4.2 Air Quality

This section describes the air quality within the air basins that would be affected by the Proposed Project, identifies applicable air district significance thresholds, assesses the Proposed Project's impacts to air quality and their significance, and recommends measures to avoid or substantially reduce any effects found to be potentially significant. The environmental setting is based on information obtained from the Proposed Project description, as well as the Pacific Gas and Electric Company Application Package for the Diablo Canyon Power Plant Decommissioning Project (PG&E, 2021a), including the Traffic Impact Assessment (PG&E, 2021b), the Air Quality and GHG Impact Assessment Report (PG&E, 2021c), and a follow-up technical memorandum of emission calculation updates (PG&E, 2022a). Greenhouse gases (GHGs) are addressed in Section 4.9, *Greenhouse Gas Emissions*.

Scoping Comments Received. During the scoping comment period for the EIR, written and verbal comments were received from agencies, organizations, and the public. These comments identified various substantive issues and concerns relevant to the EIR analysis. Appendix B includes all comments received during the scoping comment period. The following list provides a summary of scoping comments applicable to this issue area and considered in preparing this section:

- Ensure consistency with local and regional plans and evaluate whether direct and indirect emissions are accounted for in emissions growth assumptions.
- Evaluate air quality impacts associated with stationary sources and area sources including locomotive engines; off-road construction equipment; on-road equipment (on-road heavy-duty trucks, light-duty trucks, and passenger vehicles); marine vessel and barging activities; and all stationary and portable diesel engines, including the temporary 400-ton gantry crane and two truck-mounted cranes at the Santa Maria Valley Railroad (SMVR) site.
- Address potential air quality and health impacts at the SMVR site in Santa Barbara County.
- Complete and incorporate a Health Risk Assessment (HRA).
- Mitigate and minimize marine vessel emissions.

4.2.1 Environmental Setting

Existing Site Conditions

The baseline and environmental setting for the Proposed Project includes the DCPP in an "operating" status. When operations cease, PG&E will retire DCPP and transition DCPP into a "decommissioning" status.

The DCPP site maintains air permits to operate an auxiliary boiler, a paint spray booth, portable sandblast and abrasive blast equipment, non-retail gasoline dispensing equipment, and various diesel-powered generators and emergency pump engines. In data reported to the California Air Resources Board (CARB) for 2019, minor stationary sources at the DCPP site emitted air pollutants as follows: 16.5 tons per year of nitrogen oxides (NO_X); 4.4 tons per year of carbon monoxide (CO); 1.0 ton per year of diesel particulate matter (DPM); and less than one ton per year for other pollutants (CARB, 2021). During the transition into decommissioning or after all spent nuclear fuel is transferred to the independent spent fuel storage installation (ISFSI), the

closure of DCPP would cause eventual shutdown of the existing stationary sources at the site (PG&E, 2022c).

In addition to the DCPP site, the Proposed Project would involve the use of the Pismo Beach Railyard (PBR) as a contingency site for the transport of non-hazardous and non-radiological waste, and one Santa Maria Valley Railyard Facility (SMVR) site in Santa Barbara County (as discussed in Section 2.2). At present, the PBR site is owned by PG&E and used as an equipment staging area and vehicle maintenance facility in support of PG&E's Transmission and Distribution operations. The SMVR-SB site (i.e., Betteravia Industrial Park) does not appear to be actively used but currently serves as storage for rail cars (PG&E, 2021e).

Regional Climate and Meteorology

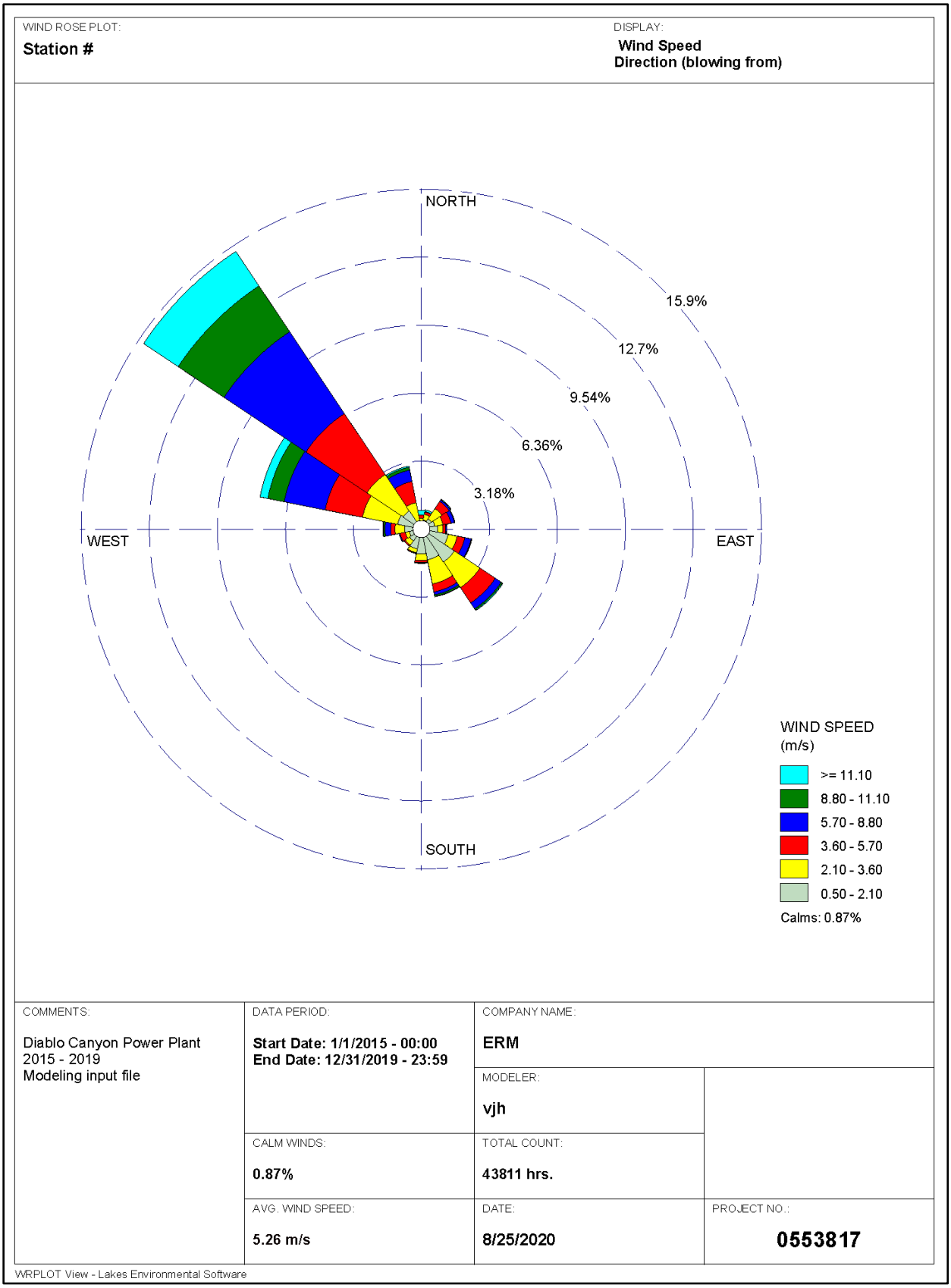
The DCPP facility, including the 750-acre NRC-licensed site, is located on California's Central Coast, bordered by the Pacific Ocean in San Luis Obispo County, approximately 7 miles northwest of Avila Beach. This area is characterized by a semi-arid Mediterranean-type climate. Approximately 18 inches of annual average precipitation occurs in the area generally between October and April, according to records from the National Oceanic and Atmospheric Administration (NOAA) meteorological station at the San Luis Obispo County Regional Airport, approximately 5.5 miles inland (NOAA, 2022).

Near the coast, summers and winters are mild compared to locations further inland. The DCPP site is within the coastal climate zone, where the ocean's influence is significant. The prevailing climate is semi-arid to arid. Low-level temperature inversions (from 1,000 to 2,500 feet) occur frequently over the coastal area. This tends to limit vertical dispersion of pollutants and can lead to increased concentrations of pollutants inland where prevailing winds carry the air. Prevailing onshore winds at DCPP are from the northwest, which is the prevailing daytime wind direction for the entire county. The winds are also greatly influenced by local topography. At night, as the sea breeze dies, weak drainage winds flow down the coastal mountains and valleys to form a light, easterly land breeze. Occasional winter storms and offshore flows reverse the sea breezes so that winds flow from the east.

The wind flow in the coastal areas is dominated by the North Pacific High, which enhances onshore winds from May to September. From November through April, this North Pacific High moves south, which allows storms in the region.

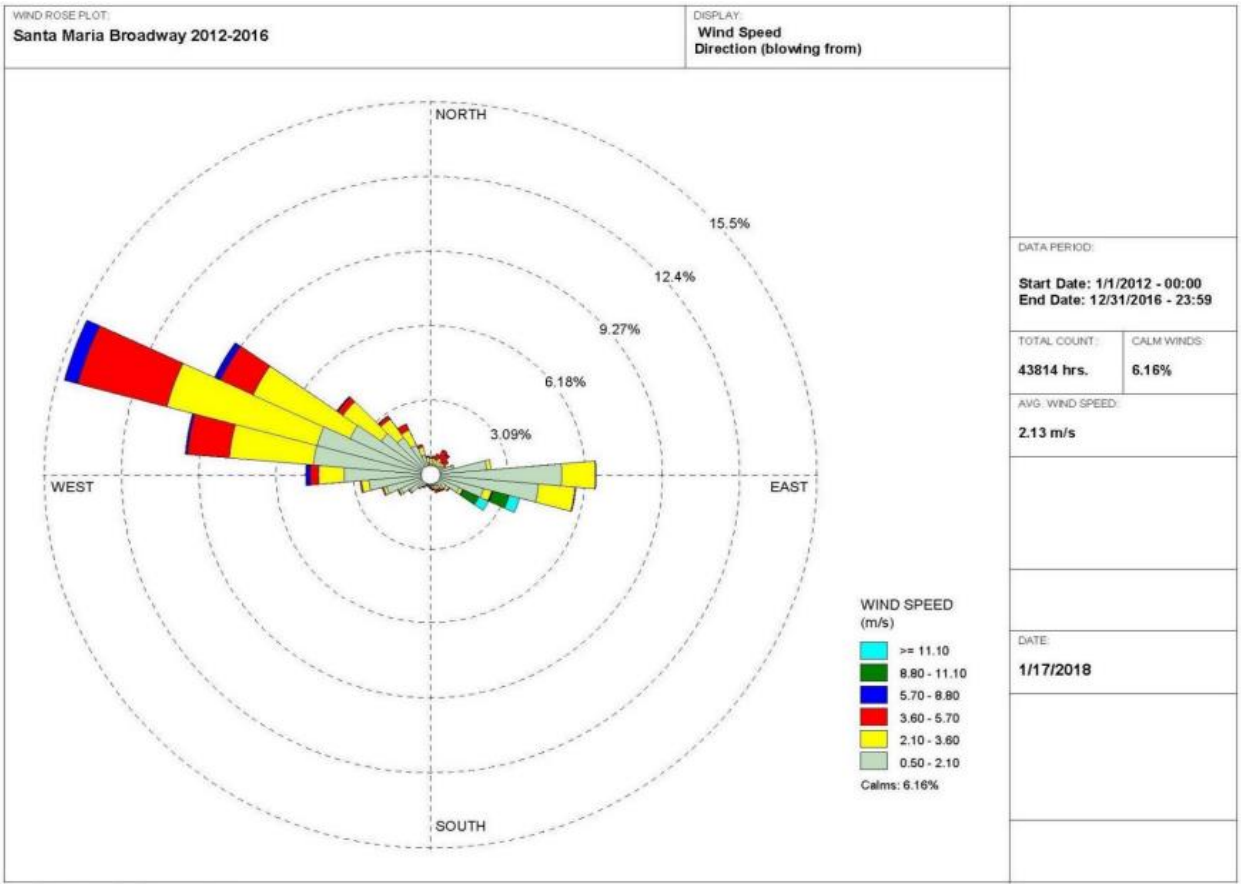
Typical wind speeds and directions for the DCPP site, as depicted in the wind rose in Figure 4.2-1, show a predominant onshore wind flow from the northwest, and a weaker wind from the southeast. DCPP is located in the Irish Hills, along steep cliffs on the shore of the Pacific Ocean. Typical wind speeds and directions in the Santa Maria area, which is representative of the SMVR-SB and PBR sites, are depicted in the wind rose in Figure 4.2-2.

