5.8 Public Health

This section discusses activities that could potentially affect public health as they relate to the construction and operation of the Darden Clean Energy Project (Project). This section relies on information from the Air Quality and Greenhouse Gas Emissions Study prepared for the Project (Rincon 2023; Appendix N). The Air Quality and Greenhouse Gas Emissions Study includes a Health Risk Assessment (HRA), which assesses potential effects and public exposure associated with airborne emissions from the Project. The HRA was conducted following the guidelines established by the California Office of Environmental Health Hazard Assessment (OEHHA) and the California Air Resources Board (CARB). Section 5.8.1 describes the existing environmental setting. Section 5.8.2 provides an overview of the regulatory setting related to public health. Section 5.8.3 identifies potential impacts that may result from Project construction and operation (including maintenance), as well as mitigation measures that should be considered during Project construction and operation. Section 5.8.4 discusses cumulative impacts. Section 5.8.5 presents laws, ordinances, regulations, and standards (LORS) applicable to public health. Section 5.8.6 identifies regulatory agency contacts and Section 5.8.7 describes permits required for the Project related to public health. Section 5.8.8 provides references for this section.

Combustion byproducts with established California Ambient Air Quality Standards (CAAQS) or National Ambient Air Quality Standards (NAAQS), including nitrogen oxides (NO_X), carbon monoxide (CO), and fine particulate matter (PM_{10}/$PM_{2.5}$) are addressed in Section 5.7, *Air Quality*. However, some discussion of the potential health risks associated with these substances is presented in this section. Human health risks associated with the potential accidental release of stored acutely hazardous materials, if applicable, are discussed in Section 5.9, *Hazardous Materials Handling*.

5.8.1 Environmental Setting

The Project site is located in the unincorporated area of western Fresno County near the community of Cantua Creek, within the jurisdiction of the San Joaquin Valley Air Pollution Control District (SJVAPCD), which regulates air pollutant emissions throughout the San Joaquin Valley Air Basin (SJVAB). The SJVAB encompasses the southern half of the California Central Valley and is comprised of eight counties: San Joaquin, Stanislaus, Fresno, Merced, Madera, Kings, Tulare, and western Kern County. The SJVAB is approximately 250 miles long and 35 miles in width (on average) and is bordered by the Sierra Nevada Mountains in the east (8,000 to 14,500 feet in elevation), the Coast Ranges in the west (averaging 3,000 feet in elevation), and the Tehachapi Mountains in the south (6,000 to 8,000 feet in elevation).

5.8.1.1 Receptors

Some receptors are considered more sensitive than others to air pollutants. The reasons for greater than average sensitivity include preexisting health problems, proximity to emissions sources, or duration of exposure to air pollutants. Title 20, California Code of Regulations, Section 1704, Appendix B) defines a sensitive receptor as infants and children, the elderly, and the chronically ill, and any other member of the general population who is more susceptible to the effects of the exposure than the population at large. Schools, hospitals, and convalescent homes are considered relatively sensitive to poor air quality because children, elderly people, and the infirmed are more susceptible to respiratory distress and other air quality-related health problems than the general public. Residential areas are considered sensitive to poor air quality because people usually stay home for extended periods, with greater associated exposure to ambient air quality. Recreational

uses are also considered sensitive due to the greater exposure to ambient air quality conditions because vigorous exercise associated with recreation places a high demand on the human respiratory system. Ambient air quality standards were established to represent the levels of air quality considered sufficient, with a margin of safety, to protect public health and welfare. Standards are designed to protect that segment of the public most susceptible to respiratory distress, such as children under 14; the elderly over 65; persons engaged in strenuous work or exercise; and people with cardiovascular and chronic respiratory diseases.

Sensitive receptors are located immediately adjacent to the Project site. The sensitive receptors include single family residents along South Sonoma Avenue, South Napa Avenue, South Yuba Avenue, West Harlan Avenue, West Cerini Avenue, and West Mount Whitney Avenue. Sensitive receptors identified in the analysis are included in Figure 5.8-1.

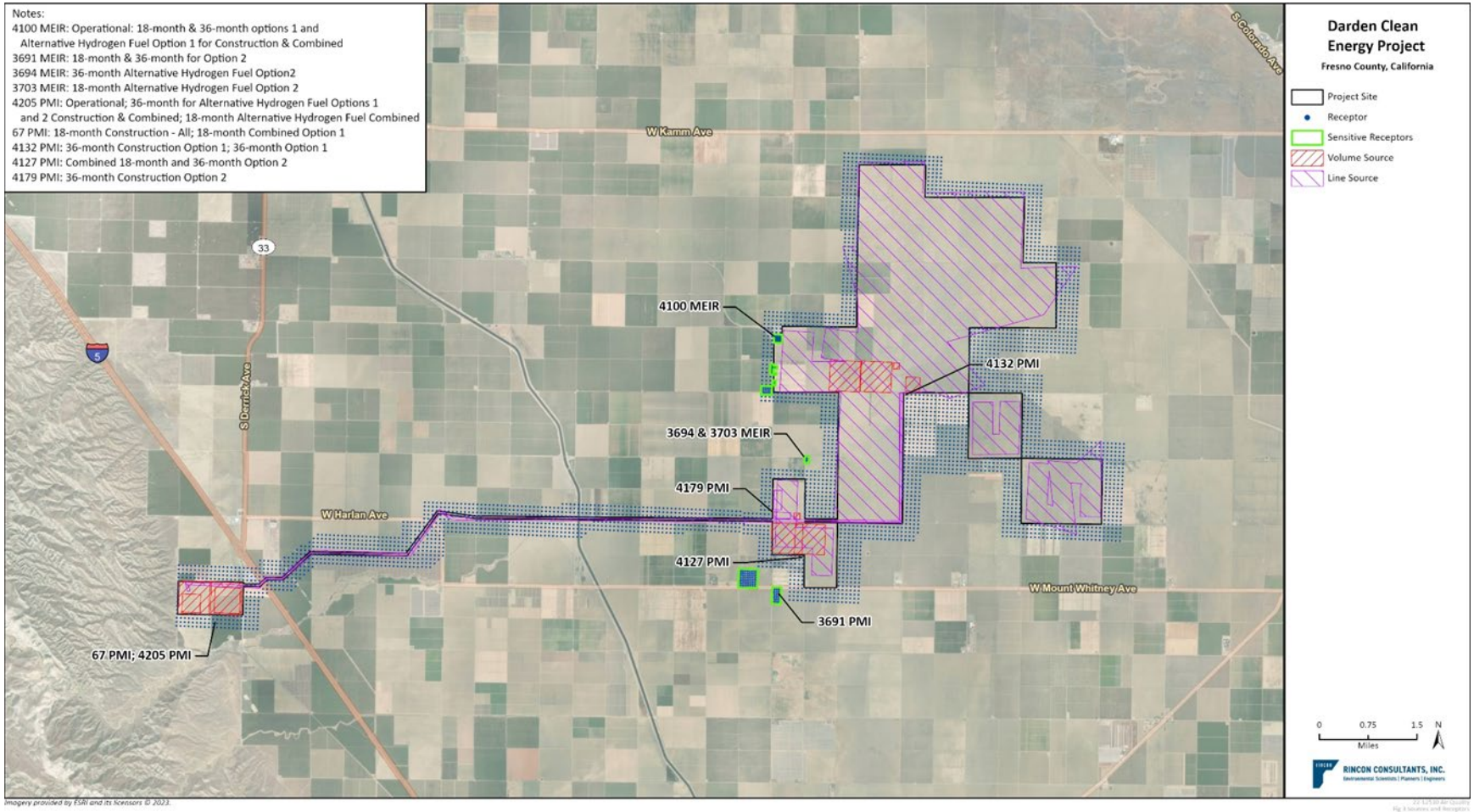
Characterization of Risks from Toxic Air Contaminants

Toxic Air Contaminants (TAC) are a diverse group of airborne substances that may cause or contribute to an increase in deaths or serious illness, or that may pose a present or potential hazard to human health. TACs include both organic and inorganic chemical substances that may be emitted from a variety of common sources, including gasoline stations, motor vehicles, dry cleaners, industrial operations, painting operations, and research and teaching facilities. One of the main sources of TACs in California is diesel engine exhaust that contains solid material known as diesel particulate matter (DPM). More than 90 percent of DPM is less than one micron in diameter (about $1/70^{th}$ the diameter of a human hair) and thus is a subset of particulates less than 2.5 microns in diameter $PM_{2.5}$. Because of their extremely small size, these particles can be inhaled and eventually trapped in the bronchial and alveolar regions of the lungs (CARB 2022). Ambient air quality standards have not been established for TACs. TACs occurring at extremely low levels may still cause health effects and it is typically difficult to identify levels of exposure that do not produce adverse health effects. TAC impacts are described by carcinogenic risk and by chronic (i.e., long duration) and acute (i.e., severe but of short duration) adverse effects on human health. People exposed to TACs at sufficient concentrations and durations may have an increased chance of getting cancer or experiencing other serious health effects. These health effects can include asthma, respiratory symptoms, and decreased lung function (CARB 2022).

