Bill 743 (SB 743) to remove LOS from CEQA analysis and to require the use of VMT to evaluate a Project's environmental effect on the transportation system. VMT measures the amount of driving generated by the project and thereby the impacts on the environment from those miles traveled. SB 743 changes the focus of transportation impact analysis in CEQA from measuring *impacts on drivers* to measuring the *environmental impact of driving*.

For this project, the transportation-related CEQA Guidelines Appendix G checklist[1] questions are:

[1] 2021 CEQA Guidelines, Appendix G: https://www.califaep.org/docs/CEQA_Handbook_2021.pdf.

Would the project:

a) Conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities?

b) Conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?

c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

d) Result in inadequate emergency access?

Criterion B is the formal implementation of the SB 743 requirement to analyze VMT as part of the CEQA Transportation section. Under SB 743, congestion related project effects (such as those measured by LOS or similar metrics) are deemed to be not a suitable basis on which to determine a significant environmental effect. Relevant subsections of CEQA Guidelines section 15064.3(b) for the project read as follows:

(1) **Land Use Projects.** Vehicle-miles traveled exceeding an applicable threshold of significance may indicate a significant impact. Generally, projects within one-half mile of either an existing major transit stop or a stop along an existing high-quality transit corridor should be presumed to cause a less than significant transportation impact. Projects that decrease vehicle-miles traveled in the project area compared to existing conditions should be presumed to have a less than significant transportation impact.

(4) **Methodology.** A lead agency has discretion to choose the most appropriate methodology to evaluate a project's vehicle miles traveled, including whether to express the change in absolute terms, per capita, per household or in any other measure. A lead agency may use models to estimate a project's vehicle miles traveled and may revise those estimates to reflect professional judgment based on substantial evidence. Any assumptions used to estimate vehicle miles traveled and any revisions to model outputs should be documented and explained in the environmental document prepared for the project. The standard of adequacy in the CEQA Guidelines, Article 10, Section 15151 shall apply to the analysis described in this section.

As noted in subsection (4), the City of Fairfield, in its discretion as lead agency, has the ability to select the methodology and CEQA significance criteria for use in the CEQA Transportation section. The City of Fairfield formally adopted locally applicable CEQA metrics, methodology, and significance criteria in December 2020, published in the summarized in the *Fairfield Guidelines for Project VMT Screening Transportation Analysis* and summarized in the section below.

Analysis Methodology

The *Fairfield Guidelines for Project VMT Screening Transportation Analysis* states that VMT analysis shall be prepared using the City of Fairfield travel demand model. As part of the City's SB 743 implementation efforts, the City of Fairfield model was updated in 2020 by the City's consultant to improve the accounting of trip lengths for trips that leave the model coverage area. Subsequently, Fehr & Peers made updates to the City of Fairfield model to reflect additional edits to land uses and the transportation system as identified during Fehr & Peers' work on the City of Fairfield Traffic Impact Fee Update project. Models are frequently updated over time to reflect new information, and the use of the latest available models in the CEQA analysis of a project is encouraged as CEQA analyses should use the latest and best data available (*Cleveland National Forest Foundation vs. San Diego Associations of Governments, 2017)*.

VMT calculations were prepared for the following four scenarios:

- Near-Term No Project: Total model-wide VMT using the Near-Term scenario from the City of Fairfield model
- Near-Term Plus Project: Total model-wide VMT using the Near-Term scenario from City of Fairfield model plus the Project land use added into transportation analysis zone (TAZ) 377[2].
- Cumulative No Project: Total model-wide VMT was calculated using year 2040 City of Fairfield model. This horizon year of the model incorporates land use forecasts from the City's adopted General Plan and Plan Bay Area 2040.
- Cumulative Plus Project: Total model-wide VMT using year 2040 City of Fairfield model plus the Project land use added into TAZ 377 with a land use control total method. The land use control total method assumes that the total land use growth between Near-term and Cumulative is fixed. The delta between the Near-term and Cumulative industrial land use was calculated for each TAZ. A proportion of the net new industrial use was allocated to the Project TAZ based on their proportionate growth. The total industrial land use quantity removed across all TAZs is equal to the added industrial land use quantity in the Project TAZ. Maps showing the industrial land use growth by TAZ for the Cumulative No Project and the Cumulative Plus Project scenarios are presented in **Attachment B**.