Figure 4.2-1. DCPP Wind Rose 2015 – 2019



Source: PG&E, 2021c - Figure 6.2.1.1-1.

Figure 4.2-2. Santa Maria Wind Rose 2015 – 2019



Source: PG&E, 2021b - Figure 2.3.1.6-5

Affected Air Quality Jurisdictions

The Proposed Project area where decommissioning activities would occur is within the South Central Coast Air Basin, and includes all of San Luis Obispo, Santa Barbara, and Ventura Counties. The DCPP and PBR sites are under the jurisdiction of the San Luis Obispo County Air Pollution Control District (SLOCAPCD also referred to as SLOAPCD), and the SMVR-SB site is under the jurisdiction of the Santa Barbara County Air Pollution Control District (SBCAPCD).

Transportation-related activities for the Proposed Project would require travel along routes to access out-of-state disposal site destinations. Waste transportation by truck and train are anticipated to follow routes traversing southerly through Santa Barbara and Ventura Counties, and then easterly through Los Angeles, San Bernardino, and Riverside Counties, and on to disposal sites out of state (see Section 2.3.19.1, *Waste Transportation*). Barges leaving the DCPP site to transport waste would travel offshore into federal waters and head north to Oregon, and south to the Port of Long Beach and Santa Catalina Island for Discharge Structure cofferdam fill and restoration materials (see Section 2.3.14, *Discharge Structure Removal*, and Section 2.3.15, *Discharge Structure Restoration*).

Emissions related to transportation would therefore occur in air basins within California but far removed from the DCPP site, including the South Coast, San Joaquin Valley, and Mojave Desert Air Basins.

Proposed Project waste transportation could occur in the following air districts:

- San Luis Obispo County Air Pollution Control District (SLOCAPCD)
- Santa Barbara County Air Pollution Control District (SBCAPCD)
- San Joaquin Valley Air Pollution Control District (SJVAPCD)
- Ventura County Air Pollution Control District (VCAPCD)
- South Coast Air Quality Management District (SCAQMD)
- Mojave Desert Air Quality Management District (MDAQMD)

Air Pollutants and Monitoring Data

Air pollutants are defined as two general types: (1) "criteria" air pollutants, representing pollutants with established national and state health- and welfare-based ambient air quality standards (AAQS); and (2) toxic air contaminants (TACs), which may lead to serious illness or increased mortality even when present at relatively low concentrations. An additional public health related issue of concern is Valley Fever, a disease caused by soil-bound fungal spores becoming airborne as part of fugitive dust emissions generated from excavation and other ground-disturbing activities.

Criteria Air Pollutants

The US Environmental Protection Agency (USEPA), CARB, and air districts classify an area as attainment (compliance), unclassified (insufficient data available), or nonattainment (non-compliance) depending on the status of monitored ambient air quality data with the AAQS.

Table 4.2-1 provides the California Ambient Air Quality Standards (CAAQS) and National Ambient Air Quality Standards (NAAQS) and summarizes air quality from 2019-2021 collected at the nearest representative monitoring stations to the DCPP site. Prior to 2019, ozone concentrations in the area have exceeded the federal and state 8-hour ozone standards, and recent data shows that PM10 concentrations continue to exceed the state 24-hour and annual standards.

Table 4.2-2 shows the attainment status of criteria pollutants for San Luis Obispo County based on the National and California standards, and Table 4.2-3 shows the attainment status for Santa Barbara County.

Table 4.2-1. Ambient Air Quality Standards and Background Data

Pollutant	Averaging Time	Standards and Maximum Concentrations					Health Effects
		CAAQS	NAAQS	2019	2020	2021	
Ozone [2]	1 Hour (ppm)	0.090	--	0.064	0.067	0.060	Breathing difficulty, lung tissue damage
	8 Hour (ppm)	0.070	0.070	0.054	0.064	0.055	
Coarse Particulate Matter (PM10)[2]	24 Hour (µg/m^3)	50	150	136	111	109	Increased respiratory disease, lung damage, cancer, premature death
	Annual (µg/m^3)	20	--	24.9	27.5	28.6	
Fine Particulate Matter (PM2.5)[2]	24 Hour (µg/m^3)	--	35	23.6	84.5	27	

Table 4.2-1. Ambient Air Quality Standards and Background Data

Pollutant	Averaging Time	Standards and Maximum Concentrations					Health Effects
		CAAQS	NAAQS	2019	2020	2021	
	Annual ($\mu g/m^3$)	12	12	7.00	9.46	7.30	
Carbon monoxide (CO)[3]	1 Hour (ppm)	20	35	3.465	1.33	0.75	Chest pain in heart patients, headaches, reduced mental alertness
	8 Hour (ppm)	9	9	1.2	1.0	0.4	
Nitrogen dioxide (NO_2)[1]	1 Hour (ppm)	0.18	0.10	0.025	0.023	0.017	Lung irritation and damage
	Annual (ppm)	0.030	0.053	0.025	0.023	0.017	
Sulfur dioxide (SO_2)[2]	1 Hour (ppm)	0.25	0.075	0.002	0.002	0.004	Increased lung disease, breathing problems for asthmatics
	24 Hour (ppm)	0.04	--	0.0007	0.0003	0.0006	

Source: CARB, 2016; USEPA, 2021.
Acronyms: ppm = parts per million; $\mu g/m^3$ = micrograms per cubic meter; "--" = no standard or no data or insufficient annual coverage currently available.
[1] Data from Nipomo Regional Park monitoring station: Ozone, NO_2.
[2] Data from Nipomo Mesa Station: PM10, PM2.5, SO_2.
[3] Data from Santa Maria-South Broadway monitoring station: CO is not monitored in San Luis Obispo County. The nearest representative station that monitors ambient CO concentrations is the Santa Maria-South Broadway station in Santa Barbara County.

Table 4.2-2. Attainment Status for San Luis Obispo County

Pollutant	Attainment Status	
	State	Federal
Ozone, 1-hour and 8-hour averages	Non-Attainment	Non-Attainment (Eastern San Luis Obispo County) Attainment (Western San Luis Obispo County)
PM10, 24-hour and annual averages	Non-Attainment	Unclassified/Attainment
PM2.5	Attainment	Unclassified/Attainment
SO_2	Attainment	Unclassified
NO_2	Attainment	Unclassified
CO	Attainment	Unclassified
Lead	Attainment	Unclassified

Source: SLOCAPCD, 2019.
Acronyms: PM10 = course particulate matter, PM2.5 = fine particulate matter, SO_2 = sulfur dioxide, NO_2 = nitrogen dioxide, CO = carbon monoxide.

Table 4.2-3. Attainment Status for Santa Barbara County

	Attainment Status	
Pollutant	**State**	**Federal**
Ozone, 1-hour and 8-hour averages	Non-Attainment	Unclassified/Attainment
PM10, 24-hour and annual averages	Non-Attainment	Unclassified
PM2.5	Unclassified	Unclassified/Attainment
SO_2	Attainment	Unclassified/Attainment
NO_2	Attainment	Unclassified/Attainment
CO	Attainment	Unclassified/Attainment
Lead	Attainment	Unclassified/Attainment

Source: SBCAPCD, 2021.
Acronyms: PM10 = course particulate matter, PM2.5 = fine particulate matter, SO_2 = sulfur dioxide, NO_2 = nitrogen dioxide, CO = carbon monoxide.

The general and adverse health effects caused by the regulated criteria pollutants appear in Table 4.2-1. Overall exposure to criteria air pollutant levels and levels of TACs contribute to the health burden of the regional population. While the NAAQS and CAAQS are health-protective standards set to minimize both human health effects and other environmental effects of air pollutants, these standards do not preclude individuals from experiencing health impacts from criteria pollutant exposure. The health impacts also contribute to the region's baseline rates of mortality and illnesses, and individual responses are highly variable depending on individual circumstances.

Toxic Air Contaminants

TACs are compounds known or suspected to cause adverse long-term (cancer and chronic) or short-term (acute) health effects. The California Health and Safety Code defines a TAC as an air pollutant which may cause or contribute to an increase in mortality or serious illness, or which may pose a present or potential hazard to human health. Individual TACs vary greatly in the health risk they present; at a given level of exposure, one TAC may pose a hazard many times greater than another TAC. There are almost 200 compounds designated in California regulations as TACs (Cal. Code. Regs., tit. 17, §§93000-93001). The list of TACs includes substances defined in federal statute as hazardous air pollutants pursuant to Section 112(b) of the federal Clean Air Act (42 U.S.C. §7412(b)). Some of the TACs are groups of compounds containing many individual substances (e.g., copper compounds, polycyclic aromatic compounds, radionuclides). TACs are emitted from mobile sources, including diesel engines; and industrial processes and stationary sources, such as dry cleaners, gasoline stations, paint and solvent operations, and stationary fossil fuel-burning combustion. Ambient TACs concentrations tend to be highest in urbanized and industrial areas near major TACs emissions sources or near major mobile TACs emissions sources, such as heavily traveled highways or major airports/seaports. Information on the regulation of emissions of radionuclides to the air is found in Section 4.10, *Hazardous and Radiological Materials*.