CO Hotspots

A CO hotspot is a localized concentration of CO that is above a CO ambient air quality standard. Localized CO hotspots can occur at intersections with heavy peak hour traffic. Specifically, hotspots can be created at intersections where traffic levels are sufficiently high such that the local CO concentration exceeds the federal one-hour standard of 35.0 parts per million (ppm) or the federal and state eight-hour standard of 9.0 ppm (SJVAPCD 2022). The entire SJVAB is in conformance with state and federal CO standards and no air quality monitoring stations report CO levels in the SJVAPCD jurisdiction.

Figure 5.8-1 Sources and Sensitive Receptors



Valley Fever

Valley Fever or coccidioidomycosis is caused locally by the microscopic fungus *Coccidioides immitis (C. immitis)*. The *Coccidioides* fungus resides in the soil in southwestern United States, northern Mexico, and parts of Central and South America. During drought years, the number of organisms competing with *C. immitis* decreases, and *the C. immitis* remains alive but dormant. When rain finally occurs, the fungal spores germinate and multiply more than usual because of fewer other competing organisms. Later, the soil dries out in the summer and fall, and the fungi can become airborne and potentially infectious (Kirkland and Fierey 1996).

Infection occurs when the spores of the fungus become airborne and are inhaled. The fungal spores become airborne when contaminated soil is disturbed by human activities, such as construction and agricultural activities, and natural phenomena, such as windstorms, dust storms, and earthquakes. About 60 percent of infected persons have no symptoms. The remainder develop flu-like symptoms that can last for a month and tiredness that can sometimes last for longer than a few weeks. Common symptoms include fatigue, cough, chest pain, fever, rashes on upper body or legs, headaches, muscle aches, night sweats, and unexplained weight loss (California Department of Public Health 2021). Without proper treatment, Valley Fever can lead to severe pneumonia, meningitis, and even death. Both humans and animals can become infected with Valley Fever, but the infection is not contagious and cannot spread from one person or animal to another (California Department of Public Health 2021).

Diagnosis of Valley Fever is conducted through a sample of blood, other body fluid, or biopsy of affected tissue. Valley Fever is treatable with anti-fungal medicines. Once recovered from the disease, the individual is protected against further infection. Persons at highest risk from exposure are those with compromised immune systems, such as those with human immunodeficiency virus and those with chronic pulmonary disease. Farmers, construction workers, and others who engage in activities that disturb the soil are at highest risk for Valley Fever. Infants, pregnant women, diabetics, people of African, Asian, Latino, or Filipino descent, and the elderly may be at increased risk for disease. Historically, people at risk for infection are individuals not already immune to the disease and whose jobs involve extensive contact with soil dust, such as construction or agricultural workers and archeologists (Los Angeles County Health Department 2013). Most cases of Valley Fever (over 65 percent) are diagnosed in people living in the Central Valley and Central Coast regions (California Department of Public Health 2021).

There is no vaccine to prevent Valley Fever. However, as discussed further in the Air Quality and Greenhouse Gas Emissions Study, there are practical tips that may be followed to reduce exposure, including several avoidance techniques, wetting down soil to reduce dust, wearing an N95 respirator mask, and changing out of clothes that are covered in dirt upon returning indoors (California Department of Public Health 2021).

In 2022, approximately 448 cases of Valley Fever were reported in Fresno County. This is an increase of 43 cases compared to 2021 (405 cases) (California Department of Public Health 2023).

5.8.1.2 Health Studies

The Fresno County Department of Public Health has not published health studies specific to potentially affected populations within six miles of the Project site related to the health effects of TACs or respiratory illnesses, cancers or related diseases (County of Fresno 2023).

Health Risk Assessment

Health Risk Assessment Methodology

Health impacts associated with TACs are generally from long-term exposure. Typical sources of TACs include industrial processes such as petroleum refining operations, commercial operations such as gasoline stations and dry cleaners, and diesel exhaust. Health impacts from TAC emissions during the operational phase of the Project could result from the use of on-site diesel equipment during Project operation. In addition, the use of large-scale off-road diesel equipment during Project construction may result in a short-term increase of TAC emissions. DPM would be the TAC emitted in the largest quantity during construction and is the primary contaminant of concern for the Project. Thus, health risks were assessed as they relate to DPM exposure.

The significance of health risk impacts is based on the number of excess health risk relative to an established threshold. Health effects from carcinogenic air toxins usually are described in terms of cancer risk. Non-carcinogenic hazards include chronic and acute effects. Acute effects are due to short-term exposure, while chronic effects are due to long-term exposure to a substance. For chronic and acute risks, the hazard index is calculated as the summation of the hazard quotients for all chemicals to which an individual would be exposed. The California Energy Commission (CEC) defines acute and chronic exposure as follows (Title 20, California Code of Regulations, Section 1704, Appendix B):

- An acute exposure is one which occurs over a time period of less than or equal to one (1) hour.
- A chronic exposure is one which is greater than twelve (12) percent of a lifetime of seventy (70) years.

Average concentrations of DPM at the highest exposed existing sensitive receptors were used to estimate potential chronic and carcinogenic health risk. The health risk calculations were based on the standardized equations contained in the current Air Toxics Hot Spots Program Risk Assessment Guidelines (OEHHA 2015) and guidelines from the SJVAPCD *Update to District's Risk Management Policy to Address OEHHA's Revised Risk Assessment Guidance Document Final Staff Report* (SJVAPCD 2015c). Toxicity values for the pollutants of concern were acquired from the OEHHA *Air Toxics Hot Spots Program Risk Assessment Guidelines and Inhalation RELs*[1] (OEHHA 2015). OEHHA provides chronic inhalation reference exposure levels for DPM and does not provide acute inhalation reference exposure levels for health risk assessments; therefore, only chronic risk is analyzed herein. The carcinogenic health risk equations follow a dose response relationship where the dosage is averaged over a particular timeframe. To provide a conservative analysis, the timeframe for construction and decommissioning activities were assumed to be equivalent and no adjustments were made to the exposure duration (i.e., exposure duration 100 percent of the time was assumed). Additionally, the high-end breathing rate (95th percentile) by age bin was used and no fraction of time at residence was applied. To assess a reasonable worst-case scenario, it was assumed that an individual could be exposed to construction and operational emissions as infants and children, and operational and decommissioning emissions as an adult over the course of a 70-year lifetime. Children are more affected by DPM emissions than adults because of the greater amount of air that they breathe on a daily basis compared to their body weight.

The air dispersion modeling for the health risk assessment was performed using the USEPA AERMOD dispersion model, version 18081, that is part of the Air Dispersion Modeling and Risk Tool

[1] OEHHA Reference Exposure Levels (RELs) are updated regularly at www.oehha.ca.gov/air/Allrels.html

(ADMRT) version 21081 created by CARB. AERMOD is a steady-state, multiple-source, Gaussian dispersion model. AERMOD requires hourly meteorological data consisting of wind vector, wind speed, temperature, stability class, and mixing height. For this analysis, AERMOD-ready meteorological data from the Mendota station (Station ID 99005), which was pre-processed with AERMET version 18081, was obtained from the SJVAPCD. The meteorological data is from the years 2007 through 2011. The meteorological station is approximately 17 miles northwest from the nearest point of the Project site and is representative of the conditions at the Project site. The meteorological data used in modeling and the wind rose are included in Appendix N-6 of the Air Quality and Greenhouse Gas Emissions Study (Rincon 2023; Appendix N).