VMT Thresholds of Significance CEQA impacts are identified based on the project's VMT compared against a percentage of a baseline value of VMT. CEQA Guidelines §15064.3(a) notes that, for the purposes of §15064.3 and CEQA Transportation analysis, VMT "refers to the amount and distance of automobile travel attributable to a project." This statement has been interpreted

[2] The Fairfield Model area is divided into geographic sub-areas called TAZs. TAZs are used in the Fairfield Model to connect the land uses to the roadway network. Each TAZ includes land use information for that geographic sub-area within the model. The Project is located in TAZ 377.

by OPR to mean automobile and light-duty truck travel (e.g., pickup trucks). For many employment-focused land uses, the amount and distance of automobile travel is largely attributable to commute trips for employees. OPR notes that heavy-duty truck VMT could be included for convenience and ease of calculation, if a lead agency so chooses, but are not required to be included in the calculations. The guidance is non-binding and allows lead agencies to come up with their own VMT analysis methodology and set their own thresholds of significance.

The model VMT metric estimates are key in setting baseline values to be used in CEQA thresholds going forward. It is noted, however, that the "base year" thresholds rely on a rolling baseline – that is, the base year baseline metric value should be re-considered on a project-by-project basis when each project's Notice of Preparation is released. As such, the following Baseline and Cumulative No Project home-based total model-wide VMT was estimated:

- Near-Term Total VMT: 10,968,834
- Cumulative Total VMT: 12,122,706

As noted previously, the City of Fairfield has formally adopted locally-specific CEQA VMT thresholds. The thresholds in the *Fairfield Guidelines for Project VMT Screening Transportation Analysis* are stratified by project type and include the following generalized thresholds for use in CEQA VMT analyses:

A project would result in a significant impact if:

- **Single-Family Residential Projects:** Project VMT would be in excess of 85% of the City-wide average VMT per single-family dwelling unit
- **Multifamily Residential Projects:** Project VMT would be in excess of 85% of the City-wide average VMT per multifamily dwelling unit
- **Office Projects:** Project VMT would be in excess of 85% of the City-wide average VMT per 1,000 square feet of office space
- **Other Projects (Retail, Industrial, and Other Non-residential Uses):** Any net increase in total model-wide VMT

Based on the proposed Project description, the "Other Projects" threshold of significance would apply. Therefore, the Project would result in a significant impact if the addition of the Project increases the Near-Term or Cumulative total model-wide VMT.

VMT Analysis

This section describes CEQA VMT analysis prepared for the proposed Project.

Project Land Use Changes

As described the above, the Project does not require rezoning of the existing parcel, as the existing zone is designated for industrial uses. However, while it is zoned for industrial spaces, the proposed Project increases the total amount of industrial currently allocated for the parcel. **Table 1** summarizes the land use changes made in the City of Fairfield model to reflect the Project.

Table 1: Project TAZ 377 Industrial Land Use Assumptions

Scenario	No Project Land Use (square feet)	Plus Project Land Use (square feet)	Delta
Near-Term	371,000	1,084,701	**+713,701**
Cumulative	1,081,000	1,084,146	**+3,146**[1]

Notes:
1. Based on the land use control method described above, the total industrial land use growth between Near-term and Cumulative was fixed. Therefore, the delta in the Cumulative scenario represents the net add of industrial growth reproportioned from other sites in the model to the Project TAZ.

Source: Fehr & Peers, June 2021.

As shown above, under Near-Term conditions, the Project was added to the Project site TAZ, for a total increase of 713,701 square feet. Under Cumulative conditions, a control total method was applied. The control total method assumes that the total industrial growth between Near-Term and Cumulative in the City of Fairfield is fixed. The City of Fairfield General Plan assumes and allocates an estimated amount of industrial growth throughout the City. Estimates are based on available data at the time of the General Plan. Since the proposed Project does not require rezoning and based on model assumptions, shows that some industrial growth is projected at the site, it is reasonable to reallocate unentitled industrial growth from elsewhere in the City. The proportion of industrial land use growth between Near-Term and Cumulative was calculated for each TAZ and applied to the Project's industrial land use size to calculate the quantity of industrial land use to be reallocated from each TAZ to the Project TAZ. **Attachment B** describes how the industrial land uses were redistributed from other TAZs in the Cumulative scenario.

VMT Results

The analysis scenarios were analyzed using the methodologies described above, and the VMT analysis results are summarized in **Table 2** below.

Table 2: VMT Analysis Summary

Scenario	Baseline Total VMT	Plus Project Total VMT	Delta
Near-Term	10,968,834	10,997,397	+28,563 (+<1%)
Cumulative	12,122,706	12,116,546	-6,159 (-<1%)

Source: Fehr & Peers, June 2021.