Valley Fever

Coccidioidomycosis, often referred to as San Joaquin Valley Fever or Valley Fever, is a fungal infection that varies with the season and most commonly affects people who live in hot dry areas with alkaline soil. This disease affects both humans and animals and is caused by inhalation of arthroconidia (spores) of the fungus *Coccidioides immitis*. *Coccidioides immitis* spores are found in the top few inches of soil, and the existence of the fungus in most soil areas is temporary. The cocci fungus lives as a saprophyte (an organism, especially a fungus or bacterium, which grows on and derives its nourishment from dead or decaying organic matter) in dry, alkaline soil. When weather and moisture conditions are favorable, the fungus "blooms" and forms many tiny spores that lie dormant in the soil until they are stirred up by wind, vehicles, excavation, or other ground-disturbing activities and become airborne. Agricultural workers, construction workers, and other people who are outdoors and are exposed to wind, dust, and disturbed topsoil are at an elevated risk of contracting Valley Fever (California Department of Public Health [CDPH], 2019).

African Americans, Asians, women in the third trimester of pregnancy, and persons whose immunity is compromised are most likely to develop the most severe form of the disease (CDPH, 2019).

DCPP is located in the Central Coast region of California, which is an area of California where relatively high numbers of cases of Valley Fever are reported. Data from 2013 to 2019 show that the average San Luis Obispo County incidence rate of infection during these years was about 74 per 100,000. Santa Barbara County, where the SMVR sites are located, has an incident rate during these years of about 15 per 100,000 (CDPH, 2019).

Sensitive Receptors

The impact of air pollutant emissions on sensitive members of the general population (e.g., infants, children, pregnant women, elderly, and acutely and chronically ill) is a special concern. Per the CARB Air Quality and Land Use Handbook, sensitive receptor locations include schools, daycare centers, nursing homes, hospitals, parks and playgrounds, and residences. Recommendations from CARB advise land use agencies to provide a buffer distance to separate sensitive receptors by at least 500 feet from freeways or high-traffic roads and by at least 1,000 feet from railyards (CARB, 2005).

Residential areas are sensitive to air pollution because individuals normally spend much of their time at their dwellings. Industrial and commercial areas are considered the least sensitive to air pollution because exposure periods are relatively shorter or intermittent.

The DCPP site is generally surrounded by open space, PG&E owned or leased land, conservation space, federally owned parcels, and the Pacific Ocean (see Figure 2-7, Land Ownership). There are no residences or other occupied properties located within approximately 6.5 miles of the site. Recreational uses, including parks, playgrounds, and beaches, are located nearby, with the closest of these being Coon Creek Beach, approximately 3.7 miles from the site (Google Earth Pro, 2022b).

The off-site truck and rail waste haul routes are in closer proximity to sensitive receptors, such as schools and residences, in the more densely populated areas along the transportation routes and near the PBR site. The closest residences to the PBR rail site are approximately 148 feet (45

meters) from the site boundary, and the closest school is Judkins Middle School approximately 246 feet (75 meters) from the site boundary. The SMVR-SB site is surrounded by industrial, agricultural, and undeveloped lands with no sensitive receptors within 1,000 feet (Google Earth Pro, 2022a).

Existing Emissions Inventory

The predominant emission sources in San Luis Obispo County are mobile sources, including on-highway motor vehicles, railroad locomotives, and marine vessels. CARB compiles regionwide emission inventories with planning and forecast estimates for all groups of sources. The existing inventory shows that more than 75 percent of all nitrogen oxide (NO_X) emissions in the County are from ships and commercial vessels, and more than 10 percent of NO_X emissions in the County are from on-road motor vehicles. Dust from construction activity in the County accounts for more than 65 percent of all PM10 (CARB, 2017a). Relatively minor stationary sources are in use at DCPP for supporting routine operation of the power plant. The daily emissions from electric utilities, dust from construction activity, off-road equipment used during construction, ships, all on-road motor vehicles, and trains in San Luis Obispo County are shown for inventory year 2017 in Table 4.2-4.

Table 4.2-4. Daily Average Emissions for San Luis Obispo County (2017, tons per day)

Source Category -Total	NO_X	VOC	PM10	PM2.5	CO	SO_X
San Luis Obispo County	21.83	3.99	1.85	0.5	29.82	0.36
Source Category - Subtotals						
Electric Utilities	0.06	-	-	-	0.12	-
Dust from Construction Activities	-	-	1.24	0.12	-	-
Off-Road Equipment [1]	0.89	1.18	0.06	0.05	14.74	0
Ships and Commercial Boats [1]	16.52	0.95	0.15	0.14	1.17	0.33
On-Road Motor Vehicles [1]	4.16	1.82	0.4	0.19	13.76	0.03
Trains	0.2	0.01	-	-	0.03	-

Source: CARB, 2017a.
Acronyms: NO_X = nitrogen oxides, VOC = volatile organic compounds, PM10 = course particulate matter, PM2.5 = fine particulate matter, CO = carbon monoxide, SO_X = sulfur oxides.
[1] Includes all construction off-road equipment, all vessels, and all on-road motor vehicles.

Emission sources in Santa Barbara County are dominated by mobile sources, including on-high-way motor vehicles, railroad locomotives, and marine vessels. The existing inventory shows that nearly 85 percent of all NO_X emissions in the County are from ships and commercial boats, and more than 10 percent of NO_X emissions in the County are from on-road motor vehicles. Dust from construction activity in the County accounts for more than 35 percent of all PM10 (CARB, 2017b). The daily emissions from electric utilities, dust from construction activity, off-road equipment used during construction, ships, all on-road motor vehicles, and trains in Santa Barbara County are shown for inventory year 2017 in Table 4.2-5.

Table 4.2-5. Daily Average Emissions for Santa Barbara County (2017, tons per day)

Source Category - Total	NO_X	VOC	PM10	PM2.5	CO	SO_X
Santa Barbara County	61.65	8.25	6.58	1.37	51.57	1.07
Source Category - Subtotals						
Electric Utilities	0.04	0.02	-	-	0.15	-
Dust from Construction Activities	-	-	5.3	0.53	-	-
Off-Road Equipment [1]	1.29	1.61	0.8	0.07	20.67	-
Ships and Commercial Boats [1]	52.31	3.04	0.43	0.40	3.51	1.03
On-Road Motor Vehicles [1]	7.36	3.56	0.75	0.36	27.14	0.04
Trains	0.65	0.02	0.02	0.01	0.1	-

Source: CARB, 2017b.
Acronyms: NO_X= nitrogen oxides, VOC = volatile organic compounds, PM10 = course particulate matter, PM2.5 = fine particulate matter, CO = carbon monoxide, SO_X = sulfur oxides.
[1] Includes all construction off-road equipment, all vessels, and all on-road motor vehicles.

4.2.2 Regulatory Setting

Sources of air pollutant emissions in the region are regulated by the USEPA, CARB, the SLOCAPCD, and the SBCAPCD. The SLOCAPCD has published California Environmental Quality Act (CEQA) Guidelines and significance criteria for air quality impact analysis. The SBCAPCD has also published guidelines for air quality impact analysis. Each local air district adopts a set of rules and regulations pertaining to air quality.

Appendix C includes a summary of relevant federal and state laws, regulations, and policies that pertain to air quality. Local laws, regulations, and policies related to air quality are discussed below. For purposes of this impact analysis which spans multiple air districts, volatile organic compounds (VOC), reactive organic compounds (ROC), and reactive organic gases (ROG) are synonymous with each other and can be considered interchangeable.

San Luis Obispo County Air Pollution Control District

The SLOCAPCD is responsible for planning, implementing, and enforcing federal and state ambient air quality standards in San Luis Obispo County and for permitting and controlling stationary sources and TAC pollutants. The SLOCAPCD's Rules regulate sources of air pollution in San Luis Obispo County. The SLOCAPCD rules that may be applicable to the Proposed Project, specifically the DCPP and PBR sites, are identified below (SLOCAPCD, 2020).

- **SLOCAPCD Rule 401 – Visible Emissions**. This rule prohibits discharge of air contaminants or other material that are as dark or darker in shade as that designated No. 1 on the Ringelmann Chart or that obscure an observer's view.
- **SLOCAPCD Rule 402 – Nuisance.** This rule prohibits discharge of air contaminants or other material that cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public; or that endanger the comfort, repose, health, or safety of any such persons or the public; or that cause, or have a natural tendency to cause, injury or damage to business or property.

- **SLOCAPCD Rule 403 – Particulate Matter Emission Standards.** This rule prohibits discharge of particulate matter in excess of rates specified in Section 403. B.
- **SLOCAPCD Regulation II – Permits**. Rules outline general permits required to construct, operate, and sell or rent stationary sources of air contaminants.
- Asbestos National Emission Standards for Hazardous Air Pollutants (NESHAP) – SLOCAPCD implements the asbestos NESHAP regulation, which includes surveys, notification requirements, forms, and fees (SLOCAPCD, 2023).

County of San Luis Obispo

The County of San Luis Obispo has also adopted a General Plan that includes air quality related goals and policies, with particular interest around ozone concentrations (San Luis Obispo, 2010). The strategies aim to provide an overall reduction in vehicle miles traveled and support the County's efforts in attaining state and federal ambient air quality standards.

The policies for air quality that are relevant to the activities of the Proposed Project are as follows:

- **Policy AQ 3.7 Reduce vehicle idling.** Encourage the reduction of heavy-vehicle idling throughout the county, particularly near schools, hospitals, senior care facilities, and areas prone to concentrations of people, including residential areas.
- **Policy AQ 3.8 Reduce dust emissions.** Reduce PM10 and PM2.5 emissions from unpaved and paved County roads to the maximum extent feasible.

Santa Barbara County Air Pollution Control District

The SBCAPCD is responsible for planning, implementing, and enforcing federal and state ambient air quality standards in Santa Barbara County and for permitting and controlling stationary sources and TAC pollutants. The SBCAPCD's Rules regulate sources of air pollution in Santa Barbara County. The SBCAPCD rules that may be applicable to the Proposed Project, specifically the SMVR-SB site, are identified below. As described in Section 1.3.3.2, *Surface Transportation Board*, railroads are under the jurisdiction of the federal government such that local agencies are preempted from exercising jurisdiction.

- **SBCAPCD Rule 302 – Visible Emissions.** This rule prohibits discharge of air contaminants or other material that are as dark or darker in shade as that designated No. 1 on the Ringelmann Chart or that obscure an observer's view.
- **SBCAPCD Rule 303 – Nuisance.** This rule prohibits discharge of air contaminants or other material that cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public; or that endanger the comfort, repose, health, or safety of any such persons or the public; or that cause, or have a natural tendency to cause, injury or damage to business or property.