Based on the anticipated construction schedule, the average workday would be approximately 10 hours for a five-day per week schedule. Therefore, the emission rates were assumed to be limited to the hours of 7:00 a.m. to 5:00 p.m. every weekday. The model was run to obtain the maximum one-hour and average concentration. A total of 4,590 modeling points were identified and included in the dispersion model, including 555 sensitive receptors (residences) at 25-meter spacing to provide adequate coverage for the sensitive receptors. The remaining non-sensitive receptor modeling points were spaced at 100-meter intervals that encompassed an area of approximately 1,000 feet beyond the project border and was used to evaluate the Project's potential health impact and to verify if the modeled sensitive receptors accounted for the highest off-site exposure or the point of maximum impact (PMI). Receptor and modeling locations are shown in Figure 5.8-1.

The total PM_{10} exhaust emissions for all on-site diesel equipment and on-site mobile emissions for the entire construction and operational period were divided by the working days and working hours per day to determine the maximum hourly emission rate. AERMOD was used to determine the non-pollutant specific concentration at receptor points by source using a unit emission rate of 1 gram per second (g/sec). The non-pollutant specific concentration was then multiplied by the actual pollutant specific emission rates (i.e., annual average in pounds per year and maximum hourly in pounds per hour) to determine the cumulative source ground-level pollutant specific concentration (GLC) at each receptor subsequently used to determine cancer and non-cancer health impacts using the CARB Hot Spots Analysis and Reporting Program Version 2 (HARP 2) version 22118E.[2] Chronic and carcinogenic health risk were further refined by age bin based on the USEPA (2005) guidance on the use of early life exposure adjustment factors (*Supplemental Guidance for Assessing Susceptibility from Early-Life Exposure to Carcinogens*, EPA/630/R-003F) and standardized dose algorithms contained in the current OEHHA guidance. Consistent with CEC requirements for health risk assessment (HRA), this analysis used HARP 2 and cancer potency values and noncancer reference exposure levels approved by OEHHA (Title 20, California Code of Regulations, Section 1704, Appendix B).

Because HARP 2 does not include an option to evaluate health risk using partial years (i.e., 18 months for construction and 36 months for construction and decommissioning), carcinogenic health risk results presented herein were calculated using several iterations of HARP 2 in order to conservatively address risk. Risk was determined by age bin for each construction phase. Note that the estimated concentration is not a specific prediction of the actual concentrations that would occur at any one point or any specific time over the course of the construction period. Actual concentrations are dependent on many variables, particularly the number and type of equipment working at specific distances during time periods of adverse meteorology. Various activities would occur at different Project sites throughout the overall Project, and equipment would be close to

[2] See Appendix N-6 of the Air Quality and Greenhouse Gas Emissions Study (Rincon 2023; Appendix N) for AERMOD output files and GLC period files used to calculate health risk.

adjacent receptors for a limited period of time, and then several miles from the same receptor at other times. Appendix N-5 of the Air Quality and Greenhouse Gas Emissions Study (Rincon 2023; Appendix N) provides input and output data for the HARP 2 Analysis. Electronic files for the AERMOD and HARP 2 modeling will be provided to the CEC under separate cover.

Refer to Section 5.7, *Air Quality,* for the methodology used for calculating bulk emissions from Project construction and operation.

Health Risk Assessment Assumptions and Results

Project components would be constructed over a period of 18 to 36 months. Construction of the Project would require use of heavy-duty construction equipment and diesel trucks which would emit DPM. Figure 5.8-2 shows the receptor grids used to model health risk, the receptor grid off-site PMI, and the maximum exposed individual resident (MEIR).

The carcinogenic and chronic health risks at the MEIR and non-sensitive receptor PMI from construction and cumulative (construction, decommissioning, and operational) risks are contained in Table 5.8-1 (refer to Appendix N-6 of the Air Quality and Greenhouse Gas Emissions Study [Rincon 2023; Appendix N] for detailed health risk calculations). The cancer risks shown in Table 5.8-1 represent the maximum risk at the location of an individual receptor or modeling point at a specific age. It is assumed in the HRA that the MEIR would be exposed to construction exhaust emissions while they are a third trimester fetus and a two-year-old child. Decommissioning was conservatively assumed to equal the risk of construction activities. Note that the chronic risk hazard quotient is a unitless value that represents non-carcinogenic risk, and this value is based on the maximum annual concentration. The Project MEIR was determined to be at a single-family residential property east of South Sonoma Avenue south of Elkhorn Avenue or the single-family residential properties at the southwest corner of South Sonoma Avenue and Mount Whitney Avenue depending on the construction option chosen (as shown in Figure 5.8-2).

Figure 5.8-2 Sources, Sensitive Receptors, and PMI and MEIR Locations and Results

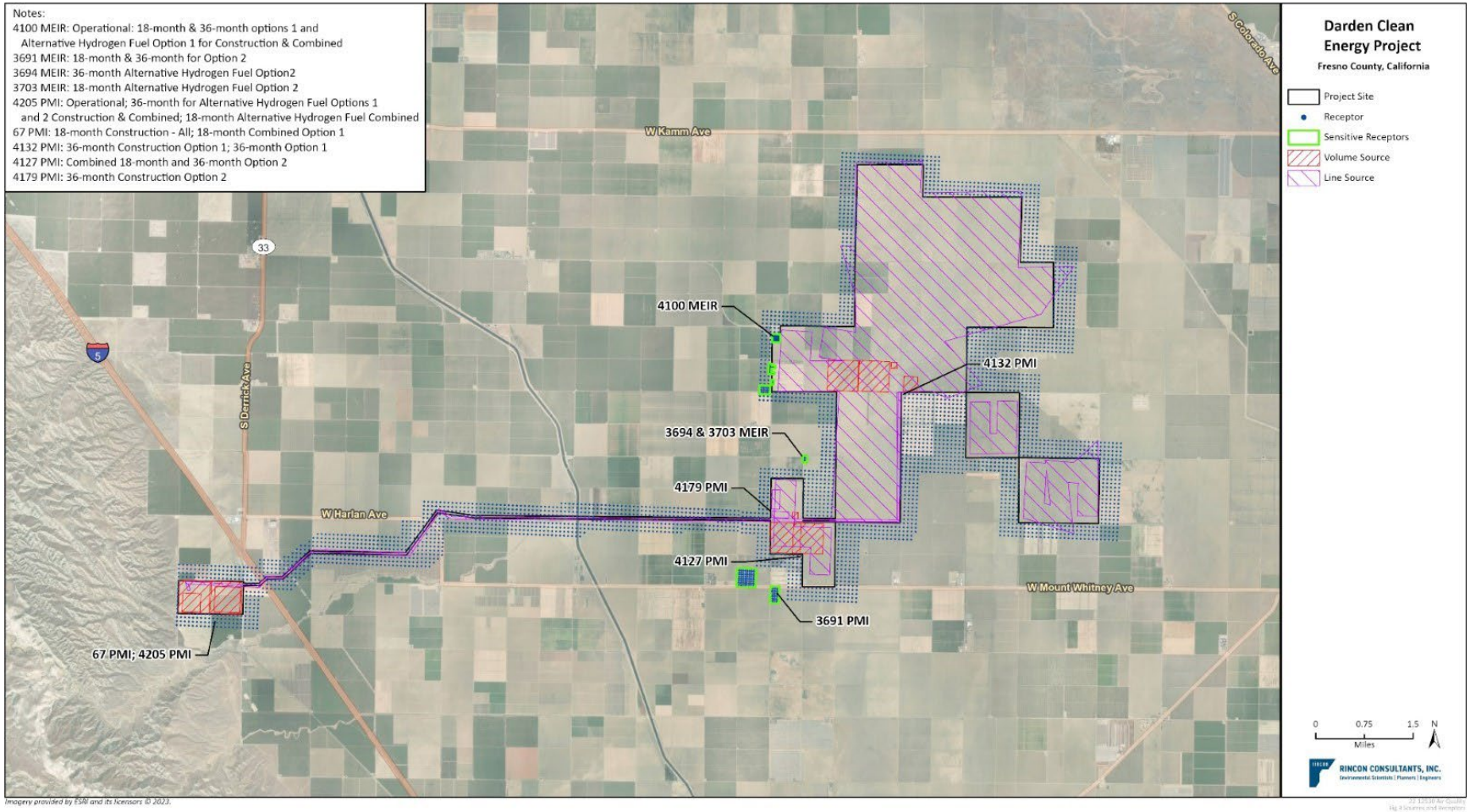


Table 5.8-1 Health Risks Associated with Diesel Particulate Emissions During Project Construction, Operation, and Decommissioning