Based on the City of Fairfield VMT impact threshold described above, the Project would result in a significant VMT impact if the Project increases the total VMT compared to Baseline (No Project) conditions. The addition of the Project is expected to increase the total VMT under Near-Term conditions by approximately 28,563 VMT and decrease total VMT under Cumulative conditions by approximately 6,159 VMT. Therefore, the Project would result in a ***significant impact*** in the Near-Term and a ***less-than-significant impact*** under Cumulative conditions.

The Cumulative conditions reflect the buildout of the City's General Plan. The City's General Plan seeks to diversify the City's land use program and transportation network and does not anticipate new projects to conflict with state and regional long-term greenhouse gas emission reduction targets and statewide VMT reduction targets. Therefore, it is reasonable to assume that the proposed Project is in line with the planned industrial growth in the City of Fairfield. Thus, while the project would result in a significant impact under Baseline conditions, the Project would mitigate itself over time with the planned future development, resulting in a ***less-than-significant impact*** under near-term conditions. Since timing of General Plan buildout is uncertain, near-term mitigation measures shall be implemented to reduce the Project's near-term VMT impacts.

VMT Mitigation Measures

This section describes potential mitigation measures the Project should consider to reduce the Project's near-term VMT impact.

General Plan Improvements

The Fairfield General Plan proposes to build new bicycle facilities in the Project site area, including on the two roadways that provide direct access to the Project site on Cordelia Road. A Class III bike facility on Cordelia Road is proposed along the Project site. This improvement may increase the bikeability of the Project site area and encourage more people to bike to work, which can reduce VMT.

Transportation Demand Management (TDM) Program

For employment-focused land uses, such as the proposed Project, mitigation measures tend to focus on reducing employee trips through implementation of Transportation Demand Management (TDM) Programs. TDM refers to strategies that motivate alternatives to automobile travel, either through positive incentives or walking, biking, and transit, or through adding additional costs to automobile use at the project site. Fehr & Peers developed the TDM+ tool that estimates a percent reduction in VMT due to a single TDM strategy as well as the combination of multiple TDM strategies. TDM+ incorporates the effects of numerous land use and design strategies as well as various travel incentives and disincentives. The VMT reductions applied in TDM+ are based on strategies identified in the forthcoming 2021 update of the Air Resource Board Zero Carbon Buildings Study and the Quantifying Greenhouse Gas Mitigation Measures Report, California Air Pollution Control Officers Association (CAPCOA), 2010.[3]

The TDM+ tool was used to analyze the Project's VMT reduction potential in a suburban environment. Typical vehicle trip reduction strategies for employment-based development like the Project are related to commuter trip reductions. The recommended TDM measures include a commuter marketing program, transit pass subsidies, and carpool/vanpool incentives. Outputs from the TDM+ measurement of feasible TDM measures to reduce Project VMT and their estimated percent VMT reduction are summarized in **Table 3**. Should the City adopt a VMT mitigation bank program or trip credit program, the appropriate fees or credits can be applied to the Project.

Table 3: TDM Program

Measure	Description	VMT % Reduction
Transit Pass Subsidies	Provide 100% transit pass subsidy to encourage employees to take transit to work.	1-4%
Commute Marketing Program	Designate a TDM coordinator to plan, manage, and implement commute programs. The TDM coordinator shall share information on resources and incentives to encourage employees to use alternative modes of travel to work in the form of regular emails, bulletin postings, challenges, or events.	2-8%
Pedestrian-Oriented Design	Provide pedestrian facilities, such as paved sidewalks and pedestrian-scale lighting along Project site frontages and marked crosswalks and pedestrian signals at the Beck Avenue and Cordelia Road intersection.	Up to 3%

[3] This report is a resource for local agencies to quantify the benefit, in terms of reduced travel demand, of implementing various TDM strategies.

Table 3: TDM Program

Measure	Description	VMT % Reduction
Carpool/Vanpool Incentives	Provide incentives such as mileage and toll fee reimbursement and carpool/vanpool participation rewards.	1-9%
Total of All Measures		**5% to 22%**

Note: VMT % Reductions and measures are not additive but complementary of one another.
Source: TDM+, Fehr & Peers, 2021.

The pedestrian-oriented design TDM measure shall be implemented on the front end by the developer, while ongoing TDM measures, including transit pass subsidies, commute marketing program, and carpool/vanpool incentives, shall be implemented and managed by the designated TDM coordinator.