4.2.3 Significance Criteria

Per State CEQA Guidelines Appendix G, the Proposed Project would be found to cause a significant environmental impact if it would:

- Conflict with or obstruct implementation of applicable air quality plans.
- Result in a cumulatively considerable net increase of any criteria pollutant for which the Project region is in nonattainment under an applicable federal or state ambient air quality standard.
- Expose sensitive receptors to substantial pollutant concentrations.
- Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.

San Luis Obispo County Air Pollution Control District

The SLOCAPCD recommends using the CEQA process to mitigate emissions from any short-term construction activities that exceed quantitative thresholds. Mitigation defined in the SLOCAPCD CEQA Air Quality Handbook (SLOCAPCD, 2012) should be applied if a project causes potentially significant impacts in order to avoid conflicting with implementation of the applicable air quality plan.

For ozone precursors (Nitrogen Oxides [NO_X] and Volatile Organic Compounds [VOC]) during construction:

- Daily: Construction projects exceeding 137 lb/day (NO_X and VOC combined) require Standard Mitigation Measures.
- Quarterly Tier 1: Construction projects exceeding 2.5 ton/quarter (NO_X and VOC combined) require Standard Mitigation Measures and Best Available Control Technology (BACT) for construction equipment. Off-site mitigation may be required if feasible mitigation measures are not implemented, or if no mitigation measures are feasible for a project.
- Quarterly Tier 2: Construction projects exceeding 6.3 ton/quarter (NO_X and VOC combined), require Standard Mitigation Measures, BACT, implementation of a Construction Activity Management Plan (CAMP), and off-site mitigation.

For diesel particulate matter (DPM) during construction:

- Quarterly Tier 1: Construction projects exceeding 0.13 ton/quarter (DPM) require Standard Mitigation Measures, BACT for construction equipment.
- Quarterly Tier 2: Construction projects exceeding 0.32 ton/quarter (DPM) require Standard Mitigation Measures, BACT, implementation of a CAMP, and off-site mitigation.

For fugitive particulate matter during construction, dust emissions exceeding 2.5 ton/quarter require Fugitive PM10 Mitigation Measures and may require the implementation of a CAMP.

The SLOCAPCD recommends the following thresholds of significance for long-term operational emissions (SLOCAPCD, 2012).

- For ozone precursors (NO_X and VOC combined): 25 lb/day or 25 ton/year.
- For diesel particulate matter (DPM): 1.25 lb/day.

- For fugitive particulate matter (PM10) dust: 25 lb/day or 25 ton/year.
- For CO: 550 lb/day.

For activities at the DCPP and PBR sites, the operational threshold for DPM of 1.25 lb/day will be used for the localized single-site emissions. Since DPM is a localized concern, this operational threshold will be used for these localized emissions. Projects that emit more than 1.25 lb/day of DPM should implement on-site diesel-exhaust control measures, and if sensitive receptors are within 1,000 feet, the SLOCAPCD may also require a HRA (SLOCAPCD, 2012).

Santa Barbara County Air Pollution Control District

Currently, neither the County of Santa Barbara nor the SBCAPCD have daily or quarterly quantitative emission thresholds established for short-term construction emissions. Emissions from construction activities are normally short-term and subject to standardized emission control strategies. For the Proposed Project, however, SBCAPCD staff recommended during early agency consultation that the proposed decommissioning activities be compared to thresholds for longer-term operation due to the duration of decommissioning activities occurring over many years. Quantitative thresholds for operation established by the County of Santa Barbara are more stringent than those recommended by the SBCAPCD.

Although quantitative thresholds of significance are not currently in place for short-term or construction emissions, the SBCAPCD recommends that construction projects that would emit more than 25 tons per year of any pollutant to obtain emission offsets under SBCAPCD Rule 804 (SBCAPCD, 2017). APCD Rule 202(D)(16), related to permits and exemptions, requires that:

> *Notwithstanding any exemption in these rules and regulations, if the combined emissions from all construction equipment used to construct a stationary source which requires an Authority to Construct have a projected actual in excess of 25 tons of any pollutant, except carbon monoxide, in a 12 month period, the owner of the stationary source shall provide offsets as required under the provisions of Rule 804, Emission Offsets, and shall demonstrate that no ambient air quality standard would be violated.*

The SBCAPCD Board adopted significance thresholds for the operation of a project as not having a significant impact on air quality if the project will:

- Emit (from all project sources, both stationary and mobile) less than the daily trigger for offsets or Air Quality Impact Analysis set in the APCD New Source Review Rule, for any pollutant (i.e., 240 lb/day for Reactive Organic Compounds (ROC) or NO_X; and 80 lb/day for PM10. There is no daily operational threshold for CO; it is an attainment pollutant).
- Emit less than 25 lb/day NO_X or ROC from motor vehicle trips only.
- Not cause or contribute to a violation of any CAAQS or NAAQS (except ozone).
- Not exceed the APCD health risk public notification thresholds adopted by the APCD Board (10 excess cancer cases in a million) for cancer risk and not exceed a Hazard Index of 1.0 for non-cancer risk.
- Be consistent with the latest adopted federal and state air quality plans for Santa Barbara County (SBCAPCD, 2017).

County of Santa Barbara

The County of Santa Barbara recommends finding that a project will not have a significant air quality effect on the environment, if operation of the project will:

- Emit (from all project sources, mobile and stationary) less than the daily triggers of: 55 lb/day for NO_X or ROC, and 80 lb/day for PM10 (Santa Barbara, 2021). Because PM10 includes PM2.5, emissions of PM2.5 are presumed to be subject to the PM10 threshold;
- Emit less than 25 lb/day NO_X or ROC from motor vehicle trips only;
- Not cause or contribute to a violation of any California or National Ambient Air Quality Standard (except ozone);
- Not allow land uses that create objectionable odors or does not expose sensitive receptors to objectionable odors;
- Not exceed the APCD health risk public notification thresholds adopted by the APCD Board for air toxics; and
- Be consistent with the adopted federal and state Air Quality Plans.

4.2.4 Environmental Impact Analysis and Mitigation

Impact AQ-1: Conflict with or obstruct implementation of an applicable air quality plan (Class III: Less than Significant).

This discussion addresses whether the Proposed Project's emissions sources, which are primarily off-road equipment, on-road vehicles, rail locomotives, and marine vessels would conform with the air quality management plans adopted by SLOCAPCD or other local air districts. All decommissioning activities would comply with the applicable rules, regulations, and programs.

Phase 1

DCPP Project Site

For the area including the DCPP site and its surroundings, the SLOCAPCD and CARB ensure implementation of California's air quality management plans, collectively known as the State Implementation Plan. State-level air quality planning strategies to attain CAAQS are implemented through rules, regulations, and programs adopted by SLOCAPCD and CARB to control ozone precursors, PM10, and PM2.5.

All decommissioning activities would comply with all applicable air pollution control rules and regulations, including SLOCAPCD's Rule 401 and 402, which prevent nuisance and regulate fugitive dust emissions. The Proposed Project activities would also conform to the federal and state Clean Air Act requirements by complying with the rules and regulations contained in the State Implementation Plan, which carries forward the necessary programs from the local air quality plan.

A project could be inconsistent with the applicable air quality management plan or attainment plan if it causes population and/or employment growth or growth in vehicle-miles traveled in excess of the growth forecasts included in the attainment plan.

The Proposed Project as a decommissioning activity would not contribute to population growth, or an increase in employees at the DCPP site. The overall effects of the Proposed Project would be to deploy a temporary workforce, involving short-term employment. For all locations of proposed activities (including the railyards), the total full-time employees used for Phase 1 activities of decommissioning would be much lower than current full-time employees commuting to and from the DCPP. Associated vehicle trips and miles traveled by the workforce would decrease overall from the baseline of existing conditions. Currently DCPP employs approximately 1,157, but generally employs up to 1,400 workers (see Section 2.2.3.1), and during decommissioning it's estimated there would be around 870 workers daily in Phase 1, and around 160 workers daily by Phase 2. Accordingly, the Phase 1 activities of decommissioning would not conflict with or obstruct implementation of the applicable air quality plan, and this impact would not be significant (Class III).

Railyards

The ability of Phase 1 activities at the railyards to conform with applicable air quality management plans is included in the overall discussion for Phase 1, above.

Phase 2

Activities in Phase 2 include contaminant remediation, demolition of remaining utilities and structures, soil grading and landscaping, long-term stormwater management, and closure of the Intake Structure. Since Discharge Structure removal and restoration activities span both Phases 1 and 2, the emissions were considered in Phase 1 to provide a conservative estimate. Similar to Phase 1 activities, Phase 2 activities would comply with all applicable air pollution control rules and regulations and would involve a much lower level of employment and a decrease in overall vehicle trips and miles traveled by the workforce from the baseline of existing conditions. The Phase 2 activities of decommissioning and long-term operations would not conflict with or obstruct implementation of the applicable air quality plan, and this impact would not be significant (Class III).

Post-Decommissioning Operations

New Facility Operations. Following Phase 2, activities at the DCPP site associated with the Proposed Project include operation of the new GTCC Storage Facility, Security Building, indoor Firing Range, and Storage Buildings. PG&E would continue to comply with all applicable air pollution control rules and regulations and would involve a much lower level of employment and a decrease in overall vehicle trips and miles traveled by the workforce from the baseline of existing conditions. Long-term operations of the new facilities would not conflict with or obstruct implementation of the applicable air quality plan. This impact would not be significant (Class III).

Future Actions. Marina improvement and operations include parking lot construction and a boat hoist to allow for recreational activities at the Marina. The recreational use of the site would involve lower levels of employment, and total trips to and from the site from baseline conditions.

The Marina activities would not conflict with or obstruct implementation of the applicable air quality plan. This impact would not be significant (Class III).

Mitigation Measures for Impact AQ-1. No mitigation measures are required.

Impact AQ-2: Result in a cumulatively considerable net increase of any criteria air pollutant for which the Project region is in nonattainment (Class II: Less than Significant with Mitigation).

This section quantifies the criteria air pollutant emissions for each phase and site of the Proposed Project to compare with the significance thresholds for protecting regional air quality planning efforts. The Proposed Project would create criteria air pollutant emissions during decommissioning and dismantlement activities. The sources directly related to the Proposed Project include off-road equipment, on-road vehicles, rail locomotives, and marine vessels used in the process of dismantling, decontaminating, and removing the DCPP facility components after final shutdown.

Emissions estimates are based on use of regulatory agency-approved emissions factors and calculation methods. PG&E used the most up-to-date available emissions estimating methodologies at the time of PG&E's primary submittals to the County (during 2021). The emissions factor sources used include:

- CalEEMod version 2016.3.2 – California's emission estimating software for based on emissions factors from CARB's OFFROAD2011 and EMFAC2014 databases (PG&E, 2021c).
- EMFAC2017 –CARB's USEPA-approved database of on-road vehicle emissions and on-highway transportation activity (PG&E, 2021c).
- USEPA Compilation of Air Emissions Factors (AP-42) – Provides methods for fugitive dust emissions factor determinations for various construction/ demolition and mobile source dust emissions sources, including material loading and handling, grading (PG&E, 2022a).
- 2019 Port of Long Beach Air Emissions Inventory – Marine vessel emissions sources (PG&E, 2022a).
- USEPA 2009 Emissions Factors for Locomotives (EPA-420-F-09-025) – Rail hauling emissions (PG&E, 2021c).
- USEPA 2018 Emission Factors for Greenhouse Gas Inventories (PG&E, 2021c).