	Cancer Risk (per one million)[5]				Chronic Risk			
Construction Phase	**Option 1**	**Option 2**	**Alt Opt 1**	**Alt Opt 2**	**Option 1**	**Option 2**	**Alt Opt 1**	**Alt Opt 2**
36-Month Construction Schedule								
Phase 1 – Site Preparation	0.0066	0.0066	0.0066	0.0066	2.6E-05	2.6E-05	2.6E-05	2.6E-05
Phase 2 – PV Panel System	0.0572	0.0572	0.0572	0.0572	1.1E-04	1.1E-04	1.1E-04	1.1E-04
Phase 3 – Inverters, Transformers, and Electrical Collection System	0.0155	0.0248	0.0155	0.0248	2.2E-03	1.8E-03	2.2E-03	1.8E-03
Phase 4 – Gen-Tie	0.0010	0.0010	0.0010	0.0010	1.4E-05	1.4E-05	1.4E-05	1.4E-05
Phase 5 – BESS	0.0016	0.0037	0.0016	0.0037	4.4E-04	2.2E-04	4.4E-04	1.4E-05
Phase 6 – Green Hydrogen Facility	0.0482	0.0556	0.0024	0.0024	7.9E-04	1.7E-03	2.9E-03	2.9E-03
Phase 7 – Switchyard	0.0009	0.0009	0.0009	0.0009	2.0E-03	2.0E-03	2.0E-03	2.0E-03
Total MEIR[1]	0.1253	0.1253	0.0810	0.0823	1.8E-04	2.0E-04	9.0E-05	9.7E-05
Combined MEIR[2]	0.4331	0.4289	0.3443	0.3224	NA	NA	NA	NA
PMI[3]	1.6948	1.3395	1.4741	1.4742	3.0E-03	4.2E+03	3.0E-03	3.0E-03
Combined PMI[4]	4.0395	3.6115	5.7621	5.7623	NA	NA	NA	NA
Threshold	20	20	20	20	1	1	1	1
Exceed Threshold	No	No	No	No	No	No	No	No
18 – Month Construction Schedule								
Phase 1 – Site Prep	0.0744	0.0744	0.0745	0.0745	1.3E-04	1.3E-04	1.3E-04	1.3E-04
Phase 2 – PV Panel System	0.0659	0.0659	0.0659	0.0659	5.4E-05	5.4E-05	5.4E-05	5.4E-05
Phase 3 – Inverters, Transformers, and Electrical Collection System	0.0133	0.0213	0.0133	0.0213	2.7E-05	1.8E-06	2.7E-05	1.8E-06
Phase 4 – Gen-Tie	0.0019	0.0019	0.0019	0.0019	1.8E-06	1.8E-06	1.8E-06	1.8E-06
Phase 5 – BESS	0.0035	0.0078	0.0035	0.0078	7.0E-06	1.6E-05	7.0E-06	1.6E-05
Phase 6 – Green Hydrogen Facility	0.0526	0.0607	0.0026	0.0026	8.0E-05	9.2E-05	4.0E-06	4.0E-06
Phase 7 – Switchyard	0.0017	0.0017	0.0017	0.0017	2.6E-06	2.6E-06	2.6E-06	2.6E-06
Total MEIR[1]	0.2045	0.1831	0.1562	0.1542	2.9E-04	2.3E-04	2.2E-04	1.9E-04

	Cancer Risk (per one million)[5]				Chronic Risk			
Construction Phase	**Option 1**	**Option 2**	**Alt Opt 1**	**Alt Opt 2**	**Option 1**	**Option 2**	**Alt Opt 1**	**Alt Opt 2**
Combined MEIR[2]	0.6402	0.5921	0.5435	0.5205	NA	NA	NA	NA
PMI[3]	1.9285	1.9287	2.0458	2.0459	3.2E-03	2.9E-03	3.1E-03	3.1E-03
Combined PMI[4]	4.2479	4.2691	7.0812	7.0814	NA	NA	NA	NA
Threshold	20	20	20	20	1	1	1	1
Exceed Threshold	No	No	No	No	No	No	No	No

[1] Total risk is the sum of the risk for each phase by receptor. Total risk will not equal the sum of the individual phases as the maximum for each individual phase was reported regardless of receptor location. Total represents maximum residential receptor (MEIR).

[2] Combined MEIR is the maximum risk for a residential receptor, including construction, operational, and decommissioning (assumed as equal to construction as a conservative estimate) risk.

[3] PMI is the maximum non-sensitive receptor off-site risk.

[4] Combined PMI is the maximum risk for all receptors (residential and non-sensitive receptor), including construction, operational and decommissioning (assumed as equal to construction as a conservative estimate) risk.

[5] Cancer risk is presented for the following scenarios:

Option 1: Construction scenario that includes all Option 1 site components for step-up substation, BESS, and green hydrogen facility

Option 2: Construction scenario that includes all Option 2 site components for step-up substation, BESS, and green hydrogen facility

Alt Opt 1: Construction Scenario that includes that includes Option 1 site components for step-up substation and BESS, and alternate site for green hydrogen facility

Alt Opt 2: Construction Scenario that includes that includes Option 2 site components for step-up substation and BESS, and alternate site for green hydrogen facility

Modeling results are included in Appendix N-6 of the Air Quality and Greenhouse Gas Emissions Study (Rincon 2023; Appendix N).

5.8.2 Regulatory Setting

Federal, state, and local LORS related to public health were reviewed for applicability to the Project. These are detailed in Section 5.8.5, below.

5.8.3 Impact Analysis

The following subsections discuss the potential direct and indirect impacts related to public health from construction and operation (including maintenance) of the Project based on the findings of the Air Quality and Greenhouse Gas Emissions Study (Rincon 2023; Appendix N).

5.8.3.1 Methodology

The SJVAPCD has established thresholds for health effects from carcinogenic and non-carcinogenic air toxics. The SJVAPCD recommends a carcinogenic (cancer) risk threshold of 20 in a million. The Chronic Hazard Index (HIC) is the sum of the individual substance chronic hazard indices for all TACs affecting the same target organ system. The SJVAPCD recommends a HIC significance threshold of 1.0 and an acute hazard index (HIA) of 1.0. No short-term, acute relative exposure values are established and regulated for DPM; therefore, acute exposure is not addressed in the HRA.

5.8.3.2 Impact Evaluation Criteria

The potential for impacts to public health and their uses were evaluated using the criteria described in the California Environmental Quality Act (CEQA) Environmental Checklist (Appendix G of the CEQA Guidelines). For the purposes of this public health analysis, a significant impact would occur if:

- the Project would expose sensitive receptors to substantial pollutant concentrations.

Impact PH-1

Threshold:	Would the Project expose sensitive receptors to substantial pollutant concentrations?

The following impact analysis discusses how the Project would expose sensitive receptors to substantial pollutant concentrations, including TACs, CO hotspots, and Valley Fever.

Toxic Air Contaminants

Construction

Less than Significant Impact. As shown in Table 5.8-1, excess cancer risk and chronic risk associated with Project construction would be up to 0.20 per million at the MEIR and up to 2.0 per million at the PMI, which would not exceed the significance threshold of 20 per million. Chronic risk would not exceed the threshold of 1.0 hazard index. It is conservatively assumed that decommissioning would be similar to construction risk. Construction and decommissioning risk would not exceed the significance thresholds at the PMI or the MEIR even if construction occurred at all parcels simultaneously. Therefore, construction health risk impacts would be less than significant.

Operation

Less than Significant Impact. As previously discussed, health impacts due to DPM are largely related to construction equipment exhaust. Operational activities throughout the Project site would use some diesel-fueled off-road equipment. Operational activities would, therefore, result in potential health risk impacts. Operational activities were modeled for a 30-year exposure consistent with procedures described in Methodology. Both 27.5- and 28.5-year operational exposures were modeled to add to the 36-month and 18-month construction schedules to determine the combined construction and operational risk as shown in Table 5.8-1 (Combined MEIR). Increased cancer risk is 0.37 per million at the MEIR and 5.69 per million at the PMI for operational activities. Non-cancer risk is 0.0001 for the MEIR and 0.002 for the PMI location. Operational risk impacts would be less than significant. Combined risk for the Project is the combination of the health risk from construction, decommissioning, and operational activities at receptor locations. As shown in Table 5.8-1, the combined cancer risk is up to 0.64 per million at the MEIR and 7.08 per million at the PMI, which would not exceed the significance threshold of 20 per million. Chronic risk is annually assessed and, therefore, maximum chronic risk is equal to the individual chronic risks for construction, operation, and decommissioning. Therefore, operational health risk impacts would be less than significant.