As shown in **Table 3**, the total of all measures has potential to reduce Project VMT from 5- to 22-percent. A five percent reduction assumes a conservative reduction, suitable for use in environmental documents. A 22-percent reduction assumes a Project where the site operator is willing to invest heavily in TDM programs. Therefore, while the Project would mitigate itself through Cumulative conditions resulting in a ***less-than-significant impact*** under Near-Term conditions, implementation of a TDM program shall be required to reduce the Project's near-term VMT impacts.

Monitoring Program

An annual monitoring program shall be implemented to measure the TDM Program outcomes. To measure the TDM Program's commute VMT reductions and mode share, a commute survey shall be administered to employees. In addition, traffic counts at the Project driveways shall be collected and compared to the Institution of Transportation Engineers (ITE)[4] estimated trip generation for the Project site's specific use. If the findings from the commute survey and Project trip count data is at least five percent less than the ITE estimated trip generation, then the Project's TDM goal will be met. If the Project's TDM goal is not met, then the Project shall pay penalty fees as agreed upon with the City at the Project approval stage.

Conclusion

The Project is expected to increase total VMT in the near-term and reduce total VMT under Cumulative conditions. While the Project would mitigate itself over time, mitigation measures are

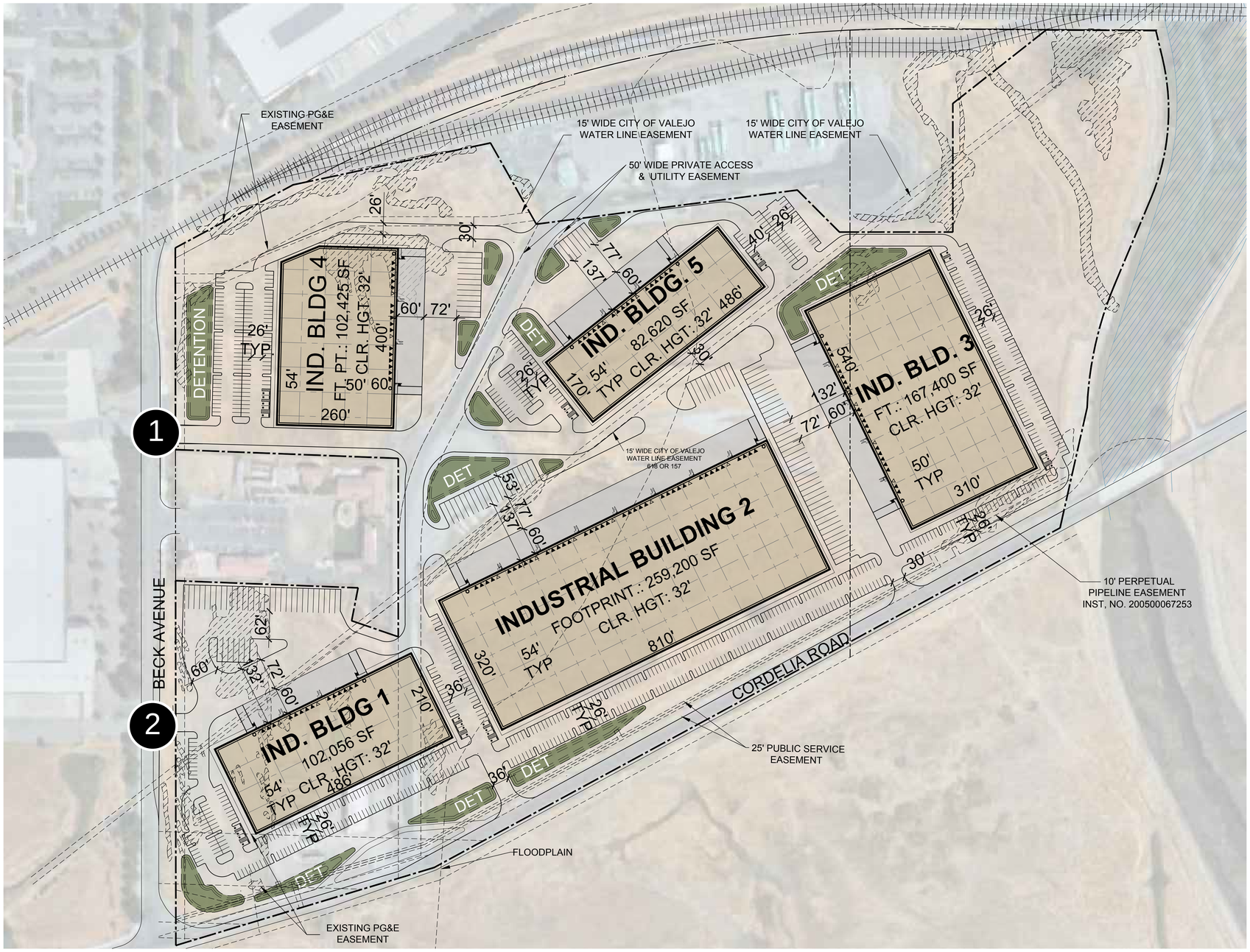
[4] The industry standard is to estimate trip generation using rates from the Institute of Transportation Engineers *Trip Generation Manual, 10th Edition* (2017).