Phase 1

DCPP Project Site

The DCPP Project site is in the western and coastal portion of San Luis Obispo County, which is designated as non-attainment for state-level ozone and PM10 standards. Emissions during Phase 1 would include criteria air pollutants, including ozone and PM10 precursor pollutants, that could exceed quantitative thresholds of significance and would represent a cumulatively considerable net increase of a nonattainment pollutant. Emissions exceeding the quantitative thresholds could contribute to the significant cumulative impact of existing or projected violations of the ambient air quality standards.

Decommissioning activities would generate emissions at the DCPP site and off site along the roadways traveled by Project-related traffic. Project emissions would be caused by exhaust from vehicles and equipment (this includes ozone precursors VOC or ROG and NO_X, CO, and particulate matter [PM10 and PM2.5]) and fugitive dust/particulate matter from ground-disturbing activities and travel on unpaved surfaces and on paved roads. Waste, rock, and gravel transportation via rail and barge would also cause criteria air pollutant emissions including VOCs, NO_X, CO, PM10, and PM2.5 in San Luis Obispo County and in the jurisdictions of other air districts far removed from the DCPP site.

To minimize fugitive dust from unpaved surfaces and emissions from other ground-disturbing activities, all decommissioning activities would be required to comply with local air district rules regarding dust control (including SLOCAPCD Rule 401 and 402). Diesel and gasoline-powered equipment would include either portable or mobile sources (off-road equipment). These sources are subject to the Statewide Portable Equipment Registration Program and emissions performance standards for in-use off-road equipment fleets (see EIR Appendix C). On-road motor vehicle emissions would occur primarily off-site with sources including heavy-duty trucks to deliver equipment, water, and other materials, heavy-duty trucks to haul away demolished material and soil, and light-duty vehicles carrying crews and medium-duty deliveries. These on-road motor vehicle emissions would not be localized at the DCPP site but would contribute to a net increase of emissions within the South Central Coast Air Basin.

Decommissioning activities would occur over two main phases. Phase 1 would occur following the shutdown of DCPP Unit 1 in November 2024 and last approximately eight years and may be phased. The targeted schedule for Phase 1 construction spans 2024 to 2031. Phase 2 is targeted to commence after 2031.

Table 4.2-6 summarizes the maximum daily emissions of anticipated decommissioning activity at the DCPP site including DCPP harbor tugboats, ocean tugboats traveling to the offshore boundary of San Luis Obispo County including tugboats for gravel from the Port of Long Beach and quarry rocks from Santa Catalina Island, and truck and rail waste transportation in the County. Table 4.2-7 summarizes the quarterly rates of emissions.

Table 4.2-6. Phase 1, DCPP Site, Maximum Daily Unmitigated Emissions (pounds per day)

Phase	NO_X + ROG	PM10	PM2.5	CO	SO_X
Phase 1, DCPP Site	370	28.50	13.61	463.37	82.21
SLOCAPCD Threshold	137	-	-	-	-
Threshold Exceeded? (Yes/No)	Yes	N/A	N/A	N/A	N/A

Source: EIR Appendix D, Phase 1 AQ/GHG Summary, Table 1.1 and Table 1.2.
Acronyms: NO_X= nitrogen oxides, ROG = reactive organic gasses, PM10 = course particulate matter, PM2.5 = fine particulate matter, CO = carbon monoxide, SO_X= sulfur oxides.

Table 4.2-7. Phase 1, DCPP Site, Maximum Quarterly Unmitigated Emissions (tons per quarter)

Phase	NO_X + ROG	Exhaust PM10 or DPM	Fugitive PM10
Phase 1, DCPP Site	11.9	0.09	0.52
SLOCAPCD Threshold	2.5	0.13	2.5
Threshold Exceeded? (Yes/No)	Yes	No	No

Source: EIR Appendix D, Phase 1 AQ/GHG Summary, Table1.1, Table 1.2.
Acronyms: NO_X= nitrogen oxides, ROG = reactive organic gasses, PM10 = course particulate matter, CO = carbon monoxide, SO_X = sulfur oxides.

Emissions quantified in Table 4.2-6 and Table 4.2-7 reflect the Proposed Project, which includes commitments to minimize fugitive dust, use of Tier 4 equipment, and compliance with SLOCAPCD requirements (see Table 2-12). For emissions exceeding the SLOCAPCD thresholds, mitigation measures must be identified to minimize or avoid adverse impacts of the emissions, as described under *Overall Project Air Pollutant Emissions*. Phase 1 emissions of ozone precursors (NO_X and VOC) would exceed the SLOCAPCD daily and quarterly thresholds. Phase 1 emissions of PM10 would be below the thresholds. The Proposed Project emissions increases of ozone precursors during Phase 1 would result in a potentially significant impact on SLOCAPCD regional emissions, and the recommended mitigation is described below.

Railyards

Pismo Beach Railyard. PBR is a back-up or contingency site that could potentially be used for the transfer of only non-radioactive and non-hazardous decommissioning waste from trucks to rail cars (see Table 2-9). Emissions are shown for Phase 1 activities and included in the discussion of DCPP site impacts, above. Since Phase 2 includes final site restoration for DCPP, and waste would not be transported by rail in Phase 2, the PBR would not be used during Phase 2. Table 4.2-8 and Table 4.2-9 show the portion of Proposed Project activities at PBR would not cause a significant impact on SLOCAPCD regional emissions (Class III).

Table 4.2-8. PBR Site, Maximum Daily Unmitigated Emissions (pounds per day)

Phase	NO_X + ROG	PM10	PM2.5	CO	SO_X
Phase 1, PBR Site	29.1	0.9	0.6	65.2	0.1
SLOCAPCD Threshold	137	-	-	-	-
Threshold Exceeded? (Yes/No)	No	N/A	N/A	N/A	N/A

Source: PG&E, 2021c – Table 3.5.
Acronyms: NO_X= nitrogen oxides, ROG = reactive organic gasses, PM10 = course particulate matter, PM2.5 = fine particulate matter, CO = carbon monoxide, SO_X = sulfur oxides.

Table 4.2-9. PBR Site, Maximum Quarterly Unmitigated Emissions (tons per quarter)

Phase	NO_x + ROG	Exhaust PM10 or DPM	Fugitive PM10
Phase 1, PBR Site	0.9	0.02	0.01
SLOCAPCD Threshold	2.5	0.13	2.5
Threshold Exceeded? (Yes/No)	No	No	No

Source: PG&E, 2021c – Table 3.6.
Acronyms: NO_X = nitrogen oxides, ROG = reactive organic gasses, PM10 = course particulate matter, DPM = Diesel Particulate Matter.

SMVR-SB. Table 4.2-10 shows the criteria air pollutant emissions for Proposed Project activities at SMVR-SB. Phase 1 emissions at the SMVR-SB site would not exceed SBCAPCD thresholds and would not cause a significant impact on regional emissions in Santa Barbara County (Class III).

Table 4.2-10. SMVR-SB Site, Maximum Daily Unmitigated Emissions (pounds per day)

Phase	NO_X	VOC	PM10	PM2.5	CO	SO_X
Phase 1, SMVR-SB Site	6.3	0.8	0.2	0.2	24.3	0.1
SBCAPCD Threshold	25	25	80	80	-	-
Threshold Exceeded? (Yes/No)	No	No	No	No	N/A	N/A

Source: EIR Appendix D, Phase 1 AQ/GHG Summary, Table 4.2.
Acronyms: NO_X = nitrogen oxides, VOC = volatile organic compounds, PM10 = course particulate matter, PM2.5 = fine particulate matter, CO = carbon monoxide, SO_X = sulfur oxides.

Waste and Fill Transport Emissions in Other Air Districts

Emissions due to waste transportation from DCPP would occur outside of SLOCAPCD and SBCAPCD. The truck and rail transportation in Phase 1 would require use of long-haul trucks originating from DCPP then traveling onto regional highways and railroad locomotives using the PBR or SMVR railyards as starting points for travel to disposal sites.

Waste transport emissions in other air districts would be minor when considered in the context of the baseline transportation-related emissions that occur on California's road and rail networks. For consistency with impact classifications in the SLOCAPCD and SBCAPCD jurisdictions, the threshold of 25 lbs/day for ozone precursors (NO_X and VOC combined) from motor vehicle trips, which equates to an annual rate of 5 tons per year, would be relevant (SBAPCD, 2017; SLOCAPCD, 2012).

The peak annual rates of emissions from waste transport by truck and rail through each of the other air districts that are far removed from the DCPP site are summarized below in Table 4.2-11. Based on the limited annual quantities of truck and rail emissions, the Proposed Project would be unlikely to adversely impact regional emissions in other air districts that are far removed from the DCPP site (Class III).

Table 4.2-11. Worst Case Truck and Rail Unmitigated Emissions in Other Air Districts (tons per year)

Air District	NO_X + VOC	PM10	PM2.5	CO	SO_X
Ventura County Air Pollution Control District (VCAPCD)	0.035	0.001	0.001	0.012	< 0.001
South Coast Air Quality Management District (SCAQMD)	0.146	0.005	0.003	0.034	0.001
San Joaquin Valley Air Pollution Control District (SJVAPCD)	0.055	0.003	0.001	0.008	< 0.001
Mojave Desert Air Quality Management District (MDAQMD)	0.197	0.005	0.004	0.058	0.001
Motor Vehicle Trips Emissions Threshold	5	---	---	---	---
Threshold Exceeded? (Yes/No)	No	N/A	N/A	N/A	N/A

Source: EIR Appendix D, Phase 1 AQ/GHG Summary, Table 1.5.
Acronyms: NO_X = nitrogen oxides, VOC = volatile organic compounds, PM10 = course particulate matter, PM2.5 = fine particulate matter, CO = carbon monoxide, SO_X = sulfur oxides.

The peak annual rates of emissions from the transport of waste, gravel, and quarry rock by harbor craft and barges piloted by ocean tugboats beyond the jurisdiction of SLOCAPCD and through federal waters offshore to Oregon and to the Port of Long Beach and Santa Catalina Island are summarized for informational purposes in Table 4.2-12. The emissions caused by use of ocean tugboats beyond the offshore boundary of San Luis Obispo County and along the total length of the route to the Oregon disposal site or the fill sites in Long Beach and Santa Catalina Island would be outside of the Project area and are unlikely to substantially impact air quality conditions offshore.