CO Hotspots

Construction and Operation

Less than Significant Impact. As stated previously, the entire SJVAB is in conformance with state and federal CO standards and no air quality monitoring stations report CO levels in the SJVAPCD jurisdiction. Additionally, CARB no longer reports CO concentrations anywhere in California. Based on the low background level of CO in the SJVAB (indicated by the lack of monitoring at state or local levels), the low and the ever-improving emissions standards for new sources in accordance with state and federal regulations, and the fact that the Project would result in a maximum of 60 trips per day as estimated by the Applicant during operational and maintenance activities, the Project would not cause the LOS on affected roadways to be reduced to LOS E or F and would not substantially worsen an existing LOS F roadway. Therefore, the project would not create new CO hotspots. Additionally, as discussed further under Impact AQ-2 in Section 5.7, *Air Quality*, CO emissions during construction and operation for the overall Project, including mobile sources, would not exceed ambient air quality standards. Therefore, the Project would not expose sensitive receptors to substantial CO concentrations, and localized air quality impacts related to CO hotspots would be less than significant.

Valley Fever

Construction and Operation

Less than Significant Impact with Mitigation. Construction activities that include ground disturbance can result in fugitive dust, which can cause fungus *Coccidioides* spores to become airborne if they are present in the soil. These spores can cause Valley Fever. Workers who disturb soil where fungal spores are found, whether by digging, operating earthmoving equipment, driving vehicles, or by working in dusty, wind-blown areas, are more likely to breathe in spores and become infected. It is not a contagious disease and secondary infections are rare. The eastern portion of the Project site is located in western Fresno County where the risk is higher compared to other parts of the County (County of Fresno 2023). Construction activities associated with the Project would

include ground-disturbing activities that could result in an increased potential for exposure of nearby residents and on-site workers to airborne spores, if they are present. Compliance with dust control measured required by SJVAPCD Rule 8021 (as detailed in Table 5.8-3, below) would minimize personnel and public exposure to Valley Fever and reduce the potential risk of nearby resident and on-site worker exposure to Valley Fever. However, without additional controls, impacts resulting from the Project would still be potentially significant. Mitigation Measure PH-1, which requires preparation of a Fugitive Dust Control Plan for the Project, would ensure that personnel and public exposure to Valley Fever is minimized to the greatest extent feasible. As discussed in Section 5.7, *Air Quality*, Mitigation Measure AQ-2 involves the preparation of a Fugitive Dust Control Plan, which would provide additional reduction in fugitive dust generation by requiring daily watering occurrences and the use of chemical stabilizers during construction activities. Therefore, impacts would be less than significant with implementation of Mitigation Measures PH-1 and AQ-2.

Mitigation Measures

PH-1 Minimize Personnel and Public Exposure to Valley Fever

Prior to site preparation, grading activities, or ground disturbance, the Applicant shall prepare a Fugitive Dust Control Plan for the Project. The Fugitive Dust Control Plan shall include the following at a minimum:

- Equipment, vehicles, and other items shall be cleaned thoroughly of dust before they are moved off-site to other work locations.
- Wherever possible, grading, and trenching work shall be phased so that earth-moving equipment works well ahead or down-wind of workers on the ground.
- The area immediately behind grading or trenching equipment shall be sprayed with water before ground workers move into the area.
- If a water truck runs out of water before dust is dampened sufficiently, ground workers exposed to dust are to leave the area until a full truck resumes water spraying.
- All heavy-duty earth-moving vehicles shall be closed-cab and equipped with a High Efficiency Particulate Arrestance (HEPA) filtered air system.
- N95 respirators shall be provided to onsite workers for the duration of the construction period.
- Workers shall receive training to recognize the symptoms of Valley Fever and shall be instructed to promptly report suspected symptoms of work-related Valley Fever to a supervisor. Evidence of training shall be provided to the Fresno County Planning and Community Development Department within 24 hours of the training session.
- A Valley Fever informational handout shall be provided to all on-site construction personnel. The handout shall provide, at a minimum, information regarding the symptoms, health effects, preventative measures, and treatment.

5.8.4 Cumulative Impacts

Overall Project

The SJVAPCD considers TAC emissions to be a localized issue. In general, TAC concentrations are typically highest near the emissions sources and decline with increased distance. CARB recommends distances that should be incorporated when siting new sources or sensitive receptors near a source of TACs. This generally ranges from 500 to 1,000 feet depending on the source category (CARB

2005). Therefore, in the absence of any specific guidance from the SJVAPCD, the potential cumulative impacts from TACs were analyzed based on a radius of 1,000 feet measured from the Project site boundary. The Project is not located within 1,000 feet of any existing or planned projects that would generate TACs affecting a substantial number of people. Therefore, cumulative health risk impacts would be less than significant, as demonstrated in Impact PH-1.

As discussed under Impact PH-1, construction, operation, and decommissioning-related traffic is not anticipated to create a CO hotspot, as construction and decommissioning would be short-term and the nearest intersection is more than one mile from any sensitive receptor. Therefore, the Project's contribution to cumulative impacts related to CO hotspots would be less than significant.

Utility Switchyard

Construction and operation of the utility switchyard is considered in the cumulative impact analysis of the overall Project discussed above; therefore, similar to the overall Project, cumulative health risk impacts would be less than significant and the Project's contribution to any cumulative impacts would not be cumulatively considerable.

5.8.5 Laws, Ordinances, Regulations, and Standards

The relevant federal, State, and local LORS that affect public health and apply to the Project are presented in this section. The LORS that may apply to the Project related to public health are summarized in Table 5.8-2.

Table 5.8-2 LORS Applicable to Public Health

Jurisdiction	LORS	Applicability	Opt-In Application Reference	Project Conformity
Federal	Federal Clean Air Act	Establishes federal ambient air quality standards.	Impact PH-1; Section 5.7, *Air Quality*	The Project would implement mitigation to ensure the Project's air pollutant emissions would not contribute to federal nonattainment status of criteria pollutants in the SJVAB.
State	California Clean Air Act	Establishes state ambient air quality standards.	Impact PH-1; Section 5.7, *Air Quality*	The Project would implement mitigation to ensure the Project's air pollutant emissions would not contribute to state nonattainment status of criteria pollutants in the SJVAB.
State	California Code of Regulations Title 13, Section 2449	Sets fleet average standards to reduce NO_x, DPM, and other criteria pollutant emissions generated from the use of off-road diesel-fueled vehicles.	Impact PH-1; Section 5.7, *Air Quality*	Equipment used during Project construction would be compliant with the fleet average standards set by California Code of Regulations Title 13, Section 2449.

Jurisdiction	LORS	Applicability	Opt-In Application Reference	Project Conformity
Local	San Joaquin Valley Air Pollution Control District Rules and Air Quality Management Plans and Regulation VIII (Fugitive PM_{10} Prohibitions), Rule 2201 (New and Modified Stationary Source Review Rule), Rule 4101 (Visibility), Rule 4102 (Nuisance), Rule 4601 (Architectural Coatings), Rule 4641 (Cutback, Slow Cure, and Emulsified Asphalt, Paving and Maintenance Operations), Rule 9510 (Indirect Source Review), and Rule 8021	Regulates air pollutant emission throughout the San Joaquin Valley Air Basin	Impact PH-1; Section 5.7, *Air Quality*	As detailed in Section 5.7, *Air Quality*, the Project would comply with SJVAPCD plans, rules and regulations
Local	Fresno County General Plan: Policy OS-G.13 Policy OS-G.14	Policies to reduce emissions from new development in Fresno County	Impact PH-1; Section 5.7, *Air Quality*	The Project would implement fugitive dust measures such as watering across the site daily with the use of chemical stabilizers and minimize air pollutant emissions.

5.8.5.1 Federal LORS

Federal Clean Air Act

The federal Clean Air Act (CAA) establishes ambient air quality standards and establishes regulatory authorities designed to attain those standards. As required by the CAA, the USEPA has identified criteria pollutants and has established NAAQS to protect public health and welfare. NAAQS have been established for ozone, CO, NO_2, SO_2, PM_{10}, $PM_{2.5}$, and Pb. As required by the federal CAA, air basins or portions thereof have been classified as either "attainment" or "nonattainment" for each criteria air pollutant, based on whether the standards have been achieved. In some cases, an area's status is unable to be determined, in which case the area is designated "unclassified". The air quality in an attainment area meets or is better than the NAAQS. A non-attainment area has air quality that is worse than the NAAQS. States are required to adopt enforceable plans, known as a State Implementation Plan (SIP), to achieve and maintain air quality meeting the NAAQS.