recommended to reduce the Project's near-term VMT impacts. The Project's impact to VMT is ***less-than-significant with mitigation.***

This concludes our assessment. Please contact Sarah Chan at s.chan@fehrandpeers.com if you have questions or comments.

Attachments:
Attachment A: Project Site Plan
Attachment B: Fairfield Model Industrial Land Use Growth

Attachment A: Project Site Plan



PROJECT DATA:

SITE AREA:		
GROSS:		55.38 AC
		2,412,554 SF
DETENTION:	@ 4%	100,862 SF
WETLANDS MITIGATION		181,470 SF
NET:		48.90 AC
		2,130,222 SF
BUILDING AREA:		
BUILDING 1		**102,056 SF**
BUILDING 2		**259,200 SF**
BUILDING 3		**167,400 SF**
BUILDING 4		**102,425 SF**
BUILDING 5		**82,620 SF**
TOTAL BUILDING AREA:		713,701 SF
FAR:		
GROSS:		0.30
NET:		0.34
COVERAGE:		
GROSS:		30%
NET:		34%
BUILDING 1		
▲ DOCK-HIGH DOORS		14
△ KNOCK-OUTS		2
O GRADE-LEVEL DOORS		2
AUTO PARKING		185 STALLS
		@1.81/1000 SF
REQ. ACCESSIBLE		*6 STALLS*
TRAILER STALLS		35 STALLS
BUILDING 2		
▲ DOCK-HIGH DOORS		38
△ KNOCK-OUTS		7
O GRADE-LEVEL DOORS		2
AUTO PARKING		223 STALLS
		@0.86/1000 SF
REQ. ACCESSIBLE		*7 STALLS*
TRAILER STALLS		28 STALLS
BUILDING 3		
▲ DOCK-HIGH DOORS		20
△ KNOCK-OUTS		4
O GRADE-LEVEL DOORS		2
AUTO PARKING		145 STALLS
		@0.87/1000 SF
REQ. ACCESSIBLE		*5 STALLS*
TRAILER STALLS		40 STALLS
BUILDING 4		
▲ DOCK-HIGH DOORS		16
△ KNOCK-OUTS		2
O GRADE-LEVEL DOORS		2
AUTO PARKING		125 STALLS
		@1.22/1000 SF
REQ. ACCESSIBLE		*5 STALLS*
TRAILER STALLS		12 STALLS
BUILDING 5		
▲ DOCK-HIGH DOORS		16
△ KNOCK-OUTS		2
O GRADE-LEVEL DOORS		2
AUTO PARKING		106 STALLS
		@1.28/1000 SF
REQ. ACCESSIBLE		*5 STALLS*
TRAILER STALLS		7 STALLS
PARKING REQUIRED:		
WAREHOUSE	PER TABLE	312 STALLS
OFFICE	1/250 SF	109 STALLS
TOTAL		421 STALLS
PARKING PROVIDED:		
AUTO:		784 STALLS
		@1.1/1000 SF
REQ. ACCESSIBLE		*16 STALLS*
TRAILER:		122 STALLS

DEVELOPMENT STANDARDS:

ZONING:		IL
MAX. F.A.R.:		0.60 [3]
MAX. COVERAGE:		NA
BUILDING SETBACKS:		
FRONT:		20 FT
SIDE:		0 FT [6]
REAR:		15 FT
LANDSCAPE SETBACKS:		
FRONT:		10 FT
SIDE:		5 FT [4]
REAR:		5 FT
LANDSCAPE REQ.:		NA [5]
OFF-STREET PARKING:		
STANDARD:		9X19
COMPACT:		8X15
COMPACT %:		35% [2]
DRIVE AISLE:		24 FT
FIRE LANE:		20 FT
OVERHANG:		2 FT
TREE WELL:		6 FT
REQ. PARKING RATIO BY USE:		
WAREHOUSE:		1/1000 SF [1]
OFFICE:		1/250 SF
MANUFACT:		1/750 SF
FLEX:		1/500 SF
INDUSTRIAL:		1/500 SF