Table 4.2-12. Worst Case Harbor Craft and Barge Unmitigated Emissions Outside of the Project Area (tons per year)

	NO_X	VOC	PM10	PM2.5	CO	SO_X
Offshore Waste Transport	11.01	1.03	0.39	0.36	6.51	0.01

Source: EIR Appendix D, Phase 1 AQ/GHG Summary, Table 6.1 (Barge for Remainder of Route SoCal + OR).
Acronyms: NO_X = nitrogen oxides, VOC = volatile organic compounds, PM10 = course particulate matter, PM2.5 = fine particulate matter, CO = carbon monoxide, SO_X = sulfur oxides.
Note: Barge emissions represent emissions occurring through federal waters off the shore of California and Oregon. Barge emissions within the boundaries of SLO County are included in Phase 1 total emissions.

Phase 2

Table 4.2-13 summarizes the maximum daily emissions during Phase 2, and Table 4.2-14 summarizes the quarterly emissions during Phase 2. Emissions during Phase 2 would be lower than Phase 1 due to much less intensive activity and fewer transportation trips. All decommissioning emissions during Phase 2 would be below the applicable SLOCAPCD thresholds and less than significant (Class III). No Phase 2 activities are anticipated to occur at the railyards.

Table 4.2-13. Phase 2, DCPP Site, Maximum Daily Unmitigated Emissions (pounds per day)

Phase	NO_X + ROG	PM10	PM2.5	CO	SO_X
Phase 2, DCPP Site	28.42	32.94	8.38	85.91	0.25
SLOCAPCD Threshold	137	-	-	-	-
Threshold Exceeded? (Yes/No)	No	N/A	N/A	N/A	N/A

Source: EIR Appendix D, Phase 2 AQ/GHG Summary, Emission Calculations for Phase 2 based on PG&E, 2021d.
Acronyms: NO_X = nitrogen oxides, ROG = reactive organic gasses, PM10 = course particulate matter, PM2.5 = fine particulate matter, CO = carbon monoxide, SO_X = sulfur oxides.
All barge trips were included in Phase 1 calculations to provide a conservative estimate, therefore barge trips are not included in Phase 2 reported emissions.

Table 4.2-14. Phase 2, DCPP Site, Maximum Quarterly Unmitigated Emissions (tons per quarter)

Phase	NO_X + VOC	Exhaust PM10 or DPM	Fugitive PM10
Phase 2, DCPP Site	0.78	0.02	0.54
SLOCAPCD Threshold	2.5	0.13	2.5
Threshold Exceeded? (Yes/No)	No	No	No

Source: EIR Appendix D, Phase 2 AQ/GHG Summary, Emission Calculations for Phase 2 based on PG&E 2021d.
Acronyms: NO_X = nitrogen oxides, VOC = volatile organic compounds, PM10 = course particulate matter, DPM = Diesel Particulate Matter.

Post-Decommissioning Operations

New Facility Operations. Following Phase 2, operational activities at the DCPP site would include long-term management of the GTCC Waste Storage facility and operation of the Security Building, indoor Firing Range, and Storage Buildings. Emissions estimates appear in EIR Appendix D, Phase 2 AQ/GHG Summary. These operational activities would not generate emissions at levels that could exceed the applicable SLOCAPCD thresholds, and this impact would be less than significant (Class III).

Future Actions. Marina improvement and operations would result in emissions that have already been accounted for in the Phase 2 to present a worst-case scenario (see Table 4.2-14). As noted above, impacts would be less than significant (Class III).

Overall Project Air Pollutant Emissions and Mitigation

Overall effects of the Proposed Project include emissions from Phase 1 activities at the DCPP site that would result in criteria air pollutant emissions at rates exceeding the SLOCAPCD thresholds of significance for ozone precursors (NO_X and VOC). Phase 2 activities would not exceed the SLOCAPCD thresholds of significance.

This analysis identifies mitigation measures to reduce the impact of ozone precursor emissions during Phase 1. MM AQ-1 requires PG&E to implement a Decommissioning Activity Management Plan (DAMP). MM AQ-2 requires PG&E to achieve off-site emissions reductions to offset the effects of any Project-related ozone precursor emissions over 2.5 tons/quarter (NO_X and VOC combined) prior to initiating Phase 1. The quantity of off-site emission reductions necessary to mitigate Phase 1 would be equal to the amount of Project NO_X and VOC combined emissions

(estimated to range up to 11.9 tons/quarter (Table 4.2-7) minus the threshold level of 2.5 tons/quarter, or up to 9.4 tons/quarter of reductions, as established by the SLOCAPCD recommendations (SLOCAPCD, 2012).

Potential off-site emissions reductions strategies sponsored by PG&E through MM AQ-2 could include but would not be limited to the following (SLOCAPCD, 2012):

- Fund a program to buy and scrap older heavy-duty diesel vehicles or equipment,
- Replace/repower transit buses,
- Replace/repower heavy-duty diesel school vehicles (i.e., bus, passenger, or maintenance vehicles),
- Retrofit or repower heavy-duty construction equipment, or on-road vehicles,
- Repower or contribute to funding clean diesel locomotive main or auxiliary engines,
- Purchase VDECs for local school buses, transit buses or construction fleets,
- Install or contribute to funding alternative fueling infrastructure (i.e., fueling stations for clean natural gas, liquified petroleum gas, conductive and inductive electric vehicle charging, etc.),
- Fund expansion of existing transit services, and
- Replace/repower marine diesel engines.

The mitigation measures would facilitate reducing emissions of ozone precursors (NO_X and VOC combined). However, the overall effectiveness of the mitigation measures would be uncertain. For example, PG&E may encounter difficulty in contracting a complete fleet of off-road equipment including specialized machines that achieves the Tier 4 emission standards for off-road compression-ignition engines, as specified in the California Code of Regulations, Title 13, Section 2423(b)(1). Additionally, an agreed-upon program to achieve off-site emissions reductions may not be able to achieve cost-effective reductions at a rate and schedule that fully offsets the project impact.

The emissions rates forecasted for the Proposed Project are based on PG&E's best available Project design information at the time of environmental review. Future design refinements, refinements in emissions estimating methodologies, and the ultimate equipment selection would influence the actual emissions rates. To ensure that actual emissions are reported and mitigated during the life of decommissioning activities, this analysis recommends Mitigation Measures (MMs) AQ-1 and AQ-2, which include a program of continuing agency oversight. The mitigation measure for off-site emission reduction projects (MM AQ-2) includes provisions to ensure that Proposed Project emissions would not occur at rates exceeding the applicable thresholds. This impact would be less than significant with mitigation for Phase 1 (Class II).

Mitigation Measures for Impact AQ-2.

AQ-1 **Implement a Decommissioning Activity Management Plan (DAMP).** Upon the filing of initial building, grading, or construction permit applications related to decommissioning for each phase of decommissioning activities, the Applicant or its designee shall develop a DAMP and submit it to the County Department of Planning and Building and San Luis Obispo County Air Pollution Control District (APCD) for review and approval. During each phase of decommissioning activities, the Applicant or its designee shall implement the DAMP by reporting to the County and APCD quarterly

with a summary of Project emissions and actions to reduce any emissions exceeding quarterly thresholds. The DAMP shall include, but not be limited to, the following elements for the approved Project: a Dust Control Management Plan, a tabulation of on- and off-road equipment in use including off-road equipment diesel engine Tier levels, a schedule of on-highway truck trips demonstrating efforts to promote travel during non-peak hours, limits to the length of the construction workday if feasible to achieve lower daily emissions, and phasing of construction activities to achieve lower daily emissions. If occurring concurrently, the Orano System ISFSI modifications project shall be considered in the DAMP's construction phasing both for on- and off-road equipment usage and on-highway truck trips to limit the maximum daily emissions occurring at the DCPP site between both projects. The DAMP shall confirm that off-road diesel equipment engines meet or exceed Tier 4 exhaust emissions standards, unless the Applicant or its designee demonstrates that Tier 4 equipment is unavailable. If Tier 4 equipment is unavailable, engines using retrofit controls verified by CARB or USEPA may be used provided that the engine achieve or exceed emission reductions equivalent to that of a Tier 4 engine. Equipment shall have a sticker available for inspection indicating the Tier of engine.

AQ-2 **Provide Funding for Off-site Mitigation of Equipment Emissions.** Upon the filing of any construction permit applications related to decommissioning, for each phase of decommissioning activities, the Applicant or its designee shall develop and implement or fund a program for off-site mitigation of decommissioning equipment emissions. The program for off-site mitigation shall provide ozone precursor (NO_X and VOC combined) and Diesel Particulate Matter (DPM) reductions equal to the quantity of Project emissions that exceed the APCD threshold (or a different quantity based on the APCD-approved decommissioning activity management plan). The program shall achieve emissions reductions from existing sources in the western portion of San Luis Obispo County, including surrounding communities. Decommissioning Project emissions do not include emissions from the Orano System ISFSI modifications project.

The APCD has a grant program with three funding categories. If this option is selected, the Applicant or its designee shall pay the APCD at the current rate at the time of payment. This fee will be a monetary value per ton of ozone precursor and DPM emitted over the threshold, plus a 15 percent administration fee for the ACPD to secure and administer SLO County projects that secure reductions. After the Applicant submits this initial payment to APCD, the Applicant shall report to the County and APCD quarterly whether Project emissions exceed the quantity of emissions mitigated through the pre-payment. If the initial pre-payment ends up being insufficient after the first year, the Applicant shall make subsequent payments to ensure timely mitigation. The three funding categories include:

1. Marine vessel propulsion and auxiliary engine repowers that reduce emissions in surplus to the Commercial Harbor Craft Regulations (13 CCR 2299.5 and 17 CCR 93118.5);

2. Replacement and/or repower of agricultural tractors and off-road construction equipment in surplus to the CARB In-Use Off-Road Diesel-Fueled Fleets Regulation (13 CCR 2449, et seq.); and

3. Electrification or repower of agricultural irrigation engines.

Prior to initiating any site disturbance, the Applicant or its designee shall demonstrate to the County Department of Planning and Building and APCD that the emission reduction project(s) are identified and funded prior to commencing decommissioning activities.

Impact AQ-3: Expose sensitive receptors to substantial pollutant concentrations (Class II: Less than Significant with Mitigation).

This section addresses whether the Proposed Project could adversely change ambient air quality concentrations of criteria air pollutants or TACs in a way that would substantially impact public health effects experienced by sensitive receptors.

Phase 1

DCPP Project Site

Overall decommissioning activities would result in locally increased concentrations of construction-related emissions, including criteria air pollutants, DPM, and other TACs, which would cause increased health risk and hazards near each site of emissions. This discussion separately addresses criteria air pollutants, TACs, Valley Fever, and naturally occurring asbestos.