5.8.5.2 State LORS

California Clean Air Act

The California Clean Air Act (CCAA) establishes state ambient air quality standards and establishes regulatory authorities designed to attain those standards. Under the CCAA, California has adopted the CAAQS, which are more stringent than the NAAQS for certain pollutants and averaging periods. Air basins or portions thereof have been classified as either "attainment" or "nonattainment" for each criteria air pollutant, based on whether the standards have been achieved. In some cases, an area's status is unable to be determined, in which case the area is designated "unclassified". The air

quality in an attainment area meets or is better than the CAAQS. A non-attainment area has air quality that is worse than the CAAQS.

California Code of Regulations Title 13, Section 2449

Title 13, Section 2449 of the California Code of Regulations, titled "Regulation for In-Use Off-Road Diesel-Fueled Fleets" was adopted by CARB in July 2007. The purpose of this regulation is to reduce NO_x, DPM, and other criteria pollutant emissions generated from the use of off-road diesel-fueled vehicles by meeting NO_x and PM fleet average standards. This regulation applies to all self-propelled off-road diesel vehicles 25 horsepower or greater used in California and most two-engine vehicles, and includes vehicles that are rented or leased.

5.8.5.3 Local LORS

San Joaquin Valley Air Pollution Control District

The Project site is located within the jurisdiction of the SJVAPCD, which regulates air pollutant emissions throughout the SJVAB. The SJVAPCD enforces regulations and administers permits governing stationary sources. Pursuant to Assembly Bill 205 subsection 25545.1(b)(1), the CEC retains exclusive authority over permitting and supersedes any applicable statute, ordinance, or regulation of a local air quality management district. In the absence of CEC jurisdiction, the following regional rules and regulations are related to the Project:

- **Regulation VIII (Fugitive PM_{10} Prohibitions)** contains rules developed pursuant to USEPA guidance for “serious” PM_{10} nonattainment areas. Rules included under this regulation limit fugitive PM_{10} emissions from the following sources: construction, demolition, excavation, extraction, and other earth moving activities, bulk materials handling, carryout and track-out, open areas, paved and unpaved roads, unpaved vehicle/equipment traffic areas, and agricultural sources. Table 5.8-3 contains control measures that the Applicants would implement during Project construction activities pursuant to *Rule 8021, Construction, Demolition, Excavation, Extraction, and Other Earthmoving Activities*.
- **Rule 2201 (New and Modified Stationary Source Review Rule)** applies to all new stationary sources or modified existing stationary sources that are subject to the SJVAPCD permit requirements. The rule requires review of the new or modified stationary source to ensure that the source does not interfere with the attainment or maintenance of ambient air quality standards.
- **Rule 4101 (Visibility)** limits the visible plume from any source to 20 percent opacity.
- **Rule 4102 (Nuisance)** prohibits the discharge of air contaminants or other materials in quantities that may cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public or which endanger the comfort, repose, health, or safety of any such person or the public.
- **Rule 4601 (Architectural Coatings)** limits volatile organic compound (VOC) emissions from architectural coatings. This rule specifies architectural coatings storage, cleanup, and labeling requirements.
- **Rule 4641 (Cutback, Slow Cure, and Emulsified Asphalt, Paving and Maintenance Operations)** limits VOC emissions by restricting the application and manufacturing of certain types of asphalt for paving and maintenance operations and applies to the manufacture and use of cutback asphalt, slow cure asphalt and emulsified asphalt for paving and maintenance operations.

- **Rule 9510 (Indirect Source Review)** requires certain development projects to mitigate exhaust emissions from construction equipment greater than 50 horsepower to 20 percent below statewide average NO_X emissions and 45 percent below statewide average PM_{10} exhaust emissions. This rule also requires applicants to reduce baseline emissions of NO_X and PM_{10} emissions associated with operations by 33.3 percent and 50 percent respectively over a period of 10 years (SJVAPCD 2017).

In addition to reducing a portion of the development project's impact on air quality through compliance with District Rule 9510, a developer can further reduce a project's impact on air quality by entering a "Voluntary Emission Reduction Agreement" (VERA) with the SJVAPCD to further mitigate project impacts under CEQA. Under a VERA, the developer may fully mitigate project emission impacts by providing funds to the SJVAPCD, which then are used by the SJVAPCD to administer emission reduction projects (SJVAPCD 2015a).

Table 5.8-3 SJVAPCD Rule 8021 Measures Applicable to the Project

No.	Measure
A.1	Pre-water site sufficient to limit visible dust emissions (VDE) to 20 percent opacity.
A.2	Phase work to reduce the amount of disturbed surface area at any one time.
B.1	Apply water or chemical/organic stabilizers/suppressants sufficient to limit VDE to 20 percent opacity; or
B.2	Construct and maintain wind barriers sufficient to limit VDE to 20 percent opacity. If using wind barriers, control measure B1 above shall also be implemented.
B.3	Apply water or chemical/organic stabilizers/suppressants to unpaved haul/access roads and unpaved vehicle/equipment traffic areas sufficient to limit VDE to 20 percent opacity and meet the conditions of a stabilized unpaved road surface.
C.1	Restrict vehicular access to the area.
C.2	Apply water or chemical/organic stabilizers/suppressants, sufficient to comply with the conditions of a stabilized surface. If an area having 0.5 acre or more of disturbed surface area remains unused for seven or more days, the area must comply with the conditions for a stabilized surface area as defined in section 3.58 of Rule 8011.
5.3.1	An owner/operator shall limit the speed of vehicles traveling on uncontrolled unpaved access/haul roads within construction sites to a maximum of 15 miles per hour.
5.3.2	An owner/operator shall post speed limit signs that meet state and federal Department of Transportation standards at each construction site's uncontrolled unpaved access/haul road entrance. At a minimum, speed limit signs shall also be posted at least every 500 feet and shall be readable in both directions of travel along uncontrolled unpaved access/haul roads.
5.4.1	Cease outdoor construction, excavation, extraction, and other earthmoving activities that disturb the soil whenever VDE exceeds 20 percent opacity. Indoor activities such as electrical, plumbing, dry wall installation, painting, and any other activity that does not cause any disturbances to the soil are not subject to this requirement.
5.4.2	Continue operation of water trucks/devices when outdoor construction excavation, extraction, and other earthmoving activities cease, unless unsafe to do so.
6.3.1	An owner/operator shall submit a Dust Control Plan to the Air Pollution Control Officer (APCO) prior to the start of any construction activity on any site that will include ten acres or more of disturbed surface area for residential developments, or five acres or more of disturbed surface area for non-residential development, or will include moving, depositing, or relocating more than 2,500 cubic yards per day of bulk materials on at least three days. Construction activities shall not commence until the APCO has approved or conditionally approved the Dust Control Plan. An owner/operator shall provide written notification to the APCO within 10 days prior to the commencement of earthmoving activities via fax or mail. The requirement to submit a dust control plan shall apply to all such activities conducted for residential and non-residential (e.g., commercial, industrial, or institutional) purposes or conducted by any governmental entity.

No.	Measure
6.3.3	The Dust Control Plan shall describe all fugitive dust control measures to be implemented before, during, and after any dust generating activity.
6.3.4	A Dust Control Plan shall contain all the [administrative] information described in Section 6.3.6 of this rule. The APCO shall approve, disapprove, or conditionally approve the Dust Control Plan within 30 days of plan submittal. A Dust Control Plan is deemed automatically approved if, after 30 days following receipt by the District, the District does not provide any comments to the owner/operator regarding the Dust Control Plan.

Source: SJVAPCD 2004

Air Quality Management Plan

As required by the federal CAA and the CCAA, air basins or portions thereof have been classified as either "attainment" or "nonattainment" for each criteria air pollutant, based on if the standards have been achieved. Jurisdictions of nonattainment areas also are required to prepare an air quality management plan that includes strategies for achieving attainment. The SJVAPCD has approved management plans demonstrating how the SJVAB will reach attainment with the federal one-hour and eight-hour ozone and $PM_{2.5}$ standards.