NOTES:

1 first 10,000 s.f. of floor area = 1 space per 1000 s.f. floor area
floor area from 10,000 s.f. up to 40,000 s.f. = 1 space per 1500 s.f. floor area
floor area more than 40,000 s.f. = 1 space per 3000 s.f. floor area

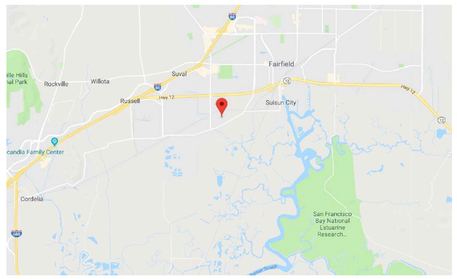
2 Industrial developments and office uses. Where the principal use of a parking lot is long term (e.g., designated for employee parking), parking lots with 30 or more spaces may include compact car spaces for up to 35 percent of the total number of required spaces

3 Floor Area Ratio (maximum percent of net lot area)

4 Adjacent to residential zoning district or use 10'

5 Between buildings and vehicle aisles/parking = 10' along elevations facing a roadway or providing the primary entry to a tenant space ; 5' in other areas where parking or a drive aisle is adjacent to a bldg; 0' in loading or service areas not visible from a roadway

6 Adjacent to residential zoning district use
25', plus 1' setback for each 1' of building height over 35'



This conceptual design is based upon a preliminary review of entitlement requirements and on unverified and possibly incomplete site and/or building information, and is intended merely to assist in exploring how the project might be developed.

1" = 100'
0 50 100 200 500
NORTH

scheme: B

Conceptual Site Plan

Cordelia Rd
Fairfield, CA

WARE MALCOMB

SNR18-0042-00
10.08.2020

SHEET
1

Attachment B: Fairfield Model Industrial Land Use Growth

Fairfield Model Industrial Growth 2020 to 2040					
TAZ	Baseline 2020 Industrial KSF	Baseline 2040 Industrial KSF	2020 Baseline to 2040 Baseline Industrial KSF Growth	2040 Plus Project Industrial KSF	2020 Baseline to 2040 Plus Project Industrial Growth
23	44	44	0	44	0
25	1,144	1,969	825	1,968	824
27	274	274	0	274	0
32	132	150	18	150	18
34	3	3	0	3	0
39	732	732	0	732	0
43	1,709	1,999	290	1,999	290
44	1,099	1,353	254	1,353	254
51	340	340	0	340	0
87	17	17	0	17	0
101	5	5	0	5	0
105	17	17	0	17	0
132	4	4	0	4	0
146	0	26	26	26	26
185	356	530	174	530	174
232	37	42	5	42	5
234	56	56	0	56	0
240	1,252	1,435	183	1,435	183
241	19	19	0	19	0
249	0	405	405	405	405
260	85	85	0	85	0
263	34	34	0	34	0
278	12	12	0	12	0
345	97	97	0	97	0
351	60	60	0	60	0
374	21	21	0	21	0
376	15	15	0	15	0
377 (Project)	371	1,081	710	1,084	713
378	667	667	0	667	0
380	350	350	0	350	0
382	980	980	0	980	0
386	50	65	15	65	15
387	1,992	2,602	610	2,602	610
389	271	303	32	303	32
392	104	104	0	104	0
393	19	19	0	19	0
406	13	13	0	13	0
501	237	237	0	237	0
513	0	18	18	18	18
514	0	8	8	8	8
517	51	51	0	51	0
527	150	160	10	160	10
528	3	3	0	3	0
533	10	-15	-25	-15	-25
537	50	50	0	50	0
542	8	8	0	8	0
548	51	51	0	51	0
560	70	70	0	70	0
561	70	70	0	70	0
562	330	330	0	330	0
564	0	400	400	400	400
566	0	600	600	600	600
570	76	76	0	76	0
572	220	220	0	220	0
573	0	177	177	177	177
Total	**13,707**	**18,442**	**4,735**	**18,442**	**4,735**