Criteria Air Pollutants

The mass of increased criteria air pollutant emissions and emissions of ozone precursor (NO_X and VOC combined) pollutants during the Proposed Project would lead to incremental changes in downwind concentrations of the criteria air pollutants directly and through secondary pollutant formation.[13] Emissions rates that are less than the mass-based significance thresholds would not be likely to cause localized exposure of sensitive receptors to ground-level concentrations of the criteria air pollutants in excess of the AAQS, which are set at health-protective levels.

Phase 1 emission sources would be spread across the various work areas within the DCPP site and transportation corridors. Implementing the Proposed Project as described would reduce the mass of criteria air pollutant emissions and minimize the potential adverse health effects of criteria pollutant concentrations that could be experienced by sensitive receptors. The analysis of criteria pollutant emissions under Impact AQ-2 finds that Phase 1 emissions of ozone precursors would exceed the SLOCAPCD thresholds. Implementing the recommended mitigation measures for Impact AQ-2 would require PG&E to implement a decommissioning activity management plan (MM AQ-1) and to achieve off-site emissions reductions (MM AQ-2) to offset the effects of ozone precursor emissions. With mitigation measures identified for Impact AQ-2, the

[13] Secondary pollutants are not those emitted at the site, but rather are created by complex reactions over time and distance, like ozone and secondary PM2.5.

Phase 1 emissions of ozone precursors would be offset to ensure that they do not exceed the emissions thresholds, and sensitive receptors in the region would not be exposed to substantial pollutant concentrations of ozone. Health impacts from ground level ozone put people with asthma, children, older adults, and people who are active outdoors most at risk. These risks include coughing, sore throat, difficulty breathing deeply, inflammation of the airways, increasing asthma attacks, increased susceptibility to lung infection, and aggravation of lung diseases including asthma, chronic bronchitis, and emphysema (USEPA, 2022). The potential exposure of sensitive receptors to ozone concentrations and associated health impacts would be mitigated to less than significant for Phase 1 (Class II).

Toxic Air Contaminants

The primary health risks to nearby sensitive receptors would be driven by carcinogenic DPM emissions from the equipment and vehicles used during decommissioning. Noncancer effects of DPM are normally less of a concern than cancer risks. The duration of decommissioning activities at any single site represents a potential to deliver a dose over a relatively short time period, which in this case spans eight years (2024-2031). The recommended exposure duration for estimating cancer risk to residents or off-site workers would be 30 years or 25 years, respectively. Cancer risks at nearby schools are evaluated based on a 9-year exposure, as specified by the Office of Environmental Health Hazard Assessment (OEHHA), Guidance Manual for the Preparation of Health Risk Assessments (OEHHA, 2015).

Uncertainty in the quantification of cancer risk occurs because of the varying exposure times of residents, workers, and people at schools. Additionally, risk varies with the changing levels of concentrations of pollutants brought about during different decommissioning activities that occur only during a fraction of an individual exposure period. Emissions and the potential for exposure would generally cease at the end of decommissioning. Risk quantification is also strongly influenced by the distances between sources and receptors. Concentrations of mobile source DPM emissions are greatly reduced by distance, such that a separation of 1,000 feet normally allows sensitive land uses to avoid high levels of DPM concentrations (CARB, 2005).

The majority of decommissioning activities and most of the Project-related emissions would occur at the DCPP site. For Phase 1 activities, emissions at the DCPP site would exceed the SLOCAPCD threshold of 1.25 lb/day of DPM (PG&E, 2022a – Table 1.2). PG&E and its consultants prepared a HRA to determine the adverse health effects of the overall DPM emissions within San Luis Obispo County and northern Santa Barbara County. An initial HRA supported the application (PG&E, 2021b; PG&E, 2021c); PG&E updated the HRA to focus on the SMVR sites after consultation with SBCAPCD staff (PG&E, 2022b).

The scope of PG&E's HRA is large-scale in that it considers grids of receptors throughout western San Luis Obispo County and northern Santa Barbara County and encompasses the following sources:

- DCPP on-site demolition,
- Barge maneuvering and travel,

- Trucks traveling out of state including routes to PBR as a contingency (PG&E, 2021b) and to each of the two SMVR sites (PG&E, 2022b),
- SMVR on-site construction and railcar operation, and
- Rail transport between each of the two SMVR sites and the UPRR main line connection.

By modeling the impacts of DPM emissions from onsite as well as off-site sources, including on-road vehicles and vehicles on the regional roadways, the HRA provides quantification of cancer risks and chronic health hazards for receptors throughout the region, including the most-impacted sensitive receptors nearest to the different locations of activities (PG&E, 2022b). The HRA presents maps of residential cancer risk for all modeled receptors (PG&E, 2022b), and the Judkins Middle School, that is across the street from PBR, was analyzed as the site of worst-case potential school exposure (PG&E, 2021c).

There would be little potential to expose sensitive receptors to substantial pollutant concentrations of DPM emitted from activities at the DCPP site due to the large distances separating the on-site activities from potential sensitive receptors (refer to Sensitive Receptors discussion in Section 4.2.1 for distances). For all coastal locations, onshore winds cause mixing and dispersion allowing dissipation of localized concentrations.

Table 4.2-15 summarizes the cancer risk results for activities at the DCPP site, including transportation and improvements at the PBR and SMVR-SB (Betteravia Industrial Park) sites.

Table 4.2-15. DCPP Site and SMVR-SB Site (Betteravia Industrial Park) Cancer Risk Results

Location	UTM, Easting (m)	UTM, Northing (m)	Cancer Risk (Chances in One Million)
Maximum Exposed Individual at a Residential (MEIR) location	704592.0	3894935.7	1.28
Maximum Exposed Individual at a Worker (MEIW) location	726936.2	3866810.8	0.62
Judkins Middle School, near PBR	715063.0	3891697.3	0.84
SLOCAPCD / SBCAPCD Threshold	---	---	10
Threshold Exceeded? (Yes/No)	---	---	No

Source: PG&E, 2022b – Table 4.
Acronyms: UTM – Universal Transverse Mercator coordinates.

For the residences or other sensitive receptors nearest to the DCPP site, the combination of on-site demolition, marine vessels, and truck travel results in an excess cancer risk of 1.28 chances in one million at the Maximum Exposed Individual at a Residential (MEIR) location in the community of Avila Beach (PG&E, 2022b). The maximally exposed off-site worker receptors near the SMVR-SB site would have 0.62 chances in one million, and school exposure at Judkins Middle School would have 0.84 chances in one million. Noncancer chronic health hazards for this first scenario would be less than applicable thresholds (PG&E, 2022b). These levels would not exceed any threshold of significance for adverse health effects and would not be greater than 10 excess cancer cases in a million for all receptors. This represents a less-than-significant impact for all receptors for the Proposed Project activities at the DCPP site, PBR, and SMVR-SB (Class III).

Valley Fever

Valley Fever infections are known to occur throughout Southern California. Potential infection could occur as a result of inhaling fugitive dust emissions. By generating fugitive dust, the Proposed Project could cause exposure to the arthroconidia (spores) of the fungus *Coccidioides immitis* if those spores are present in areas being disturbed or in areas where travel occurs on unpaved surfaces. Exposure to the *Coccidioides immitis* spores could cause individuals nearby to contract the disease. Ground disturbing activities at the DCPP site would generate the largest proportion of fugitive dust emissions; however, because the DCPP site is generally surrounded by open space, the potential for decommissioning activities at the DCPP site to expose the public to *Coccidioides immitis* spores would be low. The Proposed Project would not require grading as part of the anticipated site improvements at either of the SMVR sites. The primary way to avoid Valley Fever is to limit exposure to the *Coccidioides immitis* spores. Controlling fugitive dust is an effective strategy for preventing *Coccidioides immitis* spores from becoming airborne. As part of the Proposed Project PG&E would reduce the amount of disturbed area, reduce vehicle speeds on unpaved surfaces, and water disturbed soil areas during decommissioning (Applicant Commitment (AC) AQ-1, *Minimize Fugitive Dust*, and AC AQ-5, *SLOAPCD Fugitive Dust Reduction Measures*). As such, the potential for the Proposed Project to substantially increase the incidence of Valley Fever infection would not be significant (Class III).

Naturally Occurring Asbestos

If airborne particulates include naturally occurring asbestos (NOA), they could be subject to the California TAC Identification and Control Program (Health and Safety Code Section 39650 et seq. [H&SC §§ 39650-39675]). PG&E investigated the potential presence of NOA in surface materials, including roads, parking lots, and other areas to be removed as part of the Proposed Project (PG&E, 2021c).

The July 2020 investigation used a focused geologic evaluation and certified laboratory analytical results to evaluate the asbestos content (PG&E, 2020). Suspected serpentine rock formations on site were included in the evaluation, and the samples collected did not contain concentrations of NOA that exceed the concentration limit in the CARB Airborne Toxic Control Measures for construction activities (PG&E, 2020). The SLOCAPCD maintains a database to show buffer zones where NOA may be encountered in the County, and the DCPP site is not located within these buffer zones. PG&E would need to submit to the SLOCAPCD a form for an NOA Exemption including the geologic evaluation prior to ground disturbing activities (PG&E, 2021d). The Proposed Project would not require grading as part of the anticipated site improvements at either of the SMVR sites. The potential for the Proposed Project to substantially increase airborne concentrations of NOA would not be significant (Class III).

Proper Abatement of Regulated Asbestos-Containing Material (RACM)

Demolition and renovation activities can involve handling, abatement, and disposal of regulated asbestos-containing material (RACM). RACM could be encountered during the demolition and decommissioning of DCPP. If the Proposed Project encounters RACM or requires demolition or renovation of a regulated structure, it may be subject to various regulatory requirements including those detailed in the asbestos NESHAP regulation (40 CFR 61, Subpart M).

Proper Abatement of Lead-Based Coated Structures

Demolition, remodeling, sandblasting, or removal of structures with lead-based coatings can result in the release of lead-containing particles from the site. Proper abatement of lead-based paint must be performed to prevent the release of lead particles from the DCPP site. An APCD permit would be required for sandblasting operations.

Railyards

Pismo Beach Railyard. Proposed Project activities at the PBR site were evaluated for adverse health effects by PG&E and its consultants within the HRA as updated for all Phase 1 activities (PG&E, 2022b).

The cancer risk results for activities at the DCPP site including transportation and improvements at the PBR and SMVR-SB (Betteravia Industrial Park) sites are shown in Table 4.2-15, as discussed with the overall discussion of Phase 1 activities.

The potential to expose sensitive receptors to substantial pollutant concentrations through use of the PBR site would be a less than significant impact (Class III).

SMVR-SB. Proposed Project activities at the SMVR-SB (Betteravia Industrial Park) site were included in the HRA as discussed with the evaluation of the DCPP site (PG&E, 2022b).

The cancer risk results for activities at the DCPP site including transportation and improvements at the PBR and SMVR-SB (Betteravia Industrial Park) sites appear in Table 4.2-15, as discussed with the overall discussion of Phase 1 activities.