OZONE ATTAINMENT PLANS

The *Extreme Ozone Attainment Demonstration Plan*, adopted by the SJVAPCD Governing Board October 8, 2004, sets forth measures and emission-reduction strategies designed to attain the federal one-hour ozone standard by November 15, 2010, as well as an emissions inventory, outreach, and rate of progress demonstration. This plan was approved by the USEPA on March 8, 2010; however, the USEPA's approval was subsequently withdrawn effective November 26, 2012, in response to a decision issued by the United States Court of Appeals for the Ninth Circuit (*Sierra Club v. EPA*, 671 F.3d 955) remanding USEPA's approval of these SIP revisions. Concurrent with the USEPA's final rule, CARB withdrew the 2004 Plan. The SJVAPCD developed a new plan for the one-hour ozone standard, the *2013 Plan for the Revoked 1-Hour Ozone Standard*, which it adopted in September 2013.

The *2007 Ozone Plan*, approved by CARB on June 14, 2007, demonstrates how the SJVAB would meet the federal eight-hour ozone standard. The *2007 Ozone Plan* includes a comprehensive list of regulatory and incentive-based measures to reduce emissions of ozone and particulate matter precursors throughout the SJVAB. Additionally, this plan calls for major advancements in pollution control technologies for mobile and stationary sources of air pollution, and an increase in state and federal funding for incentive-based measures to create adequate reductions in emissions to bring the entire SJVAB into attainment with the federal eight-hour ozone standard (SJVAPCD 2007a).

On April 16, 2009, the SJVAPCD Governing Board adopted the *Reasonably Available Control Technology Demonstration for Ozone State Implementation Plans (2009 RACT SIP)* (SJVAPCD 2009). In part, the *2009 RACT SIP* satisfied the commitment by the SJVAPCD for a new reasonably available control technology analysis for the one-hour ozone plan (see discussion of the USEPA withdrawal of approval in the *Extreme 1-Hour Ozone Attainment Demonstration Plan* summary above) and was intended to prevent all sanctions that could be imposed by USEPA for failure to submit a required SIP revision for the one-hour ozone standard. With respect to the eight-hour standard, the plan also assesses the SJVAPCD's rules based on the adjusted major source definition of 10 tons per year (due to the SJVAB's designation as an extreme subsequently nonattainment area), evaluates SJVAPCD rules against new *Control Techniques Guidelines* promulgated since August 2006, and reviews

additional rules and amendments that had been adopted by the Governing Board since August 17, 2006, for reasonably available control technology consistency.

The *2013 Plan for the Revoked 1-Hour Ozone Standard* was approved by the Governing Board on September 19, 2013 (SJVAPCD 2013). Based on implementation of the ongoing control measures, preliminary modeling indicates that the SJVAB will attain the one-hour standard before the final attainment year of 2022 and without relying on long-term measures under the federal CAA Section 182(e)(5) (SJVAPCD 2013).

On June 19, 2014, the Governing Board adopted the *2014 Reasonably Available Control Technology Demonstration for the 8-Hour Ozone State Implementation Plan* (SJVAPCD 2014) that includes a demonstration that the SJVAPCD rules implement RACT. The plan reviews each of the NO_x reduction rules and concludes that they satisfy requirements for stringency, applicability, and enforceability, and meet or exceed RACT. The plan's analysis of further ROG reductions through modeling and technical analyses demonstrates that added ROG reductions will not advance the SJVAB's ozone attainment. Each ROG rule evaluated in the 2009 RACT SIP has been subsequently approved by the USEPA as meeting RACT within the last two years. The subsequent attainment strategy, therefore, focuses on further NO_X reductions.

SJVAPCD adopted the *2020 Reasonably Available Control Technology (RACT) Demonstration for the 2015 8-Hour Ozone Standard* in June 2020. This plan satisfies CAA requirements and ensures expeditious attainment of the 70 parts per billion eight-hour standard (SJVAPCD 2020).

SJVAPCD adopted the *2022 Plan for the 2015 8-Hour Ozone Standard* on December 15, 2022. This plan uses extensive science and research, state of the art air quality modeling, and the best available information in developing a strategy to attain the federal 2015 national ambient air quality standard (NAAQS) for ozone of 70 ppb as expeditiously as practicable. Building on decades of developing and implementing effective air pollution control strategies, this plan demonstrates that the reductions being achieved by the SJVAPCD and CARB strategy (72 percent reduction in NO_X emissions by 2037) ensures expeditious attainment of the 2015 8-hour ozone standard by the 2037 attainment deadline.

SJVAPCD adopted the *2023 Maintenance Plan and Redesignation Request for the Revoked 1-Hour Ozone Standard* on June 15, 2023. This maintenance plan demonstrates SJVAPCD's consistency with all five criteria of Section 107(d)(3)(E) of the CAA to terminate all anti-backsliding provisions for the revoked 1-hour ozone standard, including Section 185 nonattainment fees. This Maintenance Plan also includes a demonstration that would ensure the area remains in attainment of the 1-hour ozone NAAQS through 2036. Therefore, SJVAPCD is requesting to be redesignated to attainment for the 1-hour ozone NAAQS and requesting termination of all anti-backsliding obligations.

PARTICULATE MATTER ATTAINMENT PLANS

In June 2007, the SJVAPCD Board adopted the *2007 PM_{10} Maintenance Plan and Request for Redesignation* (SJVAPCD 2007b). This plan demonstrates how PM_{10} attainment in the SJVAB will be maintained in the future. Effective November 12, 2008, USEPA redesignated the SJVAB to attainment for the PM_{10} NAAQS and approved the 2007 PM_{10} Maintenance Plan (USEPA 2008).

In April 2008, the SJVAB Board adopted the *2008 $PM_{2.5}$ Plan* and approved amendments to Chapter 6 of the *2008 $PM_{2.5}$ Plan* on June 17, 2010 (SJVAPCD 2008). This plan was designed to addresses USEPA's annual $PM_{2.5}$ standard of 15 µg/m³, which was established by USEPA in 1997. In December of 2012, the SJVAPCD adopted the *2012 $PM_{2.5}$ Attainment Plan*, which addresses USEPA's 24-hour $PM_{2.5}$ standard of 35 µg/m³, which was established by USEPA in 2006 (SJVAPCD 2012). In April 2015,

the SJVAPCD Board adopted the *2015 Plan for the 1997 $PM_{2.5}$ Standard* that addresses the USEPA's annual and 24-hour $PM_{2.5}$ standards established in 1997 after the SJVAB experienced higher $PM_{2.5}$ levels in winter 2013–2014 due to the extreme drought, stagnation, strong inversions, and historically dry conditions, and the SJVAPCD was unable to meet the initial attainment date of December 31, 2015 (SJVAPCD 2015b).

SJVAPCD adopted the *2016 Moderate Area Plan for the 2012 $PM_{2.5}$ Standard* on September 15, 2016. This plan addresses the USEPA federal annual $PM_{2.5}$ standard of 12 µg/m^3, established in 2012. This plan includes an attainment impracticability demonstration and request for reclassification of the Valley from Moderate nonattainment to Serious nonattainment (SJVAPCD 2016).

SJVAPCD adopted the *2018 Plan for the 1997, 2006, and 2012 $PM_{2.5}$ Standards* in November 2018. This plan addresses the USEPA federal 1997 annual $PM_{2.5}$ standard of 15 µg/m^3 and the 24-hour $PM_{2.5}$ standard of 65 µg/m^3; the 2006 24-hour $PM_{2.5}$ standard of 35 µg/m^3; and the 2012 annual $PM_{2.5}$ standard of 12 µg/m^3. The plan demonstrates attainment of the federal $PM_{2.5}$ standards as expeditiously as practicable as required under the federal CAA (SJVAPCD 2018). The district is currently developing the 2023 Plan for the 2012 Annual $PM_{2.5}$ Standard.

Fresno County General Plan

The Fresno County General Plan was adopted in October 2000. The Open Space Element contains air quality policies to reduce emissions from new developments (County of Fresno 2000). The following policies are applicable to the Project:

- **Policy OS-G.13:** The County shall include fugitive dust control measures as a requirement for subdivision maps, site plans, and grading permits. This will assist in implementing the SJVAPCD's PM_{10} regulation (Regulation VIII). Enforcement actions can be coordinated with the Air District's Compliance Division.
- **Policy OS-G.14.** The County shall require all access roads, driveways, and parking areas serving new commercial and industrial development to be constructed with materials that minimize particulate emissions and are appropriate to the scale and intensity of use.

5.8.6 Agencies and Agency Contact

Table 5.8-4 provides contact information for agencies involved with Public Health.

Table 5.8-4 Agency Contacts for Public Health

Issue	Agency	Contact
Public exposure to air pollutants	EPA Region 9	Martha Guzman Aceves, Regional Administrator EPA Region 9 75 Hawthorne Street San Francisco, California 94105 (415) 947-8000
Public exposure to air pollutants	California Air Resources Board	LinYing Li 1001 I Street, 19th Floor Sacramento, California 95814 (916) 322 1721
Public exposure to air pollutants	San Joaquin Valley Air Pollution Control District	Jason Lawler, Manager Central Region 1990 E Gettysburg Avenue Fresno, California 93726

Issue	Agency	Contact
Public exposure to chemicals known to cause cancer or reproductive toxicity	Office of Environmental Health Hazard Assessment	Martha Sandy, Ph.D., Branch Chief Reproductive and Cancer Hazard Assessment Branch 1001 I Street, 19th Floor Sacramento, California 95814 (916) 324-7572
Public exposure to acutely hazardous materials	Fresno County Department of Public Health	David Luchini, Director Fresno County Department of Public Health 1221 Fulton Street Fresno, California 93721 (559) 600-3200

5.8.7 Permits and Permit Schedule

Agency-required permits or plans related to public health include a hazardous materials management plan (HMMP). As discussed in Section 5.9, *Hazardous Materials Handling*, the Project facility would prepare a Hazardous Materials Business Plan (HMBP) that would include details that satisfy the requirements of the HMMP.

Pursuant to Assembly Bill 205 subsection 25545.1(b)(1), the CEC retains exclusive authority over permitting and supersedes any applicable statute, ordinance, or regulation of a local air quality management district. The Applicant and CEC would collaborate with the SJVAPCD on review of this Opt-In Application to ensure compliance with SJVAPCD rules and regulations. Excepting CEC's exclusive authority, the Project would be required to obtain an Authority to Construct/Permit to Operate from the SJVAPCD for the emergency generators at the green hydrogen facility.

5.8.8 References

California Air Resources Board (CARB). 2005. Air Quality and Land Use Handbook: A Community Health Perspective. http://www.aqmd.gov/docs/default-source/ceqa/handbook/california-air-resources-board-air-quality-and-land-use-handbook-a-community-health-perspective.pdf (accessed September 2023).

_____. 2022. Overview: Diesel Exhaust & Health. https://ww2.arb.ca.gov/resources/overview-diesel-exhaust-and-health (accessed September 2023).

California Department of Public Health. 2021. Valley Fever Fact Sheet. Last Updated June 2021. https://www.cdph.ca.gov/Programs/CID/DCDC/CDPH%20Document%20Library/ValleyFeverFactSheet.pdf (accessed June 2023).

Fresno, County of. 2000. Fresno County General Plan Policy Document. October 3, 2000. https://www.fresnocountyca.gov/files/sharedassets/county/v/1/vision-files/files/18117-2000-general-plan-policy-document.pdf (accessed September 2023).

_____. 2023. Public Health. https://www.fresnocountyca.gov/Departments/Public-Health (accessed September 2023).

Kirkland and Fierey. 1996. Coccidioidomycosis: A Reemerging Infectious Disease. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2626789/ (accessed June 2023).

Los Angeles County Health Department. 2013. Preventing Work-Related Coccidioidomycosis (Valley Fever). June. http://publichealth.lacounty.gov/acd/docs/ValleyFeverPreventionforWorkFlyer.pdf (accessed June 2023).

Office of Environmental Health Hazard Assessment (OEHHA). 2015. Air Toxics Hot Spots Program Risk Assessment Guidelines - The Air Toxics Hot Spots Program Guidance Manual for Preparation of Health Risk Assessments. February. https://oehha.ca.gov/media/downloads/crnr/2015guidancemanual.pdf (accessed August 2021).

San Joaquin Valley Air Pollution Control District (SJVAPCD). 2004. Rule 8021 Construction, Demolition, Excavation, Extraction, and Other Earthmoving Activities. Adopted November 15, 2001, Amended August 19, 2004. www.valleyair.org/rules/currntrules/r8021.pdf (accessed July 2021).

_____. 2007a. 2007 Ozone Plan. Adopted June 14, 2007. http://www.valleyair.org/Air_Quality_Plans/docs/AQ_Ozone_2007_Adopted/2007_8HourOzone_CompletePlan.pdf (accessed July 2021).

_____. 2007b. 2007 PM_{10} Maintenance Plan and Request for Redesignation. September. http://www.valleyair.org/Air_Quality_Plans/docs/Maintenance%20Plan10-25-07.pdf (accessed July 2021).

_____. 2008. 2018 $PM_{2.5}$ Plan. April. http://www.valleyair.org/Air_Quality_Plans/AQ_Final_Adopted_PM25_2008.htm (accessed July 2021).

_____. 2009. 2009 Reasonably Available Control Technology (RACT) Demonstration for Ozone State Implementation Plans (SIP). April 16, 2009. http://valleyair.org/Air_Quality_Plans/docs/RACTSIP-2009.pdf (accessed July 2021).

_____. 2012. 2012 $PM_{2.5}$ Plan. Adopted December 20, 2012. http://www.valleyair.org/Air_Quality_Plans/PM25Plan2012/CompletedPlanbookmarked.pdf (accessed July 2021).

_____. 2013. 2013 Plan for the Revoked 1-Hour Ozone Standard. September 19, 2013. http://valleyair.org/Air_Quality_Plans/OzoneOneHourPlan2013/AdoptedPlan.pdf (accessed July 2021).

_____. 2014. 2014 Reasonably Available Control Technology (RACT) Demonstration for the 8-Hour Ozone State Implementation Plan (SIP). June 19, 2014. http://valleyair.org/Air_Quality_Plans/docs/2014-RACT-SIP.PDF (accessed July 2021).

_____. 2015a. San Joaquin Valley Air Pollution Control District 2015 Annual Report, Indirect Source Review Program, Reporting Period: July 1, 2014 to June 30, 2015. December 17, 2015. www.valleyair.org/isr/Documents/2015-ISR-Annual-Report.pdf (accessed July 2021).

_____. 2015b. 2015 Plan for the 1997 $PM_{2.5}$ Standard. Adopted April 2015. www.valleyair.org/Air_Quality_Plans/docs/PM25-2015/2015-PM2.5-Plan_Bookmarked.pdf (accessed July 2021).

_____. 2015c. Update to District's Risk Management Policy to Address OEHHA's Revised Risk Assessment Guidance Document Final Staff Report. http://valleyair.org/busind/pto/staff-report-5-28-15.pdf (accessed September 2023).

_____. 2016. 2016 Moderate Area Plan for the 2012 $PM_{2.5}$ Standard. Adopted September 15, 2016. www.valleyair.org/Air_Quality_Plans/docs/PM25-2016/2016-Plan.pdf (accessed July 2021).

_____. 2017. Rule 9510 (Indirect Source Review). December 15, 2005. Amended December 21, 2017, but not in effect until March 21, 2018. www.valleyair.org/rules/currntrules/r9510.pdf (accessed July 2021).

_____. 2018. 2018 Plan for the 1997, 2006, and 2012 $PM_{2.5}$ Standards. Adopted November 15, 2018. http://www.valleyair.org/pmplans/documents/2018/pm-plan-adopted/2018-Plan-for-the-1997-2006-and-2012-PM2.5-Standards.pdf (accessed July 2021).

_____. 2020. 2020 Reasonably Available Control Technology (RACT) Demonstration for the 2015 8-Hour Ozone Standard. Adopted June 18, 2020. http://valleyair.org/Air_Quality_Plans/docs/2020-RACT-Demonstration.pdf (accessed July 2021).

_____. 2022. Ambient Air Quality Standards & Valley Attainment Status. https://www.valleyair.org/aqinfo/attainment.htm (accessed September 2023).

United States Environmental Protection Agency (USEPA). 2008. Redesignation of the San Joaquin Valley SJVAB PM-10 Nonattainment Area to Attainment. Federal Register. November 12, 2008. www.federalregister.gov/documents/2008/11/12/E8-26500/approval-and-promulgation-of-implementation-plans-designation-of-areas-for-air-quality-planning (accessed September 2023).

_____. 2022. NAAQS Designations Process. https://www.epa.gov/criteria-air-pollutants/naaqs-designations-process#:~:text=If%20the%20air%20quality%20in%20a%20geographic%20area,meet%20the%20national%20standard%20are%20called%20nonattainment%20areas (accessed September 2023).

This page intentionally left blank