No schools are near the SMVR-SB site. The cancer risk impact for the SMVR-SB site reflects the Proposed Project's use of equipment meeting Tier 4 emission standards (AC AQ-2) and Tier 4 Interim equipment for smaller equipment (model year 2012 or newer for engines rated under 100 hp) and limiting idling of diesel equipment or vehicles (AC AQ-3) to minimize pollutant concentrations. The potential to expose sensitive receptors to substantial pollutant concentrations through use of the SMVR-SB site would be a less than significant impact (Class III).

Phase 2

Emissions during Phase 2 would occur generally within the DCPP site and would occur at lower rates than those in Phase 1 due to much less intensive activity and fewer transportation trips. The railyard sites would not be used during Phase 2. For residences or other sensitive receptors nearest to the DCPP site, adverse health effects from Phase 1 would be substantially higher than those resulting from decommissioning emissions in Phase 2. Phase 2 emissions would not affect any receptors near the DCPP site (Class III).

Post-Decommissioning Operations

New Facility Operations. Following Phase 2, long-term operations including management of the new GTCC Storage Facility and operation of the Security Building, indoor Firing Range, and Storage Buildings would occur within the DCPP site. These activities would occur far from sensitive

receptors and would not create emissions likely to result in substantial pollutant concentrations (Class III).

Future Actions. Marina improvement and operations would be completed by a third party who would be required to obtain necessary land use and building permits as well as a new or amended lease from CSLC. The Breakwaters would remain in place and the Marina would be used for small vessels to be launched into the Intake Cove. These improvements and operations would occur far from sensitive receptors. Emissions from these activities were included conservatively in the Phase 2 calculations and were found to not result in in substantial pollutant concentrations (Class III).

Mitigation Measures for Impact AQ-3.

AQ-1 Implement a Decommissioning Activity Management Plan (DAMP)

AQ-2 Provide Funding for Off-site Mitigation of Equipment Emissions

Impact AQ-4: Create objectionable odors affecting a substantial number of people (Class III: Less than Significant).

Phase 1

DCPP Project Site

Typical objectional odors during construction include ammonia, chlorine, and hydrogen sulfide, and the Proposed Project would not create these pollutants in measurable quantities. Diesel equipment exhaust could be a potential source of odor during any of the decommissioning activities, although only for people immediately adjacent to the source. There are no residences or other occupied properties located within 6.5 miles of activities on the DCPP site, and no decommissioning activity would have a substantial number of people near it. During decommissioning at the DCPP site there would be no objectionable odors that would affect a substantial number of people resulting in a less-than-significant impact (Class III).

Railyards

Pismo Beach Railyard. The Proposed Project activities at the PBR site would not create any notable odor sources. Some objectionable odors may be temporarily created during development of improvements at the site, such as from diesel exhaust. These odors would not affect a substantial number of people, would only occur during short periods of time, and would be consistent with general construction activities that are not out of the ordinary. Odors related to activities at the PBR site would not cause a significant impact to a substantial number of people (Class III).

SMVR-SB. Activities at the SMVR-SB site would not create any notable odor sources. Development of improvements and waste transport activities at these sites would cause emissions from diesel exhaust. These odors would not affect a substantial number of people, would only occur during short periods of time, and would be consistent with general construction

and railyard activities that are not out of the ordinary. Odors related to activities the SMVR-SB site would not cause a significant impact to a substantial number of people (Class III).

Phase 2

Phase 2 activities would result in emissions that would be similar to but well below those of Phase 1. As the distances to sensitive receptors would not change, Phase 2 would also not create objectionable odors that would affect a substantial number of people. This impact would be less than significant (Class III).

Post-Decommissioning Operations

New Facility Operations. Following Phase 2, operational activities at the DCPP site would include long-term management of the GTCC Waste Storage facility and operation of the Security Building, indoor Firing Range, and Storage Buildings. These activities are not known to create objectionable odors, and with the large distances to sensitive receptors any potentially objectionable odors would not affect a substantial number of people. This impact would be less than significant (Class III).

Future Actions. Marina improvement and operations would not include activities known to create objectionable odors, and with the large distances to sensitive receptors any potentially objectionable odors would not affect a substantial number of people. This impact would be less than significant (Class III).

Mitigation Measures for Impact AQ-4. No mitigation measures are required.

4.2.5 Cumulative Impact Analysis

Geographic Extent Context

The geographic area of analysis for cumulative air quality impacts is the South Central Coast Air Basin because the majority of Proposed Project emissions and cumulative project emissions would be confined to this region. Cumulative effects may also be experienced within the immediate vicinity of the sources.

Section 3.3, *Cumulative Projects,* discusses and lists relevant similar projects within the geographic vicinity of the Proposed Project and barge route. These include approved and planned development projects in Avila Beach, the cities of Pismo Beach and Santa Maria, County of Santa Barbara, and approved and in progress energy projects near the barge route.

Cumulative projects that may be located within one mile of the Proposed Project and are considered for potential cumulative impacts related to air quality include:

Diablo Canyon Power Plant

- Orano System ISFSI Modifications (#1)
- Communications Facility (#2)
- Flying Flags Campground (#4)
- Port San Luis Breakwater Repair (#25)

Pismo Beach Railyard

- Signal at Bello and Price Canyon Road (#7)
- Public Safety Center (#9)
- Bello Road Paving (#10)
- Price Street Sidewalk Pavers (#11)
- Realign Frady Lane (#12)
- Storm Drain on Wadsworth from Bello to Judkins Middle School (#13)

SMVR-SB – Betteravia Industrial Park (County of Santa Barbara)

- No projects within 1 mile of SMVR-SB

Cumulative Impact Analysis

Phase 1 and Phase 2

Cumulatively adverse air quality impacts could occur if the cumulative projects identified above were to cause significant air quality impacts concurrently with the Proposed Project and near a sensitive receptor. The potential for cumulative emissions to cause excessive air pollutant concentrations would be greatest for any sensitive receptors located proximate to two or more work sites that are active at the same time. Decommissioning activities could overlap with certain cumulative projects on the DCPP site. The Orano System ISFSI Modifications (#1) would be likely to occur on a concurrent schedule with Phase 1. The precise daily peak emissions of the overlapping activities cannot be readily predicted. However, each project would be expected to implement feasible emissions control measures that would be required through County and/or local air district review.

As shown in Table 4.2-16, the Orano System ISFSI modifications would not exceed daily or quarterly SLOCAPCD air quality thresholds.

Table 4.2-16. Orano System ISFSI Modifications, DCPP Site Maximum Emissions

Phase	NO_X + VOC	Exhaust PM10 or DPM	Fugitive PM10
Daily Emissions (lbs/day)	47.81	0.59	2.58
SLOCAPCD Threshold (lbs/day)	137	7	-
Threshold Exceeded? (Yes/No)	No	No	N/A
Quarterly Emissions (tons/quarter)	2.07	0.03	0.14
SLOCAPCD Threshold (tons/quarter)	2.5	0.13	2.5
Threshold Exceeded? (Yes/No)	No	No	No

Source: Stantec, 2022 – Table 3.
Acronyms: NO_X = nitrogen oxides, VOC = volatile organic compounds, PM10 = course particulate matter, DPM = Diesel Particulate Matter.

The potential for a long-term cumulative impact would be limited to the duration of decommissioning because the peak levels of emissions from decommissioning activities emissions would occur during limited durations of certain activities that would incrementally transition through the decommissioning schedule. Upon conclusion of Phase 1, the emissions during Phase 2 would occur at substantially lower rates. With implementation of the recommended mitigation mea-

sures, the Proposed Project's contribution toward cumulative impacts would be limited in duration and intensity.

The discussion for Impact AQ-1 indicates that the Proposed Project would be likely to conform with applicable air quality management plans. Although cumulative projects could worsen this impact, the contribution of the Proposed Project would not be cumulatively considerable.

The discussion for Impact AQ-2 shows that emissions from Phase 1 activities at the DCPP site would result in criteria air pollutant emissions at rates exceeding the SLOCAPCD thresholds and result in a cumulatively considerable net increase of ozone precursor emissions before considering mitigation. Mitigation identified for Impact AQ-2 would provide funding to achieve emissions reductions that would reduce the effects to a level that is not cumulatively considerable. Similarly, Impact AQ-3 shows the Proposed Project could expose sensitive receptors to substantial pollutant concentrations. Due to the distances between the Proposed Project activities and the cumulative projects and the distances between the Proposed Project to sensitive receptors, the cumulative effects of excess cancer risks for activities at the DCPP site, PBR, and SMVR-SB sites would not be significant.

The discussion of Impact AQ-4 indicates that the Proposed Project would not emit significant objectionable odors, and so would not create a substantial contribution to cumulative odor impacts.

Post-Decommissioning Operations

New Facility Operations. As discussed, Impacts AQ-1, AQ-2, AQ-3, and AQ-4 would create less than significant impacts for new facility operations. While cumulative projects could potentially worsen these impacts, considering the distances between the Proposed Project and cumulative projects as well as the Proposed Project and sensitive receptors, the cumulative effect for new facility operations would not be significant.

Future Actions. Marina improvement and operations would have less than significant impacts for Impacts AQ-1, AQ-2, AQ-3, and AQ-4. While cumulative projects could potentially worsen these impacts, considering the distances between the Proposed Project and cumulative projects, as well as between the Proposed Project and sensitive receptors, they would not create cumulatively significant impacts.

4.2.6 Summary of Significance Findings

Table 4.2-17 presents a summary of the environmental impacts, significance determinations, and mitigation measures for the Proposed Project.

Table 4.2-17. Summary of Impacts and Mitigation Measures – Air Quality

	Impact Significance Class				
	Phase 1		Phase 2	Post-Decom	
Impact Statement	***DCPP***	***PBR/SB***	***DCPP***	***Ops/Marina***	**Mitigation Measures**
AQ-1: Conflict with or obstruct implementation of an applicable air quality plan	III	III/III	III	III/III	None required
AQ-2: Result in a cumulatively considerable net increase of any criteria air pollutant for which the Project region is in nonattainment	II	III/III	III	III/III	**AQ-1:** Implement a Decommissioning Activity Management Plan (DAMP) **AQ-2:** Provide Funding for Off-site Mitigation of Equipment Emissions
AQ-3: Expose sensitive receptors to substantial pollutant concentrations	II	III/III	III	III/III	**AQ-1** and **AQ-2** (see above)
AQ-4: Create objectionable odors affecting a substantial number of people	III	III/III	III	III/III	None required
Cumulative Impact	Not cumulatively considerable		Not cumulatively considerable		None required

Acronyms: PBR = Pismo Beach Railyard, SB = Betteravia Industrial Park (Santa Barbara County), Post-Decom = Post-Decommissioning, Ops = Long-Term Operations, Class I = Significant and Unavoidable, Class II = Less than Significant with Mitigation, Class III = Less than Significant, Class IV = Beneficial, NI = No Impact.